## DESCRIPTION OF APPENDIX CONTENTS

**Appendix A:** Historical Sanborn Maps and Aerial Photos – provides documentation of historical site features including buildings, industrial operations, chronology of fill material placement to expand upland areas, and other information to inform potential sources of contamination.

**Appendix B:** Regulatory History and Prior Investigations – provides additional details on the regulatory history and previously completed site investigations.

**Appendix C:** Sea Level Rise / Climate Change Assessment – provides a site-specific evaluation of the effects of climate change and projected sea level rise that is used to inform the future environmental setting and potential climate change impacts on the evaluated remedial alternatives.

**Appendix D:** WDFW Figures – provides habitats and species maps used to inform the upland ecological understanding of the site, information regarding listed and candidate Endangered Species Act fish species in the project area, and a 2019 Critical Areas Report used to inform the marine ecological understanding of the site and allow for the avoidance, minimization, and mitigation of impacts related to future cleanup activities.

**Appendix E:** Maulsby March Sediment Results – provides a data report summarizing the results of the sediment sampling and characterization for Maulsby Marsh. It includes a summary of the field sampling collection performed, validated chemical analyses, and the salinity testing. This data is used to confirm that contaminants detected in the marsh sediments are not attributable to Site releases.

**Appendix F:** Upland Soil Borings and Test Pit Logs – provides field observations, soil lithology, and sample locations for upland test pit and drilling activities. Some of these boring logs were used to develop site cross sections and determine extents of remedial action areas.

**Appendix G:** Quarterly Groundwater Monitoring Summary – provides analytical summary tables for quarterly groundwater monitoring events conducted between 2015 to 2020 including groundwater elevation measurements, example groundwater flow contours, and laboratory results.

**Appendix H:** Data Tables and SPME Results (Tables 1 through 4; 1. surface, 2. sieving, 3. subsurface chem, 4. Tissue) – provides tabulated summaries of all marine data collected as part of the RI, and the SPME Results Memorandum.

**Appendix I:** Field Collection Forms – provides the backup field documentation for the porewater, surface sediment, and subsurface sampling events.

**Appendix J:** Data Quality Summary – provides a summary of the data quality objectives for samples collected under the Quality Assurance Project Plan (QAPP) Marine and Maulsby Marsh Sediment Characterization (Anchor QEA 2012) and Jeld-Wen Former Nord Door Site Sediment Second Quality Assurance Project Plan Addendum (QAPP Addendum; Anchor QEA 2013).

**Appendix K:** Human Health and Ecological Receptor Sediment Cleanup Objective and Cleanup Screening Level Development – presents the development of human health risk-based concentrations of bioaccumulative COCs used to inform the selection of the SCOs and CSLs.

This Appendix also describes the selection of bioaccumulative COCs, the assessment of potential ecological risk, the development of natural background and regional background COC concentrations, and the application of PQLs.

**Appendix L:** Calculation Summaries – contains calculations used as part of the RI/FS process including groundwater flow characteristics, PCL calculations for protection of sediment, and PQL calculation tables for applicable TEQ values.

**Appendix M:** Summary of Upland FS Costs – contains unit costs and assumptions and scope of work for upland remedial actions used to conduct the DCA.

**Appendix N:** Summary of Marine FS Costs – contains a summary of the cost assumptions and the detailed cost estimates used to conduct the DCA.

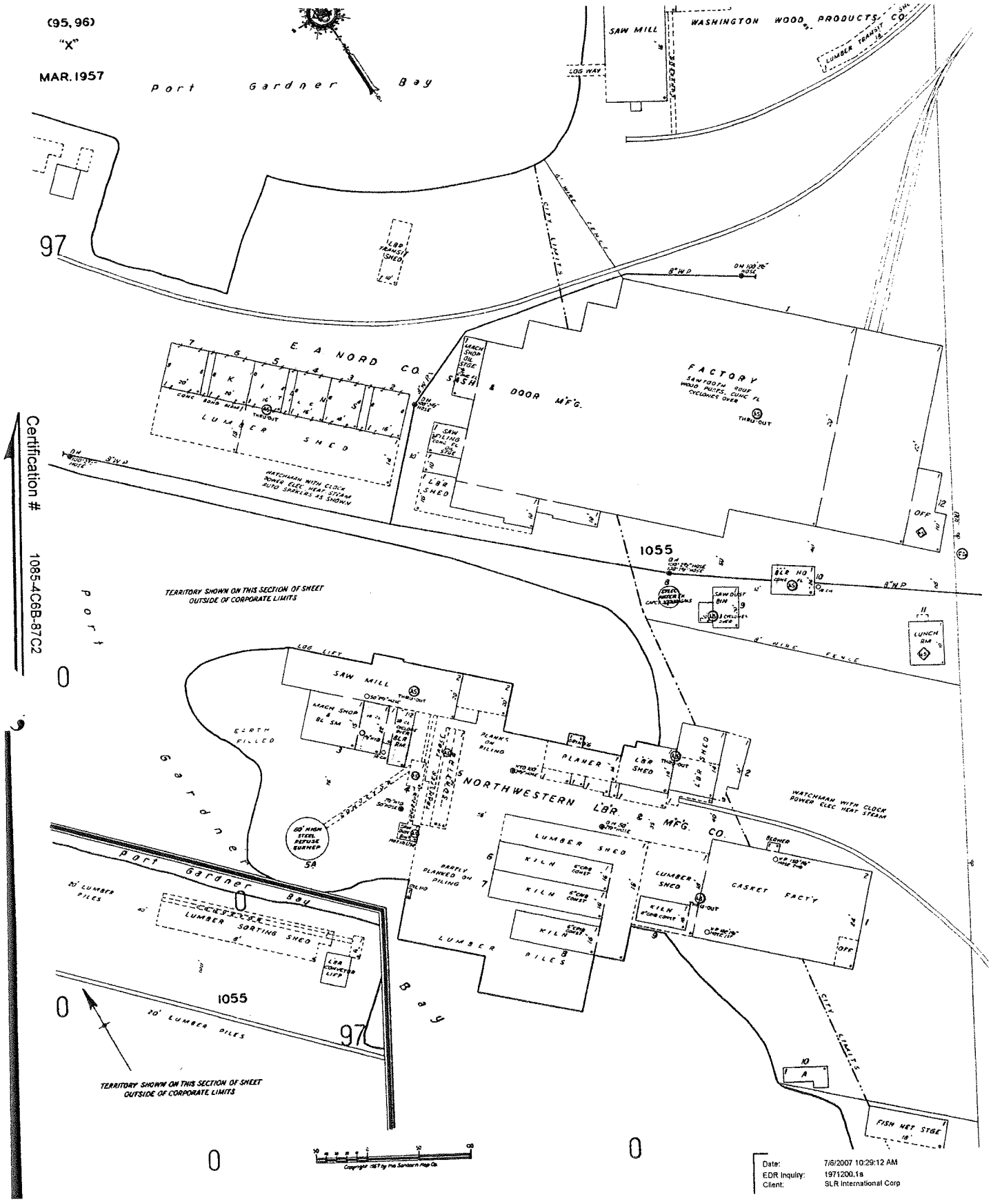
**Appendix O:** Correspondence with Ecology - contains the Ecology comment documents and associated JELD-WEN comment response documents for the previously submitted draft versions of the RI/FS that used in the development of the final RI/FS document.

**Appendix P:** Upland Laboratory Reports – contains copies of laboratory reports and data validation reports for upland soil and groundwater investigations from 1992 to 2020, as available. Data from these lab reports were used to compile the upland analytical summary tables.

# APPENDIX A

# HISTORICAL SANBORN MAPS AND AERIAL PHOTOS

Description: Provides documentation of historical site features including buildings, industrial operations, chronology of fill material placement to expand upland areas, and other information to inform potential sources of contamination.




Certification # 1085-4C6B-87C2

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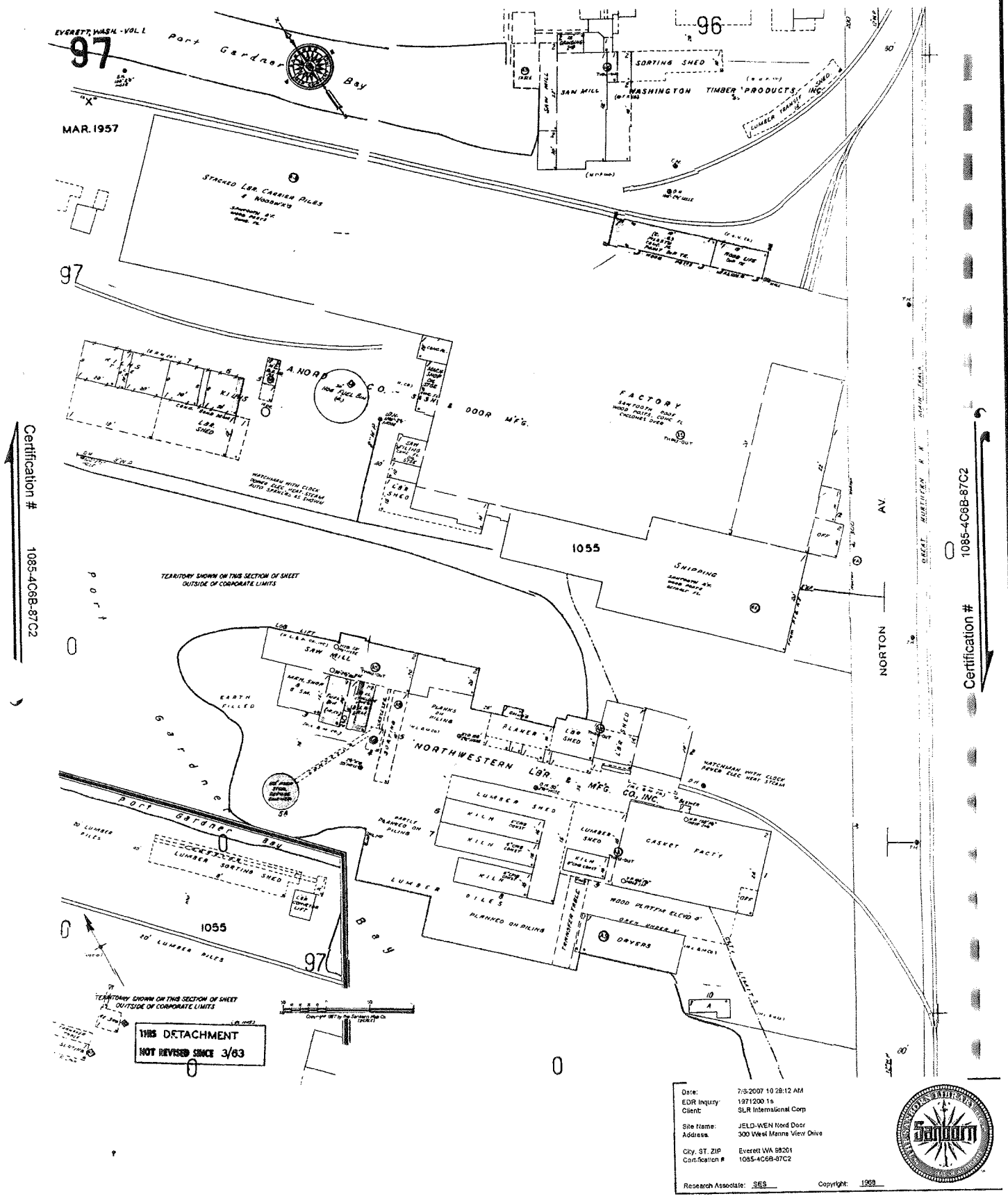
|---|---|---|---|
| SLR International Corp | 1800 Blankenship Road<br>Suite 440<br>West Linn, OR 97068<br>T: 503-723-4423<br>F: 503-723-4436 | DATE 03/08<br>DWN. EMG<br>APPR. _____<br>REVIS. _____<br>PROJECT NO.<br>**008.0228.00026** | **ATTACHMENT 1**<br>JELD-WEN SITE<br>300 WEST MARINE VIEW DRIVE<br>EVERETT, WASHINGTON<br>**1950 SANBORN MAP** |

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| SLR International Corp | 1800 Blankenship Road<br>Suite 440<br>West Linn, OR 97068<br>T: 503-723-4423<br>F: 503-723-4436 | DATE 03/08<br>DWN. EMG<br>APPR. _____<br>REVIS. _____<br>PROJECT NO.<br>**008.0228.00026** |

**ATTACHMENT 1**
JELD-WEN SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON
**1968 SANBORN MAP**



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SLR

ANCHOR QEA

NOTES

AERIAL PHOTO FROM GOOGLE EARTH PRO, JULY 2019.

0 200 400 600’

JELD-WEN/FORMER NORD DOOR FACILITY
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
2020 REVISED RI/FS REPORT

Drawing
APPENDIX A - 2019 AERIAL

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| Date | April 2020 | Scale | AS SHOWN | Fig. No. AA-1 |
| File Name | Aerials | Project No. | 108.00228.00061 | |



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SLR

ANCHOR QEA

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AERIAL PHOTO FROM GOOGLE EARTH PRO, DECEMBER 2003.

0 200 400 600’

JELD-WEN/FORMER NORD DOOR FACILITY
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
2020 REVISED RI/FS REPORT

Drawing
APPENDIX A - 2003 AERIAL

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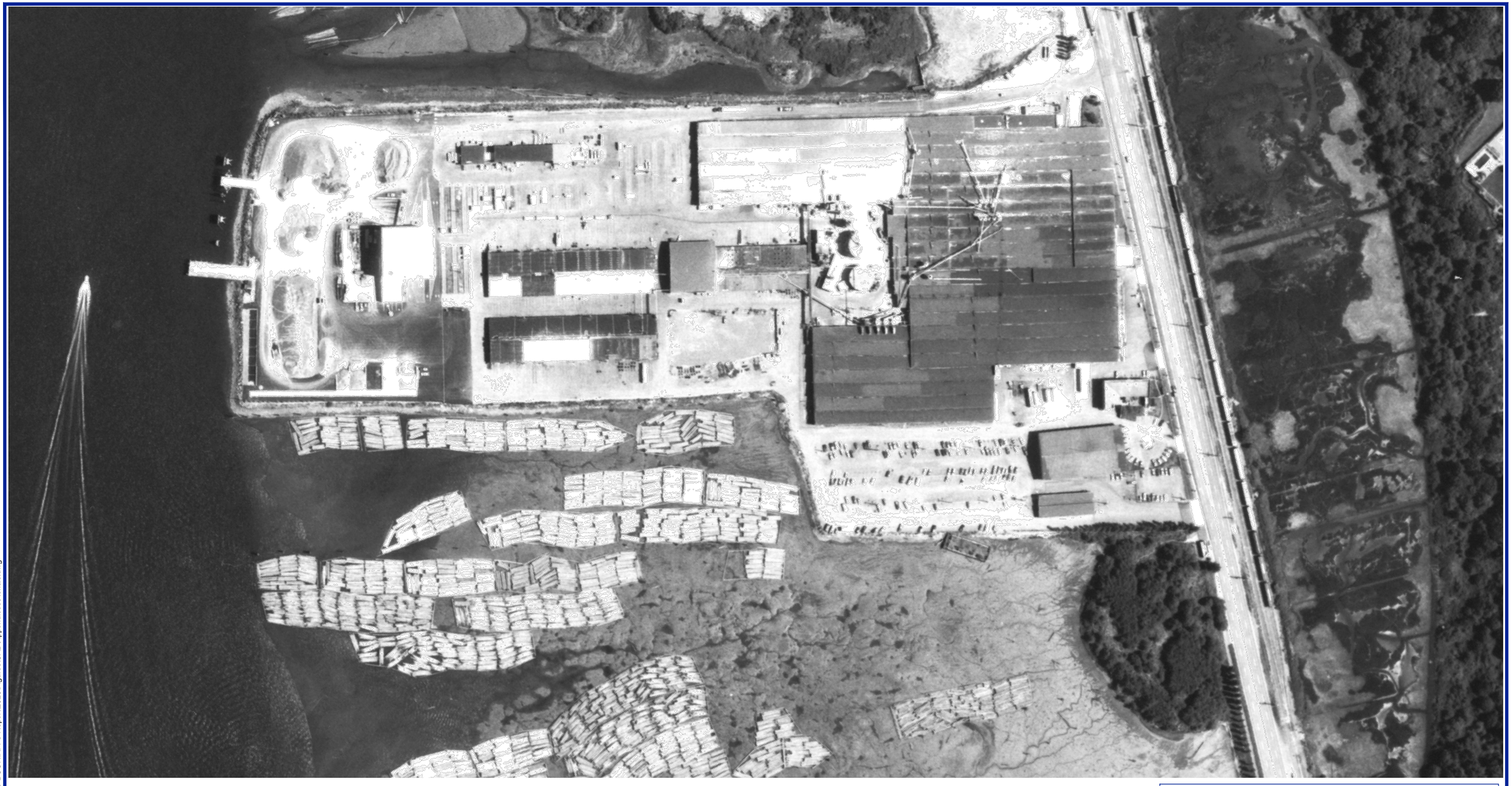
| File Name | Aerials | Project No. | 108.00228.00061 | |



SLR

ANCHOR QEA

NOTES

AERIAL PHOTO FROM SNOHOMISH COUNTY PUBLIC WORKS, 1995.

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JELD-WEN/FORMER NORD DOOR FACILITY
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
2020 REVISED RI/FS REPORT

Drawing
APPENDIX A - 1995 AERIAL

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| Date | April 2020 | Scale | AS SHOWN | Fig. No. | AA-3 |
| File Name | Aerials | Project No. | 108.00228.00061 | | |

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JELD-WEN/FORMER NORD DOOR FACILITY
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
2020 REVISED RI/FS REPORT

Drawing
APPENDIX A - 1991 AERIAL

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| Date | April 2020 | Scale | AS SHOWN | Fig. No. AA-4 |
| File Name | Aerials | Project No. | 108.00228.00061 | |

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AERIAL PHOTO FROM SNOHOMISH COUNTY PUBLIC WORKS, 1991.

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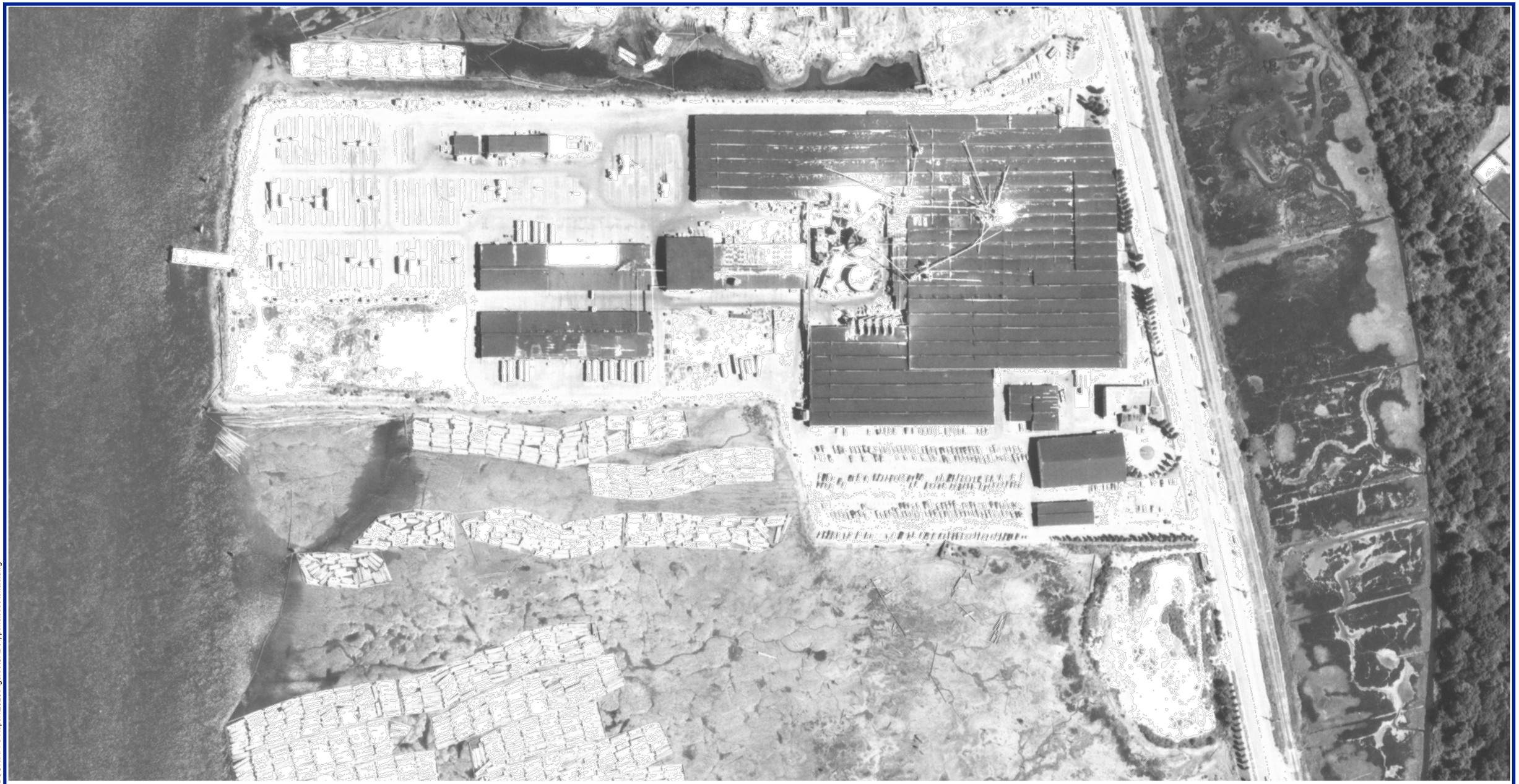

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AERIAL PHOTO FROM SNOHOMISH COUNTY PUBLIC WORKS, 1984.

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JELD-WEN/FORMER NORD DOOR FACILITY
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
2020 REVISED RI/FS REPORT

Drawing
APPENDIX A - 1984 AERIAL

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| Date | April 2020 | Scale | AS SHOWN | Fig. No. AA-5 |
| File Name | Aerials | Project No. | 108.00228.00061 | |

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JELD-WEN/FORMER NORD DOOR FACILITY
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
2020 REVISED RI/FS REPORT

Drawing
APPENDIX A - 1978 AERIAL

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|---|---|---|---|---|
| Date | April 2020 | Scale | AS SHOWN | Fig. No. AA-6 |
| File Name | Aerials | Project No. | 108.00228.00061 | |

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ANCHOR QEA

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AERIAL PHOTO FROM SNOHOMISH COUNTY PUBLIC WORKS, 1978.

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JELD-WEN/FORMER NORD DOOR FACILITY
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
2020 REVISED RI/FS REPORT

Drawing
APPENDIX A - 1974 AERIAL

| | | | | |
|---|---|---|---|---|
| Date | April 2020 | Scale | AS SHOWN | Fig. No. AA-7 |
| File Name | Aerials | Project No. | 108.00228.00061 | |

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AERIAL PHOTO FROM SNOHOMISH COUNTY PUBLIC WORKS, 1974.

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AERIAL PHOTO FROM SNOHOMISH COUNTY PUBLIC WORKS, 1965.

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JELD-WEN/FORMER NORD DOOR FACILITY
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
2020 REVISED RI/FS REPORT

Drawing
APPENDIX A - 1965 AERIAL

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| Date | April 2020 | Scale | AS SHOWN | Fig. No. AA-8 |
| File Name | Aerials | Project No. | 108.00228.00061 | |

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JELD-WEN/FORMER NORD DOOR FACILITY
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
2020 REVISED RI/FS REPORT

Drawing
APPENDIX A - 1955 AERIAL

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| Date | April 2020 | Scale | AS SHOWN | Fig. No. AA-9 |
| File Name | Aerials | Project No. | 108.00228.00061 | |

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AERIAL PHOTO FROM SNOHOMISH COUNTY PUBLIC WORKS, 1955.

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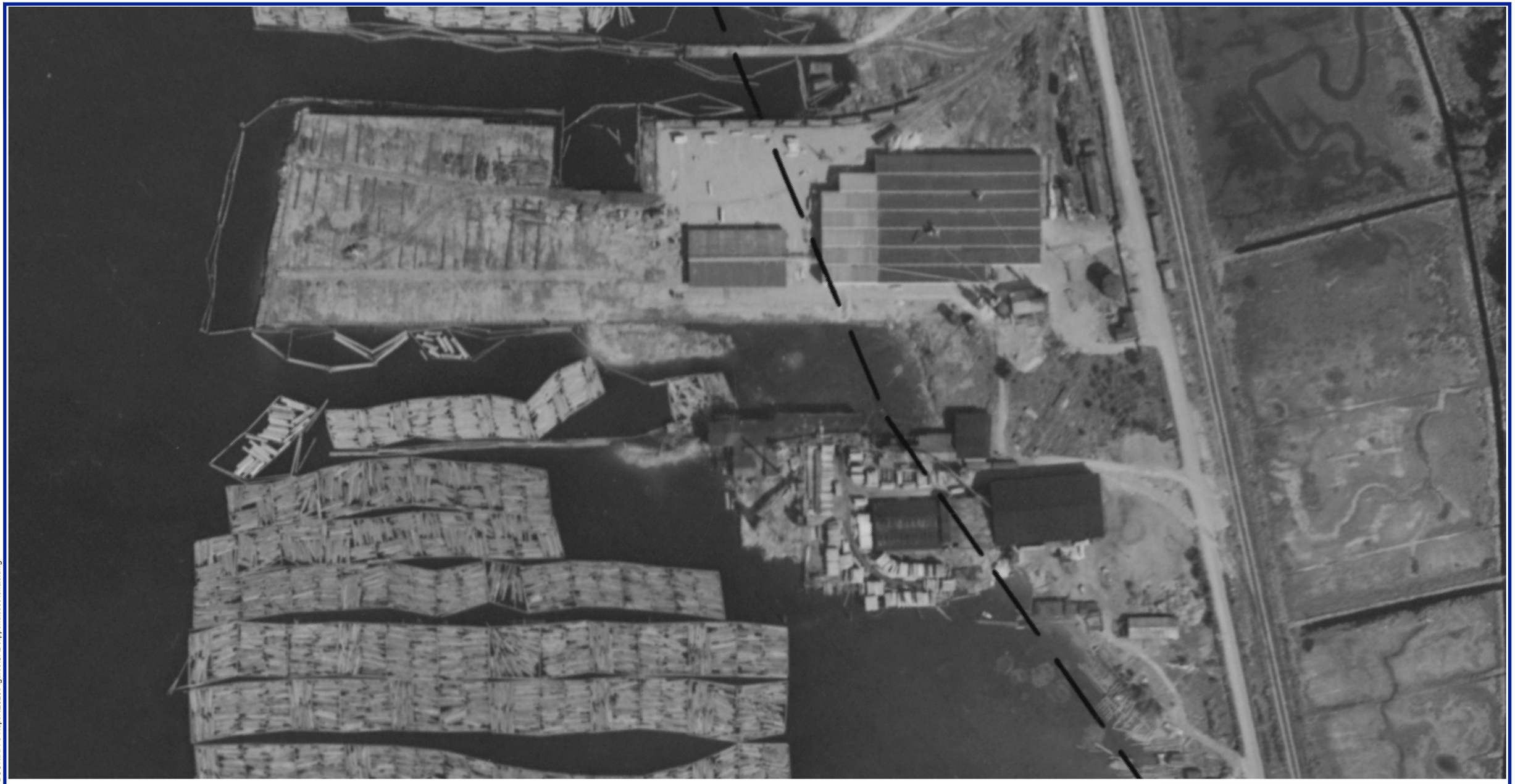

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AERIAL PHOTO FROM SNOHOMISH COUNTY PUBLIC WORKS, 1947.

0 200 400 600'

JELD-WEN/FORMER NORD DOOR FACILITY
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
2020 REVISED RI/FS REPORT

Drawing
APPENDIX A - 1947 AERIAL

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| Date | April 2020 | Scale | AS SHOWN | Fig. No. AA-10 |
| File Name | Aerials | Project No. | 108.00228.00061 | |

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SLR

ANCHOR QEA

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AERIAL PHOTO FROM SNOHOMISH COUNTY PUBLIC WORKS, 1938.

0 200 400 600’

JELD-WEN/FORMER NORD DOOR FACILITY
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
2020 REVISED RI/FS REPORT

Drawing
APPENDIX A - 1938 AERIAL

| Date | April 2020 | Scale | AS SHOWN | Fig. No. |
|---|---|---|---|---|
| File Name | Aerials | Project No. | 108.00228.00061 | AA-11 |

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# APPENDIX B

# REGULATORY HISTORY AND PRIOR INVESTIGATIONS

Description: Provides additional details on the regulatory history and previously completed site investigations.

# APPENDIX B

The following regulatory history was provided in the Final RI/FS Work Plan (SLR, 2008).

## REGULATORY HISTORY AND PREVIOUS INVESTIGATIONS

Since 1989, several environmental assessment events have been completed at the Site to evaluate soil, sediment, and groundwater conditions. Activities associated with these investigations and their general findings, including regulatory compliance, are summarized in this Appendix. Where appropriate and available, the analytical results from soil and groundwater sampling have been included in the summary tables (Table 1 through Table 7). Refer to Figure 9 for the locations of site features (including the location of sources and potential sources) described in the paragraphs below.

**June 27, 1989 Notice of Noncompliance issued by EPA –** On June 27, 1989 the U.S. Environmental Protection Agency (EPA) conducted an inspection of the facility to determine whether activities at the facility were in compliance with EPA regulations governing polychlorinated biphenyls (PCBs). The EPA issued eight violations to the facility, which were as follows:

Violation 1: "An overhead electrical service pole where three out-of-service pole-mounted PCB capacitors were stored did not meet the requirements of a PCB storage for disposal area." The locations of these capacitors was not described in the letter, and no figures were included which depicted their location.

Violation 2 through 4: Three pole-mounted PCB capacitors, no model or serial numbers identified, were located in the parking lot south of the facility and west of the warehouse. Capacitors were not marked with the required PCB labels.

Violation 5 through 7: Three out of service pole-mounted PCB capacitors, no model or serial number identified, were located on the third pole west of the warehouse. Capacitors were not marked with the required PCB label.

Violation 8: The area where three out of service pole-mounted PCB capacitors were located, which were the subject of violations 5 through 7, was not marked with the PCB labels required for a storage area.

**December 15, 1989 Ecology Environmental Report Tracking System Initial Report/Follow-up –** The EPA stated they had "virtually closed the book" on this PCB issue. The capacitors had been removed from the Site and the EPA was awaiting the disposal certificates. The original Notice of Noncompliance was generated from a routine site inspection and was only a "bookkeeping" violation.

**April 13, 1990 Drop-in Inspection by Ecology –** In April 1990, Ecology conducted a Drop-In Inspection of the Nord Door facility. According to this inspection report, the Nord Door manufacturing process involved buying rough green wood (mostly Douglas-fir and

Western Hemlock), sorting, stacking, drying, planing, and cutting the lumber. They assembled and finished wooden doors, rails, posts, columns, and spindles and on occasion fabricated machinery. Hazardous substances identified on the Site included glues, boiler water treatment chemicals, acetone, filler compounds for wood, and parts cleaning chemicals. Hazardous substances produced included waste oil and grease rags. Other non-hazardous substances included waste wood and sawdust. Nord reportedly had "some" underground storage tanks (USTs) that had been filled. At the time of the inspection, the facility reported the presence of one UST containing gasoline (size not stated) and one 500-gallon UST containing thinner (toluene). The facility was aware of one spill from an aboveground storage tank (AST) containing diesel fuel, but did not know the date. The AST was reportedly located close to the northeast edge of the Site. A photograph of the area was included in the inspection report, which appears to depict the area located adjacent to the former 1,000-gallon diesel UST (see Figure 9). As is discussed in a June 1, 1990 letter from Ben-Fab to Ecology (summarized below), a copy of a spill report was later identified which indicated the release occurred in 1984. Sawdust was spread on the ground and in the water to absorb the spill. The spill was reported to the U.S. Coast Guard, who sent a representative to investigate. The Coast Guard informed the facility that the appropriate measures were taken to resolve the problem. A timer was subsequently installed on the fuel pump to shut the pump off when the designated amount of fuel had been pumped into the fuel tanks of the forklifts.

The following observations were documented in Ecology's site inspection report:

- A 10,000-gallon AST was located in the northeast corner of the Site which contained "Woodlife" preservative. The constituents of Woodlife were not known. The AST was surrounded by a 6 to 8 inch concrete berm. The containment area was reportedly never pumped out; liquid which collected within the berm was allowed to evaporate. At the time of the site visit there was standing water with a dark appearance in the berm.

- A soak-and-heat tank located adjacent to the northeast corner of the building had a 20 foot section of fire hose leading from the tank to the pavement, and presumably to the nearest storm drain catch basin. The contents and/or purpose of the soak-and-heat tank were not stated; however, later sampling conducted on the contents of the tank seem to indicate it contained only water.

- Ecology observed the area where the 500-gallon thinner (toluene) UST was located. The location of the former thinner (toluene) UST is depicted on Figure 9. The UST had reportedly not been used for 2 to 3 years. The area was impounding stormwater and the liquid had a slight sheen.

- Ecology observed the area of the reported diesel fuel spill, which was documented in a photograph included in the inspection report. The area was located on the northeastern portion of the Site, adjacent to a tidal flat of the Snohomish River, with no secondary containment. The area appeared to be located adjacent to the 1,000-gallon diesel UST. Stains and cracks were observed in the pavement.

- Drum storage and labeling was poor. Drums were observed on-site which had no cover, contained a black viscous material, and were overtopping with water and other substances. Many had missing bungs or did not have tops. There were used oil drums mixed in with resins and glue drums. Areas of poor drum storage included the primary storage area in the center of the facility and in the scrap metal pile at the southwest corner of the Site.
- The floor of the oil shed, located in the center of the facility, was sloped to drain to the yard. Sawdust was used to absorb oil spills and the sawdust was then disposed of in the garbage dumpster. There were oil stains on the floor surrounding every drip bucket.
- In the center of the facility was an area where machinery was pressure washed. The pressure wash water presumably drained to the storm sewer system.

**May 14, 1990 Warning Letter from Ecology to Nord Door –** In response to the issues identified in the April 1990 inspection, Ecology issued a Warning Letter to Nord Door. This letter proposed the following actions:

- Within 5 calendar days of receipt of Warning Letter, Nord would indicate in writing their intent to work voluntarily to eliminate sources of pollutants to both storm drain systems, and remediate soil and groundwater contamination.
- Within 15 calendar days Nord Company would submit to Ecology the following items:
    - Copies of all Material Safety Data Sheets (MSDS) sheets,
    - A plan and schedule for modifying the oil shed,
    - The facility's spill history,
    - Storm and sanitary system plans,
    - A plan and schedule for eliminating sources of pollutants to the storm drain system at both the heat and soak tank and the pressure wash area,
    - Historical site use information.
- Within 30 calendar days of receiving this letter, Nord Company would submit to Ecology the following items:
    - A plan and schedule for disposing of the liquid in the Woodlife tank, and dismantling the tank,
    - A proposal for taking care of the thinner (toluene) UST,
    - A plan and schedule for soil characterization in the vicinity of all USTs, and a proposed remediation schedule,
    - A plan and schedule for the containment of all stored drums,
    - Locations and uses for all USTs on the Site.

**June 1, 1990 Letter from Ben-Fab (Nord Door) to Ecology –** Letter response to items requested within 15 calendar days:

    - Copies of all MSDS sheets were provided with this response.

- The plan for modifying the oil shed included placing a 2 ½ inch high asphalt curb at the entrance which would be ramped at both sides. The perimeter of the existing walls would be sealed with a 4 inch high fiberglass ribbon and asphalt emulsion compound.
- A document was enclosed which summarized the events of the spill from the diesel tank (presumably the former 1,000-gallon diesel UST) which occurred in March 1984. According to the report, approximately 100-gallons of diesel fuel was spilled when a forklift drove off with the nozzle in the fuel pipe. Sawdust was used to absorb the fuel from the ground and water, which was then burned in the boiler. The U.S. Coast guard was notified of the incident and sent a representative to investigate. Nord was informed that they had taken appropriate measures to resolve the problem. A timer was installed on the fuel pump to shut the pump off when the designated amount of fuel had been pumped into the fuel tank of the forklift.
- The facility was in the process of contacting the City of Everett to determine the possibility of discharging the heat/soak and pressure wash run-offs to the city sanitary sewer system.
- A plan and schedule for eliminating sources of pollutants to the storm drain system at both the heat and soak tank and the pressure wash area.

**August 20, 1990 Letter from Ben-Fab (Nord Door) to Ecology –** Additional items had been completed in response to Ecology's May 14, 1990 letter, which included: modifications to the oil shed to provide secondary containment; storm and sanitary sewer system plans had been submitted to Ecology; discharges from the heat/soak tank and pressure wash areas had been sampled, with lab results still pending; quotes had been obtained for having the Woodlife AST cleaned and removed; the facility was making plans to remove all USTs and would conduct soil characterization at that time; the facility purchased and was using a drum storage container. While a list was still being compiled, the USTs reported to be present on-site included a 1,000-gallon diesel UST, 500-gallon gasoline UST, and a 500-gallon (approximately) thinner (toluene) UST (had been out of service for over 5 years).

**September 2, 1990 Letter from Ben-Fab (Nord Door) to Ecology –** This letter provided locations and uses of all USTs known to be present on the Property. Also included was a map providing the locations of the USTs. The locations of the former USTs are presented on Figure 9. The USTs on the Site were identified as follows:

- UST No. 1 – Active 1,000-gallon diesel UST installed in 1978, located on north-northeast portion of Site,
- UST No. 2 – Active 500-gallon gasoline UST installed in 1973, located northwest of main manufacturing building.

- USTs No. 3 and 4 – Inactive USTs installed in 1973 and closed in place in April 1987. Contents not reported. Located south-southwest of main manufacturing building. JELD-WEN maps identified the USTs to have contained gasoline.
- UST No 5 – Inactive 500-gallon thinner (toluene) UST installed in 1978 and out of use since approximately 1985. Located northeast of the main building.

**September 18, 1990 Letter from Ben-Fab (Nord Door) to Ecology –** This letter provides the findings of sampling which was conducted on the Site's wastewater streams (soak-and-heat tank, boiler blow down, condensate, glue room effluent, and equipment wash), and discussions with the City of Everett Water Department regarding the possible discharge of wastewater to the sanitary sewer. Water samples were collected from the soak tank, boiler blow down, boiler storm drain, condensate room, glue room, and compressor cooling water. Samples from the soak tank, boiler blow down, boiler storm drain, and glue room were analyzed for tannins and lignins, total organic carbon, total dissolved solids, oil and grease, and petroleum hydrocarbons. The sample methodology was not stated. The sample from the soak tank contained tannins and lignins (420 milligrams per liter [mg/L]) and total organic carbon (510 mg/L). The sample from the boiler blow down contained oil and grease (1,100 mg/L). The sample from the boiler storm drain contained oil and grease (490 mg/L). The sample from the glue room contained oil and grease (208 mg/L) and total petroleum hydrocarbons (340 mg/L).

Additionally, samples from the boiler blow down, boiler storm drain, condensate room, glue room, and compressor cooling water were analyzed for metals using EPA 6000/7000 series methods. The metals chromium, copper, lead, and zinc were identified in each of the samples. Additionally, cadmium was identified in the sample from the glue room; mercury was identified in the samples from the boiler blow down, glue room, and compressor cooling water; nickel was identified in the sample from the boiler blow down and glue room; and silver was identified in the samples from the boiler storm drain and glue room.

The city determined that based on the sampling results, the wastewater from the soak-and-heat tank, boiler blow down, and condensate could be discharged to the sanitary sewer after pH and temperature adjustment. The facility stated they were attempting to eliminate the glue room and equipment wash wastewater streams.

**February 11, 1991 Letter from Sweet-Edwards/EMCON regarding UST Removal, Observations, and Soil Sampling –** On November 14, 1990, Sweet/Edwards/EMCON, Inc. observed the removal of one 1,100-gallon diesel UST and one 500-gallon gasoline UST. The 1,100-gallon UST is depicted on Figure 9 as Tank 1, which is referenced in other documents as a 1,000-gallon diesel AST. The 500-gallon gasoline UST is depicted on Figure 9 as Tank 2. The USTs were excavated and removed by JELD-WEN employees. Soil samples were collected from the north, east, south, and west sidewalls and the base of the diesel UST excavation and analyzed for Total Petroleum Hydrocarbons (TPH-IR, EPA Method 418.1). TPH-IR concentrations in the north, east

and south sidewalls were identified at concentrations of 1,000 milligrams per kilogram (mg/Kg), 263 mg/Kg, and 296 mg/Kg, respectively. TPH-IR concentrations from the west wall, the base of the excavation, and the stockpile were less than 100 mg/Kg. The soil sample from the south sidewall was also analyzed for TPH as diesel (TPH-d, EPA Method 3550/8015 modified). A concentration of 160 mg/Kg of TPH-d was identified (compared to a concentration of 296 mg/Kg of TPH-IR in the same sample).

Samples collected from the sidewalls and base of the 500-gallon gasoline UST excavation were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX, EPA Methods 5030/8020). BTEX was not detected above the laboratory practical quantitation limit (PQL) in the samples from the sidewalls or base of the excavation. Total BTEX concentrations up to 1.48 mg/Kg were identified in the soil stockpile. Analysis of TPH as gasoline (TPH-g, EPA Method 3550/8015 modified) in samples of stockpiled soil identified concentrations up to 104 mg/Kg. TPH-g was not detected above the laboratory PQL in the excavation sidewalls or base.

Based on this data, additional soil excavation was performed on the north wall of the diesel UST excavation to remove soil containing diesel-related petroleum hydrocarbons. Two samples were collected at the new limits of the excavation and analyzed for TPH-d. TPH-d concentrations were not detected above the laboratory PQL. No further excavation was conducted along the east and south walls of the excavation since TPH-d was not detected above the 200 mg/Kg action level listed under Chapter 173-340 WAC.

The report concluded that soils containing TPH-d were detected above the 200 mg/Kg recommended action level proposed under Ecology's Model Toxic Control Act (MTCA) Cleanup Regulations in samples collected from the north wall of the former diesel UST excavation. An additional 10 cubic yards of soil were subsequently removed. Samples collected at the limits of the new excavation contained TPH-d concentrations less than 200 mg/Kg. Soils containing TPH-g were identified in the soil stockpile but not in the gasoline UST excavation. These soils were reportedly "aerated" above ground by turning with a backhoe prior to being placed in the excavation as fill material. Soils removed from the diesel UST excavation north wall were reportedly being "landfarmed" on-site and would be evaluated for TPH-d at a future date. No further information was provided pertaining to the soil which was reportedly "landfarmed" on-site.

**February 22, 1991 – Final Report: Penta Contaminated Water Clean-up and Discharge prepared by Nord Door –** An out-of-service, 10,000-gallon Woodlife AST remained on the Site from the ownership prior to JELD-WEN's purchase. Rainwater had accumulated in the concrete containment berm of the AST and was found to contain up to 140 parts per million (ppm) of pentachlorophenol (PCP). A plan to perform carbon filtration of the water with subsequent discharge to the sanitary sewer system was approved by the City of Everett and Ecology. A discharge limit of 0.05 ppm of PCP was established. Several rounds of water filtration and discharge were undertaken between November 16, 1990 and February 8, 1991. Once the water was discharged, a private

contractor would be retained to clean and remove the 10,000-gallon AST, concrete berm, and portable AST used to contain the filtered water. A sample of the concrete would be collected to determine the levels of residual PCP. A final closure plan for the concrete berm would be established upon receipt of the results.

**March 5, 1991 Letter from Ecology Regarding Closure of PCP Tank Containment Berm at Nord Door** – Nord Door facility provided laboratory results from sampling soil and concrete associated with the former Woodlife AST. Concentrations of PCP in the soil were below the laboratory PQL (soil sample location not stated) and the concentration of PCP in the concrete was 0.5 ppm. Nord Door proposed closing the containment berm by knocking in the walls to a level below grade, pushing the rubble into the remaining berm, filling with clean backfill, and asphalting over the area. Ecology approved the proposed plan. The documents obtained by SLR do not indicate whether the containment berm was closed as proposed. However, based on SLR's site observations the containment berm wall was demolished and the area of the former containment berm has been covered by asphalt

**March 18, 1991 Early Notice Letter from Ecology regarding Nord Door (Site #N-31-5035-000) –** Under MTCA (Chapter 70.105D RCW), Ecology maintains a database of known or suspected contaminated sites. Based on available information and a site inspection on April 13, 1990, Ecology had added the Nord Door facility to the database. A copy of the site information sheet indicated the facility was listed due to confirmed impacts to soil with petroleum products, and suspected impacts to groundwater, surface water, and sediment with metals, PCBs, phenolic compounds, non-chlorinated solvents, and polynuclear aromatic hydrocarbons (PAHs).

**June 1991 Site Hazard Summary Report for Nord Door prepared by Parametrix -** The report summarized the results of a soil and groundwater assessment performed at the Site by SAIC/Parametrix on behalf of Ecology. The objective of the assessment was to conduct field screening and sampling to gather sufficient environmental data to assess the Site using the Washington Ranking Method (WARM) guidelines. The scope of work included the following:

- Collecting two surface soil samples from the area northwest of the main manufacturing building where barrels were previously stored (GS-1 and GS-2). Surface soil samples were analyzed for volatile organic compounds (VOCs, EPA Method 8240), TPH (EPA Method 8015), semivolatile organic compounds (SVOCs, EPA Method 8270), and Pesticides (EPA Method 8140);
- Collecting one surface soil sample from an asphalt eroded area northwest of the main building which was analyzed for VOCs (GS-3);
- Collecting two sediment samples from the storm drains on-site which were analyzed for VOCs, TPH, SVOCs, and Pesticides (SS-1 and SS-2). One sample was collected along the southwest Site border near the glue room stormwater

outfall and one was collected on the northeast portion of the Site near the boiler room stormwater outfall.

The sample locations are depicted on Figure 9. It should be noted that the sample descriptions did not include the collection of a water sample, and no water sample is discussed in the text of the report. However, the table which presents the analytical findings includes the results of sample EW, which appears to be a water sample. This sample is not discussed elsewhere in the report.

With the exception of very low concentrations of methylene chloride (also identified in method blank), chloroform identified in one water sample (sampling location not provided in report), and acetone, no contaminants were identified above the PQLs. The detected concentrations of methylene chloride, chloroform, and acetone did not exceed the MTCA Method A cleanup levels. These sampling results are included in the summary analytical tables (Tables 1 through 7).

**August 21, 1991 Letter from Ecology to Nord Door** – Ecology assessed the relative health and environmental risk associated with the facility and assigned a hazard ranking of 5 (with 1 being the highest risk and 5 being the lowest risk.).

**October 24, 1991 Letter from Sweet-Edwards/EMCON, Inc. Regarding Removal of Thinner (Toluene) UST** – On August 6, 1991 a 500-gallon thinner (toluene) UST was removed from the Site (identified on Figure 9 as Tank 5). Soil samples were collected from the four sidewalls and the base of the excavation, as well as from the stockpiled soil. The soil samples were analyzed for toluene (EPA Method 5030/8020) and TPH-g (EPA Method 5030/Modified 8015). Toluene was detected at concentrations of 9.4 mg/Kg and 14.6 mg/Kg in soil samples from the north sidewall and excavation base, respectively. TPH-g was identified at concentrations of 20 mg/Kg and 30 mg/Kg from samples collected from the north sidewall and excavation base, respectively. Analysis of a composite sample from the stockpiled soils identified a toluene concentration of 0.95 mg/Kg and a TPH-g concentration of 4 mg/Kg.

The report concluded that soil samples from the former thinner (toluene) UST excavation contained concentrations of toluene below the cleanup level of 40 mg/Kg for toluene and 100 mg/Kg for TPH-g presented in the MTCA Method A table.

**February 11, 1994 Letter from Nord Door/JELD-WEN to Ecology** – JELD-WEN was in the process of leasing a portion of the Site to Sterling Asphalt. A subsurface investigation was conducted by RZA Agra, Inc., a consultant for the prospective lessee. The investigation included the installation 5 soil borings (C1-S1, C2-S2, C4-S1, C5-S1, and C6-S1) and two monitoring wells (MW-1 and MW-2). Soil samples collected from each of the soil borings and the two monitoring well borings were analyzed for TPH-HCID, TPH-g, TPH-d, TPH by Washington State Method 418.1 modified (TPH-418.1), BTEX, lead, PCBs, and PAHs. Groundwater samples were analyzed for TPH-g and TPH-418.1.

The samples from the six soil borings were below PQLs for all TPH constituents, BTEX, PCBs, and PAHs. One of the borings (C6-S1) identified 17 ppm of lead, which was below the MTCA Method A Cleanup level of 250 ppm. The soil sample collected from the monitoring well boring MW-1 identified TPH-418.1 in soil at a concentration of 700 ppm. This concentration was above the MTCA Method A recommended cleanup level of 200 ppm.

In addition, the two groundwater samples identified concentrations of TPH-418.1 at 16 mg/L (MW-1) and 1.6 mg/L (MW-2), which exceeded the MTCA Method A recommended cleanup levels of 1 mg/L. The locations of MW-1 and MW-2 are depicted on Figure 9. These sampling results are included in the summary analytical tables (Tables 1 through 7). The approximate area of contamination (the two sampling locations) was by the reclaimed portion of the Port Gardner Bay tide lands where, years ago, loading of materials and moorage of boats occurred.

The Site was located on an area of historic fill in the Port Gardner Bay tide lands. The latest filling reportedly occurred in 1978. A historical review did not identify any process which would produce or cause petroleum contamination in the areas identified.

The report concluded that, based on the information available, it did not appear that this discovery was of major impact. The levels of TPH, though in excess of MTCA closure levels, should be protective of human health and the environment based on the occupancy and exposure.

**May, September, and October 2006 and May 2007 Soil and Groundwater Sampling performed by SLR on behalf of JELD-WEN** – In 2005, at the request of JELD-WEN, SLR conducted a review of historical documents pertaining to the now closed Nord Door facility and conducted a site walk in September 2005. Based on this information, several assessment groupings were identified which warranted further assessment. The areas warranting further investigation included fuel storage locations, Woodlife storage tank, dip tank, thinner (toluene) storage locations, and waste storage areas.

In May 2006 SLR conducted initial investigation work which included the collection of soil and groundwater samples from 42 locations focused on these initial assessment groups. Based on available information, contaminants initially identified as a potential concern at the Site were petroleum hydrocarbons, solvents, PCBs, PCP, and creosote. Sampling locations GP-1 to GP-42 are presented on Figure 9.

The May 2006 assessment identified several areas of environmental impact at the facility due to former operations. Identified impacts included: creosote from historical pole treating operations at the east side of the facility along West Marine View Drive, PAHs and petroleum hydrocarbons from historical fueling oil storage at the east side of the facility, toluene from solvent storage at the northeast corner of the facility, PCP from wood

treatment solution storage and usage at the northeast corner of the facility (appeared to be localized), and PAH and TPH from fill material placed at the Site (appeared to be wide-spread but relatively minor). Based on the findings of the May 2006 investigation, subsequent investigations were conducted in September and October 2006 to further evaluate the following data gaps: the potential for creosote and oil impacts to extend off-site to the east under West Marine View Drive; to gain an understanding of the groundwater flow direction and tidal influence at the Site; to gain an understanding of the extent of impacts at the fueling station as identified in assessment location GP-34; to evaluate whether the toluene impacts near the northeastern corner of the Site were limited in extent.

Additional assessment was conducted in September and October 2006 to address the data gaps. The results of the May and September assessment work was as follows:

- Creosote and fuel oil impacts along the eastern portion of the Site – Assessment work included Geoprobe borings near the middle and eastern side of West Marine View Drive (GP-201 through GP-215). Creosote and oil impacts to soil and groundwater extended under a portion of the former manufacturing building and West Marine View Drive. The extent of these impacts had not been fully delineated in an easterly direction.
- Installation of six groundwater monitoring wells – Five groundwater monitoring wells were installed at the Site in October 2006 (MW-1 through MW-5) and one additional well (MW-6) was installed in May 2007. The six wells were sampled for TPH-Dx, TPH-Gx, SVOCs, and VOCs. Groundwater monitoring wells MW-1 through MW-4 and MW-6 were below laboratory PQLs for all analytes. Groundwater monitoring well MW-5 identified benzene (9.46 micrograms per liter [µg/L]), naphthalene (11.1µg/L), toluene (4.12 µg/L), and xylene (1.05 µg/L). Benzene was identified above the MTCA Method A Cleanup Level for benzene in groundwater (5 µg/L). Concentrations of naphthalene, toluene, and xylene identified in groundwater were well below their respective MTCA Method A Cleanup Levels.
- Groundwater flow direction and tidal influences – Pressure transducers were placed in monitoring wells MW-1 through MW-5 well for a one-week period in October 2006. The monitoring well locations are shown on Figure 9, with MW-1 located along the southern edge of the Site, MW-2 near the western edge of the Site within the Rinker Materials facility, MW-3 near the northern edge of the Site, MW-4 near the boiler, and MW-5 near West Marine View Drive. The transducer data showed tidally-influenced groundwater at the Site, with a general groundwater flow direction from the eastern, center portion of the Site toward the west (MW-2) and north (MW-3). The observed water level in MW-1 was higher than the other four monitoring wells indicating an uncharacteristically high groundwater “mound” in that area, or an error in the measured elevation of the casing of this well.

- Fueling station impacts – In October 2006, test-pit excavations were completed at the Site near the former fueling station extending over the Geoprobe sampling location GP-34. This assessment was completed to further assess the extent of oil impacted soil in this area. The test pit excavation exposed an area containing wood debris (lumber and saw dust) along with other miscellaneous waste (asphalt pieces, bottles, scrap metal) to a depth of five to six feet below the surface. Soil sampling conducted at the edges of the test-pit excavation resulted in relatively low concentrations of oil in the soil, with some elevated PAH concentrations.
- Toluene impacts – In October 2006 test-pit excavations were installed near the former thinner (toluene) storage tank at the northeastern portion of the Site. The test-pits defined the extent of the toluene impacts to the shallow soil in this area.

Based on the findings of these investigations, a release report was submitted to Ecology via their on-line reporting system on September 19, 2006. The Site is listed under Ecology's website database as Ecology Identifier or facility number 2757.

# APPENDIX C

# SEA LEVEL RISE / CLIMATE CHANGE ASSESSMENT

Description: Provides a site-specific evaluation of the effects of climate change and projected sea level rise that is used to inform the future environmental setting and potential climate change impacts on the evaluated remedial alternatives.

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ANCHOR QEA

# Memorandum

March 29, 2021

To: Nathan Soccorsy, Anchor QEA. LLC

From: Sam Giannakous, Anchor QEA, LLC

**Re: Sea Level Rise Considerations**
**Jeld-Wen/Nord Door Site, Everett, Washington**

## Introduction

For the purpose of the evaluating future environmental conditions, this memorandum evaluates the effect of global climate change relative to the Jeld-Wen/Nord Door Site (Site) in Everett, Washington. The effects of climate change have been assessed in accordance with Washington State Department of Ecology (Ecology) guidance. Relatively recent Everett-specific projections (Miller et al. 2018) and Federal Emergency Management Agency (FEMA) floodplain information were reviewed to determine Site-specific projections and evaluations to inform the future environmental setting and considerations relative to remediation.

## Washington Department of Ecology Guidelines for a Site Vulnerability Assessment

A report prepared for the Washington Department of Ecology (Ecology) titled *Adaptation Strategies for Resilient Cleanup Remedies: A Guide for Cleanup Project Managers to Increase the Resilience of Toxic Cleanup Sites to the Impacts from Climate Change* (Asher et al. 2017) provides guidelines to assess the vulnerability of a project site to several risk factors related to climate change. The following are the site-specific risk scenarios detailed by Ecology, including a summary of sea level rise and severe storm assumptions.

**Low-risk scenario.** Cleanup sites to be remediated via full removal in the near future (1 to 2 years) with no long-term monitoring. This scenario considers a remedy with no further action. Future climate projections need not be addressed. For this scenario, 0.5 to 1 foot of sea level rise atop the mean higher high water (MHHW) elevation may need to be considered to account for flooding.

**Short-term risk**. Cleanup sites to be remediated within the next 10 years, including full removal, with or without post-construction monitoring or short-term natural attenuation. It may be appropriate to consider near-term climate projections (mid-century), 1 to 2 feet atop MHHW at a minimum. Current 100-year storm events will occur more frequently, becoming a 25-year storm. Extreme precipitation events will occur more frequently, with more frequent erosion likely in vulnerable areas.

**Long-term or high risk**. Remedial cleanup of sites involving contamination being left in place, long-term monitored natural recovery, cleanup levels taking more than 10 years to meet, or where

damage potential is high, even if there is a low probability of that event happening. A sea level rise at the high end of the projections assumed for the end of the century (4 to 6 feet) may be appropriate to consider, as well as inundation under both the base flood elevation and MHHW. These sites may need to consider that a 100-year storm event will occur at least every 10 years.

## Site Assessment

In order to address the many uncertainties in climate projections, the remedy timeframe, consequences of a failed remedy, and adaptive management should be taken into consideration. Long term remedies will involve more uncertainty because they depend more heavily on long-term climate projections that are not as reliable. Failed remedies of higher risk sites, particularly those where contamination is left in place, can have more severe impacts resulting from inundation even if the probability of such inundation is lower. Lastly, repair cost and/or adaptive management should be considered in the case that climate change consideration proves to be underestimated or sea level rise were to accelerate. Each specified remedial alternative should be suited to handle this magnitude of sea level rise depending on the risk scenario to which it can be applied.

The eight remedial alternatives outlined as potential cleanup actions range from source control, to capping, to full or partial removal. Based on the eight remedial alternatives, the low-risk scenario does not apply to this site, and thus climate change and sea level rise considerations need to be addressed.

Short-term and long-term risk scenarios may both apply to the site depending on the remedial alternative selected. Each alternative should be carefully considered in determining which risk scenario to apply. Design should account for the potential impacts of climate change as detailed by Ecology.

Remedial alternatives that include some degree of contamination left in place (capping or partial removal) should be classified as long-term or high-risk scenarios and consider the appropriate climate change projections for high-risk sites.

## Sea Level Rise Estimates

A report prepared for the Washington Coastal Resiliency Project (WCRP) in 2018 provided an updated assessment of projected sea level rise and the associated hazards for Washington state. The updated projections for sea level rise are more comprehensive than past estimates, taking into consideration recent research, land movement, and greenhouse gas emissions. Greenhouse gas emission projections depend on a variety of factors related to human behavior. Therefore, probabilistic projections for sea level rise have been made based on both low and high greenhouse gas scenarios.

Climate projections are made for two greenhouse gas emissions scenarios in this report: Representative Concentration Pathway (RCP) 4.5 and RCP 8.5. RCP 4.5 is a low estimate in which greenhouse gas estimates stabilize by mid-century and decrease thereafter. RCP 8.5 is a high scenario in which there is continued increase in greenhouse gasses until the end of the 21st century (Mauger 2015). Tables C-1 and C-2 present the probability of exceedance of sea level rise, in feet, for the RCP 4.5 and RCP 8.5 greenhouse gas scenarios. Highlighted rows indicated mid-century (50-year) and end of century projections (100-year). These projections were estimated for the coastal area in Snohomish County where the project site is located. Vertical land movement of -0.1 ± 0.2 foot per century is factored into these projections.

**Table C-1**
**Assessed Likelihood (in Percentages) of Sea Level Reaching or Exceeding a Threshold for Different Sea Levels (in feet) and Dates for RCP 4.5 Scenario**

| 19-year period centered on: | 0 | 0.5 | 1 | 1.5 | 2 | 2.5 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2010 | 97 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2020 | 99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2030 | 100 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2040 | 100 | 54 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2050 | 100 | 82 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2060 | 100 | 93 | 36 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2070 | 100 | 96 | 62 | 14 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2080 | 100 | 98 | 77 | 33 | 8 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2090 | 100 | 98 | 85 | 51 | 19 | 6 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2100 | 100 | 98 | 90 | 65 | 34 | 13 | 5 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2110 | 100 | 99 | 92 | 74 | 47 | 24 | 10 | 3 | 1 | 1 | 0 | 0 | 0 | 0 |
| 2120 | 100 | 99 | 94 | 79 | 57 | 33 | 17 | 5 | 2 | 1 | 1 | 0 | 0 | 0 |
| 2130 | 100 | 99 | 94 | 83 | 64 | 43 | 26 | 8 | 3 | 2 | 1 | 1 | 0 | 0 |
| 2140 | 100 | 98 | 94 | 85 | 69 | 51 | 34 | 12 | 5 | 3 | 1 | 1 | 1 | 0 |
| 2150 | 100 | 99 | 95 | 87 | 74 | 58 | 42 | 18 | 7 | 4 | 2 | 1 | 1 | 1 |

Source: WA Coastal Network; http://wacoastalnetwork.com/chrn/research/sea-level-rise/

Based on the low-level projections, by mid-century, it is likely the sea level will rise between 0.5 and 1 foot along the coastline in Everett, Washington. By the turn of the century and shortly thereafter, it is projected that sea level could increase up to 3 feet under the low greenhouse gas scenario.

Projections based on the RCP 8.5 high scenario suggest slightly more aggressive rates of sea level rise at the Jeld-Wen site. By middle to late century, the sea level could rise between 1 and 2 feet, and up to 5 feet after the turn of the century.

**Table C-2**
**Assessed Likelihood (in Percentages) of Sea Level Reaching or Exceeding a Threshold for Different Sea Levels (in feet) and Dates for RCP 8.5 Scenario**

| 19-year period centered on: | 0 | 0.5 | 1 | 1.5 | 2 | 2.5 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2010 | 95 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2020 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2030 | 100 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2040 | 100 | 59 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2050 | 100 | 87 | 15 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2060 | 100 | 96 | 48 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2070 | 100 | 99 | 77 | 26 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2080 | 100 | 99 | 90 | 54 | 18 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2090 | 100 | 100 | 95 | 74 | 39 | 15 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2100 | 100 | 100 | 97 | 85 | 61 | 34 | 15 | 3 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2110 | 100 | 100 | 99 | 90 | 69 | 41 | 20 | 5 | 2 | 1 | 0 | 0 | 0 | 0 |
| 2120 | 100 | 100 | 99 | 94 | 80 | 59 | 36 | 10 | 4 | 2 | 1 | 0 | 0 | 0 |
| 2130 | 100 | 100 | 99 | 96 | 87 | 70 | 50 | 19 | 7 | 3 | 1 | 1 | 1 | 0 |
| 2140 | 100 | 100 | 100 | 98 | 91 | 78 | 62 | 29 | 12 | 5 | 3 | 1 | 1 | 1 |
| 2150 | 100 | 100 | 100 | 98 | 93 | 84 | 70 | 41 | 19 | 9 | 5 | 3 | 2 | 1 |

Source: WA Coastal Network; http://wacoastalnetwork.com/chrn/research/sea-level-rise/

Tidal datums recorded within the Port of Everett, just south of the Jeld-Wen site, are presented in Table C-3. LiDAR data taken for the Snohomish River Estuary provided elevation contours for the site. Based on the LiDAR elevation data, the majority of the Jeld-Wen site is at elevations ranging from 12 to 14 feet with select features up to elevation +17 feet MLLW.

**Table C-3**
**Tidal Datums for NOAA Station 9447659 (Everett, WA)**

| Tide | Tide Level (feet MLLW) |
|---|---|
| Mean Higher High Water (MHHW) | 11.09 |
| Mean High Water (MHW) | 10.21 |
| Mean Tide Level (MTL) | 6.51 |
| Mean Sea Level (MSL) | 6.48 |
| Mean Low Water (MLW) | 2.8 |
| Mean Lower Low Water (MLLW) | 0 |

Source: Center for Operational Oceanographic Products and Services; NOAA tides & Currents

Ecology guidance is to add feet of sea level rise to the MHHW datum to project potential inundation caused by high tides over the course of a day. The potential for mid-century sea level rise of 1 to 2 feet (RCP 8.5) results in a new MHHW elevation of up to 14 feet. Projections for sea level rise at the turn of the century of 5 feet would result in MHHW elevation over 16 feet. Figure C-1 highlights the inundation possible at the Jeld-Wen site resulting from this degree of sea level rise. Elevation contours of 13, 15, and 17 feet are highlighted to reflect 2, 4, and 6 feet of sea level rise.

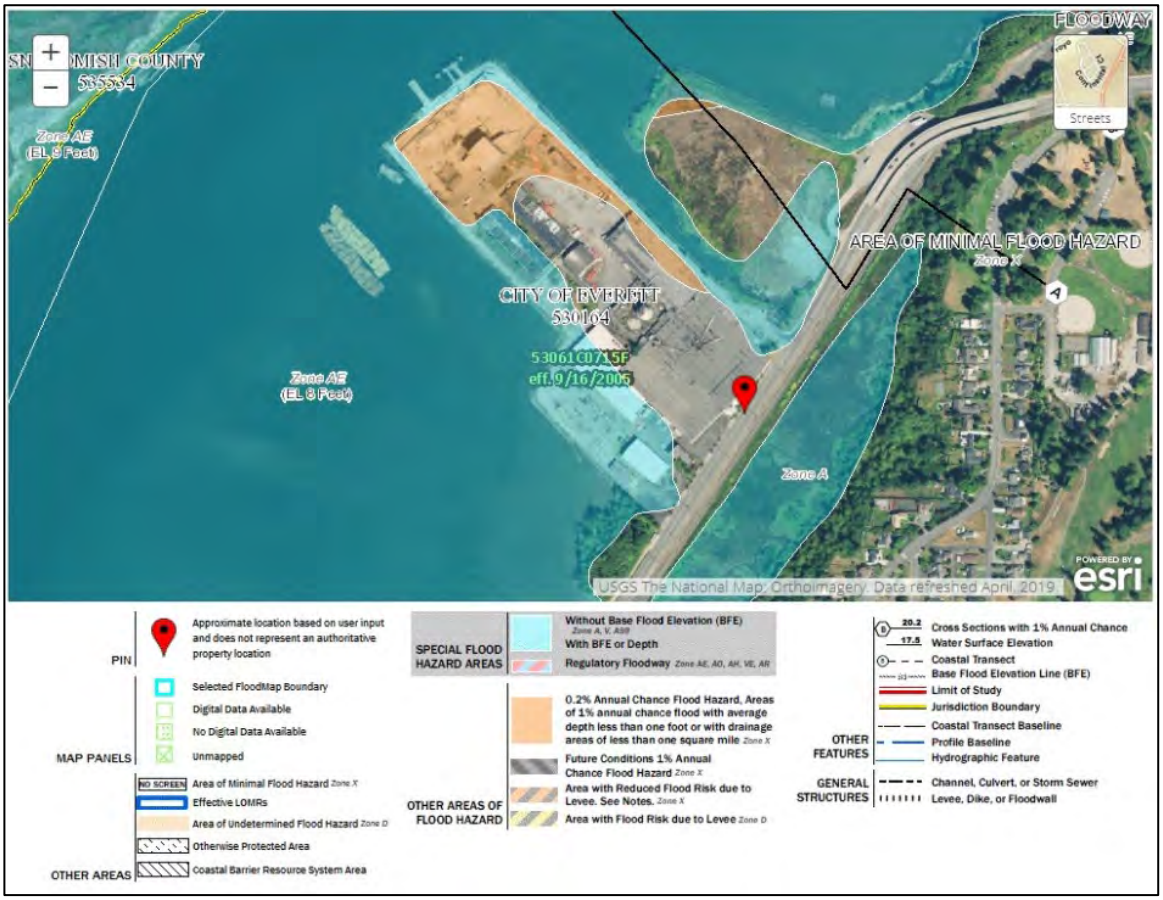



**Figure C-1**
Sea Level Rise
Jeld-Wen/Former Nord Door Facility

## FEMA Flood Risk

The sea level rise estimates previously presented are not related to coastal flood risk assessments performed by FEMA (Miller et al. 2018). FEMA has created floodplain maps of visual inundation caused by a 100-year flood (also termed base flood elevation or BFE) as a risk assessment tool for insurance purposes. The current effective 100-year floodplain map is shown in Figure C-2.

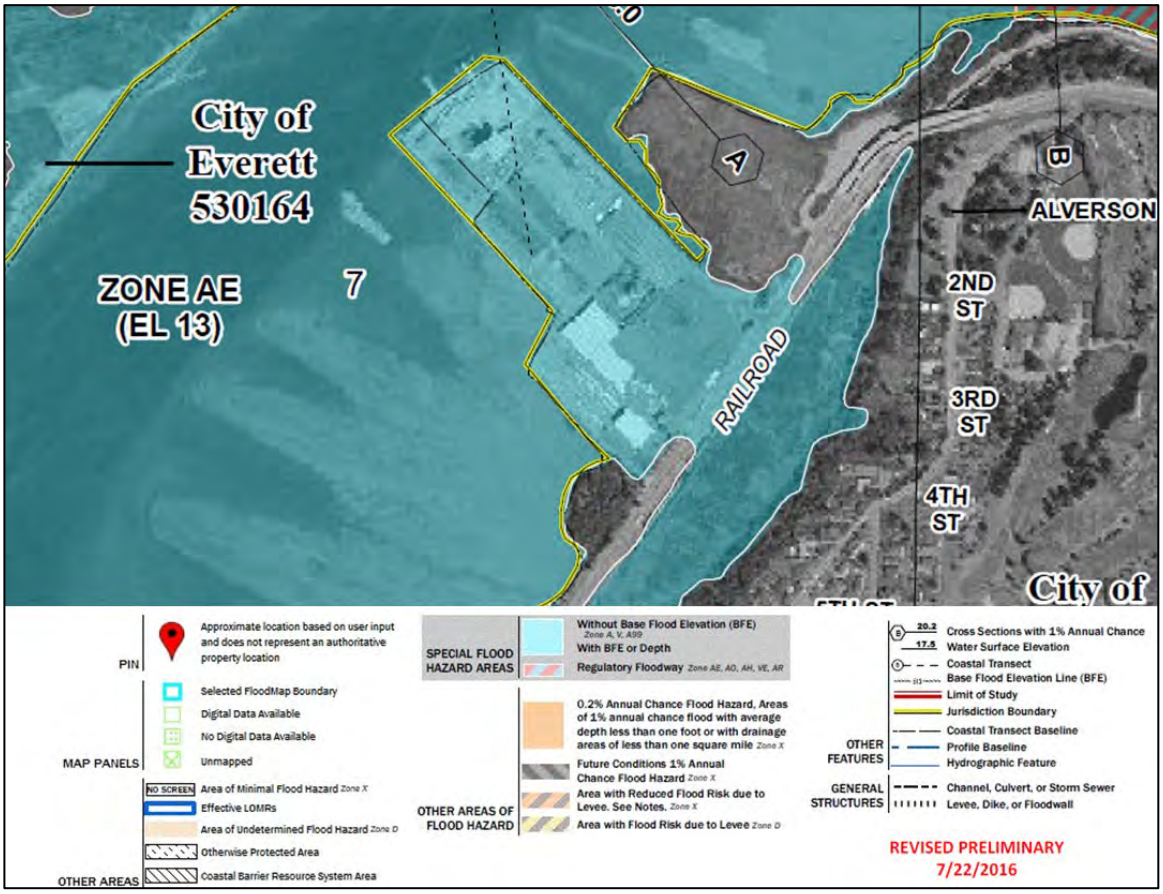
**Figure C-2**
**Current Effective FEMA Floodplain Map**




Source: FEMA Flood Map Service

Under the current effective BFE, most of the site is mapped as being inundated during a 100-year flood, with breaching of West Marine View Drive resulting in full inundation of the low-lying marshland landward of the Jeld-Wen site. FEMA's preliminary updated floodplain map is shown in Figure C-3. Although not yet approved, these preliminary data suggest that the site would be completely inundated under the future BFE.

**Figure C-3**
**Preliminary FEMA Floodplain Map**




Source: FEMA Flood Map Service

The impacts of the 100-year floodplain (the BFE), as the determination of the risk category for a project site, can result in the BFE becoming a 25-year or 10-year storm event. This level of inundation or impacts as severe as this level of inundation may occur on a more frequent time scale as a result of climate change.

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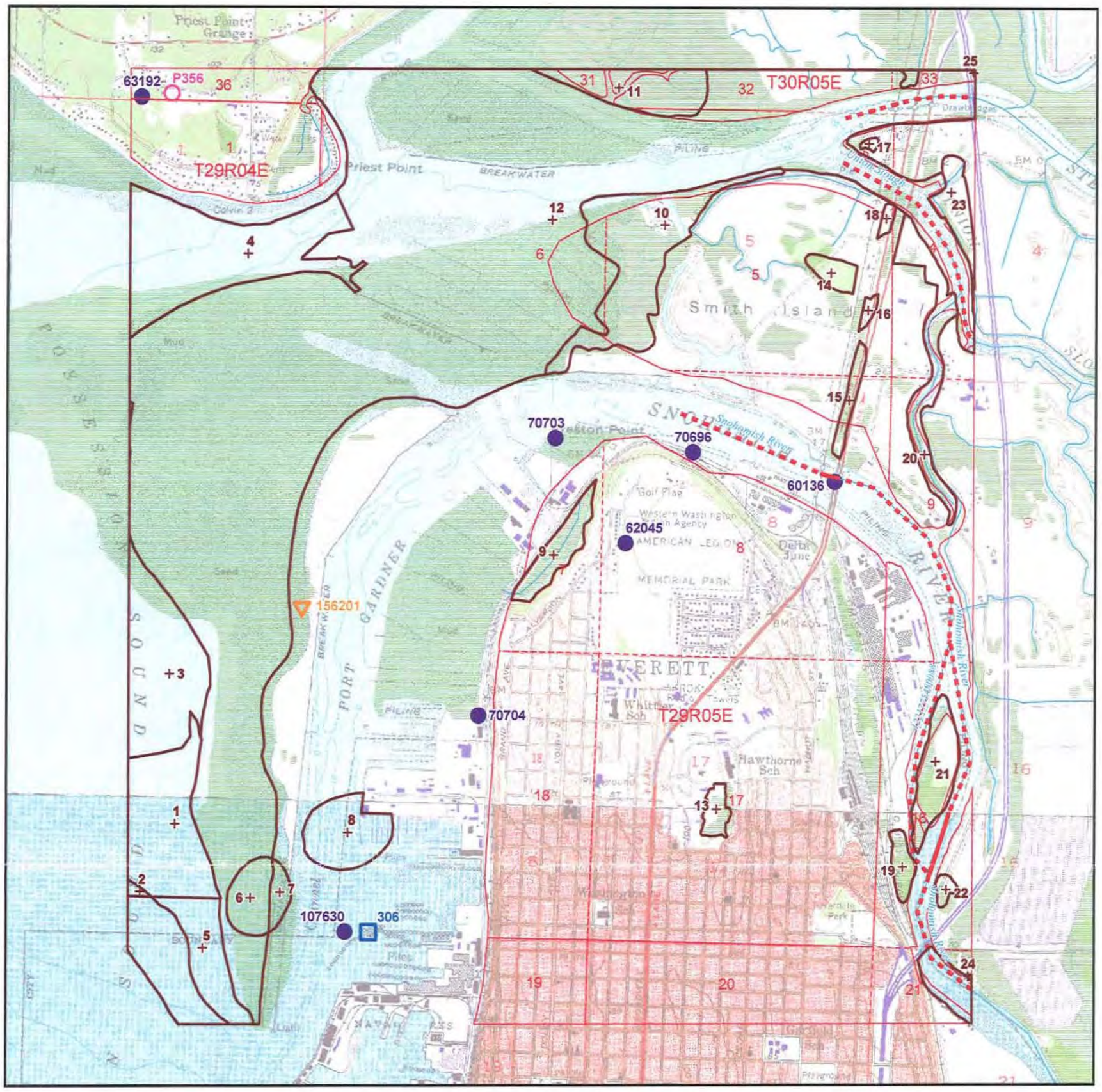
# APPENDIX D

# WDFW FIGURES

Description: Provides habitats and species maps used to inform the upland ecological understanding of the site, information regarding listed and candidate Endangered Species Act fish species in the project area, and a 2019 Critical Areas Report used to inform the marine ecological understanding of the site and allow for the avoidance, minimization, and mitigation of impacts related to future cleanup activities.




Washington Department of Fish and Wildlife

## HABITATS AND SPECIES MAP

IN THE VICINITY OF T29R05E SECTION 7

Map Scale 1:24,000 - Production Date: Sep 10, 2010
Coordinate System - State Plane South Zone 5626 (NAD83 HPGN)
Map Designed by WDFW Information Technology Services GIS

PLEASE NOTE

This map and the accompanying reports are not for general distribution. Washington State Law (RCW 42.56.430(2)) exempts Sensitive Fish and Wildlife information from public inspection and copying.

Washington Department of Fish and Wildlife (WDFW) considers sensitive species and habitat locations displayed on this map and accompanying reports to be confidential. WDFW is the exclusive owner of the Sensitive Fish and Wildlife Information and locations shall in all respects be treated as proprietary information in accordance with all procedures reasonably necessary to protect WDFW's proprietary rights therein.

DISCLAIMER

This map and the accompanying reports only includle information that the Washington Department of Fish and Wildlife (WDFW) maintains in a central computer database. It is not an attempt to provide you with an official agency response as to the impacts of your project on fish and wildlife. This information only documents the location of fish and wildlife resources to the best of our knowledge. It is not a complete inventory and it is important to note that fish and wildlife resources may occur in areas not currently known to WDFW biologists, or in areas for which comprehensive surveys have not been conducted. Site specific surveys are frequently necessary to rule out the presence of priority resources.

Locations of mapped wildlife and habitat features are generally within a quarter mile of the locations displayed on this map. Locations of fish and wildlife resources are subject to variation caused by disturbance, changes in season and weather, and other factors. WDFW does not recommend using maps more than six months old and information should not be used for future projects.

For questions about how the information may apply to a specific project or site, contact the WDFW Regional Office for your region at:
http://wdfw.wa.gov/about/regions/index.html

MAIN DATA SOURCES

Priority Habitats and Species polygon, Habitat point, Klickitat County Oak, Wildlife Survey Data Management polygon/point, Spotted Owls, Seal /Sea Lion Haulouts, 1:24K streams and fish presence data: Wa. Dept. of Fish and Wildlife.
Seabird Colony data: US National Oceanic and Atmospheric Administration.
Kelp Bed, Oak Stand, Eelgrass, Turf Algae and Township/Section data: Wa. Dept. of Natural Resources.
Wetland data: US Fish and Wildlife Service, National Wetlands Inventory.
1:24K Quadrangle Image: US Geological Survey.

### Map Legend

**Priority Habitats/Species:**

- Priority Habitats and Species (PHS) Polygon Borders
- Priority Wildlife Areas (WSDM)
- Priority Wildlife Sites (WSDM)
- Priority Habitat Sites
- Marbled Murrelet Occupancy Sites
- Spotted Owl Sites - Status 1-3
- Spotted Owl Sites - Status 4
- Priority Seabird Colonies
- Priority Seal/Sea Lion Haulouts
- Priority Fish Presence
- National Wetlands Inventory
- Oak Stands
- Kelp Beds
- Eelgrass
- Turf Algae

**Other Habitats/Species:**

- Other Seabird Colonies
- Other Seal/Sea Lion Haulouts
- Spotted Owl Management Circles Established Territory
- Spotted Owl Management Circles Insufficient Evidence to Establish Territory
- Marbled Murrelet Detection Sections (WDFWSTAT 1 through 4)
- Marbled Murrelet 1.5 Mile Buffers (Status 1 through 3)

**Other Symbols:**

- Rivers and Streams
- Section Lines
- Township Lines

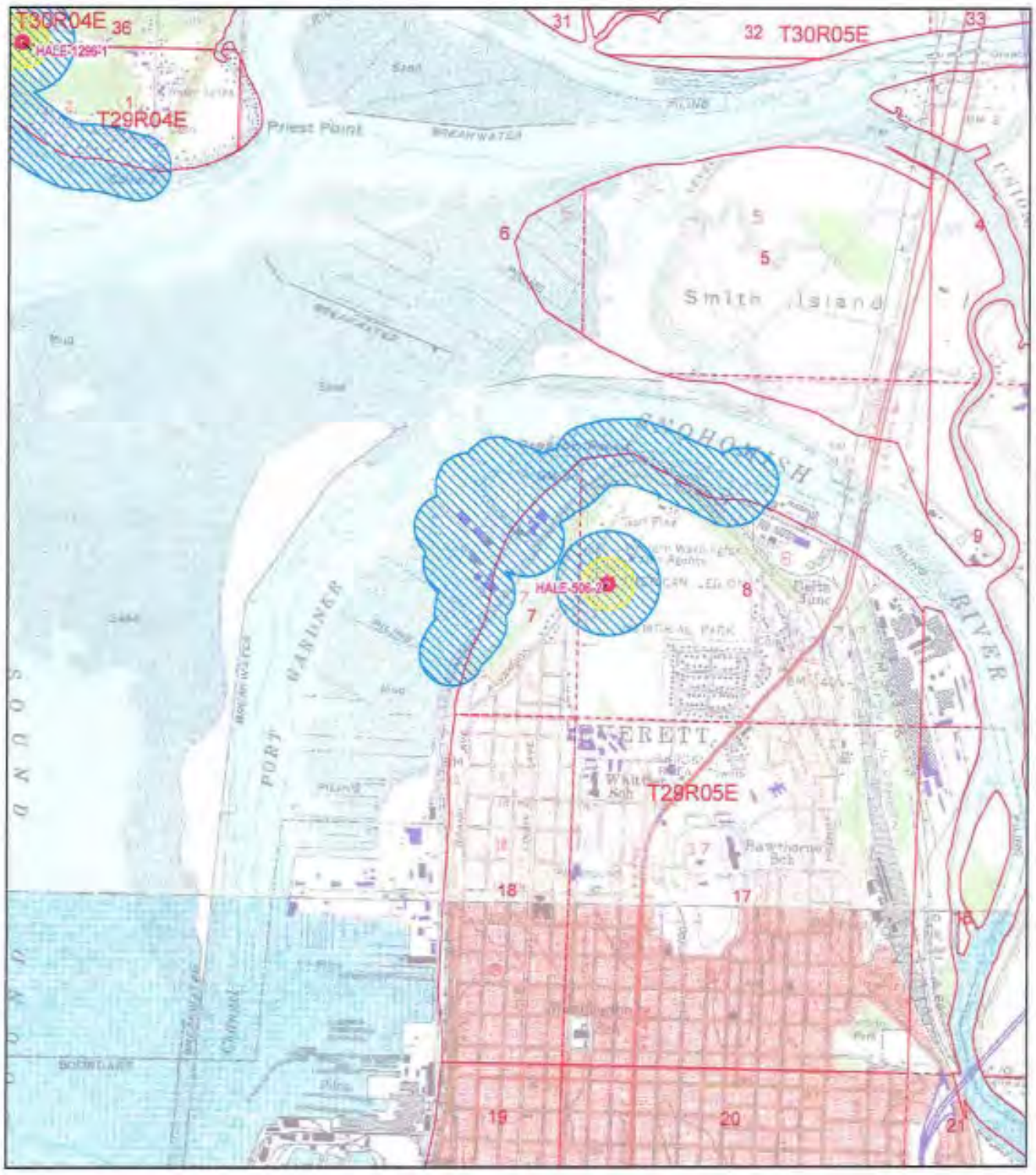
Washington Department of FISH and WILDLIFE

Area Location Map

0 0.5 1
Miles

ANCHOR QEA SLR

**Figure D.1-1**
WDFW Habitat and Species Map
Remedial Investigation/Feasibility Study
Jeld-Wen/Former Nord Door Facility




Washington Department of Fish and Wildlife

## BALD EAGLE BUFFER MANAGEMENT ZONE MAP

IN THE VICINITY OF T29R05E SECTION 7

Map Scale 1:24,000 - Production Date: Sep 10, 2010
Coordinate System - State Plane South Zone 5626 (NAD83 HPGN)
Map Designed by WDFW Information Technology Services GIS

MAP INFORMATION

This map is intended to help you determine if a Bald Eagle Management Plan (BEMP) is needed for your project. A BEMP is a habitat protection agreement between Washington Department of Fish and Wildlife (WDFW) and a landowner ensuring minimal impact on bald eagles and reasonable land use for the owner. For a list of bald eagle management contacts and a fact sheet that addresses frequently asked questions, visit the following WDFW web site at:
http://wdfw.wa.gov/wlm/diversty/soc/baldeagle/eagle_management.htm

PLEASE NOTE

All Fish and wildlife species are vulnerable to harm from human activities. By receiving information on this map, from the Washington Department of Fish and Wildlife (WDFW), you incur an obligation to use it in a way that does not cause undue harm to our public fish and wildlife resources.

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This information is highly variable regarding source, some of it is based on field surveys while others are based on "best professional judgement" of the biologist involved. This information has been generalized for the release to the general public. For questions about how the information may apply to a specific project or site, contact the WDFW Regional Office for your region. Contact information available online at:
http://wdfw.wa.gov/about/regions/index.html

MAIN DATA SOURCES

Priority Habitat and Species polygon, Wildlife Survey Data Management polygon/point, and Bald Eagle Buffer Data: Washington Deptartment of Fish and Wildlife.
Township/Section Data: Washington Deptartment of Natural Resources.
1:24K Quadrangle Image: US Geological Survey.

Map Legend

**Bald Eagle Information:**

- Nest Site (Species Code-Occurrence-Sequence)
- Communal Roost Site (Species Code-Occurrence-Sequence)
- Communal Roost Area
- 400 Foot Nest Buffer
- 800 Foot and Shoreline Nest Buffer
- 1,320 Foot Communal Roost Buffer

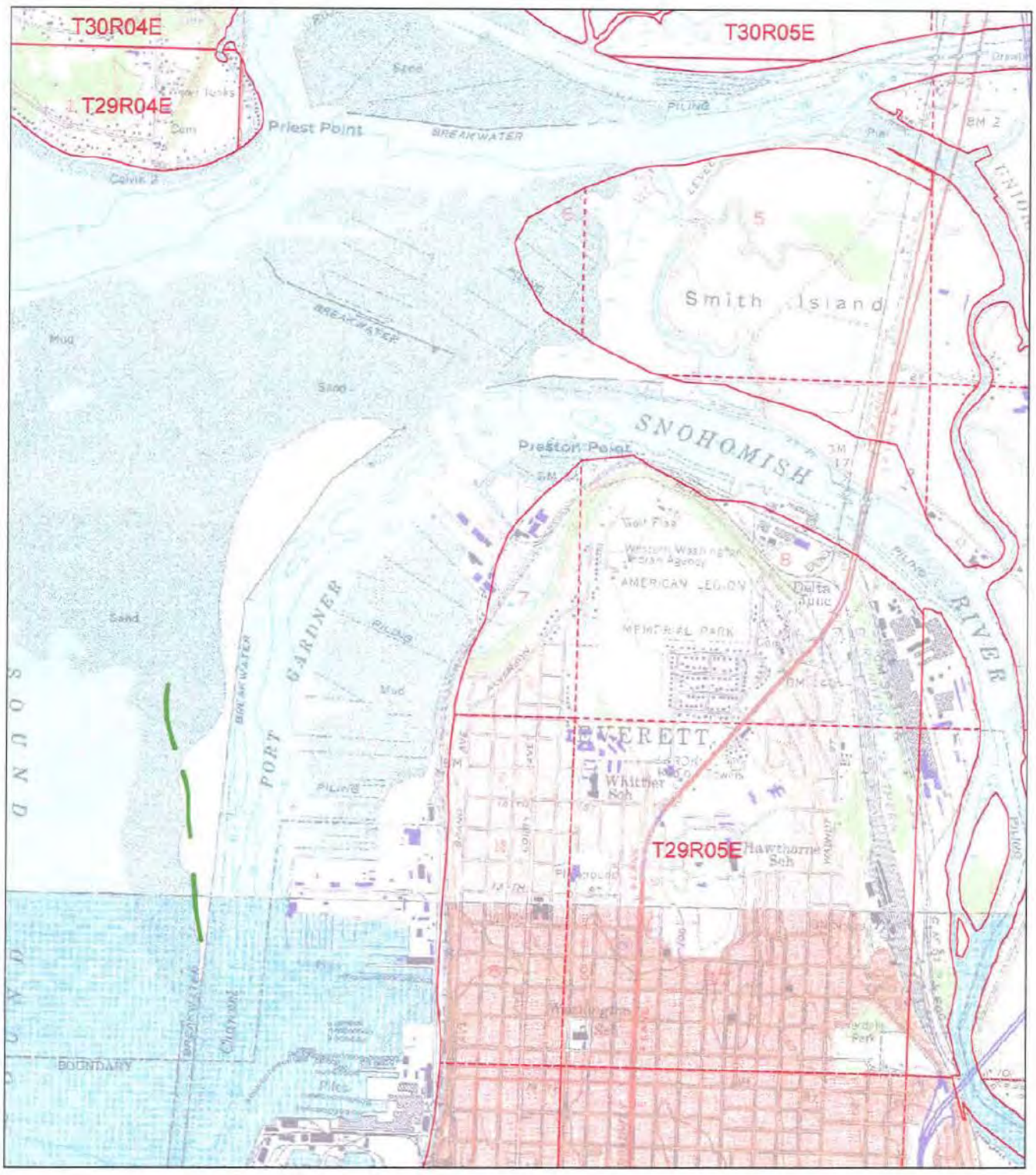
**Other Symbols:**

- Section Lines
- Township Lines




ANCHOR QEA SLR

**Figure D.1-2**
WDFW Bald Eagle Buffer Management Zone Map
Remedial Investigation/Feasibility Study
Jeld-Wen Former Nord Door Facility




Washington Department of Fish and Wildlife

## SURF SMELT, SAND LANCE, ROCK SOLE AND HERRING MAP

IN THE VICINITY OF T29R05E SECTION 7

Map Scale 1:24,000 - Production Date: Sep 10, 2010
Coordinate System - State Plane South Zone 5626 (NAD83 HPGN)
Map Designed by WDFW Information Technology Services GIS

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http://wdfw.wa.gov/about/regions/index.html

MAIN DATA SOURCES

Marine Resources and Forage Fish Survey Data: Washington Deptartment of Fish and Wildlife.
Township/Section Data: Washington Deptartment of Natural Resources.
1:24K Quadrangle Image: US Geological Survey.

Map Legend

**Forage Fish/Marine Resouces Data:**

- Documented Surf Smelt Spawning Areas
- Documented Sand Lance Spawning Areas
- Documented Rock Sole Spawning Areas
- Documented Herring Spawning Areas
- Documented Herring Holding Areas
- Potential Surf Smelt/Sand Lance Spawning Areas

**Other Symbols:**

- Section Lines
- Township Lines

NOTE:
The spawning information for surf smelt, sand lance and rock sole are offset from the shoreline for display purposes only. The typical depths for herring spawning are +3 feet to -20 feet (MLLW).

Washington Department of FISH and WILDLIFE




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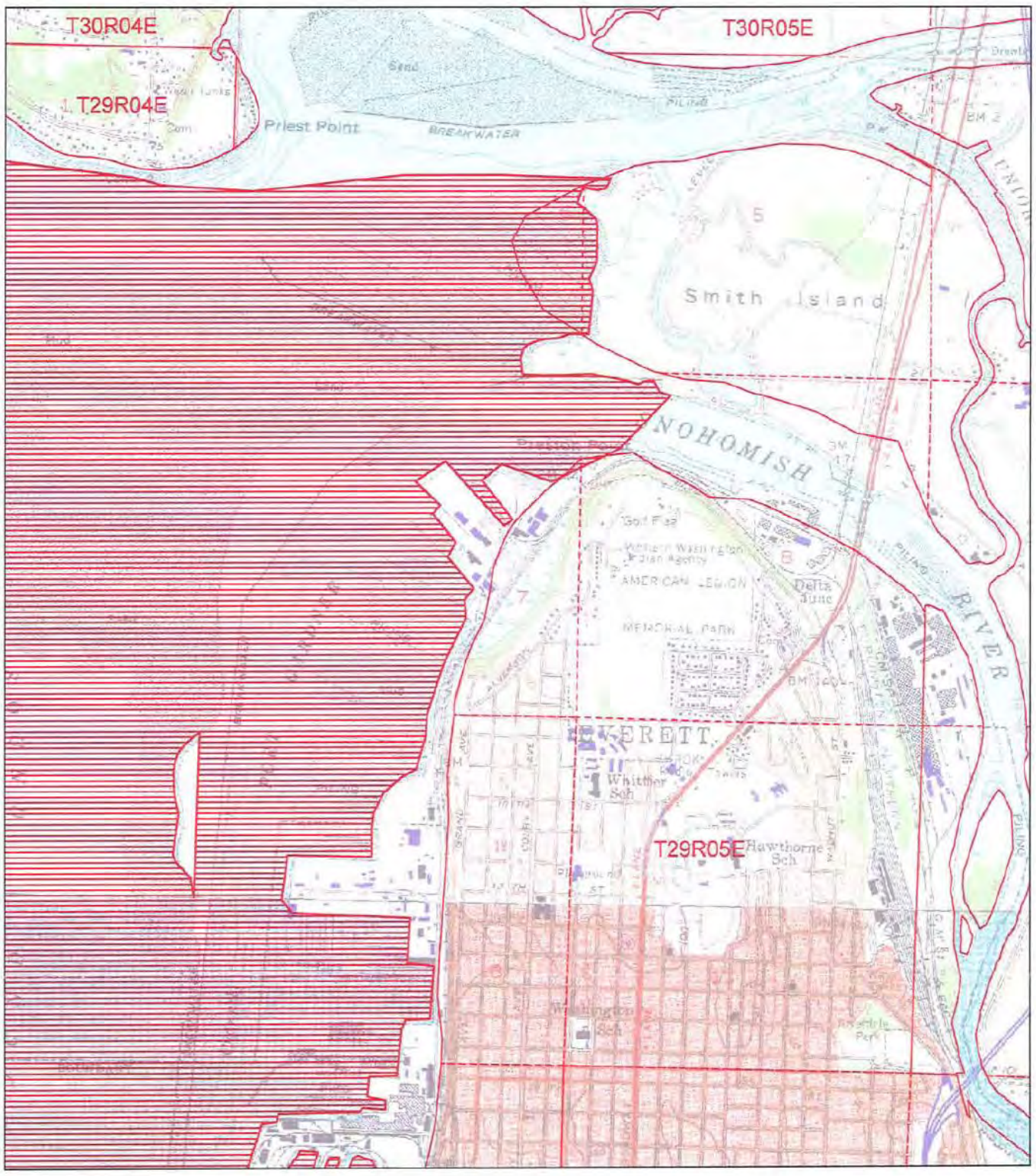
**Figure D.1-3**
WDFW Surf Smelt, Sand Lance, Rock Sole and Herring Map
Remedial Investigation/Feasibility Study
Jeld-Wen/Former Nord Door Facility




Washington Department of Fish and Wildlife

## DUNGENESS CRAB, PANDALID SHRIMP AND SEA URCHIN MAP

IN THE VICINITY OF T29R05E SECTION 7

Map Scale 1:24,000 - Production Date: Sep 10, 2010
Coordinate System - State Plane South Zone 5626 (NAD83 HPGN)
Map Designed by WDFW Information Technology Services GIS

Map Legend

**Marine Resouces Data:**

- Sea Urchin
- Dungeness Crab
- Pandalid Shrimp

**Other Symbols:**

- Section Lines
- Township Lines

PLEASE NOTE

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http://wdfw.wa.gov/about/regions/index.html

MAIN DATA SOURCES

Marine Resources Data: Washington Deptartment of Fish and Wildlife.
Township/Section Data: Washington Deptartment of Natural Resources.
1:24K Quadrangle Image: US Geological Survey.




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**Figure D.1-4**
WDFW Dungeness Crab, Pandalid Shrimp, and Sea Urchin Map
Remedial Investigation/Feasibility Study
Jeld-Wen/Former Nord Door Facility



March 2021
Former Nord/JELD-WEN Cleanup Site

ANCHOR QEA

# Critical Areas Report

Prepared for JELD-WEN, Inc. and Washington State Department of Ecology

March 2021
Former Nord/JELD-WEN Cleanup Site

# Critical Areas Report

**Prepared for**
JELD-WEN, Inc.
Klamath Falls, Oregon
and
Washington State Department of Ecology
Olympia, Washington

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Project Number: 120909-01.02

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## APPENDICES

Appendix A Study Area Photographs

Appendix B Wetland Field Data Forms

Appendix C Wetland Rating Forms

# ABBREVIATIONS

| | |
|---|---|
| CAR | Critical Areas Report |
| Corps | U.S. Army Corps of Engineers |
| DPS | distinct population segment |
| Ecology | Washington State Department of Ecology |
| EMC | Everett Municipal Code |
| ESA | Endangered Species Act |
| ESU | evolutionarily significant unit |
| FS | Feasibility Study |
| FWHCA | Fish and Wildlife Habitat Conservation Area |
| JELD-WEN | JELD-WEN, Inc. |
| MTCA | Model Toxics Control Act |
| NMFS | National Marine Fisheries Service |
| NRCS | Natural Resources Conservation Service |
| OHWM | ordinary high water mark |
| Order | Agreed Order Number DE 5095 |
| PHS | Priority Habitats and Species |
| RCW | Revised Code of Washington |
| RI | Remedial Investigation |
| SMP | Shoreline Master Program |
| USFWS | U.S. Fish and Wildlife Service |
| WAC | Washington Administrative Code |
| WDFW | Washington Department of Fish and Wildlife |

# 1 Introduction

This Critical Areas Report (CAR) has been prepared for the former E.A. Nord, Inc., door facility site (through its successor, JELD-WEN, Inc.). The site is located in the city of Everett in Snohomish County, Washington, along the marine shoreline of Port Gardner Bay in Possession Sound (Figure 1).

In accordance with the requirements of Model Toxics Control Act (MTCA) Agreed Order Number DE 5095 (Order) between JELD-WEN, Inc. (JELD-WEN) and the Washington State Department of Ecology (Ecology), a draft Remedial Investigation/Feasibility Study (RI/FS) Report was prepared and submitted to Ecology in 2016 (Anchor QEA and SLR International Corporation 2016). Ecology provided comments on the RI/FS Report in a February 2019 letter (Ecology 2019a). The objective of the RI was to collect the data necessary to adequately characterize the site for the purpose of developing and evaluating cleanup action alternatives. The purpose of the FS was to develop and evaluate cleanup action alternatives to enable a cleanup action to be selected for the site.

This CAR has been prepared in response to the Ecology comment letter requesting information on critical areas at the site, including a delineation of the marine shoreline ordinary high water mark (OHWM), wetland delineations, and a description of wildlife and wildlife habitat characteristics. These characteristics include but are not limited to, existing marine, estuarine, and riparian vegetation communities; shoreline features and characteristics; and intertidal substrate and species composition. The study area for this investigation includes the developed portions of the site, the site shoreline, and tidal mudflats adjacent to the site (Figure 2).

Information collected for this CAR will be used to assess conditions in the study area, and to avoid, minimize and mitigate for impacts related to cleanup activities that will occur under the Order. The information will also be used to inform opportunities for restoration of site habitat. Potential impacts and mitigation associated with cleanup activities are not addressed in this CAR and will be evaluated during the design process.

Existing critical areas and associated regulated buffers are identified in this CAR as defined in Chapter 19.37 of the Everett Municipal Code (EMC; City of Everett 2019a). Anchor QEA ecologists conducted a review of the Critical Areas chapter of the EMC, gathered and reviewed existing information, and performed a site visit on July 1 and 3, 2019, to identify, assess, and delineate critical areas within the study area.

During the investigation, 14 estuarine wetlands were identified and delineated within the study area (Wetlands E1 through E14). As described in this CAR, most of the estuarine wetlands are small patches or groups of small patches of salt-tolerant vegetation near the marine OHWM, and 8 of the 14 wetlands are less than 100 square feet in total area. No freshwater wetlands or stream critical areas were identified within the study area. A delineation of the OHWM of the marine shoreline of

Port Gardner Bay in the study area was performed. The OHWM delineation also included a delineation of piles and derelict structures within the study area below the OHWM. Under EMC Chapter 19.37.190, the Port Gardner Bay shoreline is defined as a Fish and Wildlife Habitat Conservation Area (FWHCA) under the category of "habitats of primary association."

The following sections of this report describe the methods used in the field investigation and Anchor QEA's findings:

- A description of the study area is included in Section 2.
- Summaries of the findings of the wetland delineation are included in Section 3.
- The marine shoreline OHWM and the pile and derelict structures delineation is included in Section 4.
- Section 5 includes the habitat assessment and an Endangered Species Act (ESA) species and critical habitat assessment.

Photographs of features in the study area are presented in Appendix A. Wetland field data forms are in Appendix B, and the Ecology wetland rating forms are included in Appendix C.

## 1.1 Review of Existing Information

Anchor QEA ecologists reviewed the following sources of information to support field observations:

- Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2019)
- U.S. Fish and Wildlife Service (USFWS) Wetlands Mapper for National Wetlands Inventory map information (USFWS 2019a)
- USFWS ESA status reviews and listing information (USFWS 2019b)
- National Marine Fisheries Service (NMFS) ESA status reviews and listing information (NMFS 2019)
- EMC (City of Everett 2019a)
- City of Everett critical areas maps (City of Everett 2019b)
- City of Everett Shoreline Master Program (SMP) (City of Everett 2016)
- Snohomish County critical areas maps (Snohomish County 2019)
- Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) Maps (WDFW 2019a)
- WDFW SalmonScape website (WDFW 2019b)
- Comments on the "Marine" portion of the Final Draft Remedial Investigation/Feasibility Study for the Former E.A. Nord Door Site in Everett, Washington (Ecology 2019a)
- *Final Draft Remedial Investigation/Feasibility Study – Former E.A. Nord Door Site* (Anchor QEA and SLR International Corporation 2016)
- *Bay Wood Remediation Project Habitat Assessment Report* (Shannon & Wilson, Inc. 2019)
- Aerial photographs, Google Earth, July 2019

# 2 Study Area Description

The developed portion of the study area is the former Nord Door site, located in an industrially zoned area in the city of Everett, Snohomish County, Washington (Township 29 North, Range 5 East, Section 7; Figure 1). The site is an approximately 33-acre area located at 300 West Marine View Drive, on Possession Sound near the confluence of the Snohomish River and Port Gardner Bay. The site lies on an area of fill that extends into Port Gardner Bay with tidal mudflats located to the north, south, and west. Structures on the site include a variety of active and inactive buildings, warehouses, storage tanks, and machinery.

The west portion of the site is an active asphalt batch plant. The main structures in the asphalt batch plant include an approximately four-story asphalt building, feeder shed, and a conveyor system. In addition to the structures, surface features at the site include asphalt paved areas and unpaved gravel areas. Approximately 95% of the site is currently paved or gravel or covered by structures. The developed portions of the site include parcels 29050700101200, 29050700100400, 29050700400100, and 29050700400101. Parcel boundaries are shown in Figure 3.

The study area for this CAR includes the upland portion of the site and associated marine shoreline, adjacent tidal mudflat habitat, and marine shoreline and tidal mudflat habitat south of the site adjacent to West Marine View Drive. The tidal mudflats and shorelines in the study area include parcels 29050700100800, 29050700401900, 2905070040200, 29050700401100, and 29050700401200 (Figure 3).

An approximately 2-acre vegetated knoll is located at the southern end of the developed portion of the study area. The knoll area was created in the early to mid-1960s when approximately 12 to 20 feet of sandy fill dredge material containing visible shell fragments was placed over this portion of the study area (Anchor QEA and SLR International Corporation 2016). An aerial photograph of the study area and existing conditions are shown in Figure 2.

Vacant land owned by the City of Everett is located north of the study area. West Marine View Drive is located east of the study area, and BNSF Railway railroad tracks are located east of West Marine View Drive. A large freshwater emergent wetland system identified as Maulsby Swamp (referred to as Maulsby Marsh in the RI/FS) is located east of the railroad tracks. Residential property is located on the hillside to the east of Maulsby Swamp (Figure 2).

## 2.1 Topography

Overall, the topography of the site is relatively flat, with a maximum elevation of approximately 15 feet above mean sea level. Slopes are limited to the shoreline adjacent to Port Gardner Bay. Almost the entire shoreline within the study area is armored with riprap, large rocks, and large and

small pieces of concrete and asphalt. The OHWM of the Port Gardner Bay shoreline within the study area was delineated as part of the investigation, as described in Section 4.

## 2.2 Soils

The NRCS Web Soil Survey (USDA 2019) identifies two soil series in the location of the study area: urban land and fluvaquents tidal. Urban land is soil that has been modified by disturbance of the natural layers with additions of fill material several feet thick to accommodate large industrial and housing installations. Fluvaquents tidal are soils in tidal areas. NRCS mapped soils are shown in Figure 4.

## 2.3 Hydrology

The study area is located in Water Resource Inventory Area 7, Snohomish (Ecology 2019b). Hydrologic characteristics in the study area are influenced by regional groundwater, direct precipitation, surface water runoff, and tidal fluctuations of Port Gardner Bay. A stormwater catch basin is located at the west end of the site within the area of an active asphalt batch plant. Several surface water outfalls located within the developed portion of the study area drain to Port Gardner Bay (Figure 2).

The confluence of the Snohomish River and Port Gardner Bay is located north of the study area. City of Everett (2019b) and Snohomish County (2019) critical area maps, WDFW PHS data (WDFW 2019a), and SalmonScape data (WDFW 2019b) do not identify any freshwater surface stream channels to Port Gardner Bay within the study area. East of the study area, Snohomish County (2019) critical area maps, WDFW PHS data (WDFW 2019a), and SalmonScape data (WDFW 2019b) identify an unnamed stream associated with Maulsby Swamp that flows through a culvert beneath West Marine View Drive and empties into Port Gardner Bay within the study area. Approximately 90% of the culvert is buried beneath the surface below the OHWM within the upper intertidal zone.

## 2.4 Plant Communities

Approximately 95% of the developed portion of the study area is currently paved, gravel, or covered by structures. Vegetation within the developed portion of the study area is primarily limited to patches of grass and weedy herbaceous vegetation or nonnative invasive shrubs. Shoreline vegetation includes narrow patches of trees, shrubs, and grass and weedy herbaceous vegetation in areas above the OHWM. Patches of salt-tolerant vegetation are located on and at the base of the shoreline slopes. An approximately 2-acre vegetated knoll is located at the southern end of the developed portion of the study area (Figure 2). Plant communities and wildlife habitat are described in Section 5.

The USFWS Wetlands Mapper for National Wetlands Inventory Map Information (USFWS 2019a), City of Everett (2019b) and Snohomish County (2019) critical area maps, and WDFW PHS data

(WDFW 2019a) do not identify freshwater wetland habitat within the study area. Anchor QEA did not identify any freshwater wetlands in the study area during the field investigation.

The marine environment of Port Gardner Bay within and outside the study area is mapped as estuarine subtidal habitat unconsolidated bottom (E1UB) and estuarine intertidal habitat unconsolidated shore (E2UB) (Snohomish County 2019, USFWS 2019a, WDFW 2019a). Anchor QEA identified and delineated 14 estuarine wetlands within the study area (Wetlands E1 through E14) as described in Section 3. County critical area maps do not identify any "Snohomish County wetland inventory" wetlands within the study area, but they do identify "Remote Sensing-Based Wetland Model" wetlands in locations similar to the patches of estuarine wetlands described in Section 3 (Snohomish County 2019).

# 3 Wetland Delineation

On July 1 and 3, 2019, Anchor QEA ecologists performed a wetland delineation and wetland rating analysis of wetland habitat in the study area. Fourteen estuarine wetlands (EW1 through E14) were identified and delineated. As described in this section, the estuarine wetlands are small patches or groups of small patches of salt-tolerant vegetation near the OHWM boundary. Most of the wetlands total less than 100 square feet in area. A description and wetland rating of the estuarine wetlands is provided in this section based on data collected during the investigation. No freshwater wetland features were identified during the investigation.

## 3.1 Wetland Delineation Methods

As specified by the EMC Chapter 19.37.190 (City of Everett 2019a), the boundaries of the wetlands were delineated according to the methods defined in the U.S. Army Corps of Engineers (Corps) *Wetland Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (Corps 2010), and the Washington Department of Ecology *Washington State Wetland Identification and Delineation Manual* (Ecology 1997). Soil colors were classified by their numerical description, as identified on a Munsell Soil Color Chart (Munsell 1994). Wetland plant indicator status was obtained from the Corps National Wetland Plant List website (Corps 2019). Estuarine wetland boundary points were collected with a Trimble GeoExplorer 6000 Series GeoXH hand-held GPS.

Vegetation, soils, and hydrology information was collected at sample plots and recorded on field data forms from the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* (Corps 2010). Sampling plot field data forms for Wetlands EW1 through EW14 are included in Appendix B.

Wetlands EW1 through EW14 were rated using the most current version of Ecology guidance in the *Washington State Wetland Rating System – Western Washington: 2014 Update* (Hruby 2014) and according to City of Everett wetland rating criteria in Chapter 19.37.090 of the EMC (City of Everett 2019a). Wetland rating forms are included in Appendix C.

As described in Section 3.1, due to the similar characteristics and ratings of the estuarine wetlands, sampling plot field data forms and Ecology wetland rating forms have been combined to describe the 14 estuarine wetlands rather than providing individual field data forms and Ecology rating forms for each wetland.

## 3.1 Wetland Delineation Results

The following subsections provide a description of the estuarine wetlands delineated within the study area. Wetlands within about 200 feet of the study area are also described based on existing information and visual observations from the study area during the investigation.

### *3.1.1 Estuarine Wetlands EW1 Through EW 14*

Fourteen estuarine wetlands (EW1 through E14) were delineated within the study area (Figures 5 through 9). The estuarine wetlands are small patches or groups of small patches of salt-tolerant emergent vegetation near the OHWM boundary. Most of the estuarine wetlands include several small patches of vegetation a few feet apart that are less than 100 total square feet in area. Photographs of the estuarine wetlands are included in Appendix A. A summary of vegetation, soils, and hydrology data collected at the wetland sampling plots is presented in this section and in the field data forms in Appendix B.

Dominant estuarine wetland vegetation includes baltic rush (*Juncus balticus*), fleshy jaumea (*Jaumea carnosa*), pickleweed (*Salicornia virginica*), seacoast bulrush (*Schoenoplectus maritimus*), sea plantain (*Plantago maritima*), and silverweed (*Potentilla anserina*). Additional species include American threesquare (*Schoenoplectus americanus*), fat-hen saltbush (*Atriplex patula*), Puget Sound gumweed (*Grindelia integrifolia*), salt grass (*Distichilis spicata*), sea milkwort (*Lysimachia maritima*), and seaside arrowgrass (*Triglochin maritima*).

Most of the wetlands do not have any adjacent vegetated buffers due to their locations within or at the toe of slope of the armored shoreline. As described in Section 5, existing upland shoreline vegetation, when present, is limited to narrow bands of vegetation at the top of the armored shoreline slope several feet or more from the estuarine wetland vegetation. Only 2 of the 14 estuarine wetlands have adjacent vegetated buffers: Wetlands EW3 and EW4. These two wetlands are located at the southern end of the developed portion of the study area where there is a vegetated knoll (Figure 2). The dominant buffer vegetation of Wetlands EW3 and EW4 includes big-leaf maple (*Acer macrophylum*) and red alder (*Alnus rubra*) and the nonnative invasive species Himalayan blackberry (*Rubus armeniacus*), Japanese knotweed (*Polygonum cuspidatum*), and English ivy (*Hedera helix*).

Soils were consistent with beach substrate dominated by sand, gravel, and cobble material. Wetland vegetation was frequently growing amongst concrete, asphalt, and angular rocks. The substrate was not penetrable below a few inches in many of the estuarine wetlands. Due to the dominant presence of beach sand, gravel, and cobble substrate and armored shoreline material with little or no silt or clay, hydric soil characteristics were present in only two of the wetlands, Wetlands EW3 and EW4. These wetlands had very dark gray (10YR 3/1) to very dark grayish brown (10YR 3/2) sandy soils with

yellowish brown (10YR 5/4) redoximorphic features a few inches deep above sand and gravel material.

Upland soils primarily included fill material with little or no silt or clay associated with the armored shoreline inland of the estuarine wetlands. Soils in the Wetland EW3 and EW4 upland plots were dark yellowish brown (10YR 4/4) sandy loam with gravel.

Estuarine wetland hydrology is associated with tidal activity. Soil saturation was at the surface or within a few inches of the surface in most of the wetlands, and the depth to the water table fluctuated from near the surface to several inches deep based on the tide conditions when the sample plot data were collected. In the upland plots, there were no hydrologic indicators.

Due to the soil substrate conditions, the wetland determinations were based on the vegetation and hydrology indicators, as well as the locations at an elevation at or near the OHWM. Estuarine wetland vegetation, soil, and hydrology characteristics for the 14 wetlands are presented in Table 1. Photographs of the estuarine wetlands are included in Appendix A.

**Table 1**
**Estuarine Wetland Characteristics**

| Wetland Name | Vegetation | Soils | Hydrology | Area (sf) | Notes |
|---|---|---|---|---|---|
| EW1 | Fleshy jaumea, pickleweed, salt grass | Beach sand and gravel and angular rock | Saturated substrate; water table varies with tide fluctuations. | ~60 | Vegetation is in patches. |
| EW2 | Fleshy jaumea, pickleweed, sea plantain, salt grass, silverweed | Beach sand and gravel and angular rock | Saturated substrate; water table varies with tide fluctuations. | ~80 | Vegetation is in patches. |
| EW3 | Fleshy jaumea, pickleweed, Puget Sound gumweed, silverweed | Beach sand and gravel | Saturated substrate; water table varies with tide fluctuations. | ~330 | Located adjacent to vegetated knoll. |
| EW4 | Baltic rush, fat-hen saltbush, seacoast bulrush, seaside arrowgrass, silverweed | Beach sand and gravel | Saturated substrate; water table varies with tide fluctuations. | ~1,600 | Vegetation is in patches. Located adjacent to vegetated knoll. |
| EW5 | Baltic rush, fat-hen saltbush, seacoast bulrush, sea plantain, silverweed | Beach sand, gravel, and cobble and pieces of angular rock | Saturated substrate; water table varies with tide fluctuations. | ~150 | Vegetation is in patches and sparsely vegetated. |

| Wetland Name | Vegetation | Soils | Hydrology | Area (sf) | Notes |
|---|---|---|---|---|---|
| EW6 | Baltic rush, fat-hen saltbush, fleshy jaumea, pickleweed, seacoast bulrush, sea plantain, silverweed | Beach sand, gravel, and cobble and pieces of asphalt and angular rock | Saturated substrate; water table varies with tide fluctuations. | ~260 | Vegetation is in patches. |
| EW7 | Baltic rush, fleshy jaumea, silverweed | Beach sand, gravel, and cobble and pieces of asphalt and angular rock | Saturated substrate; water table varies with tide fluctuations. | ~200 | Vegetation is in patches and sparsely vegetated. |
| EW8 | Baltic rush, fleshy jaumea, silverweed | Beach sand, gravel, and cobble and pieces of asphalt and angular rock | Saturated substrate; water table varies with tide fluctuations. | ~50 | Vegetation is in patches. |
| EW9 | Baltic rush, silverweed | Beach sand, gravel, and cobble and pieces of asphalt and angular rock | Saturated substrate; water table varies with tide fluctuations. | ~60 | Vegetation is in patches. |
| EW10 | Pickleweed, sea plantain | Beach sand, gravel, and cobble and pieces of asphalt, angular rock, and riprap | Saturated substrate; water table varies with tide fluctuations. | ~10 | Sparsely vegetated. |
| EW11 | Sea plantain, silverweed | Beach sand, gravel, and cobble and pieces of angular rock and riprap | Saturated substrate; water table varies with tide fluctuations. | ~30 | Vegetation is in patches and sparsely vegetated. |
| EW12 | Silverweed | Beach sand and gravel and pieces of angular rock and riprap | Saturated substrate; water table varies with tide fluctuations. | ~20 | Sparsely vegetated amongst armored shoreline material. |
| EW13 | Silverweed | Beach silt, sand, and gravel and pieces of angular rock and riprap | Saturated substrate; water table varies with tide fluctuations. | ~20 | Sparsely vegetated amongst armored shoreline material. |
| EW14 | Seacoast bulrush, silverweed | Beach sand and gravel and pieces of angular rock | Saturated; water table associated with tide activity. | ~20 | Sparsely vegetated amongst armored shoreline material |

### *3.1.2 Wetlands Outside the Study Area*

This subsection describes wetlands located within about 200 feet of the study area boundary. North of the study area wetlands are located along the shoreline of the vacant land owned by the City of Everett (Figures 2 and 3). Three wetlands are located along the south side of the vacant lot according to the *Bay Wood Remediation Project Habitat Assessment Report* (Shannon & Wilson, Inc. 2019).

These wetlands are identified as Wetlands A, B, and C. Wetlands A and B are identified as estuarine wetlands and Wetland C is identified as a palustrine emergent depressional wetland.

Wetland A is located along the shoreline and is described as including several patches of salt-tolerant vegetation including salt grass, tufted hairgrass (*Deschampsia cespitosa*), and an unidentified sedge species. Wetland B is located at the terminus of the inlet between the study area and the adjacent property behind a disintegrating wood bulkhead. Vegetation includes salt grass, tufted hairgrass, and creeping bentgrass (*Agrostis stolonifera*). Wetland B ends near the chain-link fence that serves as the property line boundary. Wetland B does not extend into the study area. Wetlands A and B were visible from the study area and match the descriptions in the report (Shannon & Wilson, Inc. 2019).

Wetland C is located east of Wetland B, inland of the shoreline, and was identified as a constructed ditch with reed canarygrass. Wetland C was not visible from the study area.

A large freshwater wetland system with tidal influence, identified as Maulsby Swamp, is located east of the study area on the east side of West Marine View Drive and the railroad tracks (Figure 2). Maulsby Swamp is identified as a palustrine emergent wetland system by the USFWS Wetlands Mapper for National Wetlands Inventory Map Information (USFWS 2019a). Maulsby Swamp is also identified on City of Everett (2019b) and Snohomish County (2019) critical area maps, and WDFW PHS data (WDFW 2019a). City of Everett critical areas maps and the SMP identify Maulsby Swamp as a significant biological area of local importance. The SMP designates Maulsby Swamp as aquatic conservancy (City of Everett 2016).

Dominant vegetation observed within Maulsby Swamp during the investigation included cattail (*Typha latifolia*), hardstem bulrush (*Schoenoplectus maritimus*), common duckweed (*Lemna minor*), and sedge and rush species that were not identifiable to the species level from a distance.

A culvert below West Marine View Drive and the railroad tracks connects Maulsby Swamp with the marine environment of Port Gardner Bay. Flow from the culvert empties into Port Gardner Bay within the study area (Figure 2). The culvert opening is below the OHWM in the upper intertidal area. and approximately 90% of the culvert is buried beneath the surface. Salt-tolerant emergent plant species similar to those present within the study area are also present within Maulsby Swamp near the culvert.

Snohomish County (2019) critical area maps, WDFW PHS data (WDFW 2019a), and SalmonScape data (WDFW 2019b) identify an unnamed stream associated with Maulsby Swamp and the culvert. The SMP identifies the culvert associated with Maulsby Swamp as an approximately 200-foot-long, 36-inch-diameter concrete culvert that is a restoration opportunity for fish barrier removal (City of Everett 2016). Fish use of Maulsby Swamp is described in Section 5.2.4.

## 3.2 Wetland Rating and Buffer Guidance

### *3.2.1 Wetland Rating*

Under the EMC Chapter 19.37.090 (Everett 2019a), wetlands are rated and regulated according to the categories defined by Ecology's *Washington State Wetland Rating System – Western Washington: 2014 Update* (Hruby 2014). All 14 estuarine wetlands meet the criteria for a Category II estuarine wetland under Ecology's *Washington State Wetland Rating System*. This rating system does not score functions for estuarine wetlands. Instead, estuarine wetlands are assigned a Category I or Category II rating. Category I estuarine wetlands include wetlands within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151. Category I wetlands also include wetland units at least 1 acre in size that meet two of the following three conditions:

- The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species).
- At least three quarters of the landward edge of the wetland has a 100-foot buffer of shrub, forest, or ungrazed or unmowed grassland.
- The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.

Based on Ecology's rating criteria, the 14 estuarine wetlands identified in the study area do not meet two of the three conditions above and are therefore Category II estuarine wetlands.

The shoreline within the study area is a shoreline of the state. Under the SMP, all wetlands associated with shorelines of the state are identified as shorelands (City of Everett 2016).

### *3.2.2 Wetland Buffer Guidance*

Required wetland buffers have been identified according to the current EMC (Everett 2019a). The EMC Chapter 19.37.110 identifies minimum protective buffer widths based on the wetland category and the Ecology habitat rating score, per the 2014 Ecology rating system. As described in Section 3.2.1, habitat scores are not applicable for estuarine wetlands. Accordingly, Wetlands EW1 through EW14 require a 150-foot buffer for a Category II estuarine wetland system.

The 2014 wetland rating forms for Wetlands EW1 through EW14 are included in Appendix C. Due to the similar characteristics and ratings of the estuarine wetlands, the Ecology wetland rating forms have been combined to describe the 14 estuarine wetlands rather than providing individual Ecology rating forms for each wetland. The wetland boundaries and protective buffers extending into the study area are shown in Figures 5 through 9. Table 2 lists the Ecology wetland ratings and classifications and the City of Everett buffer widths.

**Table 2**
**Summary of Wetland Ratings, Classifications, and Buffer Widths**

| Wetland Name | Area (sf) | Hydrogeomorphic Classification | Ecology and City of Everett Rating | City of Everett Buffer Width (ft) |
|---|---|---|---|---|
| EW1 | ~60 | Estuarine | II | 150 |
| EW2 | ~80 | Estuarine | II | 150 |
| EW3 | ~330 | Estuarine | II | 150 |
| EW4 | ~1,600 | Estuarine | II | 150 |
| EW5 | ~150 | Estuarine | II | 150 |
| EW6 | ~260 | Estuarine | II | 150 |
| EW7 | ~200 | Estuarine | II | 150 |
| EW8 | ~50 | Estuarine | II | 150 |
| EW9 | ~60 | Estuarine | II | 150 |
| EW10 | ~10 | Estuarine | II | 150 |
| EW11 | ~30 | Estuarine | II | 150 |
| EW12 | ~20 | Estuarine | II | 150 |
| EW13 | ~20 | Estuarine | II | 150 |
| EW14 | ~20 | Estuarine | II | 150 |

# 4 Ordinary High Water Mark Delineation

This section describes the delineation of the marine shoreline OHWM in the study area. No freshwater stream surface channels are located within the study area. As described in Section 3, a culvert connected to Maulsby Swamp flows into the upper intertidal area within the study area.

## 4.1 Methods

To document and describe the marine shoreline characteristics within the study area, Anchor QEA reviewed existing information (Section 1.1), performed an aerial photograph assessment, and conducted site visits on July 1 and 3, 2019. During the site visits, Anchor QEA ecologists documented general information regarding shoreline characteristics while walking through the study area.

A delineation of the OHWM of the marine shoreline of the site was performed on July 1 and 3, 2019. The OHWM delineation included the entire shoreline of the study area. Anchor QEA ecologists identified the marine OHWM boundary consistent with Chapter 90.58 of the Revised Code of Washington (RCW), Chapter 173-22 of the Washington Administrative Code (WAC), and Ecology's technical report, *Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State* (Ecology 2016). WAC defines the OHWM as follows:

> "Ordinary high water line" means the mark on the shores of all waters that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual and so long continued in ordinary years, as to mark upon the soil or vegetation a character distinct from that of the abutting upland: Provided, that in any area where the ordinary high water line cannot be found the ordinary high water line adjoining saltwater shall be the line of mean higher high water and the ordinary high water line adjoining freshwater shall be the elevation of the mean annual flood.

The following criteria clarify this mark on tidal waters (WAC 173-22-030, Definitions):

> (a) Tidal waters.
>
> (i) In high energy environments where the action of waves or currents is sufficient to prevent vegetation establishment below mean higher high tide, the ordinary high water mark is coincident with the line of vegetation. Where there is no vegetative cover for less than one hundred feet parallel to the shoreline, the ordinary high water mark is the average tidal elevation of the adjacent lines of vegetation. Where

the ordinary high water mark cannot be found, it is the elevation of mean higher high tide;

(ii) In low energy environments where the action of waves and currents is not sufficient to prevent vegetation establishment below mean higher high tide, the ordinary high water mark is coincident with the landward limit of salt tolerant vegetation. 'Salt tolerant vegetation' means vegetation which is tolerant of interstitial soil salinities greater than or equal to 0.5 parts per thousand

The marine shoreline of Port Gardner Bay within the study area is a high-energy environment.

The OHWM delineation also included a delineation of piles and derelict structures below the OHWM within the study area. The OHWM, pile, and derelict structure field data points were collected with a Trimble GeoExplorer 6000 Series GeoXH hand-held GPS.

## 4.2 OHWM Marine Shoreline

The marine OHWM delineation within the study area included a 5,840-foot reach of shoreline. The marine shoreline is armored with large and small pieces of concrete and asphalt, riprap and large rocks, and exposed rebar and pieces of metal. The only reach of shoreline that is not armored is a vegetated knoll located at the southern end of the developed portion of the study area (Figure 2). With the exception of the vegetated knoll, shoreline vegetation is absent or limited to narrow patches of trees and nonnative shrub, grass, and herbaceous vegetation growing on top of the shoreline above the OHWM. Shoreline vegetation is described in Section 5. The marine OHWM delineation results are shown in Figures 5 through 9. Existing conditions of the marine shoreline are shown in the photographs in Appendix A.

Under the SMP, the study area marine shoreline is identified as a shoreline of the state. Shorelands are defined as all lands extending landward 200 feet of the shoreline of the state OHWM. The SMP also identifies the area of Port Gardner Bay seaward of the extreme low tide as a shoreline of statewide significance. The aquatic area of the inlet north of the study area is designated as aquatic conservancy (City of Everett 2016).

As described in Section 3, 14 estuarine wetlands, Wetlands EW1 through EW 14, are located along the shoreline OHWM. The marine environment of Port Gardner Bay within and outside the study area is mapped as estuarine subtidal habitat unconsolidated bottom (E1UB) and estuarine intertidal habitat unconsolidated shore (E2UB) (Snohomish County 2019, USFWS 2019a, WDFW 2019a).

## 4.3 Piles and Derelict Structures

Several dozen derelict piles are located within and near the study area. Piles are located along the north and south shorelines of the developed portions of the study area. There are rows of piles perpendicular to the shoreline adjacent to West Marine View Drive that extend into the bay outside the study area boundary. Derelict structures observed within or near the study area below the OHWM, include an abandoned barge, a remnant barge structure, and a remnant wood bulkhead with piles. These features are shown in Figures 5 through 9 and the photographs in Appendix A.

# 5 Habitat Assessment

This section describes wildlife species and habitats in the study area, including terrestrial and aquatic habitats and plant communities. WDFW-documented species and priority habitats, and ESA-listed species and critical habitats, within and near the study area are also identified.

Per EMC Chapter 19.37.190 (City of Everett 2019a), Port Gardner Bay in the study area is classified as a FWHCA under the category of "habitats of primary association." Habitats of primary association are defined as critical component(s) of the habitats of federally or state-listed endangered, threatened, candidate, sensitive, and priority wildlife or plant species which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term. Habitats of primary association include, but are not limited to, winter ranges, migration ranges, breeding sites, nesting sites, regular large concentrations, communal roosts, roosting sites, staging areas, and priority habitats listed by WDFW.

## 5.1 Methods

The habitat assessment was performed based on the reporting requirements identified in Chapter 19.37.190 of the EMC (Everett 2019a). Anchor QEA performed an aerial photograph assessment, conducted site visits on July 1 and 3, 2019, and reviewed the WDFW, USFWS, and NMFS databases (Section 1.1) for information on state-protected species and priority habitats and federally listed species and critical habitats protected under the ESA that may occur in or near the study area. During the site visit, Anchor QEA ecologists documented general information regarding habitats and dominant plant species and communities while walking through the study area. The entire study area was accessible during the investigation. All wildlife species, tracks, and other signs observed during the site visit were documented. All observations were qualitative; no quantitative wildlife surveys were performed.

## 5.2 Habitat Assessment

The study area is located in an industrially zoned area in Possession Sound near the confluence of the Snohomish River and Port Gardner Bay. The developed portion of the study area lies on fill that extends into Port Gardner Bay, with tidal mudflats located to the north, south, and west. Structures in the developed portion of the study area are described in Section 2. Overall, approximately 95% of the developed portion of the study area is currently paved, gravel, or covered by structures. Figure 2 provides an aerial photograph of the study area and existing conditions.

### *5.2.1 Vegetation*

Vegetation communities within the study area include the following five general categories:

- The developed portion of the study area, which includes the top of slope of the armored shoreline and some patches of vegetation inland of the slope
- The vegetated knoll at the southern end of the developed portion of the study area
- The shoreline along West Marine View Drive
- Patches of American dune grass (*Leymus mollis*) above the OHWM
- Estuarine wetlands

Estuarine wetland vegetation and habitat characteristics are described in Section 3. Photographs of vegetation within the study area are presented in Appendix A.

Trees in the developed portion of the study area are limited to a few areas at the top of the armored slope. Lombardy popular (*Populus nigra*) is the most common species, with a few domestic apple trees (*Malus domestica*) observed. Shrub vegetation is dominated by the nonnative invasive species Himalayan blackberry (*Rubus armeniacus*), butterfly bush (*Buddleja davidii*), and Scotch broom (*Cytisus scoparius*). These shrubs are also located inland of the armored slope in isolated patches growing in gravel or cracks in paved surfaces. Herbaceous vegetation includes grass and weedy species such as common velvet grass (*Holcus lanatus*), curly dock (*Rumex crispus*), Canadian thistle (*Cirsium arvense*), tall fescue (*Festuca arundinacea*), and yarrow (*Achillea millefolium*).

The vegetated knoll includes a variety of native and nonnative vegetation. Dominant native species include big-leaf maple, black cottonwood (*Populus trichocarpa*), paper birch (*Betula papyrifera*), red alder (*Alnus rubra*), Indian plum (*Oemleria cerasiformis*), Nootka rose (*Rosa nutkana*), oceanspray (*Holodiscus discolor*), and red elderberry (*Sambucus racemosa*). Dominant nonnative species include butterfly bush, Himalayan blackberry, Scotch broom, Japanese knotweed, English ivy, and orchard morning glory (*Convolvulvus arvensis*). There are several trails within the vegetated knoll, with debris and trash scattered throughout the area.

Vegetation along West Marine View Drive between the pavement and the shoreline is limited to a narrow strip of managed grass with ornamental hedges and shrubs and a few western white pine trees (*Pinus monticola*) at the top of the armored slope. Patches of American dune grass are located above the OHWM along West Marine View Drive and the southern shoreline of the developed portion of the study area. The American dune grass patches are small, less than 100 square feet in area. The American dune grass locations were surveyed as part of the investigation and are shown in Figures 5 through 9. Table 3 provides a list of all plant species observed during the investigation.

**Table 3**
**Plant Communities and Species Observed in the Study Area**

| Scientific Name | Common Name |
|---|---|
| **Trees** | |
| *Acer macrophylum* | Big-leaf maple |
| *Alnus rubra* | Red alder |
| *Betula papyrifera* | Paper birch |
| *Malus domestica* | Domestic apple |
| *Pinus monticola* | Western white pine |
| *Populus nigra* | Lombardy popular |
| *Populus trichocarpa* | Black cottonwood |
| *Prunus emarginata* | Bitter cherry |
| **Shrubs** | |
| *Cytisus scoparius* | Scotch broom |
| *Hedera helix* | English ivy |
| *Holodiscus discolor* | Oceanspray |
| *Ilex aquifolium* | Holly |
| *Lonicera involucrata* | Twinberry |
| *Mahonia aquifolium* | Tall Oregon grape |
| *Oemleria cerasiformis* | Indian plum |
| *Rosa nutkana* | Nootka rose |
| *Rubus armeniacus* | Himalayan blackberry |
| *Rubus parviflorus* | Western thimbleberry |
| *Sambucus racemosa* | Red elderberry |
| *Symphoricarpos albus* | Snowberry |
| **Grass, Ferns, and Herbaceous** | |
| *Achillea millefolium* | Yarrow |
| *Atriplex patula* | Fat-hen saltbush |
| *Cirsium arvense* | Canadian thistle |
| *Convolvulvus arvensis* | Orchard morning glory |
| *Distichlis spicata* | Salt grass |
| *Epilobium angustifolium* | Fireweed |
| *Equisetum arvense* | Field horsetail |
| *Festuca arundinacea* | Tall fescue |
| *Geranium robertianum* | Stinky bob |
| *Grindelia integrifolia* | Puget Sound gumweed |
| *Holcus lanatus* | Common velvet grass |
| *Hypericum perforatum* | St. John's wort |

| Scientific Name | Common Name |
|---|---|
| *Jaumea carnosa* | Fleshy jaumea |
| *Juncus balticus* | Baltic rush |
| *Leymus mollis* | American dune grass |
| *Lysimachia maritima* | Sea milkwort |
| *Pelvetiopsis limitata* | Rockweed |
| *Plantago maritima* | Sea plantain |
| *Potentilla anserina* | Silverweed |
| *Polygonum cuspidatum* | Japanese knotweed |
| *Polystichum munitum* | Sword fern |
| *Rumex crispus* | Curly dock |
| *Salicornia virginica* | Pickleweed |
| *Schoenoplectus americanus* | American threesquare |
| *Schoenoplectus maritimus* | Seacoast bulrush |
| *Scirpus acutus* | Hardstem bulrush |
| *Taraxacum officinale* | Common dandelion |
| *Triglochin maritima* | Seaside arrowgrass |

### *5.2.2 Terrestrial Wildlife Species*

A variety of terrestrial wildlife species were observed during the investigation. All of the observed wildlife species were birds, with the exception of one mammal species, European rabbit (*Oryctolagus cuniculus*). Rabbits were observed four times within the developed portions of the study area.

The most common bird species included barn swallow (*Hirundo rustica*), crow (*Corvus brachyrhynchos*), glaucous-winged gull (*Larus glaucescens*), and ring-billed gull (*Pandion haliaetus*). Three osprey (*Pandion haliaetus*) nests were observed on piles outside the study area. Two of the three nests were occupied on both days of the investigation. The osprey nest locations are shown in Figure 5. No amphibian or reptile species, or tracks or other signs, were observed during the investigation. Table 4 provides a list of all terrestrial wildlife species observed during the investigation.

**Table 4**
**Terrestrial Wildlife Species Observed in the Study Area**

| Scientific Name | Common Name | Notes |
|---|---|---|
| **Mammals** | | |
| *Oryctolagus cuniculus* | European rabbit | Occasionally observed in developed areas. |
| **Birds** | | |
| *Anas platyrhynchos* | Mallard | Occasionally observed in mudflat habitat. |
| *Ardea herodias* | Great blue heron | Occasionally observed in mudflat habitat. |
| *Branta canadensis* | Canada goose | Adults with young observed in intertidal habitat and broken egg shells were present amongst emergent vegetation. |
| *Charadrius vociferous* | Killdeer | Occasionally observed in developed gravel areas. |
| *Columba livia* | Rock dove | Frequently observed perched on structures. |
| *Corvus brachyrhynchos* | American crow | Frequently observed perched on trees and structures and flying over study area. |
| *Hirundo rustica* | Barn swallow | Frequently observed foraging over intertidal and subtidal habitat. |
| *Larus delawarensis* | Ring-billed gull | Frequently observed perched on piles and structures and mudflat habitat. |
| *Larus glaucescens* | Glaucous-winged gull | Frequently observed perched on piles and structures and mudflat habitat. |
| *Larus occidentalis* | Western gull | Frequently observed perched on piles and structures and mudflat habitat. |
| *Pandion haliaetus* | Osprey | Three active nests observed on piles. |
| *Parus articapillus* | Black-capped chickadee | Frequently observed in tree and shrub vegetation. |
| *Passer domesticus* | House sparrows | Frequently observed near structures. |
| *Turdus migratorius* | American robin | Frequently observed in trees and flying over study area. |
| *Zenaida macroura* | Mourning dove | Frequently observed perched on structures. |

### *5.2.3 Aquatic Wildlife Species*

Aquatic wildlife species observed within the study area were limited to barnacles on the armored shoreline material below the OHWM. The shoreline also lacked diverse shells and shell hash commonly found along Puget Sound shorelines, indicating a relative lack of shellfish diversity in the mudflat habitat. Clam siphon holes were common within the mudflat habitat. The SMP identifies the mudflat habitat on the south side of the study area as Maulsby Mudflat and as a restoration opportunity. As described in Section 3, the culvert associated with Maulsby Swamp is also identified

as a restoration opportunity for fish barrier removal (City of Everett 2016). Fish use in the study area and Port Gardner Bay is described in Section 5.2.4.

Clam surveys were performed in the mudflat habitat in 2013 as part of the RI/FS analysis (Anchor QEA and SLR International Corporation 2016). The clam surveys included areas of the mudflat habitat inside and seaward of the study area. Soft shell clam (*Mya arenaria*), an introduced species, was the only clam species observed during the clam surveys. The clams were typically collected within 10 to 12 inches of the surface, and siphon holes were often indicators of where clams were found. The dominant silt content of the mudflat habitat does not provide the sand and gravel substrate typically associated with Puget Sound native clam species.

### *5.2.4 Priority Species and Habitats*

The WDFW PHS website (WDFW 2019a) does not identify any documented occurrences of any terrestrial species in the developed portions of the study area. The WDFW PHS website identifies the marine habitat within the study area as habitat for shorebird concentrations.

City of Everett critical area maps do not identify habitats of primary association for terrestrial species within the study area (City of Everett 2019b). Habitats of primary association outside the study area identified by City of Everett critical areas maps include the following:

- Bald eagle nest occurrences are located inland of the study area.
- Purple martin habitat is located north and south of the study area.
- Arctic tern nests are located south of the study area.
- Osprey nests are located in Port Gardner Bay west of the study area.
- Harbor seal and California sea lion haul outs are located south of the study area.
- Intertidal hard shell clam habitat is located west of the study area.
- Regular large concentrations of waterfowl are located west of the study area.

Fish species documented in Port Gardner Bay according to the WDFW PHS and SalmonScape websites (WDFW 2019a, 2019b) include fall Chinook salmon (*Oncorhynchus tshawytscha*), fall chum salmon (*O. keta*), pink salmon (*O. gorbuscha*), coho salmon (*O. kisutch*), and winter steelhead trout (*O. mykiss*). These fish species are also identified by the WDFW PHS and SalmonScape websites as occurring within Maulsby Swamp. Additional analysis of federally listed species and critical habitats protected under the ESA, as identified by USFWS and NMFS, is presented in Section 5.3.

Rearing coho and sockeye salmon (*Oncorhynchus nerka*) and the presence of summer/fall Chinook salmon, summer/winter steelhead, pink salmon, fall chum salmon, bull trout (*Salvelinus confluentus*), and residential coastal cutthroat (*O. clarkii clarkii*) are documented in the Snohomish River north of the study area (City of Everett 2016).

The SMP (City of Everett 2016) identifies the most abundant nonsalmonid species in the Snohomish River and Port Gardner Bay estuary to include juvenile starry flounder (*Platichthys stellatus*), peamouth chub (*Mylocheilus caurinus*), Pacific staghorn sculpin (*Leptocottus armatus*), and prickly sculpin (*Cottus asper*). Species also documented include three-spined stickleback (*Gasterosteus aculeatus*) and shiner perch (*Cymatogaster aggregata*). Less abundant species include candlefish *(Thaleichthys pacificus*), Pacific herring (*Clupea pallasi*), and pumpkinseed (*Lepomis gibbosus*).

In the marine habitat in Port Gardner Bay and Possession Sound, common species include starry flounder and English sole (*Parophrys vetulus*). Numerous other species, typically associated with estuarine habitats for at least part of their life history, are also found in Port Gardner Bay. These species include tadpole sculpin (*Enophrys bison*), striped seaperch (*Embiotoca lateralis*), Pacific tomcod (*Microgadus proximusin*), saddleback gunnel (*Pholis ornata*), sand sole (*Psettichthys melanostictus*), Pacific hake (*Merlucclus productus*), walleye pollock (*Theragra chalcogramma*), copper rockfish (*Sebastes caurinus*), spiny dogfish (*Squalus acanthias*), snake prickleback (*Lumpenus sagitta*), and bay goby (*Lepidogobius lepidus*).

The WDFW PHS website (WDFW 2019a) and City of Everett (2019b) critical area maps identify the marine habitat of Port Gardner Bay within the study area as habitat for Dungeness crab (*Cancer magister*). City of Everett critical area maps also identify the Dungeness crab habitat within the study area as a FWHCA under the category of habitats of primary association.

## 5.3 ESA-Listed Species and Critical Habitat Assessment

ESA-listed species and critical habitats under NMFS and USFWS jurisdiction in western Washington are referenced on the agencies' websites. The USFWS identifies ESA-listed species that occur or may occur within a specific location where a project is proposed (USFWS 2019b). The NMFS identifies ESA-listed species that occur or may occur within a broad geographic area, such as an evolutionarily significant unit (ESU) or a distinct population segment (DPS) rather than a project-specific location (NMFS 2019).

### *5.3.1 Federally Listed Species that May Occur in the Study Area*

The July 2019 status of federally listed species and critical habitats protected under the ESA that occur or may occur within the study area is presented in Table 5.

As shown in Table 5, 10 ESA-listed species occur or may occur within the study area. Of these species, nine are aquatic (seven fish and two marine mammals) and one is terrestrial (bird). No ESA-listed plant or insect species are identified as potentially occurring within the study area. Designated critical habitat for 9 of the 10 species is present within Snohomish County. The following discussion provides an assessment of the potential presence of ESA-listed species and habitats within the study area.

**Table 5**
**Federally Listed Species that May Occur in the Study Area, with their ESA and Critical Habitat Status**

| Species | Status | Agency | Critical Habitat |
|---|---|---|---|
| **Salmonids** | | | |
| Chinook salmon (*Oncorhynchus tshawytscha*) | Threatened (Puget Sound ESU) | NMFS | Designated |
| Chum salmon (*Oncorhynchus keta*) | Threatened (Hood Canal ESU) | NMFS | Designated (does not include study area) |
| Puget Sound steelhead trout (*Oncorhynchus mykiss)* | Threatened (Puget Sound ESU) | NMFS | Designated |
| Bull trout (*Salvelinus confluentus*) | Threatened (Puget Sound DPS) | USFWS | Designated Puget Sound |
| **Rockfish** | | | |
| Bocaccio (*Sebastes paucispinus)* | Endangered (Puget Sound/Georgia Basin DPS) | NMFS | Designated Puget Sound |
| Canary rockfish (*Sebastes pinniger)* | Threatened (Puget Sound/Georgia Basin DPS) | NMFS | Designated Puget Sound |
| Yelloweye rockfish *(Sebastes ruberrimus)* | Threatened (Puget Sound/Georgia Basin DPS) | NMFS | Designated Puget Sound |
| **Marine Mammals** | | | |
| Killer whale (*Orcinus orca*) | Endangered (Southern Resident DPS) | NMFS | Designated |
| Humpback whale (*Megapterus novaeangliae*) | Endangered | NMFS | None designated or proposed |
| **Birds** | | | |
| Marbled murrelet *(Brachyramphus marmoratus*) | Threatened | USFWS | Designated (does not include study area) |

#### 5.3.1.1 Aquatic Listed Species

All nine of the ESA-listed aquatic species identified in Table 5 are documented in Puget Sound and are known to occur or potentially occur in Possession Sound.

The fish species bocaccio, canary rockfish, and yelloweye rockfish are associated with deepwater habitats of Puget Sound and typically breed and forage near the ocean floor. Adults of these species are unlikely in inner Port Gardner Bay. Juveniles of these species do migrate in nearshore habitats and could potentially occur in the nearshore habitat of Port Gardner Bay in the vicinity of the study area.

Southern Resident killer whale sightings typically occur in the deepwater habitat of Puget Sound and may occur in outer Possession Sound, but they are unlikely to occur in the narrow waterway of Port

Gardner Bay in the vicinity of the study area. Areas with water less than 20 feet deep are not designated as critical habitat for killer whales. Offshore habitats of Possession Sound and Port Gardner Bay with water deeper than 20 feet meet the criteria for killer whale designated critical habitat.

Humpback whale sightings generally occur off the outer coast but do occur in Puget Sound. They are unlikely to occur in the narrow confines of the study area in the vicinity of Port Gardner Bay.

Of the nine ESA-listed aquatic species, only the following four species are likely to occur within Port Gardner Bay in the vicinity of the study area:

- Chinook salmon (Puget Sound ESU)
- Chum salmon (Hood Canal ESU)
- Steelhead trout (Puget Sound ESU)
- Bull trout (Coastal-Puget Sound DPS)

The marine habitat of Possession Sound and Port Gardner Bay is within designated critical habitat for Chinook salmon, steelhead, and bull trout.

#### 5.3.1.2 Terrestrial Listed Species

Marbled murrelets forage in Puget Sound and could occur offshore of the study area in Possession Sound. In Snohomish County, designated critical habitat for marbled murrelet includes old-growth forest with specific tree stand characteristics.

### *5.3.2 Federally Listed Species that Do Not Occur in the Study Area*

There are six ESA-listed or proposed species identified by the USFWS and NMFS as potentially occurring in the study area that do not occur in Possession Sound or the vicinity of the study area based on the species' life history and habitat requirements. These species are identified in Table 6.

**Table 6**
**Federally Listed Species with Life History and Habitat Requirements that Do Not Occur in the Study Area, with their ESA and Critical Habitat Status**

| Species | Status | Agency | Critical Habitat |
|---|---|---|---|
| **Fish** | | | |
| Green sturgeon *(Acipenser medirostris)* | Threatened (Southern DPS) | NMFS | None in Puget Sound |
| **Turtles** | | | |
| Leatherback sea turtle (*Dermochelys coriacea*) | Endangered | NMFS | None designated or proposed in Washington state |
| **Mammals** | | | |
| Gray wolf (Canis *lupus*) | Proposed Endangered | USFWS | None designated or proposed |
| Wolverine (*Gulo gulo luscus*) | Proposed Threatened | USFWS | None designated or proposed |
| **Birds** | | | |
| Streaked horned lark (*Eremophila alpestris strigata)* | Threatened | USFWS | Designated (does not include study area) |
| Yellow-billed cuckoo (*Coccyzus americanus)* | Threatened | USFWS | Proposed (does not include study area) |

As identified in Table 6, two ESA-listed aquatic species that could occur in Puget Sound are not likely to occur in the study area due to the location in Port Gardner Bay and the species' life history and habitat requirements. These include the southern DPS of green sturgeon and leatherback sea turtle. Observations of green sturgeon in Puget Sound are much less common compared to coastal Washington estuaries and bays and the Lower Columbia River estuary. Leatherback sea turtles primarily occur in outer coastal areas and are extremely rare in Puget Sound.

Potential habitat for the other four ESA-listed terrestrial species identified in Table 6 (gray wolf, wolverine, streaked horned lark, and yellow-billed cuckoo) is not located within miles of the study area and these species are not associated with areas of human activity.

# 6 Conclusions

Wildlife rely on vegetation for food, shelter, and cover from predators. Wildlife diversity is generally related to the structure and composition of plant species within vegetation communities. In general, vegetation communities that contain few species or vegetative layers (herbaceous, shrubs, or trees) support a low diversity of wildlife, whereas vegetation communities that are more complex and contain a wide variety of plant species and vegetative layers can support a greater diversity of wildlife. Forested and riparian areas with well-developed shrub layers are likely to support the greatest number of species and populations of wildlife.

Overall, the study area includes potential habitat for terrestrial wildlife species typical of industrial areas with marine shorelines. Potential wildlife habitat of the estuarine wetlands is limited due to the small size of the wetlands and their location along an armored shoreline. Wildlife use of the habitat in the study area likely includes a variety of native and nonnative wildlife species typical of populated, developed areas in Snohomish County and western Washington. Habitat surrounding the study area includes similar industrial properties and disturbed areas associated with residential and commercial development.

The marine habitat of Port Gardner Bay provides foraging habitat for waterfowl and other birds and aquatic species typically found in the marine and estuarine environments of Puget Sound. The mudflat habitat lacks sand and gravel substrate that would support a more diverse selection of shellfish and other invertebrate species.

While critical areas maps and databases identify very limited habitat and terrestrial wildlife species presence within the study area, the marine habitat in the study area is a FWHCA under the City of Everett category of habitats of primary association. A variety of wildlife species and habitats are identified in the surrounding aquatic and shoreline habitats of Possession Sound.

Even with the dominant presence of development in the study area and vicinity, Port Gardner Bay and the Snohomish River provide habitat that supports a wide variety of fish and other aquatic and terrestrial wildlife species for breeding, foraging, and resting.

The following is a summary of the regulatory results of the investigation:

- The 14 estuarine wetlands delineated within the study area are Category II wetlands according to Ecology and City of Everett guidelines.
- The shoreline within the study area is a shoreline of the state.
- All wetlands associated with shorelines of the state are identified as shorelands under the SMP.
- Shorelands are also defined as all lands extending landward 200 feet from the shoreline of the state OHWM.

- The marine habitat in the study area is a FWHCA under the category of habitats of primary association.
- Port Gardner Bay seaward of the extreme low tide is a shoreline of statewide significance under the SMP.
- The aquatic area of the inlet north of the study area is designated as aquatic conservancy under the SMP.
- Maulsby Swamp, located outside the study area, is designated as aquatic conservancy under the SMP.

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# Figures




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ANCHOR QEA

**Figure 1**
**Site and Vicinity Map**
Critical Areas Report
Jeld-Wen/Former Nord Door Facility

Mauslby
Marsh
Outfall

**LEGEND:**

Stormwater Outfall

Jeld-Wen Outfall

Study Area

0 300

Feet

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**Figure 2**
**Study Area and Outfalls**
Critical Areas Report
Jeld-Wen/Former Nord Door Facility




**LEGEND:**

- Study Area
- Snohomish County Tax Parcels

0 300

Feet

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**Figure 3**
**Parcel Boundary Map**
Critical Areas Report
Jeld-Wen/Former Nord Door Facility




**LEGEND:**

- Study Area

USDA Soil Classifications

- ALDERWOOD-EVERETT-COMPLEX (0074)
- ALDERWOOD-URBANLAND-COMPLEX (0079)
- BELLINGHAM (0494)
- FLUVAQUENTS (2228)
- MUKILTEO (4836)
- URBANLAND (8520)
- WINSTON (9137)
- WATER

0 300

Feet

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**Figure 4**
**USDA Soil Map**
Critical Areas Report
Jeld-Wen/Former Nord Door Facility




**LEGEND:**

Habitat Survey Points (2019)
- Dune Grass
- Osprey Nest
- Outfall and Pile
- Piles
- Ordinary High Water Mark (OHWM)
- Estuarine Wetland and Designation (EW#)
- Wetland Buffer (150 feet)
- Stormwater Basin
- Abandoned Barge Structure
- Remnant Barge Structure
- Remnant Wood Bulkhead and Piles
- Study Area

0 300
Feet

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**Figure 5**
**Habitat Assessment Study Area – Overview**
Critical Areas Report
Jeld-Wen/Former Nord Door Facility




**LEGEND:**

Habitat Survey Points (2019)
Osprey Nest
Piles
Ordinary High Water Mark (OHWM)
Estuarine Wetland and Designation (EW#)
Wetland Buffer (150 feet)
Stormwater Basin
Abandoned Barge Structure
Remnant Barge Structure
Remnant Wood Bulkhead and Piles
Study Area

0 100
Feet

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**Figure 6**
**Habitat Assessment Study Area – Northern Portion**
Critical Areas Report
Jeld-Wen/Former Nord Door Facility




**LEGEND:**

Habitat Survey Points (2019)
- Dune Grass
- Piles

- Ordinary High Water Mark (OHWM)
- Estuarine Wetland and Designation (EW#)
- Wetland Buffer (150 feet)
- Abandoned Barge Structure
- Remnant Barge Structure
- Remnant Wood Bulkhead and Piles
- Study Area

0 100
Feet

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**Figure 7**
**Habitat Assessment Study Area – North Central Portion**
Critical Areas Report
Jeld-Wen/Former Nord Door Facility




**LEGEND:**

Habitat Survey Points (2019)
- Dune Grass
- Outfall and Pile
- Piles
- Ordinary High Water Mark (OHWM)
- Estuarine Wetland and Designation (EW#)
- Wetland Buffer (150 feet)
- Abandoned Barge Structure
- Remnant Barge Structure
- Remnant Wood Bulkhead and Piles
- Study Area

0 100
Feet

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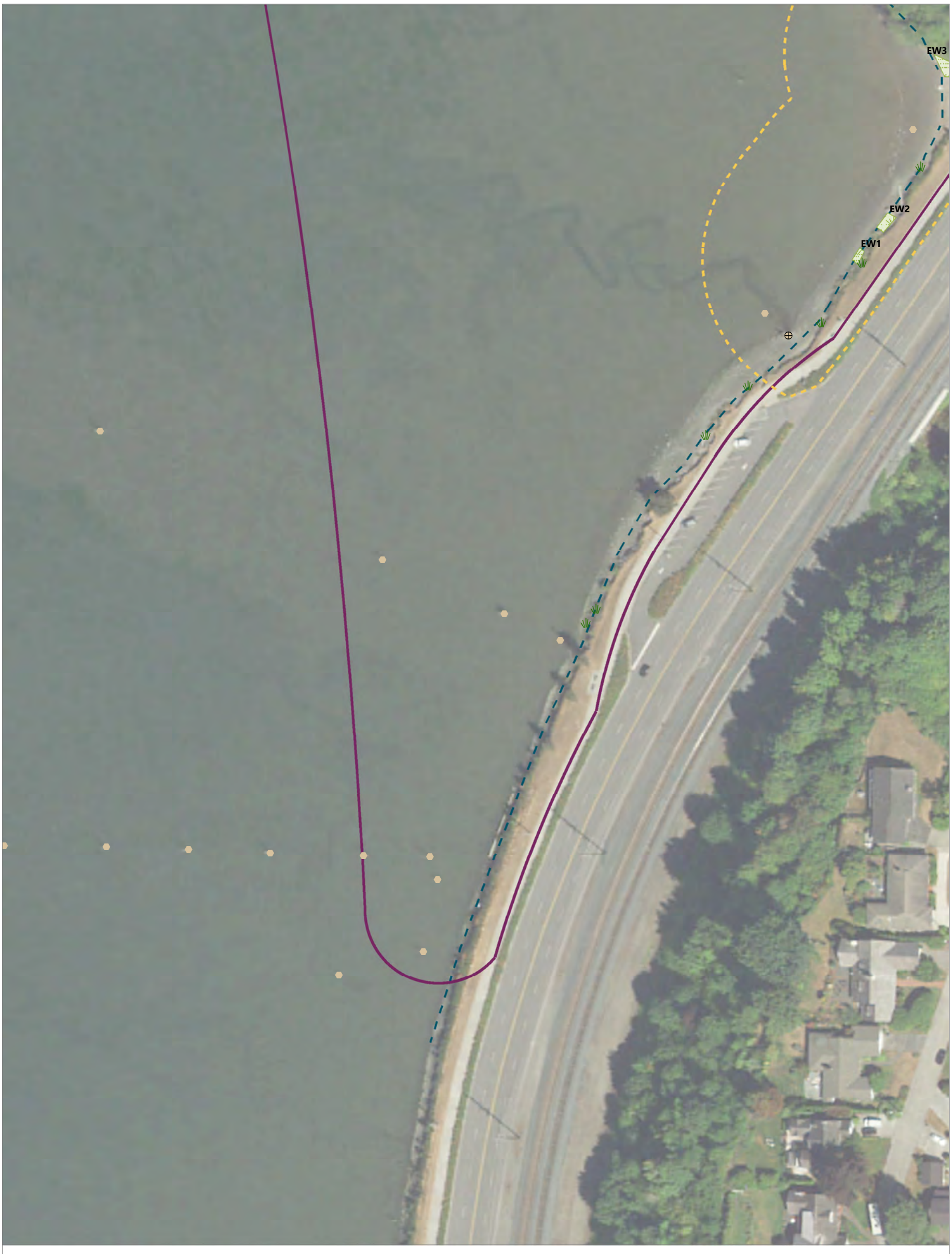
**Figure 8**
**Habitat Assessment Study Area – South Central Portion**
Critical Areas Report
Jeld-Wen/Former Nord Door Facility




**LEGEND:**

Habitat Survey Points (2019)
- Dune Grass
- Outfall and Pile
- Piles
- Ordinary High Water Mark (OHWM)
- Estuarine Wetland and Designation (EW#)
- Wetland Buffer (150 feet)
- Abandoned Barge Structure
- Remnant Barge Structure
- Remnant Wood Bulkhead and Piles
- Study Area

0 100
Feet

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**Figure 9**
**Habitat Assessment Study Area – Southern Portion**
Critical Areas Report
Jeld-Wen/Former Nord Door Facility

# Appendix A
# Study Area Photographs



**Photograph 1: Wetland EW1 facing south, dune grass in background**



**Photograph 2: Wetland EW2 facing south**



**Photograph 3: Wetland EW3 facing east, adjacent to vegetated knoll**



**Photograph 4: Wetland EW4 facing east, adjacent to vegetated knoll**



**Photograph 5: Wetland EW5 facing west**



**Photograph 6: Wetland EW6 facing west, patches of vegetation extends into background**



**Photograph 7: Wetland EW7 facing west**



**Photograph 8: Wetland EW8 facing east**



**Photograph 9: Wetland EW9 facing south**



**Photograph 10: Wetland EW10 facing south**



**Photograph 11: Wetland EW11 facing southwest**



**Photograph 12: Wetland EW12 facing southwest**



**Photograph 13: Wetland EW13 facing southwest**



**Photograph 14: Shoreline conditions, vegetation, and mudflat habitat along West View Marine Drive facing north**



**Photograph 15: Culvert in upper intertidal area associated with Maulsby Swamp**



**Photograph 16: Shoreline conditions, vegetation, and mudflat habitat on south side of developed areas facing east, vegetated knoll in background**



**Photograph 17: Shoreline conditions, vegetation, and mudflat habitat on south side of developed areas facing west**



**Photograph 18: Shoreline conditions, vegetation, and mudflat habitat on south side of developed areas facing west, abandoned barge in background**



**Photograph 19: Shoreline conditions, vegetation, and barnacles on armored material on west side of developed areas facing south, active asphalt facilities in background**



**Photograph 20: Shoreline conditions, vegetation, and mudflat habitat on north side of developed areas facing west**



**Photograph 21: Shoreline conditions, vegetation, and mudflat habitat on north side of developed areas facing east**



**Photograph 22: Shoreline conditions, vegetation, mudflat habitat, and remnant wood bulkhead and piles in the inlet on the north side of developed areas facing west**



**Photograph 23: Dune grass vegetation patch along West View Marine Drive facing north, vegetated knoll in background**

# Appendix B
# Wetland Field Data Forms

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: JELD-WENN City/County: Everett /Snohomish Sampling Date: July 3. 2019

Applicant/Owner: JELD-WENN State: WA Sampling Point: SP1W Wet EW1-EW2

Investigator(s): C. Douglas Section, Township, Range: S07 T29N R5E

Landform (hillslope, terrace, etc.): Beach Local relief (concave, convex, none): concave Slope (%): 0% to 5%

Subregion (LRR): A Lat: 47.23N Long: -122.59W Datum: _____

Soil Map Unit Name: Made Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

| | | | | |
|---|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ☒ | No ☐ | **Is the Sampled Area within a Wetland?** | **Yes ☒ No ☐** |
| Hydric Soil Present? | Yes ☒ | No ☐ | | |
| Wetland Hydrology Present? | Yes ☒ | No ☐ | | |

Remarks: **Wetlands are estuarine systems located along an armored shoreline near the marine OHWM. Substrate is beach material, sand, gravel, cobble, and pieces of angular rock, concrete, and riprap. Wetlands are small patches of salt tolerant vegetation, typically less than 100 total square feet in area. Due to the similar characteristics and small sizes of the wetlands, the wetland rating forms represent two of the delineated wetlands (EW1 and EW2).**

**VEGETATION – Use scientific names of plants**

| Tree Stratum (Plot size: 30 foot radius) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. _____ | _____ | _____ | _____ |
| 2. _____ | _____ | _____ | _____ |
| 3. _____ | _____ | _____ | _____ |
| 4. _____ | _____ | _____ | _____ |
| 50% = _____, 20% = _____ | 0 | = Total Cover | |
| Sapling/Shrub Stratum (Plot size: 15 foot radius) | | | |
| 1. _____ | _____ | _____ | _____ |
| 2. _____ | _____ | _____ | _____ |
| 3. _____ | _____ | _____ | _____ |
| 4. _____ | _____ | _____ | _____ |
| 5. | _____ | _____ | _____ |
| 50% = _____, 20% = _____ | 0 | = Total Cover | |
| Herb Stratum (Plot size: 5 foot radius) | | | |
| 1. *Distichlis spicate* | 30 | yes | FACW |
| 2. *Jaumea carnosa* | 30 | yes | OBL |
| 3. *Plantago maritima* | 5 | no | OBL |
| 4. *Potentilla anserina* | 5 | no | OBL |
| 5. *Salicornia virginica* | 20 | yes | OBL |
| 6. _____ | _____ | _____ | _____ |
| 7. _____ | _____ | _____ | _____ |
| 8. _____ | _____ | _____ | _____ |
| 9. _____ | _____ | _____ | _____ |
| 10. _____ | _____ | _____ | _____ |
| 11. _____ | _____ | _____ | _____ |
| 50% = 45, 20% = 18 | 90 | = Total Cover | |
| Woody Vine Stratum (Plot size: 3 foot radius) | | | |
| 1. _____ | _____ | _____ | - |
| 2. _____ | _____ | _____ | _____ |
| 50% = _____, 20% = _____ | _____ | = Total Cover | |
| % Bare Ground in Herb Stratum 10 | | | |

**Dominance Test Worksheet:**

| | | |
|---|---|---|
| Number of Dominant Species That Are OBL, FACW, or FAC: | 3 | (A) |
| Total Number of Dominant Species Across All Strata: | 3 | (B) |
| Percent of Dominant Species That Are OBL, FACW, or FAC: | 100 | (A/B) |

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | 0 | x1 = | 0 |
| FACW species | 0 | x2 = | 0 |
| FAC species | _____ | x3 = | _____ |
| FACU species | _____ | x4 = | 4 |
| UPL species | 0 | x5 = | 0 |
| Column Totals: | _____ (A) | | _____ (B) |

Prevalence Index = B/A = _____

**Hydrophytic Vegetation Indicators:**

- ☐ 1 – Rapid Test for Hydrophytic Vegetation
- ☒ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** **Yes ☒ No ☐**

Remarks: 100% dominant wetland vegetation per the Dominance Test. Salt tolerant wetland vegetation. Vegetation is in small patches. Wetlands EW1 and EW2 have similar species composition.

Project Site: Costacos Property

## SOIL

Sampling Point: SP1W Wet EW1-EW2

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth | Matrix | | Redox Features | | | | | |
|---|---|---|---|---|---|---|---|---|
| (inches) | Color (moist) | % | Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
| 0 to 18+ | NA | NA | None | None | None | None | Sand | w/gravel and angular rock |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

**Indicators for Problematic Hydric Soils[3]:**

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: Beach substrate

Depth (inches): Difficlut to dig below about 10 inches

**Hydric Soils Present?** **Yes** ☒ **No** ☐

Remarks: Sand and gravel beach substrate with pieces of armored shoreline material. Hydric soils based on location at and below the marine OHWM. Wetlands EW1 and EW2 have similar soil and substrate characteristics.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☒ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☒ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ☐ Salt Crust (B11)
- ☒ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stresses Plants (D1) **(LRR A)**
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) **(LRR A)**
- ☐ Frost-Heave Hummocks (D7)

**Field Observations:**

| | | | | | | |
|---|---|---|---|---|---|---|
| Surface Water Present? | Yes | ☐ | No | ☒ | Depth (inches): | |
| Water Table Present? | Yes | ☒ | No | ☐ | Depth (inches): | 4 |
| Saturation Present? (includes capillary fringe) | Yes | ☒ | No | ☐ | Depth (inches): | surface |

**Wetland Hydrology Present?** **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrology associated with tidal activity. Water table fluctuates with tide condition at the time of the sample plot data collection. Wetlands located near marine OHWM. Wetlands EW1 and EW2 have similar hydrology characteristics.

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: JELD-WENN City/County: Everett /Snohomish Sampling Date: July 3, 2019

Applicant/Owner: JELD-WENN State: WA Sampling Point: SP2U Wet EW1-EW2

Investigator(s): C. Douglas Section, Township, Range: S07 T29N R5E

Landform (hillslope, terrace, etc.): Beach Local relief (concave, convex, none): concave Slope (%): 0% to 5%

Subregion (LRR): A Lat: 47.23N Long: -122.59W Datum: _____

Soil Map Unit Name: Urban Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | | |
|---|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ☐ | No ☒ | **Is the Sampled Area within a Wetland?** | **Yes ☐ No ☒** |
| Hydric Soil Present? | Yes ☐ | No ☒ | | |
| Wetland Hydrology Present? | Yes ☐ | No ☒ | | |

Remarks: **Wetlands are estuarine systems located along an armored shoreline near the marine OHWM. Substrate is beach material, sand, gravel, cobble, and pieces of angular rock, concrete, and riprap. Wetlands are small patches of salt tolerant vegetation, typically less than 100 total square feet in area. Due to the similar characteristics and small sizes of the wetlands, the wetland rating forms represent two of the delineated wetlands (EW1 and EW2).**

## VEGETATION – Use scientific names of plants

| Tree Stratum (Plot size: 30 foot radius) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. _____ | _____ | _____ | _____ |
| 2. _____ | _____ | _____ | _____ |
| 3. _____ | _____ | _____ | _____ |
| 4. _____ | _____ | _____ | _____ |
| 50% = _____, 20% = _____ | 0 | = Total Cover | |
| Sapling/Shrub Stratum (Plot size: 15 foot radius) | | | |
| 1. *Ornamental hedge* | 20 | yes | UPL |
| 2. _____ | _____ | _____ | _____ |
| 3. _____ | _____ | _____ | _____ |
| 4. _____ | _____ | _____ | _____ |
| 5. | _____ | _____ | _____ |
| 50% = 10, 20% = 4 | 20 | = Total Cover | |
| Herb Stratum (Plot size: 3 foot radius) | | | |
| 1. *Leymus mollis* | 10 | yes | FACU |
| 2. *Mowed grass* | 5 | yes | FACU |
| 3. _____ | _____ | _____ | _____ |
| 4. _____ | _____ | _____ | _____ |
| 5. _____ | _____ | _____ | _____ |
| 6. _____ | _____ | _____ | _____ |
| 7. _____ | _____ | _____ | _____ |
| 8. _____ | _____ | _____ | _____ |
| 9. _____ | _____ | _____ | _____ |
| 10. _____ | _____ | _____ | _____ |
| 11. _____ | _____ | _____ | _____ |
| 50% = 7.5, 20% = 3 | 15 | = Total Cover | |
| Woody Vine Stratum (Plot size: 3 foot radius) | | | |
| 1. _____ | _____ | _____ | - |
| 2. _____ | _____ | _____ | _____ |
| 50% = _____, 20% = _____ | 0 | = Total Cover | |
| % Bare Ground in Herb Stratum 85 | | | |

**Dominance Test Worksheet:**

| | | |
|---|---|---|
| Number of Dominant Species That Are OBL, FACW, or FAC: | 0 | (A) |
| Total Number of Dominant Species Across All Strata: | 0 | (B) |
| Percent of Dominant Species That Are OBL, FACW, or FAC: | 0 | (A/B) |

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | 0 | x1 = | 0 |
| FACW species | 0 | x2 = | 0 |
| FAC species | 0 | x3 = | 0 |
| FACU species | 0 | x4 = | 0 |
| UPL species | 0 | x5 = | 0 |
| Column Totals: | _____ (A) | | 0 (B) |

Prevalence Index = B/A = _____

**Hydrophytic Vegetation Indicators:**

- ☐ 1 – Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** **Yes ☐ No ☒**

Remarks: Upland vegetation on armored slope and mowed vegetation at the top of armored slope. Wetlands EW1 and EW2 have similar upland species composition.

Project Site: JELD-WENN

**SOIL**

Sampling Point: SP2U Wet EW1-EW2

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth | Matrix | | Redox Features | | | | | |
|---|---|---|---|---|---|---|---|---|
| (inches) | Color (moist) | % | Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
| 0 to 18+ | 10YR 4/4 | 20 | None | None | None | None | Sand | and gravel and armored shoreline material |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

**Indicators for Problematic Hydric Soils[3]:**

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: Armored slope substrate

Depth (inches): Difficlut to dig below about 12 inches

**Hydric Soils Present?** **Yes** ☐ **No** ☒

Remarks: Sand and gravel beach substrate with pieces of armored shoreline material with minor component of silt and clay. Wetlands EW1 and EW2 have similar upland soil and substrate characteristics.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stresses Plants (D1) **(LRR A)**
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) **(LRR A)**
- ☐ Frost-Heave Hummocks (D7)

**Field Observations:**

| | | | | | | |
|---|---|---|---|---|---|---|
| Surface Water Present? | Yes | ☐ | No | ☒ | Depth (inches): | |
| Water Table Present? | Yes | ☐ | No | ☒ | Depth (inches): | |
| Saturation Present? (includes capillary fringe) | Yes | ☐ | No | ☒ | Depth (inches): | |

**Wetland Hydrology Present?** **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Armored slope substrate, no hydric indicators

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: JELD-WENN City/County: Everett /Snohomish Sampling Date: July 3. 2019

Applicant/Owner: JELD-WENN State: WA Sampling Point: SP3W Wet EW3

Investigator(s): C. Douglas Section, Township, Range: S07 T29N R5E

Landform (hillslope, terrace, etc.): Beach Local relief (concave, convex, none): concave Slope (%): 0% to 5%

Subregion (LRR): A Lat: 47.23N Long: -122.59W Datum: _____

Soil Map Unit Name: Made Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

| | | | | |
|---|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ☒ | No ☐ | **Is the Sampled Area within a Wetland?** | **Yes ☒ No ☐** |
| Hydric Soil Present? | Yes ☒ | No ☐ | | |
| Wetland Hydrology Present? | Yes ☒ | No ☐ | | |

Remarks: **Wetland is an estuarine system located along a vegetated knoll and armored shoreline near the marine OHWM. Substrate is beach material, sand, gravel, cobble, with angular rock and riprap. Wetland is small patches of salt tolerant vegetation.**

**VEGETATION – Use scientific names of plants**

| Tree Stratum (Plot size: 30 foot radius) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. _____ | _____ | _____ | _____ |
| 2. _____ | _____ | _____ | _____ |
| 3. _____ | _____ | _____ | _____ |
| 4. _____ | _____ | _____ | _____ |
| 50% = _____, 20% = _____ | 0 | = Total Cover | |
| Sapling/Shrub Stratum (Plot size: 15 foot radius) | | | |
| 1. _____ | _____ | _____ | _____ |
| 2. _____ | _____ | _____ | _____ |
| 3. _____ | _____ | _____ | _____ |
| 4. _____ | _____ | _____ | _____ |
| 5. | _____ | _____ | _____ |
| 50% = _____, 20% = _____ | _____ | = Total Cover | |
| Herb Stratum (Plot size: 5 foot radius) | | | |
| 1. *Jaumea carnosa* | 40 | yes | OBL |
| 2. *Grindelia integrifolia* | 10 | no | FACW |
| 3. *Potentilla anserina* | 20 | yes | FACW |
| 4. *Salicornia virginica* | 30 | yes | OBL |
| 5. _____ | _____ | _____ | _____ |
| 6. _____ | _____ | _____ | _____ |
| 7. _____ | _____ | _____ | _____ |
| 8. _____ | _____ | _____ | _____ |
| 9. _____ | _____ | _____ | _____ |
| 10. _____ | _____ | _____ | _____ |
| 11. _____ | _____ | _____ | _____ |
| 50% = 50, 20% = 20 | 100 | = Total Cover | |
| Woody Vine Stratum (Plot size: 3 foot radius) | | | |
| 1. _____ | _____ | _____ | - |
| 2. _____ | _____ | _____ | _____ |
| 50% = _____, 20% = _____ | _____ | = Total Cover | |

% Bare Ground in Herb Stratum 0

**Dominance Test Worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

| | Total % Cover of: | Multiply by: | |
|---|---|---|---|
| OBL species | 0 | x1 = | 0 |
| FACW species | 0 | x2 = | 0 |
| FAC species | _____ | x3 = | _____ |
| FACU species | _____ | x4 = | 4 |
| UPL species | 0 | x5 = | 0 |
| Column Totals: | _____ (A) | | _____ (B) |

Prevalence Index = B/A = _____

**Hydrophytic Vegetation Indicators:**

☐ 1 – Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index is ≤3.0[1]

☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ 5 - Wetland Non-Vascular Plants[1]

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** **Yes ☒ No ☐**

Remarks: 100% dominant wetland vegetation per the Dominance Test. Salt tolerant wetland vegetation

Project Site: JELD-WENN

## SOIL

Sampling Point: SP3W Wet EW3

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth | Matrix | | Redox Features | | | | | |
|---|---|---|---|---|---|---|---|---|
| (inches) | Color (moist) | % | Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
| 0 to 5 | 10YR 3/1-3/2 | 95 | 10YR 5/4 | 5 | D | M | Sandy loam | w/gravel |
| 5 to 18+ | None | 100 | None | None | None | None | Sand | w/gravel and cobble |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☒ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

**Indicators for Problematic Hydric Soils[3]:**

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: Bech substrate

Depth (inches): Difficult to dig below about 8 inches

**Hydric Soils Present?** **Yes** ☒ **No** ☐

Remarks: Sand and gravel beach substrate with upper layer with silt and clay material.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☒ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☒ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ☐ Salt Crust (B11)
- ☒ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stresses Plants (D1) **(LRR A)**
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) **(LRR A)**
- ☐ Frost-Heave Hummocks (D7)

**Field Observations:**

| | | | | | | |
|---|---|---|---|---|---|---|
| Surface Water Present? | Yes | ☐ | No | ☒ | Depth (inches): | |
| Water Table Present? | Yes | ☒ | No | ☐ | Depth (inches): | 6 |
| Saturation Present? (includes capillary fringe) | Yes | ☒ | No | ☐ | Depth (inches): | surface |

**Wetland Hydrology Present?** **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrology associated with tidal activity. Water table fluctuates with tide condition at the time of the sample plot data collection.

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: JELD-WENN City/County: Everett /Snohomish Sampling Date: July 3, 2019

Applicant/Owner: JELD-WENN State: WA Sampling Point: SP4U Wet EW3

Investigator(s): C. Douglas Section, Township, Range: S07 T29N R5E

Landform (hillslope, terrace, etc.): Beach Local relief (concave, convex, none): concave Slope (%): 0% to 5%

Subregion (LRR): A Lat: 47.23N Long: -122.59W Datum: _____

Soil Map Unit Name: Urban Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | | |
|---|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ☐ | No ☒ | **Is the Sampled Area within a Wetland?** | **Yes ☐ No ☒** |
| Hydric Soil Present? | Yes ☐ | No ☒ | | |
| Wetland Hydrology Present? | Yes ☐ | No ☒ | | |

Remarks: **Wetland is an estuarine system located along a vegetated knoll and an armored shoreline near the marine OHWM. Substrate is beach material, sand, gravel, cobble, with angular rock and riprap. Wetland is small patches of salt tolerant vegetation.**

## VEGETATION – Use scientific names of plants

| Tree Stratum (Plot size: 30 foot radius) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. *Alnus rubra* | 30 | yes | FAC |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 50% = 15, 20% = 6 | 30 | = Total Cover | |
| **Sapling/Shrub Stratum** (Plot size: 15 foot radius) | | | |
| 1. *Rosa nutkana* | 20 | yes | FACU |
| 2. *Rubus armeniacus* | 40 | yes | FAC |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 50% = 30, 20% = 12 | 60 | = Total Cover | |
| **Herb Stratum** (Plot size: 3 foot radius) | | | |
| 1. *Achillea millefolium* | 10 | yes | FACU |
| 2. *Taraxacum officinale* | 5 | no | FACU |
| 3. *Mowed grass* | 20 | yes | FAC |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| 11. | | | |
| 50% = 17.5, 20% = 7 | 35 | = Total Cover | |
| **Woody Vine Stratum** (Plot size: 3 foot radius) | | | |
| 1. *Hedera helix* | 20 | yes | UPL |
| 2. | | | |
| 50% = 10, 20% = 4 | 20 | = Total Cover | |

% Bare Ground in Herb Stratum 65

**Dominance Test Worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | 0 | x1 = | 0 |
| FACW species | 0 | x2 = | 0 |
| FAC species | 0 | x3 = | 0 |
| FACU species | 0 | x4 = | 0 |
| UPL species | 0 | x5 = | 0 |
| Column Totals: | _____ (A) | | 0 (B) |

Prevalence Index = B/A = _____

**Hydrophytic Vegetation Indicators:**

- ☐ 1 – Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** **Yes ☐ No ☒**

Remarks: FAC or better species cover is 50% and upland vegetation dominated by invasive species Himalyan blackberry on vegetated knoll and mowed vegetation at the top of armored slope.

Project Site: JELD-WENN

**SOIL** Sampling Point: SP4U Wet EW3

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth | Matrix | | Redox Features | | | | | |
|---|---|---|---|---|---|---|---|---|
| (inches) | Color (moist) | % | Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
| 0 to 18+ | 10YR 4/4 | 80 | None | None | None | None | Sandy loam | w/ gravel and armored shoreline material |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

**Indicators for Problematic Hydric Soils[3]:**

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

**Hydric Soils Present?** **Yes** ☐ **No** ☒

Remarks: No hydric indicators, sandy soils on vegetated knoll.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stresses Plants (D1) **(LRR A)**
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) **(LRR A)**
- ☐ Frost-Heave Hummocks (D7)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____

**Wetland Hydrology Present?** **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No hydric indicators

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: JELD-WENN City/County: Everett /Snohomish Sampling Date: July 3. 2019

Applicant/Owner: JELD-WENN State: WA Sampling Point: SP5W Wet EW4

Investigator(s): C. Douglas Section, Township, Range: S07 T29N R5E

Landform (hillslope, terrace, etc.): Beach Local relief (concave, convex, none): concave Slope (%): 0% to 5%

Subregion (LRR): A Lat: 47.23N Long: -122.59W Datum: _____

Soil Map Unit Name: Made Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | | |
|---|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ☒ | No ☐ | **Is the Sampled Area within a Wetland?** | **Yes ☒ No ☐** |
| Hydric Soil Present? | Yes ☒ | No ☐ | | |
| Wetland Hydrology Present? | Yes ☒ | No ☐ | | |

Remarks: **Wetland is an estuarine system located along a vegetated knoll near the marine OHWM. Substrate is beach material, sand, gravel, and cobble. Wetland is small patches of salt tolerant vegetation.**

## VEGETATION – Use scientific names of plants

| Tree Stratum (Plot size: 30 foot radius) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. _____ | _____ | _____ | _____ |
| 2. _____ | _____ | _____ | _____ |
| 3. _____ | _____ | _____ | _____ |
| 4. _____ | _____ | _____ | _____ |
| 50% = _____, 20% = _____ | 0 | = Total Cover | |
| **Sapling/Shrub Stratum** (Plot size: 15 foot radius) | | | |
| 1. _____ | _____ | _____ | _____ |
| 2. _____ | _____ | _____ | _____ |
| 3. _____ | _____ | _____ | _____ |
| 4. _____ | _____ | _____ | _____ |
| 5. _____ | _____ | _____ | _____ |
| 50% = _____, 20% = _____ | 0 | = Total Cover | |
| **Herb Stratum** (Plot size: 5 foot radius) | | | |
| 1. *Atriplex patula* | 10 | no | FACW |
| 2. *Juncus balticus* | 5 | no | FACW |
| 3. *Potentilla anserina* | 15 | no | FACW |
| 4. *Schoenoplectus maritimus* | 50 | yes | OBL |
| 5. *Triglochin maritima* | 20 | yes | OBL |
| 6. _____ | _____ | _____ | _____ |
| 7. _____ | _____ | _____ | _____ |
| 8. _____ | _____ | _____ | _____ |
| 9. _____ | _____ | _____ | _____ |
| 10. _____ | _____ | _____ | _____ |
| 11. _____ | _____ | _____ | _____ |
| 50% = 50, 20% = 20 | 100 | = Total Cover | |
| **Woody Vine Stratum** (Plot size: 3 foot radius) | | | |
| 1. _____ | _____ | _____ | - |
| 2. _____ | _____ | _____ | _____ |
| 50% = _____, 20% = _____ | _____ | = Total Cover | |

% Bare Ground in Herb Stratum 0

**Dominance Test Worksheet:**

| | | |
|---|---|---|
| Number of Dominant Species That Are OBL, FACW, or FAC: | 2 | (A) |
| Total Number of Dominant Species Across All Strata: | 2 | (B) |
| Percent of Dominant Species That Are OBL, FACW, or FAC: | 100 | (A/B) |

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | 0 | x1 = | 0 |
| FACW species | 0 | x2 = | 0 |
| FAC species | _____ | x3 = | _____ |
| FACU species | _____ | x4 = | 4 |
| UPL species | 0 | x5 = | 0 |
| Column Totals: | _____ (A) | | _____ (B) |

Prevalence Index = B/A = _____

**Hydrophytic Vegetation Indicators:**

- ☐ 1 – Rapid Test for Hydrophytic Vegetation
- ☒ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** **Yes ☒ No ☐**

Remarks: 100% dominant wetland vegetation per the Dominance Test. Salt tolerant wetland vegetation

Project Site: JELD-WENN

## SOIL

Sampling Point: SP5W Wet EW4

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth | Matrix | | Redox Features | | | | | |
|---|---|---|---|---|---|---|---|---|
| (inches) | Color (moist) | % | Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
| 0 to 6 | 10YR 3/1-3/2 | 90 | 10YR 5/4 | 10 | D | M | Sandy loam | w/gravel |
| 6 to 18+ | None | 100 | None | None | None | None | Sand | w/gravel and cobble |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☒ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

**Indicators for Problematic Hydric Soils[3]:**

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: Bech substrate

Depth (inches): Difficult to dig below about 8 inches

**Hydric Soils Present?** **Yes** ☒ **No** ☐

Remarks: Sand and gravel beach substrate with upper layer with silt and clay material.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☒ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☒ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ☐ Salt Crust (B11)
- ☒ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stresses Plants (D1) **(LRR A)**
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) **(LRR A)**
- ☐ Frost-Heave Hummocks (D7)

**Field Observations:**

| | | | | | | |
|---|---|---|---|---|---|---|
| Surface Water Present? | Yes | ☐ | No | ☒ | Depth (inches): | |
| Water Table Present? | Yes | ☒ | No | ☐ | Depth (inches): | 5 |
| Saturation Present? (includes capillary fringe) | Yes | ☒ | No | ☐ | Depth (inches): | surface |

**Wetland Hydrology Present?** **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrology associated with tidal activity. Water table fluctuates with tide condition at the time of the sample plot data collection.

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: JELD-WENN City/County: Everett /Snohomish Sampling Date: July 3, 2019

Applicant/Owner: JELD-WENN State: WA Sampling Point: SP6U Wet EW4

Investigator(s): C. Douglas Section, Township, Range: S07 T29N R5E

Landform (hillslope, terrace, etc.): Beach Local relief (concave, convex, none): concave Slope (%): 0% to 5%

Subregion (LRR): A Lat: 47.23N Long: -122.59W Datum: _____

Soil Map Unit Name: Urban Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | | |
|---|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ☐ | No ☒ | **Is the Sampled Area within a Wetland?** | **Yes ☐ No ☒** |
| Hydric Soil Present? | Yes ☐ | No ☒ | | |
| Wetland Hydrology Present? | Yes ☐ | No ☒ | | |

Remarks: **Wetland is an estuarine system located along a vegetated knoll near the marine OHWM. Substrate is beach material, sand, gravel, and cobble. Wetland is small patches of salt tolerant vegetation.**

## VEGETATION – Use scientific names of plants

| Tree Stratum (Plot size: 30 foot radius) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. *Alnus rubra* | 40 | yes | FAC |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 50% = 20, 20% = 8 | 40 | = Total Cover | |
| **Sapling/Shrub Stratum** (Plot size: 15 foot radius) | | | |
| 1. *Polygonum cuspidatum* | 20 | yes | FAC |
| 2. *Rubus armeniacus* | 50 | yes | FAC |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 50% = 35, 20% = 14 | 70 | = Total Cover | |
| **Herb Stratum** (Plot size: 3 foot radius) | | | |
| 1. *Cirsium arvense* | 5 | yes | FACU |
| 2. *Taraxacum officinale* | 5 | yes | FACU |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| 11. | | | |
| 50% = 5, 20% = 2 | 10 | = Total Cover | |
| **Woody Vine Stratum** (Plot size: 3 foot radius) | | | |
| 1. *Hedera helix* | 20 | yes | UPL |
| 2. | | | |
| 50% = 10, 20% = 4 | 20 | = Total Cover | |

% Bare Ground in Herb Stratum 90

**Dominance Test Worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | 0 | x1 = | 0 |
| FACW species | 0 | x2 = | 0 |
| FAC species | 0 | x3 = | 0 |
| FACU species | 0 | x4 = | 0 |
| UPL species | 0 | x5 = | 0 |
| Column Totals: | _____ (A) | | 0 (B) |

Prevalence Index = B/A = _____

**Hydrophytic Vegetation Indicators:**

☐ 1 – Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index is ≤3.0[1]

☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ 5 - Wetland Non-Vascular Plants[1]

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** **Yes ☐ No ☒**

Remarks: FAC or better species are upland vegetation on vegetated knoll dominated by invasive species Himalyan blackberry, English ivy, and Japanese knotweed.

Project Site: JELD-WENN

**SOIL**

Sampling Point: SP6U Wet EW4

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth | Matrix | | Redox Features | | | | | |
|---|---|---|---|---|---|---|---|---|
| (inches) | Color (moist) | % | Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
| 0 to 18+ | 10YR 4/4 | 80 | None | None | None | None | Sandy loam | w/ gravel and cobbles |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

**Indicators for Problematic Hydric Soils[3]:**

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

**Hydric Soils Present?** **Yes** ☐ **No** ☒

Remarks: No hydric indicators, sandy soils on vegetated knoll.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stresses Plants (D1) **(LRR A)**
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) **(LRR A)**
- ☐ Frost-Heave Hummocks (D7)

**Field Observations:**

| | | | | | | |
|---|---|---|---|---|---|---|
| Surface Water Present? | Yes | ☐ | No | ☒ | Depth (inches): | _____ |
| Water Table Present? | Yes | ☐ | No | ☒ | Depth (inches): | _____ |
| Saturation Present? (includes capillary fringe) | Yes | ☐ | No | ☒ | Depth (inches): | _____ |

**Wetland Hydrology Present?** **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No hydric indicators

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: JELD-WENN City/County: Everett /Snohomish Sampling Date: July 3. 2019

Applicant/Owner: JELD-WENN State: WA Sampling Point: SP7W Wet EW5-EW9

Investigator(s): C. Douglas Section, Township, Range: S07 T29N R5E

Landform (hillslope, terrace, etc.): Beach Local relief (concave, convex, none): concave Slope (%): 0% to 5%

Subregion (LRR): A Lat: 47.23N Long: -122.59W Datum: _____

Soil Map Unit Name: Made Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

| | | | | |
|---|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ☒ | No ☐ | **Is the Sampled Area within a Wetland?** | **Yes ☒ No ☐** |
| Hydric Soil Present? | Yes ☒ | No ☐ | | |
| Wetland Hydrology Present? | Yes ☒ | No ☐ | | |

Remarks: **Wetlands are estuarine systems located along an armored shoreline near the marine OHWM. Substrate is beach material, sand, gravel, cobble, and pieces of angular rock, concrete, and riprap. Wetlands are small patches of salt tolerant vegetation, typically less than 100 total square feet in area. Due to the similar characteristics and small sizes of the wetlands, the wetland rating forms represent two of the delineated wetlands (EW5 through EW9).**

**VEGETATION – Use scientific names of plants**

| Tree Stratum (Plot size: 30 foot radius) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. _____ | _____ | _____ | _____ |
| 2. _____ | _____ | _____ | _____ |
| 3. _____ | _____ | _____ | _____ |
| 4. _____ | _____ | _____ | _____ |
| 50% = _____, 20% = _____ | 0 | = Total Cover | |
| Sapling/Shrub Stratum (Plot size: 15 foot radius) | | | |
| 1. _____ | _____ | _____ | _____ |
| 2. _____ | _____ | _____ | _____ |
| 3. _____ | _____ | _____ | _____ |
| 4. _____ | _____ | _____ | _____ |
| 5. | _____ | _____ | _____ |
| 50% = _____, 20% = _____ | 0 | = Total Cover | |
| Herb Stratum (Plot size: 5 foot radius) | | | |
| 1. *Atriplex patula* | 5 | no | FACW |
| 2. *Jaumea carnosa* | 5 | no | OBL |
| 3. *Juncus balticus* | 20 | yes | FACW |
| 4. *Plantago maritima* | 15 | no | FACW |
| 5. *Potentilla anserina* | 15 | no | FACW |
| 6. *Salicornia virginica* | 10 | no | OBL |
| 7. *Schoenoplectus maritimus* | 20 | yes | OBL |
| 8. _____ | _____ | _____ | _____ |
| 9. _____ | _____ | _____ | _____ |
| 10. _____ | _____ | _____ | _____ |
| 11. _____ | _____ | _____ | _____ |
| 50% = 45, 20% = 18 | 90 | = Total Cover | |
| Woody Vine Stratum (Plot size: 3 foot radius) | | | |
| 1. _____ | _____ | _____ | - |
| 2. _____ | _____ | _____ | _____ |
| 50% = _____, 20% = _____ | _____ | = Total Cover | |
| % Bare Ground in Herb Stratum 10 | | | |

**Dominance Test Worksheet:**

| | | |
|---|---|---|
| Number of Dominant Species That Are OBL, FACW, or FAC: | 2 | (A) |
| Total Number of Dominant Species Across All Strata: | 2 | (B) |
| Percent of Dominant Species That Are OBL, FACW, or FAC: | 100 | (A/B) |

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | 0 | x1 = | 0 |
| FACW species | 0 | x2 = | 0 |
| FAC species | _____ | x3 = | _____ |
| FACU species | _____ | x4 = | 4 |
| UPL species | 0 | x5 = | 0 |
| Column Totals: | _____ (A) | | _____ (B) |

Prevalence Index = B/A = _____

**Hydrophytic Vegetation Indicators:**

- ☐ 1 – Rapid Test for Hydrophytic Vegetation
- ☒ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** **Yes ☒ No ☐**

Remarks: 100% dominant wetland vegetation per the Dominance Test. Salt tolerant wetland vegetation. Vegetation is in small patches. Wetlands EW5 through EW9 have similar species composition.

Project Site: JELD-WENN

**SOIL**

Sampling Point: SP7W Wet EW5-EW9

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth | Matrix | | Redox Features | | | | | |
|---|---|---|---|---|---|---|---|---|
| (inches) | Color (moist) | % | Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
| 0 to 18+ | NA | NA | None | None | None | None | Sand gravel | w/cobble, angular rock, concrete, riprap |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

**Indicators for Problematic Hydric Soils[3]:**

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: Beach substrate

Depth (inches): Difficlut to dig below about 6 inches

**Hydric Soils Present?** **Yes** ☒ **No** ☐

Remarks: Sand, gravel, and cobble beach substrate with pieces of armored shoreline material. Hydric soils based on location at and below the marine OHWM. Wetlands EW5 through EW9 have similar soil and substrate characteristics.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☒ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☒ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ☐ Salt Crust (B11)
- ☒ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stresses Plants (D1) **(LRR A)**
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) **(LRR A)**
- ☐ Frost-Heave Hummocks (D7)

**Field Observations:**

| | | | | | | |
|---|---|---|---|---|---|---|
| Surface Water Present? | Yes | ☐ | No | ☒ | Depth (inches): | |
| Water Table Present? | Yes | ☒ | No | ☐ | Depth (inches): | 4 |
| Saturation Present? (includes capillary fringe) | Yes | ☒ | No | ☐ | Depth (inches): | surface |

**Wetland Hydrology Present?** **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrology associated with tidal activity. Water table fluctuates with tide condition at the time of the sample plot data collection. Wetlands located near marine OHWM. Wetlands EW5 through EW9 have similar hydrology characteristics.

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: JELD-WENN City/County: Everett /Snohomish Sampling Date: July 3, 2019

Applicant/Owner: JELD-WENN State: WA Sampling Point: SP8U Wet EW5-EW9

Investigator(s): C. Douglas Section, Township, Range: S07 T29N R5E

Landform (hillslope, terrace, etc.): Beach Local relief (concave, convex, none): concave Slope (%): 0% to 5%

Subregion (LRR): A Lat: 47.23N Long: -122.59W Datum: _____

Soil Map Unit Name: Urban Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | | |
|---|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ☐ | No ☒ | **Is the Sampled Area within a Wetland?** | **Yes ☐ No ☒** |
| Hydric Soil Present? | Yes ☒ | No ☐ | | |
| Wetland Hydrology Present? | Yes ☐ | No ☒ | | |

Remarks: **Wetlands are estuarine systems located along an armored shoreline near the marine OHWM. Substrate is beach material, sand, gravel, cobble, and pieces of angular rock, concrete, and riprap. Wetlands are small patches of salt tolerant vegetation, typically less than 100 total square feet in area. Due to the similar characteristics and small sizes of the wetlands, the wetland rating forms represent two of the delineated wetlands (EW5 through EW9).**

## VEGETATION – Use scientific names of plants

| Tree Stratum (Plot size: 30 foot radius) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. _____ | | | |
| 2. _____ | | | |
| 3. _____ | | | |
| 4. _____ | | | |
| 50% = _____, 20% = _____ | 0 | = Total Cover | |
| Sapling/Shrub Stratum (Plot size: 15 foot radius) | | | |
| 1. *Rubus armeniacus* | 10 | yes | FAC |
| 2. _____ | | | |
| 3. _____ | | | |
| 4. _____ | | | |
| 5. | | | |
| 50% = 5, 20% = 2 | 10 | = Total Cover | |
| Herb Stratum (Plot size: 3 foot radius) | | | |
| 1. _____ | | | |
| 2. _____ | | | |
| 3. _____ | | | |
| 4. _____ | | | |
| 5. _____ | | | |
| 6. _____ | | | |
| 7. _____ | | | |
| 8. _____ | | | |
| 9. _____ | | | |
| 10. _____ | | | |
| 11. _____ | | | |
| 50% = _____, 20% = _____ | 0 | = Total Cover | |
| Woody Vine Stratum (Plot size: 3 foot radius) | | | |
| 1. _____ | | | - |
| 2. _____ | | | |
| 50% = _____, 20% = _____ | 0 | = Total Cover | |
| % Bare Ground in Herb Stratum 100 | | | |

**Dominance Test Worksheet:**

| | | |
|---|---|---|
| Number of Dominant Species That Are OBL, FACW, or FAC: | 1 | (A) |
| Total Number of Dominant Species Across All Strata: | 1 | (B) |
| Percent of Dominant Species That Are OBL, FACW, or FAC: | 100 | (A/B) |

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | 0 | x1 = | 0 |
| FACW species | 0 | x2 = | 0 |
| FAC species | 0 | x3 = | 0 |
| FACU species | 0 | x4 = | 0 |
| UPL species | 0 | x5 = | 0 |
| Column Totals: | _____ (A) | | 0 (B) |

Prevalence Index = B/A = _____

**Hydrophytic Vegetation Indicators:**

- ☐ 1 – Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** **Yes ☒ No ☐**

Remarks: Upland vegetation limited to narrow patch of invasive species Himalayan blackberry on top of armored slope. Wetlands EW5 through EW9 have similar upland species composition.

Project Site: JELD-WENN

**SOIL** Sampling Point: SP8U Wet EW5-EW9

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth | Matrix | | Redox Features | | | | | |
|---|---|---|---|---|---|---|---|---|
| (inches) | Color (moist) | % | Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
| 0 to 18+ | None | None | None | None | None | None | Sand gravel | w/cobble, angular rock, concrete, riprap |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

**Indicators for Problematic Hydric Soils[3]:**

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: Armored slope substrate

Depth (inches): Difficlut to dig below about 6 inches

**Hydric Soils Present?** **Yes** ☐ **No** ☒

Remarks: Sand and gravel beach substrate with pieces of armored shoreline material with no silt or clay. Wetlands EW5 through EW9 have similar upland soil and substrate characteristics.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stresses Plants (D1) **(LRR A)**
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) **(LRR A)**
- ☐ Frost-Heave Hummocks (D7)

**Field Observations:**

Surface Water Present? Yes ☐ No ☒ Depth (inches): ____

Water Table Present? Yes ☐ No ☒ Depth (inches): ____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): ____

**Wetland Hydrology Present?** **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Armored slope substrate, no hydric indicators

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: JELD-WENN City/County: Everett /Snohomish Sampling Date: July 3. 2019

Applicant/Owner: JELD-WENN State: WA Sampling Point: SP9W Wet EW10-EW14

Investigator(s): C. Douglas Section, Township, Range: S07 T29N R5E

Landform (hillslope, terrace, etc.): Beach Local relief (concave, convex, none): concave Slope (%): 0% to 5%

Subregion (LRR): A Lat: 47.23N Long: -122.59W Datum: _____

Soil Map Unit Name: Made Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | | |
|---|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ☒ | No ☐ | **Is the Sampled Area within a Wetland?** | **Yes ☒ No ☐** |
| Hydric Soil Present? | Yes ☒ | No ☐ | | |
| Wetland Hydrology Present? | Yes ☒ | No ☐ | | |

Remarks: **Wetlands are estuarine systems located along an armored shoreline near the marine OHWM. Substrate is beach material, sand, gravel, cobble, and pieces of angular rock, concrete, and riprap. Wetlands are small patches of salt tolerant vegetation, typically less than 100 total square feet in area. Due to the similar characteristics and small sizes of the wetlands, the wetland rating forms represent two of the delineated wetlands (EW10 through EW14).**

## VEGETATION – Use scientific names of plants

| Tree Stratum (Plot size: 30 foot radius) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. _____ | _____ | _____ | _____ |
| 2. _____ | _____ | _____ | _____ |
| 3. _____ | _____ | _____ | _____ |
| 4. _____ | _____ | _____ | _____ |
| 50% = _____, 20% = _____ | 0 | = Total Cover | |
| **Sapling/Shrub Stratum** (Plot size: 15 foot radius) | | | |
| 1. _____ | _____ | _____ | _____ |
| 2. _____ | _____ | _____ | _____ |
| 3. _____ | _____ | _____ | _____ |
| 4. _____ | _____ | _____ | _____ |
| 5. _____ | _____ | _____ | _____ |
| 50% = _____, 20% = _____ | 0 | = Total Cover | |
| **Herb Stratum** (Plot size: 5 foot radius) | | | |
| 1. *Plantago maritima* | 30 | yes | FACW |
| 2. *Potentilla anserina* | 25 | yes | FACW |
| 3. *Salicornia virginica* | 20 | yes | OBL |
| 4. *Schoenoplectus maritimus* | 5 | no | OBL |
| 5. _____ | _____ | _____ | FACW |
| 6. _____ | _____ | _____ | _____ |
| 7. _____ | _____ | _____ | _____ |
| 8. _____ | _____ | _____ | _____ |
| 9. _____ | _____ | _____ | _____ |
| 10. _____ | _____ | _____ | _____ |
| 11. _____ | _____ | _____ | _____ |
| 50% = 40, 20% = 16 | 80 | = Total Cover | |
| **Woody Vine Stratum** (Plot size: 3 foot radius) | | | |
| 1. _____ | _____ | _____ | - |
| 2. _____ | _____ | _____ | _____ |
| 50% = _____, 20% = _____ | _____ | = Total Cover | |

% Bare Ground in Herb Stratum 20

**Dominance Test Worksheet:**

| | | |
|---|---|---|
| Number of Dominant Species That Are OBL, FACW, or FAC: | 3 | (A) |
| Total Number of Dominant Species Across All Strata: | 3 | (B) |
| Percent of Dominant Species That Are OBL, FACW, or FAC: | 100 | (A/B) |

**Prevalence Index worksheet:**

| | Total % Cover of: | Multiply by: | |
|---|---|---|---|
| OBL species | 0 | x1 = | 0 |
| FACW species | 0 | x2 = | 0 |
| FAC species | _____ | x3 = | _____ |
| FACU species | _____ | x4 = | 4 |
| UPL species | 0 | x5 = | 0 |
| Column Totals: | _____ (A) | | _____ (B) |

Prevalence Index = B/A = _____

**Hydrophytic Vegetation Indicators:**

- ☐ 1 – Rapid Test for Hydrophytic Vegetation
- ☒ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** **Yes ☒ No ☐**

Remarks: 100% dominant wetland vegetation per the Dominance Test. Salt tolerant wetland vegetation. Vegetation is in small patches. Wetlands EW10 through EW14 have similar species composition.

Project Site: JELD-WENN

**SOIL**

Sampling Point: SP9W EW10-EW14

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth | Matrix | | Redox Features | | | | | |
|---|---|---|---|---|---|---|---|---|
| (inches) | Color (moist) | % | Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
| 0 to 18+ | NA | NA | None | None | None | None | Sand gravel | w/cobble, angular rock, concrete, riprap |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

**Indicators for Problematic Hydric Soils[3]:**

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: Beach substrate

Depth (inches): Difficlut to dig below about 6 inches

**Hydric Soils Present?** **Yes** ☒ **No** ☐

Remarks: Sand, gravel, and cobble beach substrate with pieces of armored shoreline material. Hydric soils based on location at and below the marine OHWM. Wetlands EW10 through EW14 have similar soil and substrate characteristics.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☒ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☒ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ☐ Salt Crust (B11)
- ☒ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stresses Plants (D1) **(LRR A)**
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) **(LRR A)**
- ☐ Frost-Heave Hummocks (D7)

**Field Observations:**

| | | | | | | |
|---|---|---|---|---|---|---|
| Surface Water Present? | Yes | ☐ | No | ☒ | Depth (inches): | |
| Water Table Present? | Yes | ☒ | No | ☐ | Depth (inches): | 7 |
| Saturation Present? (includes capillary fringe) | Yes | ☒ | No | ☐ | Depth (inches): | surface |

**Wetland Hydrology Present?** **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrology associated with tidal activity. Water table fluctuates with tide condition at the time of the sample plot data collection. Wetlands located near marine OHWM. Wetlands EW10 through EW14 have similar hydrology characteristics.

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: JELD-WENN City/County: Everett /Snohomish Sampling Date: July 3. 2019

Applicant/Owner: JELD-WENN State: WA Sampling Point: SP10U Wet EW10-EW14

Investigator(s): C. Douglas Section, Township, Range: S07 T29N R5E

Landform (hillslope, terrace, etc.): Beach Local relief (concave, convex, none): concave Slope (%): 0% to 5%

Subregion (LRR): A Lat: 47.23N Long: -122.59W Datum: _____

Soil Map Unit Name: Urban Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | | |
|---|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ☐ | No ☒ | **Is the Sampled Area within a Wetland?** | **Yes ☐ No ☒** |
| Hydric Soil Present? | Yes ☒ | No ☐ | | |
| Wetland Hydrology Present? | Yes ☐ | No ☒ | | |

Remarks: **Wetlands are estuarine systems located along an armored shoreline near the marine OHWM. Substrate is beach material, sand, gravel, cobble, and pieces of angular rock, concrete, and riprap. Wetlands are small patches of salt tolerant vegetation, typically less than 100 total square feet in area. Due to the similar characteristics and small sizes of the wetlands, the wetland rating forms represent two of the delineated wetlands (EW10 through EW14).**

## VEGETATION – Use scientific names of plants

| Tree Stratum (Plot size: 30 foot radius) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. _____ | | | |
| 2. _____ | | | |
| 3. _____ | | | |
| 4. _____ | | | |
| 50% = _____, 20% = _____ | 0 | = Total Cover | |
| Sapling/Shrub Stratum (Plot size: 15 foot radius) | | | |
| 1. *Rubus armeniacus* | 10 | yes | FAC |
| 2. _____ | | | |
| 3. _____ | | | |
| 4. _____ | | | |
| 5. | | | |
| 50% = 5, 20% = 2 | 10 | = Total Cover | |
| Herb Stratum (Plot size: 3 foot radius) | | | |
| 1. _____ | | | |
| 2. _____ | | | |
| 3. _____ | | | |
| 4. _____ | | | |
| 5. _____ | | | |
| 6. _____ | | | |
| 7. _____ | | | |
| 8. _____ | | | |
| 9. _____ | | | |
| 10. _____ | | | |
| 11. _____ | | | |
| 50% = _____, 20% = _____ | 0 | = Total Cover | |
| Woody Vine Stratum (Plot size: 3 foot radius) | | | |
| 1. _____ | | | - |
| 2. _____ | | | |
| 50% = _____, 20% = _____ | 0 | = Total Cover | |
| % Bare Ground in Herb Stratum 100 | | | |

**Dominance Test Worksheet:**

| | | |
|---|---|---|
| Number of Dominant Species That Are OBL, FACW, or FAC: | 1 | (A) |
| Total Number of Dominant Species Across All Strata: | 1 | (B) |
| Percent of Dominant Species That Are OBL, FACW, or FAC: | 100 | (A/B) |

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | 0 | x1 = | 0 |
| FACW species | 0 | x2 = | 0 |
| FAC species | 0 | x3 = | 0 |
| FACU species | 0 | x4 = | 0 |
| UPL species | 0 | x5 = | 0 |
| Column Totals: | _____ (A) | | 0 (B) |

Prevalence Index = B/A = _____

**Hydrophytic Vegetation Indicators:**

- ☐ 1 – Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** **Yes ☐ No ☒**

Remarks: Upland vegetation limited to narrow patch of invasive species Himalyan blackberry on top of armored slope. Wetlands EW10 through EW14 have similar upland species composition.

Project Site: JELD-WENN

**SOIL** Sampling Point: SP10U EW10-EW14

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth | Matrix | | Redox Features | | | | | |
|---|---|---|---|---|---|---|---|---|
| (inches) | Color (moist) | % | Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
| 0 to 18+ | None | None | None | None | None | None | Sand gravel | w/cobble, angular rock, concrete, riprap |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

**Indicators for Problematic Hydric Soils[3]:**

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: Armored slope substrate

Depth (inches): Difficlut to dig below about 6 inches

**Hydric Soils Present?** **Yes** ☐ **No** ☒

Remarks: Sand and gravel beach substrate with pieces of armored shoreline material with no silt or clay. Wetlands EW10 through EW14 have similar upland soil and substrate characteristics.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stresses Plants (D1) **(LRR A)**
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) **(LRR A)**
- ☐ Frost-Heave Hummocks (D7)

**Field Observations:**

| | | | | | | |
|---|---|---|---|---|---|---|
| Surface Water Present? | Yes | ☐ | No | ☒ | Depth (inches): | |
| Water Table Present? | Yes | ☐ | No | ☒ | Depth (inches): | |
| Saturation Present? (includes capillary fringe) | Yes | ☐ | No | ☒ | Depth (inches): | |

**Wetland Hydrology Present?** **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Armored slope substrate, no hydric indicators

# Appendix C
# Wetland Rating Forms

Wetland name or number EW1-EW14

# RATING SUMMARY – Western Washington

Name of wetland (or ID #): EW1 through EW14 Date of site visit: July 2019

Rated by C. Douglas Trained by Ecology? ☒ Yes ☐ No Date of training 2007

**HGM Class used for rating** Estuarine Wetland has multiple HGM classes? ☐ Y ☒ N

**NOTE**: **Form is not complete without the figures requested** *(figures can be combined)*.

Source of base aerial photo/map _____

## OVERALL WETLAND CATEGORY II (based on functions ☐ or special characteristics ☒)

### 1. Category of wetland based on FUNCTIONS

_____**Category I** – Total score = 23 - 27

_____**Category II** – Total score = 20 - 22

_____**Category III** – Total score = 16 - 19

_____**Category IV** – Total score = 9 - 15

| FUNCTION | Improving Water Quality | | | Hydrologic | | | Habitat | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Circle the appropriate ratings* | | | | | | | | | |
| Site Potential | H | M | L | H | M | L | H | M | L | |
| Landscape Potential | H | M | L | H | M | L | H | M | L | |
| Value | H | M | L | H | M | L | H | M | L | **TOTAL** |
| **Score Based on Ratings** | | | | | | | | | | |

**Score for each function based on three ratings** *(order of ratings is not important)*

9 = H,H,H
8 = H,H,M
7 = H,H,L
7 = H,M,M
6 = H,M,L
6 = M,M,M
5 = H,L,L
5 = M,M,L
4 = M,L,L
3 = L,L,L

### 2. Category based on SPECIAL CHARACTERISTICS of wetland

| CHARACTERISTIC | CATEGORY |
|---|---|
| **Estuarine** | **I II** |
| **Wetland of High Conservation Value** | **I** |
| **Bog** | **I** |
| **Mature Forest** | **I** |
| **Old Growth Forest** | **I** |
| **Coastal Lagoon** | **I II** |
| **Interdunal** | **I II III IV** |
| None of the above | X |

Wetland name or number EW1-EW14 _____

# Maps and figures required to answer questions correctly for Western Washington

## Depressional Wetlands

| Map of: | To answer questions: | Figure # |
|---|---|---|
| Cowardin plant classes | D 1.3, H 1.1, H 1.4 | |
| Hydroperiods | D 1.4, H 1.2 | |
| Location of outlet (*can be added to map of hydroperiods)* | D 1.1, D 4.1 | |
| Boundary of area within 150 ft of the wetland *(can be added to another figure)* | D 2.2, D 5.2 | |
| Map of the contributing basin | D 4.3, D 5.3 | |
| 1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat | H 2.1, H 2.2, H 2.3 | |
| Screen capture of map of 303(d) listed waters in basin (from Ecology website) | D 3.1, D 3.2 | |
| Screen capture of list of TMDLs for WRIA in which unit is found (from web) | D 3.3 | |

## Riverine Wetlands

| Map of: | To answer questions: | Figure # |
|---|---|---|
| Cowardin plant classes | H 1.1, H 1.4 | |
| Hydroperiods | H 1.2 | |
| Ponded depressions | R 1.1 | |
| Boundary of area within 150 ft of the wetland *(can be added to another figure)* | R 2.4 | |
| Plant cover of trees, shrubs, and herbaceous plants | R 1.2, R 4.2 | |
| Width of unit vs. width of stream *(can be added to another figure)* | R 4.1 | |
| Map of the contributing basin | R 2.2, R 2.3, R 5.2 | |
| 1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat | H 2.1, H 2.2, H 2.3 | |
| Screen capture of map of 303(d) listed waters in basin (from Ecology website) | R 3.1 | |
| Screen capture of list of TMDLs for WRIA in which unit is found (from web) | R 3.2, R 3.3 | |

## Lake Fringe Wetlands

| Map of: | To answer questions: | Figure # |
|---|---|---|
| Cowardin plant classes | L 1.1, L 4.1, H 1.1, H 1.4 | |
| Plant cover of trees, shrubs, and herbaceous plants | L 1.2 | |
| Boundary of area within 150 ft of the wetland *(can be added to another figure)* | L 2.2 | |
| 1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat | H 2.1, H 2.2, H 2.3 | |
| Screen capture of map of 303(d) listed waters in basin (from Ecology website) | L 3.1, L 3.2 | |
| Screen capture of list of TMDLs for WRIA in which unit is found (from web) | L 3.3 | |

## Slope Wetlands

| Map of: | To answer questions: | Figure # |
|---|---|---|
| Cowardin plant classes | H 1.1, H 1.4 | |
| Hydroperiods | H 1.2 | |
| Plant cover of **dense** trees, shrubs, and herbaceous plants | S 1.3 | |
| Plant cover of **dense, rigid** trees, shrubs, and herbaceous plants (*can be added to figure above)* | S 4.1 | |
| Boundary of 150 ft buffer (can be added to another figure) | S 2.1, S 5.1 | |
| 1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat | H 2.1, H 2.2, H 2.3 | |
| Screen capture of map of 303(d) listed waters in basin (from Ecology website) | S 3.1, S 3.2 | |
| Screen capture of list of TMDLs for WRIA in which unit is found (from web) | S 3.3 | |

Wetland name or number EW1-EW14 _____

# HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

○ NO – go to 2 ◉ **YES** – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

◉ **NO – Saltwater Tidal Fringe (Estuarine)** ○ **YES – Freshwater Tidal Fringe**

*If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.*

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

◉ NO – go to 3 ○ **YES** – The wetland class is **Flats**

*If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.*

3. Does the entire wetland unit **meet all** of the following criteria?
   ☐ The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
   ☐ At least 30% of the open water area is deeper than 6.6 ft (2 m).

◉ NO – go to 4 ○ **YES –** The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit **meet all** of the following criteria?
   ☐ The wetland is on a slope (*slope can be very gradual*),
   ☐ The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
   ☐ The water leaves the wetland **without being impounded**.

◉ NO – go to 5 ○ **YES –** The wetland class is **Slope**

**NOTE**: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **meet all** of the following criteria?
   ☐ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
   ☐ The overbank flooding occurs at least once every 2 years.

Wetland name or number _____ EW1-EW14

◉ NO – go to 6 ○ **YES** – The wetland class is **Riverine**

**NOTE**: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

◉ NO – go to 7 ○ **YES** – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

◉ NO – go to 8 ○ **YES** – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

   **NOTE**: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

| HGM classes within the wetland unit being rated | HGM class to use in rating |
|---|---|
| Slope + Riverine | Riverine |
| Slope + Depressional | Depressional |
| Slope + Lake Fringe | Lake Fringe |
| Depressional + Riverine along stream within boundary of depression | Depressional |
| Depressional + Lake Fringe | Depressional |
| Riverine + Lake Fringe | Riverine |
| Salt Water Tidal Fringe and any other class of freshwater wetland | Treat as ESTUARINE |

*If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.*

Wetland name or number EW1-EW14 _____

# WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: ***NOTE:*** *This question is independent of the land use between the wetland unit and the priority habitat.*

— **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).

— **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).

— **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.

— **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha ) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

— **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).

— **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

— **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).

— **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.

— **Nearshore**: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).*

— **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.

— **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.

— **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

— **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

**Note:** All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

Wetland name or number _____ EW1-EW14

## CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

| **Wetland Type**<br>*Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.* | **Category** |
|---|---|
| **SC 1.0. Estuarine wetlands**<br>Does the wetland meet the following criteria for Estuarine wetlands?<br>X The dominant water regime is tidal,<br>X Vegetated, and<br>X With a salinity greater than 0.5 ppt (●) Yes –Go to **SC 1.1** ( ) No= **Not an estuarine wetland** | |
| SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151?<br>( ) Yes = **Category I** (●) No - Go to **SC 1.2** | ( ) **Cat. I** |
| SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?<br>— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are *Spartina*, see page 25)<br>— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.<br>— The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. ( ) Yes = **Category I** (●) No = **Category II** | ( ) **Cat. I**<br>(●) **Cat. II** |
| **SC 2.0. Wetlands of High Conservation Value (WHCV)**<br>SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? ( ) Yes – Go to **SC 2.2** ( ) No – Go to **SC 2.3**<br>SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? ( ) Yes = **Category I** ( ) No = **Not a WHCV**<br>SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf ( ) Yes – **Contact WNHP/WDNR and go to SC 2.4** ( ) No = **Not a WHCV**<br>SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? ( ) Yes = **Category I** ( ) No = **Not a WHCV** | ( ) **Cat. I** |
| **SC 3.0. Bogs**<br>Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below.* ***If you answer YES you will still need to rate the wetland based on its functions.***<br>SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? ( ) Yes – Go to **SC 3.3** ( ) No – Go to **SC 3.2**<br>SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? ( ) Yes – Go to **SC 3.3** ( ) No = **Is not a bog**<br>SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? ( ) Yes = **Is a Category I bog** ( ) No – Go to **SC 3.4**<br>**NOTE:** If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog.<br>SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy?<br>( ) Yes = **Is a Category I bog** ( ) No = **Is not a bog** | ( ) **Cat. I** |

Wetland name or number _____ EW1-EW14

| | |
|---|---|
| **SC 4.0. Forested Wetlands**<br>Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? ***If you answer YES you will still need to rate the wetland based on its functions.***<br>— **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more.<br>— **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).<br>◯Yes = **Category I** ◯No = **Not a forested wetland for this section** | ◯**Cat. I** |
| **SC 5.0. Wetlands in Coastal Lagoons**<br>Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?<br>— The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks<br>— The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon *(needs to be measured near the bottom)*<br>◯Yes – Go to **SC 5.1** ◯No = **Not a wetland in a coastal lagoon**<br>SC 5.1. Does the wetland meet all of the following three conditions?<br>— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).<br>— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.<br>— The wetland is larger than $^{1}/_{10}$ ac (4350 $ft^2$)<br>◯Yes = **Category I** ◯No = **Category II** | ◯**Cat. I**<br>◯**Cat. II** |
| **SC 6.0. Interdunal Wetlands**<br>Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer yes you will still need to rate the wetland based on its habitat functions.***<br>In practical terms that means the following geographic areas:<br>— Long Beach Peninsula: Lands west of SR 103<br>— Grayland-Westport: Lands west of SR 105<br>— Ocean Shores-Copalis: Lands west of SR 115 and SR 109<br>◯Yes – Go to **SC 6.1** ◯No = **not an interdunal wetland for rating**<br>SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? ◯Yes = **Category I** ◯No – Go to **SC 6.2**<br>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?<br>◯Yes = **Category II** ◯No – Go to **SC 6.3**<br>SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?<br>◯Yes = **Category III** ◯No = **Category IV** | ◯**Cat I**<br>◯**Cat. II**<br>◯**Cat. III**<br>◯**Cat. IV** |
| **Category of wetland based on Special Characteristics**<br>If you answered No for all types, enter "Not Applicable" on Summary Form | II |

# APPENDIX E

# MAULSBY MARSH SEDIMENT RESULTS

Description: Provides a data report summarizing the results of the sediment sampling and characterization for Maulsby Marsh. It includes a summary of the field sampling collection performed, validated chemical analyses, and the salinity testing. This data is used to confirm that contaminants detected in the marsh sediments are not attributable to Site releases.

# MAULSBY MARSH
# SEDIMENT CHARACTERIZATION

**Jeld-Wen, Inc.**

Former Nord Door Site

300 West Marine View Drive

Everett, Washington 98201

**Prepared for:**

Jeld-Wen, Inc.

Klamath Fall, Oregon

and

Washington Department of Ecology

Olympia, Washington

**Prepared by:**

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**March 2021**

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Figure E-2 Maulsby Marsh Sample Locations


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Attachment E-1 Sediment Grab Collection and Processing Log Forms

Attachment E-2 Chemistry Laboratory Reports

Attachment E-3 Chemistry Data Validation Report

# 1 Introduction

Maulsby Marsh is located immediately east of the JELD-WEN former Nord Door facility located at 300 West Marine View Drive, Everett, Washington, 98201 (JELD-WEN Site), on the other side of Marine View Drive and the Burlington Northern Santa Fe (BNSF) railroad tracks from the Site (Figure E-1). Evaluations of soil conditions adjacent to the marsh in the BNSF right-of-way are summarized in the main body of the 2020 Remedial Investigation/Feasibility Study (RI/FS) Report.

## 1.1 Overview of Sediment Characterization

As part of initial RI/FS activities at the JELD-WEN Site, sediment sampling in Maulsby Marsh was performed in 2012. Sampling locations are depicted in Figure E-2. Sediment samples were collected and analyzed in a tiered approach as described in the sampling and analysis plan (SAP) (Attachment 1 of the Quality Assurance Project Plan [QAPP]; Anchor QEA 2012). Chemical analyses included polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), total petroleum hydrocarbons (TPH; Dx [diesel range]), extractable petroleum hydrocarbons (EPH), metals, semivolatile organic compounds (SVOCs), organochlorine pesticides, and conventional sediment parameters as listed in the QAPP Tables 4 and 5 (Anchor QEA 2012). Tiered sample collection and analysis was performed as follows:

- Eighteen sediment samples were collected in May 2012 (Figure E-2).
- The nine surface sediment samples located closest to the BNSF railroad tracks (MS001 through MS009) were submitted to the laboratory for analysis of PCBs, pesticides, metals, SVOCs, TPH, and sediment conventional analyses including grain size, total solids, total organic carbon, ammonia, and total sulfides. Materials collected from the remaining sample locations were submitted to the laboratory as archive samples.
- A portion of each sample was archived for possible EPH testing. All TPH testing was initially conducted on the first tier of nine samples collected using Northwest TPH (NWTPH) methods. The four sediment samples with the highest NWTPH concentrations, (MS001, MS002, MS003, and MS006) were tested further for EPH to further characterize the nature of hydrocarbons in these samples.

Maulsby Marsh sediment sampling and analysis data were also uploaded to the Washington State Department of Ecology (Ecology) EIM system following validation.

This document provides a summary of results from the first tier of sediment characterization work and includes a summary of the field sampling collection performed, validated chemical analyses, and the salinity testing. The scope of the sampling and analysis effort is described in the SAP (Attachment 1 to the QAPP; Anchor QEA 2012). This document also contains the grab collection and

processing forms (Attachment E-1), summaries of the chemical analyses and the raw data from the chemical analyses (Attachment E-2), and results from the data validation (Attachment E-3).

Based on review of the data summarized below, chemicals detected in the marsh sediments were not attributable to releases from the JELD-WEN Site. Therefore, no additional analysis of this area was required for the RI/FS, and archived samples were disposed of in consultation with Ecology.

## 1.2 Maulsby Marsh Salinity Monitoring

Water quality monitoring to characterize the salinity levels was performed at three locations: 1) at the marsh inlet; 2) in the north portion of the marsh; and 3) in the south portion of the marsh. Sample locations were determined in the field and are shown in Figure E-2. Water quality measurements for salinity were collected during the outgoing tide, just after the beginning of the ebb on May 30, 2012, following procedures described in the SAP.

# 2 Sample Collection and Handling

This section summarizes sediment sampling and processing and salinity measurements in the Maulsby Marsh area. Sediment sampling and processing and salinity measurements were performed in accordance with the SAP (Anchor QEA 2012).

## 2.1 Sediment Grab Sample Collection and Processing

Surface sediment samples were collected and processed from 18 locations within the Maulsby Marsh area (Figure E-2). Samples were collected on May 15, 2012, and submitted for tiered analysis as described in Section 1.1. Target sample locations were located using a Differential Global Positioning System (DGPS). Sediment sampling locations are shown in Figure E-2; Table E-1 presents the coordinates for the sampling locations. Surface sediment samples were collected from the 0- to 10-centimeter (cm) sediment interval for chemical and physical testing using hand collection procedures where sediments were exposed and using an Ekman-type grab sampler at locations that were covered by water.

Sediments collected were placed into a decontaminated bowl and homogenized using a stainless-steel spoon until the sediment appeared uniform in color and texture. Samples for total sulfide analysis were collected prior to sample homogenization as described in the SAP. Homogenized sediment was placed into appropriate pre-labeled sample containers and immediately placed into a cooler equipped with ice for transport to the laboratory. Prior to processing, sediments collected were described on field log forms. Copies of the field log forms are presented in Attachment E-1.

## 2.2 Maulsby Marsh Salinity Monitoring

Salinity monitoring was performed following an average high tide event on May 15, 2013 at three stations, as described in Section 1.2. Monitoring locations were accessed on foot; monitoring locations were identified using DGPS. Monitoring locations are listed in Table E-2 and presented in Figure E-2. Measurements were collected using a YSI 556 multi-parameter probe to collect measurements of temperature, conductivity, pH, salinity, and dissolved oxygen at each location.

Salinity measurements were made at the inlet of Maulsby Marsh from the edge of a small pool with approximately 8 inches of water. Water depth at the northern and southern locations of the marsh was generally only 2 inches deep. Salinity measurements were made at mid-depth within the water column at each location. Water quality measurements were recorded twice for each location to confirm that readings had stabilized. An average value for each parameter is presented for each location in Table E-2. Field log forms for salinity measurements are included in Attachment E-1.

# 3 Chemical Analysis

All sediment samples collected for analysis were submitted to Analytical Resources, Inc. (ARI) in Tukwila, Washington, according to procedures specified in the QAPP. As described in Section 1.1, the samples collected for the first tier of chemical characterization were submitted for the analysis of PAHs, PCBs, TPH-Dx (diesel range), EPH, metals, SVOCs, organochlorine pesticides, and conventional sediment parameters. The four samples with the highest TPH results (MS001, MS002, MS003, and MS006) were triggered for the analysis of EPH to further distinguish the different hydrocarbons present in these samples. Sediment chemical results and screening against Sediment Management Standards freshwater criteria are summarized in Table E-3. Some conventional, metal, and semivolatile organic compounds exceed the criteria, but are not related to Site-related chemicals.

# 4 Data Quality Summary

A review of the validation reports indicated that the overall data quality of the chemistry data generated is acceptable for use in site characterization. Laboratory results and raw data are presented in Attachment E-2.

Detailed data quality objectives and quality assurance (QA) procedures are provided in the QAPP (Anchor QEA 2012). Laboratory data packages were validated by Laboratory Data Consultants, Inc. (LDC) in Carlsbad, California, following U.S. Environmental Protection Agency (EPA) National Functional Guidelines (EPA 1999, 2004, 2008) and using the data quality objectives described in the QAPP (Anchor QEA 2012). All data went through Stage 2B validation (EPA 2009). Any data qualifiers applied to the data during the final validation procedures have been incorporated into the final database for this project. Data qualifiers assigned as a result of the data validation and their definitions are shown on the analytical results tables. All data were considered useable as reported or as qualified, and no data were rejected. The data may have been qualified as estimated for a particular analysis or analyte based on method or technical criteria outlined in the QAPP or as stated in the functional guidelines (EPA 1999, 2004, 2008). Data qualified with a "J" indicate that the associated numerical value is the approximate concentration of the analyte. Data qualified with a "UJ" indicate the approximate Practical Quantitation Limit (PQL) below which the analyte was not detected. In some cases, PQLs were elevated due to variations in sample size, moisture content, method blank contamination, or dilutions required to quantitate target analytes or overcome matrix interference. Results detected between the PQL and the MDL or EDL were qualified "J" by the laboratory to indicate they are estimated. The LDC validation report is presented in Attachment E-3.

## 4.1 Maulsby Marsh Sediments

Maulsby Marsh sediment samples were collected on May 15, 2012. The analytical methods and laboratories, sample transport and custody, field quality control, and laboratory quality control are discussed below.

### *4.1.1 Analytical Methods and Laboratories*

All analyses were conducted at ARI in Tukwila, Washington, which is Ecology and National Environmental Laboratory Accreditation Conference (NELAC) certified for the analyses conducted. ARI followed the methods outlined in QAPP Table E-4, with a few exceptions. These exceptions were either equivalent methods or more updated versions of methods current when the QAPP was written so data are not expected to be impacted.

### 4.1.2 Sample Transport and Holding Times

Samples were received at the laboratories in good condition and within the recommended temperature range of 0°C to 6°C. Samples were prepared and analyzed within hold times outlined in the QAPP (Anchor QEA 2012).

### 4.1.3 Field Quality Control

Field quality control samples consisted of homogenization duplicates, equipment rinsate blanks, and field blanks. Field quality control samples were collected at the required frequencies. Field quality control results are discussed in detail in the data validation reports.

Field duplicate samples were analyzed for the same parameters as the parent samples and no results were qualified based on field duplicate results. Field and rinsate blanks were analyzed for metals, TPH, pesticides, and PCB Aroclors. Results were below detection with the exceptions of the low-level detections of copper, dimethyl phthalate, and din-n-butyl phthalate in the field blank, and dimethyl phthalate in the rinse blank. Sample results are not expected to be impacted and no data were qualified based on field blank results.

### 4.1.4 Laboratory Quality Control

The validation report indicates the majority of the data results did not require qualification. Some data were qualified as estimated based on data quality objective or method exceedances. Some sample results were qualified as estimated due to calibration results outside of method control limits, or surrogate, matrix spike (MS) and/or matrix spike duplicate (MSD) recoveries, laboratory control sample (LCS), and/or laboratory control sample duplicate (LCSD) recoveries outside of the project-specified control limits. All data are usable as reported or as qualified.

# 5 References


Anchor QEA, LLC (Anchor QEA). 2012. *Quality Assurance Project Plan. Marine and Maulsby Marsh Sediment Characterization, Jeld-Wen Former Nord Door Site*. Prepared for Jeld-Wen, May 2012.

Anchor QEA. 2012. *Sampling and Analysis Plan. Marine and Maulsby Marsh Sediment Characterization, Jeld-Wen Former Nord Door Site*. Prepared for Jeld-Wen, May 2012.

EPA (U.S. Environmental Protection Agency). 1999. *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*. U.S. Environmental Protection Agency, Office of Emergency Response. EPA 540/R-99/008. October.

EPA. 2004. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation (OSRTI). EPA 540-R-04-004. October 2004.

EPA. 2008. *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. USEPA 540-R-08-01. June.

EPA. 2009. Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use. U.S. Environmental Protection Agency Office of Solid Waste and Emergency Response. USEPA 540-R-08-005. January.

# TABLES

**Table E-1**
**Maulsby Marsh Sediment Chemistry Sample Locations**

| Station Identification | Northing[a] | Easting[a] |
|---|---|---|
| MS001 | 373077.557 | 1303979.674 |
| MS002 | 372978.109 | 1303931.353 |
| MS003 | 372894.59 | 1303875.229 |
| MS004 | 372775.783 | 1303796.663 |
| MS005 | 372647.601 | 1303699.822 |
| MS006 | 372548.969 | 1303630.144 |
| MS007 | 372467.3 | 1303563.406 |
| MS008 | 372385.608 | 1303502.082 |
| MS009 | 372309.629 | 1303436.059 |
| MS010 | 372354.634 | 1303529.918 |
| MS011 | 372541.045 | 1303675.104 |
| MS012 | 372696.533 | 1303809.033 |
| MS013 | 372813.933 | 1303884.242 |
| MS014 | 373006.503 | 1304013.117 |
| MS015 | 372895.999 | 1303996.539 |
| MS016 | 372732.842 | 1303887.004 |
| MS017 | 372581.449 | 1303782.63 |
| MS018 | 372428.014 | 1303640.711 |

Notes:

a. NAD 83 US State Plane, Washington North Zone

**Table E-2**

**Maulsby Marsh Water Quality Sample Locations and Results Summary**

| Station Identification | Northing[a] | Easting[a] | Depth (in) | Temp (°C) | Sp. Cond (µS/ml) | pH (units) | Salinity (ppt) | DO (mg/L) |
|---|---|---|---|---|---|---|---|---|
| MM-SAL-North | 372899.612 | 1303977.058 | 2 | 27.87 | 2785.50 | 7.88 | 1.35 | 7.45 |
| MM-SAL-South | 372109.391 | 1303374.751 | 2 | 28.28 | 5156.00 | 8.22 | 2.58 | 11.11 |
| MM-SAL-Outlet | 371628.675 | 1302936.102 | 8 | 20.90 | 3811.50 | 7.46 | 2.21 | 8.94 |

Notes:

a. North American Datum of 1983 (NAD 83) US State Plane, Washington North Zone

°C = degrees Celsius

DO= dissolved oxygen

in = inches

µS/ml = microsiemens per milliliter

mg/L = milligrams per liter

ppt = parts per thousand

## Table E-3
## Maulsby Marsh Surface Sediment Chemistry Results Summary

| Task | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | MS001 | MS001 | MS002 | MS003 | MS004 | MS005 | MS006 | MS007 | MS008 | MS009 |
| Sample ID | MS001-SS-120515 | MS101-SS-120515 | MS002-SS-120515 | MS003-SS-120515 | MS004-SS-120515 | MS005-SS-120515 | MS006-SS-120515 | MS007-SS-120515 | MS008-SS-120515 | MS009-SS-120515 |
| Sample Date | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 |
| Sample Depth | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | N | FD | N | N | N | N | N | N | N | N |
| Matrix | SE | SE | SE | SE | SE | SE | SE | SE | SE | SE |
| **Conventional Parameters (mg/kg)** | | | | | | | | | | |
| Ammonia | 132 | 130 | 213 | 170 | 178 | 71.1 | 17.9 | 33.2 | 12.6 | 117 |
| Sulfide | 2960 | 3100 | 2350 | 3640 | 4070 | 1840 | 20.5 | 718 | 1770 | 1720 |
| **Conventional Parameters (pct)** | | | | | | | | | | |
| Total organic carbon | 19.6 | 18.4 | 17.1 | 23.6 | 17.9 | 29 | 31.9 | 16.7 | 22.5 | 12.2 |
| Total solids | 10.2 | 10.2 | 10.4 | 9.3 | 10.3 | 9.2 | 9.8 | 16.8 | 10.7 | 10.1 |
| Total solids (preserved) | 9.7 | 9.7 | 10.5 | 10.9 | 10 | 8.3 | 6.9 | 19 | 8.1 | 10.6 |
| **Grain Size (pct)** | | | | | | | | | | |
| Gravel | 0.1 U | 11.8 | 0.4 | 7.5 | 4.6 | 19.1 | 16.2 | 1.2 | 44.1 | 5.5 |
| Sand, very coarse | 24.4 | 17.1 | 14.2 | 11.8 | 8.2 | 13.9 | 19 | 16.4 | 11.4 | 8.3 |
| Sand, coarse | 7.1 | 7.9 | 6 | 8.1 | 7.5 | 11.2 | 16.5 | 9.7 | 7.2 | 7 |
| Sand, medium | 4.5 | 4.8 | 4.4 | 5.7 | 6.7 | 9.5 | 12.6 | 8.2 | 5.4 | 6.3 |
| Sand, fine | 3 | 3.2 | 3 | 4 | 5.3 | 6.6 | 8 | 9.6 | 4.2 | 5.3 |
| Sand, very fine | 2.1 | 2.4 | 2.3 | 2.7 | 3.7 | 4.1 | 4.9 | 10.2 | 3.1 | 4.5 |
| Silt, coarse | 1.3 | 1 | 1.5 | 5.2 | 4.2 | 2.8 | 3.3 | 11.2 | 5.2 | 10.3 |
| Silt, medium | 13.1 | 11.5 | 18.8 | 24.5 | 25.2 | 4.1 | 2.4 | 9.7 | 2.6 | 12.2 |
| Silt, fine | 11.3 | 9.9 | 12.2 | 7.7 | 8.4 | 6.5 | 3.5 | 7.2 | 4.3 | 9 |
| Silt, very fine | 12.4 | 11.2 | 15.2 | 5.9 | 7.5 | 6 | 2.9 | 6.9 | 4.1 | 10.7 |
| Clay, coarse | 3.1 | 3.4 | 4.5 | 1.3 | 3.2 | 4.8 | 3.4 | 2.2 | 3 | 4.2 |
| Clay, medium | 3.3 | 3.4 | 5.4 | 2.5 | 3.7 | 2.3 | 2.3 | 2.2 | 2 | 4.1 |
| Clay, fine | 14.2 | 12.5 | 12.2 | 12.9 | 11.8 | 9.1 | 5 | 5.3 | 3.4 | 12.7 |
| **Metals (mg/kg)** | | | | | | | | | | |
| Antimony | 2 UJ | 2 UJ | 2 UJ | 2 UJ | 2 UJ | 3 J | 5 J | 1 UJ | 2 UJ | 2 UJ |
| Arsenic | 33 | 33 | 27 | 19 | 24 | 55 | 80 | 28 | 27 | 8 |
| Cadmium | 3.2 | 3.4 | 2.9 | 2.2 | 3 | 3 | 3 | 3.7 | 3 | 2 |
| Chromium | 37 | 38 | 41 | 32 | 34 | 25 | 17 | 40 | 37 | 43 |
| Copper | 129 | 125 | 139 | 78 | 99 | 251 | 91 | 111 | 94 | 66 |
| Lead | 170 | 170 | 150 | 100 | 110 | 1180 | 360 | 350 | 160 | 60 |
| Mercury | 0.4 | 0.4 | 0.3 | 0.3 | 0.2 | 0.4 | 0.7 | 0.2 | 0.2 | 0.2 |
| Nickel | 50 | 42 | 46 | 30 | 40 | 40 | 33 | 44 | 37 | 38 |
| Silver | 2 U | 2 U | 2 U | 2 U | 2 U | 2 U | 2 U | 1 U | 2 U | 2 U |
| Zinc | 400 | 374 | 330 | 210 | 260 | 500 | 217 | 594 | 251 | 162 |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | |
| 4-Methylphenol (p-Cresol) | 1200 | 1600 | 1400 | 1100 | 690 | 3300 | 270 | 1800 J | 610 | 470 |
| Benzoic acid | 390 J | 640 J | 420 J | 330 J | 390 J | 3100 J | 3100 J | 1300 J | 740 J | 410 J |
| bis(2-Ethylhexyl)phthalate | 140 | 120 | 150 | 120 | 120 | 170 | 120 | 120 | 98 | 90 |
| Butylbenzyl phthalate | 60 U | 60 U | 59 U | 60 U | 60 U | 59 U | 60 U | 59 U | 60 U | 60 U |
| Carbazole | 42 J | 57 J | 56 J | 60 U | 69 | 130 | 95 | 62 | 63 | 60 U |
| Dibenzofuran | 180 | 280 | 240 | 110 | 300 | 660 | 480 | 210 | 69 | 54 J |
| Dimethyl phthalate | 60 U | 60 U | 59 U | 60 U | 60 U | 59 U | 60 U | 59 U | 60 U | 60 U |

**Table E-3**

**Maulsby Marsh Surface Sediment Chemistry Results Summary**

| Task | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | MS001 | MS001 | MS002 | MS003 | MS004 | MS005 | MS006 | MS007 | MS008 | MS009 |
| Sample ID | MS001-SS-120515 | MS101-SS-120515 | MS002-SS-120515 | MS003-SS-120515 | MS004-SS-120515 | MS005-SS-120515 | MS006-SS-120515 | MS007-SS-120515 | MS008-SS-120515 | MS009-SS-120515 |
| Sample Date | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 |
| Sample Depth | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | N | FD | N | N | N | N | N | N | N | N |
| Matrix | SE | SE | SE | SE | SE | SE | SE | SE | SE | SE |
| Di-n-butyl phthalate | 60 U | 60 U | 59 U | 60 U | 60 U | 59 U | 60 U | 59 U | 60 U | 60 U |
| Di-n-octyl phthalate | 60 UJ | 60 UJ | 59 UJ | 60 UJ | 60 UJ | 59 UJ | 60 UJ | 59 UJ | 60 UJ | 60 UJ |
| Pentachlorophenol | 600 U | **160 J** | 590 U | 600 U | 600 U | 590 U | 600 U | 590 U | 600 U | 600 U |
| Phenol | **300** | **400** | **260** | **180** | **200** | **1100** | **380** | **430 J** | **190** | **100** |
| Retene | **74** | **100** | **80** | **32 J** | **120** | **140** | **270** | **85** | 60 U | 60 U |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | |
| 2-Methylnaphthalene | **170** | **270** | **240** | **86** | **270** | **600** | **600** | **290 J** | **66** | **36 J** |
| Acenaphthene | **110** | **160** | **140** | **72** | **140** | **820** | **110** | **130** | **57 J** | 60 U |
| Acenaphthylene | **74** | **130** | **86** | **60** | **78** | **250** | **220** | **140** | **39 J** | 60 U |
| Anthracene | **140** | **180** | **170** | **120** | **180** | **350** | **220** | **170** | **110** | **51 J** |
| Benzo(a)anthracene | **160** | **170** | **280** | **130** | **240** | **300** | **230** | **180** | **190** | **57 J** |
| Benzo(a)pyrene | **260** | **270** | **470** | **250** | **380** | **330** | **250** | **270** | **220** | **80** |
| Benzo(b,j,k)fluoranthenes | **570** | **640** | **1000** | **580** | **970** | **970** | **650** | **540** | **420** | **180** |
| Benzo(g,h,i)perylene | **270** | **330** | **430** | **230** | **360** | **320** | **310** | **250** | **170** | **80** |
| Chrysene | **430** | **400** | **800** | **390** | **680** | **570** | **410** | **290** | **240** | **120** |
| Dibenzo(a,h)anthracene | **57 J** | **54 J** | **100** | **51 J** | **87** | **95** | **54 J** | **59** | **54 J** | 60 U |
| Fluoranthene | **660** | **970** | **860** | **550** | **870** | **1900** | **1700** | **1100** | **600** | **290** |
| Fluorene | **120** | **170** | **160** | **74** | **170** | **450** | **130** | **120** | **66** | **42 J** |
| Indeno(1,2,3-c,d)pyrene | **200** | **230** | **340** | **180** | **280** | **240** | **220** | **190** | **140** | **63** |
| Naphthalene | **1100** | **1800** | **1300** | **550** | **1400** | **4400** | **6300** | **2200** | **460** | **290** |
| Phenanthrene | **690** | **1200** | **830** | **500** | **890** | **1800** | **2200** | **1100** | **480** | **250** |
| Pyrene | **580** | **910** | **860** | **510** | **790** | **1600** | **1400** | **960** | **460** | **240** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | **363 J** | **383.4 J** | **650** | **348 J** | **544.5** | **496.2** | **369.5 J** | **369.8** | **302.8 J** | **114.2 J** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | **363 J** | **383.4 J** | **650** | **348 J** | **544.5** | **496.2** | **369.5 J** | **369.8** | **302.8 J** | **111.2 J** |
| Total PAH (SMS Freshwater 2013) (U = 0) | **5591 J** | **7884 J** | **8066** | **4333 J** | **7785** | **14995** | **15004 J** | **7989 J** | **3772 J** | **1779 J** |
| **Pesticides (µg/kg)** | | | | | | | | | | |
| 4,4'-DDD (p,p'-DDD) | 99 U | 99 U | 99 U | 99 U | 100 U | 99 U | **40 J** | 99 U | 99 U | 100 U |
| 4,4'-DDE (p,p'-DDE) | 99 U | 99 U | 99 U | 99 U | 100 U | 99 U | 9.9 UJ | 99 UJ | 99 UJ | 100 UJ |
| 4,4'-DDT (p,p'-DDT) | 99 U | 99 U | 99 U | 99 U | 100 U | 99 U | **19 J** | 99 UJ | 99 UJ | 100 UJ |
| Dieldrin | 99 U | 99 U | 99 U | 99 U | 100 U | 99 U | 9.9 U | 99 U | 99 U | 100 U |
| Endrin ketone | 99 U | 99 U | 99 U | 99 U | 100 U | 99 U | 28 U | 99 U | 99 U | 100 U |
| Hexachlorocyclohexane, beta- (BHC) | 50 U | 50 U | 50 U | 50 U | 50 U | 49 U | 12 U | 50 U | 50 U | 50 U |
| Sum DDD (U = 0) | 99 U | 99 U | 99 U | 99 U | 100 U | 99 U | **40 J** | 99 U | 99 U | 100 U |
| Sum DDE (U = 0) | 99 U | 99 U | 99 U | 99 U | 100 U | 99 U | 9.9 UJ | 99 UJ | 99 UJ | 100 UJ |
| Sum DDT (U = 0) | 99 U | 99 U | 99 U | 99 U | 100 U | 99 U | **19 J** | 99 UJ | 99 UJ | 100 UJ |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | |
| Aroclor 1016 | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U |
| Aroclor 1221 | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U |
| Aroclor 1232 | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U |
| Aroclor 1242 | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U |

## Table E-3
## Maulsby Marsh Surface Sediment Chemistry Results Summary

| Task | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Location ID** | **MS001** | **MS001** | **MS002** | **MS003** | **MS004** | **MS005** | **MS006** | **MS007** | **MS008** | **MS009** |
| **Sample ID** | **MS001-SS-120515** | **MS101-SS-120515** | **MS002-SS-120515** | **MS003-SS-120515** | **MS004-SS-120515** | **MS005-SS-120515** | **MS006-SS-120515** | **MS007-SS-120515** | **MS008-SS-120515** | **MS009-SS-120515** |
| **Sample Date** | **05/15/2012** | **05/15/2012** | **05/15/2012** | **05/15/2012** | **05/15/2012** | **05/15/2012** | **05/15/2012** | **05/15/2012** | **05/15/2012** | **05/15/2012** |
| **Sample Depth** | **0 - 10 cm** | **0 - 10 cm** | **0 - 10 cm** | **0 - 10 cm** | **0 - 10 cm** | **0 - 10 cm** | **0 - 10 cm** | **0 - 10 cm** | **0 - 10 cm** | **0 - 10 cm** |
| **Sample Type** | **N** | **FD** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** |
| **Matrix** | **SE** | **SE** | **SE** | **SE** | **SE** | **SE** | **SE** | **SE** | **SE** | **SE** |
| Aroclor 1248 | **22** | **17** | **17 J** | 20 U | 16 U | **12** | **16** | **15** | 9.9 U | 10 U |
| Aroclor 1254 | **44** | **37** | **39** | **28** | **28 J** | **25** | **27** | **31** | **23** | **20** |
| Aroclor 1260 | 20 U | 16 U | 20 U | 14 U | 20 U | 12 U | 20 U | 14 U | 9.9 U | 10 U |
| Aroclor 1262 | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U |
| Aroclor 1268 | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U |
| Total PCB aroclors (SMS Freshwater 2013) (U = 0) | **66** | **54** | **56 J** | **28** | **28 J** | **37** | **43** | **46** | **23** | **20** |
| **Extractable Petroleum Hydrocarbons (µg/kg)** | | | | | | | | | | |
| C8-C10 Aliphatics | 20000 U | -- | **19000** | 21000 U | -- | -- | **21000** | -- | -- | -- |
| C10-C12 Aliphatics | 20000 U | -- | 19000 U | 21000 U | -- | -- | 21000 U | -- | -- | -- |
| C12-C16 Aliphatics | 20000 U | -- | 19000 U | 21000 U | -- | -- | 21000 U | -- | -- | -- |
| C16-C21 Aliphatics | 20000 U | -- | **29000** | **38000** | -- | -- | 21000 U | -- | -- | -- |
| C21-C34 Aliphatics | **180000** | -- | **190000** | **160000** | -- | -- | **120000** | -- | -- | -- |
| C8-C10 Aromatics | 20000 U | -- | 19000 U | 21000 U | -- | -- | 21000 U | -- | -- | -- |
| C10-C12 Aromatics | 20000 U | -- | 19000 U | 21000 U | -- | -- | 21000 U | -- | -- | -- |
| C12-C16 Aromatics | 20000 U | -- | 19000 U | 21000 U | -- | -- | 21000 U | -- | -- | -- |
| C16-C21 Aromatics | 20000 U | -- | 19000 U | 21000 U | -- | -- | 21000 U | -- | -- | -- |
| C21-C34 Aromatics | **31000** | -- | **48000** | **53000** | -- | -- | **30000** | -- | -- | -- |
| **Total Petroleum Hydrocarbons (mg/kg)** | | | | | | | | | | |
| Diesel range hydrocarbons | **53** | **54** | **69** | **71** | 52 U | 54 U | **64** | **37** | 45 U | 50 U |
| Motor oil range | **150** | **140** | **180** | **170** | **110** | **160** | **190** | **120** | **120** | 100 U |

## Table E-3
## Maulsby Marsh Surface Sediment Chemistry Results Summary

| Task | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | MS010 | MS010 | MS011 | MS012 | MS013 | MS014 | MS015 | MS016 | MS017 | MS018 |
| Sample ID | MS010-SS-120515 | MS110-SS-120515 | MS011-SS-120515 | MS012-SS-120515 | MS013-SS-120515 | MS014-SS-120515 | MS015-SS-120515 | MS016-SS-120515 | MS017-SS-120515 | MS018-SS-120515 |
| Sample Date | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 |
| Sample Depth | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | N | FD | N | N | N | N | N | N | N | N |
| Matrix | SE | SE | SE | SE | SE | SE | SE | SE | SE | SE |
| **Conventional Parameters (mg/kg)** | | | | | | | | | | |
| Ammonia | 100 | 95.6 | 20.8 | 155 | 107 | 204 | 121 | 129 | 117 | 130 |
| Sulfide | 2030 | 1750 | 8.88 U | 2180 | 1520 | 4450 | 2130 | 702 | 2450 | 2960 |
| **Conventional Parameters (pct)** | | | | | | | | | | |
| Total organic carbon | 11.8 | 15.7 | 31.5 | 22.6 | 18.8 | 16.9 | 14.3 | 19.6 | 21.8 | 18 |
| Total solids | 10.6 | 10.4 | 9.8 | 9.7 | 9.3 | 9.8 | 10.3 | 12.4 | 8.4 | 11.7 |
| Total solids (preserved) | 10.5 | 10.7 | 11 | 10.5 | 9.6 | 10.8 | 11 | 11 | 7.4 | 11.1 |
| **Grain Size (pct)** | | | | | | | | | | |
| Gravel | 11.4 | 2.6 | 23.6 | 21.3 | 23.6 | 6.9 | 16.2 | 17.3 | 19.6 | 16.8 |
| Sand, very coarse | 9.5 | 14.2 | 17.8 | 11 | 11.6 | 13.4 | 11.3 | 14 | 14.3 | 8.7 |
| Sand, coarse | 7.1 | 9.4 | 14.5 | 5.9 | 7.1 | 10.3 | 7.5 | 10.4 | 11.5 | 4.6 |
| Sand, medium | 5.8 | 6.5 | 11.7 | 4.1 | 3.7 | 7 | 4.8 | 7.2 | 8.2 | 3.3 |
| Sand, fine | 4.7 | 5 | 7.4 | 2.8 | 4.2 | 4.9 | 2.7 | 4.5 | 5.3 | 2.8 |
| Sand, very fine | 3.8 | 3.8 | 4.6 | 1.9 | 1.8 | 3.2 | 1.5 | 2.8 | 3.4 | 2.1 |
| Silt, coarse | 8.1 | 2.4 | 0.2 | 4.9 | 4.2 | 1.9 | 2.1 | 0.2 | 0.7 | 1.8 |
| Silt, medium | 14.5 | 9.5 | 1.6 | 18.9 | 12.9 | 7.7 | 11.8 | 8.5 | 3.4 | 17.7 |
| Silt, fine | 8.1 | 9.5 | 3.7 | 6.5 | 11.6 | 11.9 | 11.9 | 12.9 | 9 | 12.9 |
| Silt, very fine | 8.7 | 15.4 | 4.2 | 4.1 | 6.9 | 12.8 | 12.8 | 9.3 | 8.3 | 7.1 |
| Clay, coarse | 2.9 | 5.5 | 3.2 | 1.2 | 2.2 | 4.7 | 4 | 2.1 | 2.4 | 4.6 |
| Clay, medium | 3.9 | 4.1 | 2.6 | 2.2 | 0.8 | 3.4 | 2.9 | 2.5 | 2.5 | 4.7 |
| Clay, fine | 11.6 | 12 | 5.1 | 15.2 | 9.3 | 11.8 | 10.5 | 8.2 | 11.4 | 12.9 |
| **Metals (mg/kg)** | | | | | | | | | | |
| Antimony | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Arsenic | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Cadmium | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Chromium | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Copper | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Lead | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Mercury | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Nickel | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Silver | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Zinc | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | |
| 4-Methylphenol (p-Cresol) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzoic acid | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Carbazole | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

## Table E-3
## Maulsby Marsh Surface Sediment Chemistry Results Summary

| Task | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | MS010 | MS010 | MS011 | MS012 | MS013 | MS014 | MS015 | MS016 | MS017 | MS018 |
| Sample ID | MS010-SS-120515 | MS110-SS-120515 | MS011-SS-120515 | MS012-SS-120515 | MS013-SS-120515 | MS014-SS-120515 | MS015-SS-120515 | MS016-SS-120515 | MS017-SS-120515 | MS018-SS-120515 |
| Sample Date | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 |
| Sample Depth | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | N | FD | N | N | N | N | N | N | N | N |
| Matrix | SE | SE | SE | SE | SE | SE | SE | SE | SE | SE |
| Di-n-butyl phthalate | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Phenol | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Retene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | |
| 2-Methylnaphthalene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(b,j,k)fluoranthenes | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluorene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PAH (SMS Freshwater 2013) (U = 0) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Pesticides (µg/kg)** | | | | | | | | | | |
| 4,4'-DDD (p,p'-DDD) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDE (p,p'-DDE) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDT (p,p'-DDT) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dieldrin | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Endrin ketone | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorocyclohexane, beta- (BHC) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Sum DDD (U = 0) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Sum DDE (U = 0) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Sum DDT (U = 0) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | |
| Aroclor 1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

## Table E-3
## Maulsby Marsh Surface Sediment Chemistry Results Summary

| Task | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Location ID** | **MS010** | **MS010** | **MS011** | **MS012** | **MS013** | **MS014** | **MS015** | **MS016** | **MS017** | **MS018** |
| **Sample ID** | **MS010-SS-120515** | **MS110-SS-120515** | **MS011-SS-120515** | **MS012-SS-120515** | **MS013-SS-120515** | **MS014-SS-120515** | **MS015-SS-120515** | **MS016-SS-120515** | **MS017-SS-120515** | **MS018-SS-120515** |
| **Sample Date** | **05/15/2012** | **05/15/2012** | **05/15/2012** | **05/15/2012** | **05/15/2012** | **05/15/2012** | **05/15/2012** | **05/15/2012** | **05/15/2012** | **05/15/2012** |
| **Sample Depth** | **0 - 10 cm** | **0 - 10 cm** | **0 - 10 cm** | **0 - 10 cm** | **0 - 10 cm** | **0 - 10 cm** | **0 - 10 cm** | **0 - 10 cm** | **0 - 10 cm** | **0 - 10 cm** |
| **Sample Type** | **N** | **FD** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** |
| **Matrix** | **SE** | **SE** | **SE** | **SE** | **SE** | **SE** | **SE** | **SE** | **SE** | **SE** |
| Aroclor 1248 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1262 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1268 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB aroclors (SMS Freshwater 2013) (U = 0) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Extractable Petroleum Hydrocarbons (µg/kg)** | | | | | | | | | | |
| C8-C10 Aliphatics | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| C10-C12 Aliphatics | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| C12-C16 Aliphatics | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| C16-C21 Aliphatics | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| C21-C34 Aliphatics | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| C8-C10 Aromatics | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| C10-C12 Aromatics | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| C12-C16 Aromatics | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| C16-C21 Aromatics | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| C21-C34 Aromatics | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Total Petroleum Hydrocarbons (mg/kg)** | | | | | | | | | | |
| Diesel range hydrocarbons | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Motor oil range | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table E-3**
**Maulsby Marsh Surface Sediment Chemistry Results Summary**

Notes:
**Bold = Detected result**
J = Estimated value
U = Compound analyzed, but not detected above detection limit
UJ = Compound analyzed, but not detected above estimated detection limit
µg = microgram
CPAH = carcinogenic polycyclic aromatic hydrocarbon
HPAH = high-molecular-weight polycyclic aromatic hydrocarbon
kg = kilogram
LPAH = low-molecular-weight polycyclic aromatic hydrocarbon
mg = milligram
ng = nanogram
OC = organic carbon
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
pct = percent
TEQ = toxic equivalency quotient

# Table E-4
## Maulsby Marsh Freshwater Sediment Results

| Task | | | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | MS001 | MS001 | MS002 | MS003 | MS004 | MS005 | MS006 | MS007 | MS008 | MS009 | MS010 |
| Sample ID | | | MS001-SS-120515 | MS101-SS-120515 | MS002-SS-120515 | MS003-SS-120515 | MS004-SS-120515 | MS005-SS-120515 | MS006-SS-120515 | MS007-SS-120515 | MS008-SS-120515 | MS009-SS-120515 | MS010-SS-120515 |
| Sample Date | | | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 |
| Sample Depth | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | N | FD | N | N | N | N | N | N | N | N | N |
| Matrix | SCO | CSL | SE | SE | SE | SE | SE | SE | SE | SE | SE | SE | SE |
| **Conventional Parameters (mg/kg)** | | | | | | | | | | | | | |
| Ammonia | 230 | 300 | **132** | **130** | **213** | **170** | **178** | **71.1** | **17.9** | **33.2** | **12.6** | **117** | **100** |
| Sulfide | 39 | 61 | **2960** | **3100** | **2350** | **3640** | **4070** | **1840** | **20.5** | **718** | **1770** | **1720** | **2030** |
| **Conventional Parameters (pct)** | | | | | | | | | | | | | |
| Total organic carbon | -- | -- | **19.6** | **18.4** | **17.1** | **23.6** | **17.9** | **29** | **31.9** | **16.7** | **22.5** | **12.2** | **11.8** |
| Total solids | -- | -- | **10.2** | **10.2** | **10.4** | **9.3** | **10.3** | **9.2** | **9.8** | **16.8** | **10.7** | **10.1** | **10.6** |
| Total solids (preserved) | -- | -- | **9.7** | **9.7** | **10.5** | **10.9** | **10** | **8.3** | **6.9** | **19** | **8.1** | **10.6** | **10.5** |
| **Grain Size (pct)** | | | | | | | | | | | | | |
| Gravel | -- | -- | 0.1 U | **11.8** | **0.4** | **7.5** | **4.6** | **19.1** | **16.2** | **1.2** | **44.1** | **5.5** | **11.4** |
| Sand, very coarse | -- | -- | **24.4** | **17.1** | **14.2** | **11.8** | **8.2** | **13.9** | **19** | **16.4** | **11.4** | **8.3** | **9.5** |
| Sand, coarse | -- | -- | **7.1** | **7.9** | **6** | **8.1** | **7.5** | **11.2** | **16.5** | **9.7** | **7.2** | **7** | **7.1** |
| Sand, medium | -- | -- | **4.5** | **4.8** | **4.4** | **5.7** | **6.7** | **9.5** | **12.6** | **8.2** | **5.4** | **6.3** | **5.8** |
| Sand, fine | -- | -- | **3** | **3.2** | **3** | **4** | **5.3** | **6.6** | **8** | **9.6** | **4.2** | **5.3** | **4.7** |
| Sand, very fine | -- | -- | **2.1** | **2.4** | **2.3** | **2.7** | **3.7** | **4.1** | **4.9** | **10.2** | **3.1** | **4.5** | **3.8** |
| Silt, coarse | -- | -- | **1.3** | **1** | **1.5** | **5.2** | **4.2** | **2.8** | **3.3** | **11.2** | **5.2** | **10.3** | **8.1** |
| Silt, medium | -- | -- | **13.1** | **11.5** | **18.8** | **24.5** | **25.2** | **4.1** | **2.4** | **9.7** | **2.6** | **12.2** | **14.5** |
| Silt, fine | -- | -- | **11.3** | **9.9** | **12.2** | **7.7** | **8.4** | **6.5** | **3.5** | **7.2** | **4.3** | **9** | **8.1** |
| Silt, very fine | -- | -- | **12.4** | **11.2** | **15.2** | **5.9** | **7.5** | **6** | **2.9** | **6.9** | **4.1** | **10.7** | **8.7** |
| Clay, coarse | -- | -- | **3.1** | **3.4** | **4.5** | **1.3** | **3.2** | **4.8** | **3.4** | **2.2** | **3** | **4.2** | **2.9** |
| Clay, medium | -- | -- | **3.3** | **3.4** | **5.4** | **2.5** | **3.7** | **2.3** | **2.3** | **2.2** | **2** | **4.1** | **3.9** |
| Clay, fine | -- | -- | **14.2** | **12.5** | **12.2** | **12.9** | **11.8** | **9.1** | **5** | **5.3** | **3.4** | **12.7** | **11.6** |
| **Metals (mg/kg)** | | | | | | | | | | | | | |
| Antimony | | | 2 UJ | 2 UJ | 2 UJ | 2 UJ | 2 UJ | **3 J** | **5 J** | 1 UJ | 2 UJ | 2 UJ | -- |
| Arsenic | 14 | 120 | **33** | **33** | **27** | **19** | **24** | **55** | **80** | **28** | **27** | **8** | -- |
| Cadmium | 2.1 | 5.4 | **3.2** | **3.4** | **2.9** | **2.2** | **3** | **3** | **3** | **3.7** | **3** | **2** | -- |
| Chromium | 72 | 88 | **37** | **38** | **41** | **32** | **34** | **25** | **17** | **40** | **37** | **43** | -- |
| Copper | 400 | 1200 | **129** | **125** | **139** | **78** | **99** | **251** | **91** | **111** | **94** | **66** | -- |
| Lead | 360 | 1300 | **170** | **170** | **150** | **100** | **110** | **1180** | **360** | **350** | **160** | **60** | -- |
| Mercury | 0.66 | 0.8 | **0.4** | **0.4** | **0.3** | **0.3** | **0.2** | **0.4** | **0.7** | **0.2** | **0.2** | **0.2** | -- |
| Nickel | 26 | 110 | **50** | **42** | **46** | **30** | **40** | **40** | **33** | **44** | **37** | **38** | -- |
| Silver | 0.57 | 1.7 | 2 U | 2 U | 2 U | 2 U | 2 U | 2 U | 2 U | 1 U | 2 U | 2 U | -- |
| Zinc | 3200 | 4200 | **400** | **374** | **330** | **210** | **260** | **500** | **217** | **594** | **251** | **162** | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | | | | |
| 4-Methylphenol (p-Cresol) | 260 | 2000 | **1200** | **1600** | **1400** | **1100** | **690** | **3300** | **270** | **1800 J** | **610** | **470** | -- |
| Benzoic acid | 2900 | 3800 | **390 J** | **640 J** | **420 J** | **330 J** | **390 J** | **3100 J** | **3100 J** | **1300 J** | **740 J** | **410 J** | -- |
| bis(2-Ethylhexyl)phthalate | 500 | 22000 | **140** | **120** | **150** | **120** | **120** | **170** | **120** | **120** | **98** | **90** | -- |
| Butylbenzyl phthalate | -- | -- | 60 U | 60 U | 59 U | 60 U | 60 U | 59 U | 60 U | 59 U | 60 U | 60 U | -- |
| Carbazole | 900 | 1100 | **42 J** | **57 J** | **56 J** | 60 U | **69** | **130** | **95** | **62** | **63** | 60 U | -- |
| Dibenzofuran | 200 | 680 | **180** | **280** | **240** | **110** | **300** | **660** | **480** | **210** | **69** | **54 J** | -- |
| Dimethyl phthalate | -- | -- | 60 U | 60 U | 59 U | 60 U | 60 U | 59 U | 60 U | 59 U | 60 U | 60 U | -- |
| Di-n-butyl phthalate | 380 | 1000 | 60 U | 60 U | 59 U | 60 U | 60 U | 59 U | 60 U | 59 U | 60 U | 60 U | -- |
| Di-n-octyl phthalate | 39 | 1100 | 60 UJ | 60 UJ | 59 UJ | 60 UJ | 60 UJ | 59 UJ | 60 UJ | 59 UJ | 60 UJ | 60 UJ | -- |
| Pentachlorophenol | 1200 | 1200 | 600 U | **160 J** | 590 U | 600 U | 600 U | 590 U | 600 U | 590 U | 600 U | 600 U | -- |
| Phenol | 120 | 210 | **300** | **400** | **260** | **180** | **200** | **1100** | **380** | **430 J** | **190** | **100** | -- |
| Retene | -- | -- | **74** | **100** | **80** | **32 J** | **120** | **140** | **270** | **85** | 60 U | 60 U | -- |

# Table E-4
## Maulsby Marsh Freshwater Sediment Results

| Task | | | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | MS001 | MS001 | MS002 | MS003 | MS004 | MS005 | MS006 | MS007 | MS008 | MS009 | MS010 |
| Sample ID | | | MS001-SS-120515 | MS101-SS-120515 | MS002-SS-120515 | MS003-SS-120515 | MS004-SS-120515 | MS005-SS-120515 | MS006-SS-120515 | MS007-SS-120515 | MS008-SS-120515 | MS009-SS-120515 | MS010-SS-120515 |
| Sample Date | | | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 |
| Sample Depth | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | N | FD | N | N | N | N | N | N | N | N | N |
| Matrix | SCO | CSL | SE | SE | SE | SE | SE | SE | SE | SE | SE | SE | SE |
| **PAHs (µg/kg)** | | | | | | | | | | | | | |
| 2-Methylnaphthalene | -- | -- | **170** | **270** | **240** | **86** | **270** | **600** | **600** | **290 J** | **66** | **36 J** | -- |
| Acenaphthene | -- | -- | **110** | **160** | **140** | **72** | **140** | **820** | **110** | **130** | **57 J** | 60 U | -- |
| Acenaphthylene | -- | -- | **74** | **130** | **86** | **60** | **78** | **250** | **220** | **140** | **39 J** | 60 U | -- |
| Anthracene | -- | -- | **140** | **180** | **170** | **120** | **180** | **350** | **220** | **170** | **110** | **51 J** | -- |
| Benzo(a)anthracene | -- | -- | **160** | **170** | **280** | **130** | **240** | **300** | **230** | **180** | **190** | **57 J** | -- |
| Benzo(a)pyrene | -- | -- | **260** | **270** | **470** | **250** | **380** | **330** | **250** | **270** | **220** | **80** | -- |
| Benzo(b,j,k)fluoranthenes | -- | -- | **570** | **640** | **1000** | **580** | **970** | **970** | **650** | **540** | **420** | **180** | -- |
| Benzo(g,h,i)perylene | -- | -- | **270** | **330** | **430** | **230** | **360** | **320** | **310** | **250** | **170** | **80** | -- |
| Chrysene | -- | -- | **430** | **400** | **800** | **390** | **680** | **570** | **410** | **290** | **240** | **120** | -- |
| Dibenzo(a,h)anthracene | -- | -- | **57 J** | **54 J** | **100** | **51 J** | **87** | **95** | **54 J** | **59** | **54 J** | 60 U | -- |
| Fluoranthene | -- | -- | **660** | **970** | **860** | **550** | **870** | **1900** | **1700** | **1100** | **600** | **290** | -- |
| Fluorene | -- | -- | **120** | **170** | **160** | **74** | **170** | **450** | **130** | **120** | **66** | **42 J** | -- |
| Indeno(1,2,3-c,d)pyrene | -- | -- | **200** | **230** | **340** | **180** | **280** | **240** | **220** | **190** | **140** | **63** | -- |
| Naphthalene | -- | -- | **1100** | **1800** | **1300** | **550** | **1400** | **4400** | **6300** | **2200** | **460** | **290** | -- |
| Phenanthrene | -- | -- | **690** | **1200** | **830** | **500** | **890** | **1800** | **2200** | **1100** | **480** | **250** | -- |
| Pyrene | -- | -- | **580** | **910** | **860** | **510** | **790** | **1600** | **1400** | **960** | **460** | **240** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | -- | -- | **363 J** | **383.4 J** | **650** | **348 J** | **544.5** | **496.2** | **369.5 J** | **369.8** | **302.8 J** | **114.2 J** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | -- | -- | **363 J** | **383.4 J** | **650** | **348 J** | **544.5** | **496.2** | **369.5 J** | **369.8** | **302.8 J** | **111.2 J** | -- |
| Total PAH (SMS Freshwater 2013) (U = 0) | 17000 | 30000 | **5591 J** | **7884 J** | **8066** | **4333 J** | **7785** | **14995** | **15004 J** | **7989 J** | **3772 J** | **1779 J** | -- |
| **Pesticides (µg/kg)** | | | | | | | | | | | | | |
| 4,4'-DDD (p,p'-DDD) | -- | -- | 99 U | 99 U | 99 U | 99 U | 100 U | 99 U | **40 J** | 99 U | 99 U | 100 U | -- |
| 4,4'-DDE (p,p'-DDE) | -- | -- | 99 U | 99 U | 99 U | 99 U | 100 U | 99 U | 9.9 UJ | 99 UJ | 99 UJ | 100 UJ | -- |
| 4,4'-DDT (p,p'-DDT) | -- | -- | 99 U | 99 U | 99 U | 99 U | 100 U | 99 U | **19 J** | 99 UJ | 99 UJ | 100 UJ | -- |
| Dieldrin | 4.9 | 9.3 | 99 U | 99 U | 99 U | 99 U | 100 U | 99 U | 9.9 U | 99 U | 99 U | 100 U | -- |
| Endrin ketone | 8.5 | 8.5 | 99 U | 99 U | 99 U | 99 U | 100 U | 99 U | 28 U | 99 U | 99 U | 100 U | -- |
| Hexachlorocyclohexane, beta- (BHC) | 7.2 | 11 | 50 U | 50 U | 50 U | 50 U | 50 U | 49 U | 12 U | 50 U | 50 U | 50 U | -- |
| Sum DDD (U = 0) | 310 | 860 | 99 U | 99 U | 99 U | 99 U | 100 U | 99 U | **40 J** | 99 U | 99 U | 100 U | -- |
| Sum DDE (U = 0) | 21 | 33 | 99 U | 99 U | 99 U | 99 U | 100 U | 99 U | 9.9 UJ | 99 UJ | 99 UJ | 100 UJ | -- |
| Sum DDT (U = 0) | 100 | 8100 | 99 U | 99 U | 99 U | 99 U | 100 U | 99 U | **19 J** | 99 UJ | 99 UJ | 100 UJ | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | | | | |
| Aroclor 1016 | -- | -- | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | -- |
| Aroclor 1221 | -- | -- | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | -- |
| Aroclor 1232 | -- | -- | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | -- |
| Aroclor 1242 | -- | -- | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | -- |
| Aroclor 1248 | -- | -- | **22** | **17** | **17 J** | 20 U | 16 U | **12** | **16** | **15** | 9.9 U | 10 U | -- |
| Aroclor 1254 | -- | -- | **44** | **37** | **39** | **28** | **28 J** | **25** | **27** | **31** | **23** | **20** | -- |
| Aroclor 1260 | -- | -- | 20 U | 16 U | 20 U | 14 U | 20 U | 12 U | 20 U | 14 U | 9.9 U | 10 U | -- |
| Aroclor 1262 | -- | -- | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | -- |
| Aroclor 1268 | -- | -- | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | -- |
| Total PCB aroclors (SMS Freshwater 2013) (U = 0) | 110 | 2500 | **66** | **54** | **56 J** | **28** | **28 J** | **37** | **43** | **46** | **23** | **20** | -- |

## Table E-4
## Maulsby Marsh Freshwater Sediment Results

| Task | | | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | MS001 | MS001 | MS002 | MS003 | MS004 | MS005 | MS006 | MS007 | MS008 | MS009 | MS010 |
| Sample ID | | | MS001-SS-120515 | MS101-SS-120515 | MS002-SS-120515 | MS003-SS-120515 | MS004-SS-120515 | MS005-SS-120515 | MS006-SS-120515 | MS007-SS-120515 | MS008-SS-120515 | MS009-SS-120515 | MS010-SS-120515 |
| Sample Date | | | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 |
| Sample Depth | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | N | FD | N | N | N | N | N | N | N | N | N |
| Matrix | SCO | CSL | SE | SE | SE | SE | SE | SE | SE | SE | SE | SE | SE |
| **Extractable Petroleum Hydrocarbons (µg/kg)** | | | | | | | | | | | | | |
| C8-C10 Aliphatics | -- | -- | 20000 U | -- | **19000** | 21000 U | -- | -- | **21000** | -- | -- | -- | -- |
| C10-C12 Aliphatics | -- | -- | 20000 U | -- | 19000 U | 21000 U | -- | -- | 21000 U | -- | -- | -- | -- |
| C12-C16 Aliphatics | -- | -- | 20000 U | -- | 19000 U | 21000 U | -- | -- | 21000 U | -- | -- | -- | -- |
| C16-C21 Aliphatics | -- | -- | 20000 U | -- | **29000** | **38000** | -- | -- | 21000 U | -- | -- | -- | -- |
| C21-C34 Aliphatics | -- | -- | **180000** | -- | **190000** | **160000** | -- | -- | **120000** | -- | -- | -- | -- |
| C8-C10 Aromatics | -- | -- | 20000 U | -- | 19000 U | 21000 U | -- | -- | 21000 U | -- | -- | -- | -- |
| C10-C12 Aromatics | -- | -- | 20000 U | -- | 19000 U | 21000 U | -- | -- | 21000 U | -- | -- | -- | -- |
| C12-C16 Aromatics | -- | -- | 20000 U | -- | 19000 U | 21000 U | -- | -- | 21000 U | -- | -- | -- | -- |
| C16-C21 Aromatics | -- | -- | 20000 U | -- | 19000 U | 21000 U | -- | -- | 21000 U | -- | -- | -- | -- |
| C21-C34 Aromatics | -- | -- | **31000** | -- | **48000** | **53000** | -- | -- | **30000** | -- | -- | -- | -- |
| **Total Petroleum Hydrocarbons (mg/kg)** | | | | | | | | | | | | | |
| Diesel range hydrocarbons | 340 | 510 | **53** | **54** | **69** | **71** | 52 U | 54 U | **64** | **37** | 45 U | 50 U | -- |
| Motor oil range | -- | -- | **150** | **140** | **180** | **170** | **110** | **160** | **190** | **120** | **120** | 100 U | -- |

# Table E-4
## Maulsby Marsh Freshwater Sediment Results

| Task | | | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | MS010 | MS011 | MS012 | MS013 | MS014 | MS015 | MS016 | MS017 | MS018 |
| Sample ID | | | MS110-SS-120515 | MS011-SS-120515 | MS012-SS-120515 | MS013-SS-120515 | MS014-SS-120515 | MS015-SS-120515 | MS016-SS-120515 | MS017-SS-120515 | MS018-SS-120515 |
| Sample Date | | | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 |
| Sample Depth | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | FD | N | N | N | N | N | N | N | N |
| Matrix | SCO | CSL | SE | SE | SE | SE | SE | SE | SE | SE | SE |
| **Conventional Parameters (mg/kg)** | | | | | | | | | | | |
| Ammonia | 230 | 300 | 95.6 | 20.8 | 155 | 107 | 204 | 121 | 129 | 117 | 130 |
| Sulfide | 39 | 61 | 1750 | 8.88 U | 2180 | 1520 | 4450 | 2130 | 702 | 2450 | 2960 |
| **Conventional Parameters (pct)** | | | | | | | | | | | |
| Total organic carbon | -- | -- | 15.7 | 31.5 | 22.6 | 18.8 | 16.9 | 14.3 | 19.6 | 21.8 | 18 |
| Total solids | -- | -- | 10.4 | 9.8 | 9.7 | 9.3 | 9.8 | 10.3 | 12.4 | 8.4 | 11.7 |
| Total solids (preserved) | -- | -- | 10.7 | 11 | 10.5 | 9.6 | 10.8 | 11 | 11 | 7.4 | 11.1 |
| **Grain Size (pct)** | | | | | | | | | | | |
| Gravel | -- | -- | 2.6 | 23.6 | 21.3 | 23.6 | 6.9 | 16.2 | 17.3 | 19.6 | 16.8 |
| Sand, very coarse | -- | -- | 14.2 | 17.8 | 11 | 11.6 | 13.4 | 11.3 | 14 | 14.3 | 8.7 |
| Sand, coarse | -- | -- | 9.4 | 14.5 | 5.9 | 7.1 | 10.3 | 7.5 | 10.4 | 11.5 | 4.6 |
| Sand, medium | -- | -- | 6.5 | 11.7 | 4.1 | 3.7 | 7 | 4.8 | 7.2 | 8.2 | 3.3 |
| Sand, fine | -- | -- | 5 | 7.4 | 2.8 | 4.2 | 4.9 | 2.7 | 4.5 | 5.3 | 2.8 |
| Sand, very fine | -- | -- | 3.8 | 4.6 | 1.9 | 1.8 | 3.2 | 1.5 | 2.8 | 3.4 | 2.1 |
| Silt, coarse | -- | -- | 2.4 | 0.2 | 4.9 | 4.2 | 1.9 | 2.1 | 0.2 | 0.7 | 1.8 |
| Silt, medium | -- | -- | 9.5 | 1.6 | 18.9 | 12.9 | 7.7 | 11.8 | 8.5 | 3.4 | 17.7 |
| Silt, fine | -- | -- | 9.5 | 3.7 | 6.5 | 11.6 | 11.9 | 11.9 | 12.9 | 9 | 12.9 |
| Silt, very fine | -- | -- | 15.4 | 4.2 | 4.1 | 6.9 | 12.8 | 12.8 | 9.3 | 8.3 | 7.1 |
| Clay, coarse | -- | -- | 5.5 | 3.2 | 1.2 | 2.2 | 4.7 | 4 | 2.1 | 2.4 | 4.6 |
| Clay, medium | -- | -- | 4.1 | 2.6 | 2.2 | 0.8 | 3.4 | 2.9 | 2.5 | 2.5 | 4.7 |
| Clay, fine | -- | -- | 12 | 5.1 | 15.2 | 9.3 | 11.8 | 10.5 | 8.2 | 11.4 | 12.9 |
| **Metals (mg/kg)** | | | | | | | | | | | |
| Antimony | | | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Arsenic | 14 | 120 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Cadmium | 2.1 | 5.4 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Chromium | 72 | 88 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Copper | 400 | 1200 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Lead | 360 | 1300 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Mercury | 0.66 | 0.8 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Nickel | 26 | 110 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Silver | 0.57 | 1.7 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Zinc | 3200 | 4200 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | | |
| 4-Methylphenol (p-Cresol) | 260 | 2000 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzoic acid | 2900 | 3800 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | 500 | 22000 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Carbazole | 900 | 1100 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | 200 | 680 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 380 | 1000 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | 39 | 1100 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 1200 | 1200 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Phenol | 120 | 210 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Retene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

# Table E-4
## Maulsby Marsh Freshwater Sediment Results

| Task | | | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | MS010 | MS011 | MS012 | MS013 | MS014 | MS015 | MS016 | MS017 | MS018 |
| Sample ID | | | MS110-SS-120515 | MS011-SS-120515 | MS012-SS-120515 | MS013-SS-120515 | MS014-SS-120515 | MS015-SS-120515 | MS016-SS-120515 | MS017-SS-120515 | MS018-SS-120515 |
| Sample Date | | | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 |
| Sample Depth | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | FD | N | N | N | N | N | N | N | N |
| Matrix | SCO | CSL | SE | SE | SE | SE | SE | SE | SE | SE | SE |
| **PAHs (µg/kg)** | | | | | | | | | | | |
| 2-Methylnaphthalene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(b,j,k)fluoranthenes | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluorene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PAH (SMS Freshwater 2013) (U = 0) | 17000 | 30000 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Pesticides (µg/kg)** | | | | | | | | | | | |
| 4,4'-DDD (p,p'-DDD) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDE (p,p'-DDE) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDT (p,p'-DDT) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dieldrin | 4.9 | 9.3 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Endrin ketone | 8.5 | 8.5 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorocyclohexane, beta- (BHC) | 7.2 | 11 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Sum DDD (U = 0) | 310 | 860 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Sum DDE (U = 0) | 21 | 33 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Sum DDT (U = 0) | 100 | 8100 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | | |
| Aroclor 1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1262 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1268 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB aroclors (SMS Freshwater 2013) (U = 0) | 110 | 2500 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

## Table E-4
## Maulsby Marsh Freshwater Sediment Results

| Task | | | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 | Maulsby Marsh 2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | MS010 | MS011 | MS012 | MS013 | MS014 | MS015 | MS016 | MS017 | MS018 |
| Sample ID | | | MS110-SS-120515 | MS011-SS-120515 | MS012-SS-120515 | MS013-SS-120515 | MS014-SS-120515 | MS015-SS-120515 | MS016-SS-120515 | MS017-SS-120515 | MS018-SS-120515 |
| Sample Date | | | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 | 05/15/2012 |
| Sample Depth | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | FD | N | N | N | N | N | N | N | N |
| Matrix | SCO | CSL | SE | SE | SE | SE | SE | SE | SE | SE | SE |
| **Extractable Petroleum Hydrocarbons (µg/kg)** | | | | | | | | | | | |
| C8-C10 Aliphatics | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| C10-C12 Aliphatics | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| C12-C16 Aliphatics | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| C16-C21 Aliphatics | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| C21-C34 Aliphatics | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| C8-C10 Aromatics | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| C10-C12 Aromatics | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| C12-C16 Aromatics | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| C16-C21 Aromatics | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| C21-C34 Aromatics | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Total Petroleum Hydrocarbons (mg/kg)** | | | | | | | | | | | |
| Diesel range hydrocarbons | 340 | 510 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Motor oil range | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table E-4**
**Maulsby Marsh Freshwater Sediment Results**

Notes:
Detected concentration is greater than freshwater SMS SCO
Detected concentration is greater than freshwater SMS CSL
**Bold: Detected result**
µg/kg: microgram per kilogram
CAEPA: California Environmental Protection Agency
cm: centimeter
cPAH: carcinogenic  polycyclic aromatic hydrocarbon
CSL: cleanup screening level
FD: field duplicate
J: estimated value
mg/kg: milligram per kilogram
N: normal sample
PAH: polycyclic aromatic hydrocarbon
PCB: polychlorinated biphenyl
SCO: sediment cleanup objective
SE: sediment matrix
SMS: sediment management standard
TEQ: toxic equivalent level
U: Compound analyzed, but not detected above detection limit
UJ: Compound analyzed, but not detected above estimated detection limit

# FIGURES




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**Figure E-1**
Maulsby Marsh Vicinity Map
Remedial Investigation Feasibility Study
Jeld-Wen/ Former Nord Door Facility




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**LEGEND**

- Salinity Sample Location
- Sediment Sample Location

Feet
0 40 80 120 160

ANCHOR QEA

SLR

**Figure E-2**
Maulsby Marsh Sample Locations
Remedial Imvestigation Feasibility Study
Jeld-Wen/ Former Nord Door Facility

# ATTACHMENT E-1
# SEDIMENT GRAB COLLECTION AND PROCESSING LOG FORMS

ANCHOR QEA

# Surface Sediment Field Sample Record

MS-001

**Project Name:** Mailsby Marsh **Project No:** 120909-01.01 **Station ID:** 001

Sampling Crew: DG JP AT
Sample Date: 5/15/12 Sampling Method: [illegible] ekman
Sampling Vessel: —
Subcontractor(s): — Weather: Sunny
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: MS001-SS-120515
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 1339
Tide Level: — ft. Sample Interval: 0-10 cm
Bioassay / (Chemistry) Depth MLLW: — ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | (none) | (H2S) | (none) | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| (silt clay) | (brown) | dense/stiff | strong | | moderate | (Wet) |
| (organic matter) | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: Coarse organics at 10 cm - very dark grey - At edge of 12' drainage, duck wading tracks. decanted surface water, surface layer has red, pink green & brown

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** maulsby marsh **Project No:** 120909-01.01 **Station ID:** MS-002

Sampling Crew: DG JP AT
Sample Date: 5/15/12 Sampling Method: hand
Sampling Vessel: — —
Subcontractor(s): — Weather: sunny
Station Coordinates: N / Lat. —
E / Long. —
Datum: NAD 83 / WGS 84 zone:

Sample ID: MS-002-SS-120515
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other: —
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other: —
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: — cm Time: 13:17
Tide Level: — ft. Sample Interval: 0-10 cm
Bioassay / Chemistry Depth MLLW: — ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: edge of open pond area - Thin brown surface

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

# Surface Sediment Field Sample Record

MS 003

**Project Name:** Maulsby Marsh **Project No:** 120909-01.01 **Station ID:** 003

Sampling Crew: DG JP AT

Sample Date: 5/15/12 Sampling Method: hand

Sampling Vessel: —

Subcontractor(s): — Weather: Sunny

Station Coordinates: N / Lat.

E / Long.

Datum: NAD 83 / WGS 84 zone:

Sample ID: MS003-SS-120515

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:

(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: — cm Time: 12:34

Tide Level: — ft. Sample Interval: 0-10 cm

Bioassay / Chemistry Depth MLLW: — ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: 3" very soft very wet, silt 1/2 cm brown layer surface 3" dense reddish organic mat, thin channel near veg clumps

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Maulsby Marsh **Project No:** 120909-01.01 **Station ID:** MS-004 (004)

Sampling Crew: DG, JP, AT

Sample Date: 5/15/12 Sampling Method: hand

Sampling Vessel: —

Subcontractor(s): — Weather: sunny

Station Coordinates: N / Lat.

E / Long.

Datum: NAD 83 / WGS 84 zone:

Sample ID: SM004-SS-120515

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:

(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 11:53

Tide Level: — ft. Sample Interval: 0-10 cm

Bioassay / (Chemistry) Depth MLLW: — ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | none | (H2S) | (none) | Dry |
| gravel | gray | soft/loose | (slight) | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| (silt clay) | (brown) | dense/stiff | strong | | moderate | (Wet) |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: Sheen on surface following drainage patterns thin light brown surface, dark brown below, very soft gluey no coarse organics on top 10 cm, open silty area with no veg

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** **Project No:** **Station ID:** MS005

Sampling Crew: DG JP AT
Sample Date: 5/15/12 Sampling Method: grab ekman
Sampling Vessel: — Subcontractor(s): — Weather: Sunny warm
Station Coordinates: N / Lat. E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: MS005-SS-1205-15
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: — Water Depth: — ft. Grab Recovery: 10 cm Time: 0855
Tide Level: — ft. Sample Interval: 0-10 cm
Bioassay / Chemistry Depth MLLW: — ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | ~~Very soft/Loose~~ | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: Heavily organic - Sample taken from small pool within the sedges

Grab Number: — Water Depth: — ft. Grab Recovery: — cm Time: —
Tide Level: — ft. Sample Interval: — cm
Bioassay / Chemistry Depth MLLW: — ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: — Water Depth: — ft. Grab Recovery: — cm Time: —
Tide Level: — ft. Sample Interval: — cm
Bioassay / Chemistry Depth MLLW: — ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

# Surface Sediment Field Sample Record

MS-006

**Project Name:** Maulsby marsh **Project No:** 120909-01.01 **Station ID:** 0010

Sampling Crew: DG JP AT

Sample Date: 5/15/12 Sampling Method: bowl spoon

Sampling Vessel: —

Subcontractor(s): — Weather: Sunny

Station Coordinates: N / Lat.

E / Long.

Datum: NAD 83 / WGS 84 zone:

Sample ID: MS0010-SS-120515

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:

(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 9:10

Tide Level: — ft. Sample Interval: 0-10 cm

Bioassay / (Chemistry) Depth MLLW: — ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | none | (H2S) | (none) | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | (moderate) | other: | slight | Moist |
| (silt) clay | (brown) | dense/stiff | strong | | moderate | (Wet) |
| (organic matter) | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: 6-8 inch channels under veg - fine brown thin layer silt 4 inches organic matter

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** maulsby marsh **Project No:** 120909-01.01 **Station ID:** 007

Sampling Crew: DG JP AT

Sample Date: 5/15/12 Sampling Method: ekman

Sampling Vessel: —

Subcontractor(s): — Weather: Sunny

Station Coordinates: N / Lat. —

E / Long. —

Datum: NAD 83 / WGS 84 zone:

Sample ID: MS007-SS-120515

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other: —

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other: —

(Circle Appropriate Analyses)

Grab Number: 007 Water Depth: — ft. Grab Recovery: 0-10 cm Time: 9:45

Tide Level: — ft. Sample Interval: 10 cm

Bioassay / (Chemistry) Depth MLLW: — ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | none | (H2S) | (none) | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| (silt clay) | (brown) | dense/stiff | (strong) | | moderate | (Wet) |
| (organic matter) | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: Silty, 1 inch water over top - very wet - surface 2 inches very loose silt - below is denser wet with high organic material

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

# Surface Sediment Field Sample Record

MS-008

**Project Name:** Maulsby Marsh **Project No:** 120909-01.01 **Station ID:** 009

Sampling Crew: —

Sample Date: 5/15/12 Sampling Method: bowl / spoon

Sampling Vessel: — —

Subcontractor(s): — Weather: Sunny warm

Station Coordinates: N / Lat. —

E / Long. —

Datum: NAD 83 / WGS 84 zone:

Sample ID: SS MS008-SS-12015-15

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other: —

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other: —

(Circle Appropriate Analyses)

Grab Number: 009 Water Depth: — ft. Grab Recovery: 10 cm Time: 9:40

Tide Level: — ft. Sample Interval: 0-10 cm

Bioassay / (Chemistry) Depth MLLW: — ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | none | (H2S) | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | (moderate) | other: | slight | Moist |
| (silt/clay) | (brown) | dense/stiff | strong | | moderate | (Wet) |
| (organic matter) | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: very vegetated, 2-4 inch drainage channels covered with fine silt over 2 inches of organic mat - silt

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: AJT

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** maulsby marsh **Project No:** 120909-01.01 **Station ID:** MS-009 609

Sampling Crew: DG JP AT
Sample Date: 5/15/12 Sampling Method: Ekman
Sampling Vessel: —
Subcontractor(s): — Weather: Sunny warm
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: MS 009 - 120515
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 10:10
Tide Level: — ft. Sample Interval: 0-10 cm
Bioassay / (Chemistry) Depth MLLW: — ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | none | (H2S) | (none) | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | (moderate) | other: | slight | Moist |
| silt clay | (brown) - lighter | dense/stiff | strong | | moderate | (Wet) |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: below sample - more organic woody roots

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

# Surface Sediment Field Sample Record

MS-010

**Project Name:** maulsby marsh **Project No:** 120909-01.01 **Station ID:** 010 & 110

Sampling Crew: DG JP AT

Sample Date: 5/15/12 Sampling Method: Ekman

Sampling Vessel: —

Subcontractor(s): — Weather: Sunny

Station Coordinates: N / Lat.

E / Long.

Datum: NAD 83 / WGS 84 zone:

Sample ID: ~~MS010~~ MS010-SS-120515 & MS110-SS-120515

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:

(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 10:30

Tide Level: — ft. Sample Interval: 0-10 cm

Bioassay / (Chemistry) Depth MLLW: — ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | none | (H2S) | (none) | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | (moderate) | other: | slight | Moist |
| (silt clay) | (brown) | dense/stiff | strong | | moderate | (Wet) |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Second grab collected for volume

Grab Number: 2 Water Depth: — ft. Grab Recovery: 10 cm Time: 10:35

Tide Level: — ft. Sample Interval: 0-10 cm

Bioassay / (Chemistry) Depth MLLW: — ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | none | (H2S) | (none) | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | (moderate) | other: | slight | Moist |
| (silt clay) | (brown) | dense/stiff | strong | | moderate | (Wet) |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: Thin brown layer on surface - about 10 cm abundant organic material

~~MS0~~ MS110-SS-120515 is dup. of MS010-SS-120515

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

# Surface Sediment Field Sample Record

MS-011

**Project Name:** Maulsby Marsh **Project No:** 120909-01.01 **Station ID:** 011

Sampling Crew: DG JP AT

Sample Date: 4/5/17 Sampling Method: hand (Bowl

Sampling Vessel: — 

Subcontractor(s): — Weather: Sunny

Station Coordinates: N / Lat.

E / Long.

Datum: NAD 83 / WGS 84 zone:

Sample ID: SM011-SS-120515

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:

(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 11:15

Tide Level: — ft. Sample Interval: 0-10 cm

Bioassay / (Chemistry) Depth MLLW: — ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | (none) | H2S | (none) | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| (silt clay) | (brown) dark | dense/stiff | strong | | moderate | (Wet) |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: thick organic layer 0-10 cm

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Maulsby marsh **Project No:** 120909-01.01 **Station ID:** 012

Sampling Crew: PG JP AT
Sample Date: 5/15/12 Sampling Method: hand
Sampling Vessel: —
Subcontractor(s): — Weather: Sunny
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: ~~BPM~~ 012-SS-120515 MS
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 11:59
Tide Level: — ft. Sample Interval: 0-10 cm
Bioassay / Chemistry Depth MLLW: — ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | ~~Very soft/Loose~~ | none | ~~H2S~~ | ~~none~~ | Dry |
| gravel | gray | soft/loose | ~~slight~~ | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| ~~silt clay~~ | ~~brown~~ | dense/stiff | ~~strong~~ | | moderate | ~~Wet~~ |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: ~~Brown~~ on surface, 2-3" very soft wet brown silt 3-10 cm very dense organic mat, open small end of drainage channel No sheen

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Maulsby marsh **Project No:** 120909-01.01 **Station ID:** 013

Sampling Crew: DG JP AT
Sample Date: 5/15/12 Sampling Method: hand
Sampling Vessel: —
Subcontractor(s): — Weather: Stormy
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: MS013-SS-[illegible]120515
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 12:22
Tide Level: — ft. Sample Interval: 0-10 cm
Bioassay / Chemistry Depth MLLW: — ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | none | (H2S) | (none) | Dry |
| gravel | gray | soft/loose | (slight) | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | (brown) | dense/stiff | strong | | moderate | (Wet) |
| (organic matter) | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: very soft silt, very wet, clusters of reg around drainage channels, brown layer on surface, very dark underneath

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Maulsby marsh **Project No:** 120909-01.01 **Station ID:** 014

Sampling Crew: DG JP AT

Sample Date: 5/15/12 Sampling Method: hand

Sampling Vessel: —

Subcontractor(s): — Weather: Sunny ~60

Station Coordinates: N / Lat. —

E / Long. —

Datum: NAD 83 / WGS 84 zone:

Sample ID: MS014-SS-120515

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other: —

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other: —

(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 1320

Tide Level: — ft. Sample Interval: 0-10 cm

Bioassay / (Chemistry) Depth MLLW: — ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | none | (H2S) | (none) | Dry |
| gravel | gray | soft/loose | (slight) | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| (silt clay) | (brown) | dense/stiff | strong | | moderate | (Wet) |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: 9" of very soft wet silt, no surface, surface thin brown layer, no coarse organics, clustered clumps of veg, next to open area

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Maulsby marsh **Project No:** 120909-01.01 **Station ID:** 015

Sampling Crew: DG JP AT
Sample Date: 5/15/12 Sampling Method: Hand Ekman
Sampling Vessel: —
Subcontractor(s): — Weather: sunny
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: MS015-SS-120515
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 12:51
Tide Level: — ft. Sample Interval: 0-10 cm
Bioassay / (Chemistry) Depth MLLW: — ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | none | (H2S) | (none) | Dry |
| gravel | gray | soft/loose | (slight) | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| (silt clay) | (brown) | dense/stiff | strong | | moderate | (Wet) |
| (organic matter) | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: 2" standing water, very wet and soft, 3" silt dense organics @ 10 cm

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: KT

ANCHOR QEA

# Surface Sediment Field Sample Record

MS-016

**Project Name:** Maulsby Marsh **Project No:** 120909-01.01 **Station ID:** 016

Sampling Crew: DG JP AT
Sample Date: 5/15/12 Sampling Method: hand
Sampling Vessel: —
Subcontractor(s): — Weather: Sunny
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: MS 016 - SS - 120515
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 12:11
Tide Level: — ft. Sample Interval: 0-10 cm
Bioassay / (Chemistry) Depth MLLW: — ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | none | (H2S) | (none) | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | (moderate) | other: | slight | Moist |
| (silt clay) | (brown) | dense/stiff | strong | | moderate | (Wet) |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: 3" soft wet brownish layer over thick organic mat that was dark, strong H2S, clumby veg at edge of large pond

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

# Surface Sediment Field Sample Record

MS-017

**Project Name:** Maulsby Marsh **Project No:** 120909-01.01 **Station ID:** 017

Sampling Crew: DG JP AT

Sample Date: 5/15/12. Sampling Method: hand & Ponar bowl

Sampling Vessel: —

Subcontractor(s): — Weather:

Station Coordinates: N / Lat.

E / Long.

Datum: NAD 83 / WGS 84 zone:

Sample ID: SM017-SS-120415

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:

(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 11:25

Tide Level: — ft. Sample Interval: 0-10 cm

Bioassay / Chemistry Depth MLLW: — ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | ~~Very soft/Loose~~ | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: Open pond no water on surface
very thin lighter brown on surface
highly organic - 4-6 inches silt over thick dense mat

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Maulsby Marsh **Project No:** 120909-01.01 **Station ID:** 018

Sampling Crew: DG JP AT
Sample Date: 5/15/12 Sampling Method: bowl & hand
Sampling Vessel: —
Subcontractor(s): — Weather:
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: MS018-SS-120515
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — ft. Grab Recovery: 10 cm Time: 11:00
Tide Level: — ft. Sample Interval: 0-10 cm
Bioassay / Chemistry Depth MLLW: — ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | none | (H2S) | (none) | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | (Moist) |
| (silt clay) | (brown) - dark | dense/stiff | (strong) | | moderate | (Wet) |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:
surface was very brown organic silt
highly organic

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

720 Olive Way, Suite 1900
Seattle, Washington 98101
Phone 206.287.9130
Fax 206.287-9131
www.anchorqea.com

## Water Collection Form: Water Quality Monitoring

| | | | |
|---|---|---|---|
| **Station ID:** MM-Sal-outlet | | **Date** 5/30/12 | **Time** 1347 |
| **Project Name:** Jeld Wen | | **Project Number** 110909-01.01 | |
| **Coordinates** | | | |
| Lat/Northing: | 371631.8 | Long/Easting | 1302935.9 |

Weather Observations: Overcast

| Param. ---Unit--- Time | Temp. | Sp.Cond | Cond. | pH | Salinity | DO | | |
|---|---|---|---|---|---|---|---|---|
| 1347 | 20.92 | 3794 | 4015 | 7.48 | 2.21 | 9.05 | | |
| 1348 | 20.87 | 3829 | 4159 | 7.44 | 2.21 | 8.83 | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Comments:
8" of water in 20' pond just upstream of culvert pipe. water observed flowing out at low rate.
no odor or sheen observed. water turbid

Recorded by: David Gillingham

ANCHOR QEA

720 Olive Way, Suite 1900
Seattle, Washington 98101
Phone 206.287.9130
Fax 206.287-9131
www.anchorqea.com

## Water Collection Form: Water Quality Monitoring

| | | | |
|---|---|---|---|
| **Station ID:** MM-Sal-South | | **Date** 5/30/12 | **Time** 1405 |
| **Project Name:** Jeld Wen | | **Project Number** 110909-01.01 | |
| **Coordinates** | | | |
| Lat/Northing: | 372108.1 | Long/Easting | 1303374.9 |

Weather Observations: overcast

| Param. ---Unit--- Time | Temp. °C | Sp.Cond µS/cm | Cond. µS/cm | pH | Salinity ppt | DO mg/L | | |
|---|---|---|---|---|---|---|---|---|
| 1405 | 28.33 | 5797 | 4892 | 8.13 | 2.60 | 11.18 | | |
| 1406 | 28.23 | 5715 | 4808 | 8.30 | 2.56 | 11.03 | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Comments:
40' diameter pool just south of channel. 75' from tracks.
2 inches of water of silty pond
no movement of water

Recorded by: David Cellingham

ANCHOR QEA

720 Olive Way, Suite 1900
Seattle, Washington 98101
Phone 206.287.9130
Fax 206.287-9131
www.anchorqea.com

## Water Collection Form: Water Quality Monitoring

| | | | |
|---|---|---|---|
| **Station ID:** MM-Sal-North | | **Date** 5/30/12 | **Time** 1432 |
| **Project Name:** Jeld Wen | | **Project Number** 110909-01.01 | |
| **Coordinates** | | | |
| Lat/Northing: | 372900.3 | Long/Easting | 1303973.7 |

Weather Observations: overcast

| Param. ---Unit--- Time | Temp. | Sp.Cond | Cond. | pH | Salinity | DO | | |
|---|---|---|---|---|---|---|---|---|
| 1432 | 28.49 | 2790 | 2646 | 7.92 | 1.35 | 7.66 | | |
| 1433 | 28.24 | 2781 | 2615 | 7.84 | 1.35 | 7.24 | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Comments:

150 ft from tracks - 2 inches of water in series of ponds - no odor or sheen
near 15 stake
no movement of water

Recorded by: David Billingham

# ATTACHMENT E-2
# CHEMISTRY LABORATORY REPORTS

Provided separately due to large file sizes.

# ATTACHMENT E-3
# CHEMISTRY DATA VALIDATION REPORT

**Laboratory Data Consultants, Inc.**

**7750 El Camino Real, Ste. 2L Carlsbad, CA 92009**

**Phone** 760.634.0437 **Web** www.lab-data.com **Fax** 760.634.0439

Anchor QEA, LLC
720 Olive Way, Suite 900
Seattle, WA 98101
ATTN: Ms. Cindy Fields

June 28, 2012

SUBJECT: Jeld-Wen Maulsby Marsh, Data Validation

Dear Ms. Fields,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on June 14, 2012. Attachment 1 is a summary of the samples that were reviewed for each analysis.

**LDC Project # 27826:**

| SDG # | Fraction |
|---|---|
| UU52/UU62<br>UW85 | Semivolatiles, Chlorinated Pesticides, Polychlorinated Biphenyls, Metals, Wet Chemistry, Total Petroleum Hydrocarbons as Diesel, Extractable Petroleum Hydrocarbons |

The data validation was performed under Stage 2B guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA, Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008
- USEPA, Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, January 2010
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; Update IV, February 2007

Please feel free to contact us if you have any questions.

Sincerely,

Ming-Hwa Hwang
Project Manager/Senior Chemist

R-changed validation to Stage 2B

Attachment 1

EDD

# LDC #27826 (Anchor Environmental-Seattle WA /Jeld-Wen Maulsby Marsh)

| LDC | SDG# | DATE REC'D | (3) DATE DUE | SVOA (8270D) | | Pest (8081A) | | PCBs (8082) | | Metals (SW846) | | EPH | | TPH-D (NWTPH -Dx) | | NH3-N (350.1) | | =S (376.2) | | Total Solids (2540B) | | Pres. Total Solids | | TOC (9060M) | | Grain Size | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Matrix: | Water/Soil/Sediment | | | W | S | W | S | W | S | W | S | W | S | W | S | W | S | W | S | W | S | W | S | W | S | W | S | W | S | W | S | W | S | W | S | W | S |
| A | UU52/UU62 | 06/14/12 | 07/06/12 | 2 | 11 | 2 | 20 | 2 | 11 | 2 | 10 | - | - | 2 | 10 | 0 | 20 | 0 | 20 | 0 | 20 | 0 | 20 | 0 | 20 | 0 | 20 | | | | | | | | | | |
| B | UW85 | 06/14/12 | 07/06/12 | - | - | - | - | - | - | - | - | 0 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | | | | | | | |
| Total | A/MH | | | 2 | 11 | 2 | 20 | 2 | 11 | 2 | 10 | 0 | 4 | 2 | 10 | 0 | 20 | 0 | 20 | 0 | 20 | 0 | 20 | 0 | 20 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 196 |

Shaded cells indicate Level IV validation (all other cells are Level III validation). These sample counts do not include MS, MSD, or DUP's.

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** Jeld-Wen Maulsby Marsh

**Collection Date:** May 15, 2012

**LDC Report Date:** June 25, 2012

**Matrix:** Sediment/Water

**Parameters:** Semivolatiles

**Validation Level:** Stage 2B

**Laboratory:** Analytical Resources, Inc.

**Sample Delivery Group (SDG):** UU52/UU62

**Sample Identification**

MS001-SS-120515
MS101-SS-120515
MS002-SS-120515
MS003-SS-120515
MS004-SS-120515
MS005-SS-120515
MS006-SS-120515
MS006-SS-120515DL
MS007-SS-120515
MS008-SS-120515
MS009-SS-120515
MS-SSRB-120515
MS-SSFB-120515
MS007-SS-120515MS
MS007-SS-120515MSD

## Introduction

This data review covers 13 sediment samples and 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270D for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of the presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

## III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination ($r^2$) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

## IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for all compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 30.0% for all compounds with the following exceptions:

| Date | Compound | %D | Associated Samples | Flag | A or P |
|---|---|---|---|---|---|
| 5/23/12 | Pentachlorophenol | 34.6 | MS-SSRB-120515<br>MS-SSFB-120515<br>MB-052112 | J (all detects)<br>UJ (all non-detects) | A |

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

## V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

## VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

## VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

| Spike ID (Associated Samples) | Compound | MS (%R) (Limits) | MSD (%R) (Limits) | RPD (Limits) | Flag | A or P |
|---|---|---|---|---|---|---|
| MS007-SS-120515MS/MSD (MS007-SS-120515) | Phenol<br>Benzoic acid<br>2-Methylnaphthalene | 26.8 (50-150)<br>-<br>48.4 (50-150) | 23.2 (50-150)<br>47.0 (50-150)<br>48.8 (50-150) | -<br>-<br>- | J (all detects)<br>UJ (all non-detects) | A |
| MS007-SS-120515MS/MSD (MS007-SS-120515) | 4-Methylphenol | 8.1 (50-150) | -1.6 (50-150) | - | J (all detects)<br>R (all non-detects) | A |

## VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

| LCS ID (Associated Samples) | Compound | LCS %R (Limits) | Flag | A or P |
|---|---|---|---|---|
| LCS-052212<br>(MS001-SS-120515<br>MS101-SS-120515<br>MS002-SS-120515<br>MS003-SS-120515<br>MS004-SS-120515<br>MS005-SS-120515<br>MS006-SS-120515<br>MS006-SS-120515DL<br>MS007-SS-120515<br>MS008-SS-120515<br>MS009-SS-120515<br>MB-052212) | Benzoic acid | 48.4 (50-150) | J (all detects)<br>UJ (all non-detects) | P |

## IX. Regional Quality Assurance and Quality Control

Not applicable.

## X. Internal Standards

All internal standard areas and retention times were within QC limits.

## XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

## XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria with the following exceptions:

| Sample | Compound | Finding | Criteria | Flag | A or P |
|---|---|---|---|---|---|
| MS006-SS-120515 | Naphthalene | Sample result exceeded calibration range. | Reported result should be within calibration range. | J (all detects) | A |

Raw data were not reviewed for this SDG.

## XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

## XIV. System Performance

Raw data were not reviewed for this SDG.

## XV. Overall Assessment

The analysis was conducted within all specifications of the method.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were rejected as follows:

| Sample | Compound | Flag | A or P |
|---|---|---|---|
| MS006-SS-120515 | Naphthalene | R | A |
| MS006-SS-120515DL | All TCL compounds except Naphthalene | R | A |

Due to calibration %D, MS/MSD and LCS %R problems, data were qualified as estimated in ten samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be rejected (R) are unusable for all purposes. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the Stage 2B data validation all other results are considered valid and usable for all purposes.

Data flags are summarized at the end of this report if data has been qualified.

## XVI. Field Duplicates

Samples MS001-SS-120515 and MS101-SS-120515 were identified as field duplicates. No semivolatiles were detected in any of the samples with the following exceptions:

| Compound | Concentration (ug/Kg) | | RPD |
|---|---|---|---|
| | MS001-SS-120515 | MS101-SS-120515 | |
| Phenol | 300 | 400 | 29 (≤50) |
| 4-Methylphenol | 1200 | 1600 | 29 (≤50) |
| Benzoic acid | 390 | 640 | 49 (≤50) |
| Naphthalene | 1100 | 1800 | 48 (≤50) |
| 2-Methylnaphthalene | 170 | 270 | 45 (≤50) |
| Acenaphthylene | 74 | 130 | 55 (≤50) |
| Acenaphthene | 110 | 160 | 37 (≤50) |
| Dibenzofuran | 180 | 280 | 43 (≤50) |
| Fluorene | 120 | 170 | 34 (≤50) |
| Pentachlorophenol | 600U | 160 | 200 (≤50) |
| Phenanthrene | 690 | 1200 | 54 (≤50) |
| Carbazole | 42 | 57 | 30 (≤50) |
| Anthracene | 140 | 180 | 25 (≤50) |
| Fluoranthene | 660 | 970 | 38 (≤50) |

| Compound | Concentration (ug/Kg) | | RPD |
|---|---|---|---|
| | MS001-SS-120515 | MS101-SS-120515 | |
| Pyrene | 580 | 910 | 44 (≤50) |
| Benzo(a)anthracene | 160 | 170 | 6 (≤50) |
| Bis(2-ethylhexyl)phthalate | 140 | 120 | 15 (≤50) |
| Chrysene | 430 | 400 | 7 (≤50) |
| Benzo(a)pyrene | 260 | 270 | 4 (≤50) |
| Indeno(1,2,3-cd)pyrene | 200 | 230 | 14 (≤50) |
| Dibenzo(a,h)anthracene | 57 | 54 | 5 (≤50) |
| Benzo(g,h,i)perylene | 270 | 330 | 20 (≤50) |
| Retene | 74 | 100 | 30 (≤50) |
| total-Benzofluoranthenes | 570 | 640 | 12 (≤50) |

## XVII. Field Blanks

Sample MS-SSFB-120515 was identified as a field blank. No semivolatile contaminants were found with the following exceptions:

| Blank ID | Compound | Concentration (ug/L) |
|---|---|---|
| MS-SSFB-120515 | Dimethylphthalate<br>Di-n-butylphthalate | 0.8<br>3.7 |

Sample MS-SSRB-120515 was identified as a rinsate blank. No semivolatile contaminants were found with the following exceptions:

| Blank ID | Compound | Concentration (ug/L) |
|---|---|---|
| MS-SSRB-120515 | Dimethylphthalate | 0.9 |

## Jeld-Wen Maulsby Marsh
## Semivolatiles - Data Qualification Summary - SDG UU52/UU62

| SDG | Sample | Compound | Flag | A or P | Reason |
|---|---|---|---|---|---|
| UU52/UU62 | MS-SSRB-120515<br>MS-SSFB-120515 | Pentachlorophenol | J (all detects)<br>UJ (all non-detects) | A | Continuing calibration (ICV %D) |
| UU52/UU62 | MS007-SS-120515 | Phenol<br>Benzoic acid<br>2-Methylnaphthalene | J (all detects)<br>UJ (all non-detects) | A | Matrix spike/Matrix spike duplicate (%R) |
| UU52/UU62 | MS007-SS-120515 | 4-Methylphenol | J (all detects)<br>R (all non-detects) | A | Matrix spike/Matrix spike duplicate (%R) |
| UU52/UU62 | MS001-SS-120515<br>MS101-SS-120515<br>MS002-SS-120515<br>MS003-SS-120515<br>MS004-SS-120515<br>MS005-SS-120515<br>MS006-SS-120515<br>MS006-SS-120515DL<br>MS007-SS-120515<br>MS008-SS-120515<br>MS009-SS-120515 | Benzoic acid | J (all detects)<br>UJ (all non-detects) | P | Laboratory control samples (%R) |
| UU52/UU62 | MS006-SS-120515 | Naphthalene | J (all detects) | A | Compound quantitation and RLs (exceeded range) |
| UU52/UU62 | MS006-SS-120515 | Naphthalene | R | A | Overall assessment of data |
| UU52/UU62 | MS006-SS-120515DL | All TCL compounds except Naphthalene | R | A | Overall assessment of data |

## Jeld-Wen Maulsby Marsh
## Semivolatiles - Laboratory Blank Data Qualification Summary - SDG UU52/UU62

No Sample Data Qualified in this SDG

LDC #: 27826A2a
SDG #: UU52/UU62
Laboratory: Analytical Resources, Inc.

# VALIDATION COMPLETENESS WORKSHEET
Stage 2B ~~4a~~

Date: 6/20/12
Page: 1 of 1
Reviewer: JM
2nd Reviewer: CL

**METHOD:** GC/MS Semivolatiles (EPA SW 846 Method 8270D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

| | Validation Area | | Comments |
|---|---|---|---|
| I. | Technical holding times | A | Sampling dates: 5/15/12 |
| II. | GC/MS Instrument performance check | A | |
| III. | Initial calibration | A | 2 RSD ≤ 20 % r |
| IV. | Continuing calibration/ICV | SW | CCV ≤ 20 % ICV ≤ 30 % |
| V. | Blanks | A | |
| VI. | Surrogate spikes | A | |
| VII. | Matrix spike/Matrix spike duplicates | SW | |
| VIII. | Laboratory control samples | SW | LCS/D |
| IX. | Regional Quality Assurance and Quality Control | N | |
| X. | Internal standards | A | |
| XI. | Target compound identification | A | |
| XII. | Compound quantitation/RL/LOQ/LODs | SW | |
| XIII. | Tentitatively identified compounds (TICs) | N | |
| XIV. | System performance | A | |
| XV. | Overall assessment of data | SW | |
| XVI. | Field duplicates | SW | D = 1, r |
| XVII. | Field blanks | SW | RB = 12 FB = 13 |

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:
** level IV Sediment

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | MS001-SS-120515 | D | 11 | MS009-SS-120515 | | 21 | MB-052212 | 31 | |
| 2 | MS101-SS-120515 | D | 12 | MS-SSRB-120515 | W | 22 | MB-052112 | 32 | |
| 3 | MS002-SS-120515 | ~~**~~ | 13 | MS-SSFB-120515 | W | 23 | | 33 | |
| 4 | MS003-SS-120515 | | 14 | MS007-SS-120515MS | | 24 | | 34 | |
| 5 | MS004-SS-120515 | | 15 | MS007-SS-120515MSD | | 25 | | 35 | |
| 6 | MS005-SS-120515 | | 16 | | | 26 | | 36 | |
| 7 | MS006-SS-120515 | | 17 | | | 27 | | 37 | |
| 8 | MS006-SS-120515DL | | 18 | | | 28 | | 38 | |
| 9 | MS007-SS-120515 | | 19 | | | 29 | | 39 | |
| 10 | MS008-SS-120515 | | 20 | | | 30 | | 40 | |

# VALIDATION FINDINGS WORKSHEET

**METHOD:** GC/MS BNA (EPA Method 8270)

| | | | | |
|---|---|---|---|---|
| A. Phenol | P. Bis(2-chloroethoxy)methane | EE. 2,6-Dinitrotoluene | TT. Pentachlorophenol | III. Benzo(a)pyrene |
| B. Bis (2-chloroethyl) ether | Q. 2,4-Dichlorophenol | FF. 3-Nitroaniline | UU. Phenanthrene | JJJ. Indeno(1,2,3-cd)pyrene |
| C. 2-Chlorophenol | R. 1,2,4-Trichlorobenzene | GG. Acenaphthene | VV. Anthracene | KKK. Dibenz(a,h)anthracene |
| D. 1,3-Dichlorobenzene | S. Naphthalene | HH. 2,4-Dinitrophenol | WW. Carbazole | LLL. Benzo(g,h,i)perylene |
| E. 1,4-Dichlorobenzene | T. 4-Chloroaniline | II. 4-Nitrophenol | XX. Di-n-butylphthalate | MMM. Bis(2-Chloroisopropyl)ether |
| F. 1,2-Dichlorobenzene | U. Hexachlorobutadiene | JJ. Dibenzofuran | YY. Fluoranthene | NNN. Aniline |
| G. 2-Methylphenol | V. 4-Chloro-3-methylphenol | KK. 2,4-Dinitrotoluene | ZZ. Pyrene | OOO. N-Nitrosodimethylamine |
| H. 2,2'-Oxybis(1-chloropropane) | W. 2-Methylnaphthalene | LL. Diethylphthalate | AAA. Butylbenzylphthalate | PPP. Benzoic Acid |
| I. 4-Methylphenol | X. Hexachlorocyclopentadiene | MM. 4-Chlorophenyl-phenyl ether | BBB. 3,3'-Dichlorobenzidine | QQQ. Benzyl alcohol |
| J. N-Nitroso-di-n-propylamine | Y. 2,4,6-Trichlorophenol | NN. Fluorene | CCC. Benzo(a)anthracene | RRR. Pyridine |
| K. Hexachloroethane | Z. 2,4,5-Trichlorophenol | OO. 4-Nitroaniline | DDD. Chrysene | SSS. Benzidine |
| L. Nitrobenzene | AA. 2-Chloronaphthalene | PP. 4,6-Dinitro-2-methylphenol | EEE. Bis(2-ethylhexyl)phthalate | TTT. 1-Methylnaphthalene |
| M. Isophorone | BB. 2-Nitroaniline | QQ. N-Nitrosodiphenylamine (1) | FFF. Di-n-octylphthalate | UUU. Retene |
| N. 2-Nitrophenol | CC. Dimethylphthalate | RR. 4-Bromophenyl-phenylether | GGG. Benzo(b)fluoranthene | VVV. total - Benzofluoranthenes |
| O. 2,4-Dimethylphenol | DD. Acenaphthylene | SS. Hexachlorobenzene | HHH. Benzo(k)fluoranthene | WWW. |

LDC #: 27826 A2c

# VALIDATION FINDINGS WORKSHEET
## Continuing Calibration

Page: 1 of 1
Reviewer: SVG
2nd Reviewer: OR

**METHOD:** GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a continuing calibration standard analyzed at least once every 12 hours of sample analysis for each instrument?

Y N N/A Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ?

Y (N) N/A Were all %D and RRFs within the validation criteria of ≤25 %D and ≥0.05 RRF ?

| # | Date | Standard ID | Compound | Finding %D (Limit: ~~<25.0%)~~ 30) | Finding RRF (Limit: >0.05) | Associated Samples | Qualifications |
|---|---|---|---|---|---|---|---|
| | 5/23/17 | 052312Q9 (ICV) | TT | 34.6 | | All W + MB-052117 | J/UJ/A |

LDC #: 27826 A2a

# VALIDATION FINDINGS WORKSHEET
## Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: JV6
2nd Reviewer: [signature]

**METHOD:** GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

(Y) N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y (N) N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

| # | Date | MS/MSD ID | Compound | MS %R (Limits) | MSD %R (Limits) | RPD (Limits) | Associated Samples | Qualifications |
|---|---|---|---|---|---|---|---|---|
| | | 14/15 | A | 26.8 (50-150) | 23.2 (50-150) | ( ) | 9 | J/UJ/A |
| | | | I | 8.1 ( ) | -1.6 ( ) | ( ) | | J/R/A |
| | | | PPD | ( ) | 47.0 ( ) | ( ) | | J/UJ/A |
| | | | S | 0 ( ) | 0 ( ) | ( ) | | NQ * |
| | | | W | 48.4 ( ) | 48.8 ( ) | ( ) | | J/UJ/A |
| | | | | ( ) | ( ) | ( ) | | |
| | | | | ( ) | ( ) | ( ) | | |
| | | | | ( ) | ( ) | ( ) | | |
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| | | | | ( ) | ( ) | ( ) | | |
| | | | | ( ) | ( ) | ( ) | | |

| | Compound | QC Limits (Soil) | RPD (Soil) | QC Limits (Water) | RPD (Water) | | Compound | QC Limits (Soil) | RPD (Soil) | QC Limits (Water) | RPD (Water) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A. | Phenol | 26-90% | ≤ 35% | 12-110% | ≤ 42% | GG | Acenaphthene | 31-137% | ≤ 19% | 46-118% | ≤ 31% |
| C. | 2-Chlorophenol | 25-102% | ≤ 50% | 27-123% | ≤ 40% | II. | 4-Nitrophenol | 11-114% | ≤ 50% | 10-80% | ≤ 50% |
| E. | 1,4-Dichlorobenzene | 28-104% | ≤ 27% | 36-97% | ≤ 28% | KK. | 2,4-Dinitrotoluene | 28-89% | ≤ 47% | 24-96% | ≤ 38% |
| J. | N-Nitroso-di-n-propylamine | 41-126% | ≤ 38% | 41-116% | ≤ 38% | TT. | Pentachlorophenol | 17-109% | ≤ 47% | 9-103% | ≤ 50% |
| R. | 1,2,4-Trichlorobenzene | 38-107% | ≤ 23% | 39-98% | ≤ 28% | ZZ. | Pyrene | 35-142% | ≤ 36% | 26-127% | ≤ 31% |
| V. | 4-Chloro-3-methylphenol | 26-103% | ≤ 33% | 23-97% | ≤ 42% | | | | | | |

* Parent conc > 4X Spike amt

LDC #: 27826 A2a

# VALIDATION FINDINGS WORKSHEET
## Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: JVC
2nd Reviewer: QR

**METHOD:** GC/MS BNA (EPA SW 846 Method 8270C)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a LCS required?

Y (N) N/A Were the LCS/LCSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

| # | LCS/LCSD ID | Compound | LCS %R (Limits) | LCSD %R (Limits) | RPD (Limits) | Associated Samples | Qualifications |
|---|---|---|---|---|---|---|---|
| | LCS-052212 | PPP | 48.9 (50-150) | ( ) | ( ) | All Sediment + MB-052212 | J/UJ/P |
| | | | ( ) | ( ) | ( ) | | |
| | | | ( ) | ( ) | ( ) | | |
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LDC #: 27826 A2

# VALIDATION FINDINGS WORKSHEET
## Compound Quantitation and Reported RLs


Reviewer: JVG
2nd Reviewer: CR

**METHOD:** GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?

Y N N/A Were compound quantitation and RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?

| # | Date | Compound | Finding | Associated Samples | Qualifications |
|---|---|---|---|---|---|
| | | S | 7 cal range | 7 | J dets /A |
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Comments: See sample calculation verification worksheet for recalculations

LDC #: 27826A2A

# VALIDATION FINDINGS WORKSHEET
## Overall Assessment of Data

Page: 1 of 1
Reviewer: SVB
2nd Reviewer: CR

**METHOD:** GC/MS BNA (EPA SW 846 Method 8270C)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
All available information pertaining to the data were reviewed using professional judgement to compliment the determination of the overall quality of the data.

(Y) N N/A Was the overall quality and usability of the data acceptable?

| # | Date | Sample ID | Compound | Finding | Qualifications |
|---|---|---|---|---|---|
| | | 7 | S | 7 cal range | ~~J (all sds) A~~ R/A |
| | | | | | |
| | | 8 | All except S | dil | |
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Comments: _____

LDC#: 27826A2

**VALIDATION FINDINGS WORKSHEET**
**Field Duplicates**


Reviewer: JVG
2nd Reviewer: JV

**METHOD**: GC MS Semivolatiles (EPA SW 846 Method 8270D)

(Y) N NA Were field duplicate pairs identified in this SDG?
Y (N) NA Were target analytes detected in the field duplicate pairs?

| Compound | Concentration (ug/kg) | | (≤50) |
|---|---|---|---|
| | 1 | 2 | RPD |
| A | 300 | 400 | 29 |
| I | 1200 | 1600 | 29 |
| PPP | 390 | 640 | 49 |
| S | 1100 | 1800 | 48 |
| W | 170 | 270 | 45 |
| DD | 74 | 130 | 55 |
| GG | 110 | 160 | 37 |
| JJ | 180 | 280 | 43 |
| NN | 120 | 170 | 34 |
| TT | 600U | 160 | 200 |
| UU | 690 | 1200 | 54 |
| WW | 42 | 57 | 30 |
| VV | 140 | 180 | 25 |
| YY | 660 | 970 | 38 |
| ZZ | 580 | 910 | 44 |
| CCC | 160 | 170 | 6 |
| EEE | 140 | 120 | 15 |
| DDD | 430 | 400 | 7 |
| III | 260 | 270 | 4 |
| JJJ | 200 | 230 | 14 |
| KKK | 57 | 54 | 5 |
| LLL | 270 | 330 | 20 |
| UUU | 74 | 100 | 30 |
| VVV | 570 | 640 | 12 |

LDC #: 27826 A2

# VALIDATION FINDINGS WORKSHEET
## Field Blanks

Page: 1 of 1
Reviewer: JV6
2nd Reviewer: OR

**METHOD:** GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were field blanks identified in this SDG?

Y N N/A Were target compounds detected in the field blanks?

**Blank units:** ug/L **Associated sample units:** ug/kg

**Sampling date:** 5/15/12

**Field blank type:** (circle one) Field Blank / Rinsate / Other: RB Associated Samples: All sediments (MB)

| Compound | Blank ID (RB) | FB | Sample Identification | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 12 | 13 | | | | | | | | |
| CC | 0.9 | 0.8 | | | | | | | | |
| XX | " | 3.7 | | | | | | | | |
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**Blank units:** _____ **Associated sample units:** _____

**Sampling date:** _____

**Field blank type:** (circle one) Field Blank / Rinsate / Other: _____ Associated Samples: _____

| Compound | Blank ID | Sample Identification | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
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CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:

Common contaminants such as the phthalates and TICs noted above that were detected in samples within ten times the associated field blank concentration were qualified as not detected, "U". Other contaminants within five times the field blank concentration were also qualified as not detected, "U".

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** Jeld-Wen Maulsby Marsh

**Collection Date:** May 15, 2012

**LDC Report Date:** June 25, 2012

**Matrix:** Sediment/Water

**Parameters:** Chlorinated Pesticides

**Validation Level:** Stage 2B

**Laboratory:** Analytical Resources, Inc.

**Sample Delivery Group (SDG):** UU52/UU62

**Sample Identification**

| | |
|---|---|
| MS001-SS-120515 | MS-SSRB-120515 |
| MS001-SS-120515DL | MS-SSFB-120515 |
| MS101-SS-120515 | MS002-SS-120515MS |
| MS101-SS-120515DL | MS002-SS-120515MSD |
| MS002-SS-120515 | |
| MS002-SS-120515DL | |
| MS003-SS-120515 | |
| MS003-SS-120515DL | |
| MS004-SS-120515 | |
| MS004-SS-120515DL | |
| MS005-SS-120515 | |
| MS005-SS-120515DL | |
| MS006-SS-120515 | |
| MS006-SS-120515DL | |
| MS007-SS-120515 | |
| MS007-SS-120515DL | |
| MS008-SS-120515 | |
| MS008-SS-120515DL | |
| MS009-SS-120515 | |
| MS009-SS-120515DL | |

## Introduction

This data review covers 22 sediment samples and 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8081A for Chlorinated Pesticides.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

## III. Initial Calibration

Initial calibration of single compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination ($r^2$) were greater than or equal to 0.990.

## IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits with the following exceptions:

| Date | Standard | Column | Compound | %D | Associated Samples | Flag | A or P |
|---|---|---|---|---|---|---|---|
| 5/26/12 | INDAE | STX-CLP1 | 4,4'-DDE | 26.6 | MS006-SS-120515<br>MS007-SS-120515<br>MS008-SS-120515<br>MS009-SS-120515 | J (all detects)<br>UJ (all non-detects) | A |
| 5/26/12 | INDAE | STX-CLP2 | 4,4'-DDT | 40.9 | MS006-SS-120515<br>MS007-SS-120515<br>MS008-SS-120515<br>MS009-SS-120515 | J (all detects)<br>UJ (all non-detects) | A |

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

The individual 4,4'-DDT and Endrin breakdowns (%BD) were less than or equal to 15.0% with the following exceptions:

| Date | Standard ID | Column | Compound | %BD | Associated Samples | Affected Compounds | Flag | A or P |
|---|---|---|---|---|---|---|---|---|
| 5/26/12 | DS | STX-CLP1 | 4,4'-DDT | 27.5 | MS006-SS-120515<br>MS007-SS-120515<br>MS008-SS-120515<br>MS009-SS-120515 | 4,4'-DDE<br>4,4'-DDD<br>4,4'-DDT | J (all detects)<br>J (all detects)<br>J (all detects) | P |
| 5/26/12 | DS | STX-CLP2 | 4,4'-DDT | 40.6 | MS006-SS-120515<br>MS007-SS-120515<br>MS008-SS-120515<br>MS009-SS-120515 | 4,4'-DDE<br>4,4'-DDD<br>4,4'-DDT | J (all detects)<br>J (all detects)<br>J (all detects) | P |

## V. Blanks

Method blanks were reviewed for each matrix as applicable. No chlorinated pesticide contaminants were found in the method blanks.

## VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. Surrogate recoveries (%R) were not within QC limits for several samples. Since the samples were diluted out, no data were qualified.

## VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were not within the QC limits. Since the samples were diluted out, no data were qualified.

## VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

## IX. Regional Quality Assurance and Quality Control

Not applicable.

## X. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

## XI. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

## XII. Target Compound Identification

Raw data were not reviewed for this SDG.

## XIII. Compound Quantitation and RLs

Raw data were not reviewed for this SDG.

## XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were rejected as follows:

| Sample | Compound | Flag | A or P |
|---|---|---|---|
| MS001-SS-120515DL<br>MS101-SS-120515DL<br>MS002-SS-120515DL<br>MS003-SS-120515DL<br>MS004-SS-120515DL<br>MS005-SS-120515DL<br>MS006-SS-120515DL<br>MS007-SS-120515DL<br>MS008-SS-120515DL<br>MS009-SS-120515DL | All TCL compounds | R | A |

Due to calibration and 4,4'-DDT breakdown %D problems, data were qualified as estimated in four samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be rejected (R) are unusable for all purposes. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the Stage 2B data validation all other results are considered valid and usable for all purposes.

Data flags are summarized at the end of this report if data has been qualified.

## XV. Field Duplicates

Samples MS001-SS-120515 and MS101-SS-120515 and samples MS001-SS-120515DL and MS101-SS-120515DL were identified as field duplicates. No chlorinated pesticides were detected in any of the samples with the following exceptions:

| Compound | Concentration (ug/Kg) | | RPD (Limits) |
|---|---|---|---|
| | MS001-SS-120515 | MS101-SS-120515 | |
| beta-BHC | 14 | 14 | 0 (≤50) |

| Compound | Concentration (ug/Kg) | | RPD (Limits) |
|---|---|---|---|
| | MS001-SS-120515 | MS101-SS-120515 | |
| Dieldrin | 9.9 | 9.9 | 0 (≤50) |
| 4,4'-DDE | 12 | 12 | 0 (≤50) |
| 4,4'-DDD | 13 | 13 | 0 (≤50) |
| 4,4'-DDT | 19 | 19 | 0 (≤50) |
| Endrin ketone | 12 | 12 | 0 (≤50) |

| Compound | Concentration (ug/Kg) | | RPD (Limits) |
|---|---|---|---|
| | MS001-SS-120515DL | MS101-SS-120515DL | |
| beta-BHC | 140 | 140 | 0 (≤50) |
| Dieldrin | 99 | 99 | 0 (≤50) |
| 4,4'-DDE | 120 | 120 | 0 (≤50) |
| 4,4'-DDD | 130 | 130 | 0 (≤50) |
| 4,4'-DDT | 190 | 190 | 0 (≤50) |
| Endrin ketone | 120 | 120 | 0 (≤50) |

## XVI. Field Blanks

Sample MS-SSRB-120515 was identified as a rinsate blank. No chlorinated pesticide contaminants were found.

Sample MS-SSFB-120515 was identified as a field blank. No chlorinated pesticide contaminants were found.

## Jeld-Wen Maulsby Marsh
## Chlorinated Pesticides - Data Qualification Summary - SDG UU52/UU62

| SDG | Sample | Compound | Flag | A or P | Reason |
|---|---|---|---|---|---|
| UU52/UU62 | MS006-SS-120515<br>MS007-SS-120515<br>MS008-SS-120515<br>MS009-SS-120515 | 4,4'-DDE<br><br>4,4'-DDT | J (all detects)<br>UJ (all non-detects)<br>J (all detects)<br>UJ (all non-detects) | A | Continuing calibration (%D) |
| UU52/UU62 | MS006-SS-120515<br>MS007-SS-120515<br>MS008-SS-120515<br>MS009-SS-120515 | 4,4'-DDE<br>4,4'-DDD<br>4,4'-DDT | J (all detects)<br>J (all detects)<br>J (all detects) | P | Continuing calibration (PEM %BD) |
| UU52/UU62 | MS001-SS-120515DL<br>MS101-SS-120515DL<br>MS002-SS-120515DL<br>MS003-SS-120515DL<br>MS004-SS-120515DL<br>MS005-SS-120515DL<br>MS006-SS-120515DL<br>MS007-SS-120515DL<br>MS008-SS-120515DL<br>MS009-SS-120515DL | All TCL compounds | R | A | Overall assessment of data |

## Jeld-Wen Maulsby Marsh
## Chlorinated Pesticides - Laboratory Blank Data Qualification Summary - SDG UU52/UU62

No Sample Data Qualified in this SDG

LDC #: 27826A3a

SDG #: UU52/UU62

Laboratory: Analytical Resources, Inc.

# VALIDATION COMPLETENESS WORKSHEET

Stage 2B~~4~~

Date: 6/20/12

Page: 1 of 1

Reviewer: JV6

2nd Reviewer: SL

**METHOD:** GC Chlorinated Pesticides (EPA SW 846 Method 8081A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

| | Validation Area | | Comments |
|---|---|---|---|
| I. | Technical holding times | A | Sampling dates: 5/15/12 |
| II. | GC/ECD Instrument Performance Check | SW | (See CCV) |
| III. | Initial calibration | A | %RSD ≤ 20 % r² |
| IV. | Continuing calibration/ICV | SW | CCV/ICV ≤ 20 % |
| V. | Blanks | A | |
| VI. | Surrogate spikes /IS | SW | |
| VII. | Matrix spike/Matrix spike duplicates | SW | (100x DL - NQ) |
| VIII. | Laboratory control samples | A | LCS |
| IX. | Regional quality assurance and quality control | N | |
| X. | Florisil cartridge check | N | |
| XI. | GPC Calibration | N | |
| XII. | Target compound identification | ~~N~~ A | |
| XIII. | Compound quantitation/RL/LOQ/LODs | ~~N~~ A | |
| XIV. | Overall assessment of data | SW | |
| XV. | Field duplicates | ND | $D_1$ = 1, 3 $D_2$ = 2, 4 |
| XVI. | Field blanks | ND | RB = 21 FB = 22 |

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

** Level IV Sediment + Water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | MS001-SS-120515 $D_1$ | 11 | MS005-SS-120515 | 21 | MS-SSRB-120515 W | 31 | MB-052212 |
| 2 | MS001-SS-120515DL $D_2$ | 12 | MS005-SS-120515DL | 22 | MS-SSFB-120515 | 32 | MB-051812 |
| 3 | MS101-SS-120515 $D_1$ | 13 | MS006-SS-120515 | 23 | MS002-SS-120515MS | 33 | |
| 4 | MS101-SS-120515DL $D_2$ | 14 | MS006-SS-120515DL | 24 | MS002-SS-120515MSD | 34 | |
| 5 | MS002-SS-120515 ** | 15 | MS007-SS-120515 | 25 | | 35 | |
| 6 | MS002-SS-120515DL ** | 16 | MS007-SS-120515DL | 26 | | 36 | |
| 7 | MS003-SS-120515 | 17 | MS008-SS-120515 | 27 | | 37 | |
| 8 | MS003-SS-120515DL | 18 | MS008-SS-120515DL | 28 | | 38 | |
| 9 | MS004-SS-120515 | 19 | MS009-SS-120515 | 29 | | 39 | |
| 10 | MS004-SS-120515DL | 20 | MS009-SS-120515DL | 30 | | 40 | |

Notes:

# VALIDATION FINDINGS WORKSHEET

**METHOD:** Pesticide/PCBs (EPASW 846 Method 8081/8082)

| | | | | |
|---|---|---|---|---|
| A. alpha-BHC | I. Dieldrin | Q. Endrin ketone | Y. Aroclor-1242 | GG. Chlordane |
| B. beta-BHC | J. 4,4'-DDE | R. Endrin aldehyde | Z. Aroclor-1248 | HH. Chlordane (Technical) |
| C. delta-BHC | K. Endrin | S. alpha-Chlordane | AA. Aroclor-1254 | II. Aroclor 1262 |
| D. gamma-BHC | L. Endosulfan II | T. gamma-Chlordane | BB. Aroclor-1260 | JJ. Aroclor 1268 |
| E. Heptachlor | M. 4,4'-DDD | U. Toxaphene | CC. 2,4'-DDD | KK. Oxychlordane |
| F. Aldrin | N. Endosulfan sulfate | V. Aroclor-1016 | DD. 2,4'-DDE | LL. trans-Nonachlor |
| G. Heptachlor epoxide | O. 4,4'-DDT | W. Aroclor-1221 | EE. 2,4'-DDT | MM. cis-Nonachlor |
| H. Endosulfan I | P. Methoxychlor | X. Aroclor-1232 | FF. Hexachlorobenzene | NN. |

Notes: _____

LDC #: 27826 A3a

# VALIDATION FINDINGS WORKSHEET
## Continuing Calibration

Page: 1 of 1
Reviewer: JVG
2nd Reviewer: CR

**METHOD:** GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Please see qualifications below for all questions answered "N" Not applicable questions are identified as "N/A".

(Y) N N/A Were Evaluation mix standards run before initial calibration and before samples?

Y (N) N/A Were Endrin & 4,4'-DDT breakdowns acceptable in the Evaluation Mix standard (≤15.0% for individual breakdowns)?

(Y) N N/A Was at least one standard run daily to verify the working curve?

Y (N) N/A Did the continuing calibration standards meet the percent difference (%D) / relative percent difference (RPD) criteria of ≤20.0%?

**Level IV/D Only**

(Y) N N/A Were the retention times for all calibrated compounds within their respective acceptance windows?

| # | Date | Standard ID | Column | Compound | %D (Limit ≤ 20.0) | RT (Limits) | Associated Samples | Qualifications |
|---|---|---|---|---|---|---|---|---|
| | 5/26/12 | DS | STX-CLP1 | O | % Breakdown ≤15% 27.5 | ( ) | 13, 15, 17, 19 | J dets/p (qual J, N, O) |
| | | (PEM) | ↓ 2 | O | 40.6 | ( ) | ↓ | ↓ |
| | | | | | | ( ) | | |
| | | | | | | ( ) | | |
| | | | | | | ( ) | | |
| | 5/26/12 | INDAE | STX-CLP1 | J | 26.6 (≤20%) | ( ) | | J/UJ/A |
| | | (CCV) | ↓ 2 | O | 39.6 ↓ | ( ) | ↓ | ↓ |
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|---|---|---|---|---|---|---|---|---|
| A. alpha-BHC | E. Heptachlor | I. Dieldrin | M. 4,4'-DDD | Q. Endrin ketone | U. Toxaphene | Y. Aroclor-1242 | CC. DB 608 | GG. |
| B. beta-BHC | F. Aldrin | J. 4,4'-DDE | N. Endosulfan sulfate | R. Endrin aldehyde | V. Aroclor-1016 | Z. Aroclor-1248 | DD. DB 1701 | HH. |
| C. delta-BHC | G. Heptachlor epoxide | K. Endrin | O. 4,4'-DDT | S. alpha-Chlordane | W. Aroclor-1221 | AA. Aroclor-1254 | EE. Hexachlobenzene | II. |
| D. gamma-BHC | H. Endosulfan I | L. Endosulfan II | P. Methoxychlor | T. gamma-Chlordane | X. Aroclor-1232 | BB. Aroclor-1260 | FF. | JJ. |

LDC #: 27826 A3a

# VALIDATION FINDINGS WORKSHEET
## Surrogate Spikes


Reviewer: JVG
2nd Reviewer: CR

**METHOD:** GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Please see qualification below for all questions answered "N". Not applicable questions are identified as "N/A".
(Y) N N/A Were surrogates spiked into all samples, standards and blanks?
Y (N) N/A Did all surrogate percent recoveries (%R) meet the QC limits?

| # | Date | Sample ID | Column | Surrogate Compound | %R (Limits) | Qualifications |
|---|---|---|---|---|---|---|
| | | All except 13 | NS | A | DO (20 - 147) | No qual |
| | | | | B | (22 - 156) | |
| | | (DL = 100X - 5000X) | | | ( ) | |
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| Letter Designation | Surrogate Compound | Recovery QC Limits (Soil) | Recovery QC Limits (Water) | Comments |
|---|---|---|---|---|
| A | Tetrachloro-m-xylene | | | |
| B | Decachlorobiphenyl | | | |

LDC #: 27826Ana

# VALIDATION FINDINGS WORKSHEET
## Overall Assessment of Data

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

**METHOD:** GC/MS BNA (EPA SW 846 Method 8270C)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
All available information pertaining to the data were reviewed using professional judgement to compliment the determination of the overall quality of the data.

(Y) N N/A Was the overall quality and usability of the data acceptable?

| # | Date | Sample ID | Compound | Finding | Qualifications |
|---|---|---|---|---|---|
| | | All DL's | All TCL | Higher RL's | R/A |
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Comments: (Reanalyzed at lower dil, initially dil due to extract color)

LDC#: 27826A3a

# VALIDATION FINDINGS WORKSHEET
## Field Duplicates


Reviewer: JVG
2nd Reviewer: [signature]

**METHOD**: GC Chlorinated Pesticides (EPA SW 846 Method 8081A)

(Y)N NA Were field duplicate pairs identified in this SDG?
Y(N) NA Were target analytes detected in the field duplicate pairs?

| Compound | Concentration (ug/kg) | | (≤50) |
|---|---|---|---|
| | 1 | 3 | RPD |
| B | 14 | 14 | 0 |
| I | 9.9 | 9.9 | 0 |
| J | 12 | 12 | 0 |
| M | 13 | 13 | 0 |
| O | 19 | 19 | 0 |
| Q | 12 | 12 | 0 |

| Compound | Concentration (ug/kg) | | (≤50) |
|---|---|---|---|
| | 2 | 4 | RPD |
| B | 140 | 140 | 0 |
| I | 99 | 99 | 0 |
| J | 120 | 120 | 0 |
| M | 130 | 130 | 0 |
| O | 190 | 190 | 0 |
| Q | 120 | 120 | 0 |

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** Jeld-Wen Maulsby Marsh

**Collection Date:** May 15, 2012

**LDC Report Date:** June 25, 2012

**Matrix:** Sediment/Water

**Parameters:** Polychlorinated Biphenyls

**Validation Level:** Stage 2B

**Laboratory:** Analytical Resources, Inc.

**Sample Delivery Group (SDG):** UU52/UU62

**Sample Identification**

MS001-SS-120515
MS101-SS-120515
MS002-SS-120515
MS003-SS-120515
MS004-SS-120515
MS005-SS-120515
MS006-SS-120515
MS006-SS-120515DL
MS007-SS-120515
MS008-SS-120515
MS009-SS-120515
MS-SSRB-120515
MS-SSFB-120515
MS009-SS-120515MS
MS009-SS-120515MSD

## Introduction

This data review covers 13 sediment samples and 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of the presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

## III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

## IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

## V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

## VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

| Sample | Column | Surrogate | %R (Limits) | Compound | Flag | A or P |
|---|---|---|---|---|---|---|
| MS-SSRB-120515 | Not specified | Decachlorobiphenyl | 22.5 (29-118) | All TCL compounds | J (all detects)<br>UJ (all non-detects) | P |

All internal standard data were reviewed and within QC limits.

## VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## IX. Regional Quality Assurance and Quality Control

Not applicable.

## X. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

## XI. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

## XII. Target Compound Identification

Raw data were not reviewed for this SDG.

## XIII. Compound Quantitation and Reported RLs

Raw data were not reviewed for this SDG.

## XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to surrogate %R problems, data were qualified as estimated in one samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the Stage 2B data validation all other results are considered valid and usable for all purposes.

Data flags are summarized at the end of this report if data has been qualified.

## XV. Field Duplicates

Samples MS001-SS-120515 and MS101-SS-120515 were identified as field duplicates. No polychlorinated biphenyls were detected in any of the samples with the following exceptions:

| Compound | Concentration (ug/Kg) | | RPD (Limits) |
|---|---|---|---|
| | MS001-SS-120515 | MS101-SS-120515 | |
| Aroclor 1248 | 22 | 17 | 26 (≤50) |
| Aroclor 1254 | 44 | 37 | 17 (≤50) |

## XVI. Field Blanks

Sample MS-SSRB-120515 was identified as a rinsate blank. No polychlorinated biphenyl contaminants were found.

Sample MS-SSFB-120515 was identified as a field blank. No polychlorinated biphenyl contaminants were found.

## Jeld-Wen Maulsby Marsh
## Polychlorinated Biphenyls - Data Qualification Summary - SDG UU52/UU62

| SDG | Sample | Compound | Flag | A or P | Reason |
|---|---|---|---|---|---|
| UU52/ UU62 | MS-SSRB-120515 | All TCL compounds | J (all detects) UJ (all non-detects) | P | Surrogate spikes (%R) |

## Jeld-Wen Maulsby Marsh
## Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG UU52/UU62

No Sample Data Qualified in this SDG

LDC #: 27826A3b
SDG #: UU52/UU62
Laboratory: Analytical Resources, Inc.

# VALIDATION COMPLETENESS WORKSHEET
Stage 2B

Date: 6/20/12
Page: 1 of 1
Reviewer: JV6
2nd Reviewer: CR

**METHOD:** GC Polychlorinated Biphenyls (EPA SW 846 Method 8082)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

| | Validation Area | | Comments |
|---|---|---|---|
| I. | Technical holding times | A | Sampling dates: 5/15/12 |
| II. | GC/ECD Instrument Performance Check | N | |
| III. | Initial calibration | A | %RSD ≤ 20% |
| IV. | Continuing calibration/ICV | A | CCV/ICV ≤ 20% |
| V. | Blanks | A | |
| VI. | Surrogate spikes / IS | SW/A | |
| VII. | Matrix spike/Matrix spike duplicates | A | |
| VIII. | Laboratory control samples | A | LCS/D |
| IX. | Regional quality assurance and quality control | N | |
| X. | Florisil cartridge check | N | |
| XI. | GPC Calibration | N | |
| XII. | Target compound identification | N | |
| XIII. | Compound quantitation/RL/LOQ/LODs | SW/N | |
| XIV. | Overall assessment of data | A | |
| XV. | Field duplicates | SW | D = 1, 2 |
| XVI. | Field blanks | ND | RB = 12 FB = 13 |

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Water (2) + Sediment

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | MS001-SS-120515 | 11 | MS009-SS-120515 | 21 | MB-052212W | 31 | |
| 2 | MS101-SS-120515 | 12 | MS-SSRB-120515 W | 22 | MB-052212W | 32 | |
| 3 | MS002-SS-120515 *** | 13 | MS-SSFB-120515 | 23 | | 33 | |
| 4 | MS003-SS-120515 | 14 | MS009-SS-120515MS | 24 | | 34 | |
| 5 | MS004-SS-120515 | 15 | MS009-SS-120515MSD | 25 | | 35 | |
| 6 | MS005-SS-120515 | 16 | | 26 | | 36 | |
| 7 | MS006-SS-120515 | 17 | | 27 | | 37 | |
| 8 | MS006-SS-120515DL | 18 | | 28 | | 38 | |
| 9 | MS007-SS-120515 | 19 | | 29 | | 39 | |
| 10 | MS008-SS-120515 | 20 | | 30 | | 40 | |

Notes:

LDC #: 27826 A36

# VALIDATION FINDINGS WORKSHEET
## Surrogate Spikes


Reviewer: JV6
2nd Reviewer: OR

**METHOD:** GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Please see qualification below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were surrogates spiked into all samples, standards and blanks?
Y (N) N/A Did all surrogate percent recoveries (%R) meet the QC limits?

| # | Date | Sample ID | Column | Surrogate Compound | %R (Limits) | Qualifications |
|---|---|---|---|---|---|---|
| | | 12 | NS | B | 22.5 ( 29-118 ) | J/nJ/p |
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| Letter Designation | Surrogate Compound | Recovery QC Limits (Soil) | Recovery QC Limits (Water) | Comments |
|---|---|---|---|---|
| A | Tetrachloro-m-xylene | | | |
| B | Decachlorobiphenyl | | | |

LDC:27826A3b

# VALIDATION FINDINGS WORKSHEET
## Field Duplicates


Reviewer: JVG
2nd Reviewer: JV

**METHOD**: GC PCBs (EPA SW 846 Method 8082)

| Analyte | Concentration (ug/kg) | | RPD (≤50%) |
|---|---|---|---|
| | 1 | 2 | |
| Aroclor 1248 | 22 | 17 | 26 |
| Aroclor 1254 | 44 | 37 | 17 |

V:\FIELD DUPLICATES\27826A3b.wpd

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** Jeld-Wen Maulsby Marsh

**Collection Date:** May 15, 2012

**LDC Report Date:** June 25, 2012

**Matrix:** Sediment/Water

**Parameters:** Metals

**Validation Level:** Stage 2B

**Laboratory:** Analytical Resources, Inc.

**Sample Delivery Group (SDG):** UU52/UU62

**Sample Identification**

MS001-SS-120515
MS101-SS-120515
MS002-SS-120515
MS003-SS-120515
MS004-SS-120515
MS005-SS-120515
MS006-SS-120515
MS007-SS-120515
MS008-SS-120515
MS009-SS-120515
MS-SSRB-120515
MS-SSFB-120515
MS002-SS-120515MS
MS002-SS-120515DUP
MS-SSRB-120515MS
MS-SSRB-120515DUP

## Introduction

This data review covers 12 sediment samples and 4 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010C, 7471A, and 7470A, and EPA 200.8 for Metals. The metals analyzed were Antimony, Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, and Zinc.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of the presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. ICPMS Tune

The mass calibration was within 0.1 AMU and the percent relative standard deviation (%RSD) was less than or equal to 5% .

## III. Calibration

The initial and continuing calibrations were performed at the required frequency.

The calibration standards criteria were met.

## IV. Blanks

Method blanks were reviewed for each matrix as applicable. No metals contaminants were found in the initial, continuing and preparation blanks.

## V. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

## VI. Matrix Spike Analysis

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

| Spike ID (Associated Samples) | Analyte | %R (Limits) | Flag | A or P |
|---|---|---|---|---|
| MS002-SS-120515MS (All sediment samples in SDG UU52/UU62) | Antimony | 9.8 (75-125) | J (all detects) UJ (all non-detects) | A |

## VII. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

## VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

## IX. Internal Standards (ICP-MS)

ICP-MS was not utilized in this SDG.

## X. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

## XI. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

## XII. Sample Result Verification

Raw data were not reviewed for this SDG.

## XIII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to MS %R problems, data were qualified as estimated in ten samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the Stage 2B data validation all other results are considered valid and usable for all purposes.

Data flags are summarized at the end of this report if data has been qualified.

## XIV. Field Duplicates

Samples MS001-SS-120515 and MS101-SS-120515 were identified as field duplicates. No metals were detected in any of the samples with the following exceptions:

| Analyte | Concentration (mg/Kg) | | RPD (Limits) |
|---|---|---|---|
| | MS001-SS-120515 | MS101-SS-120515 | |
| Arsenic | 33 | 33 | 0 (≤50) |
| Cadmium | 3.2 | 3.4 | 6 (≤50) |

| Analyte | Concentration (mg/Kg) | | RPD (Limits) |
|---|---|---|---|
| | MS001-SS-120515 | MS101-SS-120515 | |
| Chromium | 37 | 38 | 3 (≤50) |
| Copper | 129 | 125 | 3 (≤50) |
| Lead | 170 | 170 | 0 (≤50) |
| Mercury | 0.4 | 0.4 | 0 (≤50) |
| Nickel | 50 | 42 | 17 (≤50) |
| Zinc | 400 | 374 | 7 (≤50) |

## XV. Field Blanks

Sample MS-SSRB-120515 was identified as a rinsate blank. No metal contaminants were found.

Sample MS-SSFB-120515 was identified as a field blank. No metal contaminants were found with the following exceptions:

| Blank ID | Analyte | Concentration (ug/L) |
|---|---|---|
| MS-SSFB-120515 | Copper | 7 |

## Jeld-Wen Maulsby Marsh
## Metals - Data Qualification Summary - SDG UU52/UU62

| SDG | Sample | Analyte | Flag | A or P | Reason |
|---|---|---|---|---|---|
| UU52/UU62 | MS001-SS-120515<br>MS101-SS-120515<br>MS002-SS-120515<br>MS003-SS-120515<br>MS004-SS-120515<br>MS005-SS-120515<br>MS006-SS-120515<br>MS007-SS-120515<br>MS008-SS-120515<br>MS009-SS-120515 | Antimony | J (all detects)<br>UJ (all non-detects) | A | Matrix spike (%R) |

## Jeld-Wen Maulsby Marsh
## Metals - Laboratory Blank Data Qualification Summary - SDG UU52/UU62

No Sample Data Qualified in this SDG

LDC #: 27826A4 **VALIDATION COMPLETENESS WORKSHEET** Date: 6/19/12

SDG #: UU52/UU62 Stage 2B Page: 1 of 1

Laboratory: Analytical Resources Inc. Reviewer: CR

2nd Reviewer: W

**METHOD:** Metals (EPA SW 846 Method 6010C/~~200.8~~/7471A/7470) A, EPA 200.8

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

| | Validation Area | | Comments |
|---|---|---|---|
| I. | Technical holding times | A | Sampling dates: 5/15/12 |
| II. | ICP/MS Tune | A | |
| III. | Calibration | A | |
| IV. | Blanks | A | |
| V. | ICP Interference Check Sample (ICS) Analysis | A | |
| VI. | Matrix Spike Analysis | SW | MS |
| VII. | Duplicate Sample Analysis | A | DUP |
| VIII. | Laboratory Control Samples (LCS) | A | LCS |
| IX. | Internal Standard (ICP-MS) | N | Not reviewed |
| X. | Furnace Atomic Absorption QC | N | Not utilized |
| XI. | ICP Serial Dilution | N | Not performed |
| XII. | Sample Result Verification | N | |
| XIII. | Overall Assessment of Data | A | |
| XIV. | Field Duplicates | SW | (1,2) |
| XV | Field Blanks | SW | FB=12 ; FB=13 |

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: sediment/water

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | MS001-SS-120515 | 11 | MS009-SS-120515 | 21 | | 31 | |
| 2 | MS101-SS-120515 | 12 | MS-SSRB-120515 W | 22 | | 32 | |
| 3 | MS002-SS-120515 | 13 | MS-SSFB-120515 | 23 | | 33 | |
| 4 | MS003-SS-120515 | 14 | MS002-SS-120515MS | 24 | | 34 | |
| 5 | MS004-SS-120515 | 15 | MS002-SS-120515DUP | 25 | | 35 | |
| 6 | MS005-SS-120515 | 16 | MS-SSRB-120515MS W | 26 | | 36 | |
| 7 | MS006-SS-120515 | 17 | MS-SSRB-120515DUP | 27 | | 37 | |
| ~~8~~ | ~~MS006-SS-120515DL~~ | 18 | | 28 | | 38 | |
| 9 | MS007-SS-120515 | 19 | | 29 | | 39 | |
| 10 | MS008-SS-120515 | 20 | | 30 | | 40 | |

Notes: _____

# VALIDATION FINDINGS WORKSHEET
## Sample Specific Element Reference

Reviewer: CR
2nd reviewer: LW

All circled elements are applicable to each sample.

| Sample ID | Matrix | Target Analyte List (TAL) |
|---|---|---|
| 1-B | | Al, (Sb), (As), Ba, Be, (Cd), Ca, (Cr), Co, (Cu), Fe, (Pb), Mg, Mn, (Hg), (Ni), K, Se, (Ag), Na, Tl, V, (Zn), Mo, B, Sn, Ti, U, |
| | | Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, |
| | | Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Sn, Ti, U, |
| QC 14-17 | | Al, (Sb), (As), Ba, Be, (Cd), Ca, (Cr), Co, (Cu), Fe, (Pb), Mg, Mn, (Hg), (Ni), K, Se, (Ag), Na, Tl, V, (Zn), Mo, B, Sn, Ti, U, |
| | | Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn,

LDC #: 27826A4

# VALIDATION FINDINGS WORKSHEET
## Matrix Spike Analysis


Reviewer: CR
2nd Reviewer:

**METHOD**: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a matrix spike analyzed for each matrix in this SDG?

Y (N) N/A Were matrix spike percent recoveries (%R) within the control limits of 75-125? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.

(Y) N N/A Was a post digestion spike analyzed for ICP elements that did not meet the required criteria for matrix spike recovery?

**LEVEL IV ONLY:**

Y N (N/A) Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

| # | Date | Matrix Spike ID | Matrix | Analyte | %R | Associated Samples | Qualifications |
|---|---|---|---|---|---|---|---|
| | | 14/15 | S | Sb | 9.8 | All Sediment | J/R/~~A~~ or J/UJ/A (PS=100.6%) |
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Comments:

LDC#: 27826A4

# VALIDATION FINDINGS WORKSHEET
## Field Duplicates


Reviewer: [signature]
2nd Reviewer: [signature]

**METHOD**: Metals (EPA Method 6010B/7000)

| Analyte | Concentration (mg/Kg) | | RPD (≤50) | |
|---|---|---|---|---|
| | 1 | 2 | | |
| Arsenic | 33 | 33 | 0 | |
| Cadmium | 3.2 | 3.4 | 6 | |
| Chromium | 37 | 38 | 3 | |
| Copper | 129 | 125 | 3 | |
| Lead | 170 | 170 | 0 | |
| Mercury | 0.4 | 0.4 | 0 | |
| Nickel | 50 | 42 | 17 | |
| Zinc | 400 | 374 | 7 | |

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LDC #: 27626TY

# VALIDATION FINDINGS WORKSHEET
## Field Blanks


Reviewer: CR
2nd reviewer: [signature]

**METHOD:** Trace Metals (EPA SW 846 Method 6010/6020/7000)

Y N N/A Were field blanks identified in this SDG?
Y N N/A Were target analytes detected in the field blanks?

**Sample:** 13 Field Blank / Trip Blank / Rinsate / Other_____(circle one)

| Analyte | Concentration Units (ug/L) |
|---|---|
| Cu | 7 |
| | |
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**Sample:** _____ Field Blank / Trip Blank / Rinsate / Other_____ (circle one)

| Analyte | Concentration Units (____) |
|---|---|
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# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** Jeld-Wen Maulsby Marsh

**Collection Date:** May 15, 2012

**LDC Report Date:** June 19, 2012

**Matrix:** Sediment

**Parameters:** Wet Chemistry

**Validation Level:** Stage 2B

**Laboratory:** Analytical Resources, Inc.

**Sample Delivery Group (SDG):** UU52/UU62

**Sample Identification**

| | |
|---|---|
| MS001-SS-120515 | MS002-SS-120515DUP |
| MS101-SS-120515 | MS002-SS-120515TRP |
| MS002-SS-120515 | MS110-SS-120515MS |
| MS003-SS-120515 | MS110-SS-120515DUP |
| MS004-SS-120515 | MS110-SS-120515TRP |
| MS005-SS-120515 | |
| MS006-SS-120515 | |
| MS007-SS-120515 | |
| MS008-SS-120515 | |
| MS009-SS-120515 | |
| MS010-SS-120515 | |
| MS110-SS-120515 | |
| MS011-SS-120515 | |
| MS012-SS-120515 | |
| MS013-SS-120515 | |
| MS014-SS-120515 | |
| MS015-SS-120515 | |
| MS016-SS-120515 | |
| MS017-SS-120515 | |
| MS018-SS-120515 | |

## Introduction

This data review covers 25 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 350.1M for Ammonia as Nitrogen, EPA Method 376.2 for Sulfide, Standard Method 2540B for Total Solids and Preserved Total Solids, EPA SW 846 Method 9060M for Total Organic Carbon, and PSEP for Grain Size.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of the presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. Initial Calibration

All criteria for the initial calibration of each method were met.

## III. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

## IV. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

## V. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

## VI. Duplicates/Triplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

Triplicate (TRP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

## VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

## VIII. Sample Result Verification

Raw data were not reviewed for this SDG.

## IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the Stage 2B data validation all results are considered valid and usable for all purposes.

## X. Field Duplicates

Samples MS001-SS-120515 and MS101-SS-120515 and samples MS010-SS-120515 and MS110-SS-120515 were identified as field duplicates. No contaminant concentrations were detected in any of the samples with the following exceptions:

| Analyte | Concentration | | RPD (Limits) |
|---|---|---|---|
| | MS001-SS-120515 | MS101-SS-120515 | |
| Total Solids | 10.20% | 10.20% | 0 (≤50) |
| Preserved Total Solids | 9.70% | 9.70% | 0 (≤50) |
| Ammonia as N | 132 mg/Kg | 130 mg/Kg | 2 (≤50) |
| Sulfide | 2960 mg/Kg | 3100 mg/Kg | 5 (≤50) |
| Total Organic Carbon | 19.6% | 18.4% | 6 (≤50) |

| Analyte | Concentration | | RPD (Limits) |
|---|---|---|---|
| | MS010-SS-120515 | MS110-SS-120515 | |
| Total Solids | 10.60% | 10.40% | 2 (≤50) |
| Preserved Total Solids | 10.50% | 10.70% | 2 (≤50) |
| Ammonia as N | 100 mg/Kg | 95.6 mg/Kg | 4 (≤50) |
| Sulfide | 2030 mg/Kg | 1750 mg/Kg | 15 (≤50) |
| Total Organic Carbon | 11.8% | 15.7% | 28 (≤50) |

| Sieve Size | Percent Finer (%) | | RPD (Limits) |
|---|---|---|---|
| | MS001-SS-120515 | MS101-SS-120515 | |
| Gravel: 2000 um | 100.0 | 88.2 | 13 (≤50) |
| Very Coarse Sand: 1000 um | 75.6 | 71.2 | 6 (≤50) |
| Coarse Sand: 500 um | 68.4 | 63.3 | 8 (≤50) |
| Medium Sand: 250 um | 63.9 | 58.5 | 9 (≤50) |
| Fine Sand: 125 um | 60.9 | 55.3 | 10 (≤50) |
| Very Fine Sand: 63 um | 58.8 | 52.9 | 11 (≤50) |
| Slit: 31um | 57.5 | 51.8 | 10 (≤50) |
| Slit: 15.6um | 44.4 | 40.3 | 10 (≤50) |
| Slit: 7.80um | 33.1 | 30.4 | 9 (≤50) |
| Slit: 3.9um | 20.6 | 19.2 | 7 (≤50) |
| Clay: 2 um | 17.6 | 15.9 | 10 (≤50) |
| Clay: 1 um | 14.2 | 12.5 | 13 (≤50) |

| Sieve Size | Percent Finer (%) | | RPD (Limits) |
|---|---|---|---|
| | MS010-SS-120515 | MS110-SS-120515 | |
| Gravel: 4750 um | 97.3 | 100.0 | 3 (≤50) |
| Gravel: 2000 um | 88.6 | 97.4 | 9 (≤50) |
| Very Coarse Sand: 1000 um | 79.1 | 83.2 | 5 (≤50) |
| Coarse Sand: 500 um | 72.1 | 73.8 | 2 (≤50) |
| Medium Sand: 250 um | 66.3 | 67.4 | 2 (≤50) |
| Fine Sand: 125 um | 61.6 | 62.3 | 1 (≤50) |
| Very Fine Sand: 63 um | 57.9 | 58.5 | 1 (≤50) |
| Slit: 31um | 49.8 | 56.1 | 12 (≤50) |

| Sieve Size | Percent Finer (%) | | RPD (Limits) |
|---|---|---|---|
| | MS010-SS-120515 | MS110-SS-120515 | |
| Slit: 15.6um | 35.3 | 46.6 | 28 (≤50) |
| Slit: 7.80um | 27.2 | 37.1 | 31 (≤50) |
| Slit: 3.9um | 18.4 | 21.7 | 16 (≤50) |
| Clay: 2 um | 15.5 | 16.1 | 4 (≤50) |
| Clay: 1 um | 11.6 | 12.0 | 3 (≤50) |

## XI. Field Blanks

No field blanks were identified in this SDG.

**Jeld-Wen Maulsby Marsh**
**Wet Chemistry - Data Qualification Summary - SDG UU52/UU62**

No Sample Data Qualified in this SDG

**Jeld-Wen Maulsby Marsh**
**Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG UU52/UU62**

No Sample Data Qualified in this SDG

LDC #: 27826A6 **VALIDATION COMPLETENESS WORKSHEET** Date: 6-19-12
SDG #: UU52/UU62 Stage 2B Page: 1 of 1
Laboratory: Analytical Resource Inc Reviewer: [illegible]
2nd Reviewer: [illegible]

**METHOD: (Analyte)** Ammonia-N (EPA Method 350.1)M, Sulfide (EPA Method 376.2), Total Solids, Preserved Total Solids (SM2540B), Total Organic Carbon (EPA SW846 Method 9060M), Grain Size (PSEP)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

| | Validation Area | | Comments |
|---|---|---|---|
| I. | Technical holding times | A | Sampling dates: 5/15/12 |
| II | Initial calibration | A | |
| III. | Calibration verification | A | |
| IV | Blanks | A | |
| V | Matrix Spike/Matrix Spike Duplicates | A | MS |
| VI. | Duplicates /Triplicates | A | DUP, TRP |
| VII. | Laboratory control samples | A | LCS |
| VIII. | Sample result verification | N | |
| IX. | Overall assessment of data | A | |
| X. | Field duplicates | SW | (1,2), (14,15) |
| XI | Field blanks | N | ~~R=12, FB=13~~ 2 |

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Sediment ~~Tissue~~

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | MS001-SS-120515 | 11 | MS009-SS-120515 | 21 | MS016-SS-120515 | 31 | |
| 2 | MS101-SS-120515 | ~~12~~ | ~~MS-SSRB-120515~~ W | 22 | MS017-SS-120515 | 32 | |
| 3 | MS002-SS-120515 | ~~13~~ | ~~MS-SSFB-120515~~ W | 23 | MS018-SS-120515 | 33 | |
| 4 | MS003-SS-120515 | 14 | MS010-SS-120515 | 24 | MS002-SS-120515DUP | 34 | |
| 5 | MS004-SS-120515 | 15 | MS110-SS-120515 | 25 | MS002-SS-120515TRP | 35 | |
| 6 | MS005-SS-120515 | 16 | MS011-SS-120515 | 26 | MS110-SS-120515MS | 36 | |
| 7 | MS006-SS-120515 | 17 | MS012-SS-120515 | 27 | MS110-SS-120515~~MSD~~ DUP | 37 | |
| ~~8~~ | ~~MS006-SS-120515DL~~ | 18 | MS013-SS-120515 | 28 | MS110-SS-120515~~DUP~~ TRP | 38 | |
| 9 | MS007-SS-120515 | 19 | MS014-SS-120515 | 29 | | 39 | |
| 10 | MS008-SS-120515 | 20 | MS015-SS-120515 | 30 | | 40 | |

Notes:

LDC #: 27826A6

# VALIDATION FINDINGS WORKSHEET
## Sample Specific Analysis Reference


Reviewer: CR
2nd reviewer: N/A

All circled methods are applicable to each sample.

| Sample ID | Parameter |
|---|---|
| 1-17, 14-23 | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN ($NH_3$) TKN (TOC) Cr6+ $ClO_4$ (TS) (PTS) (Sa) (Grain Size) |
| 1-11, 14-23 | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ (Grain Size) |
| | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ |
| QC 24 | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ (Grain Size) |
| 25 | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ (Grain Size) |
| 26 | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN ($NH_3$) TKN (TOC) Cr6+ $ClO_4$ (Sa) |
| 27 | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN ($NH_3$) TKN (TOC) Cr6+ $ClO_4$ (TS) (PTS) (Sa) |
| 28 | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN (TOC) Cr6+ $ClO_4$ (TS) |
| | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ |
| | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ |
| | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ |
| | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ |
| | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ |
| | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ |
| | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ |
| | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ |
| | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ |
| | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ |
| | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ |
| | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ |
| | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ |
| | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ |
| | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ |
| | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ |
| | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ |
| | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ |
| | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ |
| | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ |
| | pH TDS Cl F $NO_3$ $NO_2$ $SO_4$ O-$PO_4$ Alk CN $NH_3$ TKN TOC Cr6+ $ClO_4$ |

Comments: _____

LDC# 27826A6

# VALIDATION FINDINGS WORKSHEET
## Field Duplicates


Reviewer: CL
2nd Reviewer:

**Inorganics**: Method See Cover

| Analyte | Concentration (mg/Kg) | | RPD (≤50) | |
|---|---|---|---|---|
| | 1 | 2 | | |
| Total Solids (%) | 10.20 | 10.20 | 0 | |
| Preserved Total Solids (%) | 9.70 | 9.70 | 0 | |
| Ammonia as N | 132 | 130 | 2 | |
| Sulfide | 2960 | 3100 | 5 | |
| Total Organic Carbon (%) | 19.6 | 18.4 | 6 | |

| Analyte | Concentration (mg/Kg) | | RPD (≤50) | |
|---|---|---|---|---|
| | 14 | 15 | | |
| Total Solids (%) | 10.60 | 10.40 | 2 | |
| Preserved Total Solids (%) | 10.50 | 10.70 | 2 | |
| Ammonia as N | 100 | 95.6 | 4 | |
| Sulfide | 2030 | 1750 | 15 | |
| Total Organic Carbon (%) | 11.8 | 15.7 | 28 | |

LDC# 27826A6

# VALIDATION FINDINGS WORKSHEET

## Field Duplicates



Reviewer: A

2nd Reviewer:

**Inorganics**: Method See Cover

| Sieve Size | Percent Finer (%) | | RPD (≤50) | |
|---|---|---|---|---|
| | 1 | 2 | | |
| Gravel: 2000 um | 100.0 | 88.2 | 13 | |
| Very Coarse Sand: 1000 um | 75.6 | 71.2 | 6 | |
| Coarse Sand: 500 um | 68.4 | 63.3 | 8 | |
| Medium Sand: 250 um | 63.9 | 58.5 | 9 | |
| Fine Sand: 125 um | 60.9 | 55.3 | 10 | |
| Very Fine Sand: 63 um | 58.8 | 52.9 | 11 | |
| Slit: 31um | 57.5 | 51.8 | 10 | |
| Slit: 15.6um | 44.4 | 40.3 | 10 | |
| Slit: 7.80um | 33.1 | 30.4 | 9 | |
| Slit: 3.9um | 20.6 | 19.2 | 7 | |
| Clay: 2 um | 17.6 | 15.9 | 10 | |
| Clay: 1 um | 14.2 | 12.5 | 13 | |

LDC# 27826A6

**VALIDATION FINDINGS WORKSHEET**
**Field Duplicates**

Page: 1 of 1
Reviewer:
2nd Reviewer:

**Inorganics**: Method See Cover

| Sieve Size | Percent Finer (%) | | RPD (≤50) | |
|---|---|---|---|---|
| | 14 | 15 | | |
| Gravel: 4750 um | 97.3 | 100.0 | 3 | |
| Gravel: 2000 um | 88.6 | 97.4 | 9 | |
| Very Coarse Sand: 1000 um | 79.1 | 83.2 | 5 | |
| Coarse Sand: 500 um | 72.1 | 73.8 | 2 | |
| Medium Sand: 250 um | 66.3 | 67.4 | 2 | |
| Fine Sand: 125 um | 61.6 | 62.3 | 1 | |
| Very Fine Sand: 63 um | 57.9 | 58.5 | 1 | |
| Slit: 31um | 49.8 | 56.1 | 12 | |
| Slit: 15.6um | 35.3 | 46.6 | 28 | |
| Slit: 7.80um | 27.2 | 37.1 | 31 | |
| Slit: 3.9um | 18.4 | 21.7 | 16 | |
| Clay: 2 um | 15.5 | 16.1 | 4 | |
| Clay: 1 um | 11.6 | 12.0 | 3 | |

V:\FIELD DUPLICATES\FD_inorganic\27826A6.wpd

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** Jeld-Wen Maulsby Marsh

**Collection Date:** May 15, 2012

**LDC Report Date:** June 25, 2012

**Matrix:** Sediment/Water

**Parameters:** Total Petroleum Hydrocarbons as Diesel

**Validation Level:** Stage 2B

**Laboratory:** Analytical Resources, Inc.

**Sample Delivery Group (SDG):** UU52/UU62

**Sample Identification**

MS001-SS-120515
MS101-SS-120515
MS002-SS-120515
MS003-SS-120515
MS004-SS-120515
MS005-SS-120515
MS006-SS-120515
MS007-SS-120515
MS008-SS-120515
MS009-SS-120515
MS-SSRB-120515
MS-SSFB-120515
MS008-SS-120515MS
MS008-SS-120515MSD

## Introduction

This data review covers 12 sediment samples and 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per NWTPH-Dx for Total Petroleum Hydrocarbons (TPH) as Diesel.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of the presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0%.

## III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

## IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as diesel contaminants were found in the method blanks.

## V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

## VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## VIII. Target Compound Identification

Raw data were not reviewed for this SDG.

## IX. Compound Quantitation and RLs

Raw data were not reviewed for this SDG.

## X. System Performance

Raw data were not reviewed for this SDG.

## XI. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the Stage 2B data validation all results are considered valid and usable for all purposes.

## XII. Field Duplicates

Samples MS001-SS-120515 and MS101-SS-120515 were identified as field duplicates. No total petroleum hydrocarbons as diesel were detected in any of the samples with the following exceptions:

| Compound | Concentration (mg/Kg) | | RPD (Limits) |
|---|---|---|---|
| | MS001-SS-120515 | MS101-SS-120515 | |
| Diesel | 53 | 54 | 2 (≤50) |
| Motor oil | 150 | 140 | 7 (≤50) |

## XIII. Field Blanks

Sample MS-SSRB-120515 was identified as a rinsate blank. No total petroleum hydrocarbons as diesel contaminants were found.

Sample MS-SSFB-120515 was identified as a field blank. No total petroleum hydrocarbons as diesel contaminants were found.

**Jeld-Wen Maulsby Marsh**
**Total Petroleum Hydrocarbons as Diesel - Data Qualification Summary - SDG UU52/UU62**

No Sample Data Qualified in this SDG

**Jeld-Wen Maulsby Marsh**
**Total Petroleum Hydrocarbons as Diesel - Laboratory Blank Data Qualification Summary - SDG UU52/UU62**

No Sample Data Qualified in this SDG

LDC #: 27826A8 **VALIDATION COMPLETENESS WORKSHEET** Date: 6/20/12
SDG #: UU52/UU62 Stage 2B~~/4~~ Page: 1 of 1
Laboratory: Analytical Resources Inc. Reviewer: JVG
2nd Reviewer: SV

**METHOD:** GC TPH as Diesel (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

| | Validation Area | | Comments |
|---|---|---|---|
| I. | Technical holding times | A | Sampling dates: 5/15/12 |
| II | Initial calibration | A | %RSD ≤ 20% |
| III. | Calibration verification | A | CCV/ICV ≤ 20% |
| IV. | Blanks | A | |
| V | Surrogate recovery | A | |
| VI. | Matrix spike/Matrix spike duplicates | A | |
| VII. | Laboratory control samples | A | LCS/D |
| VIII. | Target compound identification | N | |
| IX. | Compound quantitation/RL/LOQ/LODs | N | |
| X. | System Performance | N | |
| XI. | Overall assessment of data | ~~A~~ SW JVG | |
| XII. | Field duplicates | SW | D = 1, 2 |
| XIII. | Field blanks | ND | RB = 12 FB = 13 |

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: ~~* Level IV~~ Sediment + Water (2)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | MS001-SS-120515 D | 11 | MS009-SS-120515 | 21 | MB-052112 | 31 | |
| 2 | MS101-SS-120515 D | 12 | MS-SSRB-120515 W | 22 | MB-051812 | 32 | |
| 3 | MS002-SS-120515 ~~***~~ | 13 | MS-SSFB-120515 ↓ | 23 | | 33 | |
| 4 | MS003-SS-120515 | 14 | MS008-SS-120515MS | 24 | | 34 | |
| 5 | MS004-SS-120515 | 15 | MS008-SS-120515MSD | 25 | | 35 | |
| 6 | MS005-SS-120515 | 16 | | 26 | | 36 | |
| 7 | MS006-SS-120515 | 17 | | 27 | | 37 | |
| 8 | ~~MS006-SS-120515DL~~ | 18 | | 28 | | 38 | |
| 9 | MS007-SS-120515 | 19 | | 29 | | 39 | |
| 10 | MS008-SS-120515 | 20 | | 30 | | 40 | |

Notes:

LDC#:27826A8 **VALIDATION FINDINGS WORKSHEET**
**Field Duplicates**

Page: 1 of 1
Reviewer: JV
2nd Reviewer: JR

**METHOD**: GC TPH as Diesel (Method NWTPH-Dx)

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

| Compound | Concentration (mg/kg) | | RPD (≤50) |
|---|---|---|---|
| | 1 | 2 | |
| Diesel | 53 | 54 | 2 |
| Motor Oil | 150 | 140 | 7 |

V:\FIELD DUPLICATES\27826A8.wpd

# Laboratory Data Consultants, Inc.
# Data Validation Report

**Project/Site Name:** Jeld-Wen Maulsby Marsh

**Collection Date:** May 15, 2012

**LDC Report Date:** June 25, 2012

**Matrix:** Sediment

**Parameters:** Extractable Petroleum Hydrocarbons

**Validation Level:** Stage 2B

**Laboratory:** Analytical Resources, Inc.

**Sample Delivery Group (SDG):** UW85

**Sample Identification**

MS001-SS-120515
MS002-SS-120515
MS003-SS-120515
MS006-SS-120515
MS001-SS-120515MS
MS001-SS-120515MSD

## Introduction

This data review covers 6 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per WDOE Interim Method for Extractable Petroleum Hydrocarbons.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of the presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0%.

## III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

## IV. Blanks

Method blanks were reviewed for each matrix as applicable. No extractable petroleum hydrocarbons contaminants were found in the method blanks.

## V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

## VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## VIII. Target Compound Identification

Raw data were not reviewed for this SDG.

## IX. Compound Quantitation and RLs

Raw data were not reviewed for this SDG.

## X. System Performance

Raw data were not reviewed for this SDG.

## XI. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the Stage 2B data validation all results are considered valid and usable for all purposes.

## XII. Field Duplicates

No field duplicates were identified in this SDG.

## XIII. Field Blanks

No field blanks were identified in this SDG.

**Jeld-Wen Maulsby Marsh**
**Extractable Petroleum Hydrocarbons - Data Qualification Summary - SDG UW85**

No Sample Data Qualified in this SDG

**Jeld-Wen Maulsby Marsh**
**Extractable Petroleum Hydrocarbons - Laboratory Blank Data Qualification Summary - SDG UW85**

No Sample Data Qualified in this SDG

LDC #: 27826B7 (8)

# VALIDATION COMPLETENESS WORKSHEET

Stage 2B

Date: 6/20/12

SDG #: UW85

Page: 1 of 1

Laboratory: Analytical Resources Inc.

Reviewer: JV6

2nd Reviewer: [signature]

**METHOD:** GC TPH as Gasoline (EPA SW 846 Method 8015B) EPH WDOE Interim Method

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

| | Validation Area | | Comments |
|---|---|---|---|
| I. | Technical holding times | A | Sampling dates: 5/15/12 |
| II | Initial calibration | A | %RSD ≤ 20% |
| III. | Calibration verification/ICV | A | CCV/ICV ≤ 20% |
| IV. | Blanks | A | |
| V | Surrogate recovery | A | |
| VI. | Matrix spike/Matrix spike duplicates | A | |
| VII. | Laboratory control samples | A | LCS/D |
| VIII. | Target compound identification | N | |
| IX. | Compound quantitation/RL/LOQ/LODs | N | |
| X. | System Performance | N | |
| XI. | Overall assessment of data | A | |
| XII. | Field duplicates | N | |
| XIII. | Field blanks | N | |

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Sediment

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | MS001-SS-120515 | 11 | MB-060412 | 21 | | 31 | |
| 2 | MS002-SS-120515 | 12 | | 22 | | 32 | |
| 3 | MS003-SS-120515 | 13 | | 23 | | 33 | |
| 4 | MS006-SS-120515 | 14 | | 24 | | 34 | |
| 5 | MS001-SS-120515MS | 15 | | 25 | | 35 | |
| 6 | MS001-SS-120515MSD | 16 | | 26 | | 36 | |
| 7 | | 17 | | 27 | | 37 | |
| 8 | | 18 | | 28 | | 38 | |
| 9 | | 19 | | 29 | | 39 | |
| 10 | | 20 | | 30 | | 40 | |

Notes:

# Jeld-Wen Maulsby Marsh - LDC 27826

SDG: UU52

| Analytical Method | E200.8 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS001-SS-120515 | 12-8893-UU52A | Antimony | 5/23/2012 | 2 | | Yes | N | U | UJ | 8 | 2 | 0.12 | mg/kg |
| MS001-SS-120515 | 12-8893-UU52A | Arsenic | 5/23/2012 | 33 | | Yes | Y | | | | 2 | 0.82 | mg/kg |
| MS001-SS-120515 | 12-8893-UU52A | Cadmium | 5/23/2012 | 3.2 | | Yes | Y | | | | 0.9 | 0.11 | mg/kg |
| MS001-SS-120515 | 12-8893-UU52A | Silver | 5/23/2012 | 2 | | Yes | N | U | | | 2 | 0.076 | mg/kg |
| MS002-SS-120515 | 12-8895-UU52C | Antimony | 5/23/2012 | 2 | | Yes | N | U | UJ | 8 | 2 | 0.12 | mg/kg |
| MS002-SS-120515 | 12-8895-UU52C | Cadmium | 5/23/2012 | 2.9 | | Yes | Y | | | | 0.9 | 0.11 | mg/kg |
| MS002-SS-120515 | 12-8895-UU52C | Arsenic | 5/23/2012 | 27 | | Yes | Y | | | | 2 | 0.81 | mg/kg |
| MS002-SS-120515 | 12-8895-UU52C | Silver | 5/23/2012 | 2 | | Yes | N | U | | | 2 | 0.075 | mg/kg |
| MS003-SS-120515 | 12-8896-UU52D | Arsenic | 5/23/2012 | 19 | | Yes | Y | | | | 2 | 0.81 | mg/kg |
| MS003-SS-120515 | 12-8896-UU52D | Silver | 5/23/2012 | 2 | | Yes | N | U | | | 2 | 0.075 | mg/kg |
| MS003-SS-120515 | 12-8896-UU52D | Antimony | 5/23/2012 | 2 | | Yes | N | U | UJ | 8 | 2 | 0.12 | mg/kg |
| MS003-SS-120515 | 12-8896-UU52D | Cadmium | 5/23/2012 | 2.2 | | Yes | Y | | | | 0.9 | 0.11 | mg/kg |
| MS004-SS-120515 | 12-8897-UU52E | Silver | 5/23/2012 | 2 | | Yes | N | U | | | 2 | 0.077 | mg/kg |
| MS004-SS-120515 | 12-8897-UU52E | Antimony | 5/23/2012 | 2 | | Yes | N | U | UJ | 8 | 2 | 0.13 | mg/kg |
| MS004-SS-120515 | 12-8897-UU52E | Arsenic | 5/23/2012 | 24 | | Yes | Y | | | | 2 | 0.84 | mg/kg |
| MS004-SS-120515 | 12-8897-UU52E | Cadmium | 5/23/2012 | 3 | | Yes | Y | | | | 1 | 0.12 | mg/kg |
| MS005-SS-120515 | 12-8898-UU52F | Arsenic | 5/23/2012 | 55 | | Yes | Y | | | | 2 | 1.0 | mg/kg |
| MS005-SS-120515 | 12-8898-UU52F | Antimony | 5/23/2012 | 3 | | Yes | Y | | J | 8 | 2 | 0.15 | mg/kg |
| MS005-SS-120515 | 12-8898-UU52F | Silver | 5/23/2012 | 2 | | Yes | N | U | | | 2 | 0.095 | mg/kg |
| MS005-SS-120515 | 12-8898-UU52F | Cadmium | 5/23/2012 | 3 | | Yes | Y | | | | 1 | 0.14 | mg/kg |
| MS006-SS-120515 | 12-8899-UU52G | Cadmium | 5/23/2012 | 3 | | Yes | Y | | | | 1 | 0.12 | mg/kg |
| MS006-SS-120515 | 12-8899-UU52G | Antimony | 5/23/2012 | 5 | | Yes | Y | | J | 8 | 2 | 0.13 | mg/kg |
| MS006-SS-120515 | 12-8899-UU52G | Silver | 5/23/2012 | 2 | | Yes | N | U | | | 2 | 0.079 | mg/kg |
| MS006-SS-120515 | 12-8899-UU52G | Arsenic | 5/23/2012 | 80 | | Yes | Y | | | | 2 | 0.86 | mg/kg |

SDG: UU52

**Analytical Method** E200.8

| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS007-SS-120515 | 12-8900-UU52H | Antimony | 5/23/2012 | 1 | Yes | N | U | UJ | 8 | 1 | 0.077 | mg/kg |
| MS007-SS-120515 | 12-8900-UU52H | Cadmium | 5/23/2012 | 3.7 | Yes | Y | | | | 0.6 | 0.071 | mg/kg |
| MS007-SS-120515 | 12-8900-UU52H | Arsenic | 5/23/2012 | 28 | Yes | Y | | | | 1 | 0.51 | mg/kg |
| MS007-SS-120515 | 12-8900-UU52H | Silver | 5/23/2012 | 1 | Yes | N | U | | | 1 | 0.047 | mg/kg |
| MS008-SS-120515 | 12-8901-UU52I | Cadmium | 5/23/2012 | 3 | Yes | Y | | | | 0.9 | 0.10 | mg/kg |
| MS008-SS-120515 | 12-8901-UU52I | Arsenic | 5/23/2012 | 27 | Yes | Y | | | | 2 | 0.75 | mg/kg |
| MS008-SS-120515 | 12-8901-UU52I | Antimony | 5/23/2012 | 2 | Yes | N | U | UJ | 8 | 2 | 0.11 | mg/kg |
| MS008-SS-120515 | 12-8901-UU52I | Silver | 5/23/2012 | 2 | Yes | N | U | | | 2 | 0.069 | mg/kg |
| MS009-SS-120515 | 12-8902-UU52J | Arsenic | 5/23/2012 | 8 | Yes | Y | | | | 2 | 0.83 | mg/kg |
| MS009-SS-120515 | 12-8902-UU52J | Silver | 5/23/2012 | 2 | Yes | N | U | | | 2 | 0.076 | mg/kg |
| MS009-SS-120515 | 12-8902-UU52J | Cadmium | 5/23/2012 | 2 | Yes | Y | | | | 1 | 0.11 | mg/kg |
| MS009-SS-120515 | 12-8902-UU52J | Antimony | 5/23/2012 | 2 | Yes | N | U | UJ | 8 | 2 | 0.12 | mg/kg |
| MS101-SS-120515 | 12-8894-UU52B | Cadmium | 5/23/2012 | 3.4 | Yes | Y | | | | 0.9 | 0.11 | mg/kg |
| MS101-SS-120515 | 12-8894-UU52B | Silver | 5/23/2012 | 2 | Yes | N | U | | | 2 | 0.074 | mg/kg |
| MS101-SS-120515 | 12-8894-UU52B | Antimony | 5/23/2012 | 2 | Yes | N | U | UJ | 8 | 2 | 0.12 | mg/kg |
| MS101-SS-120515 | 12-8894-UU52B | Arsenic | 5/23/2012 | 33 | Yes | Y | | | | 2 | 0.81 | mg/kg |

**Analytical Method** E350.1M

| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS001-SS-120515 | 12-8893-UU52A | Ammonia | 5/21/2012 | 132 | Yes | Y | | | | 1.94 | 0.06000 | mg/kg |
| MS002-SS-120515 | 12-8895-UU52C | Ammonia | 5/21/2012 | 213 | Yes | Y | | | | 5.02 | 0.15000 | mg/kg |
| MS003-SS-120515 | 12-8896-UU52D | Ammonia | 5/21/2012 | 170 | Yes | Y | | | | 2.28 | 0.06000 | mg/kg |
| MS004-SS-120515 | 12-8897-UU52E | Ammonia | 5/21/2012 | 178 | Yes | Y | | | | 4.85 | 0.15000 | mg/kg |
| MS005-SS-120515 | 12-8898-UU52F | Ammonia | 5/21/2012 | 71.1 | Yes | Y | | | | 1.15 | 0.03000 | mg/kg |
| MS006-SS-120515 | 12-8899-UU52G | Ammonia | 5/21/2012 | 17.9 | Yes | Y | | | | 1.02 | 0.03000 | mg/kg |
| MS007-SS-120515 | 12-8900-UU52H | Ammonia | 5/21/2012 | 33.2 | Yes | Y | | | | 0.59 | 0.03000 | mg/kg |

SDG: UU52

| Analytical Method | E350.1M | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS008-SS-120515 | 12-8901-UU52I | Ammonia | 5/21/2012 | 12.6 | | Yes | Y | | | | 0.99 | 0.03000 | mg/kg |
| MS009-SS-120515 | 12-8902-UU52J | Ammonia | 5/21/2012 | 117 | | Yes | Y | | | | 2.06 | 0.06000 | mg/kg |
| MS010-SS-120515 | 12-8903-UU52K | Ammonia | 5/21/2012 | 100 | | Yes | Y | | | | 1.76 | 0.06000 | mg/kg |
| MS101-SS-120515 | 12-8894-UU52B | Ammonia | 5/21/2012 | 130 | | Yes | Y | | | | 1.99 | 0.06000 | mg/kg |

| Analytical Method | E376.2 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS001-SS-120515 | 12-8893-UU52A | Sulfide | 5/18/2012 | 2960 | | Yes | Y | | | | 207 | 0.15000 | mg/kg |
| MS002-SS-120515 | 12-8895-UU52C | Sulfide | 5/18/2012 | 2350 | | Yes | Y | | | | 197 | 0.15000 | mg/kg |
| MS003-SS-120515 | 12-8896-UU52D | Sulfide | 5/18/2012 | 3640 | | Yes | Y | | | | 201 | 0.15000 | mg/kg |
| MS004-SS-120515 | 12-8897-UU52E | Sulfide | 5/18/2012 | 4070 | | Yes | Y | | | | 207 | 0.15000 | mg/kg |
| MS005-SS-120515 | 12-8898-UU52F | Sulfide | 5/18/2012 | 1840 | | Yes | Y | | | | 118 | 0.07500 | mg/kg |
| MS006-SS-120515 | 12-8899-UU52G | Sulfide | 5/18/2012 | 20.5 | | Yes | Y | | | | 14.1 | 0.00750 | mg/kg |
| MS007-SS-120515 | 12-8900-UU52H | Sulfide | 5/18/2012 | 718 | | Yes | Y | | | | 52.6 | 0.07500 | mg/kg |
| MS008-SS-120515 | 12-8901-UU52I | Sulfide | 5/18/2012 | 1770 | | Yes | Y | | | | 113 | 0.07500 | mg/kg |
| MS009-SS-120515 | 12-8902-UU52J | Sulfide | 5/18/2012 | 1720 | | Yes | Y | | | | 89.8 | 0.07500 | mg/kg |
| MS010-SS-120515 | 12-8903-UU52K | Sulfide | 5/18/2012 | 2030 | | Yes | Y | | | | 177 | 0.15000 | mg/kg |
| MS101-SS-120515 | 12-8894-UU52B | Sulfide | 5/18/2012 | 3100 | | Yes | Y | | | | 206 | 0.15000 | mg/kg |

| Analytical Method | NWTPHDx | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS001-SS-120515 | 12-8893-UU52A | Diesel Range Hydrocarbons | 5/22/2012 | 53 | | Yes | Y | | | | 51 | 13 | mg/kg |
| MS001-SS-120515 | 12-8893-UU52A | Motor Oil Range | 5/22/2012 | 150 | | Yes | Y | | | | 100 | 16 | mg/kg |
| MS002-SS-120515 | 12-8895-UU52C | Motor Oil Range | 5/22/2012 | 180 | | Yes | Y | | | | 97 | 15 | mg/kg |
| MS002-SS-120515 | 12-8895-UU52C | Diesel Range Hydrocarbons | 5/22/2012 | 69 | | Yes | Y | | | | 48 | 12 | mg/kg |
| MS003-SS-120515 | 12-8896-UU52D | Diesel Range Hydrocarbons | 5/22/2012 | 71 | | Yes | Y | | | | 53 | 14 | mg/kg |
| MS003-SS-120515 | 12-8896-UU52D | Motor Oil Range | 5/22/2012 | 170 | | Yes | Y | | | | 110 | 17 | mg/kg |

SDG: UU52

| Analytical Method | NWTPHDx | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS004-SS-120515 | 12-8897-UU52E | Diesel Range Hydrocarbons | 5/22/2012 | 52 | Yes | N | U | | | 52 | 13 | mg/kg |
| MS004-SS-120515 | 12-8897-UU52E | Motor Oil Range | 5/22/2012 | 110 | Yes | Y | | | | 100 | 16 | mg/kg |
| MS005-SS-120515 | 12-8898-UU52F | Diesel Range Hydrocarbons | 5/22/2012 | 54 | Yes | N | U | | | 54 | 14 | mg/kg |
| MS005-SS-120515 | 12-8898-UU52F | Motor Oil Range | 5/22/2012 | 160 | Yes | Y | | | | 110 | 17 | mg/kg |
| MS006-SS-120515 | 12-8899-UU52G | Motor Oil Range | 5/22/2012 | 190 | Yes | Y | | | | 110 | 17 | mg/kg |
| MS006-SS-120515 | 12-8899-UU52G | Diesel Range Hydrocarbons | 5/22/2012 | 64 | Yes | Y | | | | 53 | 14 | mg/kg |
| MS007-SS-120515 | 12-8900-UU52H | Motor Oil Range | 5/22/2012 | 120 | Yes | Y | | | | 61 | 9.6 | mg/kg |
| MS007-SS-120515 | 12-8900-UU52H | Diesel Range Hydrocarbons | 5/22/2012 | 37 | Yes | Y | | | | 31 | 7.9 | mg/kg |
| MS008-SS-120515 | 12-8901-UU52I | Motor Oil Range | 5/22/2012 | 120 | Yes | Y | | | | 90 | 14 | mg/kg |
| MS008-SS-120515 | 12-8901-UU52I | Diesel Range Hydrocarbons | 5/22/2012 | 45 | Yes | N | U | | | 45 | 12 | mg/kg |
| MS009-SS-120515 | 12-8902-UU52J | Motor Oil Range | 5/22/2012 | 100 | Yes | N | U | | | 100 | 16 | mg/kg |
| MS009-SS-120515 | 12-8902-UU52J | Diesel Range Hydrocarbons | 5/22/2012 | 50 | Yes | N | U | | | 50 | 13 | mg/kg |
| MS101-SS-120515 | 12-8894-UU52B | Diesel Range Hydrocarbons | 5/22/2012 | 54 | Yes | Y | | | | 50 | 13 | mg/kg |
| MS101-SS-120515 | 12-8894-UU52B | Motor Oil Range | 5/22/2012 | 140 | Yes | Y | | | | 100 | 16 | mg/kg |

| Analytical Method | PSEP | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS001-SS-120515 | 12-8893-UU52A | Silt, Very Fine | 5/25/2012 | 12.4 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS001-SS-120515 | 12-8893-UU52A | Sand, Medium | 5/25/2012 | 4.5 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS001-SS-120515 | 12-8893-UU52A | Sand, Fine | 5/25/2012 | 3 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS001-SS-120515 | 12-8893-UU52A | Sand, Coarse | 5/25/2012 | 7.1 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS001-SS-120515 | 12-8893-UU52A | Gravel | 5/25/2012 | 0.1 | Yes | N | U | | | 0.1 | 0.1 | pct |
| MS001-SS-120515 | 12-8893-UU52A | Fines (silt + clay) | 5/25/2012 | 58.8 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS001-SS-120515 | 12-8893-UU52A | Clay, Medium | 5/25/2012 | 3.3 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS001-SS-120515 | 12-8893-UU52A | Clay, Fine | 5/25/2012 | 14.2 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS001-SS-120515 | 12-8893-UU52A | Clay, Coarse | 5/25/2012 | 3.1 | Yes | Y | | | | 0.1 | 0.1 | pct |

SDG: UU52

**Analytical Method** PSEP

| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS001-SS-120515 | 12-8893-UU52A | Sand, Very Fine | 5/25/2012 | 2.1 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS001-SS-120515 | 12-8893-UU52A | Silt, Coarse | 5/25/2012 | 1.3 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS001-SS-120515 | 12-8893-UU52A | Silt, Fine | 5/25/2012 | 11.3 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS001-SS-120515 | 12-8893-UU52A | Sand, Very Coarse | 5/25/2012 | 24.4 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS001-SS-120515 | 12-8893-UU52A | Silt, Medium | 5/25/2012 | 13.1 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS002-SS-120515 | 12-8895-UU52C | Sand, Very Coarse | 5/25/2012 | 14.2 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS002-SS-120515 | 12-8895-UU52C | Clay, Fine | 5/25/2012 | 12.2 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS002-SS-120515 | 12-8895-UU52C | Clay, Medium | 5/25/2012 | 5.4 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS002-SS-120515 | 12-8895-UU52C | Fines (silt + clay) | 5/25/2012 | 69.8 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS002-SS-120515 | 12-8895-UU52C | Gravel | 5/25/2012 | 0.4 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS002-SS-120515 | 12-8895-UU52C | Sand, Coarse | 5/25/2012 | 6 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS002-SS-120515 | 12-8895-UU52C | Sand, Fine | 5/25/2012 | 3 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS002-SS-120515 | 12-8895-UU52C | Sand, Medium | 5/25/2012 | 4.4 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS002-SS-120515 | 12-8895-UU52C | Sand, Very Fine | 5/25/2012 | 2.3 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS002-SS-120515 | 12-8895-UU52C | Silt, Fine | 5/25/2012 | 12.2 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS002-SS-120515 | 12-8895-UU52C | Silt, Medium | 5/25/2012 | 18.8 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS002-SS-120515 | 12-8895-UU52C | Silt, Very Fine | 5/25/2012 | 15.2 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS002-SS-120515 | 12-8895-UU52C | Clay, Coarse | 5/25/2012 | 4.5 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS002-SS-120515 | 12-8895-UU52C | Silt, Coarse | 5/25/2012 | 1.5 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS003-SS-120515 | 12-8896-UU52D | Sand, Medium | 5/25/2012 | 5.7 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS003-SS-120515 | 12-8896-UU52D | Silt, Medium | 5/25/2012 | 24.5 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS003-SS-120515 | 12-8896-UU52D | Silt, Fine | 5/25/2012 | 7.7 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS003-SS-120515 | 12-8896-UU52D | Silt, Coarse | 5/25/2012 | 5.2 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS003-SS-120515 | 12-8896-UU52D | Silt, Very Fine | 5/25/2012 | 5.9 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS003-SS-120515 | 12-8896-UU52D | Clay, Coarse | 5/25/2012 | 1.3 | Yes | Y | | | | 0.1 | 0.1 | pct |

SDG: UU52

| Analytical Method | PSEP | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS003-SS-120515 | 12-8896-UU52D | Sand, Very Coarse | 5/25/2012 | 11.8 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS003-SS-120515 | 12-8896-UU52D | Sand, Fine | 5/25/2012 | 4 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS003-SS-120515 | 12-8896-UU52D | Sand, Coarse | 5/25/2012 | 8.1 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS003-SS-120515 | 12-8896-UU52D | Gravel | 5/25/2012 | 7.5 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS003-SS-120515 | 12-8896-UU52D | Fines (silt + clay) | 5/25/2012 | 60.1 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS003-SS-120515 | 12-8896-UU52D | Clay, Medium | 5/25/2012 | 2.5 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS003-SS-120515 | 12-8896-UU52D | Clay, Fine | 5/25/2012 | 12.9 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS003-SS-120515 | 12-8896-UU52D | Sand, Very Fine | 5/25/2012 | 2.7 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS004-SS-120515 | 12-8897-UU52E | Gravel | 5/25/2012 | 4.6 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS004-SS-120515 | 12-8897-UU52E | Silt, Coarse | 5/25/2012 | 4.2 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS004-SS-120515 | 12-8897-UU52E | Sand, Very Coarse | 5/25/2012 | 8.2 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS004-SS-120515 | 12-8897-UU52E | Sand, Medium | 5/25/2012 | 6.7 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS004-SS-120515 | 12-8897-UU52E | Silt, Medium | 5/25/2012 | 25.2 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS004-SS-120515 | 12-8897-UU52E | Sand, Coarse | 5/25/2012 | 7.5 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS004-SS-120515 | 12-8897-UU52E | Silt, Fine | 5/25/2012 | 8.4 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS004-SS-120515 | 12-8897-UU52E | Fines (silt + clay) | 5/25/2012 | 64.1 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS004-SS-120515 | 12-8897-UU52E | Clay, Medium | 5/25/2012 | 3.7 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS004-SS-120515 | 12-8897-UU52E | Clay, Fine | 5/25/2012 | 11.8 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS004-SS-120515 | 12-8897-UU52E | Clay, Coarse | 5/25/2012 | 3.2 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS004-SS-120515 | 12-8897-UU52E | Sand, Fine | 5/25/2012 | 5.3 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS004-SS-120515 | 12-8897-UU52E | Sand, Very Fine | 5/25/2012 | 3.7 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS004-SS-120515 | 12-8897-UU52E | Silt, Very Fine | 5/25/2012 | 7.5 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS005-SS-120515 | 12-8898-UU52F | Sand, Very Fine | 5/25/2012 | 4.1 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS005-SS-120515 | 12-8898-UU52F | Clay, Coarse | 5/25/2012 | 4.8 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS005-SS-120515 | 12-8898-UU52F | Fines (silt + clay) | 5/25/2012 | 35.6 | | Yes | Y | | | | 0.1 | 0.1 | pct |

SDG: UU52

**Analytical Method** PSEP

| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS005-SS-120515 | 12-8898-UU52F | Sand, Coarse | 5/25/2012 | 11.2 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS005-SS-120515 | 12-8898-UU52F | Sand, Fine | 5/25/2012 | 6.6 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS005-SS-120515 | 12-8898-UU52F | Sand, Very Coarse | 5/25/2012 | 13.9 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS005-SS-120515 | 12-8898-UU52F | Silt, Coarse | 5/25/2012 | 2.8 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS005-SS-120515 | 12-8898-UU52F | Silt, Fine | 5/25/2012 | 6.5 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS005-SS-120515 | 12-8898-UU52F | Silt, Medium | 5/25/2012 | 4.1 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS005-SS-120515 | 12-8898-UU52F | Silt, Very Fine | 5/25/2012 | 6 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS005-SS-120515 | 12-8898-UU52F | Clay, Fine | 5/25/2012 | 9.1 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS005-SS-120515 | 12-8898-UU52F | Clay, Medium | 5/25/2012 | 2.3 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS005-SS-120515 | 12-8898-UU52F | Gravel | 5/25/2012 | 19.1 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS005-SS-120515 | 12-8898-UU52F | Sand, Medium | 5/25/2012 | 9.5 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS006-SS-120515 | 12-8899-UU52G | Sand, Very Fine | 5/25/2012 | 4.9 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS006-SS-120515 | 12-8899-UU52G | Silt, Very Fine | 5/25/2012 | 2.9 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS006-SS-120515 | 12-8899-UU52G | Silt, Medium | 5/25/2012 | 2.4 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS006-SS-120515 | 12-8899-UU52G | Silt, Coarse | 5/25/2012 | 3.3 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS006-SS-120515 | 12-8899-UU52G | Sand, Very Coarse | 5/25/2012 | 19 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS006-SS-120515 | 12-8899-UU52G | Sand, Medium | 5/25/2012 | 12.6 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS006-SS-120515 | 12-8899-UU52G | Sand, Fine | 5/25/2012 | 8 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS006-SS-120515 | 12-8899-UU52G | Sand, Coarse | 5/25/2012 | 16.5 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS006-SS-120515 | 12-8899-UU52G | Gravel | 5/25/2012 | 16.2 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS006-SS-120515 | 12-8899-UU52G | Fines (silt + clay) | 5/25/2012 | 22.7 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS006-SS-120515 | 12-8899-UU52G | Clay, Medium | 5/25/2012 | 2.3 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS006-SS-120515 | 12-8899-UU52G | Clay, Fine | 5/25/2012 | 5 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS006-SS-120515 | 12-8899-UU52G | Clay, Coarse | 5/25/2012 | 3.4 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS006-SS-120515 | 12-8899-UU52G | Silt, Fine | 5/25/2012 | 3.5 | | Yes | Y | | | | 0.1 | 0.1 | pct |

SDG: UU52

**Analytical Method** PSEP

| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS007-SS-120515 | 12-8900-UU52H | Silt, Medium | 5/25/2012 | 9.7 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS007-SS-120515 | 12-8900-UU52H | Clay, Coarse | 5/25/2012 | 2.2 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS007-SS-120515 | 12-8900-UU52H | Clay, Fine | 5/25/2012 | 5.3 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS007-SS-120515 | 12-8900-UU52H | Clay, Medium | 5/25/2012 | 2.2 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS007-SS-120515 | 12-8900-UU52H | Fines (silt + clay) | 5/25/2012 | 44.8 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS007-SS-120515 | 12-8900-UU52H | Sand, Coarse | 5/25/2012 | 9.7 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS007-SS-120515 | 12-8900-UU52H | Sand, Fine | 5/25/2012 | 9.6 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS007-SS-120515 | 12-8900-UU52H | Sand, Medium | 5/25/2012 | 8.2 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS007-SS-120515 | 12-8900-UU52H | Sand, Very Coarse | 5/25/2012 | 16.4 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS007-SS-120515 | 12-8900-UU52H | Sand, Very Fine | 5/25/2012 | 10.2 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS007-SS-120515 | 12-8900-UU52H | Silt, Fine | 5/25/2012 | 7.2 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS007-SS-120515 | 12-8900-UU52H | Gravel | 5/25/2012 | 1.2 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS007-SS-120515 | 12-8900-UU52H | Silt, Very Fine | 5/25/2012 | 6.9 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS007-SS-120515 | 12-8900-UU52H | Silt, Coarse | 5/25/2012 | 11.2 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS008-SS-120515 | 12-8901-UU52I | Clay, Fine | 5/25/2012 | 3.4 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS008-SS-120515 | 12-8901-UU52I | Silt, Very Fine | 5/25/2012 | 4.1 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS008-SS-120515 | 12-8901-UU52I | Silt, Medium | 5/25/2012 | 2.6 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS008-SS-120515 | 12-8901-UU52I | Silt, Fine | 5/25/2012 | 4.3 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS008-SS-120515 | 12-8901-UU52I | Silt, Coarse | 5/25/2012 | 5.2 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS008-SS-120515 | 12-8901-UU52I | Sand, Very Fine | 5/25/2012 | 3.1 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS008-SS-120515 | 12-8901-UU52I | Sand, Very Coarse | 5/25/2012 | 11.4 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS008-SS-120515 | 12-8901-UU52I | Sand, Medium | 5/25/2012 | 5.4 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS008-SS-120515 | 12-8901-UU52I | Sand, Fine | 5/25/2012 | 4.2 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS008-SS-120515 | 12-8901-UU52I | Sand, Coarse | 5/25/2012 | 7.2 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS008-SS-120515 | 12-8901-UU52I | Gravel | 5/25/2012 | 44.1 | | Yes | Y | | | | 0.1 | 0.1 | pct |

SDG: UU52

**Analytical Method** PSEP

| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS008-SS-120515 | 12-8901-UU52I | Clay, Medium | 5/25/2012 | 2 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS008-SS-120515 | 12-8901-UU52I | Clay, Coarse | 5/25/2012 | 3 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS008-SS-120515 | 12-8901-UU52I | Fines (silt + clay) | 5/25/2012 | 24.6 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS009-SS-120515 | 12-8902-UU52J | Fines (silt + clay) | 5/25/2012 | 63.2 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS009-SS-120515 | 12-8902-UU52J | Clay, Coarse | 5/25/2012 | 4.2 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS009-SS-120515 | 12-8902-UU52J | Clay, Medium | 5/25/2012 | 4.1 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS009-SS-120515 | 12-8902-UU52J | Gravel | 5/25/2012 | 5.5 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS009-SS-120515 | 12-8902-UU52J | Sand, Fine | 5/25/2012 | 5.3 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS009-SS-120515 | 12-8902-UU52J | Sand, Medium | 5/25/2012 | 6.3 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS009-SS-120515 | 12-8902-UU52J | Sand, Very Coarse | 5/25/2012 | 8.3 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS009-SS-120515 | 12-8902-UU52J | Sand, Very Fine | 5/25/2012 | 4.5 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS009-SS-120515 | 12-8902-UU52J | Silt, Coarse | 5/25/2012 | 10.3 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS009-SS-120515 | 12-8902-UU52J | Silt, Fine | 5/25/2012 | 9 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS009-SS-120515 | 12-8902-UU52J | Silt, Medium | 5/25/2012 | 12.2 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS009-SS-120515 | 12-8902-UU52J | Silt, Very Fine | 5/25/2012 | 10.7 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS009-SS-120515 | 12-8902-UU52J | Clay, Fine | 5/25/2012 | 12.7 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS009-SS-120515 | 12-8902-UU52J | Sand, Coarse | 5/25/2012 | 7 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS010-SS-120515 | 12-8903-UU52K | Clay, Fine | 5/25/2012 | 11.6 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS010-SS-120515 | 12-8903-UU52K | Silt, Fine | 5/25/2012 | 8.1 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS010-SS-120515 | 12-8903-UU52K | Silt, Coarse | 5/25/2012 | 8.1 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS010-SS-120515 | 12-8903-UU52K | Sand, Very Fine | 5/25/2012 | 3.8 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS010-SS-120515 | 12-8903-UU52K | Sand, Very Coarse | 5/25/2012 | 9.5 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS010-SS-120515 | 12-8903-UU52K | Clay, Coarse | 5/25/2012 | 2.9 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS010-SS-120515 | 12-8903-UU52K | Silt, Medium | 5/25/2012 | 14.5 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS010-SS-120515 | 12-8903-UU52K | Clay, Medium | 5/25/2012 | 3.9 | Yes | Y | | | | 0.1 | 0.1 | pct |

SDG: UU52

| Analytical Method | PSEP | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS010-SS-120515 | 12-8903-UU52K | Fines (silt + clay) | 5/25/2012 | 57.9 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS010-SS-120515 | 12-8903-UU52K | Gravel | 5/25/2012 | 11.4 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS010-SS-120515 | 12-8903-UU52K | Sand, Coarse | 5/25/2012 | 7.1 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS010-SS-120515 | 12-8903-UU52K | Sand, Fine | 5/25/2012 | 4.7 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS010-SS-120515 | 12-8903-UU52K | Sand, Medium | 5/25/2012 | 5.8 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS010-SS-120515 | 12-8903-UU52K | Silt, Very Fine | 5/25/2012 | 8.7 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS101-SS-120515 | 12-8894-UU52B | Sand, Medium | 5/25/2012 | 4.8 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS101-SS-120515 | 12-8894-UU52B | Fines (silt + clay) | 5/25/2012 | 52.9 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS101-SS-120515 | 12-8894-UU52B | Gravel | 5/25/2012 | 11.8 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS101-SS-120515 | 12-8894-UU52B | Clay, Fine | 5/25/2012 | 12.5 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS101-SS-120515 | 12-8894-UU52B | Silt, Coarse | 5/25/2012 | 1 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS101-SS-120515 | 12-8894-UU52B | Sand, Very Fine | 5/25/2012 | 2.4 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS101-SS-120515 | 12-8894-UU52B | Sand, Very Coarse | 5/25/2012 | 17.1 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS101-SS-120515 | 12-8894-UU52B | Silt, Fine | 5/25/2012 | 9.9 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS101-SS-120515 | 12-8894-UU52B | Sand, Fine | 5/25/2012 | 3.2 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS101-SS-120515 | 12-8894-UU52B | Silt, Medium | 5/25/2012 | 11.5 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS101-SS-120515 | 12-8894-UU52B | Clay, Medium | 5/25/2012 | 3.4 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS101-SS-120515 | 12-8894-UU52B | Clay, Coarse | 5/25/2012 | 3.4 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS101-SS-120515 | 12-8894-UU52B | Silt, Very Fine | 5/25/2012 | 11.2 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS101-SS-120515 | 12-8894-UU52B | Sand, Coarse | 5/25/2012 | 7.9 | | Yes | Y | | | | 0.1 | 0.1 | pct |

| Analytical Method | SM2540B | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS001-SS-120515 | 12-8893-UU52A | Total solids | 5/22/2012 | 10.2 | | Yes | Y | | | | 0.01 | | pct |
| MS002-SS-120515 | 12-8895-UU52C | Total solids | 5/22/2012 | 10.4 | | Yes | Y | | | | 0.01 | | pct |
| MS003-SS-120515 | 12-8896-UU52D | Total solids | 5/22/2012 | 9.3 | | Yes | Y | | | | 0.01 | | pct |

SDG: UU52

| Analytical Method | SM2540B | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS004-SS-120515 | 12-8897-UU52E | Total solids | 5/22/2012 | 10.3 | Yes | Y | | | | 0.01 | | pct |
| MS005-SS-120515 | 12-8898-UU52F | Total solids | 5/22/2012 | 9.2 | Yes | Y | | | | 0.01 | | pct |
| MS006-SS-120515 | 12-8899-UU52G | Total solids | 5/22/2012 | 9.8 | Yes | Y | | | | 0.01 | | pct |
| MS007-SS-120515 | 12-8900-UU52H | Total solids | 5/22/2012 | 16.8 | Yes | Y | | | | 0.01 | | pct |
| MS008-SS-120515 | 12-8901-UU52I | Total solids | 5/22/2012 | 10.7 | Yes | Y | | | | 0.01 | | pct |
| MS009-SS-120515 | 12-8902-UU52J | Total solids | 5/22/2012 | 10.1 | Yes | Y | | | | 0.01 | | pct |
| MS010-SS-120515 | 12-8903-UU52K | Total solids | 5/22/2012 | 10.6 | Yes | Y | | | | 0.01 | | pct |
| MS101-SS-120515 | 12-8894-UU52B | Total solids | 5/22/2012 | 10.2 | Yes | Y | | | | 0.01 | | pct |

| Analytical Method | SM2540B-PRES | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS001-SS-120515 | 12-8893-UU52A | Total solids (preserved) | 5/21/2012 | 9.7 | Yes | Y | | | | 0.01 | | pct |
| MS002-SS-120515 | 12-8895-UU52C | Total solids (preserved) | 5/21/2012 | 10.5 | Yes | Y | | | | 0.01 | | pct |
| MS003-SS-120515 | 12-8896-UU52D | Total solids (preserved) | 5/21/2012 | 10.9 | Yes | Y | | | | 0.01 | | pct |
| MS004-SS-120515 | 12-8897-UU52E | Total solids (preserved) | 5/21/2012 | 10 | Yes | Y | | | | 0.01 | | pct |
| MS005-SS-120515 | 12-8898-UU52F | Total solids (preserved) | 5/21/2012 | 8.3 | Yes | Y | | | | 0.01 | | pct |
| MS006-SS-120515 | 12-8899-UU52G | Total solids (preserved) | 5/21/2012 | 6.9 | Yes | Y | | | | 0.01 | | pct |
| MS007-SS-120515 | 12-8900-UU52H | Total solids (preserved) | 5/21/2012 | 19 | Yes | Y | | | | 0.01 | | pct |
| MS008-SS-120515 | 12-8901-UU52I | Total solids (preserved) | 5/21/2012 | 8.1 | Yes | Y | | | | 0.01 | | pct |
| MS009-SS-120515 | 12-8902-UU52J | Total solids (preserved) | 5/21/2012 | 10.6 | Yes | Y | | | | 0.01 | | pct |
| MS010-SS-120515 | 12-8903-UU52K | Total solids (preserved) | 5/21/2012 | 10.5 | Yes | Y | | | | 0.01 | | pct |
| MS101-SS-120515 | 12-8894-UU52B | Total solids (preserved) | 5/21/2012 | 9.7 | Yes | Y | | | | 0.01 | | pct |

| Analytical Method | SW6010C | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS001-SS-120515 | 12-8893-UU52A | Copper | 5/29/2012 | 129 | Yes | Y | | | | 2 | 0.48 | mg/kg |
| MS001-SS-120515 | 12-8893-UU52A | Lead | 5/29/2012 | 170 | Yes | Y | | | | 20 | 1.2 | mg/kg |

SDG: UU52

**Analytical Method** SW6010C

| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS001-SS-120515 | 12-8893-UU52A | Chromium | 5/29/2012 | 37 | | Yes | Y | | | | 5 | 2.6 | mg/kg |
| MS001-SS-120515 | 12-8893-UU52A | Zinc | 5/29/2012 | 400 | | Yes | Y | | | | 10 | 1.2 | mg/kg |
| MS001-SS-120515 | 12-8893-UU52A | Nickel | 5/29/2012 | 50 | | Yes | Y | | | | 10 | 2.9 | mg/kg |
| MS002-SS-120515 | 12-8895-UU52C | Lead | 5/29/2012 | 150 | | Yes | Y | | | | 20 | 1.2 | mg/kg |
| MS002-SS-120515 | 12-8895-UU52C | Zinc | 5/29/2012 | 330 | | Yes | Y | | | | 9 | 1.1 | mg/kg |
| MS002-SS-120515 | 12-8895-UU52C | Nickel | 5/29/2012 | 46 | | Yes | Y | | | | 9 | 2.7 | mg/kg |
| MS002-SS-120515 | 12-8895-UU52C | Chromium | 5/29/2012 | 41 | | Yes | Y | | | | 5 | 2.4 | mg/kg |
| MS002-SS-120515 | 12-8895-UU52C | Copper | 5/29/2012 | 139 | | Yes | Y | | | | 2 | 0.45 | mg/kg |
| MS003-SS-120515 | 12-8896-UU52D | Zinc | 5/29/2012 | 210 | | Yes | Y | | | | 10 | 1.2 | mg/kg |
| MS003-SS-120515 | 12-8896-UU52D | Copper | 5/29/2012 | 78 | | Yes | Y | | | | 2 | 0.49 | mg/kg |
| MS003-SS-120515 | 12-8896-UU52D | Chromium | 5/29/2012 | 32 | | Yes | Y | | | | 5 | 2.6 | mg/kg |
| MS003-SS-120515 | 12-8896-UU52D | Nickel | 5/29/2012 | 30 | | Yes | Y | | | | 10 | 2.9 | mg/kg |
| MS003-SS-120515 | 12-8896-UU52D | Lead | 5/29/2012 | 100 | | Yes | Y | | | | 20 | 1.3 | mg/kg |
| MS004-SS-120515 | 12-8897-UU52E | Chromium | 5/29/2012 | 34 | | Yes | Y | | | | 5 | 2.6 | mg/kg |
| MS004-SS-120515 | 12-8897-UU52E | Copper | 5/29/2012 | 99 | | Yes | Y | | | | 2 | 0.49 | mg/kg |
| MS004-SS-120515 | 12-8897-UU52E | Nickel | 5/29/2012 | 40 | | Yes | Y | | | | 10 | 2.9 | mg/kg |
| MS004-SS-120515 | 12-8897-UU52E | Lead | 5/29/2012 | 110 | | Yes | Y | | | | 20 | 1.3 | mg/kg |
| MS004-SS-120515 | 12-8897-UU52E | Zinc | 5/29/2012 | 260 | | Yes | Y | | | | 10 | 1.2 | mg/kg |
| MS005-SS-120515 | 12-8898-UU52F | Copper | 5/29/2012 | 251 | | Yes | Y | | | | 2 | 0.61 | mg/kg |
| MS005-SS-120515 | 12-8898-UU52F | Zinc | 5/29/2012 | 500 | | Yes | Y | | | | 10 | 1.5 | mg/kg |
| MS005-SS-120515 | 12-8898-UU52F | Chromium | 5/29/2012 | 25 | | Yes | Y | | | | 6 | 3.3 | mg/kg |
| MS005-SS-120515 | 12-8898-UU52F | Nickel | 5/29/2012 | 40 | | Yes | Y | | | | 10 | 3.6 | mg/kg |
| MS005-SS-120515 | 12-8898-UU52F | Lead | 5/29/2012 | 1180 | | Yes | Y | | | | 20 | 1.6 | mg/kg |
| MS006-SS-120515 | 12-8899-UU52G | Zinc | 5/29/2012 | 217 | | Yes | Y | | | | 9 | 1.1 | mg/kg |
| MS006-SS-120515 | 12-8899-UU52G | Chromium | 5/29/2012 | 17 | | Yes | Y | | | | 5 | 2.6 | mg/kg |

SDG: UU52

| Analytical Method | SW6010C | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS006-SS-120515 | 12-8899-UU52G | Nickel | 5/29/2012 | 33 | | Yes | Y | | | | 9 | 2.8 | mg/kg |
| MS006-SS-120515 | 12-8899-UU52G | Lead | 5/29/2012 | 360 | | Yes | Y | | | | 20 | 1.2 | mg/kg |
| MS006-SS-120515 | 12-8899-UU52G | Copper | 5/29/2012 | 91 | | Yes | Y | | | | 2 | 0.47 | mg/kg |
| MS007-SS-120515 | 12-8900-UU52H | Lead | 5/29/2012 | 350 | | Yes | Y | | | | 10 | 0.74 | mg/kg |
| MS007-SS-120515 | 12-8900-UU52H | Zinc | 5/29/2012 | 594 | | Yes | Y | | | | 6 | 0.68 | mg/kg |
| MS007-SS-120515 | 12-8900-UU52H | Nickel | 5/29/2012 | 44 | | Yes | Y | | | | 6 | 1.7 | mg/kg |
| MS007-SS-120515 | 12-8900-UU52H | Copper | 5/29/2012 | 111 | | Yes | Y | | | | 1 | 0.28 | mg/kg |
| MS007-SS-120515 | 12-8900-UU52H | Chromium | 5/29/2012 | 40 | | Yes | Y | | | | 3 | 1.5 | mg/kg |
| MS008-SS-120515 | 12-8901-UU52I | Nickel | 5/29/2012 | 37 | | Yes | Y | | | | 9 | 2.7 | mg/kg |
| MS008-SS-120515 | 12-8901-UU52I | Lead | 5/29/2012 | 160 | | Yes | Y | | | | 20 | 1.2 | mg/kg |
| MS008-SS-120515 | 12-8901-UU52I | Zinc | 5/29/2012 | 251 | | Yes | Y | | | | 9 | 1.1 | mg/kg |
| MS008-SS-120515 | 12-8901-UU52I | Copper | 5/29/2012 | 94 | | Yes | Y | | | | 2 | 0.44 | mg/kg |
| MS008-SS-120515 | 12-8901-UU52I | Chromium | 5/29/2012 | 37 | | Yes | Y | | | | 4 | 2.4 | mg/kg |
| MS009-SS-120515 | 12-8902-UU52J | Nickel | 5/29/2012 | 38 | | Yes | Y | | | | 9 | 2.7 | mg/kg |
| MS009-SS-120515 | 12-8902-UU52J | Lead | 5/29/2012 | 60 | | Yes | Y | | | | 20 | 1.2 | mg/kg |
| MS009-SS-120515 | 12-8902-UU52J | Zinc | 5/29/2012 | 162 | | Yes | Y | | | | 9 | 1.1 | mg/kg |
| MS009-SS-120515 | 12-8902-UU52J | Chromium | 5/29/2012 | 43 | | Yes | Y | | | | 4 | 2.4 | mg/kg |
| MS009-SS-120515 | 12-8902-UU52J | Copper | 5/29/2012 | 66 | | Yes | Y | | | | 2 | 0.45 | mg/kg |
| MS101-SS-120515 | 12-8894-UU52B | Copper | 5/29/2012 | 125 | | Yes | Y | | | | 2 | 0.47 | mg/kg |
| MS101-SS-120515 | 12-8894-UU52B | Chromium | 5/29/2012 | 38 | | Yes | Y | | | | 5 | 2.5 | mg/kg |
| MS101-SS-120515 | 12-8894-UU52B | Nickel | 5/29/2012 | 42 | | Yes | Y | | | | 9 | 2.8 | mg/kg |
| MS101-SS-120515 | 12-8894-UU52B | Lead | 5/29/2012 | 170 | | Yes | Y | | | | 20 | 1.2 | mg/kg |
| MS101-SS-120515 | 12-8894-UU52B | Zinc | 5/29/2012 | 374 | | Yes | Y | | | | 9 | 1.1 | mg/kg |

| Analytical Method | SW7471A | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |

SDG: UU52

| Analytical Method | SW7471A | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample ID** | **Lab Sample ID** | **Chemical Name** | **Anal Date** | **Result** | **Mod Res Report** | **Detect** | **Lab Qual** | **Val Qual** | **Reason** | **RL** | **MDL** | **Units** |
| MS001-SS-120515 | 12-8893-UU52A | Mercury | 5/21/2012 | 0.4 | Yes | Y | | | | 0.2 | 0.011 | mg/kg |
| MS002-SS-120515 | 12-8895-UU52C | Mercury | 5/21/2012 | 0.3 | Yes | Y | | | | 0.2 | 0.0092 | mg/kg |
| MS003-SS-120515 | 12-8896-UU52D | Mercury | 5/21/2012 | 0.3 | Yes | Y | | | | 0.2 | 0.010 | mg/kg |
| MS004-SS-120515 | 12-8897-UU52E | Mercury | 5/21/2012 | 0.2 | Yes | Y | | | | 0.2 | 0.0097 | mg/kg |
| MS005-SS-120515 | 12-8898-UU52F | Mercury | 5/21/2012 | 0.4 | Yes | Y | | | | 0.3 | 0.015 | mg/kg |
| MS006-SS-120515 | 12-8899-UU52G | Mercury | 5/21/2012 | 0.7 | Yes | Y | | | | 0.2 | 0.012 | mg/kg |
| MS007-SS-120515 | 12-8900-UU52H | Mercury | 5/21/2012 | 0.2 | Yes | Y | | | | 0.1 | 0.0062 | mg/kg |
| MS008-SS-120515 | 12-8901-UU52I | Mercury | 5/21/2012 | 0.2 | Yes | Y | | | | 0.2 | 0.010 | mg/kg |
| MS009-SS-120515 | 12-8902-UU52J | Mercury | 5/21/2012 | 0.2 | Yes | Y | | | | 0.2 | 0.0088 | mg/kg |
| MS101-SS-120515 | 12-8894-UU52B | Mercury | 5/21/2012 | 0.4 | Yes | Y | | | | 0.2 | 0.0093 | mg/kg |

| Analytical Method | SW8081B | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample ID** | **Lab Sample ID** | **Chemical Name** | **Anal Date** | **Result** | **Mod Res Report** | **Detect** | **Lab Qual** | **Val Qual** | **Reason** | **RL** | **MDL** | **Units** |
| MS001-SS-120515 | 12-8893-UU52A | 4,4'-DDT (p,p'-DDT) | 5/26/2012 | 99 | Yes | N | U | | | 99 | 19 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Dieldrin | 5/26/2012 | 99 | Yes | N | U | | | 99 | 9.9 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | 4,4'-DDD (p,p'-DDD) | 5/26/2012 | 99 | Yes | N | U | | | 99 | 13 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | 4,4'-DDE (p,p'-DDE) | 5/26/2012 | 99 | Yes | N | U | | | 99 | 12 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Endrin ketone | 5/26/2012 | 99 | Yes | N | U | | | 99 | 12 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Hexachlorocyclohexane, beta- (BHC) | 5/26/2012 | 50 | Yes | N | U | | | 50 | 14 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52AD | 4,4'-DDD (p,p'-DDD) | 5/25/2012 | 990 | No | N | U | R | 22 | 990 | 130 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52AD | Dieldrin | 5/25/2012 | 990 | No | N | U | R | 22 | 990 | 99 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52AD | Endrin ketone | 5/25/2012 | 990 | No | N | U | R | 22 | 990 | 120 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52AD | 4,4'-DDE (p,p'-DDE) | 5/25/2012 | 990 | No | N | U | R | 22 | 990 | 120 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52AD | Hexachlorocyclohexane, beta- (BHC) | 5/25/2012 | 500 | No | N | U | R | 22 | 500 | 140 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52AD | 4,4'-DDT (p,p'-DDT) | 5/25/2012 | 990 | No | N | U | R | 22 | 990 | 190 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | 4,4'-DDD (p,p'-DDD) | 5/26/2012 | 99 | Yes | N | U | | | 99 | 13 | ug/kg |

SDG: UU52

**Analytical Method** SW8081B

| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS002-SS-120515 | 12-8895-UU52C | Dieldrin | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 9.9 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Endrin ketone | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 12 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | 4,4'-DDT (p,p'-DDT) | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 19 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Hexachlorocyclohexane, beta- (BHC) | 5/26/2012 | 50 | | Yes | N | U | | | 50 | 14 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | 4,4'-DDE (p,p'-DDE) | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 12 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52CD | Endrin ketone | 5/25/2012 | 5000 | | No | N | U | R | 22 | 5000 | 590 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52CD | 4,4'-DDT (p,p'-DDT) | 5/25/2012 | 5000 | | No | N | U | R | 22 | 5000 | 950 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52CD | Dieldrin | 5/25/2012 | 5000 | | No | N | U | R | 22 | 5000 | 500 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52CD | 4,4'-DDD (p,p'-DDD) | 5/25/2012 | 5000 | | No | N | U | R | 22 | 5000 | 670 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52CD | 4,4'-DDE (p,p'-DDE) | 5/25/2012 | 5000 | | No | N | U | R | 22 | 5000 | 620 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52CD | Hexachlorocyclohexane, beta- (BHC) | 5/25/2012 | 2500 | | No | N | U | R | 22 | 2500 | 690 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Endrin ketone | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 12 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | 4,4'-DDE (p,p'-DDE) | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 12 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | 4,4'-DDD (p,p'-DDD) | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 13 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Dieldrin | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 9.9 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | 4,4'-DDT (p,p'-DDT) | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 19 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Hexachlorocyclohexane, beta- (BHC) | 5/26/2012 | 50 | | Yes | N | U | | | 50 | 14 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52DD | Hexachlorocyclohexane, beta- (BHC) | 5/25/2012 | 500 | | No | N | U | R | 22 | 500 | 140 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52DD | Dieldrin | 5/25/2012 | 990 | | No | N | U | R | 22 | 990 | 99 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52DD | 4,4'-DDE (p,p'-DDE) | 5/25/2012 | 990 | | No | N | U | R | 22 | 990 | 120 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52DD | Endrin ketone | 5/25/2012 | 990 | | No | N | U | R | 22 | 990 | 120 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52DD | 4,4'-DDT (p,p'-DDT) | 5/25/2012 | 990 | | No | N | U | R | 22 | 990 | 190 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52DD | 4,4'-DDD (p,p'-DDD) | 5/25/2012 | 990 | | No | N | U | R | 22 | 990 | 130 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | 4,4'-DDD (p,p'-DDD) | 5/26/2012 | 100 | | Yes | N | U | | | 100 | 13 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Dieldrin | 5/26/2012 | 100 | | Yes | N | U | | | 100 | 9.9 | ug/kg |

SDG: UU52

**Analytical Method** SW8081B

| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS004-SS-120515 | 12-8897-UU52E | 4,4'-DDT (p,p'-DDT) | 5/26/2012 | 100 | | Yes | N | U | | | 100 | 19 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | 4,4'-DDE (p,p'-DDE) | 5/26/2012 | 100 | | Yes | N | U | | | 100 | 12 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Hexachlorocyclohexane, beta- (BHC) | 5/26/2012 | 50 | | Yes | N | U | | | 50 | 14 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Endrin ketone | 5/26/2012 | 100 | | Yes | N | U | | | 100 | 12 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52ED | 4,4'-DDD (p,p'-DDD) | 5/25/2012 | 1000 | | No | N | U | R | 22 | 1000 | 130 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52ED | Dieldrin | 5/25/2012 | 1000 | | No | N | U | R | 22 | 1000 | 99 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52ED | Endrin ketone | 5/25/2012 | 1000 | | No | N | U | R | 22 | 1000 | 120 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52ED | 4,4'-DDT (p,p'-DDT) | 5/25/2012 | 1000 | | No | N | U | R | 22 | 1000 | 190 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52ED | Hexachlorocyclohexane, beta- (BHC) | 5/25/2012 | 500 | | No | N | U | R | 22 | 500 | 140 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52ED | 4,4'-DDE (p,p'-DDE) | 5/25/2012 | 1000 | | No | N | U | R | 22 | 1000 | 120 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | 4,4'-DDT (p,p'-DDT) | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 19 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | 4,4'-DDE (p,p'-DDE) | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 12 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Dieldrin | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 9.9 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Hexachlorocyclohexane, beta- (BHC) | 5/26/2012 | 49 | | Yes | N | U | | | 49 | 14 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Endrin ketone | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 12 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | 4,4'-DDD (p,p'-DDD) | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 13 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52FDL | 4,4'-DDE (p,p'-DDE) | 5/25/2012 | 990 | | No | N | U | R | 22 | 990 | 120 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52FDL | Hexachlorocyclohexane, beta- (BHC) | 5/25/2012 | 490 | | No | N | U | R | 22 | 490 | 140 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52FDL | 4,4'-DDT (p,p'-DDT) | 5/25/2012 | 990 | | No | N | U | R | 22 | 990 | 190 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52FDL | 4,4'-DDD (p,p'-DDD) | 5/25/2012 | 990 | | No | N | U | R | 22 | 990 | 130 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52FDL | Dieldrin | 5/25/2012 | 990 | | No | N | U | R | 22 | 990 | 99 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52FDL | Endrin ketone | 5/25/2012 | 990 | | No | N | U | R | 22 | 990 | 120 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | 4,4'-DDE (p,p'-DDE) | 5/26/2012 | 9.9 | | Yes | N | U | UJ | 5 | 9.9 | 1.2 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | 4,4'-DDD (p,p'-DDD) | 5/26/2012 | 40 | | Yes | Y | P | J | 5 | 9.9 | 1.3 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Dieldrin | 5/26/2012 | 9.9 | | Yes | N | U | | | 9.9 | 0.99 | ug/kg |

SDG: UU52

| Analytical Method | SW8081B | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS006-SS-120515 | 12-8899-UU52G | Endrin ketone | 5/26/2012 | 28 | | Yes | N | Y | | | 28 | 1.2 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | 4,4'-DDT (p,p'-DDT) | 5/26/2012 | 19 | | Yes | Y | | J | 5 | 9.9 | 1.9 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Hexachlorocyclohexane, beta- (BHC) | 5/26/2012 | 12 | | Yes | N | Y | | | 12 | 1.4 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | 4,4'-DDT (p,p'-DDT) | 5/25/2012 | 99 | | No | N | U | R | 22 | 99 | 19 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Endrin ketone | 5/25/2012 | 99 | | No | N | U | R | 22 | 99 | 12 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Dieldrin | 5/25/2012 | 99 | | No | N | U | R | 22 | 99 | 9.9 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | 4,4'-DDD (p,p'-DDD) | 5/25/2012 | 99 | | No | N | U | R | 22 | 99 | 13 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | 4,4'-DDE (p,p'-DDE) | 5/25/2012 | 99 | | No | N | U | R | 22 | 99 | 12 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Hexachlorocyclohexane, beta- (BHC) | 5/25/2012 | 50 | | No | N | U | R | 22 | 50 | 14 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | 4,4'-DDE (p,p'-DDE) | 5/26/2012 | 99 | | Yes | N | U | UJ | 5 | 99 | 12 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | 4,4'-DDD (p,p'-DDD) | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 13 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Dieldrin | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 9.9 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Endrin ketone | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 12 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | 4,4'-DDT (p,p'-DDT) | 5/26/2012 | 99 | | Yes | N | U | UJ | 5 | 99 | 19 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Hexachlorocyclohexane, beta- (BHC) | 5/26/2012 | 50 | | Yes | N | U | | | 50 | 14 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52HD | Endrin ketone | 5/25/2012 | 990 | | No | N | U | R | 22 | 990 | 120 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52HD | 4,4'-DDT (p,p'-DDT) | 5/25/2012 | 990 | | No | N | U | R | 22 | 990 | 190 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52HD | Hexachlorocyclohexane, beta- (BHC) | 5/25/2012 | 500 | | No | N | U | R | 22 | 500 | 140 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52HD | Dieldrin | 5/25/2012 | 990 | | No | N | U | R | 22 | 990 | 99 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52HD | 4,4'-DDD (p,p'-DDD) | 5/25/2012 | 990 | | No | N | U | R | 22 | 990 | 130 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52HD | 4,4'-DDE (p,p'-DDE) | 5/25/2012 | 990 | | No | N | U | R | 22 | 990 | 120 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | 4,4'-DDE (p,p'-DDE) | 5/26/2012 | 99 | | Yes | N | U | UJ | 5 | 99 | 12 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Hexachlorocyclohexane, beta- (BHC) | 5/26/2012 | 50 | | Yes | N | U | | | 50 | 14 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | 4,4'-DDT (p,p'-DDT) | 5/26/2012 | 99 | | Yes | N | U | UJ | 5 | 99 | 19 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Endrin ketone | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 12 | ug/kg |

SDG: UU52

| Analytical Method | SW8081B | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS008-SS-120515 | 12-8901-UU52I | 4,4'-DDD (p,p'-DDD) | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 13 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Dieldrin | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 9.9 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52IDL | 4,4'-DDE (p,p'-DDE) | 5/25/2012 | 5000 | | No | N | U | R | 22 | 5000 | 620 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52IDL | 4,4'-DDD (p,p'-DDD) | 5/25/2012 | 5000 | | No | N | U | R | 22 | 5000 | 670 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52IDL | Dieldrin | 5/25/2012 | 5000 | | No | N | U | R | 22 | 5000 | 500 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52IDL | Endrin ketone | 5/25/2012 | 5000 | | No | N | U | R | 22 | 5000 | 590 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52IDL | 4,4'-DDT (p,p'-DDT) | 5/25/2012 | 5000 | | No | N | U | R | 22 | 5000 | 950 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52IDL | Hexachlorocyclohexane, beta- (BHC) | 5/25/2012 | 2500 | | No | N | U | R | 22 | 2500 | 690 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | 4,4'-DDE (p,p'-DDE) | 5/26/2012 | 100 | | Yes | N | U | UJ | 5 | 100 | 12 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Hexachlorocyclohexane, beta- (BHC) | 5/26/2012 | 50 | | Yes | N | U | | | 50 | 14 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | 4,4'-DDT (p,p'-DDT) | 5/26/2012 | 100 | | Yes | N | U | UJ | 5 | 100 | 19 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Endrin ketone | 5/26/2012 | 100 | | Yes | N | U | | | 100 | 12 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Dieldrin | 5/26/2012 | 100 | | Yes | N | U | | | 100 | 10 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | 4,4'-DDD (p,p'-DDD) | 5/26/2012 | 100 | | Yes | N | U | | | 100 | 13 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52JDL | Hexachlorocyclohexane, beta- (BHC) | 5/25/2012 | 500 | | No | N | U | R | 22 | 500 | 140 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52JDL | 4,4'-DDD (p,p'-DDD) | 5/25/2012 | 1000 | | No | N | U | R | 22 | 1000 | 130 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52JDL | 4,4'-DDT (p,p'-DDT) | 5/25/2012 | 1000 | | No | N | U | R | 22 | 1000 | 190 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52JDL | Dieldrin | 5/25/2012 | 1000 | | No | N | U | R | 22 | 1000 | 100 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52JDL | Endrin ketone | 5/25/2012 | 1000 | | No | N | U | R | 22 | 1000 | 120 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52JDL | 4,4'-DDE (p,p'-DDE) | 5/25/2012 | 1000 | | No | N | U | R | 22 | 1000 | 120 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | 4,4'-DDE (p,p'-DDE) | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 12 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | 4,4'-DDD (p,p'-DDD) | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 13 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Dieldrin | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 9.9 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Endrin ketone | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 12 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | 4,4'-DDT (p,p'-DDT) | 5/26/2012 | 99 | | Yes | N | U | | | 99 | 19 | ug/kg |

SDG: UU52

| Analytical Method | SW8081B | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS101-SS-120515 | 12-8894-UU52B | Hexachlorocyclohexane, beta- (BHC) | 5/26/2012 | 50 | Yes | N | U | | | 50 | 14 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52BD | 4,4'-DDE (p,p'-DDE) | 5/25/2012 | 990 | No | N | U | R | 22 | 990 | 120 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52BD | 4,4'-DDD (p,p'-DDD) | 5/25/2012 | 990 | No | N | U | R | 22 | 990 | 130 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52BD | Endrin ketone | 5/25/2012 | 990 | No | N | U | R | 22 | 990 | 120 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52BD | Dieldrin | 5/25/2012 | 990 | No | N | U | R | 22 | 990 | 99 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52BD | Hexachlorocyclohexane, beta- (BHC) | 5/25/2012 | 500 | No | N | U | R | 22 | 500 | 140 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52BD | 4,4'-DDT (p,p'-DDT) | 5/25/2012 | 990 | No | N | U | R | 22 | 990 | 190 | ug/kg |

| Analytical Method | SW8082 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS001-SS-120515 | 12-8893-UU52A | Aroclor 1248 | 5/25/2012 | 22 | Yes | Y | | | | 4.0 | 1.4 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Aroclor 1254 | 5/25/2012 | 44 | Yes | Y | | | | 4.0 | 1.4 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Aroclor 1221 | 5/25/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Aroclor 1242 | 5/25/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Aroclor 1260 | 5/25/2012 | 20 | Yes | N | Y | | | 20 | 1.4 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Aroclor 1016 | 5/25/2012 | 4 | Yes | N | U | | | 4.0 | 1.0 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Aroclor 1262 | 5/25/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Aroclor 1268 | 5/25/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Aroclor 1232 | 5/25/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Aroclor 1248 | 5/25/2012 | 17 | Yes | Y | P | | | 4.0 | 1.4 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Aroclor 1016 | 5/25/2012 | 4 | Yes | N | U | | | 4.0 | 1.0 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Aroclor 1262 | 5/25/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Aroclor 1232 | 5/25/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Aroclor 1254 | 5/25/2012 | 39 | Yes | Y | | | | 4.0 | 1.4 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Aroclor 1221 | 5/25/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Aroclor 1268 | 5/25/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |

SDG: UU52

| Analytical Method | SW8082 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS002-SS-120515 | 12-8895-UU52C | Aroclor 1242 | 5/25/2012 | 4 | | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Aroclor 1260 | 5/25/2012 | 20 | | Yes | N | Y | | | 20 | 1.4 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Aroclor 1254 | 5/25/2012 | 28 | | Yes | Y | | | | 4.0 | 1.4 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Aroclor 1262 | 5/25/2012 | 4 | | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Aroclor 1260 | 5/25/2012 | 14 | | Yes | N | Y | | | 14 | 1.4 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Aroclor 1268 | 5/25/2012 | 4 | | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Aroclor 1221 | 5/25/2012 | 4 | | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Aroclor 1248 | 5/25/2012 | 20 | | Yes | N | Y | | | 20 | 1.4 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Aroclor 1016 | 5/25/2012 | 4 | | Yes | N | U | | | 4.0 | 1.0 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Aroclor 1242 | 5/25/2012 | 4 | | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Aroclor 1232 | 5/25/2012 | 4 | | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Aroclor 1268 | 5/26/2012 | 4 | | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Aroclor 1262 | 5/26/2012 | 4 | | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Aroclor 1254 | 5/26/2012 | 28 | | Yes | Y | P | | | 4.0 | 1.4 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Aroclor 1221 | 5/26/2012 | 4 | | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Aroclor 1232 | 5/26/2012 | 4 | | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Aroclor 1248 | 5/26/2012 | 16 | | Yes | N | Y | | | 16 | 1.4 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Aroclor 1016 | 5/26/2012 | 4 | | Yes | N | U | | | 4.0 | 1.0 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Aroclor 1242 | 5/26/2012 | 4 | | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Aroclor 1260 | 5/26/2012 | 20 | | Yes | N | Y | | | 20 | 1.4 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Aroclor 1242 | 5/26/2012 | 4 | | Yes | N | U | | | 4.0 | 1.3 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Aroclor 1262 | 5/26/2012 | 4 | | Yes | N | U | | | 4.0 | 1.3 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Aroclor 1016 | 5/26/2012 | 4 | | Yes | N | U | | | 4.0 | 1.0 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Aroclor 1248 | 5/26/2012 | 12 | | Yes | Y | | | | 4.0 | 1.3 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Aroclor 1260 | 5/26/2012 | 12 | | Yes | N | Y | | | 12 | 1.3 | ug/kg |

SDG: UU52

| Analytical Method | SW8082 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS005-SS-120515 | 12-8898-UU52F | Aroclor 1254 | 5/26/2012 | 25 | Yes | Y | | | | 4.0 | 1.3 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Aroclor 1268 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.3 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Aroclor 1221 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.3 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Aroclor 1232 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.3 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Aroclor 1260 | 5/26/2012 | 20 | Yes | N | Y | | | 20 | 1.4 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Aroclor 1254 | 5/26/2012 | 27 | Yes | Y | | | | 4.0 | 1.4 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Aroclor 1268 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Aroclor 1242 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Aroclor 1262 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Aroclor 1248 | 5/26/2012 | 16 | Yes | Y | | | | 4.0 | 1.4 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Aroclor 1232 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Aroclor 1221 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Aroclor 1016 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.0 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Aroclor 1262 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.3 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Aroclor 1242 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.3 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Aroclor 1016 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.0 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Aroclor 1254 | 5/26/2012 | 31 | Yes | Y | | | | 4.0 | 1.3 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Aroclor 1260 | 5/26/2012 | 14 | Yes | N | Y | | | 14 | 1.3 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Aroclor 1248 | 5/26/2012 | 15 | Yes | Y | | | | 4.0 | 1.3 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Aroclor 1268 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.3 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Aroclor 1221 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.3 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Aroclor 1232 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.3 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Aroclor 1262 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Aroclor 1242 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Aroclor 1260 | 5/26/2012 | 9.9 | Yes | N | Y | | | 9.9 | 1.4 | ug/kg |

SDG: UU52

**Analytical Method** SW8082

| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS008-SS-120515 | 12-8901-UU52I | Aroclor 1016 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.0 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Aroclor 1232 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Aroclor 1221 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Aroclor 1268 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Aroclor 1254 | 5/26/2012 | 23 | Yes | Y | | | | 4.0 | 1.4 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Aroclor 1248 | 5/26/2012 | 9.9 | Yes | N | Y | | | 9.9 | 1.4 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Aroclor 1262 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Aroclor 1242 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Aroclor 1248 | 5/26/2012 | 10 | Yes | N | Y | | | 10 | 1.4 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Aroclor 1254 | 5/26/2012 | 20 | Yes | Y | | | | 4.0 | 1.4 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Aroclor 1268 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Aroclor 1221 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Aroclor 1232 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.4 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Aroclor 1016 | 5/26/2012 | 4 | Yes | N | U | | | 4.0 | 1.0 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Aroclor 1260 | 5/26/2012 | 10 | Yes | N | Y | | | 10 | 1.4 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Aroclor 1262 | 5/25/2012 | 4 | Yes | N | U | | | 4.0 | 1.3 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Aroclor 1248 | 5/25/2012 | 17 | Yes | Y | | | | 4.0 | 1.3 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Aroclor 1016 | 5/25/2012 | 4 | Yes | N | U | | | 4.0 | 1.0 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Aroclor 1232 | 5/25/2012 | 4 | Yes | N | U | | | 4.0 | 1.3 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Aroclor 1268 | 5/25/2012 | 4 | Yes | N | U | | | 4.0 | 1.3 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Aroclor 1254 | 5/25/2012 | 37 | Yes | Y | | | | 4.0 | 1.3 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Aroclor 1260 | 5/25/2012 | 16 | Yes | N | Y | | | 16 | 1.3 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Aroclor 1242 | 5/25/2012 | 4 | Yes | N | U | | | 4.0 | 1.3 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Aroclor 1221 | 5/25/2012 | 4 | Yes | N | U | | | 4.0 | 1.3 | ug/kg |

SDG: UU52

**Analytical Method** SW8270D

| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS001-SS-120515 | 12-8893-UU52A | Chrysene | 5/26/2012 | 430 | | Yes | Y | | | | 60 | 11 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | 4-Methylphenol (p-Cresol) | 5/26/2012 | 1200 | | Yes | Y | | | | 120 | 20 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Phenol | 5/26/2012 | 300 | | Yes | Y | | | | 60 | 26 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Butylbenzyl phthalate | 5/26/2012 | 60 | | Yes | N | U | | | 60 | 18 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Phenanthrene | 5/26/2012 | 690 | | Yes | Y | | | | 60 | 11 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Di-n-octyl phthalate | 5/26/2012 | 60 | | Yes | N | UJ | | | 60 | 17 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Di-n-butyl phthalate | 5/26/2012 | 60 | | Yes | N | U | | | 60 | 24 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Acenaphthene | 5/26/2012 | 110 | | Yes | Y | | | | 60 | 9.8 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Benzoic acid | 5/26/2012 | 390 | | Yes | Y | J | J | 10 | 1200 | 300 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Benzo(a)anthracene | 5/26/2012 | 160 | | Yes | Y | | | | 60 | 9.8 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Dibenzo(a,h)anthracene | 5/26/2012 | 57 | | Yes | Y | J | | | 60 | 13 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Benzo(b,j,k)fluoranthenes | 5/26/2012 | 570 | | Yes | Y | | | | 60 | 8.2 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Retene | 5/26/2012 | 74 | | Yes | Y | | | | 60 | 60 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Acenaphthylene | 5/26/2012 | 74 | | Yes | Y | | | | 60 | 17 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | 2-Methylnaphthalene | 5/26/2012 | 170 | | Yes | Y | | | | 60 | 9.1 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Bis(2-ethylhexyl) phthalate | 5/26/2012 | 140 | | Yes | Y | | | | 74 | 43 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Anthracene | 5/26/2012 | 140 | | Yes | Y | | | | 60 | 13 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Pyrene | 5/26/2012 | 580 | | Yes | Y | | | | 60 | 5.8 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Benzo(a)pyrene | 5/26/2012 | 260 | | Yes | Y | | | | 60 | 16 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Dibenzofuran | 5/26/2012 | 180 | | Yes | Y | | | | 60 | 12 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Fluoranthene | 5/26/2012 | 660 | | Yes | Y | | | | 60 | 8.7 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Naphthalene | 5/26/2012 | 1100 | | Yes | Y | | | | 60 | 8.2 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Pentachlorophenol | 5/26/2012 | 600 | | Yes | N | U | | | 600 | 140 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Carbazole | 5/26/2012 | 42 | | Yes | Y | J | | | 60 | 8.0 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Fluorene | 5/26/2012 | 120 | | Yes | Y | | | | 60 | 13 | ug/kg |

SDG: UU52

| Analytical Method | SW8270D | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS001-SS-120515 | 12-8893-UU52A | Benzo(g,h,i)perylene | 5/26/2012 | 270 | | Yes | Y | | | | 60 | 13 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Indeno(1,2,3-c,d)pyrene | 5/26/2012 | 200 | | Yes | Y | | | | 60 | 14 | ug/kg |
| MS001-SS-120515 | 12-8893-UU52A | Dimethyl phthalate | 5/26/2012 | 60 | | Yes | N | U | | | 60 | 8.6 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Benzo(g,h,i)perylene | 5/26/2012 | 430 | | Yes | Y | | | | 59 | 13 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Retene | 5/26/2012 | 80 | | Yes | Y | | | | 59 | 59 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Acenaphthylene | 5/26/2012 | 86 | | Yes | Y | | | | 59 | 17 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Chrysene | 5/26/2012 | 800 | | Yes | Y | | | | 59 | 11 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Indeno(1,2,3-c,d)pyrene | 5/26/2012 | 340 | | Yes | Y | | | | 59 | 14 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Di-n-octyl phthalate | 5/26/2012 | 59 | | Yes | N | UJ | | | 59 | 17 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Phenanthrene | 5/26/2012 | 830 | | Yes | Y | | | | 59 | 11 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Fluoranthene | 5/26/2012 | 860 | | Yes | Y | | | | 59 | 8.6 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Benzo(b,j,k)fluoranthenes | 5/26/2012 | 1000 | | Yes | Y | | | | 59 | 8.2 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | 2-Methylnaphthalene | 5/26/2012 | 240 | | Yes | Y | | | | 59 | 9.1 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Naphthalene | 5/26/2012 | 1300 | | Yes | Y | | | | 59 | 8.2 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Pentachlorophenol | 5/26/2012 | 590 | | Yes | N | U | | | 590 | 140 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Carbazole | 5/26/2012 | 56 | | Yes | Y | J | | | 59 | 8.0 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Fluorene | 5/26/2012 | 160 | | Yes | Y | | | | 59 | 13 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Pyrene | 5/26/2012 | 860 | | Yes | Y | | | | 59 | 5.8 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Butylbenzyl phthalate | 5/26/2012 | 59 | | Yes | N | U | | | 59 | 18 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Dibenzofuran | 5/26/2012 | 240 | | Yes | Y | | | | 59 | 12 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Di-n-butyl phthalate | 5/26/2012 | 59 | | Yes | N | U | | | 59 | 24 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Bis(2-ethylhexyl) phthalate | 5/26/2012 | 150 | | Yes | Y | | | | 74 | 43 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Dimethyl phthalate | 5/26/2012 | 59 | | Yes | N | U | | | 59 | 8.6 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | 4-Methylphenol (p-Cresol) | 5/26/2012 | 1400 | | Yes | Y | | | | 120 | 20 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Anthracene | 5/26/2012 | 170 | | Yes | Y | | | | 59 | 13 | ug/kg |

SDG: UU52

| Analytical Method | SW8270D | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS002-SS-120515 | 12-8895-UU52C | Acenaphthene | 5/26/2012 | 140 | | Yes | Y | | | | 59 | 9.7 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Phenol | 5/26/2012 | 260 | | Yes | Y | | | | 59 | 26 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Benzo(a)pyrene | 5/26/2012 | 470 | | Yes | Y | | | | 59 | 16 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Dibenzo(a,h)anthracene | 5/26/2012 | 100 | | Yes | Y | | | | 59 | 13 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Benzo(a)anthracene | 5/26/2012 | 280 | | Yes | Y | | | | 59 | 9.8 | ug/kg |
| MS002-SS-120515 | 12-8895-UU52C | Benzoic acid | 5/26/2012 | 420 | | Yes | Y | J | J | 10 | 1200 | 300 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Butylbenzyl phthalate | 5/26/2012 | 60 | | Yes | N | U | | | 60 | 18 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Pyrene | 5/26/2012 | 510 | | Yes | Y | | | | 60 | 5.8 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Anthracene | 5/26/2012 | 120 | | Yes | Y | | | | 60 | 13 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Di-n-octyl phthalate | 5/26/2012 | 60 | | Yes | N | UJ | | | 60 | 17 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Bis(2-ethylhexyl) phthalate | 5/26/2012 | 120 | | Yes | Y | | | | 74 | 43 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Phenol | 5/26/2012 | 180 | | Yes | Y | | | | 60 | 26 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | 4-Methylphenol (p-Cresol) | 5/26/2012 | 1100 | | Yes | Y | | | | 120 | 20 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Pentachlorophenol | 5/26/2012 | 600 | | Yes | N | U | | | 600 | 140 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Di-n-butyl phthalate | 5/26/2012 | 60 | | Yes | N | U | | | 60 | 24 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Dibenzofuran | 5/26/2012 | 110 | | Yes | Y | | | | 60 | 12 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Benzo(b,j,k)fluoranthenes | 5/26/2012 | 580 | | Yes | Y | | | | 60 | 8.2 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | 2-Methylnaphthalene | 5/26/2012 | 86 | | Yes | Y | | | | 60 | 9.1 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Naphthalene | 5/26/2012 | 550 | | Yes | Y | | | | 60 | 8.2 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Carbazole | 5/26/2012 | 60 | | Yes | N | U | | | 60 | 8.0 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Fluorene | 5/26/2012 | 74 | | Yes | Y | | | | 60 | 13 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Dimethyl phthalate | 5/26/2012 | 60 | | Yes | N | U | | | 60 | 8.6 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Phenanthrene | 5/26/2012 | 500 | | Yes | Y | | | | 60 | 11 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Acenaphthene | 5/26/2012 | 72 | | Yes | Y | | | | 60 | 9.8 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Acenaphthylene | 5/26/2012 | 60 | | Yes | Y | | | | 60 | 17 | ug/kg |

SDG: UU52

**Analytical Method** SW8270D

| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS003-SS-120515 | 12-8896-UU52D | Benzo(g,h,i)perylene | 5/26/2012 | 230 | Yes | Y | | | | 60 | 13 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Benzoic acid | 5/26/2012 | 330 | Yes | Y | J | J | 10 | 1200 | 300 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Fluoranthene | 5/26/2012 | 550 | Yes | Y | | | | 60 | 8.7 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Indeno(1,2,3-c,d)pyrene | 5/26/2012 | 180 | Yes | Y | | | | 60 | 14 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Chrysene | 5/26/2012 | 390 | Yes | Y | | | | 60 | 11 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Retene | 5/26/2012 | 32 | Yes | Y | J | | | 60 | 60 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Benzo(a)pyrene | 5/26/2012 | 250 | Yes | Y | | | | 60 | 16 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Dibenzo(a,h)anthracene | 5/26/2012 | 51 | Yes | Y | J | | | 60 | 13 | ug/kg |
| MS003-SS-120515 | 12-8896-UU52D | Benzo(a)anthracene | 5/26/2012 | 130 | Yes | Y | | | | 60 | 9.8 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Dibenzo(a,h)anthracene | 5/26/2012 | 87 | Yes | Y | | | | 60 | 13 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Phenanthrene | 5/26/2012 | 890 | Yes | Y | | | | 60 | 11 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Benzoic acid | 5/26/2012 | 390 | Yes | Y | J | J | 10 | 1200 | 300 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Acenaphthene | 5/26/2012 | 140 | Yes | Y | | | | 60 | 9.8 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Di-n-butyl phthalate | 5/26/2012 | 60 | Yes | N | U | | | 60 | 24 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Benzo(a)anthracene | 5/26/2012 | 240 | Yes | Y | | | | 60 | 9.8 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Butylbenzyl phthalate | 5/26/2012 | 60 | Yes | N | U | | | 60 | 18 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Fluorene | 5/26/2012 | 170 | Yes | Y | | | | 60 | 13 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | 2-Methylnaphthalene | 5/26/2012 | 270 | Yes | Y | | | | 60 | 9.1 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Pentachlorophenol | 5/26/2012 | 600 | Yes | N | U | | | 600 | 140 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Naphthalene | 5/26/2012 | 1400 | Yes | Y | | | | 60 | 8.2 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Benzo(a)pyrene | 5/26/2012 | 380 | Yes | Y | | | | 60 | 16 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Bis(2-ethylhexyl) phthalate | 5/26/2012 | 120 | Yes | Y | | | | 75 | 44 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Carbazole | 5/26/2012 | 69 | Yes | Y | | | | 60 | 8.0 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Retene | 5/26/2012 | 120 | Yes | Y | | | | 60 | 60 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Chrysene | 5/26/2012 | 680 | Yes | Y | | | | 60 | 11 | ug/kg |

SDG: UU52

| Analytical Method | SW8270D | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS004-SS-120515 | 12-8897-UU52E | Acenaphthylene | 5/26/2012 | 78 | Yes | Y | | | | 60 | 17 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Fluoranthene | 5/26/2012 | 870 | Yes | Y | | | | 60 | 8.7 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Indeno(1,2,3-c,d)pyrene | 5/26/2012 | 280 | Yes | Y | | | | 60 | 14 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Benzo(g,h,i)perylene | 5/26/2012 | 360 | Yes | Y | | | | 60 | 13 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Dibenzofuran | 5/26/2012 | 300 | Yes | Y | | | | 60 | 12 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Dimethyl phthalate | 5/26/2012 | 60 | Yes | N | U | | | 60 | 8.7 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Pyrene | 5/26/2012 | 790 | Yes | Y | | | | 60 | 5.8 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Di-n-octyl phthalate | 5/26/2012 | 60 | Yes | N | UJ | | | 60 | 17 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Phenol | 5/26/2012 | 200 | Yes | Y | | | | 60 | 26 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | 4-Methylphenol (p-Cresol) | 5/26/2012 | 690 | Yes | Y | | | | 120 | 20 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Benzo(b,j,k)fluoranthenes | 5/26/2012 | 970 | Yes | Y | | | | 60 | 8.2 | ug/kg |
| MS004-SS-120515 | 12-8897-UU52E | Anthracene | 5/26/2012 | 180 | Yes | Y | | | | 60 | 13 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Benzo(a)pyrene | 5/26/2012 | 330 | Yes | Y | | | | 59 | 16 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | 4-Methylphenol (p-Cresol) | 5/26/2012 | 3300 | Yes | Y | | | | 120 | 20 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Phenol | 5/26/2012 | 1100 | Yes | Y | | | | 59 | 26 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Bis(2-ethylhexyl) phthalate | 5/26/2012 | 170 | Yes | Y | | | | 74 | 43 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Di-n-octyl phthalate | 5/26/2012 | 59 | Yes | N | UJ | | | 59 | 17 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Pyrene | 5/26/2012 | 1600 | Yes | Y | | | | 59 | 5.7 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Dimethyl phthalate | 5/26/2012 | 59 | Yes | N | U | | | 59 | 8.6 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Dibenzofuran | 5/26/2012 | 660 | Yes | Y | | | | 59 | 12 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Benzo(g,h,i)perylene | 5/26/2012 | 320 | Yes | Y | | | | 59 | 13 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Indeno(1,2,3-c,d)pyrene | 5/26/2012 | 240 | Yes | Y | | | | 59 | 14 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Fluoranthene | 5/26/2012 | 1900 | Yes | Y | | | | 59 | 8.6 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Acenaphthylene | 5/26/2012 | 250 | Yes | Y | | | | 59 | 17 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Anthracene | 5/26/2012 | 350 | Yes | Y | | | | 59 | 13 | ug/kg |

SDG: UU52

| Analytical Method | SW8270D | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS005-SS-120515 | 12-8898-UU52F | Retene | 5/26/2012 | 140 | | Yes | Y | | | | 59 | 59 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Benzo(b,j,k)fluoranthenes | 5/26/2012 | 970 | | Yes | Y | | | | 59 | 8.1 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Dibenzo(a,h)anthracene | 5/26/2012 | 95 | | Yes | Y | | | | 59 | 13 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Benzo(a)anthracene | 5/26/2012 | 300 | | Yes | Y | | | | 59 | 9.7 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Benzoic acid | 5/26/2012 | 3100 | | Yes | Y | | J | 10 | 1200 | 300 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Acenaphthene | 5/26/2012 | 820 | | Yes | Y | | | | 59 | 9.7 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Di-n-butyl phthalate | 5/26/2012 | 59 | | Yes | N | U | | | 59 | 24 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Phenanthrene | 5/26/2012 | 1800 | | Yes | Y | | | | 59 | 11 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Butylbenzyl phthalate | 5/26/2012 | 59 | | Yes | N | U | | | 59 | 18 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Fluorene | 5/26/2012 | 450 | | Yes | Y | | | | 59 | 13 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Carbazole | 5/26/2012 | 130 | | Yes | Y | | | | 59 | 8.0 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Pentachlorophenol | 5/26/2012 | 590 | | Yes | N | U | | | 590 | 140 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Naphthalene | 5/26/2012 | 4400 | | Yes | Y | | | | 59 | 8.2 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | 2-Methylnaphthalene | 5/26/2012 | 600 | | Yes | Y | | | | 59 | 9.1 | ug/kg |
| MS005-SS-120515 | 12-8898-UU52F | Chrysene | 5/26/2012 | 570 | | Yes | Y | | | | 59 | 11 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Benzo(g,h,i)perylene | 5/26/2012 | 310 | | Yes | Y | | | | 60 | 13 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Butylbenzyl phthalate | 5/26/2012 | 60 | | Yes | N | U | | | 60 | 18 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Benzo(b,j,k)fluoranthenes | 5/26/2012 | 650 | | Yes | Y | | | | 60 | 8.2 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | 2-Methylnaphthalene | 5/26/2012 | 600 | | Yes | Y | | | | 60 | 9.1 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Naphthalene | 5/26/2012 | 6200 | | No | Y | E | R | 22 | 60 | 8.2 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Pentachlorophenol | 5/26/2012 | 600 | | Yes | N | U | | | 600 | 140 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Dimethyl phthalate | 5/26/2012 | 60 | | Yes | N | U | | | 60 | 8.6 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Fluorene | 5/26/2012 | 130 | | Yes | Y | | | | 60 | 13 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | 4-Methylphenol (p-Cresol) | 5/26/2012 | 270 | | Yes | Y | | | | 120 | 20 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Phenanthrene | 5/26/2012 | 2200 | | Yes | Y | | | | 60 | 11 | ug/kg |

SDG: UU52

**Analytical Method** SW8270D

| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS006-SS-120515 | 12-8899-UU52G | Di-n-butyl phthalate | 5/26/2012 | 60 | Yes | N | U | | | 60 | 24 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Acenaphthene | 5/26/2012 | 110 | Yes | Y | | | | 60 | 9.8 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Benzoic acid | 5/26/2012 | 3100 | Yes | Y | | J | 10 | 1200 | 300 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Benzo(a)anthracene | 5/26/2012 | 230 | Yes | Y | | | | 60 | 9.8 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Anthracene | 5/26/2012 | 220 | Yes | Y | | | | 60 | 13 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Carbazole | 5/26/2012 | 95 | Yes | Y | | | | 60 | 8.0 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Dibenzo(a,h)anthracene | 5/26/2012 | 54 | Yes | Y | J | | | 60 | 13 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Di-n-octyl phthalate | 5/26/2012 | 60 | Yes | N | UJ | | | 60 | 17 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Phenol | 5/26/2012 | 380 | Yes | Y | | | | 60 | 26 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Pyrene | 5/26/2012 | 1400 | Yes | Y | | | | 60 | 5.8 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Dibenzofuran | 5/26/2012 | 480 | Yes | Y | | | | 60 | 12 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Indeno(1,2,3-c,d)pyrene | 5/26/2012 | 220 | Yes | Y | | | | 60 | 14 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Fluoranthene | 5/26/2012 | 1700 | Yes | Y | | | | 60 | 8.7 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Acenaphthylene | 5/26/2012 | 220 | Yes | Y | | | | 60 | 17 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Chrysene | 5/26/2012 | 410 | Yes | Y | | | | 60 | 11 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Retene | 5/26/2012 | 270 | Yes | Y | | | | 60 | 60 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Benzo(a)pyrene | 5/26/2012 | 250 | Yes | Y | | | | 60 | 16 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52G | Bis(2-ethylhexyl) phthalate | 5/26/2012 | 120 | Yes | Y | | | | 74 | 43 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Fluorene | 5/30/2012 | 130 | No | Y | | R | 22 | 120 | 26 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Dimethyl phthalate | 5/30/2012 | 120 | No | N | U | R | 22 | 120 | 17 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | 2-Methylnaphthalene | 5/30/2012 | 580 | No | Y | | R | 22 | 120 | 18 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Naphthalene | 5/30/2012 | 6300 | Yes | Y | | | | 120 | 16 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Pentachlorophenol | 5/30/2012 | 1200 | No | N | U | R | 22 | 1200 | 290 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Carbazole | 5/30/2012 | 110 | No | Y | J | R | 22 | 120 | 16 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Butylbenzyl phthalate | 5/30/2012 | 120 | No | N | U | R | 22 | 120 | 37 | ug/kg |

SDG: UU52

| Analytical Method | SW8270D | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS006-SS-120515 | 12-8899-UU52GD | Phenanthrene | 5/30/2012 | 2200 | | No | Y | | R | 22 | 120 | 22 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Di-n-butyl phthalate | 5/30/2012 | 120 | | No | N | U | R | 22 | 120 | 49 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Acenaphthene | 5/30/2012 | 89 | | No | Y | J | R | 22 | 120 | 20 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Benzoic acid | 5/30/2012 | 5200 | | No | Y | | R | 22 | 2400 | 600 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Dibenzo(a,h)anthracene | 5/30/2012 | 65 | | No | Y | J | R | 22 | 120 | 26 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Benzo(a)anthracene | 5/30/2012 | 210 | | No | Y | | R | 22 | 120 | 20 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Acenaphthylene | 5/30/2012 | 210 | | No | Y | | R | 22 | 120 | 34 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Benzo(b,j,k)fluoranthenes | 5/30/2012 | 640 | | No | Y | | R | 22 | 120 | 16 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Benzo(a)pyrene | 5/30/2012 | 240 | | No | Y | | R | 22 | 120 | 32 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Chrysene | 5/30/2012 | 400 | | No | Y | | R | 22 | 120 | 22 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Fluoranthene | 5/30/2012 | 1800 | | No | Y | | R | 22 | 120 | 17 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Indeno(1,2,3-c,d)pyrene | 5/30/2012 | 260 | | No | Y | | R | 22 | 120 | 28 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Benzo(g,h,i)perylene | 5/30/2012 | 380 | | No | Y | | R | 22 | 120 | 26 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Phenol | 5/30/2012 | 490 | | No | Y | | R | 22 | 120 | 51 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Retene | 5/30/2012 | 270 | | No | Y | | R | 22 | 120 | 120 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | 4-Methylphenol (p-Cresol) | 5/30/2012 | 280 | | No | Y | | R | 22 | 240 | 39 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Dibenzofuran | 5/30/2012 | 540 | | No | Y | | R | 22 | 120 | 24 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Bis(2-ethylhexyl) phthalate | 5/30/2012 | 130 | | No | Y | J | R | 22 | 150 | 87 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Di-n-octyl phthalate | 5/30/2012 | 120 | | No | N | UJ | R | 22 | 120 | 35 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Pyrene | 5/30/2012 | 1300 | | No | Y | | R | 22 | 120 | 12 | ug/kg |
| MS006-SS-120515 | 12-8899-UU52GD | Anthracene | 5/30/2012 | 200 | | No | Y | | R | 22 | 120 | 27 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Benzo(b,j,k)fluoranthenes | 5/26/2012 | 540 | | Yes | Y | | | | 59 | 8.1 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Benzo(a)anthracene | 5/26/2012 | 180 | | Yes | Y | | | | 59 | 9.7 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Fluoranthene | 5/26/2012 | 1100 | | Yes | Y | | | | 59 | 8.6 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Acenaphthylene | 5/26/2012 | 140 | | Yes | Y | | | | 59 | 17 | ug/kg |

SDG: UU52

| Analytical Method | SW8270D | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS007-SS-120515 | 12-8900-UU52H | Chrysene | 5/26/2012 | 290 | | Yes | Y | | | | 59 | 11 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Retene | 5/26/2012 | 85 | | Yes | Y | | | | 59 | 59 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Benzo(a)pyrene | 5/26/2012 | 270 | | Yes | Y | | | | 59 | 16 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Dibenzo(a,h)anthracene | 5/26/2012 | 59 | | Yes | Y | | | | 59 | 13 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Indeno(1,2,3-c,d)pyrene | 5/26/2012 | 190 | | Yes | Y | | | | 59 | 14 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Acenaphthene | 5/26/2012 | 130 | | Yes | Y | | | | 59 | 9.6 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Phenanthrene | 5/26/2012 | 1100 | | Yes | Y | | | | 59 | 11 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Butylbenzyl phthalate | 5/26/2012 | 59 | | Yes | N | U | | | 59 | 18 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Fluorene | 5/26/2012 | 120 | | Yes | Y | | | | 59 | 13 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Carbazole | 5/26/2012 | 62 | | Yes | Y | | | | 59 | 7.9 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Pentachlorophenol | 5/26/2012 | 590 | | Yes | N | U | | | 590 | 140 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Benzo(g,h,i)perylene | 5/26/2012 | 250 | | Yes | Y | | | | 59 | 13 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | 2-Methylnaphthalene | 5/26/2012 | 290 | | Yes | Y | | J | 8 | 59 | 9.0 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Benzoic acid | 5/26/2012 | 1300 | | Yes | Y | | J | 8,10 | 1200 | 300 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Naphthalene | 5/26/2012 | 2200 | | Yes | Y | | | | 59 | 8.1 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | 4-Methylphenol (p-Cresol) | 5/26/2012 | 1800 | | Yes | Y | | J | 8 | 120 | 19 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Dimethyl phthalate | 5/26/2012 | 59 | | Yes | N | U | | | 59 | 8.5 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Pyrene | 5/26/2012 | 960 | | Yes | Y | | | | 59 | 5.7 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Anthracene | 5/26/2012 | 170 | | Yes | Y | | | | 59 | 13 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Di-n-octyl phthalate | 5/26/2012 | 59 | | Yes | N | UJ | | | 59 | 17 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Bis(2-ethylhexyl) phthalate | 5/26/2012 | 120 | | Yes | Y | | | | 74 | 43 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Dibenzofuran | 5/26/2012 | 210 | | Yes | Y | | | | 59 | 12 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Phenol | 5/26/2012 | 430 | | Yes | Y | | J | 8 | 59 | 25 | ug/kg |
| MS007-SS-120515 | 12-8900-UU52H | Di-n-butyl phthalate | 5/26/2012 | 59 | | Yes | N | U | | | 59 | 24 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Dibenzo(a,h)anthracene | 5/29/2012 | 54 | | Yes | Y | J | | | 60 | 13 | ug/kg |

SDG: UU52

| Analytical Method | SW8270D | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS008-SS-120515 | 12-8901-UU52I | Benzo(a)pyrene | 5/29/2012 | 220 | Yes | Y | | | | 60 | 16 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Retene | 5/29/2012 | 60 | Yes | N | U | | | 60 | 60 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Chrysene | 5/29/2012 | 240 | Yes | Y | | | | 60 | 11 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Acenaphthylene | 5/29/2012 | 39 | Yes | Y | J | | | 60 | 17 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Fluoranthene | 5/29/2012 | 600 | Yes | Y | | | | 60 | 8.7 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Benzo(a)anthracene | 5/29/2012 | 190 | Yes | Y | | | | 60 | 9.8 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Benzo(g,h,i)perylene | 5/29/2012 | 170 | Yes | Y | | | | 60 | 13 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Butylbenzyl phthalate | 5/29/2012 | 60 | Yes | N | U | | | 60 | 18 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Indeno(1,2,3-c,d)pyrene | 5/29/2012 | 140 | Yes | Y | | | | 60 | 14 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Benzoic acid | 5/29/2012 | 740 | Yes | Y | J | J | 10 | 1200 | 300 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Acenaphthene | 5/29/2012 | 57 | Yes | Y | J | | | 60 | 9.8 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Phenanthrene | 5/29/2012 | 480 | Yes | Y | | | | 60 | 11 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Pyrene | 5/29/2012 | 460 | Yes | Y | | | | 60 | 5.8 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Fluorene | 5/29/2012 | 66 | Yes | Y | | | | 60 | 13 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Carbazole | 5/29/2012 | 63 | Yes | Y | | | | 60 | 8.0 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Pentachlorophenol | 5/29/2012 | 600 | Yes | N | U | | | 600 | 140 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Naphthalene | 5/29/2012 | 460 | Yes | Y | | | | 60 | 8.2 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | 2-Methylnaphthalene | 5/29/2012 | 66 | Yes | Y | | | | 60 | 9.1 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Benzo(b,j,k)fluoranthenes | 5/29/2012 | 420 | Yes | Y | | | | 60 | 8.2 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Di-n-butyl phthalate | 5/29/2012 | 60 | Yes | N | U | | | 60 | 24 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Anthracene | 5/29/2012 | 110 | Yes | Y | | | | 60 | 13 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Di-n-octyl phthalate | 5/29/2012 | 60 | Yes | N | UJ | | | 60 | 17 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Bis(2-ethylhexyl) phthalate | 5/29/2012 | 98 | Yes | Y | | | | 75 | 44 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Phenol | 5/29/2012 | 190 | Yes | Y | | | | 60 | 26 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | 4-Methylphenol (p-Cresol) | 5/29/2012 | 610 | Yes | Y | | | | 120 | 20 | ug/kg |

SDG: UU52

| Analytical Method | SW8270D | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS008-SS-120515 | 12-8901-UU52I | Dibenzofuran | 5/29/2012 | 69 | Yes | Y | | | | 60 | 12 | ug/kg |
| MS008-SS-120515 | 12-8901-UU52I | Dimethyl phthalate | 5/29/2012 | 60 | Yes | N | U | | | 60 | 8.7 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Benzo(g,h,i)perylene | 5/29/2012 | 80 | Yes | Y | | | | 60 | 13 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Dibenzo(a,h)anthracene | 5/29/2012 | 60 | Yes | N | U | | | 60 | 13 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Benzo(a)pyrene | 5/29/2012 | 80 | Yes | Y | | | | 60 | 16 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Chrysene | 5/29/2012 | 120 | Yes | Y | | | | 60 | 11 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Acenaphthylene | 5/29/2012 | 60 | Yes | N | U | | | 60 | 17 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Benzo(a)anthracene | 5/29/2012 | 57 | Yes | Y | J | | | 60 | 9.8 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Indeno(1,2,3-c,d)pyrene | 5/29/2012 | 63 | Yes | Y | | | | 60 | 14 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Di-n-butyl phthalate | 5/29/2012 | 60 | Yes | N | U | | | 60 | 24 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Dibenzofuran | 5/29/2012 | 54 | Yes | Y | J | | | 60 | 12 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Fluoranthene | 5/29/2012 | 290 | Yes | Y | | | | 60 | 8.7 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Pentachlorophenol | 5/29/2012 | 600 | Yes | N | U | | | 600 | 140 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Benzoic acid | 5/29/2012 | 410 | Yes | Y | J | J | 10 | 1200 | 300 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Acenaphthene | 5/29/2012 | 60 | Yes | N | U | | | 60 | 9.8 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Phenanthrene | 5/29/2012 | 250 | Yes | Y | | | | 60 | 11 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Butylbenzyl phthalate | 5/29/2012 | 60 | Yes | N | U | | | 60 | 18 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Fluorene | 5/29/2012 | 42 | Yes | Y | J | | | 60 | 13 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Carbazole | 5/29/2012 | 60 | Yes | N | U | | | 60 | 8.0 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Naphthalene | 5/29/2012 | 290 | Yes | Y | | | | 60 | 8.2 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Benzo(b,j,k)fluoranthenes | 5/29/2012 | 180 | Yes | Y | | | | 60 | 8.2 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Retene | 5/29/2012 | 60 | Yes | N | U | | | 60 | 60 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Dimethyl phthalate | 5/29/2012 | 60 | Yes | N | U | | | 60 | 8.6 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | 2-Methylnaphthalene | 5/29/2012 | 36 | Yes | Y | J | | | 60 | 9.1 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Anthracene | 5/29/2012 | 51 | Yes | Y | J | | | 60 | 13 | ug/kg |

SDG: UU52

| Analytical Method | SW8270D | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS009-SS-120515 | 12-8902-UU52J | Di-n-octyl phthalate | 5/29/2012 | 60 | Yes | N | UJ | | | 60 | 17 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Bis(2-ethylhexyl) phthalate | 5/29/2012 | 90 | Yes | Y | | | | 75 | 44 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Phenol | 5/29/2012 | 100 | Yes | Y | | | | 60 | 26 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | 4-Methylphenol (p-Cresol) | 5/29/2012 | 470 | Yes | Y | | | | 120 | 20 | ug/kg |
| MS009-SS-120515 | 12-8902-UU52J | Pyrene | 5/29/2012 | 240 | Yes | Y | | | | 60 | 5.8 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Dibenzofuran | 5/26/2012 | 280 | Yes | Y | | | | 60 | 12 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Dimethyl phthalate | 5/26/2012 | 60 | Yes | N | U | | | 60 | 8.6 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Pyrene | 5/26/2012 | 910 | Yes | Y | | | | 60 | 5.8 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Anthracene | 5/26/2012 | 180 | Yes | Y | | | | 60 | 13 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Di-n-octyl phthalate | 5/26/2012 | 60 | Yes | N | UJ | | | 60 | 17 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Bis(2-ethylhexyl) phthalate | 5/26/2012 | 120 | Yes | Y | | | | 74 | 43 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Phenol | 5/26/2012 | 400 | Yes | Y | | | | 60 | 26 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | 4-Methylphenol (p-Cresol) | 5/26/2012 | 1600 | Yes | Y | | | | 120 | 20 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Phenanthrene | 5/26/2012 | 1200 | Yes | Y | | | | 60 | 11 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Benzo(g,h,i)perylene | 5/26/2012 | 330 | Yes | Y | | | | 60 | 13 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Acenaphthene | 5/26/2012 | 160 | Yes | Y | | | | 60 | 9.8 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Chrysene | 5/26/2012 | 400 | Yes | Y | | | | 60 | 11 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Benzoic acid | 5/26/2012 | 640 | Yes | Y | J | J | 10 | 1200 | 300 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Benzo(a)anthracene | 5/26/2012 | 170 | Yes | Y | | | | 60 | 9.8 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Dibenzo(a,h)anthracene | 5/26/2012 | 54 | Yes | Y | J | | | 60 | 13 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Benzo(a)pyrene | 5/26/2012 | 270 | Yes | Y | | | | 60 | 16 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Retene | 5/26/2012 | 100 | Yes | Y | | | | 60 | 60 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Di-n-butyl phthalate | 5/26/2012 | 60 | Yes | N | U | | | 60 | 24 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Pentachlorophenol | 5/26/2012 | 160 | Yes | Y | J | | | 600 | 140 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | 2-Methylnaphthalene | 5/26/2012 | 270 | Yes | Y | | | | 60 | 9.1 | ug/kg |

SDG: UU52

| Analytical Method | SW8270D | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS101-SS-120515 | 12-8894-UU52B | Fluoranthene | 5/26/2012 | 970 | Yes | Y | | | | 60 | 8.7 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Indeno(1,2,3-c,d)pyrene | 5/26/2012 | 230 | Yes | Y | | | | 60 | 14 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Naphthalene | 5/26/2012 | 1800 | Yes | Y | | | | 60 | 8.2 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Carbazole | 5/26/2012 | 57 | Yes | Y | J | | | 60 | 8.0 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Fluorene | 5/26/2012 | 170 | Yes | Y | | | | 60 | 13 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Butylbenzyl phthalate | 5/26/2012 | 60 | Yes | N | U | | | 60 | 18 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Benzo(b,j,k)fluoranthenes | 5/26/2012 | 640 | Yes | Y | | | | 60 | 8.2 | ug/kg |
| MS101-SS-120515 | 12-8894-UU52B | Acenaphthylene | 5/26/2012 | 130 | Yes | Y | | | | 60 | 17 | ug/kg |

| Analytical Method | SW9060M | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS001-SS-120515 | 12-8893-UU52A | Total organic carbon | 5/24/2012 | 19.6 | Yes | Y | | | | 0.194 | 0.02813 | pct |
| MS002-SS-120515 | 12-8895-UU52C | Total organic carbon | 5/24/2012 | 17.1 | Yes | Y | | | | 0.194 | 0.02813 | pct |
| MS003-SS-120515 | 12-8896-UU52D | Total organic carbon | 5/24/2012 | 23.6 | Yes | Y | | | | 0.200 | 0.02900 | pct |
| MS004-SS-120515 | 12-8897-UU52E | Total organic carbon | 5/24/2012 | 17.9 | Yes | Y | | | | 0.184 | 0.02668 | pct |
| MS005-SS-120515 | 12-8898-UU52F | Total organic carbon | 5/24/2012 | 29 | Yes | Y | | | | 0.192 | 0.02784 | pct |
| MS006-SS-120515 | 12-8899-UU52G | Total organic carbon | 5/24/2012 | 31.9 | Yes | Y | | | | 0.208 | 0.03016 | pct |
| MS007-SS-120515 | 12-8900-UU52H | Total organic carbon | 5/24/2012 | 16.7 | Yes | Y | | | | 0.196 | 0.02842 | pct |
| MS008-SS-120515 | 12-8901-UU52I | Total organic carbon | 5/24/2012 | 22.5 | Yes | Y | | | | 0.200 | 0.02900 | pct |
| MS009-SS-120515 | 12-8902-UU52J | Total organic carbon | 5/24/2012 | 12.2 | Yes | Y | | | | 0.190 | 0.02755 | pct |
| MS010-SS-120515 | 12-8903-UU52K | Total organic carbon | 5/24/2012 | 11.8 | Yes | Y | | | | 0.164 | 0.02378 | pct |
| MS101-SS-120515 | 12-8894-UU52B | Total organic carbon | 5/24/2012 | 18.4 | Yes | Y | | | | 0.186 | 0.02697 | pct |

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| Analytical Method | E200.8 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS-SSFB-120515 | 12-8938-UU62K | Arsenic | 5/23/2012 | 0.2 | Yes | N | U | | | 0.2 | 0.048 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Cadmium | 5/23/2012 | 0.1 | Yes | N | U | | | 0.1 | 0.010 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Antimony | 5/23/2012 | 0.2 | Yes | N | U | | | 0.2 | 0.010 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Silver | 5/23/2012 | 0.2 | Yes | N | U | | | 0.2 | 0.0080 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Cadmium | 5/23/2012 | 0.1 | Yes | N | U | | | 0.1 | 0.010 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Silver | 5/23/2012 | 0.2 | Yes | N | U | | | 0.2 | 0.0080 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Arsenic | 5/23/2012 | 0.2 | Yes | N | U | | | 0.2 | 0.048 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Antimony | 5/23/2012 | 0.2 | Yes | N | U | | | 0.2 | 0.010 | ug/L |

| Analytical Method | E350.1M | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS011-SS-120515 | 12-8929-UU62B | Ammonia | 5/21/2012 | 20.8 | Yes | Y | | | | 0.96 | 0.03000 | mg/kg |
| MS012-SS-120515 | 12-8930-UU62C | Ammonia | 5/21/2012 | 155 | Yes | Y | | | | 2.02 | 0.06000 | mg/kg |
| MS013-SS-120515 | 12-8931-UU62D | Ammonia | 5/21/2012 | 107 | Yes | Y | | | | 2.01 | 0.06000 | mg/kg |
| MS014-SS-120515 | 12-8932-UU62E | Ammonia | 5/21/2012 | 204 | Yes | Y | | | | 5.27 | 0.15000 | mg/kg |
| MS015-SS-120515 | 12-8933-UU62F | Ammonia | 5/21/2012 | 121 | Yes | Y | | | | 1.89 | 0.06000 | mg/kg |
| MS016-SS-120515 | 12-8934-UU62G | Ammonia | 5/21/2012 | 129 | Yes | Y | | | | 1.70 | 0.06000 | mg/kg |
| MS017-SS-120515 | 12-8935-UU62H | Ammonia | 5/21/2012 | 117 | Yes | Y | | | | 1.23 | 0.03000 | mg/kg |
| MS018-SS-120515 | 12-8936-UU62I | Ammonia | 5/21/2012 | 130 | Yes | Y | | | | 1.80 | 0.06000 | mg/kg |
| MS110-SS-120515 | 12-8928-UU62A | Ammonia | 5/21/2012 | 95.6 | Yes | Y | | | | 0.97 | 0.03000 | mg/kg |

| Analytical Method | E376.2 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS011-SS-120515 | 12-8929-UU62B | Sulfide | 5/18/2012 | 8.88 | Yes | N | U | | | 8.88 | 0.00750 | mg/kg |
| MS012-SS-120515 | 12-8930-UU62C | Sulfide | 5/18/2012 | 2180 | Yes | Y | | | | 189 | 0.15000 | mg/kg |
| MS013-SS-120515 | 12-8931-UU62D | Sulfide | 5/18/2012 | 1520 | Yes | Y | | | | 103 | 0.07500 | mg/kg |
| MS014-SS-120515 | 12-8932-UU62E | Sulfide | 5/18/2012 | 4450 | Yes | Y | | | | 441 | 0.37500 | mg/kg |

| Analytical Method | E376.2 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS015-SS-120515 | 12-8933-UU62F | Sulfide | 5/18/2012 | 2130 | Yes | Y | | | | 178 | 0.15000 | mg/kg |
| MS016-SS-120515 | 12-8934-UU62G | Sulfide | 5/18/2012 | 702 | Yes | Y | | | | 89.5 | 0.07500 | mg/kg |
| MS017-SS-120515 | 12-8935-UU62H | Sulfide | 5/18/2012 | 2450 | Yes | Y | | | | 131 | 0.07500 | mg/kg |
| MS018-SS-120515 | 12-8936-UU62I | Sulfide | 5/18/2012 | 2960 | Yes | Y | | | | 190 | 0.15000 | mg/kg |
| MS110-SS-120515 | 12-8928-UU62A | Sulfide | 5/18/2012 | 1750 | Yes | Y | | | | 91.4 | 0.07500 | mg/kg |

| Analytical Method | NWTPHDx | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS-SSFB-120515 | 12-8938-UU62K | Motor Oil Range | 5/21/2012 | 0.2 | Yes | N | U | | | 0.20 | 0.01 | mg/L |
| MS-SSFB-120515 | 12-8938-UU62K | Diesel Range Hydrocarbons | 5/21/2012 | 0.1 | Yes | N | U | | | 0.10 | 0.04 | mg/L |
| MS-SSRB-120515 | 12-8937-UU62J | Motor Oil Range | 5/21/2012 | 0.2 | Yes | N | U | | | 0.20 | 0.01 | mg/L |
| MS-SSRB-120515 | 12-8937-UU62J | Diesel Range Hydrocarbons | 5/21/2012 | 0.1 | Yes | N | U | | | 0.10 | 0.04 | mg/L |

| Analytical Method | PSEP | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS011-SS-120515 | 12-8929-UU62B | Silt, Medium | 5/25/2012 | 1.6 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS011-SS-120515 | 12-8929-UU62B | Clay, Medium | 5/25/2012 | 2.6 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS011-SS-120515 | 12-8929-UU62B | Silt, Very Fine | 5/25/2012 | 4.2 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS011-SS-120515 | 12-8929-UU62B | Fines (silt + clay) | 5/25/2012 | 20.4 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS011-SS-120515 | 12-8929-UU62B | Silt, Coarse | 5/25/2012 | 0.2 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS011-SS-120515 | 12-8929-UU62B | Sand, Very Fine | 5/25/2012 | 4.6 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS011-SS-120515 | 12-8929-UU62B | Sand, Very Coarse | 5/25/2012 | 17.8 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS011-SS-120515 | 12-8929-UU62B | Sand, Medium | 5/25/2012 | 11.7 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS011-SS-120515 | 12-8929-UU62B | Sand, Fine | 5/25/2012 | 7.4 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS011-SS-120515 | 12-8929-UU62B | Sand, Coarse | 5/25/2012 | 14.5 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS011-SS-120515 | 12-8929-UU62B | Silt, Fine | 5/25/2012 | 3.7 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS011-SS-120515 | 12-8929-UU62B | Clay, Coarse | 5/25/2012 | 3.2 | Yes | Y | | | | 0.1 | 0.1 | pct |

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| Analytical Method | PSEP | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS011-SS-120515 | 12-8929-UU62B | Gravel | 5/25/2012 | 23.6 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS011-SS-120515 | 12-8929-UU62B | Clay, Fine | 5/25/2012 | 5.1 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS012-SS-120515 | 12-8930-UU62C | Silt, Coarse | 5/25/2012 | 4.9 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS012-SS-120515 | 12-8930-UU62C | Silt, Fine | 5/25/2012 | 6.5 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS012-SS-120515 | 12-8930-UU62C | Silt, Medium | 5/25/2012 | 18.9 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS012-SS-120515 | 12-8930-UU62C | Clay, Coarse | 5/25/2012 | 1.2 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS012-SS-120515 | 12-8930-UU62C | Sand, Very Fine | 5/25/2012 | 1.9 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS012-SS-120515 | 12-8930-UU62C | Silt, Very Fine | 5/25/2012 | 4.1 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS012-SS-120515 | 12-8930-UU62C | Sand, Fine | 5/25/2012 | 2.8 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS012-SS-120515 | 12-8930-UU62C | Clay, Medium | 5/25/2012 | 2.2 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS012-SS-120515 | 12-8930-UU62C | Sand, Very Coarse | 5/25/2012 | 11 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS012-SS-120515 | 12-8930-UU62C | Clay, Fine | 5/25/2012 | 15.2 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS012-SS-120515 | 12-8930-UU62C | Fines (silt + clay) | 5/25/2012 | 53 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS012-SS-120515 | 12-8930-UU62C | Gravel | 5/25/2012 | 21.3 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS012-SS-120515 | 12-8930-UU62C | Sand, Coarse | 5/25/2012 | 5.9 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS012-SS-120515 | 12-8930-UU62C | Sand, Medium | 5/25/2012 | 4.1 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS013-SS-120515 | 12-8931-UU62D | Sand, Coarse | 5/25/2012 | 7.1 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS013-SS-120515 | 12-8931-UU62D | Sand, Fine | 5/25/2012 | 4.2 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS013-SS-120515 | 12-8931-UU62D | Sand, Medium | 5/25/2012 | 3.7 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS013-SS-120515 | 12-8931-UU62D | Clay, Fine | 5/25/2012 | 9.3 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS013-SS-120515 | 12-8931-UU62D | Sand, Very Coarse | 5/25/2012 | 11.6 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS013-SS-120515 | 12-8931-UU62D | Sand, Very Fine | 5/25/2012 | 1.8 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS013-SS-120515 | 12-8931-UU62D | Silt, Coarse | 5/25/2012 | 4.2 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS013-SS-120515 | 12-8931-UU62D | Silt, Fine | 5/25/2012 | 11.6 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS013-SS-120515 | 12-8931-UU62D | Fines (silt + clay) | 5/25/2012 | 48 | Yes | Y | | | | 0.1 | 0.1 | pct |

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| Analytical Method | PSEP | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS013-SS-120515 | 12-8931-UU62D | Silt, Medium | 5/25/2012 | 12.9 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS013-SS-120515 | 12-8931-UU62D | Clay, Medium | 5/25/2012 | 0.8 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS013-SS-120515 | 12-8931-UU62D | Silt, Very Fine | 5/25/2012 | 6.9 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS013-SS-120515 | 12-8931-UU62D | Clay, Coarse | 5/25/2012 | 2.2 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS013-SS-120515 | 12-8931-UU62D | Gravel | 5/25/2012 | 23.6 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS014-SS-120515 | 12-8932-UU62E | Silt, Fine | 5/25/2012 | 11.9 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS014-SS-120515 | 12-8932-UU62E | Clay, Coarse | 5/25/2012 | 4.7 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS014-SS-120515 | 12-8932-UU62E | Silt, Medium | 5/25/2012 | 7.7 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS014-SS-120515 | 12-8932-UU62E | Clay, Fine | 5/25/2012 | 11.8 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS014-SS-120515 | 12-8932-UU62E | Fines (silt + clay) | 5/25/2012 | 54.3 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS014-SS-120515 | 12-8932-UU62E | Gravel | 5/25/2012 | 6.9 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS014-SS-120515 | 12-8932-UU62E | Sand, Coarse | 5/25/2012 | 10.3 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS014-SS-120515 | 12-8932-UU62E | Sand, Fine | 5/25/2012 | 4.9 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS014-SS-120515 | 12-8932-UU62E | Sand, Medium | 5/25/2012 | 7 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS014-SS-120515 | 12-8932-UU62E | Sand, Very Coarse | 5/25/2012 | 13.4 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS014-SS-120515 | 12-8932-UU62E | Sand, Very Fine | 5/25/2012 | 3.2 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS014-SS-120515 | 12-8932-UU62E | Silt, Coarse | 5/25/2012 | 1.9 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS014-SS-120515 | 12-8932-UU62E | Silt, Very Fine | 5/25/2012 | 12.8 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS014-SS-120515 | 12-8932-UU62E | Clay, Medium | 5/25/2012 | 3.4 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS015-SS-120515 | 12-8933-UU62F | Fines (silt + clay) | 5/25/2012 | 56 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS015-SS-120515 | 12-8933-UU62F | Silt, Very Fine | 5/25/2012 | 12.8 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS015-SS-120515 | 12-8933-UU62F | Silt, Medium | 5/25/2012 | 11.8 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS015-SS-120515 | 12-8933-UU62F | Silt, Fine | 5/25/2012 | 11.9 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS015-SS-120515 | 12-8933-UU62F | Silt, Coarse | 5/25/2012 | 2.1 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS015-SS-120515 | 12-8933-UU62F | Sand, Very Fine | 5/25/2012 | 1.5 | | Yes | Y | | | | 0.1 | 0.1 | pct |

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| Analytical Method | PSEP | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS015-SS-120515 | 12-8933-UU62F | Sand, Very Coarse | 5/25/2012 | 11.3 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS015-SS-120515 | 12-8933-UU62F | Sand, Medium | 5/25/2012 | 4.8 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS015-SS-120515 | 12-8933-UU62F | Sand, Fine | 5/25/2012 | 2.7 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS015-SS-120515 | 12-8933-UU62F | Gravel | 5/25/2012 | 16.2 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS015-SS-120515 | 12-8933-UU62F | Clay, Medium | 5/25/2012 | 2.9 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS015-SS-120515 | 12-8933-UU62F | Clay, Fine | 5/25/2012 | 10.5 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS015-SS-120515 | 12-8933-UU62F | Clay, Coarse | 5/25/2012 | 4 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS015-SS-120515 | 12-8933-UU62F | Sand, Coarse | 5/25/2012 | 7.5 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS016-SS-120515 | 12-8934-UU62G | Sand, Medium | 5/25/2012 | 7.2 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS016-SS-120515 | 12-8934-UU62G | Silt, Very Fine | 5/25/2012 | 9.3 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS016-SS-120515 | 12-8934-UU62G | Clay, Fine | 5/25/2012 | 8.2 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS016-SS-120515 | 12-8934-UU62G | Clay, Medium | 5/25/2012 | 2.5 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS016-SS-120515 | 12-8934-UU62G | Fines (silt + clay) | 5/25/2012 | 43.8 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS016-SS-120515 | 12-8934-UU62G | Gravel | 5/25/2012 | 17.3 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS016-SS-120515 | 12-8934-UU62G | Sand, Coarse | 5/25/2012 | 10.4 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS016-SS-120515 | 12-8934-UU62G | Clay, Coarse | 5/25/2012 | 2.1 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS016-SS-120515 | 12-8934-UU62G | Silt, Medium | 5/25/2012 | 8.5 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS016-SS-120515 | 12-8934-UU62G | Sand, Very Coarse | 5/25/2012 | 14 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS016-SS-120515 | 12-8934-UU62G | Sand, Very Fine | 5/25/2012 | 2.8 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS016-SS-120515 | 12-8934-UU62G | Silt, Fine | 5/25/2012 | 12.9 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS016-SS-120515 | 12-8934-UU62G | Silt, Coarse | 5/25/2012 | 0.2 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS016-SS-120515 | 12-8934-UU62G | Sand, Fine | 5/25/2012 | 4.5 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS017-SS-120515 | 12-8935-UU62H | Silt, Very Fine | 5/25/2012 | 8.3 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS017-SS-120515 | 12-8935-UU62H | Silt, Medium | 5/25/2012 | 3.4 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS017-SS-120515 | 12-8935-UU62H | Clay, Coarse | 5/25/2012 | 2.4 | Yes | Y | | | | 0.1 | 0.1 | pct |

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**Analytical Method** PSEP

| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS017-SS-120515 | 12-8935-UU62H | Clay, Fine | 5/25/2012 | 11.4 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS017-SS-120515 | 12-8935-UU62H | Clay, Medium | 5/25/2012 | 2.5 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS017-SS-120515 | 12-8935-UU62H | Fines (silt + clay) | 5/25/2012 | 37.7 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS017-SS-120515 | 12-8935-UU62H | Silt, Fine | 5/25/2012 | 9 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS017-SS-120515 | 12-8935-UU62H | Sand, Very Fine | 5/25/2012 | 3.4 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS017-SS-120515 | 12-8935-UU62H | Sand, Very Coarse | 5/25/2012 | 14.3 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS017-SS-120515 | 12-8935-UU62H | Sand, Medium | 5/25/2012 | 8.2 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS017-SS-120515 | 12-8935-UU62H | Sand, Fine | 5/25/2012 | 5.3 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS017-SS-120515 | 12-8935-UU62H | Sand, Coarse | 5/25/2012 | 11.5 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS017-SS-120515 | 12-8935-UU62H | Gravel | 5/25/2012 | 19.6 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS017-SS-120515 | 12-8935-UU62H | Silt, Coarse | 5/25/2012 | 0.7 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS018-SS-120515 | 12-8936-UU62I | Sand, Very Fine | 5/25/2012 | 2.1 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS018-SS-120515 | 12-8936-UU62I | Silt, Very Fine | 5/25/2012 | 7.1 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS018-SS-120515 | 12-8936-UU62I | Silt, Fine | 5/25/2012 | 12.9 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS018-SS-120515 | 12-8936-UU62I | Sand, Medium | 5/25/2012 | 3.3 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS018-SS-120515 | 12-8936-UU62I | Sand, Fine | 5/25/2012 | 2.8 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS018-SS-120515 | 12-8936-UU62I | Sand, Coarse | 5/25/2012 | 4.6 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS018-SS-120515 | 12-8936-UU62I | Gravel | 5/25/2012 | 16.8 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS018-SS-120515 | 12-8936-UU62I | Fines (silt + clay) | 5/25/2012 | 61.7 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS018-SS-120515 | 12-8936-UU62I | Sand, Very Coarse | 5/25/2012 | 8.7 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS018-SS-120515 | 12-8936-UU62I | Clay, Medium | 5/25/2012 | 4.7 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS018-SS-120515 | 12-8936-UU62I | Clay, Fine | 5/25/2012 | 12.9 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS018-SS-120515 | 12-8936-UU62I | Clay, Coarse | 5/25/2012 | 4.6 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS018-SS-120515 | 12-8936-UU62I | Silt, Medium | 5/25/2012 | 17.7 | | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS018-SS-120515 | 12-8936-UU62I | Silt, Coarse | 5/25/2012 | 1.8 | | Yes | Y | | | | 0.1 | 0.1 | pct |

| Analytical Method | PSEP | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS110-SS-120515 | 12-8928-UU62A | Sand, Very Fine | 5/25/2012 | 3.8 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS110-SS-120515 | 12-8928-UU62A | Silt, Very Fine | 5/25/2012 | 15.4 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS110-SS-120515 | 12-8928-UU62A | Silt, Medium | 5/25/2012 | 9.5 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS110-SS-120515 | 12-8928-UU62A | Silt, Coarse | 5/25/2012 | 2.4 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS110-SS-120515 | 12-8928-UU62A | Clay, Coarse | 5/25/2012 | 5.5 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS110-SS-120515 | 12-8928-UU62A | Clay, Fine | 5/25/2012 | 12 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS110-SS-120515 | 12-8928-UU62A | Sand, Very Coarse | 5/25/2012 | 14.2 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS110-SS-120515 | 12-8928-UU62A | Sand, Medium | 5/25/2012 | 6.5 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS110-SS-120515 | 12-8928-UU62A | Sand, Fine | 5/25/2012 | 5 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS110-SS-120515 | 12-8928-UU62A | Clay, Medium | 5/25/2012 | 4.1 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS110-SS-120515 | 12-8928-UU62A | Fines (silt + clay) | 5/25/2012 | 58.5 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS110-SS-120515 | 12-8928-UU62A | Sand, Coarse | 5/25/2012 | 9.4 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS110-SS-120515 | 12-8928-UU62A | Gravel | 5/25/2012 | 2.6 | Yes | Y | | | | 0.1 | 0.1 | pct |
| MS110-SS-120515 | 12-8928-UU62A | Silt, Fine | 5/25/2012 | 9.5 | Yes | Y | | | | 0.1 | 0.1 | pct |

| Analytical Method | SM2540B | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS011-SS-120515 | 12-8929-UU62B | Total solids | 5/22/2012 | 9.8 | Yes | Y | | | | 0.01 | | pct |
| MS012-SS-120515 | 12-8930-UU62C | Total solids | 5/22/2012 | 9.7 | Yes | Y | | | | 0.01 | | pct |
| MS013-SS-120515 | 12-8931-UU62D | Total solids | 5/22/2012 | 9.3 | Yes | Y | | | | 0.01 | | pct |
| MS014-SS-120515 | 12-8932-UU62E | Total solids | 5/22/2012 | 9.8 | Yes | Y | | | | 0.01 | | pct |
| MS015-SS-120515 | 12-8933-UU62F | Total solids | 5/22/2012 | 10.3 | Yes | Y | | | | 0.01 | | pct |
| MS016-SS-120515 | 12-8934-UU62G | Total solids | 5/22/2012 | 12.4 | Yes | Y | | | | 0.01 | | pct |
| MS017-SS-120515 | 12-8935-UU62H | Total solids | 5/22/2012 | 8.4 | Yes | Y | | | | 0.01 | | pct |
| MS018-SS-120515 | 12-8936-UU62I | Total solids | 5/22/2012 | 11.7 | Yes | Y | | | | 0.01 | | pct |
| MS110-SS-120515 | 12-8928-UU62A | Total solids | 5/22/2012 | 10.4 | Yes | Y | | | | 0.01 | | pct |

SDG: UU62

| Analytical Method | SM2540B-PRES | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS011-SS-120515 | 12-8929-UU62B | Total solids (preserved) | 5/21/2012 | 11 | Yes | Y | | | | 0.01 | | pct |
| MS012-SS-120515 | 12-8930-UU62C | Total solids (preserved) | 5/21/2012 | 10.5 | Yes | Y | | | | 0.01 | | pct |
| MS013-SS-120515 | 12-8931-UU62D | Total solids (preserved) | 5/21/2012 | 9.6 | Yes | Y | | | | 0.01 | | pct |
| MS014-SS-120515 | 12-8932-UU62E | Total solids (preserved) | 5/21/2012 | 10.8 | Yes | Y | | | | 0.01 | | pct |
| MS015-SS-120515 | 12-8933-UU62F | Total solids (preserved) | 5/21/2012 | 11 | Yes | Y | | | | 0.01 | | pct |
| MS016-SS-120515 | 12-8934-UU62G | Total solids (preserved) | 5/21/2012 | 11 | Yes | Y | | | | 0.01 | | pct |
| MS017-SS-120515 | 12-8935-UU62H | Total solids (preserved) | 5/21/2012 | 7.4 | Yes | Y | | | | 0.01 | | pct |
| MS018-SS-120515 | 12-8936-UU62I | Total solids (preserved) | 5/21/2012 | 11.1 | Yes | Y | | | | 0.01 | | pct |
| MS110-SS-120515 | 12-8928-UU62A | Total solids (preserved) | 5/21/2012 | 10.7 | Yes | Y | | | | 0.01 | | pct |

| Analytical Method | SW6010C | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS-SSFB-120515 | 12-8938-UU62K | Chromium | 5/29/2012 | 5 | Yes | N | U | | | 5 | 1.2 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Lead | 5/29/2012 | 20 | Yes | N | U | | | 20 | 1.6 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Nickel | 5/29/2012 | 10 | Yes | N | U | | | 10 | 3.9 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Zinc | 5/29/2012 | 10 | Yes | N | U | | | 10 | 1.4 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Copper | 5/29/2012 | 7 | Yes | Y | | | | 2 | 0.92 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Chromium | 5/29/2012 | 5 | Yes | N | U | | | 5 | 1.2 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Lead | 5/29/2012 | 20 | Yes | N | U | | | 20 | 1.6 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Nickel | 5/29/2012 | 10 | Yes | N | U | | | 10 | 3.9 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Copper | 5/29/2012 | 2 | Yes | N | U | | | 2 | 0.92 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Zinc | 5/29/2012 | 10 | Yes | N | U | | | 10 | 1.4 | ug/L |

| Analytical Method | SW7470A | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS-SSFB-120515 | 12-8938-UU62K | Mercury | 5/21/2012 | 0.1 | Yes | N | U | | | 0.1 | 0.0069 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Mercury | 5/21/2012 | 0.1 | Yes | N | U | | | 0.1 | 0.0069 | ug/L |

| Analytical Method | SW8081B | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS-SSFB-120515 | 12-8938-UU62K | 4,4'-DDT (p,p'-DDT) | 5/24/2012 | 0.1 | | Yes | N | U | | | 0.10 | 0.017 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Endrin ketone | 5/24/2012 | 0.1 | | Yes | N | U | | | 0.10 | 0.015 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Hexachlorocyclohexane, beta- (BHC) | 5/24/2012 | 0.05 | | Yes | N | U | | | 0.050 | 0.0098 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | 4,4'-DDD (p,p'-DDD) | 5/24/2012 | 0.1 | | Yes | N | U | | | 0.10 | 0.019 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | 4,4'-DDE (p,p'-DDE) | 5/24/2012 | 0.1 | | Yes | N | U | | | 0.10 | 0.018 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Dieldrin | 5/24/2012 | 0.1 | | Yes | N | U | | | 0.10 | 0.017 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | 4,4'-DDE (p,p'-DDE) | 5/24/2012 | 0.1 | | Yes | N | U | | | 0.10 | 0.018 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Hexachlorocyclohexane, beta- (BHC) | 5/24/2012 | 0.05 | | Yes | N | U | | | 0.050 | 0.0098 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | 4,4'-DDT (p,p'-DDT) | 5/24/2012 | 0.1 | | Yes | N | U | | | 0.10 | 0.017 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | 4,4'-DDD (p,p'-DDD) | 5/24/2012 | 0.1 | | Yes | N | U | | | 0.10 | 0.019 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Dieldrin | 5/24/2012 | 0.1 | | Yes | N | U | | | 0.10 | 0.017 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Endrin ketone | 5/24/2012 | 0.1 | | Yes | N | U | | | 0.10 | 0.015 | ug/L |

| Analytical Method | SW8082 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS-SSFB-120515 | 12-8938-UU62K | Aroclor 1016 | 5/23/2012 | 1 | | Yes | N | U | | | 1.0 | 0.13 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Aroclor 1254 | 5/23/2012 | 1 | | Yes | N | U | | | 1.0 | 0.15 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Aroclor 1248 | 5/23/2012 | 1 | | Yes | N | U | | | 1.0 | 0.15 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Aroclor 1242 | 5/23/2012 | 1 | | Yes | N | U | | | 1.0 | 0.15 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Aroclor 1260 | 5/23/2012 | 1 | | Yes | N | U | | | 1.0 | 0.15 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Aroclor 1268 | 5/23/2012 | 1 | | Yes | N | U | | | 1.0 | 0.15 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Aroclor 1232 | 5/23/2012 | 1 | | Yes | N | U | | | 1.0 | 0.15 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Aroclor 1221 | 5/23/2012 | 1 | | Yes | N | U | | | 1.0 | 0.15 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Aroclor 1262 | 5/23/2012 | 1 | | Yes | N | U | | | 1.0 | 0.15 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Aroclor 1242 | 5/23/2012 | 1 | | Yes | N | U | UJ | 13 | 1.0 | 0.15 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Aroclor 1254 | 5/23/2012 | 1 | | Yes | N | U | UJ | 13 | 1.0 | 0.15 | ug/L |

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| Analytical Method | SW8082 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS-SSRB-120515 | 12-8937-UU62J | Aroclor 1260 | 5/23/2012 | 1 | Yes | N | U | UJ | 13 | 1.0 | 0.15 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Aroclor 1268 | 5/23/2012 | 1 | Yes | N | U | UJ | 13 | 1.0 | 0.15 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Aroclor 1262 | 5/23/2012 | 1 | Yes | N | U | UJ | 13 | 1.0 | 0.15 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Aroclor 1016 | 5/23/2012 | 1 | Yes | N | U | UJ | 13 | 1.0 | 0.13 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Aroclor 1248 | 5/23/2012 | 1 | Yes | N | U | UJ | 13 | 1.0 | 0.15 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Aroclor 1232 | 5/23/2012 | 1 | Yes | N | U | UJ | 13 | 1.0 | 0.15 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Aroclor 1221 | 5/23/2012 | 1 | Yes | N | U | UJ | 13 | 1.0 | 0.15 | ug/L |

| Analytical Method | SW8270D | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS-SSFB-120515 | 12-8938-UU62K | Phenol | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.52 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Bis(2-ethylhexyl) phthalate | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 1.0 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Di-n-octyl phthalate | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.51 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Anthracene | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.53 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Pyrene | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.55 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Dimethyl phthalate | 5/24/2012 | 0.8 | Yes | Y | J | | | 1.0 | 0.53 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | 4-Methylphenol (p-Cresol) | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.52 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Acenaphthene | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.55 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Benzo(b,j,k)fluoranthenes | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.48 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | 2-Methylnaphthalene | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.48 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Naphthalene | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.52 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Pentachlorophenol | 5/24/2012 | 5 | Yes | N | U | UJ | 5 | 5.0 | 2.4 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Carbazole | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.31 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Fluorene | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.56 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Butylbenzyl phthalate | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.56 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Di-n-butyl phthalate | 5/24/2012 | 3.7 | Yes | Y | | | | 1.0 | 0.54 | ug/L |

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| Analytical Method | SW8270D | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS-SSFB-120515 | 12-8938-UU62K | Phenanthrene | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.56 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Benzo(g,h,i)perylene | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.55 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Benzoic acid | 5/24/2012 | 10 | Yes | N | U | | | 10 | 5.1 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Benzo(a)anthracene | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.52 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Dibenzo(a,h)anthracene | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.48 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Benzo(a)pyrene | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.48 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Retene | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.44 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Chrysene | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.55 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Acenaphthylene | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.48 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Fluoranthene | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.52 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Indeno(1,2,3-c,d)pyrene | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.48 | ug/L |
| MS-SSFB-120515 | 12-8938-UU62K | Dibenzofuran | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.48 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Bis(2-ethylhexyl) phthalate | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 1.0 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Benzo(b,j,k)fluoranthenes | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.48 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Benzo(g,h,i)perylene | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.55 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Phenol | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.52 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Fluorene | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.56 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | 4-Methylphenol (p-Cresol) | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.52 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Phenanthrene | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.56 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Di-n-butyl phthalate | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.54 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Acenaphthene | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.55 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Pentachlorophenol | 5/24/2012 | 5 | Yes | N | U | UJ | 5 | 5.0 | 2.4 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Dibenzofuran | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.48 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Carbazole | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.31 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Indeno(1,2,3-c,d)pyrene | 5/24/2012 | 1 | Yes | N | U | | | 1.0 | 0.48 | ug/L |

SDG: UU62

| Analytical Method | SW8270D | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS-SSRB-120515 | 12-8937-UU62J | Fluoranthene | 5/24/2012 | 1 | | Yes | N | U | | | 1.0 | 0.52 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Acenaphthylene | 5/24/2012 | 1 | | Yes | N | U | | | 1.0 | 0.48 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Chrysene | 5/24/2012 | 1 | | Yes | N | U | | | 1.0 | 0.55 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Retene | 5/24/2012 | 1 | | Yes | N | U | | | 1.0 | 0.44 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Benzo(a)pyrene | 5/24/2012 | 1 | | Yes | N | U | | | 1.0 | 0.48 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Dibenzo(a,h)anthracene | 5/24/2012 | 1 | | Yes | N | U | | | 1.0 | 0.48 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Benzoic acid | 5/24/2012 | 10 | | Yes | N | U | | | 10 | 5.1 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | 2-Methylnaphthalene | 5/24/2012 | 1 | | Yes | N | U | | | 1.0 | 0.48 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Benzo(a)anthracene | 5/24/2012 | 1 | | Yes | N | U | | | 1.0 | 0.52 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Di-n-octyl phthalate | 5/24/2012 | 1 | | Yes | N | U | | | 1.0 | 0.51 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Anthracene | 5/24/2012 | 1 | | Yes | N | U | | | 1.0 | 0.53 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Pyrene | 5/24/2012 | 1 | | Yes | N | U | | | 1.0 | 0.55 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Dimethyl phthalate | 5/24/2012 | 0.9 | | Yes | Y | J | | | 1.0 | 0.53 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Naphthalene | 5/24/2012 | 1 | | Yes | N | U | | | 1.0 | 0.52 | ug/L |
| MS-SSRB-120515 | 12-8937-UU62J | Butylbenzyl phthalate | 5/24/2012 | 1 | | Yes | N | U | | | 1.0 | 0.56 | ug/L |

| Analytical Method | SW9060M | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS011-SS-120515 | 12-8929-UU62B | Total organic carbon | 5/24/2012 | 31.5 | | Yes | Y | | | | 0.198 | 0.02871 | pct |
| MS012-SS-120515 | 12-8930-UU62C | Total organic carbon | 5/24/2012 | 22.6 | | Yes | Y | | | | 0.200 | 0.02900 | pct |
| MS013-SS-120515 | 12-8931-UU62D | Total organic carbon | 5/24/2012 | 18.8 | | Yes | Y | | | | 0.194 | 0.02813 | pct |
| MS014-SS-120515 | 12-8932-UU62E | Total organic carbon | 5/24/2012 | 16.9 | | Yes | Y | | | | 0.192 | 0.02784 | pct |
| MS015-SS-120515 | 12-8933-UU62F | Total organic carbon | 5/24/2012 | 14.3 | | Yes | Y | | | | 0.200 | 0.02900 | pct |
| MS016-SS-120515 | 12-8934-UU62G | Total organic carbon | 5/24/2012 | 19.6 | | Yes | Y | | | | 0.194 | 0.02813 | pct |
| MS017-SS-120515 | 12-8935-UU62H | Total organic carbon | 5/24/2012 | 21.8 | | Yes | Y | | | | 0.198 | 0.02871 | pct |
| MS018-SS-120515 | 12-8936-UU62I | Total organic carbon | 5/24/2012 | 18 | | Yes | Y | | | | 0.198 | 0.02871 | pct |

SDG: UU62

| Analytical Method | SW9060M | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res | Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS110-SS-120515 | 12-8928-UU62A | Total organic carbon | 5/24/2012 | 15.7 | | Yes | Y | | | | 0.200 | 0.02900 | pct |

SDG: UW85

| Analytical Method | WAEPH | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS001-SS-120515 | 12-10066-UW85A | C21-C34 Aliphatics | 6/8/2012 | 180000 | Yes | Y | | | | 20000 | 20000 | ug/kg |
| MS001-SS-120515 | 12-10066-UW85A | C16-C21 Aliphatics | 6/8/2012 | 20000 | Yes | N | U | | | 20000 | 20000 | ug/kg |
| MS001-SS-120515 | 12-10066-UW85A | C12-C16 Aliphatics | 6/8/2012 | 20000 | Yes | N | U | | | 20000 | 20000 | ug/kg |
| MS001-SS-120515 | 12-10066-UW85A | C10-C12 Aliphatics | 6/8/2012 | 20000 | Yes | N | U | | | 20000 | 20000 | ug/kg |
| MS001-SS-120515 | 12-10066-UW85A | C8-C10 Aliphatics | 6/8/2012 | 20000 | Yes | N | U | | | 20000 | 20000 | ug/kg |
| MS001-SS-120515 | 12-10066-UW85A | C21-C34 Aromatics | 6/8/2012 | 31000 | Yes | Y | | | | 20000 | 20000 | ug/kg |
| MS001-SS-120515 | 12-10066-UW85A | C16-C21 Aromatics | 6/8/2012 | 20000 | Yes | N | U | | | 20000 | 20000 | ug/kg |
| MS001-SS-120515 | 12-10066-UW85A | C12-C16 Aromatics | 6/8/2012 | 20000 | Yes | N | U | | | 20000 | 20000 | ug/kg |
| MS001-SS-120515 | 12-10066-UW85A | C10-C12 Aromatics | 6/8/2012 | 20000 | Yes | N | U | | | 20000 | 20000 | ug/kg |
| MS001-SS-120515 | 12-10066-UW85A | C8-C10 Aromatics | 6/8/2012 | 20000 | Yes | N | U | | | 20000 | 20000 | ug/kg |
| MS002-SS-120515 | 12-10067-UW85B | C16-C21 Aliphatics | 6/8/2012 | 29000 | Yes | Y | | | | 19000 | 19000 | ug/kg |
| MS002-SS-120515 | 12-10067-UW85B | C21-C34 Aliphatics | 6/8/2012 | 190000 | Yes | Y | | | | 19000 | 19000 | ug/kg |
| MS002-SS-120515 | 12-10067-UW85B | C12-C16 Aliphatics | 6/8/2012 | 19000 | Yes | N | U | | | 19000 | 19000 | ug/kg |
| MS002-SS-120515 | 12-10067-UW85B | C10-C12 Aliphatics | 6/8/2012 | 19000 | Yes | N | U | | | 19000 | 19000 | ug/kg |
| MS002-SS-120515 | 12-10067-UW85B | C8-C10 Aliphatics | 6/8/2012 | 19000 | Yes | Y | | | | 19000 | 19000 | ug/kg |
| MS002-SS-120515 | 12-10067-UW85B | C12-C16 Aromatics | 6/8/2012 | 19000 | Yes | N | U | | | 19000 | 19000 | ug/kg |
| MS002-SS-120515 | 12-10067-UW85B | C8-C10 Aromatics | 6/8/2012 | 19000 | Yes | N | U | | | 19000 | 19000 | ug/kg |
| MS002-SS-120515 | 12-10067-UW85B | C16-C21 Aromatics | 6/8/2012 | 19000 | Yes | N | U | | | 19000 | 19000 | ug/kg |
| MS002-SS-120515 | 12-10067-UW85B | C10-C12 Aromatics | 6/8/2012 | 19000 | Yes | N | U | | | 19000 | 19000 | ug/kg |
| MS002-SS-120515 | 12-10067-UW85B | C21-C34 Aromatics | 6/8/2012 | 48000 | Yes | Y | | | | 19000 | 19000 | ug/kg |
| MS003-SS-120515 | 12-10068-UW85C | C8-C10 Aliphatics | 6/8/2012 | 21000 | Yes | N | U | | | 21000 | 21000 | ug/kg |
| MS003-SS-120515 | 12-10068-UW85C | C10-C12 Aliphatics | 6/8/2012 | 21000 | Yes | N | U | | | 21000 | 21000 | ug/kg |
| MS003-SS-120515 | 12-10068-UW85C | C12-C16 Aliphatics | 6/8/2012 | 21000 | Yes | N | U | | | 21000 | 21000 | ug/kg |
| MS003-SS-120515 | 12-10068-UW85C | C16-C21 Aliphatics | 6/8/2012 | 38000 | Yes | Y | | | | 21000 | 21000 | ug/kg |
| MS003-SS-120515 | 12-10068-UW85C | C21-C34 Aliphatics | 6/8/2012 | 160000 | Yes | Y | | | | 21000 | 21000 | ug/kg |

SDG: UW85

| Analytical Method | WAEPH | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab Sample ID | Chemical Name | Anal Date | Result | Mod Res Report | Detect | Lab Qual | Val Qual | Reason | RL | MDL | Units |
| MS003-SS-120515 | 12-10068-UW85C | C21-C34 Aromatics | 6/8/2012 | 53000 | Yes | Y | | | | 21000 | 21000 | ug/kg |
| MS003-SS-120515 | 12-10068-UW85C | C8-C10 Aromatics | 6/8/2012 | 21000 | Yes | N | U | | | 21000 | 21000 | ug/kg |
| MS003-SS-120515 | 12-10068-UW85C | C10-C12 Aromatics | 6/8/2012 | 21000 | Yes | N | U | | | 21000 | 21000 | ug/kg |
| MS003-SS-120515 | 12-10068-UW85C | C12-C16 Aromatics | 6/8/2012 | 21000 | Yes | N | U | | | 21000 | 21000 | ug/kg |
| MS003-SS-120515 | 12-10068-UW85C | C16-C21 Aromatics | 6/8/2012 | 21000 | Yes | N | U | | | 21000 | 21000 | ug/kg |
| MS006-SS-120515 | 12-10069-UW85D | C21-C34 Aliphatics | 6/8/2012 | 120000 | Yes | Y | | | | 21000 | 21000 | ug/kg |
| MS006-SS-120515 | 12-10069-UW85D | C10-C12 Aliphatics | 6/8/2012 | 21000 | Yes | N | U | | | 21000 | 21000 | ug/kg |
| MS006-SS-120515 | 12-10069-UW85D | C8-C10 Aliphatics | 6/8/2012 | 21000 | Yes | Y | | | | 21000 | 21000 | ug/kg |
| MS006-SS-120515 | 12-10069-UW85D | C12-C16 Aliphatics | 6/8/2012 | 21000 | Yes | N | U | | | 21000 | 21000 | ug/kg |
| MS006-SS-120515 | 12-10069-UW85D | C16-C21 Aliphatics | 6/8/2012 | 21000 | Yes | N | U | | | 21000 | 21000 | ug/kg |
| MS006-SS-120515 | 12-10069-UW85D | C10-C12 Aromatics | 6/8/2012 | 21000 | Yes | N | U | | | 21000 | 21000 | ug/kg |
| MS006-SS-120515 | 12-10069-UW85D | C16-C21 Aromatics | 6/8/2012 | 21000 | Yes | N | U | | | 21000 | 21000 | ug/kg |
| MS006-SS-120515 | 12-10069-UW85D | C8-C10 Aromatics | 6/8/2012 | 21000 | Yes | N | U | | | 21000 | 21000 | ug/kg |
| MS006-SS-120515 | 12-10069-UW85D | C21-C34 Aromatics | 6/8/2012 | 30000 | Yes | Y | | | | 21000 | 21000 | ug/kg |
| MS006-SS-120515 | 12-10069-UW85D | C12-C16 Aromatics | 6/8/2012 | 21000 | Yes | N | U | | | 21000 | 21000 | ug/kg |

# ATTACHMENT E-2
# CHEMISTRY LABORATORY REPORTS

Provided separately due to large file sizes.

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Project: 120909-01.01 Jeld Wen - Maulsby Marsh


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AV
Signature

May-25-2012
Date

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Client: Anchor QEA, LLC.

Project: 120909-01.01 Jeld Wen - Maulsby Marsh


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AV

Signature

May-25-2012

Date

**Analytical Resources, Incorporated**
Analytical Chemists and Consultants

May 16, 2012

David Gillingham
Anchor QEA
720 Olive Way, Suite 1900
Seattle, WA 98101

**RE: Client Project: Jeld Wen Maulsby Marsh, 120909-01.01**
**ARI Job Nos.: UU52 & UU62**

Dear David:

Please find enclosed the Chain of Custody (COC) records, sample receipt documentation, and the final data package for samples from the project referenced above.

Sample receipt and details of these analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile: UU52_UU62

Enclosures



4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Documentation

ARI Job ID: UU52, UU62

## Chain of Custody Record & Laboratory Analysis Request

| | | | |
|---|---|---|---|
| ARI Assigned Number: | Turn-around Requested: Std | Page: 1 of 3 | |
| ARI Client Company: Anchor QEA | Phone: 206 287 9130 | Date: 5/16/12 | Ice Present? Yes |
| Client Contact: Nathan Soccorsy / David Gillingham | | No. of Coolers: | Cooler Temps: |
| Client Project Name: Jeld wen Maulsby Marsh | | | |
| Client Project #: 120909-01.01 | Samplers: DG | | |


**Analytical Resources, Incorporated**
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)


| Sample ID | Date | Time | Matrix | No. Containers | Analysis Requested: PCB / Pest | metals | SVOC | TPH | EPH Archive | Grainsize | TS / TOC Ammonia | Sulfides | Notes/Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS001-SS-120515 | 5/15/12 | 1339 | Sed | 8 | X | X | X | X | X | X | X | X | |
| MS002-SS-120515 | | 1317 | | 8 | X | X | X | X | X | X | X | X | |
| MS003-SS-120515 | | 1234 | | 8 | X | X | X | X | X | X | X | X | |
| MS004-SS-120515 | | 1153 | | 8 | X | X | X | X | X | X | X | X | |
| MS005-SS-120515 | | 855 | | | X | X | X | X | X | X | X | X | |
| MS006-SS-120515 | | 916 | | | X | X | X | X | X | X | X | X | |
| MS007-SS-120515 | | 945 | | | X | X | X | X | X | X | X | X | |
| MS008-SS-120515 | | 940 | | | X | X | X | X | X | X | X | X | |
| MS009-SS-120515 | | 1010 | | | X | X | X | X | X | X | X | X | |
| MS010-SS-120515 | | 1030 | ↓ | ↓ | | | | | X | X | X | X | Hold Select Analysis |

| Comments/Special Instructions | Relinquished by: (Signature) | Received by: (Signature) | Relinquished by: (Signature) | Received by: (Signature) |
|---|---|---|---|---|
| EPH - extract only & hold. | Printed Name: Cindy Fields | Printed Name: Chris Atwell | Printed Name: | Printed Name: |
| | Company: Anchor QEA | Company: ARI | Company: | Company: |
| | Date & Time: 5/16/2012 10:05am | Date & Time: 5/16/12 10:05 | Date & Time: | Date & Time: |


***Limits of Liability:*** *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

**Sample Retention Policy:** All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Cooler Receipt Form

ARI Client: Anchor QEA

Project Name: JW - maul sby Marsh

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: UU52

Tracking No: _____ NA

**Preliminary Examination Phase:**

| | | |
|---|---|---|
| Were intact, properly signed and dated custody seals attached to the outside of to cooler? | YES | NO |
| Were custody papers included with the cooler? | YES | NO |
| Were custody papers properly filled out (ink, signed, etc.) | YES | NO |

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry): 0.5 0.5 0.5 0.3 4.4 3.0 0.4

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 90877952

Cooler Accepted by: CA Date: 5/16/12 Time: 10:05

***Complete custody forms and attach all shipping documents***

## Log-In Phase:

| | | | |
|---|---|---|---|
| Was a temperature blank included in the cooler? | | YES | NO |
| What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____ | | | |
| Was sufficient ice used (if appropriate)? | NA | YES | NO |
| Were all bottles sealed in individual plastic bags? | | YES | NO |
| Did all bottles arrive in good condition (unbroken)? | | YES | NO |
| Were all bottle labels complete and legible? | | YES | NO |
| Did the number of containers listed on COC match with the number of containers received? | | YES | NO |
| Did all bottle labels and tags agree with custody papers? | | YES | NO |
| Were all bottles used correct for the requested analyses? | | YES | NO |
| Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)... | NA | YES | NO |
| Were all VOC vials free of air bubbles? | NA | YES | NO |
| Was sufficient amount of sample sent in each bottle? | | YES | NO |
| Date VOC Trip Blank was made at ARI... | NA | | _____ |

Was Sample Split by ARI : NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: TS Date: 5-16-12 Time: 1313

*** Notify Project Manager of discrepancies or concerns ***

| Sample ID on Bottle | Sample ID on COC | Sample ID on Bottle | Sample ID on COC |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

***Additional Notes, Discrepancies, & Resolutions:***

MS101-55 Added to ~~COC~~ JOB per client request.

By: TS Date: 5-16-12 Its a dupe taken from MS001-55

| Small Air Bubbles ~2mm | Peabubbles 2-4 mm | LARGE Air Bubbles > 4 mm |
|---|---|---|
|  |  |  |

| |
|---|
| Small → "sm" |
| Peabubbles → "pb" |
| Large → "lg" |
| Headspace → "hs" |

## Chain of Custody Record & Laboratory Analysis Request

| | | | |
|---|---|---|---|
| ARI Assigned Number: 4462 | Turn-around Requested: | Page: 2 of 3 | |
| ARI Client Company: Anchor QEA | Phone: 206 287 9130 | Date: 5/16/12 | Ice Present? Y |
| Client Contact: Soccorsy / Gillingham | | No. of Coolers: 7 | Cooler Temps: 0.3 - 4.4 |
| Client Project Name: Seld Wen - Maulsby Marsh | | | |
| Client Project #: 120909-01.01 | Samplers: DB | | |


**Analytical Resources, Incorporated**
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)


| Sample ID | Date | Time | Matrix | No. Containers | Analysis Requested: Archive | EPH Archive | Grain Size | TS/TOC - Ammonia | Total Sulfides | | | | Notes/Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS110-SS-120515 | 5/15/12 | 1035 | Sed | 8 | X | X | X | X | X | | | | |
| MS011-SS-120515 | | 1115 | | | X | X | X | X | X | | | | |
| MS012-SS-120515 | | 1159 | | | X | X | X | X | X | | | | |
| MS013-SS-120515 | | 1222 | | | X | X | X | X | X | | | | |
| MS014-SS-120515 | | 1326 | | | X | X | X | X | X | | | | |
| MS015-SS-120515 | | 1251 | | | X | X | X | X | X | | | | |
| MS016-SS-120515 | | 1211 | | | X | X | X | X | X | | | | |
| MS017-SS-120515 | | 1125 | | | X | X | X | X | X | | | | |
| MS018-SS-120515 | | 1100 | ↓ | ↓ | X | X | X | X | X | | | | |
| | | | | | | | | | | | | | |

| Comments/Special Instructions | Relinquished by: (Signature) | Received by: (Signature) | Relinquished by: (Signature) | Received by: (Signature) |
|---|---|---|---|---|
| | Cindy Fields | | | |
| | Printed Name: Cindy Fields | Printed Name: Chris Atwell | Printed Name: | Printed Name: |
| | Company: Anchor QEA | Company: ARI | Company: | Company: |
| | Date & Time: 5-16-2012 10:05 | Date & Time: 5/16/12 10:05 | Date & Time: | Date & Time: |

***Limits of Liability:*** *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

**Sample Retention Policy:** All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.


Lab Use Only

# Chain of Custody Record & Laboratory Analysis Request

| | | | |
|---|---|---|---|
| ARI Assigned Number: UU62 | Turn-around Requested: Std | Page: 3 of 3 | |
| ARI Client Company: Anchor QEA | Phone: 206-287-9130 | Date: 5/16/12 | Ice Present? Yes |
| Client Contact: Soccorsy / Gillingham | | No. of Coolers: 7 | Cooler Temps: 0.3, 4.4 |
| Client Project Name: JW - Maulsby Marsh | | | |
| Client Project #: 120909-01.01 | Samplers: DG | | |


**Analytical Resources, Incorporated**
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)


| Sample ID | Date | Time | Matrix | No. Containers | PCB/Pest | Metals | SVOC | TPH | | | | | Notes/Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS-SSRB-120515 | 5/15/12 | 1450 | water | 7 | X | X | X | X | | | | | |
| MS-SS FB-120515 | 5/15/12 | 1500 | water | 7 | X | X | X | X | | | | | |
| | | | | | | | | | | | | | |
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| Comments/Special Instructions | Relinquished by: | Received by: | Relinquished by: | Received by: |
|---|---|---|---|---|
| | (Signature) Cindy Fields | (Signature) | (Signature) | (Signature) |
| | Printed Name: Cindy Fields | Printed Name: Chris Atwell | Printed Name: | Printed Name: |
| | Company: Anchor QEA | Company: ARI | Company: | Company: |
| | Date & Time: 5/16/2012 10:05am | Date & Time: 5/16/12 10:05 | Date & Time: | Date & Time: |

***Limits of Liability:*** *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

**Sample Retention Policy:** All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

UU52:00005

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Cooler Receipt Form

ARI Client: Anchor QEA

Project Name: JW - Maulsby Marsh

COC No(s): _____ (NA)

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: iiu62

Tracking No: _____ (NA)

**Preliminary Examination Phase:**

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES (NO)

Were custody papers included with the cooler? (YES) NO

Were custody papers properly filled out (ink, signed, etc.) (YES) NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 0.5 0.5 0.5 0.3 4.4 3.0 0.4

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 90877952

Cooler Accepted by: CA Date: 5/16/12 Time: 10:05

***Complete custody forms and attach all shipping documents***

## Log-In Phase:

Was a temperature blank included in the cooler? YES (NO)

What kind of packing material was used? ... (Bubble Wrap) (Wet Ice) Gel Packs (Baggies) Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA (YES) NO

Were all bottles sealed in individual plastic bags? YES (NO)

Did all bottles arrive in good condition (unbroken)? (YES) NO

Were all bottle labels complete and legible? (YES) NO

Did the number of containers listed on COC match with the number of containers received? (YES) NO

Did all bottle labels and tags agree with custody papers? (YES) NO

Were all bottles used correct for the requested analyses? (YES) NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)... NA (YES) NO

Were all VOC vials free of air bubbles? (NA) YES NO

Was sufficient amount of sample sent in each bottle? (YES) NO

Date VOC Trip Blank was made at ARI... (NA) _____

Was Sample Split by ARI : (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: JM Date: 5/17/12 Time: 752

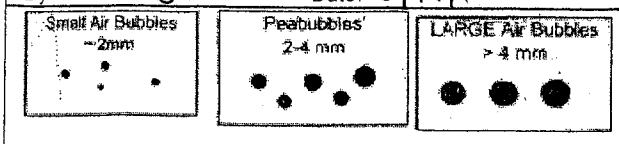
***** Notify Project Manager of discrepancies or concerns *****

| Sample ID on Bottle | Sample ID on COC | Sample ID on Bottle | Sample ID on COC |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

***Additional Notes, Discrepancies, & Resolutions:***

One 4oz jar labeled for Hg analysis for sample MS013-SS-120515 arrived empty.

By: JM Date: 5/17/12




| | |
|---|---|
| Small → "sm" | |
| Peabubbles → "pb" | |
| Large → "lg" | |
| Headspace → "hs" | |

**PRESERVATION VERIFICATION 05/17/12**
Page 1 of 1

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **UU62**

PC: Cheronne
VTSR: 05/16/12

Inquiry Number: NONE
Analysis Requested: 05/16/12
Contact: Gillingham, David
Client: Anchor QEA, LLC.
Logged by: JM
Sample Set Used: Yes-491
Validatable Package: Lv4
Deliverables:

Project #: 120909-01.01
Project: Jeld Wen - Maulsby Marsh
Sample Site:
SDG No:
Analytical Protocol: PSDDA

| LOGNUM ARI ID | CLIENT ID | CN >12 | WAD >12 | NH3 <2 | COD <2 | FOG <2 | MET <2 | PHEN <2 | PHOS <2 | TKN <2 | NO23 <2 | TOC <2 | S2 >9 | AK102 <2 | Fe2+ <2 | DMET FLT | DOC FLT | PARAMETER | ADJUSTED TO | LOT NUMBER | AMOUNT ADDED | DATE/BY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12-8937 **UU62J** | MS-SSRB-120515 | | | | | | TOT pass | | | | | | | | | | | | | | | |
| 12-8938 **UU62K** | MS-SSFB-120515 | | | | | | TOT pass | | | | | | | | | | | | | | | |

Checked By JM Date 5/17/12

**Subject:** RE: UU52 Maulsby Marsh
**From:** Delaney Peterson <dpeterson@anchorqea.com>
**Date:** 3:10 PM
**To:** Cheronne Oreiro <cheronneo@arilabs.com>
**CC:** Cindy Fields <cfields@anchorqea.com>

Hi Delaney - To keep it simple, we'll create the duplicate from the first sample.
Thanks,
-Cheronne

On 5/16/2012 12:23 PM, Delaney Peterson wrote:

Hi Cheronne,
We need to create a field duplicate from one of the samples that is being analyzed for everything. The duplicate was accidentally taken on an archive sample. It doesn't matter which one so we can base it on volume. Will you check to see which sample would be the best one to split and create a field duplicate? Or just create one from the first sample and log it in for the same analyses of the parent sample? The id would be MS101-SS-120515.
Let me know if you have questions.
Thanks,
Delaney

**Delaney Peterson**

**ANCHOR QEA, LLC**
dpeterson@anchorqea.com
720 Olive Way, Suite 1900
Seattle, Washington 98101
T 206.287.9130
D 206.903.3396
F 206.287.9131

**ANCHOR QEA, LLC**
**www.anchorqea.com**
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Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: UU52, UU62

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# *Case Narrative*

**Client: Anchor QEA**
**Project: Jeld Wen Maulsby Marsh, 120909-01.01**
**ARI Job Nos.: UU52 & UU62**

## Sample receipt

Twenty sediment samples and two water samples were received on May 16, 2012 under ARI jobs UU52 and UU62. Select sample containers archived upon receipt. The cooler temperatures measured by IR thermometer following ARI SOP were between 0.3 and 4.4°C. For further details regarding sample receipt, please refer to the Cooler Receipt Form.

## Semivolatiles by SW8270

The samples and associated laboratory QC were extracted and analyzed within the method recommended holding times.

Initial calibrations were within method requirements.

The continuing calibration (CCAL) on 5/30/12 fell outside the 20% control limit low for Benzoic Acid. All detected sample results associated with this CCAL have been flagged with a "Q" qualifier. No further corrective action was taken.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blanks were clean at the reporting limits The LCS and LCSD percent recoveries were within control limits.

Several matrix spike and matrix spike duplicate percent recoveries were outside advisory control limits for sample **MS007-SS-120512**. No corrective action is required for matrix QC.

## Pesticides by SW8081

The samples and associated laboratory were extracted and analyzed within the method recommended holding times.

The sediment samples were initially diluted at the instrument due to extract color and low total solids results. The samples were re-analyzed on 5/26/12 at lesser dilutions to obtain lower reporting limits. Both sets of data have been reported for review. No further corrective action was taken.



UU52 : 00011

Initial calibrations were within method requirements

Several compounds were outside the 20% control limit on both columns for the continuing calibrations (CCALs) on 5/26/12 at 10:43 and 13:33. DDT breakdowns associated with these CCALs were outside the 15% control limit. All data have been reported as is. No corrective action was taken.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blanks were clean at the reporting limits. The LCS and LCSD percent recoveries were within control limits.

Both matrix spike and matrix spike duplicates could not be recovered for sample **MS002-SS-120515**. No corrective action is required for matrix QC.

## Aroclor PCBs by SW8082

The samples and associated laboratory QC were extracted and analyzed within the method recommended holding times.

Initial and continuing calibrations were within method requirements. Internal standard areas were within limits.

The surrogate percent recovery of Decachlorobiphenyl fell outside the control limits low for sample **MS-SSRB-120515**. All other percent recoveries were within control limits. No corrective action was taken.

The method blanks were clean at the reporting limits. The LCS and LCSD percent recoveries were within control limits.

The matrix spike and matrix spike duplicate percent recoveries were within advisory control limits.

## NWTPH-Dx

The samples and associated laboratory QC were extracted and analyzed within the method recommended holding times.

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.

The method blanks were clean at the reporting limits. The LCS and LCSD percent recoveries were within control limits.

The matrix spike and matrix spike duplicate percent recoveries were within advisory control limits.

## Metals and Mercury by SW6010C/200.8/7471A/7470

The samples and associated laboratory QC for ARI jobs were digested and analyzed within recommended holding times.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recovery of antimony fell outside the control limits low for sample **MS002-SS-120515**. A post digestion spike was performed and the recovery was within control limits. All relevant data have been flagged with an "N" qualifier on the appropriate Form V. No further corrective action was taken.

The duplicate RPDs were within control limits.

## General Chemistry Parameters

The samples and associated laboratory QC were prepared and analyzed within the method recommended holding times.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The SRM percent recoveries were within limits.

The matrix spike percent recoveries and replicate RPD/RSDs were within control limits.

## Geotechnical Parameters

A laboratory-specific case narrative follows this page.

**Analytical Resources, Incorporated**
Analytical Chemists and Consultants

| | |
|---|---|
| **Client:** Anchor QEA, LLC | **ARI Job No.:** UU52 |
| **Client Project:** Jeld Wen Maulsby Marsh | **Client Project No.:** 120909-01.01 |

Case Narrative

1. Eleven samples were submitted for grain size analysis according to Puget Sound Estuary Protocol (PSEP) methodology on May 16, 2012.
2. The samples appeared to be composed almost entirely of organic debris and/or organic fine material. The total solids percentages for these samples were extremely low.
3. The samples were run in a single batch and one sample from this job was chosen for triplicate analysis. The triplicate data is reported on the QA summary.
4. Three samples did not contain the required 5 grams of fines for the pipette portion of the analysis. The analytical balance has a capacity of about 200 grams (by 0.0001 grams) and a sample that would yield 5 grams of fines could not be split and stay within the capacity of the balance. A full pipette was performed on the samples, because the percentage of fines was greater than 19%, but due to the low total solids percentages, these samples have been qualified on the QA summary.
5. One sample, MS008-SS-120515, had a QA percentage outside of the allowed range. A sample could not be resplit to come within the allowed QA range. The data has been qualified on the QA summary.
6. The samples contained woody or other organic matter which dried into a hard disk after the oven drying portion of the testing procedure. This material was extremely hard to break down and sieve. Individual organic particles may have broken down during the sieving process, also affecting grain size analysis.
7. The data is provided in summary tables and plots.
8. There were no other noted anomalies in this project.

Released by: Lucinda Curtis Date: 5/29/12
Title: *Geotechnical Laboratory Manager*

Reviewed by: [signature] Date: May 29, 2012
Title: *Lead Technician*

**Analytical Resources, Incorporated**
Analytical Chemists and Consultants

| | |
|---|---|
| **Client:** Anchor QEA, LLC | **ARI Job No.:** UU62 |
| **Client Project:** Jeld Wen Maulsby Marsh | **Client Project No.:** 120909-01.01 |

Case Narrative

1. Nine samples were submitted for grain size analysis according to Puget Sound Estuary Protocol (PSEP) methodology on May 16, 2012.
2. The samples appeared to be composed almost entirely of organic debris and/or organic fine material. The total solids percentages for these samples were extremely low.
3. The samples were run in a single batch and one sample from another job was chosen for triplicate analysis. The triplicate data is reported on the QA summary.
4. Two samples did not contain the required 5 grams of fines for the pipette portion of the analysis. The analytical balance has a capacity of about 200 grams (by 0.0001 grams) and a sample that would yield 5 grams of fines could not be split and stay within the capacity of the balance. A full pipette was performed on the samples, because the percentage of fines was greater than 15%, but due to the low total solids percentages, these samples have been qualified on the QA summary.
5. The samples contained woody or other organic matter which dried into a hard disk after the oven drying portion of the testing procedure. This material was extremely hard to break down and sieve. Individual organic particles may have broken down during the sieving process, also affecting grain size analysis.
6. The data is provided in summary tables and plots.
7. There were no other noted anomalies in this project.

Released by: Qiuana Curtis Date: 5/29/12
Title: *Geotechnical Laboratory Manager*

Reviewed by: Garrett Noble Date: May 29, 2012
Title: *Lead Technician*

# Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: UU52
Client: Anchor QEA, LLC.
Project Event: 120909-01.01
Project Name: Jeld Wen Maulsby Marsh

| | Sample ID | ARI Lab ID | ARI LIMS ID | Matrix | Sample Date/Time | VTSR |
|---|---|---|---|---|---|---|
| 1. | MS001-SS-120515 | UU52A | 12-8893 | Sediment | 05/15/12 13:39 | 05/16/12 10:05 |
| 2. | MS101-SS-120515 | UU52B | 12-8894 | Sediment | 05/15/12 13:39 | 05/16/12 10:05 |
| 3. | MS002-SS-120515 | UU52C | 12-8895 | Sediment | 05/15/12 13:17 | 05/16/12 10:05 |
| 4. | MS003-SS-120515 | UU52D | 12-8896 | Sediment | 05/15/12 12:34 | 05/16/12 10:05 |
| 5. | MS004-SS-120515 | UU52E | 12-8897 | Sediment | 05/15/12 11:53 | 05/16/12 10:05 |
| 6. | MS005-SS-120515 | UU52F | 12-8898 | Sediment | 05/15/12 08:55 | 05/16/12 10:05 |
| 7. | MS006-SS-120515 | UU52G | 12-8899 | Sediment | 05/15/12 09:16 | 05/16/12 10:05 |
| 8. | MS007-SS-120515 | UU52H | 12-8900 | Sediment | 05/15/12 09:45 | 05/16/12 10:05 |
| 9. | MS008-SS-120515 | UU52I | 12-8901 | Sediment | 05/15/12 09:40 | 05/16/12 10:05 |
| 10. | MS009-SS-120515 | UU52J | 12-8902 | Sediment | 05/15/12 10:10 | 05/16/12 10:05 |
| 11. | MS010-SS-120515 | UU52K | 12-8903 | Sediment | 05/15/12 10:30 | 05/16/12 10:05 |



UU52:00016

# Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: UU62
Client: Anchor QEA, LLC.
Project Event: 120909-01.01
Project Name: Jeld Wen - Maulsby Marsh

| | Sample ID | ARI Lab ID | ARI LIMS ID | Matrix | Sample Date/Time | VTSR |
|---|---|---|---|---|---|---|
| 1. | MS110-SS-120515 | UU62A | 12-8928 | Sediment | 05/15/12 10:35 | 05/16/12 10:05 |
| 2. | MS011-SS-120515 | UU62B | 12-8929 | Sediment | 05/15/12 11:15 | 05/16/12 10:05 |
| 3. | MS012-SS-120515 | UU62C | 12-8930 | Sediment | 05/15/12 11:59 | 05/16/12 10:05 |
| 4. | MS013-SS-120515 | UU62D | 12-8931 | Sediment | 05/15/12 12:22 | 05/16/12 10:05 |
| 5. | MS014-SS-120515 | UU62E | 12-8932 | Sediment | 05/15/12 13:26 | 05/16/12 10:05 |
| 6. | MS015-SS-120515 | UU62F | 12-8933 | Sediment | 05/15/12 12:51 | 05/16/12 10:05 |
| 7. | MS016-SS-120515 | UU62G | 12-8934 | Sediment | 05/15/12 12:11 | 05/16/12 10:05 |
| 8. | MS017-SS-120515 | UU62H | 12-8935 | Sediment | 05/15/12 11:25 | 05/16/12 10:05 |
| 9. | MS018-SS-120515 | UU62I | 12-8936 | Sediment | 05/15/12 11:00 | 05/16/12 10:05 |
| 10. | MS-SSRB-120515 | UU62J | 12-8937 | Water | 05/15/12 14:50 | 05/16/12 10:05 |
| 11. | MS-SSFB-120515 | UU62K | 12-8938 | Water | 05/15/12 15:00 | 05/16/12 10:05 |



UU52:00017

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Data Reporting Qualifiers

**Effective 2/14/2011**

## Inorganic Data

| | |
|---|---|
| U | Indicates that the target analyte was not detected at the reported concentration |
| * | Duplicate RPD is not within established control limits |
| B | Reported value is less than the CRDL but ≥ the Reporting Limit |
| N | Matrix Spike recovery not within established control limits |
| NA | Not Applicable, analyte not spiked |
| H | The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible |
| L | Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD |

## Organic Data

| | |
|---|---|
| U | Indicates that the target analyte was not detected at the reported concentration |
| * | Flagged value is not within established control limits |
| B | Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample. |
| J | Estimated concentration when the value is less than ARI's established reporting limits |
| D | The spiked compound was not detected due to sample extract dilution |
| E | Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte. |
| Q | Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF). |



UU52:00018

S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**



UU52 : 00019

## Geotechnical Data

A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.

F Samples were frozen prior to particle size determination

SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations

SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis

W Weight of sample in some pipette aliquots was below the level required for accurate weighting



UU52 : 00020

3/14/12

# SURR SOLUTIONS

| LABEL | SOLN ID | TEST | CONC. UG/ML | SOLVENT | EXP. |
|---|---|---|---|---|---|
| A | 1953-4 | ABN | 100/150 | MEOH | 07/05/12 |
| B | 1917-2 | SIM PNA | 15/75 | ACETONE | 05/30/12 |
| C | NA | SIM ABN | 25/37.5 | MEOH | NA |
| D | 1925-5 | LOW PCB | 0.2 | ACETONE | 05/28/12 |
| E | 1900-2 | HERB | 62.5 | MEOH | 10/06/12 |
| F | 1919-5 | PCP | 12.5 | ACETONE | 12/09/12 |
| G | 1906-3 | d8-DIOXANE | 100 | MEOH | 04/30/12 |
| H | 1847-2 | OP-PEST | 25 | ACETONE | 03/23/12 |
| I | 1896-3 | LOW S. PNA | 1.5 | ACETONE | 09/22/12 |
| J | 1915-4 | TBT-PORE | 0.125 | MECL2 | 11/23/12 |
| K | 1925-4 | MED PCB | 20 | ACETONE | 05/28/12 |
| L | 1915-3 | TBT | 2.5 | MECL2 | 11/23/12 |
| M | 1888-4 | EPH | 1500 | MECL2 | 04/04/12 |
| N | 1914-2 | PCB | 2 | ACETONE | 05/28/12 |
| O | 1947-2 | TPH | 450 | MECL2 | 09/28/12 |
| P | 1948-3 | HCID | 2250 | MECL2 | 09/28/12 |
| Q | NA | EDB | 1 | MEOH | NA |
| R | NA | RESIN ACID | 250 | ACETONE | NA |
| S | 1864-1 | PBDE | .5 | MEOH | 05/21/12 |
| T | 1884-2 | ALKYL PNA | 10 | MEOH | 07/15/12 |
| U | NA | CONGENER | 2.5 | ACETONE | NA |
| V | 1925-2 | LOW PCP | 1.25 | ACETONE | 12/09/12 |
| | | | | | |
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UU52:00021

3/14/12

# LCS SOLUTIONS

| LABL | SOLN ID | TEST | CONC. UG/ML | SOLVENT | EXP. |
|---|---|---|---|---|---|
| 1 | 1907-1 | PCB 1660 | 20 | ACETONE | 11/01/12 |
| 2# | | BCOC PEST | 10 | ACETONE | NA |
| 3 | 1922-2 | PEST | 01/02/10 | ACETONE | 12/13/12 |
| 4 | 1922-3 | LOW PEST | .1/.2/1 | ACETONE | 12/13/12 |
| 5 | 1902-4 | EPH | 1500 | MECL2 | 10/04/12 |
| 6 | 1919-2 | PCP | 12.5/125 | ACETONE | 10/15/12 |
| 7 | 1926-2 | ABN | 100 | MEOH | 05/31/12 |
| 8 | 1916-2 | TBT | 2.5 | MECL2 | 11/23/12 |
| 9 | 1918-2 | PORE TBT | .125/.25 | MECL2 | 11/23/12 |
| 10 | | | | | |
| 11 | 1860-4 | TPHD | 15000 | ACETONE | 05/12/12 |
| 12 | | | | | |
| 13 | 1948-1 | LOW PCB | 2 | ACETONE | 11/01/12 |
| 14 | | | | | |
| 15 | 1929-1 | SIM PNA | 15/75 | MEOH | 06/21/12 |
| 16 | 1906-4 | 1,4-DIOXANE | 100 | MEOH | 04/30/12 |
| 17 | 1869-4 | 1248 PCB | 10 | ACETONE | 06/14/12 |
| 18 | 1927-2 | LOW SIM PNA | 1.5 | ACETONE | 06/20/12 |
| 19 | 1931-1 | AK103 | 7500 | ACETONE | 05/17/12 |
| 20 | 1930-1 | PNA | 100 | ACETONE | 06/23/12 |
| 21 | 1943-2 | SKY/BHT | 100 | MEOH | 07/27/12 |
| 22 | 1957-1 | HERB | 04 to 5000 | MEOH | 04/22/12 |
| 23 | 1887-2 | EXTRA PNA | 15 | ACETONE | 08/25/12 |
| 24 | | | | | |
| 25# | | DIPHENYL | 100 | MEOH | NA |
| 26 | 1951-2 | OP-PEST | 25 | MEOH | 03/31/12 |
| 27 | | STEROLS | 200 | MEOH | NA |
| 28# | | ADD. PEST | 2 | ACETONE | NA |
| 29# | | DECANES | 100 | MEOH | NA |



UU52:00022

# LCS SOLUTIONS

3/14/12

| | | | | | |
|---|---|---|---|---|---|
| 30 | | EDB/DBCP | 0.2 | MEOH | NA |
| 31 | 1944-1 | TERPINEOL | 100 | MEOH | 07/27/12 |
| 32 | NA | GUAIACOL | 50-200 | ACETONE | NA |
| 33 | | RETENE | 100 | MEOH | NA |
| 34 | NA | CONGENERS | 0.5 | ACETONE | NA |
| 35 | 1875-3 | ALKYL PNA A | 10 | MEOH | 07/18/12 |
| 36 | | ALKYL PNA B | 10 | MEOH | NA |
| 37 | | CAR/PERY | 100 | ACETONE | NA |
| 38 | 1926-3 | ABN ACID | 200-450 | MEOH | 06/19/12 |
| 39 | 1853-4 | BENZIDINE | 500 | MEOH | 04/30/12 |
| 40 | 1851-3 | PBDE | 0.5 | MEOH | 04/22/12 |
| 50 | 1900-1 | FULL RESIN | 250 | ACETONE | 08/12/12 |
| 51 | | DDTS | 0.01 | ACETONE | NA |
| 52 | | 1232 PCB | 20 | ACETONE | NA |
| 53 | 1919-1 | DALAPON | 50 | MEOH | 08/22/12 |
| 54 | | T-CHLORDANE | 10 | ACETONE | NA |
| 55 | | TOXAPHENE | 50 | ACETONE | NA |
| 56 | 1952-3 | ABN BASE | 50-200 | MEOH | 08/14/12 |
| #=PROJECT SPECIFIC SOLUTION | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |



UU52:00023

# LOD, LOQ and Control Limits Summary
# GC - MS – SVOA Analysis of Aqueous Samples
# EPA Method 8270D
# ARI Analysis: BANWLI & BANWSI

**Continuous Liquid-Liquid (EPA Method 3520C, Bench Sheet 3006F) or Separatory Funnel (EPA method 3510C, Bench Sheet 3010F) extraction using 500mL sample concentrated to 0.5 mL final extract volume**

**LOD Spike level = LOQ (unless otherwise noted)**

| Analyte | DL[1] µg/L | LOD[1] µg/L | LOQ[1] µg/L | LCS, MS Recovery[2,3] | Replicate RPD[4] |
|---|---|---|---|---|---|
| Phenol | **0.445** | **0.5** | **1** | 26 – 112 | ≤ 40 |
| Bis(2-Chloroethyl)ether | **0.257** | **0.5** | **1** | 51 – **100** | ≤ 40 |
| 2-Chlorophenol | **0.246** | **0.5** | **1** | 50 – **100** | ≤ 40 |
| 1,3-Dichlorobenzene | **0.499** | **0.5** | **1** | 27 – **100** | ≤ 40 |
| 1,4-Dichlorobenzene | **0.470** | **0.5** | **1** | 29 – **100** | ≤ 40 |
| 1,2-Dichlorobenzene | **0.436** | **0.5** | **1** | 32 – **100** | ≤ 40 |
| Benzyl alcohol | **0.409** | **1.0** | **2** | **10** - 128 | ≤ 40 |
| 2,2'-oxybis(1-Chloropropane) | **0.221** | **0.5** | **1** | 39 - 101 | ≤ 40 |
| 2-Methylphenol | **0.329** | **0.5** | **1** | 47 – **100** | ≤ 40 |
| Hexachloroethane | **0.610** | **1.0** | **2** | 19 – **100** | ≤ 40 |
| N-Nitroso-di-n-propylamine | **0.365** | **0.5** | **1** | 46 – **100** | ≤ 40 |
| 4-Methylphenol | **0.536** | **1.0** | **2** | 46 – **100** | ≤ 40 |
| Nitrobenzene | **0.490** | **0.5** | **1** | 46 – 103 | ≤ 40 |
| Isophorone | **0.258** | **0.5** | **1** | 62 – 105 | ≤ 40 |
| 2-Nitrophenol | **0.979** | **1.5** | **3** | 32 – 116 | ≤ 40 |
| 2,4-Dimethylphenol | **0.627** | **1.5** | **3** | 15 – **100** | ≤ 40 |
| Bis(2-Chloroethoxy)methane | **0.252** | **0.5** | **1** | 44 – **100** | ≤ 40 |
| 2,4-Dichlorophenol | **1.109** | **1.5** | **3** | 35 – 114 | ≤ 40 |
| 1,2,4-Trichlorobenzene | **0.495** | **0.5** | **1** | 34 – **100** | ≤ 40 |
| Naphthalene | **0.326** | **0.5** | **1** | 48 – **100** | ≤ 40 |
| Benzoic acid | **8.647** | **10** | **20** | **10** - 172 | ≤ 40 |
| 4-Chloroaniline | **1.733** | **2.5** | **5** | **10** - 153 | ≤ 40 |
| 2,6-Dinitrotoluene | **1.300** | **1.5** | **3** | 32 – 129 | ≤ 40 |
| Hexachlorobutadiene | **0.604** | **1.5** | **3** | 22 – **100** | ≤ 40 |
| 4-Chloro-3-methylphenol | **0.919** | **1.5** | **3** | 33 – 123 | ≤ 40 |
| Hexachlorocyclopentadiene | **1.862** | **2.5** | **5** | **10** – **100** | ≤ 40 |
| 2,4,6-Trichlorophenol | **1.235** | **1.5** | **3** | 37 – 120 | ≤ 40 |
| 2,4,5-Trichlorophenol | **1.706** | **2.5** | **5** | 37 – 124 | ≤ 40 |
| 2-Chloronaphthalene | **0.340** | **0.5** | **1** | 49 – **100** | ≤ 40 |
| 2-Nitroaniline | **0.784** | **1.5** | **3** | 18 – 140 | ≤ 40 |
| Acenaphthylene | **0.274** | **0.5** | **1** | 47 – 110 | ≤ 40 |
| Dimethylphthalate | **0.264** | **0.5** | **1** | 60 – 106 | ≤ 40 |
| Acenaphthene | **0.347** | **0.5** | **1** | 55 – 101 | ≤ 40 |



UU52 : 00024

# LOD, LOQ and Control Limits Summary
# GC - MS – SVOA Analysis of Aqueous Samples
# EPA Method 8270D
# ARI Analysis: BANWLI & BANWSI

**Continuous Liquid-Liquid (EPA Method 3520C, Bench Sheet 3006F) or Separatory Funnel (EPA method 3510C, Bench Sheet 3010F) extraction using 500mL sample concentrated to 0.5 mL final extract volume**

**LOD Spike level = LOQ (unless otherwise noted)**

| Analyte | DL[1] µg/L | LOD[1] µg/L | LOQ[1] µg/L | LCS, MS Recovery[2,3] | Replicate RPD[4] |
|---|---|---|---|---|---|
| 3-Nitroaniline | **1.140** | **1.5** | **3** | **10** – 208 | ≤ 40 |
| 2-Methylnaphthalene | **0.241** | **0.5** | **1** | 38 – **100** | ≤ 40 |
| 2,4-Dinitrophenol | **5.474** | **10** | **20** | **10** – 224 | ≤ 40 |
| Dibenzofuran | **0.198** | **0.5** | **1** | 46 – 108 | ≤ 40 |
| 4-Nitrophenol | **2.895** | **5.0** | **10** | **10** – 103 | ≤ 40 |
| 2,4-Dinitrotoluene | **1.277** | **1.5** | **3** | 33 – 134 | ≤ 40 |
| Fluorene | **0.266** | **0.5** | **1** | 59 – 108 | ≤ 40 |
| 4-Chlorophenyl-phenylether | **0.342** | **0.5** | **1** | 54 – 104 | ≤ 40 |
| Diethylphthalate | **0.407** | **0.5** | **1** | 60 - 108 | ≤ 40 |
| 4-Nitroaniline | **1.366** | **1.5** | **3** | 13 – 144 | ≤ 40 |
| 4,6-Dinitro-2-methylphenol | **4.928** | **5.0** | **10** | **10** – 190 | ≤ 40 |
| N-Nitrosodiphenylamine | **0.392** | **0.5** | **1** | 39 – 100 | ≤ 40 |
| 4-Bromophenyl-phenylether | **0.262** | **0.5** | **1** | 56 – 105 | ≤ 40 |
| Hexachlorobenzene | **0.335** | **0.5** | **1** | 54 – 108 | ≤ 40 |
| Pentachlorophenol | **2.746** | **5.0** | **10** | 25 – 144 | ≤ 40 |
| Phenanthrene | **0.283** | **0.5** | **1** | 64 – 115 | ≤ 40 |
| Anthrcene | **0.303** | **0.5** | **1** | 59 – 107 | ≤ 40 |
| Carbazole | **0.251** | **0.5** | **1** | 36 – 123 | ≤ 40 |
| Di-n-butylphthalate | **0.304** | **0.5** | **1** | 62 – 110 | ≤ 40 |
| Fluoranthene | **0.290** | **0.5** | **1** | 63 – 119 | ≤ 40 |
| Pyrene | **0.379** | **0.5** | **1** | 57 – 117 | ≤ 40 |
| Butylbenzylphthalate | **0.402** | **0.5** | **1** | 49 – 118 | ≤ 40 |
| Benzo(a)anthracene | **0.373** | **0.5** | **1** | 61 – 113 | ≤ 40 |
| 3,3'-Dichlorobenzidine | **1.553** | **2.5** | **5** | **10** – 151 | ≤ 40 |
| Chrysene | **0.397** | **0.5** | **1** | 62 – 115 | ≤ 40 |
| bis(2-Ethylhexyl)phthalate | **1.050** | **1.5** | **3** | 47 – 127 | ≤ 40 |
| Di-n-octylphthalate | **0.331** | **0.5** | **1** | 60 – 106 | ≤ 40 |
| Benzo(b)fluoranthene | **0.298** | **0.5** | **1** | 61 – 120 | ≤ 40 |
| Benzo(k)fluoranthene | **0.487** | **0.5** | **1** | 59 – 120 | ≤ 40 |
| Benzo(a)pyrene | **0.425** | **0.5** | **1** | 46 – 105 | ≤ 40 |
| Indeno(1,2,3-cd)pyrene | **0.435** | **0.5** | **1** | 42 – 134 | ≤ 40 |
| Dibenzo(a,h)anthracene | **0.437** | **0.5** | **1** | 46 – 132 | ≤ 40 |
| Benzo(g,h,i)perylene | **0.464** | **0.5** | **1** | 33 – 135 | ≤ 40 |
| N-Nitrosodimethylamine | **1.209** | **1.5** | **3** | 17 - 106 | ≤ 40 |



UU52 : 00025

# LOD, LOQ and Control Limits Summary
# GC - MS – SVOA Analysis of Aqueous Samples
# EPA Method 8270D
# ARI Analysis: BANWLI & BANWSI

**Continuous Liquid-Liquid (EPA Method 3520C, Bench Sheet 3006F) or Separatory Funnel (EPA method 3510C, Bench Sheet 3010F) extraction using 500mL sample concentrated to 0.5 mL final extract volume**

**LOD Spike level = LOQ (unless otherwise noted)**

| Analyte | DL[1] µg/L | LOD[1] µg/L | LOQ[1] µg/L | LCS, MS Recovery[2,3] | Replicate RPD[4] |
|---|---|---|---|---|---|
| Aniline | **0.470** | **0.5** | **1** | **10** – 113 | ≤ 40 |
| 1-methylnaphthalene | **0.199** | **0.5** | **1** | 43 – **100** | ≤ 40 |
| Azobenzene (1,2-DP-Hydrazine) | **0.214** | **0.5** | **1** | 52 - 111 | ≤ 40 |
| Benzofluoranthenes, Total | **2.317** | **2.5** | **5** | | ≤ 40 |
| 1,4-Dioxane[5] | | | | 13 – 114 | ≤ 40 |
| **Surrogate Standard Recovery** | | | **MB / LCS** | **Samples** | **RPD** |
| 2-Fluorophenol | | | 33 – 100 | 23 – **100** | ≤ 40 |
| Phenol-$d_5$ | | | 15 - 121 | 16 – 106 | ≤ 40 |
| 2-Chlorophenol-$d_4$ | | | 46 – 102 | 33 – 100 | ≤ 40 |
| 1,2-Dichlorobenzene-$d_4$ | | | 40 – **100** | 27 – **100** | ≤ 40 |
| Nitrobenzene-$d_5$ | | | 50 – **100** | 34 – 101 | ≤ 40 |
| 2-Fluorobiphenyl | | | 51 – **100** | 38 – **100** | ≤ 40 |
| 2,4,6-Tribromophenol | | | 46 – 125 | 31 – 128 | ≤ 40 |
| *p*-Terphenyl-$d_{14}$ | | | 54 – 117 | 27 – 122 | ≤ 40 |

(1) Detection Limit (DL), Limit of Detection (LOD) and Limit of Quantitation (LOQ) are defined in ARI SOP 1018S
(2) Control limits calculated using all data from 8/1/10 through 7/31/11.
(3) Highlighted control limits (**bold font**) are adjusted from the calculated values to reflect that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(4) Relative Percent Difference between analytes in replicate analyzes. If $C_O$ and $C_D$ are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$

(5) Sample extracts for 1,4-Dioxane analysis are concentrated to 1 mL.



UU52 : 00025

# DL[1] LOD[1], LOQ[1] and Control Limits Summary
# GC - MS – SVOA Analysis of Sediment
# EPA Method 8270 Full Scan & SIM

**Microwave Extraction (EPA Method 3546, Bench Sheet 3093F) - 10 g sample with extract concentrated to 1 mL final volume**

**LOD Spike level = LOQ (unless otherwise noted)**

| Analyte | Full Scan Analysis | | | SIM Analysis | | | LCS,MS Control Limits | RPD[2] |
|---|---|---|---|---|---|---|---|---|
| | DL | LOD | LOQ | DL | LOD | LOQ | | |
| Phenol | 8.65 | 10 | **20** | 2.56 | 5 | **5** | 30 – 160 | ≤ 40 |
| *bis*-(2-Chloroethyl)ether | 3.35 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| 2-Chlorophenol | 2.39 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| 1,3-Dichlorobenzene | 2.63 | 10 | **20** | 1.31 | 2.5 | **5** | 30 – 160 | ≤ 40 |
| 1,4-Dichlorobenzene | 2.86 | 10 | **20** | 1.19 | 2.5 | **5** | 30 – 160 | ≤ 40 |
| 1,2-Dichlorobenzene | 2.50 | 10 | **20** | 1.10 | 2.5 | **5** | 30 – 160 | ≤ 40 |
| Benzyl alcohol | 6.09 | 10 | **20** | 7.04 | 10 | **20**[3] | 30 – 160 | ≤ 40 |
| 2,2'-oxy-*bis*-(1-Chloropropane) | 3.76 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| 2-Methylphenol | 5.25 | 10 | **20** | 1.81 | 2.5 | **5** | 30 – 160 | ≤ 40 |
| Hexachloroethane | 2.94 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| N-Nitroso-di-n-propylamine | 3.36 | 10 | **20** | 9.48 | 10 | **12**[3] | 30 – 160 | ≤ 40 |
| 4-Methylphenol[6] | 6.63 | 20 | **40** | 2.52 | 5 | **10** | 30 – 160 | ≤ 40 |
| Nitrobenzene | 4.06 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| Isophorone | 2.86 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| 2-Nitrophenol | 38.7 | 50 | **100** | -- | -- | -- | 30 – 160 | ≤ 40 |
| 2,4-Dimethylphenol | 3.46 | 20 | **40** | 2.89 | 10 | **20** | 30 – 160 | ≤ 40 |
| *bis*-(2-Chloroethoxy)methane | 2.00 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| 2,4-Dichlorophenol | 21.5 | 100 | **200** | -- | -- | -- | 30 – 160 | ≤ 40 |
| 1,2,4-Trichlorobenzene | 3.48 | 10 | **20** | 1.86 | 2.5 | **5** | 30 – 160 | ≤ 40 |
| Naphthalene | 2.76 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| Benzoic acid | 101 | 200 | **400**[5] | -- | -- | -- | 30 – 160 | ≤ 40 |
| 4-Chloroaniline | 22.3 | 135 | **270**[4] | -- | -- | -- | 30 – 160 | ≤ 40 |
| Hexachlorobutadiene | 4.57 | 50 | **100** | 0.96 | 2.5 | **5** | 30 – 160 | ≤ 40 |
| 4-Chloro-3-methylphenol | 15.1 | 50 | **100** | -- | -- | -- | 30 – 160 | ≤ 40 |
| 2-Methylnaphthalene | 3.06 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| Hexachlorocyclopentadiene | 66.4 | 200 | **400**[4] | -- | -- | -- | 30 – 160 | ≤ 40 |
| 2,4,6-Trichlorophenol | 22.4 | 50 | **100** | -- | -- | -- | 30 – 160 | ≤ 40 |
| 2,4,5-Trichlorophenol | 21.4 | 50 | **100** | -- | -- | -- | 30 – 160 | ≤ 40 |
| 2-Chloronaphthalene | 2.64 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| 2-Nitroaniline | 18.4 | 50 | **100** | -- | -- | -- | 30 – 160 | ≤ 40 |
| Acenaphthylene | 5.71 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| Dimethylphthalate | 2.90 | 10 | **20** | 1.34 | 2.5 | **5** | 30 – 160 | ≤ 40 |
| 2,6-Dinitrotoluene | 30.6 | 50 | **100** | -- | -- | -- | 30 – 160 | ≤ 40 |
| Acenaphthene | 3.28 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| 3-Nitroaniline | 22.5 | 50 | **100** | -- | -- | -- | 30 – 160 | ≤ 40 |



UU52 : 00027

# DL[1] LOD[1], LOQ[1] and Control Limits Summary
# GC - MS – SVOA Analysis of Sediment
# EPA Method 8270 Full Scan & SIM

**Microwave Extraction (EPA Method 3546, Bench Sheet 3093F) - 10 g sample with extract concentrated to 1 mL final volume**

**LOD Spike level = LOQ (unless otherwise noted)**

| Analyte | Full Scan Analysis | | | SIM Analysis | | | LCS,MS Control Limits | RPD[2] |
|---|---|---|---|---|---|---|---|---|
| | DL | LOD | LOQ | DL | LOD | LOQ | | |
| 2,4-Dinitrophenol | 111 | 425 | **850**[4] | -- | -- | -- | 30 – 160 | ≤ 40 |
| Dibenzofuran | 4.10 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| 4-Nitrophenol | 34.7 | 50 | **100** | -- | -- | -- | 30 – 160 | ≤ 40 |
| 2,4-Dinitrotoluene | 19.5 | 50 | **100** | -- | -- | -- | 30 – 160 | ≤ 40 |
| Fluorene | 4.35 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| 4-Chlorophenyl-phenylether | 5.29 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| Diethylphthalate | 36.6 | 50 | **50**[3] | 3.26 | 5.0 | **5.0** | 30 – 160 | ≤ 40 |
| 4-Nitroaniline | 37.9 | 50 | **100** | -- | -- | -- | 30 – 160 | ≤ 40 |
| 4,6-Dinitro-2-methylphenol | 21.2 | 100 | **200** | -- | -- | -- | 30 – 160 | ≤ 40 |
| N-Nitrosodiphenylamine | 5.39 | 10 | **20** | 1.38 | 10 | **20** | 30 – 160 | ≤ 40 |
| 4-Bromophenyl-phenylether | 5.03 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| Hexachlorobenzene | 4.29 | 10 | **20** | 1.26 | 2.5 | **5** | 30 – 160 | ≤ 40 |
| Pentachlorophenol | 48.5 | 100 | **200**[4] | 14.3 | 25 | **50** | 30 – 160 | ≤ 40 |
| Phenanthrene | 3.64 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| Anthracene | 4.50 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| Carbazole | 2.69 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| Di-n-butylphthalate | 8.16 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| Fluoranthene | 2.91 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| Pyrene | 1.94 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| Butylbenzylphthalate | 6.14 | 10 | **20** | 2.89 | 5.0 | **5** | 30 – 160 | ≤ 40 |
| Benzo(a)anthracene | 3.29 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| 3,3'-Dichlorobenzidine | 17.8 | 75 | **150**[4] | -- | -- | -- | 30 – 160 | ≤ 40 |
| Chrysene | 3.75 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| *bis*-(2-Ethylhexyl)phthalate | 14.6 | 20 | **25**[3] | -- | -- | -- | 30 – 160 | ≤ 40 |
| Di-n-octylphthalate | 5.84 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| Benzo(b)fluoranthene[7] | 3.47 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| Benzo(k)fluoranthene[7] | 4.18 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| Benzofluoranthene-Total[8] | 6.67 | 20 | **40** | -- | -- | -- | 30 – 160 | ≤ 40 |
| Benzo(a)pyrene | 5.45 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| Indeno(1,2,3-cd)pyrene | 4.68 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| Dibenzo(a,h)anthracene | 4.31 | 10 | **20** | 2.02 | 2.5 | **5** | 30 – 160 | ≤ 40 |
| Benzo(g,h,i)perylene | 4.40 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| N-Nitrosodimethylamine | 14.1 | 50 | **100** | 3.15 | 13 | **25** | 30 – 160 | ≤ 40 |
| Aniline | 40.0 | 270 | **540**[4] | -- | -- | -- | 30 – 160 | ≤ 40 |
| Pyridine | 32.7 | 75 | **150**[4] | -- | -- | -- | 30 – 160 | ≤ 40 |
| 1-Methylnaphthalene | 2.68 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |



UU52 : 00028

# DL[1] LOD[1], LOQ[1] and Control Limits Summary
# GC - MS – SVOA Analysis of Sediment
# EPA Method 8270 Full Scan & SIM

**Microwave Extraction (EPA Method 3546, Bench Sheet 3093F) - 10 g sample with extract concentrated to 1 mL final volume**

**LOD Spike level = LOQ (unless otherwise noted)**

| Analyte | Full Scan Analysis | | | SIM Analysis | | | LCS,MS Control Limits | RPD[2] |
|---|---|---|---|---|---|---|---|---|
| | DL | LOD | LOQ | DL | LOD | LOQ | | |
| Azobenzene (1,2-DP-Hydrazine) | 2.98 | 10 | **20** | -- | -- | -- | 30 – 160 | ≤ 40 |
| **Surrogate Standards** | | | | | | **MB / LCS** | **Samples** | **RPD** |
| 2-Fluorophenol | | | | | | 30 – 160 | 30 – 160 | ≤ 40 |
| Phenol-$d_5$ | | | | | | 30 – 160 | 30 – 160 | ≤ 40 |
| 2-Chlorophenol-$d_4$ | | | | | | 30 – 160 | 30 – 160 | ≤ 40 |
| 1,2-Dichlorobenzene-$d_4$ | | | | | | 30 – 160 | 30 – 160 | ≤ 40 |
| Nitrobenzene-$d_5$ | | | | | | 30 – 160 | 30 – 160 | ≤ 40 |
| 2-Fluorobiphenyl | | | | | | 30 – 160 | 30 – 160 | ≤ 40 |
| 2,4,6-Tribromophenol | | | | | | 30 – 160 | 30 – 160 | ≤ 40 |
| *p*-Terphenyl-$d_{14}$ | | | | | | 30 – 160 | 30 – 160 | ≤ 40 |

(1) Detection Limit (DL), Limit of Detection (LOD), Limit of Quantitation (LOQ) are defined in ARI SOP 1018S
(2) Relative Percent Difference between analytes in replicate analyzes. If $C_O$ and $C_D$ are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$

(3) Spiked at 5 ppb
(4) Spiked at 100 ppb
(5) Spiked at 200 ppb
(6) 3-Methylphenol (not calibrated) co-elutes with 4-Methylphennol (calibrated)
(7) Benzo(b)fluoranthene and Benzo(k)fluoranthene are reported as separate analytes only when the height of the valley between the isomer peaks is less than than 50% of the average of the two peak heights, otherwise total Benzofluoranthenes are reported.
(8) Benzo(b)fluoranthene + Benzo(j)fluoranthene + Benzo(k)fluoranthene (only the b & k isomers are calibrated)



UU52 : 00029

**Analytical Resources,Incorporated**
Analytical Chemists and Consultants

# Spike Recovery Control Limits for Chlorinated Pesticides EPA Method SW-846-8081B Analysis of Aqueous Samples [1,5]

Effective 9/20/10

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

| **Sample Volume / Final Volume** | **500 mL to 5 mL** | | **1000 / 1 mL** | |
|---|---|---|---|---|
| **LCS Spike Recovery [4]** | **Control Limits** | **ME Limits [2]** | **Control Limits** | **ME Limits [2]** |
| *alpha*-BHC | 73 - 107 | 67 - 113 | 37 - 110 | 25 - 122 |
| *beta*-BHC | 68 - 116 | 60 - 124 | 33 - 112 | 20 - 125 |
| *delta*-BHC | 42 - 114 | 30 - 126 | 18 - 127 | **10** - 145 |
| *gamma*-BHC (Lindane) | 75 - 111 | 69 - 117 | 36 - 120 | 22 - 134 |
| Heptachlor | 60 - 100 | 53 - 107 | 34 - 103 | 23 - 115 |
| Aldrin | 54 - 101 | 46 - 109 | 28 - 110 | 14 - 124 |
| Hepachlor Epoxide | 72 - 116 | 65 - 123 | 36 - 132 | 20 - 148 |
| Endosulfan I | 72 - 122 | 64 - 130 | 42 - 116 | 30 - 128 |
| Dieldrin | 75 - 124 | 67 - 132 | 46 - 117 | 34 - 129 |
| 4,4'-DDE | 72 - 125 | 63 - 134 | 45 - 126 | 32 - 140 |
| Endrin | 66 - 116 | 58 - 124 | 34 - 131 | 18 - 147 |
| Endosulfan II | 73 - 107 | 67 - 113 | 36 - 128 | 21 - 143 |
| 4,4'-DDD | 67 - 106 | 61 - 113 | 33 - 138 | 16 - 156 |
| Endosulfan Sulfate | 62 - 100 | 56 - 106 | 25 - 116 | 10 - 131 |
| 4,4'-DDT | 69 - 108 | 63 - 115 | 24 - 148 | **10** - 169 |
| Methoxychlor | 67 - 107 | 60 - 114 | 25 - 139 | **10** - 158 |
| Endrin Ketone | 72 - 102 | 67 - 107 | 34 - 137 | 17 - 154 |
| Endrin Aldehyde | 43 - 108 | 32 - 119 | **10** - 108 | **10** - 126 |
| *trans*-Chlordane (*beta*-Chlordane, *gamma*-Chlordane) | 69 - 118 | 61 - 126 | 37 - 126 | 22 - 141 |
| *cis*-Chlordane (*alpha*-chlordane) | 71 - 118 | 63 - 126 | 44 - 116 | 32 - 128 |
| Hexachlorobenzene | 45 - **100** | 38 - **100** | 28 - **100** | 17 - 107 |
| Hexachlorobutadiene | 19 - **100** | **10** - 104 | 21 - **100** | 11 - **100** |
| | | | | |
| **MB / LCS Surrogate Recovery** | | | | |
| Tetrachloro-*m*-xylene (TCMX) | 52 - **100** | (3) | 25 - **100** | (3) |
| Decachlorobiphenyl | 54 - **100** | (3) | 34 - 115 | (3) |
| | | | | |
| **Sample Surrogate Recovery** | | | | |
| Tetrachloro-xylene (TCMX) | 43 - 106 | (3) | 11 - 110 | (3) |
| Decachlorobiphenyl | 32 - 116 | (3) | 13 - 133 | (3) |

(1) Control limits calculated using all recovery data from 9/1/09 through 8/31/10.
(2) **ME** = A **marginal exceedance** defined in the NELAC Standard [6] as beyond the LCS-CL but still within the ME limits. ME limits are between 3 and 4 standard deviations around the mean. A maximum of one marginal exceedance is acceptable. Two or more marginal exceedances require corrective action.
(3) Marginal Exceedances not allowed for a surrogate standard.
(4) Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analyzes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.
(5) Highlighted control limits (**bold font**) adjusted to demonstrate that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(6) **2003 NELAC Standard (EPA/600/R-04/003), July 2003**, Chapter 5, pages 251-252.



UU52 : 00036

**Analytical Resources,Incorporated**
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# Spike Recovery Control Limits for Chlorinated Pesticides EPA Method SW-846-8081B Analysis of Soil / Sediment Samples [1,2]

Effective 10/25/11

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

| Sample Dry Weight / Final Vol. | 12.5 g to 2.5 mL | |
|---|---|---|
| **Extraction Method** | **Microwave EPA Method 3546** | |
| **LCS Spike Recovery [5]** | **Control Limits** | **ME Limits[3]** |
| *alpha*-BHC | 49 - 111 | 39 - 121 |
| *beta*-BHC | 54 - 107 | 45 - 116 |
| *delta*-BHC | 72 - 112 | 65 - 119 |
| *gamma*-BHC (Lindane) | 54 - 115 | 44 - 125 |
| Heptachlor | 45 - 133 | 30 - 148 |
| Aldrin | 53 - 114 | 43 - 124 |
| Hepachlor Epoxide | 60 - 121 | 50 - 131 |
| Endosulfan I | 40 - 129 | 25 - 144 |
| Dieldrin | 68 - 123 | 59 - 132 |
| 4,4'-DDE | 66 - 124 | 56 - 134 |
| Endrin | 60 - 135 | 48 - 148 |
| Endosulfan II | 46 - 130 | 32 - 144 |
| 4,4'-DDD | 54 - 129 | 42 - 142 |
| Endosulfan Sulfate | 36 - 110 | 24 - 122 |
| 4,4'-DDT | 50 - 133 | 36 - 147 |
| Methoxychlor | 46 - 138 | 31 - 153 |
| Endrin Ketone | 45 - 131 | 31 - 145 |
| Endrin Aldehyde | 25 - **100** | 13 - 113 |
| *trans*-Chlordane (*beta*-Chlordane, *gamma*-Chlordane) | 66 - 119 | 57 - 128 |
| *cis*-Chlordane (*alpha*-chlordane) | 62 - 119 | 53 - 129 |
| Hexachlorobenzene | 41 - 108 | 30 - 119 |
| Hexachlorobutadiene | 39 - **100** | 29 - 110 |
| **MB / LCS Surrogate Recovery** | | |
| Tetrachloro-*m*-xylene (TCMX) | 42 - 112 | (4) |
| Decachlorobiphenyl | 59 - 123 | (4) |
| **Sample Surrogate Recovery** | | |
| Tetrachloro-xylene (TCMX) | 29 - 142 | (4) |
| Decachlorobiphenyl | 22 - 156 | (4) |

(1) Control limits calculated using all available spike recovery data from 1/1/11 to 10/1/11.
(2) Highlighted control limits (**bold font**) adjusted to demonstrate that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(3) **ME** = A **marginal exceedance** defined in the NELAC Standard [6] as beyond the LCS-CL but still within the ME limits. ME limits are between 3 and 4 standard deviations around the mean. A maximum of one marginal exceedance is acceptable. Two or more marginal exceedances require corrective action.
(4) Marginal Exceedances not allowed for a surrogate standard.
(5) Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analyzes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.
(6) **2003 NELAC Standard (EPA/600/R-04/003), July 2003**, Chapter 5, pages 251-252.



UU52 : 00031

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# Quality Control Criteria for Analysis of Aqueous and Tissue Samples for Aroclors (Polychlorinated Biphenyls – PCB) EPA Method 8082B

| Analysis Code | Extraction | DL[1] | LOD[1] | LOQ[1] | Analyte | Spike Recovery Control Limits (%)[2,3] | | | RPD[4] |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | LCS | MB/LCS Surrogate | Sample Surrogate | |
| **Aqueous Samples** (Separatory Funnel Extraction – EPA Method 3510C) | | | | | | | | | |
| PCBWSI 01-3018F | 500 to 5 mL | 0.130 µg/L | 0.5 µg/L | 1 µg/L | Aroclor 1016 | 45 – 121 | -- | -- | ≤ 40 |
| | | 0.147 µg/L | 0.5 µg/L | 1 µg/L | Aroclor 1260 | 54 – 129 | -- | -- | |
| | | -- | -- | -- | TCMX | -- | 40 – 118 | 38 – 118 | |
| | | -- | -- | -- | DCBP | -- | 41 – 111 | 29 – 118 | |
| PCBWSM 02-3021F | 500 to 1 mL | 0.0175 µg/L | 0.05 µg/L | 0.1 µg/L | Aroclor 1016 | 36 – **100** | -- | -- | ≤ 40 |
| | | 0.0174 µg/L | 0.05 µg/L | 0.1 µg/L | Aroclor 1260 | 41 – 113 | -- | -- | |
| | | -- | -- | -- | TCMX | -- | 29 – **100** | 25 – **100** | |
| | | -- | -- | -- | DCBP | -- | 39 – 116 | **10** – 128 | |
| PCBWLS | 1000 to 0.5 mL[5] | 0.00248 µg/L | 0.005 µg/L | 0.01 µg/L | Aroclor 1016 | 44 – 117 | -- | -- | ≤ 40 |
| | | 0.00276 µg/L | 0.005 µg/L | 0.01 µg/L | Aroclor 1260 | 46 – 131 | -- | -- | |
| | | -- | -- | -- | TCMX | -- | 31 – **100** | 21 – **100** | |
| | | -- | -- | -- | DCBP | -- | 32 – 108 | 19 – 111 | |
| **TCLP Extract** (Separatory Funnel Extraction – EPA Method 3510C) | | | | | | | | | |
| PCBWST | 100 to 10 mL | 0.130 µg/L[8] | 5 µg/L | 10 µg/L | Aroclor 1016 | 30 – 160 | -- | -- | ≤ 40 |
| | | 0.147 µg/L[8] | 5 µg/L | 10 µg/L | Aroclor 1260 | 30 – 160 | -- | -- | |
| | | -- | -- | -- | TCMX | -- | 30 – 160 | 30 – 160 | |
| | | -- | -- | -- | DCBP | -- | 30 – 160 | 30 – 160 | |
| **Tissue Samples** (Tissuemizer / Blender Extraction – EPA Method 3550C Modified) – Concentrations in µg/kg as received (wet weight) | | | | | | | | | |
| PCBUZI 09-3029F | 10 g to 5 mL | 2.92 µg/kg[6] | 25 µg/kg | 50 µg/kg | Aroclor 1016 | 30 – 160 | | | ≤ 40 |
| | | 3.91 µg/kg[6] | 25 µg/kg | 50 µg/kg | Aroclor 1260 | 30 – 160 | | | |
| | | -- | -- | -- | TCMX | | 30 – 160 | 30 – 160 | |
| | | -- | -- | -- | DCBP | | 30 – 160 | 30 – 160 | |
| PCBUZM 10-3027F | 25 g to 5 mL | 2.37 µg/kg[7] | 10 µg/kg | 20 µg/kg | Aroclor 1016 | 30 – 160 | | | ≤ 40 |
| | | 1.06 µg/kg[7] | 10 µg/kg | 20 µg/kg | Aroclor 1260 | 30 – 160 | | | |
| | | -- | -- | -- | TCMX | | 30 – 160 | 30 – 160 | |
| | | -- | -- | -- | DCBP | | 30 – 160 | 30 – 160 | |
| PCBUZL 11-3030F | 25 g to 1 mL | 2.37[7] µg/kg | 2 µg/kg | 4 µg/kg | Aroclor 1016 | 30 – 160 | | | ≤ 40 |
| | | 1.06[7] µg/kg | 2 µg/kg | 4 µg/kg | Aroclor 1260 | 30 – 160 | | | |
| | | -- | -- | -- | TCMX | | 30 – 160 | 30 – 160 | |
| | | -- | -- | -- | DCBP | | 30 – 160 | 30 – 160 | |

(1) Detection Limit (DL), Limit of Detection (LOD) & Limit of Quantitation (LOQ) are defined in ARI SOP 1018S.
(2) Highlighted control limits (**bold font**) are adjusted from the calculated values to reflect that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(3) 30 – 160 are default limits used when there is insufficient data to calculate historic control limits
(4) Acceptance criteria for the relative percent difference (RPD) between analytes in replicate analyzes. If $C_O$ and $C_D$ are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

(5) Low level extraction solvent is hexane instead of Methylene Chloride.
(6) LOD Study SM10
(7) MDL Study QZ25
(8) Based on PCBWSI until sufficient TCLP data is collected to calculate LOD.



UU52 : 00032

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# Quality Control Criteria for Analysis of Solid Matrix Samples for Aroclors (Polychlorinated Biphenyls – PCB) EPA Method 8082B

| Analysis Code | Extraction | DL[1] (ppb) | LOD[1] (ppb) | LOQ[1] (ppb) | Analyte | Spike Recovery Control Limits (%)[2,3,8] LCS | MB/LCS Surrogate | Sample Surrogate | RPD[4] |
|---|---|---|---|---|---|---|---|---|---|
| **Soil / Sediment Samples** (Microwave Extraction – EPA Method 3546) | | | | | | | | | |
| PCBSMI 15-3067F | 12g to 4 mL | 9.83 | 17 | 33 | Aroclor 1016 | 55 – 109 | -- | -- | ≤ 40 |
| | | 7.06 | 17 | 33 | Aroclor 1260 | 50 – 125 | -- | -- | |
| PCBSCI 08-3025F | | -- | -- | -- | TCMX | -- | 53 – 108 | 39 – 122 | |
| | | -- | -- | -- | DCBP | -- | 49 – 126 | 31 – 140 | |
| PCBDMP20 05-3017F | 12.5 g to 2.5 mL[6] | 9.33 | 10 | 20[6] | Aroclor 1016 | 46 – 110 | -- | -- | ≤ 40 |
| | | 10.82 | 15 | 20[6] | Aroclor 1260 | 47 – 124 | -- | -- | |
| PCBDCP20 06-3026F | | -- | -- | -- | TCMX | -- | 43 – 107 | 34 – 109 | |
| | | -- | -- | -- | DCBP | -- | 48 – 123 | 24 – 127 | |
| PCBDMP10 05-3017F | 12.5 g to 2.5 mL[6] | 0.759 | 5 | 10[6] | Aroclor 1016 | 46 – 110 | -- | -- | ≤ 40 |
| | | 1.066 | 5 | 10[6] | Aroclor 1260 | 47 – 124 | -- | -- | |
| PCBDCP10 06-3026F | | -- | -- | -- | TCMX | -- | 43 – 107 | 34 – 109 | |
| | | -- | -- | -- | DCBP | -- | 48 – 123 | 24 – 127 | |
| PCBDMP4 05-3017F | 12.5 g to 2.5 mL[6] | 0.577 | 2 | 4[6] | Aroclor 1016 | 46 – 110 | -- | -- | ≤ 40 |
| | | 0.610 | 2 | 4[6] | Aroclor 1260 | 47 – 124 | -- | -- | |
| PCBDCP4 06-3026F | | -- | -- | -- | TCMX | -- | 43 – 107 | 34 – 109 | |
| | | -- | -- | -- | DCBP | -- | 48 – 123 | 24 – 127 | |
| **Soil / Sediment Samples** Medium Level (Vortex Extraction – EPA Method 3546) | | | | | | | | | |
| PCBSVX 12-3019F | 5 g to 40 mL | 109[7] | 400 | 800 | Aroclor 1016 | 30 – 160 | -- | -- | ≤ 40 |
| | | 192[7] | 400 | 800 | Aroclor 1260 | 30 – 160 | -- | -- | |
| | | -- | -- | -- | TCMX | -- | 30 – 160 | 30 – 160 | |
| | | -- | -- | -- | DCBP | -- | 30 – 160 | 30 – 160 | |

(1) Detection Limit (DL), Limit of Detection (LOD) & Limit of Quantitation (LOQ) are defined in ARI SOP 1018S.
(2) Highlighted control limits (**bold font**) are adjusted from the calculated values to reflect that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(3) 30 – 160 are default limits used when there is insufficient data to calculate historic control limits
(4) Acceptance criteria for the relative percent difference (RPD) between analytes in replicate analyzes. If $C_O$ and $C_D$ are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

(6) LOQ determined by lowest concentration used to calibrate the GC-ECD instrument.
(7) MDL Study PC66 6/24/09
(8) Control Limits calculated using all data generated between 1/1/11 and 11/30/11



UU52 : 00033

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# Quality Control Criteria
# Total Petroleum Hydrocarbons
# (Diesel & Motor Oil)

| Analysis Code | Analyte[5] | DL[1] | LOD[1] | LOQ[2] ppm | Spike % Recovery Control Limits[3] | | | RPD[4] |
|---|---|---|---|---|---|---|---|---|
| | | | | | LCS | MB/LCS Surrogate | Sample Surrogate | |
| HCIWVX | NWTPH-HCID – Water Samples | -- | -- | 0.50 [7] | -- | -- | 50-150 | ≤ 40 |
| HCISVX | NWTPH-HCID – Solid Samples | -- | -- | 50 [7] | -- | -- | 50-150 | |
| **Aqueous Samples – No Extract Clean-up – Separatory Funnel Extraction – 500 to 1.0 mL** | | | | | | | | |
| DIESWI | DRO – NWTPH-Dext ($C_{12}$-$C_{24}$) | 0.022 | 0.05 | 0.1 | 64-112 | 50-150 | 50-150 | ≤ 40 |
| AK2WSI | DRO – AK102 ($C_{10}$-$C_{25}$) | 0.022 | 0.05 | 0.1 | 75-125 [6] | 60-120 | 50-150 | |
| OILWSI | RRO – NWTPH-Dext ($C_{24}$-$C_{38}$) | 0.044 | 0.1 | 0.2 | 64-112 | 50-150 | 50-150 | |
| AK3WSI | RRO – AK103 ($C_{25}$-$C_{36}$) | 0.030 [9] | 0.1 | 0.2 | 60-120 [6] | 60-120 | 50-150 | |
| **Aqueous Samples – With Acid and/or Silica Gel Clean-up – Separatory Funnel Extraction – 500 to 1.0 mL** | | | | | | | | |
| DIESWI | DRO – NWTPH-Dext ($C_{12}$-$C_{24}$) | 0.039 | 0.05 | 0.1 | 61-104 | 50-150 | 50-150 | ≤ 40 |
| AK2WSI | DRO – AK102 ($C_{10}$-$C_{25}$) | 0.042 | 0.05 | 0.1 | 75-125 [6] | 60-120 | 50-150 | |
| OILWSI | RRO – NWTPH-Dext ($C_{24}$-$C_{38}$) | 0.010 | 0.1 | 0.2 | 61-104 | 50-150 | 50-150 | |
| AK3WSI | RRO – AK103 ($C_{25}$-$C_{36}$) | 0.030 [8] | 0.1 | 0.2 | 60-120 [6] | 60-120 | 50-150 | |
| **Solid Matrix Samples – No Extract Clean-up – Microwave Extraction – 10 g to 1 mL** | | | | | | | | |
| DIESMI | DRO – NWTPH-Dext ($C_{12}$-$C_{24}$) | 1.35 | 2.5 | 5 | 62-119 | 50-150 | 50-150 | ≤ 40 |
| DIESMI | DRO – NWTPH-Dext Jet A | 2.22 [11] | 2.5 | 5 | 60 – 130 [8] | 50-150 | 50-150 | |
| AK2SMI | DRO – AK102 ($C_{10}$-$C_{25}$) | 2.43 | 2.5 | 5 | 75-125 [6] | 60-120 | 50-150 | |
| OILSMI | RRO – NWTPH-Dext ($C_{24}$-$C_{38}$) | 2.48 | 5 | 10 | 62-119 | 50-150 | 50-150 | |
| AK3SMI | RRO – AK103 ($C_{25}$-$C_{36}$) | 0.665 [9] | 5 | 10 | 60-120 [6] | 60-120 | 50-150 | |
| **Solid Matrix Samples – With Acid and/or Silica Gel Clean-up – Microwave Extraction – 10 g to 1 mL** | | | | | | | | |
| DIESMI | DRO – NWTPH-Dext ($C_{12}$-$C_{24}$) | 1.28 | 2.5 | 5 | 60-108 | 50-150 | 50-150 | ≤ 40 |
| AK2SMI | DRO – AK102 ($C_{10}$-$C_{25}$) | 2.06 | 2.5 | 5 | 75-125 [6] | 60-120 | 50-150 | |
| OILSMI | RRO – NWTPH-Dext ($C_{24}$-$C_{38}$) | 1.57 | 5 | 10 | 60-108 | 50-150 | 50-150 | |
| AK3SMI | RRO – AK103 ($C_{25}$-$C_{36}$) | 0.665 [10] | 5 | 10 | 60-120 [6] | 60-120 | 50-150 | |

(1) DL (Detection Limit) and LOD (Limit of Detection) as defined in ARI SOP 1018S.
(2) Limit of Quantitation as defined in ARI SOP 1018S. The spike concentration used to determine the DL and the concentration of the lowest standard used to calibrate the GC-FID instrument.
(3) All surrogate recovery limits are specified in the published methods (AK102, AK103 & NWTPH-Dext). The surrogate standard is o-Terphenyl.
(4) Acceptance criteria for the relative percent difference (RPD) between analytes in replicate analyzes. If $C_O$ and $C_D$ are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$
(5) DRO = Diesel Range Organics and RRO = Residual Range Organics as defined in the methods referenced in footnote 3.
(6) Method specified LCS acceptance limits.
(7) Method specified reporting limits
(8) Default LCS control limits pending calculation of historic limits
(9) MDL study QD55 completed 2/12/10
(10) MDL study QD35 completed 1/29/10
(11) LOD Study UI44 completed 2/28/12



UU52 : 00034

# Quality Control Parameters for Metals Analysis using ICP-OES

| | Aqueous Samples[2] | | | Spike Recovery | | RPD[5] | Solids[3] | Tissue[4] |
|---|---|---|---|---|---|---|---|---|
| Analyte | DL[1] µg/L | LOD[1] µg/L | LOQ[1] µg/L | Matrix Spike | LCS | | LOQ mg/kg | LOQ mg/kg |
| **Aluminum** | 7.57 | 25 | **50** | 75 – 125 | 80 – 120 | ≤ 20 | **5.0** | **1.0** |
| **Antimony** | 6.28 | 25 | **50** | 75 – 125 | 80 – 120 | ≤ 20 | **5.0** | **1.0** |
| **Arsenic** | 3.33 | 25 | **50** | 75 – 125 | 80 – 120 | ≤ 20 | **5.0** | **1.0** |
| **Barium** | 1.33 | 1.5 | **3.0** | 75 – 125 | 80 – 120 | ≤ 20 | **0.3** | **0.06** |
| **Beryllium** | 0.16 | 0.5 | **1.0** | 75 – 125 | 80 – 120 | ≤ 20 | **0.1** | **0.02** |
| **Boron** | 7.39 | 10 | **20** | 75 – 125 | 80 – 120 | ≤ 20 | **2.0** | **0.4** |
| **Cadmium** | 0.18 | 0.5 | **2.0** | 75 – 125 | 80 – 120 | ≤ 20 | **0.2** | **0.04** |
| **Calcium** | 11.27 | 25 | **50** | 75 – 125 | 80 – 120 | ≤ 20 | **5.0** | **1.0** |
| **Chromium** | 1.24 | 2.5 | **5.0** | 75 – 125 | 80 – 120 | ≤ 20 | **0.5** | **0.1** |
| **Cobalt** | 0.27 | 1.5 | **3.0** | 75 – 125 | 80 – 120 | ≤ 20 | **0.3** | **0.06** |
| **Copper** | 0.92 | 1.0 | **2.0** | 75 – 125 | 80 – 120 | ≤ 20 | **0.2** | **0.04** |
| **Iron** | 7.50 | 25 | **50** | 75 – 125 | 80 – 120 | ≤ 20 | **5.0** | **1.0** |
| **Lead** | 1.55 | 10 | **20** | 75 – 125 | 80 – 120 | ≤ 20 | **2.0** | **0.4** |
| **Magnesium** | 9.61 | 25 | **50** | 75 – 125 | 80 – 120 | ≤ 20 | **5.0** | **1.0** |
| **Manganese** | 0.28 | 0.5 | **1.0** | 75 – 125 | 80 – 120 | ≤ 20 | **0.1** | **0.02** |
| **Molybdenum** | 0.79 | 2.5 | **5.0** | 75 – 125 | 80 – 120 | ≤ 20 | **0.5** | **0.1** |
| **Nickel** | 3.86 | 5.0 | **10** | 75 – 125 | 80 – 120 | ≤ 20 | **1.0** | **0.2** |
| **Potassium** | 65.70 | 250 | **500** | 75 – 125 | 80 – 120 | ≤ 20 | **50** | **10** |
| **Selenium** | 4.99 | 25 | **50** | 75 – 125 | 80 – 120 | ≤ 20 | **5.0** | **1.0** |
| **Silicon** | 8.17 | 30 | **60** | 75 – 125 | 80 – 120 | ≤ 20 | **(6)** | **(6)** |
| **Silver** | 0.43 | 1.5 | **3.0** | 75 – 125 | 80 – 120 | ≤ 20 | **0.3** | **0.06** |
| **Sodium** | 11.35 | 250 | **500** | 75 – 125 | 80 – 120 | ≤ 20 | **50** | **10** |
| **Strontium** | 0.09 | 1.0 | **1.0** | 75 – 125 | 80 – 120 | ≤ 20 | **0.1** | **0.02** |
| **Thallium** | 3.10 | 25 | **50** | 75 – 125 | 80 – 120 | ≤ 20 | **5.0** | **1.0** |
| **Tin** | 1.41 | 5.0 | **10** | 75 – 125 | 80 – 120 | ≤ 20 | **1.0** | **0.2** |
| **Titanium** | 2.11 | 2.5 | **5.0** | 75 – 125 | 80 – 120 | ≤ 20 | **0.5** | **0.01** |
| **Vanadium** | 0.27 | 1.5 | **3.0** | 75 – 125 | 80 – 120 | ≤ 20 | **0.3** | **0.06** |
| **Zinc** | 1.45 | 5.0 | **10** | 75 – 125 | 80 – 120 | ≤ 20 | **1.0** | **0.2** |

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume
(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.
(4) Tissue is reported on an "as received" (wet weight) basis using 2.5 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If $C_O$ and $C_D$ are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

(6) ARI does not analyze for Silicon in solids or tissue samples



UU52 : 00035

## Quality Control Parameters for Metals Analysis using ICP-MS

| Analyte | Mass | Aqueous Samples[2] | | | Spike Recovery | | RPD[4] | Solids[3] |
|---|---|---|---|---|---|---|---|---|
| | | DL[1] µg/L | LOD[1] µg/L | LOQ[1] µg/L | Matrix Spike | LCS | | LOQ[1] mg/kg |
| Aluminum | 27 | 1.601 | 10 | **20.0** | 75 – 125 | 80 – 120 | ≤ 20 | **20.0** |
| Antimony | 121 | 0.010 | 0.1 | **0.2** | 75 – 125 | 80 – 120 | ≤ 20 | **0.2** |
| | 123 | 0.011 | 0.1 | **0.2** | 75 – 125 | 80 – 120 | ≤ 20 | **0.2** |
| Arsenic #1 | 75 | 0.048 | 0.1 | **0.2** | 75 – 125 | 80 – 120 | ≤ 20 | **0.2** |
| Arsenic #2 | 75 | 0.092 | 0.25 | **0.5** | 75 – 125 | 80 – 120 | ≤ 20 | **0.5** |
| Barium | 135 | 0.020 | 0.25 | **0.5** | 75 – 125 | 80 – 120 | ≤ 20 | **0.5** |
| | 137 | 0.019 | 0.25 | **0.5** | 75 – 125 | 80 – 120 | ≤ 20 | **0.5** |
| Beryllium | 9 | 0.021 | 0.1 | **0.2** | 75 – 125 | 80 – 120 | ≤ 20 | **0.2** |
| Cadmium | 111 | 0.010 | 0.05 | **0.1** | 75 – 125 | 80 – 120 | ≤ 20 | **0.1** |
| | 114 | 0.005 | 0.05 | **0.1** | 75 – 125 | 80 – 120 | ≤ 20 | **0.1** |
| Calcium | 43 | 3.983 | 25 | **50.0** | 75 – 125 | 80 – 120 | ≤ 20 | **50.0** |
| Chromium | 52 | 0.045 | 0.25 | **0.5** | 75 – 125 | 80 – 120 | ≤ 20 | **0.5** |
| | 53 | 0.118 | 0.25 | **0.5** | 75 – 125 | 80 – 120 | ≤ 20 | **0.5** |
| Cobalt | 59 | 0.011 | 0.1 | **0.2** | 75 – 125 | 80 – 120 | ≤ 20 | **0.2** |
| Copper | 63 | 0.158 | 0.25 | **0.5** | 75 – 125 | 80 – 120 | ≤ 20 | **0.5** |
| | 65 | 0.236 | 0.25 | **0.5** | 75 – 125 | 80 – 120 | ≤ 20 | **0.5** |
| Iron | 54 | 5.753 | 10 | **20.0** | 75 – 125 | 80 – 120 | ≤ 20 | **20.0** |
| | 57 | 3.876 | 10 | **20.0** | 75 – 125 | 80 – 120 | ≤ 20 | **20.0** |
| Lead | 208 | 0.046 | 0.05 | **0.1** | 75 – 125 | 80 – 120 | ≤ 20 | **0.1** |
| Magnesium | 24 | 0.297 | 10 | **20.0** | 75 – 125 | 80 – 120 | ≤ 20 | **20.0** |
| Manganese | 55 | 0.022 | 0.25 | **0.5** | 75 – 125 | 80 – 120 | ≤ 20 | **0.5** |
| Molybdenum | 98 | 0.013 | 0.1 | **0.2** | 75 – 125 | 80 – 120 | ≤ 20 | **0.2** |
| Nickel | 60 | 0.079 | 0.25 | **0.5** | 75 – 125 | 80 – 120 | ≤ 20 | **0.5** |
| | 62 | 0.089 | 0.25 | **0.5** | 75 – 125 | 80 – 120 | ≤ 20 | **0.5** |
| Potassium | 39 | 2.944 | 10 | **20.0** | 75 – 125 | 80 – 120 | ≤ 20 | **20.0** |
| Selenium | 82 | 0.127 | 0.25 | **0.5** | 75 – 125 | 80 – 120 | ≤ 20 | **0.5** |
| | 78 | 0.324 | 0.25 | **2.0** | 75 – 125 | 80 – 120 | ≤ 20 | **2.0** |
| Silver | 107 | 0.008 | 0.1 | **0.2** | 75 – 125 | 80 – 120 | ≤ 20 | **0.2** |
| Sodium | 23 | 2.833 | 50 | **100.0** | 75 – 125 | 80 – 120 | ≤ 20 | **100.0** |
| Thorium[5] | 232 | 0.013 | 0.1 | **0.2** | 75 – 125 | 80 – 120 | ≤ 20 | **0.2** |
| Thallium | 205 | 0.004 | 0.1 | **0.2** | 75 – 125 | 80 – 120 | ≤ 20 | **0.2** |
| Uranium[5] | 238 | 0.003 | 0.1 | **0.2** | 75 – 125 | 80 – 120 | ≤ 20 | **0.2** |
| Vanadium | 51 | 0.043 | 0.1 | **0.2** | 75 – 125 | 80 – 120 | ≤ 20 | **0.2** |
| Zinc | 66 | 0.497 | 2 | **4.0** | 75 – 125 | 80 – 120 | ≤ 20 | **4.0** |
| | 67 | 0.531 | 2 | **4.0** | 75 – 125 | 80 – 120 | ≤ 20 | **4.0** |
| | 68 | 0.524 | 2 | **4.0** | 75 – 125 | 80 – 120 | ≤ 20 | **4.0** |

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume
(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.
(4) Relative Percent Difference between analytes in replicate analyzes. If $C_O$ and $C_D$ are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$

(5) ARI has no accreditation for these elements.



UU52 : 00036

## Quality Control Parameters for Mercury Analysis using CVAA

| | Aqueous Samples[2] | | | Spike Recovery | | RPD[5] |
|---|---|---|---|---|---|---|
| | DL[1] µg/L | LOD[1] µg/L | LOQ[1] µg/L | Matrix Spike | LCS | |
| **Mercury** | 0.0069 | 0.05 | **0.10**[2] | 75 – 125 | 80 – 120 | ≤ 20 |
| **Mercury (low level)** | 0.0026 | 0.01 | **0.02**[3] | 75 – 125 | 80 – 120 | ≤ 20 |
| | **Soil / Sediment / Tissue[4] Samples** | | | **Spike Recovery** | | **RPD[5]** |
| | **DL[1] mg/kg** | **LOD[1] mg/kg** | **LOQ[1] mg/kg** | **Matrix Spike** | **LCS** | |
| **Mercury** | 0.0021 | 0.0125 | **0.025**[3,4] | 75 – 125 | 80 – 120 | ≤ 20 |

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 20 mL sample with 20 mL final volume
(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.
(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If $C_O$ and $C_D$ are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$



UU52 : 00037

**Analytical Resources,Incorporated**
Analytical Chemists and Consultants

# Spike Recovery Control Limits for Conventional Wet Chemistry

Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

| | ARI's Control Limits | |
|---|---|---|
| **Sample Matrix:** | Water | Soil / Sediment |
| ***Matrix Spike Recoveries*** | % Recovery | % Recovery |
| Ammonia | 75 - 125 | 75 - 125 |
| Bromide | 75 125 | 75 - 125 |
| Chloride | 75 125 | 75 - 125 |
| Cyanide | 75 - 125 | 75 - 125 |
| Ferrous Iron | 75 - 125 | 75 - 125 |
| Fluoride | 75 - 125 | 75 - 125 |
| Formaldehyde | 75 - 125 | 75 - 125 |
| Hexane Extractable Material | -- - -- | 78 - 114 |
| Hexavalent Chromium | 75 - 125 | 75 - 125 |
| Nitrate/Nitrite | 75 - 125 | 75 - 125 |
| Oil and Grease | 75 - 125 | 75 - 125 |
| Phenol | 75 - 125 | 75 - 125 |
| Phosphorous | 75 - 125 | 75 - 125 |
| Sulfate | 75 - 125 | 75 - 125 |
| Sulfide | 75 - 125 | 75 - 125 |
| Total Kjeldahl Nitrogen | 75 - 125 | 75 - 125 |
| Total Organic Carbon | 75 - 125 | 75 - 125 |
| ***Duplicate RPDs*** | | |
| Acidity | ±20% | ±20% |
| Alkalinity | ±20% | ±20% |
| BOD | ±20% | ±20% |
| Cation Exchange | ±20% | ±20% |
| COD | ±20% | ±20% |
| Conductivity | ±20% | ±20% |
| Salinity | ±20% | ±20% |
| Solids | ±20% | ±20% |
| Turbidity | ±20% | ±20% |



UU52:00038

Semivolatile Analysis
Report and Summary QC Forms

ARI Job ID: UU52, UU62

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Semivolatiles by SW8270D GC/MS**
**Extraction Method: SW3546**
Page 1 of 1

**Sample ID: MS001-SS-120515**
**SAMPLE**

Lab Sample ID: UU52A
LIMS ID: 12-8893
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 17:11
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 90.3%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| **108-95-2** | **Phenol** | **26** | **60** | **300** |
| **106-44-5** | **4-Methylphenol** | **20** | **120** | **1,200** |
| **65-85-0** | **Benzoic Acid** | **300** | **1,200** | **390 J** |
| **91-20-3** | **Naphthalene** | **8.2** | **60** | **1,100** |
| **91-57-6** | **2-Methylnaphthalene** | **9.1** | **60** | **170** |
| 131-11-3 | Dimethylphthalate | 8.6 | 60 | < 60 U |
| **208-96-8** | **Acenaphthylene** | **17** | **60** | **74** |
| **83-32-9** | **Acenaphthene** | **9.8** | **60** | **110** |
| **132-64-9** | **Dibenzofuran** | **12** | **60** | **180** |
| **86-73-7** | **Fluorene** | **13** | **60** | **120** |
| 87-86-5 | Pentachlorophenol | 140 | 600 | < 600 U |
| **85-01-8** | **Phenanthrene** | **11** | **60** | **690** |
| **86-74-8** | **Carbazole** | **8.0** | **60** | **42 J** |
| **120-12-7** | **Anthracene** | **13** | **60** | **140** |
| 84-74-2 | Di-n-Butylphthalate | 24 | 60 | < 60 U |
| **206-44-0** | **Fluoranthene** | **8.7** | **60** | **660** |
| **129-00-0** | **Pyrene** | **5.8** | **60** | **580** |
| 85-68-7 | Butylbenzylphthalate | 18 | 60 | < 60 U |
| **56-55-3** | **Benzo(a)anthracene** | **9.8** | **60** | **160** |
| **117-81-7** | **bis(2-Ethylhexyl)phthalate** | **43** | **74** | **140** |
| **218-01-9** | **Chrysene** | **11** | **60** | **430** |
| 117-84-0 | Di-n-Octyl phthalate | 17 | 60 | < 17 UJ |
| **50-32-8** | **Benzo(a)pyrene** | **16** | **60** | **260** |
| **193-39-5** | **Indeno(1,2,3-cd)pyrene** | **14** | **60** | **200** |
| **53-70-3** | **Dibenz(a,h)anthracene** | **13** | **60** | **57 J** |
| **191-24-2** | **Benzo(g,h,i)perylene** | **13** | **60** | **270** |
| **483-65-8** | **Retene** | **60** | **60** | **74** |
| **TOTBFA** | **Total Benzofluoranthenes** | **8.2** | **60** | **570** |

Reported in µg/kg (ppb)

**Semivolatile Surrogate Recovery**

| | | | |
|---|---|---|---|
| d5-Nitrobenzene | 63.0% | 2-Fluorobiphenyl | 69.6% |
| d14-p-Terphenyl | 73.8% | d4-1,2-Dichlorobenzene | 61.2% |
| d5-Phenol | 68.4% | 2-Fluorophenol | 66.0% |
| 2,4,6-Tribromophenol | 74.0% | d4-2-Chlorophenol | 67.6% |

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Semivolatiles by SW8270D GC/MS**
**Extraction Method: SW3546**
Page 1 of 1

**Sample ID: MS101-SS-120515**
**SAMPLE**

Lab Sample ID: UU52B
LIMS ID: 12-8894
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 17:48
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 90.2%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| **108-95-2** | **Phenol** | **26** | **60** | **400** |
| **106-44-5** | **4-Methylphenol** | **20** | **120** | **1,600** |
| **65-85-0** | **Benzoic Acid** | **300** | **1,200** | **640 J** |
| **91-20-3** | **Naphthalene** | **8.2** | **60** | **1,800** |
| **91-57-6** | **2-Methylnaphthalene** | **9.1** | **60** | **270** |
| 131-11-3 | Dimethylphthalate | 8.6 | 60 | < 60 U |
| **208-96-8** | **Acenaphthylene** | **17** | **60** | **130** |
| **83-32-9** | **Acenaphthene** | **9.8** | **60** | **160** |
| **132-64-9** | **Dibenzofuran** | **12** | **60** | **280** |
| **86-73-7** | **Fluorene** | **13** | **60** | **170** |
| **87-86-5** | **Pentachlorophenol** | **140** | **600** | **160 J** |
| **85-01-8** | **Phenanthrene** | **11** | **60** | **1,200** |
| **86-74-8** | **Carbazole** | **8.0** | **60** | **57 J** |
| **120-12-7** | **Anthracene** | **13** | **60** | **180** |
| 84-74-2 | Di-n-Butylphthalate | 24 | 60 | < 60 U |
| **206-44-0** | **Fluoranthene** | **8.7** | **60** | **970** |
| **129-00-0** | **Pyrene** | **5.8** | **60** | **910** |
| 85-68-7 | Butylbenzylphthalate | 18 | 60 | < 60 U |
| **56-55-3** | **Benzo(a)anthracene** | **9.8** | **60** | **170** |
| **117-81-7** | **bis(2-Ethylhexyl)phthalate** | **43** | **74** | **120** |
| **218-01-9** | **Chrysene** | **11** | **60** | **400** |
| 117-84-0 | Di-n-Octyl phthalate | 17 | 60 | < 17 UJ |
| **50-32-8** | **Benzo(a)pyrene** | **16** | **60** | **270** |
| **193-39-5** | **Indeno(1,2,3-cd)pyrene** | **14** | **60** | **230** |
| **53-70-3** | **Dibenz(a,h)anthracene** | **13** | **60** | **54 J** |
| **191-24-2** | **Benzo(g,h,i)perylene** | **13** | **60** | **330** |
| **483-65-8** | **Retene** | **60** | **60** | **100** |
| **TOTBFA** | **Total Benzofluoranthenes** | **8.2** | **60** | **640** |

Reported in µg/kg (ppb)

**Semivolatile Surrogate Recovery**

| | | | |
|---|---|---|---|
| d5-Nitrobenzene | 59.4% | 2-Fluorobiphenyl | 65.4% |
| d14-p-Terphenyl | 69.0% | d4-1,2-Dichlorobenzene | 57.0% |
| d5-Phenol | 65.2% | 2-Fluorophenol | 62.4% |
| 2,4,6-Tribromophenol | 70.4% | d4-2-Chlorophenol | 64.4% |

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Semivolatiles by SW8270D GC/MS**
**Extraction Method: SW3546**
Page 1 of 1

**Sample ID: MS002-SS-120515**
**SAMPLE**

Lab Sample ID: UU52C
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 18:25
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 89.8%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| **108-95-2** | **Phenol** | **26** | **59** | **260** |
| **106-44-5** | **4-Methylphenol** | **20** | **120** | **1,400** |
| **65-85-0** | **Benzoic Acid** | **300** | **1,200** | **420 J** |
| **91-20-3** | **Naphthalene** | **8.2** | **59** | **1,300** |
| **91-57-6** | **2-Methylnaphthalene** | **9.1** | **59** | **240** |
| 131-11-3 | Dimethylphthalate | 8.6 | 59 | < 59 U |
| **208-96-8** | **Acenaphthylene** | **17** | **59** | **86** |
| **83-32-9** | **Acenaphthene** | **9.7** | **59** | **140** |
| **132-64-9** | **Dibenzofuran** | **12** | **59** | **240** |
| **86-73-7** | **Fluorene** | **13** | **59** | **160** |
| 87-86-5 | Pentachlorophenol | 140 | 590 | < 590 U |
| **85-01-8** | **Phenanthrene** | **11** | **59** | **830** |
| **86-74-8** | **Carbazole** | **8.0** | **59** | **56 J** |
| **120-12-7** | **Anthracene** | **13** | **59** | **170** |
| 84-74-2 | Di-n-Butylphthalate | 24 | 59 | < 59 U |
| **206-44-0** | **Fluoranthene** | **8.6** | **59** | **860** |
| **129-00-0** | **Pyrene** | **5.8** | **59** | **860** |
| 85-68-7 | Butylbenzylphthalate | 18 | 59 | < 59 U |
| **56-55-3** | **Benzo(a)anthracene** | **9.8** | **59** | **280** |
| **117-81-7** | **bis(2-Ethylhexyl)phthalate** | **43** | **74** | **150** |
| **218-01-9** | **Chrysene** | **11** | **59** | **800** |
| 117-84-0 | Di-n-Octyl phthalate | 17 | 59 | < 17 UJ |
| **50-32-8** | **Benzo(a)pyrene** | **16** | **59** | **470** |
| **193-39-5** | **Indeno(1,2,3-cd)pyrene** | **14** | **59** | **340** |
| **53-70-3** | **Dibenz(a,h)anthracene** | **13** | **59** | **100** |
| **191-24-2** | **Benzo(g,h,i)perylene** | **13** | **59** | **430** |
| **483-65-8** | **Retene** | **59** | **59** | **80** |
| **TOTBFA** | **Total Benzofluoranthenes** | **8.2** | **59** | **1,000** |

Reported in µg/kg (ppb)

**Semivolatile Surrogate Recovery**

| | | | |
|---|---|---|---|
| d5-Nitrobenzene | 63.6% | 2-Fluorobiphenyl | 69.6% |
| d14-p-Terphenyl | 73.2% | d4-1,2-Dichlorobenzene | 60.0% |
| d5-Phenol | 69.6% | 2-Fluorophenol | 64.4% |
| 2,4,6-Tribromophenol | 74.4% | d4-2-Chlorophenol | 66.8% |

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Semivolatiles by SW8270D GC/MS**
**Extraction Method: SW3546**
Page 1 of 1

**Sample ID: MS003-SS-120515**
**SAMPLE**

Lab Sample ID: UU52D
LIMS ID: 12-8896
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 19:02
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 90.7%

| CAS Number | Analyte | MDL | RL | Result | |
|---|---|---|---|---|---|
| **108-95-2** | **Phenol** | **26** | **60** | **180** | |
| **106-44-5** | **4-Methylphenol** | **20** | **120** | **1,100** | |
| **65-85-0** | **Benzoic Acid** | **300** | **1,200** | **330** | **J** |
| **91-20-3** | **Naphthalene** | **8.2** | **60** | **550** | |
| **91-57-6** | **2-Methylnaphthalene** | **9.1** | **60** | **86** | |
| 131-11-3 | Dimethylphthalate | 8.6 | 60 | < 60 | U |
| **208-96-8** | **Acenaphthylene** | **17** | **60** | **60** | |
| **83-32-9** | **Acenaphthene** | **9.8** | **60** | **72** | |
| **132-64-9** | **Dibenzofuran** | **12** | **60** | **110** | |
| **86-73-7** | **Fluorene** | **13** | **60** | **74** | |
| 87-86-5 | Pentachlorophenol | 140 | 600 | < 600 | U |
| **85-01-8** | **Phenanthrene** | **11** | **60** | **500** | |
| 86-74-8 | Carbazole | 8.0 | 60 | < 60 | U |
| **120-12-7** | **Anthracene** | **13** | **60** | **120** | |
| 84-74-2 | Di-n-Butylphthalate | 24 | 60 | < 60 | U |
| **206-44-0** | **Fluoranthene** | **8.7** | **60** | **550** | |
| **129-00-0** | **Pyrene** | **5.8** | **60** | **510** | |
| 85-68-7 | Butylbenzylphthalate | 18 | 60 | < 60 | U |
| **56-55-3** | **Benzo(a)anthracene** | **9.8** | **60** | **130** | |
| **117-81-7** | **bis(2-Ethylhexyl)phthalate** | **43** | **74** | **120** | |
| **218-01-9** | **Chrysene** | **11** | **60** | **390** | |
| 117-84-0 | Di-n-Octyl phthalate | 17 | 60 | < 17 | UJ |
| **50-32-8** | **Benzo(a)pyrene** | **16** | **60** | **250** | |
| **193-39-5** | **Indeno(1,2,3-cd)pyrene** | **14** | **60** | **180** | |
| **53-70-3** | **Dibenz(a,h)anthracene** | **13** | **60** | **51** | **J** |
| **191-24-2** | **Benzo(g,h,i)perylene** | **13** | **60** | **230** | |
| **483-65-8** | **Retene** | **60** | **60** | **32** | **J** |
| **TOTBFA** | **Total Benzofluoranthenes** | **8.2** | **60** | **580** | |

Reported in µg/kg (ppb)

**Semivolatile Surrogate Recovery**

| | | | |
|---|---|---|---|
| d5-Nitrobenzene | 57.6% | 2-Fluorobiphenyl | 64.2% |
| d14-p-Terphenyl | 66.6% | d4-1,2-Dichlorobenzene | 55.8% |
| d5-Phenol | 63.2% | 2-Fluorophenol | 58.4% |
| 2,4,6-Tribromophenol | 70.4% | d4-2-Chlorophenol | 62.0% |

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Semivolatiles by SW8270D GC/MS**
**Extraction Method: SW3546**
Page 1 of 1

**Sample ID: MS004-SS-120515**
**SAMPLE**

Lab Sample ID: UU52E
LIMS ID: 12-8897
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 19:39
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 90.4%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| **108-95-2** | **Phenol** | **26** | **60** | **200** |
| **106-44-5** | **4-Methylphenol** | **20** | **120** | **690** |
| **65-85-0** | **Benzoic Acid** | **300** | **1,200** | **390 J** |
| **91-20-3** | **Naphthalene** | **8.2** | **60** | **1,400** |
| **91-57-6** | **2-Methylnaphthalene** | **9.1** | **60** | **270** |
| 131-11-3 | Dimethylphthalate | 8.7 | 60 | < 60 U |
| **208-96-8** | **Acenaphthylene** | **17** | **60** | **78** |
| **83-32-9** | **Acenaphthene** | **9.8** | **60** | **140** |
| **132-64-9** | **Dibenzofuran** | **12** | **60** | **300** |
| **86-73-7** | **Fluorene** | **13** | **60** | **170** |
| 87-86-5 | Pentachlorophenol | 140 | 600 | < 600 U |
| **85-01-8** | **Phenanthrene** | **11** | **60** | **890** |
| **86-74-8** | **Carbazole** | **8.0** | **60** | **69** |
| **120-12-7** | **Anthracene** | **13** | **60** | **180** |
| 84-74-2 | Di-n-Butylphthalate | 24 | 60 | < 60 U |
| **206-44-0** | **Fluoranthene** | **8.7** | **60** | **870** |
| **129-00-0** | **Pyrene** | **5.8** | **60** | **790** |
| 85-68-7 | Butylbenzylphthalate | 18 | 60 | < 60 U |
| **56-55-3** | **Benzo(a)anthracene** | **9.8** | **60** | **240** |
| **117-81-7** | **bis(2-Ethylhexyl)phthalate** | **44** | **75** | **120** |
| **218-01-9** | **Chrysene** | **11** | **60** | **680** |
| 117-84-0 | Di-n-Octyl phthalate | 17 | 60 | < 18 UJ |
| **50-32-8** | **Benzo(a)pyrene** | **16** | **60** | **380** |
| **193-39-5** | **Indeno(1,2,3-cd)pyrene** | **14** | **60** | **280** |
| **53-70-3** | **Dibenz(a,h)anthracene** | **13** | **60** | **87** |
| **191-24-2** | **Benzo(g,h,i)perylene** | **13** | **60** | **360** |
| **483-65-8** | **Retene** | **60** | **60** | **120** |
| **TOTBFA** | **Total Benzofluoranthenes** | **8.2** | **60** | **970** |

Reported in µg/kg (ppb)

**Semivolatile Surrogate Recovery**

| | | | |
|---|---|---|---|
| d5-Nitrobenzene | 61.8% | 2-Fluorobiphenyl | 69.0% |
| d14-p-Terphenyl | 70.2% | d4-1,2-Dichlorobenzene | 58.2% |
| d5-Phenol | 64.0% | 2-Fluorophenol | 62.8% |
| 2,4,6-Tribromophenol | 71.6% | d4-2-Chlorophenol | 65.6% |

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Semivolatiles by SW8270D GC/MS**
**Extraction Method: SW3546**
Page 1 of 1

**Sample ID: MS005-SS-120515**
**SAMPLE**

Lab Sample ID: UU52F
LIMS ID: 12-8898
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 20:16
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 91.1%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| **108-95-2** | **Phenol** | **26** | **59** | **1,100** |
| **106-44-5** | **4-Methylphenol** | **20** | **120** | **3,300** |
| **65-85-0** | **Benzoic Acid** | **300** | **1,200** | **3,100** |
| **91-20-3** | **Naphthalene** | **8.2** | **59** | **4,400** |
| **91-57-6** | **2-Methylnaphthalene** | **9.1** | **59** | **600** |
| 131-11-3 | Dimethylphthalate | 8.6 | 59 | < 59 U |
| **208-96-8** | **Acenaphthylene** | **17** | **59** | **250** |
| **83-32-9** | **Acenaphthene** | **9.7** | **59** | **820** |
| **132-64-9** | **Dibenzofuran** | **12** | **59** | **660** |
| **86-73-7** | **Fluorene** | **13** | **59** | **450** |
| 87-86-5 | Pentachlorophenol | 140 | 590 | < 590 U |
| **85-01-8** | **Phenanthrene** | **11** | **59** | **1,800** |
| **86-74-8** | **Carbazole** | **8.0** | **59** | **130** |
| **120-12-7** | **Anthracene** | **13** | **59** | **350** |
| 84-74-2 | Di-n-Butylphthalate | 24 | 59 | < 59 U |
| **206-44-0** | **Fluoranthene** | **8.6** | **59** | **1,900** |
| **129-00-0** | **Pyrene** | **5.7** | **59** | **1,600** |
| 85-68-7 | Butylbenzylphthalate | 18 | 59 | < 59 U |
| **56-55-3** | **Benzo(a)anthracene** | **9.7** | **59** | **300** |
| **117-81-7** | **bis(2-Ethylhexyl)phthalate** | **43** | **74** | **170** |
| **218-01-9** | **Chrysene** | **11** | **59** | **570** |
| 117-84-0 | Di-n-Octyl phthalate | 17 | 59 | < 17 UJ |
| **50-32-8** | **Benzo(a)pyrene** | **16** | **59** | **330** |
| **193-39-5** | **Indeno(1,2,3-cd)pyrene** | **14** | **59** | **240** |
| **53-70-3** | **Dibenz(a,h)anthracene** | **13** | **59** | **95** |
| **191-24-2** | **Benzo(g,h,i)perylene** | **13** | **59** | **320** |
| **483-65-8** | **Retene** | **59** | **59** | **140** |
| **TOTBFA** | **Total Benzofluoranthenes** | **8.1** | **59** | **970** |

Reported in µg/kg (ppb)

**Semivolatile Surrogate Recovery**

| | | | |
|---|---|---|---|
| d5-Nitrobenzene | 63.6% | 2-Fluorobiphenyl | 68.4% |
| d14-p-Terphenyl | 70.2% | d4-1,2-Dichlorobenzene | 60.0% |
| d5-Phenol | 82.4% | 2-Fluorophenol | 70.8% |
| 2,4,6-Tribromophenol | 76.4% | d4-2-Chlorophenol | 67.6% |

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Semivolatiles by SW8270D GC/MS**
**Extraction Method: SW3546**
Page 1 of 1

**Sample ID: MS006-SS-120515**
**SAMPLE**

Lab Sample ID: UU52G
LIMS ID: 12-8899
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 20:54
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 90.8%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| **108-95-2** | **Phenol** | **26** | **60** | **380** |
| **106-44-5** | **4-Methylphenol** | **20** | **120** | **270** |
| **65-85-0** | **Benzoic Acid** | **300** | **1,200** | **3,100** |
| **91-20-3** | **Naphthalene** | **8.2** | **60** | **6,200 E** |
| **91-57-6** | **2-Methylnaphthalene** | **9.1** | **60** | **600** |
| 131-11-3 | Dimethylphthalate | 8.6 | 60 | < 60 U |
| **208-96-8** | **Acenaphthylene** | **17** | **60** | **220** |
| **83-32-9** | **Acenaphthene** | **9.8** | **60** | **110** |
| **132-64-9** | **Dibenzofuran** | **12** | **60** | **480** |
| **86-73-7** | **Fluorene** | **13** | **60** | **130** |
| 87-86-5 | Pentachlorophenol | 140 | 600 | < 600 U |
| **85-01-8** | **Phenanthrene** | **11** | **60** | **2,200** |
| **86-74-8** | **Carbazole** | **8.0** | **60** | **95** |
| **120-12-7** | **Anthracene** | **13** | **60** | **220** |
| 84-74-2 | Di-n-Butylphthalate | 24 | 60 | < 60 U |
| **206-44-0** | **Fluoranthene** | **8.7** | **60** | **1,700** |
| **129-00-0** | **Pyrene** | **5.8** | **60** | **1,400** |
| 85-68-7 | Butylbenzylphthalate | 18 | 60 | < 60 U |
| **56-55-3** | **Benzo(a)anthracene** | **9.8** | **60** | **230** |
| **117-81-7** | **bis(2-Ethylhexyl)phthalate** | **43** | **74** | **120** |
| **218-01-9** | **Chrysene** | **11** | **60** | **410** |
| 117-84-0 | Di-n-Octyl phthalate | 17 | 60 | < 17 UJ |
| **50-32-8** | **Benzo(a)pyrene** | **16** | **60** | **250** |
| **193-39-5** | **Indeno(1,2,3-cd)pyrene** | **14** | **60** | **220** |
| **53-70-3** | **Dibenz(a,h)anthracene** | **13** | **60** | **54 J** |
| **191-24-2** | **Benzo(g,h,i)perylene** | **13** | **60** | **310** |
| **483-65-8** | **Retene** | **60** | **60** | **270** |
| **TOTBFA** | **Total Benzofluoranthenes** | **8.2** | **60** | **650** |

Reported in µg/kg (ppb)

**Semivolatile Surrogate Recovery**

| | | | |
|---|---|---|---|
| d5-Nitrobenzene | 67.2% | 2-Fluorobiphenyl | 71.4% |
| d14-p-Terphenyl | 74.4% | d4-1,2-Dichlorobenzene | 64.8% |
| d5-Phenol | 67.2% | 2-Fluorophenol | 63.2% |
| 2,4,6-Tribromophenol | 87.6% | d4-2-Chlorophenol | 69.2% |

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Semivolatiles by SW8270D GC/MS** **Sample ID: MS006-SS-120515**
**Extraction Method: SW3546** **DILUTION**
Page 1 of 1

Lab Sample ID: UU52G
LIMS ID: 12-8899
Matrix: Sediment
Data Release Authorized:
Reported: 06/08/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/30/12 13:04
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 6.00
Percent Moisture: 90.8%

| CAS Number | Analyte | MDL | RL | Result | |
|---|---|---|---|---|---|
| **108-95-2** | **Phenol** | **51** | **120** | **490** | |
| **106-44-5** | **4-Methylphenol** | **39** | **240** | **280** | |
| **65-85-0** | **Benzoic Acid** | **600** | **2,400** | **5,200** | **Q** |
| **91-20-3** | **Naphthalene** | **16** | **120** | **6,300** | |
| **91-57-6** | **2-Methylnaphthalene** | **18** | **120** | **580** | |
| 131-11-3 | Dimethylphthalate | 17 | 120 | < 120 | U |
| **208-96-8** | **Acenaphthylene** | **34** | **120** | **210** | |
| **83-32-9** | **Acenaphthene** | **20** | **120** | **89** | **J** |
| **132-64-9** | **Dibenzofuran** | **24** | **120** | **540** | |
| **86-73-7** | **Fluorene** | **26** | **120** | **130** | |
| 87-86-5 | Pentachlorophenol | 290 | 1,200 | < 1,200 | U |
| **85-01-8** | **Phenanthrene** | **22** | **120** | **2,200** | |
| **86-74-8** | **Carbazole** | **16** | **120** | **110** | **J** |
| **120-12-7** | **Anthracene** | **27** | **120** | **200** | |
| 84-74-2 | Di-n-Butylphthalate | 49 | 120 | < 120 | U |
| **206-44-0** | **Fluoranthene** | **17** | **120** | **1,800** | |
| **129-00-0** | **Pyrene** | **12** | **120** | **1,300** | |
| 85-68-7 | Butylbenzylphthalate | 37 | 120 | < 120 | U |
| **56-55-3** | **Benzo(a)anthracene** | **20** | **120** | **210** | |
| **117-81-7** | **bis(2-Ethylhexyl)phthalate** | **87** | **150** | **130** | **J** |
| **218-01-9** | **Chrysene** | **22** | **120** | **400** | |
| 117-84-0 | Di-n-Octyl phthalate | 35 | 120 | < 35 | UJ |
| **50-32-8** | **Benzo(a)pyrene** | **32** | **120** | **240** | |
| **193-39-5** | **Indeno(1,2,3-cd)pyrene** | **28** | **120** | **260** | |
| **53-70-3** | **Dibenz(a,h)anthracene** | **26** | **120** | **65** | **J** |
| **191-24-2** | **Benzo(g,h,i)perylene** | **26** | **120** | **380** | |
| **483-65-8** | **Retene** | **120** | **120** | **270** | |
| **TOTBFA** | **Total Benzofluoranthenes** | **16** | **120** | **640** | |

Reported in µg/kg (ppb)

**Semivolatile Surrogate Recovery**

| | | | |
|---|---|---|---|
| d5-Nitrobenzene | 68.4% | 2-Fluorobiphenyl | 72.0% |
| d14-p-Terphenyl | 73.2% | d4-1,2-Dichlorobenzene | 64.8% |
| d5-Phenol | 69.6% | 2-Fluorophenol | 66.4% |
| 2,4,6-Tribromophenol | 78.4% | d4-2-Chlorophenol | 70.4% |

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Semivolatiles by SW8270D GC/MS** **Sample ID: MS007-SS-120515**
**Extraction Method: SW3546** **SAMPLE**


Lab Sample ID: UU52H
LIMS ID: 12-8900
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 21:31
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 83.9%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| **108-95-2** | **Phenol** | **25** | **59** | **430** |
| **106-44-5** | **4-Methylphenol** | **19** | **120** | **1,800** |
| **65-85-0** | **Benzoic Acid** | **300** | **1,200** | **1,300** |
| **91-20-3** | **Naphthalene** | **8.1** | **59** | **2,200** |
| **91-57-6** | **2-Methylnaphthalene** | **9.0** | **59** | **290** |
| 131-11-3 | Dimethylphthalate | 8.5 | 59 | < 59 U |
| **208-96-8** | **Acenaphthylene** | **17** | **59** | **140** |
| **83-32-9** | **Acenaphthene** | **9.6** | **59** | **130** |
| **132-64-9** | **Dibenzofuran** | **12** | **59** | **210** |
| **86-73-7** | **Fluorene** | **13** | **59** | **120** |
| 87-86-5 | Pentachlorophenol | 140 | 590 | < 590 U |
| **85-01-8** | **Phenanthrene** | **11** | **59** | **1,100** |
| **86-74-8** | **Carbazole** | **7.9** | **59** | **62** |
| **120-12-7** | **Anthracene** | **13** | **59** | **170** |
| 84-74-2 | Di-n-Butylphthalate | 24 | 59 | < 59 U |
| **206-44-0** | **Fluoranthene** | **8.6** | **59** | **1,100** |
| **129-00-0** | **Pyrene** | **5.7** | **59** | **960** |
| 85-68-7 | Butylbenzylphthalate | 18 | 59 | < 59 U |
| **56-55-3** | **Benzo(a)anthracene** | **9.7** | **59** | **180** |
| **117-81-7** | **bis(2-Ethylhexyl)phthalate** | **43** | **74** | **120** |
| **218-01-9** | **Chrysene** | **11** | **59** | **290** |
| 117-84-0 | Di-n-Octyl phthalate | 17 | 59 | < 17 UJ |
| **50-32-8** | **Benzo(a)pyrene** | **16** | **59** | **270** |
| **193-39-5** | **Indeno(1,2,3-cd)pyrene** | **14** | **59** | **190** |
| **53-70-3** | **Dibenz(a,h)anthracene** | **13** | **59** | **59** |
| **191-24-2** | **Benzo(g,h,i)perylene** | **13** | **59** | **250** |
| **483-65-8** | **Retene** | **59** | **59** | **85** |
| **TOTBFA** | **Total Benzofluoranthenes** | **8.1** | **59** | **540** |

Reported in µg/kg (ppb)

**Semivolatile Surrogate Recovery**

| | | | |
|---|---|---|---|
| d5-Nitrobenzene | 63.6% | 2-Fluorobiphenyl | 67.8% |
| d14-p-Terphenyl | 70.8% | d4-1,2-Dichlorobenzene | 62.4% |
| d5-Phenol | 65.6% | 2-Fluorophenol | 62.4% |
| 2,4,6-Tribromophenol | 74.4% | d4-2-Chlorophenol | 68.0% |

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Semivolatiles by SW8270D GC/MS** **Sample ID: MS008-SS-120515**
**Extraction Method: SW3546** **SAMPLE**


Lab Sample ID: UU52I
LIMS ID: 12-8901
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/29/12 12:56
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 89.0%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| **108-95-2** | **Phenol** | **26** | **60** | **190** |
| **106-44-5** | **4-Methylphenol** | **20** | **120** | **610** |
| **65-85-0** | **Benzoic Acid** | **300** | **1,200** | **740 J** |
| **91-20-3** | **Naphthalene** | **8.2** | **60** | **460** |
| **91-57-6** | **2-Methylnaphthalene** | **9.1** | **60** | **66** |
| 131-11-3 | Dimethylphthalate | 8.7 | 60 | < 60 U |
| **208-96-8** | **Acenaphthylene** | **17** | **60** | **39 J** |
| **83-32-9** | **Acenaphthene** | **9.8** | **60** | **57 J** |
| **132-64-9** | **Dibenzofuran** | **12** | **60** | **69** |
| **86-73-7** | **Fluorene** | **13** | **60** | **66** |
| 87-86-5 | Pentachlorophenol | 140 | 600 | < 600 U |
| **85-01-8** | **Phenanthrene** | **11** | **60** | **480** |
| **86-74-8** | **Carbazole** | **8.0** | **60** | **63** |
| **120-12-7** | **Anthracene** | **13** | **60** | **110** |
| 84-74-2 | Di-n-Butylphthalate | 24 | 60 | < 60 U |
| **206-44-0** | **Fluoranthene** | **8.7** | **60** | **600** |
| **129-00-0** | **Pyrene** | **5.8** | **60** | **460** |
| 85-68-7 | Butylbenzylphthalate | 18 | 60 | < 60 U |
| **56-55-3** | **Benzo(a)anthracene** | **9.8** | **60** | **190** |
| **117-81-7** | **bis(2-Ethylhexyl)phthalate** | **44** | **75** | **98** |
| **218-01-9** | **Chrysene** | **11** | **60** | **240** |
| 117-84-0 | Di-n-Octyl phthalate | 17 | 60 | < 17 UJ |
| **50-32-8** | **Benzo(a)pyrene** | **16** | **60** | **220** |
| **193-39-5** | **Indeno(1,2,3-cd)pyrene** | **14** | **60** | **140** |
| **53-70-3** | **Dibenz(a,h)anthracene** | **13** | **60** | **54 J** |
| **191-24-2** | **Benzo(g,h,i)perylene** | **13** | **60** | **170** |
| 483-65-8 | Retene | 60 | 60 | < 60 U |
| **TOTBFA** | **Total Benzofluoranthenes** | **8.2** | **60** | **420** |

Reported in µg/kg (ppb)

**Semivolatile Surrogate Recovery**

| | | | |
|---|---|---|---|
| d5-Nitrobenzene | 51.0% | 2-Fluorobiphenyl | 59.4% |
| d14-p-Terphenyl | 61.8% | d4-1,2-Dichlorobenzene | 51.0% |
| d5-Phenol | 53.6% | 2-Fluorophenol | 53.2% |
| 2,4,6-Tribromophenol | 65.2% | d4-2-Chlorophenol | 56.4% |

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Semivolatiles by SW8270D GC/MS** **Sample ID: MS009-SS-120515**
**Extraction Method: SW3546** **SAMPLE**


Lab Sample ID: UU52J
LIMS ID: 12-8902
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/29/12 13:33
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 90.2%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| **108-95-2** | **Phenol** | **26** | **60** | **100** |
| **106-44-5** | **4-Methylphenol** | **20** | **120** | **470** |
| **65-85-0** | **Benzoic Acid** | **300** | **1,200** | **410 J** |
| **91-20-3** | **Naphthalene** | **8.2** | **60** | **290** |
| **91-57-6** | **2-Methylnaphthalene** | **9.1** | **60** | **36 J** |
| 131-11-3 | Dimethylphthalate | 8.6 | 60 | < 60 U |
| 208-96-8 | Acenaphthylene | 17 | 60 | < 60 U |
| 83-32-9 | Acenaphthene | 9.8 | 60 | < 60 U |
| **132-64-9** | **Dibenzofuran** | **12** | **60** | **54 J** |
| **86-73-7** | **Fluorene** | **13** | **60** | **42 J** |
| 87-86-5 | Pentachlorophenol | 140 | 600 | < 600 U |
| **85-01-8** | **Phenanthrene** | **11** | **60** | **250** |
| 86-74-8 | Carbazole | 8.0 | 60 | < 60 U |
| **120-12-7** | **Anthracene** | **13** | **60** | **51 J** |
| 84-74-2 | Di-n-Butylphthalate | 24 | 60 | < 60 U |
| **206-44-0** | **Fluoranthene** | **8.7** | **60** | **290** |
| **129-00-0** | **Pyrene** | **5.8** | **60** | **240** |
| 85-68-7 | Butylbenzylphthalate | 18 | 60 | < 60 U |
| **56-55-3** | **Benzo(a)anthracene** | **9.8** | **60** | **57 J** |
| **117-81-7** | **bis(2-Ethylhexyl)phthalate** | **44** | **75** | **90** |
| **218-01-9** | **Chrysene** | **11** | **60** | **120** |
| 117-84-0 | Di-n-Octyl phthalate | 17 | 60 | < 17 UJ |
| **50-32-8** | **Benzo(a)pyrene** | **16** | **60** | **80** |
| **193-39-5** | **Indeno(1,2,3-cd)pyrene** | **14** | **60** | **63** |
| 53-70-3 | Dibenz(a,h)anthracene | 13 | 60 | < 60 U |
| **191-24-2** | **Benzo(g,h,i)perylene** | **13** | **60** | **80** |
| 483-65-8 | Retene | 60 | 60 | < 60 U |
| **TOTBFA** | **Total Benzofluoranthenes** | **8.2** | **60** | **180** |

Reported in µg/kg (ppb)

**Semivolatile Surrogate Recovery**

| | | | |
|---|---|---|---|
| d5-Nitrobenzene | 61.2% | 2-Fluorobiphenyl | 67.8% |
| d14-p-Terphenyl | 70.2% | d4-1,2-Dichlorobenzene | 61.2% |
| d5-Phenol | 63.6% | 2-Fluorophenol | 62.8% |
| 2,4,6-Tribromophenol | 72.4% | d4-2-Chlorophenol | 67.6% |

ANALYTICAL RESOURCES INCORPORATED

## SW8270 SEMIVOLATILES SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01

| Client ID | NBZ | FBP | TPH | DCB | PHL | 2FP | TBP | 2CP | TOT OUT |
|---|---|---|---|---|---|---|---|---|---|
| MS001-SS-120515 | 63.0% | 69.6% | 73.8% | 61.2% | 68.4% | 66.0% | 74.0% | 67.6% | 0 |
| MS101-SS-120515 | 59.4% | 65.4% | 69.0% | 57.0% | 65.2% | 62.4% | 70.4% | 64.4% | 0 |
| MS002-SS-120515 | 63.6% | 69.6% | 73.2% | 60.0% | 69.6% | 64.4% | 74.4% | 66.8% | 0 |
| MS003-SS-120515 | 57.6% | 64.2% | 66.6% | 55.8% | 63.2% | 58.4% | 70.4% | 62.0% | 0 |
| MS004-SS-120515 | 61.8% | 69.0% | 70.2% | 58.2% | 64.0% | 62.8% | 71.6% | 65.6% | 0 |
| MS005-SS-120515 | 63.6% | 68.4% | 70.2% | 60.0% | 82.4% | 70.8% | 76.4% | 67.6% | 0 |
| MS006-SS-120515 | 67.2% | 71.4% | 74.4% | 64.8% | 67.2% | 63.2% | 87.6% | 69.2% | 0 |
| MS006-SS-120515 DL | 68.4% | 72.0% | 73.2% | 64.8% | 69.6% | 66.4% | 78.4% | 70.4% | 0 |
| MB-052212 | 56.2% | 55.8% | 66.4% | 55.4% | 55.1% | 53.3% | 55.1% | 56.0% | 0 |
| LCS-052212 | 72.6% | 73.0% | 83.2% | 72.2% | 76.8% | 74.1% | 82.8% | 75.6% | 0 |
| MS007-SS-120515 | 63.6% | 67.8% | 70.8% | 62.4% | 65.6% | 62.4% | 74.4% | 68.0% | 0 |
| MS007-SS-120515 MS | 58.8% | 64.2% | 65.4% | 58.2% | 60.0% | 59.6% | 70.4% | 62.8% | 0 |
| MS007-SS-120515 MSD | 64.8% | 69.6% | 73.2% | 61.2% | 65.6% | 64.0% | 76.0% | 66.0% | 0 |
| MS008-SS-120515 | 51.0% | 59.4% | 61.8% | 51.0% | 53.6% | 53.2% | 65.2% | 56.4% | 0 |
| MS009-SS-120515 | 61.2% | 67.8% | 70.2% | 61.2% | 63.6% | 62.8% | 72.4% | 67.6% | 0 |

| | LCS/MB LIMITS | QC LIMITS |
|---|---|---|
| (NBZ) = d5-Nitrobenzene | (30-160) | (30-160) |
| (FBP) = 2-Fluorobiphenyl | (30-160) | (30-160) |
| (TPH) = d14-p-Terphenyl | (30-160) | (30-160) |
| (DCB) = d4-1,2-Dichlorobenzene | (30-160) | (30-160) |
| (PHL) = d5-Phenol | (30-160) | (30-160) |
| (2FP) = 2-Fluorophenol | (30-160) | (30-160) |
| (TBP) = 2,4,6-Tribromophenol | (30-160) | (30-160) |
| (2CP) = d4-2-Chlorophenol | (30-160) | (30-160) |

Prep Method: SW3546
Log Number Range: 12-8893 to 12-8902

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Semivolatiles by SW8270D GC/MS**
Page 1 of 1

**Sample ID: MS007-SS-120515**
**MS/MSD**

Lab Sample ID: UU52H
LIMS ID: 12-8900
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted MS/MSD: 05/22/12

Date Analyzed MS: 05/29/12 11:41
MSD: 05/29/12 12:19
Instrument/Analyst MS: NT10/YZ
MSD: NT10/YZ
GPC Cleanup: Yes

Sample Amount MS: 10.2 g-dry-wt
MSD: 10.2 g-dry-wt
Final Extract Volume MS: 1.0 mL
MSD: 1.0 mL
Dilution Factor MS: 3.00
MSD: 3.00
Percent Moisture: 83.9 %

| Analyte | Sample | MS | Spike Added-MS | MS Recovery | MSD | Spike Added-MSD | MSD Recovery | RPD |
|---|---|---|---|---|---|---|---|---|
| Phenol | 432 | 564 | 492 | 26.8% | 546 | 492 | 23.2% | 3.2% |
| 4-Methylphenol | 1770 | 1850 | 984 | 8.1% | 1740 | 983 | NA | 6.1% |
| Benzoic Acid | 1280 | 2900 | 2710 | 59.8% | 2550 | 2700 | 47.0% | 12.8% |
| Naphthalene | 2230 | 1930 | 492 | NA | 1470 | 492 | NA | 27.1% |
| 2-Methylnaphthalene | 291 | 529 | 492 | 48.4% | 531 | 492 | 48.8% | 0.4% |
| Dimethylphthalate | < 58.8 U | 337 | 492 | 68.5% | 375 | 492 | 76.2% | 10.7% |
| Acenaphthylene | 141 | 446 | 492 | 62.0% | 460 | 492 | 64.8% | 3.1% |
| Acenaphthene | 126 | 458 | 492 | 67.5% | 475 | 492 | 70.9% | 3.6% |
| Dibenzofuran | 209 | 517 | 492 | 62.6% | 537 | 492 | 66.7% | 3.8% |
| Fluorene | 120 | 481 | 492 | 73.4% | 504 | 492 | 78.0% | 4.7% |
| Pentachlorophenol | < 588 U | 1090 | 1480 | 73.6% | 1230 | 1470 | 83.7% | 12.1% |
| Phenanthrene | 1060 | 1320 | 492 | 52.8% | 1460 | 492 | 81.3% | 10.1% |
| Carbazole | 61.7 | 416 | 492 | 72.0% | 510 | 492 | 91.1% | 20.3% |
| Anthracene | 170 | 490 | 492 | 65.0% | 552 | 492 | 77.6% | 11.9% |
| Di-n-Butylphthalate | < 58.8 U | 407 | 492 | 82.7% | 442 | 492 | 89.8% | 8.2% |
| Fluoranthene | 1070 | 1350 | 492 | 56.9% | 1520 | 492 | 91.5% | 11.8% |
| Pyrene | 961 | 1210 | 492 | 50.6% | 1330 | 492 | 75.0% | 9.4% |
| Butylbenzylphthalate | < 58.8 U | 413 | 492 | 83.9% | 437 | 492 | 88.8% | 5.6% |
| Benzo(a)anthracene | 185 | 570 | 492 | 78.3% | 640 | 492 | 92.5% | 11.6% |
| bis(2-Ethylhexyl)phthalate | 118 | 481 | 492 | 73.8% | 513 | 492 | 80.3% | 6.4% |
| Chrysene | 288 | 688 | 492 | 81.3% | 811 | 492 | 106% | 16.4% |
| Di-n-Octyl phthalate | < 17.2 UJ | 375 | 492 | 76.2% | 416 | 492 | 84.6% | 10.4% |
| Benzo(a)pyrene | 270 | 611 | 492 | 69.3% | 779 | 492 | 103% | 24.2% |
| Indeno(1,2,3-cd)pyrene | 194 | 546 | 492 | 71.5% | 655 | 492 | 93.7% | 18.2% |
| Dibenz(a,h)anthracene | 58.8 | 387 | 492 | 66.7% | 487 | 492 | 87.0% | 22.9% |
| Benzo(g,h,i)perylene | 250 | 638 | 492 | 78.9% | 729 | 492 | 97.4% | 13.3% |
| Total Benzofluoranthenes | 541 | 1250 | 984 | 72.1% | 1480 | 983 | 95.5% | 16.8% |

Reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.
NA-No recovery due to high concentration of analyte in original sample and/or calculated negative recovery.

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Semivolatiles by SW8270D GC/MS** **Sample ID: MS007-SS-120515**
**Extraction Method: SW3546** **MATRIX SPIKE**


Lab Sample ID: UU52H
LIMS ID: 12-8900
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/29/12 11:41
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 83.9%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 108-95-2 | Phenol | 26 | 59 | --- |
| 106-44-5 | 4-Methylphenol | 20 | 120 | --- |
| 65-85-0 | Benzoic Acid | 300 | 1,200 | --- |
| 91-20-3 | Naphthalene | 8.1 | 59 | --- |
| 91-57-6 | 2-Methylnaphthalene | 9.0 | 59 | --- |
| 131-11-3 | Dimethylphthalate | 8.6 | 59 | --- |
| 208-96-8 | Acenaphthylene | 17 | 59 | --- |
| 83-32-9 | Acenaphthene | 9.7 | 59 | --- |
| 132-64-9 | Dibenzofuran | 12 | 59 | --- |
| 86-73-7 | Fluorene | 13 | 59 | --- |
| 87-86-5 | Pentachlorophenol | 140 | 590 | --- |
| 85-01-8 | Phenanthrene | 11 | 59 | --- |
| 86-74-8 | Carbazole | 7.9 | 59 | --- |
| 120-12-7 | Anthracene | 13 | 59 | --- |
| 84-74-2 | Di-n-Butylphthalate | 24 | 59 | --- |
| 206-44-0 | Fluoranthene | 8.6 | 59 | --- |
| 129-00-0 | Pyrene | 5.7 | 59 | --- |
| 85-68-7 | Butylbenzylphthalate | 18 | 59 | --- |
| 56-55-3 | Benzo(a)anthracene | 9.7 | 59 | --- |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 43 | 74 | --- |
| 218-01-9 | Chrysene | 11 | 59 | --- |
| 117-84-0 | Di-n-Octyl phthalate | 17 | 59 | --- |
| 50-32-8 | Benzo(a)pyrene | 16 | 59 | --- |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 14 | 59 | --- |
| 53-70-3 | Dibenz(a,h)anthracene | 13 | 59 | --- |
| 191-24-2 | Benzo(g,h,i)perylene | 13 | 59 | --- |
| **483-65-8** | **Retene** | **59** | **59** | **92** |
| TOTBFA | Total Benzofluoranthenes | 8.1 | 59 | --- |

Reported in µg/kg (ppb)

**Semivolatile Surrogate Recovery**

| | | | |
|---|---|---|---|
| d5-Nitrobenzene | 58.8% | 2-Fluorobiphenyl | 64.2% |
| d14-p-Terphenyl | 65.4% | d4-1,2-Dichlorobenzene | 58.2% |
| d5-Phenol | 60.0% | 2-Fluorophenol | 59.6% |
| 2,4,6-Tribromophenol | 70.4% | d4-2-Chlorophenol | 62.8% |

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Semivolatiles by SW8270D GC/MS** **Sample ID: MS007-SS-120515**
**Extraction Method: SW3546** **MATRIX SPIKE DUPLICATE**


Lab Sample ID: UU52H
LIMS ID: 12-8900
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/29/12 12:19
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.2 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 3.00
Percent Moisture: 83.9%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 108-95-2 | Phenol | 26 | 59 | --- |
| 106-44-5 | 4-Methylphenol | 20 | 120 | --- |
| 65-85-0 | Benzoic Acid | 300 | 1,200 | --- |
| 91-20-3 | Naphthalene | 8.1 | 59 | --- |
| 91-57-6 | 2-Methylnaphthalene | 9.0 | 59 | --- |
| 131-11-3 | Dimethylphthalate | 8.6 | 59 | --- |
| 208-96-8 | Acenaphthylene | 17 | 59 | --- |
| 83-32-9 | Acenaphthene | 9.7 | 59 | --- |
| 132-64-9 | Dibenzofuran | 12 | 59 | --- |
| 86-73-7 | Fluorene | 13 | 59 | --- |
| 87-86-5 | Pentachlorophenol | 140 | 590 | --- |
| 85-01-8 | Phenanthrene | 11 | 59 | --- |
| 86-74-8 | Carbazole | 7.9 | 59 | --- |
| 120-12-7 | Anthracene | 13 | 59 | --- |
| 84-74-2 | Di-n-Butylphthalate | 24 | 59 | --- |
| 206-44-0 | Fluoranthene | 8.6 | 59 | --- |
| 129-00-0 | Pyrene | 5.7 | 59 | --- |
| 85-68-7 | Butylbenzylphthalate | 18 | 59 | --- |
| 56-55-3 | Benzo(a)anthracene | 9.7 | 59 | --- |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 43 | 74 | --- |
| 218-01-9 | Chrysene | 11 | 59 | --- |
| 117-84-0 | Di-n-Octyl phthalate | 17 | 59 | --- |
| 50-32-8 | Benzo(a)pyrene | 16 | 59 | --- |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 14 | 59 | --- |
| 53-70-3 | Dibenz(a,h)anthracene | 13 | 59 | --- |
| 191-24-2 | Benzo(g,h,i)perylene | 13 | 59 | --- |
| **483-65-8** | **Retene** | **59** | **59** | **94** |
| TOTBFA | Total Benzofluoranthenes | 8.1 | 59 | --- |

Reported in µg/kg (ppb)

**Semivolatile Surrogate Recovery**

| | | | |
|---|---|---|---|
| d5-Nitrobenzene | 64.8% | 2-Fluorobiphenyl | 69.6% |
| d14-p-Terphenyl | 73.2% | d4-1,2-Dichlorobenzene | 61.2% |
| d5-Phenol | 65.6% | 2-Fluorophenol | 64.0% |
| 2,4,6-Tribromophenol | 76.0% | d4-2-Chlorophenol | 66.0% |

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Semivolatiles by SW8270D GC/MS** **Sample ID: LCS-052212**
Page 1 of 1 **LAB CONTROL**

Lab Sample ID: LCS-052212
LIMS ID: 12-8900
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 16:34
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.0 g
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: NA

| Analyte | Lab Control | Spike Added | Recovery |
|---|---|---|---|
| Phenol | 418 | 500 | 83.6% |
| 4-Methylphenol | 656 | 1000 | 65.6% |
| Benzoic Acid | 1330 | 2750 | 48.4% |
| Naphthalene | 399 | 500 | 79.8% |
| 2-Methylnaphthalene | 384 | 500 | 76.8% |
| Dimethylphthalate | 423 | 500 | 84.6% |
| Acenaphthylene | 395 | 500 | 79.0% |
| Acenaphthene | 407 | 500 | 81.4% |
| Dibenzofuran | 394 | 500 | 78.8% |
| Fluorene | 412 | 500 | 82.4% |
| Pentachlorophenol | 1160 | 1500 | 77.3% |
| Phenanthrene | 443 | 500 | 88.6% |
| Carbazole | 461 | 500 | 92.2% |
| Anthracene | 413 | 500 | 82.6% |
| Di-n-Butylphthalate | 454 | 500 | 90.8% |
| Fluoranthene | 464 | 500 | 92.8% |
| Pyrene | 450 | 500 | 90.0% |
| Butylbenzylphthalate | 460 | 500 | 92.0% |
| Benzo(a)anthracene | 431 | 500 | 86.2% |
| bis(2-Ethylhexyl)phthalate | 467 | 500 | 93.4% |
| Chrysene | 440 | 500 | 88.0% |
| Di-n-Octyl phthalate | 459 | 500 | 91.8% |
| Benzo(a)pyrene | 402 | 500 | 80.4% |
| Indeno(1,2,3-cd)pyrene | 445 | 500 | 89.0% |
| Dibenz(a,h)anthracene | 449 | 500 | 89.8% |
| Benzo(g,h,i)perylene | 452 | 500 | 90.4% |
| Total Benzofluoranthenes | 888 | 1000 | 88.8% |

| Semivolatile Surrogate Recovery | |
|---|---|
| d5-Nitrobenzene | 72.6% |
| 2-Fluorobiphenyl | 73.0% |
| d14-p-Terphenyl | 83.2% |
| d4-1,2-Dichlorobenzene | 72.2% |
| d5-Phenol | 76.8% |
| 2-Fluorophenol | 74.1% |
| 2,4,6-Tribromophenol | 82.8% |
| d4-2-Chlorophenol | 75.6% |

Reported in µg/kg (ppb)



UU52:00055

4B

SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

UU52MBS1

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA, LLC.

ARI Job No: UU52

Project: JELD WEN MAULSBY MAR

Lab File ID: UU52MB

Date Extracted: 05/22/12

Instrument ID: NT10

Date Analyzed: 05/26/12

Matrix: SOLID

Time Analyzed: 1556

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 01 | UU52LCSS1 | UU52LCSS1 | UU52SB | 05/26/12 |
| 02 | MS001-SS-120515 | UU52A | UU52A | 05/26/12 |
| 03 | MS101-SS-120515 | UU52B | UU52B | 05/26/12 |
| 04 | MS002-SS-120515 | UU52C | UU52C | 05/26/12 |
| 05 | MS003-SS-120515 | UU52D | UU52D | 05/26/12 |
| 06 | MS004-SS-120515 | UU52E | UU52E | 05/26/12 |
| 07 | MS005-SS-120515 | UU52F | UU52F | 05/26/12 |
| 08 | MS006-SS-120515 | UU52G | UU52G | 05/26/12 |
| 09 | MS007-SS-120515 | UU52H | UU52H | 05/26/12 |
| 10 | MS007-SS-120515 | UU52HMS | UU52HMS | 05/29/12 |
| 11 | MS007-SS-120515 | UU52HMSD | UU52HMSD | 05/29/12 |
| 12 | MS008-SS-120515 | UU52I | UU52I | 05/29/12 |
| 13 | MS009-SS-120515 | UU52J | UU52J | 05/29/12 |
| 14 | MS006-SS-120515 | UU52G | UU52G6 | 05/30/12 |
| 15 | | | | |
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ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Semivolatiles by SW8270D GC/MS**
**Extraction Method: SW3546**
Page 1 of 1

**Sample ID: MB-052212**
**METHOD BLANK**

Lab Sample ID: MB-052212
LIMS ID: 12-8900
Matrix: Sediment
Data Release Authorized:
Reported: 06/05/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 15:56
Instrument/Analyst: NT10/YZ
GPC Cleanup: Yes

Sample Amount: 10.0 g
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: NA

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 108-95-2 | Phenol | 8.6 | 20 | < 20 U |
| 106-44-5 | 4-Methylphenol | 6.6 | 40 | < 40 U |
| 65-85-0 | Benzoic Acid | 100 | 400 | < 400 U |
| 91-20-3 | Naphthalene | 2.8 | 20 | < 20 U |
| 91-57-6 | 2-Methylnaphthalene | 3.1 | 20 | < 20 U |
| 131-11-3 | Dimethylphthalate | 2.9 | 20 | < 20 U |
| 208-96-8 | Acenaphthylene | 5.7 | 20 | < 20 U |
| 83-32-9 | Acenaphthene | 3.3 | 20 | < 20 U |
| 132-64-9 | Dibenzofuran | 4.1 | 20 | < 20 U |
| 86-73-7 | Fluorene | 4.4 | 20 | < 20 U |
| 87-86-5 | Pentachlorophenol | 48 | 200 | < 200 U |
| 85-01-8 | Phenanthrene | 3.6 | 20 | < 20 U |
| 86-74-8 | Carbazole | 2.7 | 20 | < 20 U |
| 120-12-7 | Anthracene | 4.5 | 20 | < 20 U |
| 84-74-2 | Di-n-Butylphthalate | 8.2 | 20 | < 20 U |
| 206-44-0 | Fluoranthene | 2.9 | 20 | < 20 U |
| 129-00-0 | Pyrene | 1.9 | 20 | < 20 U |
| 85-68-7 | Butylbenzylphthalate | 6.1 | 20 | < 20 U |
| 56-55-3 | Benzo(a)anthracene | 3.3 | 20 | < 20 U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 15 | 25 | < 25 U |
| 218-01-9 | Chrysene | 3.8 | 20 | < 20 U |
| 117-84-0 | Di-n-Octyl phthalate | 5.8 | 20 | < 5.8 UJ |
| 50-32-8 | Benzo(a)pyrene | 5.4 | 20 | < 20 U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 4.7 | 20 | < 20 U |
| 53-70-3 | Dibenz(a,h)anthracene | 4.3 | 20 | < 20 U |
| 191-24-2 | Benzo(g,h,i)perylene | 4.4 | 20 | < 20 U |
| 483-65-8 | Retene | 20 | 20 | < 20 U |
| TOTBFA | Total Benzofluoranthenes | 2.8 | 20 | < 20 U |

Reported in µg/kg (ppb)

**Semivolatile Surrogate Recovery**

| | | | |
|---|---|---|---|
| d5-Nitrobenzene | 56.2% | 2-Fluorobiphenyl | 55.8% |
| d14-p-Terphenyl | 66.4% | d4-1,2-Dichlorobenzene | 55.4% |
| d5-Phenol | 55.1% | 2-Fluorophenol | 53.3% |
| 2,4,6-Tribromophenol | 55.1% | d4-2-Chlorophenol | 56.0% |

5B

# SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
## DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

Instrument ID: NT10  Project: JELD WEN MAULSBY MARSH

DFTPP Injection Date: 05/26/12  DFTPP Injection Time: 1044

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 10.0 - 80.0% of mass 198 | 25.1 |
| 68 | Less than 2.0% of mass 69 | 0.6 ( 1.5)1 |
| 69 | Mass 69 relative abundance | 41.3 |
| 70 | Less than 2.0% of mass 69 | 0.2 ( 0.4)1 |
| 127 | 10.0 - 80.0% of mass 198 | 51.5 |
| 197 | Less than 2.0% of mass 198 | 0.0 |
| 198 | Base Peak, 100% relative abundance | 100.0 |
| 199 | 5.0 to 9.0% of mass 198 | 6.7 |
| 275 | 10.0 - 60.0% of mass 198 | 24.4 |
| 365 | Greater than 1.0% of mass 198 | 3.46 |
| 441 | 0.0 - 24.0% of mass 442 | 12.2 ( 15.8)2 |
| 442 | 50.0 - 200.0% of mass 198 | 77.1 |
| 443 | 15.0 - 24.0% of mass 442 | 15.4 ( 19.9)2 |

1-Value is % mass 69  2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | | ABN5 | IC0526A | 05/26/12 | 1059 |
| 02 | | ABN20 | IC0526B | 05/26/12 | 1136 |
| 03 | | ABN.2 | IC0526C | 05/26/12 | 1213 |
| 04 | | ABN10 | IC0526D | 05/26/12 | 1250 |
| 05 | | ABN.5 | IC0526E | 05/26/12 | 1327 |
| 06 | | ABN2.5 | IC0526F | 05/26/12 | 1405 |
| 07 | | ABN1.0 | IC0526G | 05/26/12 | 1442 |
| 08 | UU52MBS1 | UU52MBS1 | UU52MB | 05/26/12 | 1556 |
| 09 | UU52LCSS1 | UU52LCSS1 | UU52SB | 05/26/12 | 1634 |
| 10 | MS001-SS-120515 | UU52A | UU52A | 05/26/12 | 1711 |
| 11 | MS101-SS-120515 | UU52B | UU52B | 05/26/12 | 1748 |
| 12 | MS002-SS-120515 | UU52C | UU52C | 05/26/12 | 1825 |
| 13 | MS003-SS-120515 | UU52D | UU52D | 05/26/12 | 1902 |
| 14 | MS004-SS-120515 | UU52E | UU52E | 05/26/12 | 1939 |
| 15 | MS005-SS-120515 | UU52F | UU52F | 05/26/12 | 2016 |
| 16 | MS006-SS-120515 | UU52G | UU52G | 05/26/12 | 2054 |
| 17 | MS007-SS-120515 | UU52H | UU52H | 05/26/12 | 2131 |
| 18 | | | | | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |



FORM V SV

UU52:00058

5B

# SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
## DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

Instrument ID: NT10  Project: JELD WEN MAULSBY MARSH

DFTPP Injection Date: 05/29/12  DFTPP Injection Time: 1046

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 10.0 - 80.0% of mass 198 | 25.1 |
| 68 | Less than 2.0% of mass 69 | 0.6 ( 1.4)1 |
| 69 | Mass 69 relative abundance | 41.5 |
| 70 | Less than 2.0% of mass 69 | 0.2 ( 0.4)1 |
| 127 | 10.0 - 80.0% of mass 198 | 51.8 |
| 197 | Less than 2.0% of mass 198 | 0.0 |
| 198 | Base Peak, 100% relative abundance | 100.0 |
| 199 | 5.0 to 9.0% of mass 198 | 6.6 |
| 275 | 10.0 - 60.0% of mass 198 | 25.0 |
| 365 | Greater than 1.0% of mass 198 | 3.38 |
| 441 | 0.0 - 24.0% of mass 442 | 12.1 ( 15.6)2 |
| 442 | 50.0 - 200.0% of mass 198 | 77.6 |
| 443 | 15.0 - 24.0% of mass 442 | 14.9 ( 19.3)2 |

1-Value is % mass 69  2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | | CC0529 | CC0529 | 05/29/12 | 1101 |
| 02 | MS007-SS-120515 | UU52HMS | UU52HMS | 05/29/12 | 1141 |
| 03 | MS007-SS-120515 | UU52HMSD | UU52HMSD | 05/29/12 | 1219 |
| 04 | MS008-SS-120515 | UU52I | UU52I | 05/29/12 | 1256 |
| 05 | MS009-SS-120515 | UU52J | UU52J | 05/29/12 | 1333 |
| 06 | | | | | |
| 07 | | | | | |
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FORM V SV

UU52:00059

5B

# SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
## DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

Instrument ID: NT10  Project: JELD WEN MAULSBY MARSH

DFTPP Injection Date: 05/30/12  DFTPP Injection Time: 1212

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 10.0 - 80.0% of mass 198 | 25.9 |
| 68 | Less than 2.0% of mass 69 | 0.6 ( 1.3)1 |
| 69 | Mass 69 relative abundance | 42.0 |
| 70 | Less than 2.0% of mass 69 | 0.2 ( 0.4)1 |
| 127 | 10.0 - 80.0% of mass 198 | 50.1 |
| 197 | Less than 2.0% of mass 198 | 0.0 |
| 198 | Base Peak, 100% relative abundance | 100.0 |
| 199 | 5.0 to 9.0% of mass 198 | 6.6 |
| 275 | 10.0 - 60.0% of mass 198 | 24.6 |
| 365 | Greater than 1.0% of mass 198 | 3.34 |
| 441 | 0.0 - 24.0% of mass 442 | 12.0 ( 15.4)2 |
| 442 | 50.0 - 200.0% of mass 198 | 77.7 |
| 443 | 15.0 - 24.0% of mass 442 | 15.2 ( 19.6)2 |

1-Value is % mass 69  2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | | CC0530 | CC0530 | 05/30/12 | 1227 |
| 02 | MS006-SS-120515 | UU52G | UU52G6 | 05/30/12 | 1304 |
| 03 | | | | | |
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FORM V SV

UU52:00060

6B

# SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No: UU52  Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10  Calibration Date: 05/26/12

LAB FILE ID: RRF0.2=IC0526C  RRF0.5=IC0526E  RRF1 =IC0526G
RRF2.5=IC0526F  RRF5 =IC0526A  RRF10 =IC0526D
RRF20 =IC0526B

| COMPOUND | RRF 0.2 | RRF 0.5 | RRF 1 | RRF 2.5 | RRF 5 | RRF 10 | RRF 20 | RRF | %RSD /R^2 |
|---|---|---|---|---|---|---|---|---|---|
| Phenol | 1.938 | 1.782 | 1.799 | 1.837 | 1.945 | 1.859 | 1.841 | 1.857 | 3.4 |
| Bis(2-Chloroethyl)ether | 1.460 | 1.387 | 1.409 | 1.379 | 1.359 | 1.357 | 1.328 | 1.383 | 3.1 |
| 2-Chlorophenol | 1.591 | 1.562 | 1.601 | 1.599 | 1.641 | 1.749 | 1.736 | 1.640 | 4.5 |
| 1,3-Dichlorobenzene | 1.720 | 1.648 | 1.662 | 1.652 | 1.657 | 1.607 | 1.548 | 1.642 | 3.2 |
| 1,4-Dichlorobenzene | 1.670 | 1.614 | 1.602 | 1.614 | 1.592 | 1.585 | 1.542 | 1.603 | 2.4 |
| 1,2-Dichlorobenzene | 1.584 | 1.569 | 1.616 | 1.560 | 1.570 | 1.542 | 1.506 | 1.564 | 2.2 |
| Benzyl alcohol | 0.791 | 0.754 | 0.686 | 0.756 | 0.807 | 0.835 | 0.832 | 0.780 | 6.7 |
| 2,2'-oxybis(1-Chloropropane) | 0.531 | 0.522 | 0.510 | 0.499 | 0.515 | 0.497 | 0.491 | 0.509 | 2.8 |
| 2-Methylphenol | 1.537 | 1.414 | 1.454 | 1.445 | 1.466 | 1.471 | 1.460 | 1.464 | 2.6 |
| Hexachloroethane | 0.616 | 0.617 | 0.615 | 0.618 | 0.624 | 0.631 | 0.637 | 0.622 | 1.4 |
| N-Nitroso-di-n-propylamine | 0.858 | 0.882 | 0.882 | 0.880 | 0.856 | 0.851 | 0.829 | 0.862 | 2.3 |
| 4-Methylphenol | 1.520 | 1.518 | 1.520 | 1.549 | 1.532 | 1.541 | 1.508 | 1.527 | 0.9 |
| Nitrobenzene | 0.371 | 0.350 | 0.355 | 0.346 | 0.352 | 0.351 | 0.343 | 0.352 | 2.5 |
| Isophorone | 0.647 | 0.615 | 0.661 | 0.654 | 0.679 | 0.680 | 0.719 | 0.665 | 4.9 |
| 2-Nitrophenol | 0.217 | 0.206 | 0.218 | 0.220 | 0.234 | 0.232 | 0.230 | 0.222 | 4.5 |
| 2,4-Dimethylphenol | 0.347 | 0.340 | 0.366 | 0.356 | 0.364 | 0.351 | 0.342 | 0.352 | 2.9 |
| Bis(2-Chloroethoxy)methane | 0.413 | 0.391 | 0.409 | 0.387 | 0.398 | 0.390 | 0.384 | 0.396 | 2.9 |
| 2,4-Dichlorophenol | 0.297 | 0.336 | 0.340 | 0.346 | 0.354 | 0.363 | 0.336 | 0.339 | 6.2 |
| 1,2,4-Trichlorobenzene | 0.340 | 0.332 | 0.329 | 0.315 | 0.325 | 0.314 | 0.303 | 0.322 | 3.9 |
| Naphthalene | 1.019 | 0.990 | 1.020 | 0.987 | 1.023 | 1.022 | 0.998 | 1.008 | 1.6 |
| Benzoic acid | | 0.094 | 0.130 | 0.188 | 0.236 | 0.253 | 0.270 | 0.195 | 0.999 |
| 4-Chloroaniline | 0.423 | 0.404 | 0.470 | 0.485 | 0.453 | 0.455 | 0.454 | 0.449 | 6.1 |
| Hexachlorobutadiene | 0.171 | 0.174 | 0.173 | 0.173 | 0.181 | 0.175 | 0.166 | 0.173 | 2.6 |
| 4-Chloro-3-methylphenol | 0.278 | 0.277 | 0.303 | 0.301 | 0.320 | 0.325 | 0.324 | 0.304 | 6.8 |
| 2-Methylnaphthalene | 0.689 | 0.674 | 0.692 | 0.694 | 0.722 | 0.721 | 0.714 | 0.701 | 2.6 |
| Hexachlorocyclopentadiene | | 0.114 | 0.171 | 0.233 | 0.279 | 0.320 | 0.341 | 0.243 | 0.998 |
| 2,4,6-Trichlorophenol | 0.365 | 0.362 | 0.383 | 0.407 | 0.412 | 0.420 | 0.409 | 0.394 | 6.0 |
| 2,4,5-Trichlorophenol | 0.373 | 0.372 | 0.415 | 0.429 | 0.458 | 0.460 | 0.447 | 0.422 | 8.9 |
| 2-Chloronaphthalene | 1.186 | 1.155 | 1.214 | 1.192 | 1.183 | 1.206 | 1.161 | 1.185 | 1.8 |
| 2-Nitroaniline | 0.277 | 0.270 | 0.280 | 0.288 | 0.285 | 0.296 | 0.288 | 0.283 | 2.9 |
| Acenaphthylene | 1.851 | 1.791 | 1.804 | 1.809 | 1.782 | 1.823 | 1.715 | 1.796 | 2.4 |
| Dimethylphthalate | 1.288 | 1.237 | 1.277 | 1.254 | 1.226 | 1.219 | 1.102 | 1.229 | 5.0 |
| 2,6-Dinitrotoluene | 0.285 | 0.288 | 0.308 | 0.306 | 0.305 | 0.313 | 0.291 | 0.299 | 3.8 |
| Acenaphthene | 1.092 | 1.055 | 1.083 | 1.094 | 1.090 | 1.103 | 1.068 | 1.084 | 1.5 |
| 3-Nitroaniline | 0.330 | 0.330 | 0.343 | 0.346 | 0.336 | 0.354 | 0.327 | 0.338 | 3.0 |
| 2,4-Dinitrophenol | | 0.034 | 0.077 | 0.138 | 0.187 | 0.217 | 0.224 | 0.146 | 0.998 |
| Dibenzofuran | 1.561 | 1.557 | 1.619 | 1.620 | 1.575 | 1.609 | 1.570 | 1.587 | 1.7 |

<- Outside QC limits: %RSD <20% or R^2 > 0.990



FORM VI SV-1

UU52:00061

6B

# SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No: UU52  Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10  Calibration Date: 05/26/12

LAB FILE ID: RRF0.2=IC0526C  RRF0.5=IC0526E  RRF1 =IC0526G
RRF2.5=IC0526F  RRF5 =IC0526A  RRF10 =IC0526D
RRF20 =IC0526B

| COMPOUND | RRF 0.2 | RRF 0.5 | RRF 1 | RRF 2.5 | RRF 5 | RRF 10 | RRF 20 | RRF | %RSD /R^2 |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 0.106 | 0.112 | 0.124 | 0.137 | 0.142 | 0.151 | 0.139 | 0.130 | 12.7 |
| 2,4-Dinitrotoluene | 0.340 | 0.364 | 0.395 | 0.399 | 0.410 | 0.413 | 0.383 | 0.386 | 6.9 |
| Fluorene | 1.279 | 1.208 | 1.223 | 1.211 | 1.202 | 1.206 | 1.186 | 1.216 | 2.4 |
| 4-Chlorophenyl-phenylether | 0.599 | 0.570 | 0.586 | 0.582 | 0.578 | 0.581 | 0.547 | 0.578 | 2.8 |
| Diethylphthalate | 1.238 | 1.230 | 1.219 | 1.235 | 1.209 | 1.170 | 1.086 | 1.198 | 4.6 |
| 4-Nitroaniline | 0.301 | 0.358 | 0.377 | 0.355 | 0.339 | 0.338 | 0.350 | 0.345 | 6.8 |
| 4,6-Dinitro-2-methylphenol | | 0.107 | 0.139 | 0.162 | 0.179 | 0.186 | 0.180 | 0.159 | 19.4 |
| N-Nitrosodiphenylamine (1) | 0.564 | 0.550 | 0.561 | 0.536 | 0.537 | 0.527 | 0.492 | 0.538 | 4.5 |
| 4-Bromophenyl-phenylether | 0.220 | 0.201 | 0.214 | 0.211 | 0.217 | 0.224 | 0.212 | 0.214 | 3.4 |
| Hexachlorobenzene | 0.246 | 0.253 | 0.252 | 0.249 | 0.242 | 0.245 | 0.241 | 0.247 | 1.9 |
| Pentachlorophenol | | 0.052 | 0.078 | 0.098 | 0.130 | 0.138 | 0.143 | 0.106 | 0.998 |
| Phenanthrene | 1.060 | 0.976 | 1.036 | 1.008 | 1.023 | 1.041 | 1.075 | 1.031 | 3.2 |
| Anthracene | 1.070 | 1.030 | 1.068 | 1.054 | 1.113 | 1.103 | 1.104 | 1.077 | 2.8 |
| Carbazole | 1.025 | 1.038 | 1.070 | 0.995 | 0.948 | 0.890 | 1.012 | 0.997 | 6.0 |
| Di-n-butylphthalate | 1.334 | 1.278 | 1.384 | 1.371 | 1.471 | 1.486 | 1.498 | 1.403 | 6.0 |
| Fluoranthene | 1.154 | 1.110 | 1.131 | 1.139 | 1.202 | 1.218 | 1.242 | 1.171 | 4.3 |
| Pyrene | 1.206 | 1.159 | 1.236 | 1.209 | 1.245 | 1.233 | 1.231 | 1.217 | 2.4 |
| Butylbenzylphthalate | 0.577 | 0.555 | 0.571 | 0.562 | 0.584 | 0.554 | 0.549 | 0.564 | 2.3 |
| Benzo(a)anthracene | 1.207 | 1.091 | 1.119 | 1.099 | 1.111 | 1.116 | 1.134 | 1.125 | 3.4 |
| 3,3'-Dichlorobenzidine | | 0.634 | 0.646 | 0.639 | 0.586 | 0.537 | 0.654 | 0.616 | 7.4 |
| Chrysene | 0.989 | 0.952 | 0.998 | 0.965 | 1.006 | 1.010 | 1.009 | 0.990 | 2.3 |
| bis(2-Ethylhexyl)phthalate | 0.607 | 0.550 | 0.540 | 0.538 | 0.544 | 0.546 | 0.520 | 0.549 | 4.9 |
| Di-n-octylphthalate | 1.036 | 0.963 | 0.987 | 0.956 | 0.967 | 0.959 | 0.944 | 0.973 | 3.1 |
| Benzo(b)fluoranthene | 1.099 | 1.056 | 1.100 | 1.062 | 1.182 | 1.124 | 1.242 | 1.124 | 6.0 |
| Benzo(k)fluoranthene | 1.274 | 1.285 | 1.285 | 1.251 | 1.192 | 1.265 | 1.108 | 1.237 | 5.3 |
| Benzo(a)pyrene | 1.065 | 0.984 | 1.038 | 1.015 | 1.048 | 1.051 | 1.039 | 1.034 | 2.6 |
| Indeno(1,2,3-cd)pyrene | 1.121 | 1.119 | 1.177 | 1.212 | 1.249 | 1.259 | 1.237 | 1.196 | 4.9 |
| Dibenzo(a,h)anthracene | 0.850 | 0.866 | 0.936 | 0.958 | 0.992 | 1.004 | 0.989 | 0.942 | 6.6 |
| Benzo(g,h,i)perylene | 1.002 | 0.953 | 1.000 | 1.025 | 1.068 | 1.072 | 1.060 | 1.026 | 4.3 |
| N-Nitrosodimethylamine | 0.862 | 0.833 | 0.832 | 0.846 | 0.844 | 0.823 | 0.782 | 0.832 | 3.0 |
| Aniline | 4.087 | 3.968 | 4.063 | 3.997 | 3.987 | 3.874 | 3.718 | 3.956 | 3.2 |
| Benzidine | 0.470 | 0.467 | 0.476 | 0.425 | 0.340 | 0.441 | 0.579 | 0.457 | 15.6 |
| Retene | 0.551 | 0.538 | 0.552 | 0.560 | 0.588 | 0.585 | 0.592 | 0.566 | 3.8 |
| Perylene | 1.067 | 1.004 | 1.050 | 1.003 | 1.044 | 1.055 | 1.054 | 1.040 | 2.5 |
| Pyridine | 0.736 | 0.695 | 0.751 | 0.741 | 0.695 | 0.711 | 0.698 | 0.718 | 3.3 |
| 1-methylnaphthalene | 0.690 | 0.690 | 0.700 | 0.710 | 0.740 | 0.738 | 0.735 | 0.715 | 3.2 |
| Azobenzene (1,2-DP-Hydrazine | 1.292 | 1.215 | 1.244 | 1.245 | 1.187 | 1.208 | 1.107 | 1.214 | 4.8 |

(1) Cannot be seperated from Diphenylamine

<- Outside QC limits: %RSD <20% or R^2 > 0.990





UU52:00062

6B

# SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No: UU52  Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10  Calibration Date: 05/26/12

LAB FILE ID: RRF0.2=IC0526C  RRF0.5=IC0526E  RRF1 =IC0526G
RRF2.5=IC0526F  RRF5 =IC0526A  RRF10 =IC0526D
RRF20 =IC0526B

| COMPOUND | RRF 0.2 | RRF 0.5 | RRF 1 | RRF 2.5 | RRF 5 | RRF 10 | RRF 20 | RRF | %RSD /R^2 |
|---|---|---|---|---|---|---|---|---|---|
| Total Benzofluoranthenes | 1.124 | 1.091 | 1.124 | 1.083 | 1.118 | 1.124 | 1.104 | 1.110 | 1.6 |
| 2-Fluorophenol | 1.380 | 1.389 | 1.397 | 1.401 | 1.417 | 1.437 | 1.369 | 1.398 | 1.6 |
| Phenol-d5 | 1.676 | 1.697 | 1.709 | 1.740 | 1.776 | 1.808 | 1.791 | 1.742 | 2.9 |
| 2-Chlorophenol-d4 | 1.557 | 1.524 | 1.537 | 1.497 | 1.523 | 1.523 | 1.525 | 1.526 | 1.2 |
| 1,2-Dichlorobenzene-d4 | 1.006 | 0.973 | 1.017 | 0.997 | 1.013 | 1.007 | 0.997 | 1.001 | 1.4 |
| Nitrobenzene-d5 | 0.357 | 0.347 | 0.362 | 0.360 | 0.366 | 0.361 | 0.356 | 0.358 | 1.7 |
| 2-Fluorobiphenyl | 1.422 | 1.388 | 1.385 | 1.405 | 1.355 | 1.402 | 1.348 | 1.386 | 1.9 |
| 2,4,6-Tribromophenol | 0.154 | 0.157 | 0.164 | 0.165 | 0.172 | 0.174 | 0.169 | 0.165 | 4.5 |
| Terphenyl-d14 | 0.792 | 0.755 | 0.775 | 0.777 | 0.776 | 0.743 | 0.719 | 0.762 | 3.3 |

<- Outside QC limits: %RSD <20% or R^2 > 0.990



FORM VI SV-3

7B

# SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No: UU52  Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10  Cont. Calib. Date: 05/26/12

Init. Calib. Date: 05/26/12  Cont. Calib. Time: 1059

| COMPOUND | CalAmt or ARF | CC Amt or RF | MIN RRF | CURVE TYPE | %D or Drift |
|---|---|---|---|---|---|
| Phenol | 1.857 | 1.945 | 0.800 | AVRG | 4.7 |
| Bis(2-Chloroethyl)ether | 1.383 | 1.359 | 0.700 | AVRG | -1.7 |
| 2-Chlorophenol | 1.640 | 1.641 | 0.800 | AVRG | 0.1 |
| 1,3-Dichlorobenzene | 1.642 | 1.657 | 0.010 | AVRG | 0.9 |
| 1,4-Dichlorobenzene | 1.603 | 1.592 | 0.010 | AVRG | -0.7 |
| 1,2-Dichlorobenzene | 1.564 | 1.570 | 0.010 | AVRG | 0.4 |
| Benzyl alcohol | 0.780 | 0.807 | 0.010 | AVRG | 3.5 |
| 2,2'-oxybis(1-Chloropropane) | 0.509 | 0.515 | 0.010 | AVRG | 1.2 |
| 2-Methylphenol | 1.464 | 1.466 | 0.700 | AVRG | 0.1 |
| Hexachloroethane | 0.622 | 0.624 | 0.300 | AVRG | 0.3 |
| N-Nitroso-di-n-propylamine | 0.862 | 0.856 | 0.500 | AVRG | -0.7 |
| 4-Methylphenol | 1.527 | 1.532 | 0.600 | AVRG | 0.3 |
| Nitrobenzene | 0.352 | 0.352 | 0.200 | AVRG | 0.0 |
| Isophorone | 0.665 | 0.679 | 0.400 | AVRG | 2.1 |
| 2-Nitrophenol | 0.222 | 0.234 | 0.100 | AVRG | 5.4 |
| 2,4-Dimethylphenol | 0.352 | 0.364 | 0.200 | AVRG | 3.4 |
| Bis(2-Chloroethoxy)methane | 0.396 | 0.398 | 0.300 | AVRG | 0.5 |
| 2,4-Dichlorophenol | 0.339 | 0.354 | 0.200 | AVRG | 4.4 |
| 1,2,4-Trichlorobenzene | 0.322 | 0.325 | 0.010 | AVRG | 0.9 |
| Naphthalene | 1.008 | 1.023 | 0.700 | AVRG | 1.5 |
| Benzoic acid | 20.00 | 19.86 | 0.010 | 2ORDR | -0.7 |
| 4-Chloroaniline | 0.449 | 0.453 | 0.010 | AVRG | 0.9 |
| Hexachlorobutadiene | 0.173 | 0.181 | 0.010 | AVRG | 4.6 |
| 4-Chloro-3-methylphenol | 0.304 | 0.320 | 0.200 | AVRG | 5.3 |
| 2-Methylnaphthalene | 0.701 | 0.722 | 0.400 | AVRG | 3.0 |
| Hexachlorocyclopentadiene | 10.00 | 9.487 | 0.050 | 2ORDR | -5.1 |
| 2,4,6-Trichlorophenol | 0.394 | 0.412 | 0.200 | AVRG | 4.6 |
| 2,4,5-Trichlorophenol | 0.422 | 0.458 | 0.200 | AVRG | 8.5 |
| 2-Chloronaphthalene | 1.185 | 1.183 | 0.800 | AVRG | -0.2 |
| 2-Nitroaniline | 0.283 | 0.285 | 0.010 | AVRG | 0.7 |
| Acenaphthylene | 1.796 | 1.782 | 0.900 | AVRG | -0.8 |
| Dimethylphthalate | 1.229 | 1.226 | 0.010 | AVRG | -0.2 |
| 2,6-Dinitrotoluene | 0.299 | 0.305 | 0.200 | AVRG | 2.0 |
| Acenaphthene | 1.084 | 1.090 | 0.900 | AVRG | 0.6 |
| 3-Nitroaniline | 0.338 | 0.336 | 0.010 | AVRG | -0.6 |
| 2,4-Dinitrophenol | 20.00 | 18.77 | 0.010 | 2ORDR | -6.2 |
| Dibenzofuran | 1.587 | 1.575 | 0.800 | AVRG | -0.8 |

<- Exceeds QC limit of 20% D
* RF less than minimum RF

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC | Client: ANCHOR QEA

ARI Job No: UU52 | Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10 | Cont. Calib. Date: 05/26/12

Init. Calib. Date: 05/26/12 | Cont. Calib. Time: 1059

| COMPOUND | CalAmt or ARF | CC Amt or RF | MIN RRF | CURVE TYPE | %D or Drift | |
|---|---|---|---|---|---|---|
| 4-Nitrophenol | 0.130 | 0.142 | 0.010 | AVRG | 9.2 | |
| 2,4-Dinitrotoluene | 0.386 | 0.410 | 0.200 | AVRG | 6.2 | |
| Fluorene | 1.216 | 1.202 | 0.900 | AVRG | -1.2 | |
| 4-Chlorophenyl-phenylether | 0.578 | 0.578 | 0.400 | AVRG | 0.0 | |
| Diethylphthalate | 1.198 | 1.209 | 0.010 | AVRG | 0.9 | |
| 4-Nitroaniline | 0.345 | 0.339 | 0.010 | AVRG | -1.7 | |
| 4,6-Dinitro-2-methylphenol | 0.159 | 0.179 | 0.010 | AVRG | 12.6 | |
| N-Nitrosodiphenylamine(1) | 0.538 | 0.537 | 0.010 | AVRG | -0.2 | |
| 4-Bromophenyl-phenylether | 0.214 | 0.217 | 0.100 | AVRG | 1.4 | |
| Hexachlorobenzene | 0.247 | 0.242 | 0.100 | AVRG | -2.0 | |
| Pentachlorophenol | 10.00 | 9.963 | 0.050 | 2ORDR | -0.4 | |
| Phenanthrene | 1.031 | 1.023 | 0.700 | AVRG | -0.8 | |
| Anthracene | 1.077 | 1.113 | 0.700 | AVRG | 3.3 | |
| Carbazole | 0.997 | 0.948 | 0.010 | AVRG | -4.9 | |
| Di-n-butylphthalate | 1.403 | 1.471 | 0.010 | AVRG | 4.8 | |
| Fluoranthene | 1.171 | 1.202 | 0.600 | AVRG | 2.6 | |
| Pyrene | 1.217 | 1.245 | 0.600 | AVRG | 2.3 | |
| Butylbenzylphthalate | 0.564 | 0.584 | 0.010 | AVRG | 3.5 | |
| Benzo(a)anthracene | 1.125 | 1.111 | 0.800 | AVRG | -1.2 | |
| 3,3'-Dichlorobenzidine | 0.616 | 0.586 | 0.010 | AVRG | -4.9 | |
| Chrysene | 0.990 | 1.006 | 0.700 | AVRG | 1.6 | |
| bis(2-Ethylhexyl)phthalate | 0.549 | 0.544 | 0.010 | AVRG | -0.9 | |
| Di-n-octylphthalate | 0.973 | 0.967 | 0.010 | AVRG | -0.6 | |
| Benzo(b)fluoranthene | 1.124 | 1.182 | 0.700 | AVRG | 5.2 | |
| Benzo(k)fluoranthene | 1.237 | 1.192 | 0.700 | AVRG | -3.6 | |
| Benzo(a)pyrene | 1.034 | 1.048 | 0.700 | AVRG | 1.4 | |
| Indeno(1,2,3-cd)pyrene | 1.196 | 1.249 | 0.500 | AVRG | 4.4 | |
| Dibenzo(a,h)anthracene | 0.942 | 0.992 | 0.400 | AVRG | 5.3 | |
| Benzo(g,h,i)perylene | 1.026 | 1.068 | 0.500 | AVRG | 4.1 | |
| N-Nitrosodimethylamine | 0.832 | 0.844 | 0.010 | AVRG | 1.4 | |
| Aniline | 3.956 | 3.987 | 0.010 | AVRG | 0.8 | |
| Benzidine | 0.457 | 0.340 | 0.010 | AVRG | -25.6 | <- |
| Retene | 0.566 | 0.588 | 0.010 | AVRG | 3.9 | |
| Perylene | 1.040 | 1.044 | 0.010 | AVRG | 0.4 | |
| Pyridine | 0.718 | 0.695 | 0.010 | AVRG | -3.2 | |
| 1-methylnaphthalene | 0.715 | 0.740 | 0.010 | AVRG | 3.5 | |

(1) Cannot be separated from Diphenylamine

<- Exceeds QC limit of 20% D

* RF less than minimum RF



FORM VII SV-2

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No: UU52  Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10  Cont. Calib. Date: 05/26/12

Init. Calib. Date: 05/26/12  Cont. Calib. Time: 1059

| COMPOUND | CalAmt or ARF | CC Amt or RF | MIN RRF | CURVE TYPE | %D or Drift |
|---|---|---|---|---|---|
| Azobenzene (1,2-DP-Hydrazine | 1.214 | 1.187 | 0.010 | AVRG | -2.2 |
| Total Benzofluoranthenes | 1.110 | 1.118 | 0.010 | AVRG | 0.7 |
| 2-Fluorophenol | 1.398 | 1.417 | 0.010 | AVRG | 1.4 |
| Phenol-d5 | 1.742 | 1.776 | 0.010 | AVRG | 2.0 |
| 2-Chlorophenol-d4 | 1.526 | 1.523 | 0.010 | AVRG | -0.2 |
| 1,2-Dichlorobenzene-d4 | 1.001 | 1.013 | 0.010 | AVRG | 1.2 |
| Nitrobenzene-d5 | 0.358 | 0.366 | 0.010 | AVRG | 2.2 |
| 2-Fluorobiphenyl | 1.386 | 1.355 | 0.010 | AVRG | -2.2 |
| 2,4,6-Tribromophenol | 0.165 | 0.172 | 0.010 | AVRG | 4.2 |
| Terphenyl-d14 | 0.762 | 0.776 | 0.010 | AVRG | 1.8 |

<- Exceeds QC limit of 20% D
* RF less than minimum RF



FORM VII SV-3

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No: UU52  Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10  Cont. Calib. Date: 05/29/12

Init. Calib. Date: 05/26/12  Cont. Calib. Time: 1101

| COMPOUND | CalAmt or ARF | CC Amt or RF | MIN RRF | CURVE TYPE | %D or Drift | |
|---|---|---|---|---|---|---|
| Phenol | 1.857 | 1.950 | 0.800 | AVRG | 5.0 | |
| Bis(2-Chloroethyl)ether | 1.383 | 1.329 | 0.700 | AVRG | -3.9 | |
| 2-Chlorophenol | 1.640 | 1.572 | 0.800 | AVRG | -4.1 | |
| 1,3-Dichlorobenzene | 1.642 | 1.651 | 0.010 | AVRG | 0.5 | |
| 1,4-Dichlorobenzene | 1.603 | 1.586 | 0.010 | AVRG | -1.1 | |
| 1,2-Dichlorobenzene | 1.564 | 1.583 | 0.010 | AVRG | 1.2 | |
| Benzyl alcohol | 0.780 | 0.794 | 0.010 | AVRG | 1.8 | |
| 2,2'-oxybis(1-Chloropropane) | 0.509 | 0.499 | 0.010 | AVRG | -2.0 | |
| 2-Methylphenol | 1.464 | 1.407 | 0.700 | AVRG | -3.9 | |
| Hexachloroethane | 0.622 | 0.651 | 0.300 | AVRG | 4.7 | |
| N-Nitroso-di-n-propylamine | 0.862 | 0.806 | 0.500 | AVRG | -6.5 | |
| 4-Methylphenol | 1.527 | 1.407 | 0.600 | AVRG | -7.8 | |
| Nitrobenzene | 0.352 | 0.333 | 0.200 | AVRG | -5.4 | |
| Isophorone | 0.665 | 0.653 | 0.400 | AVRG | -1.8 | |
| 2-Nitrophenol | 0.222 | 0.222 | 0.100 | AVRG | 0.0 | |
| 2,4-Dimethylphenol | 0.352 | 0.350 | 0.200 | AVRG | -0.6 | |
| Bis(2-Chloroethoxy)methane | 0.396 | 0.378 | 0.300 | AVRG | -4.5 | |
| 2,4-Dichlorophenol | 0.339 | 0.339 | 0.200 | AVRG | 0.0 | |
| 1,2,4-Trichlorobenzene | 0.322 | 0.327 | 0.010 | AVRG | 1.6 | |
| Naphthalene | 1.008 | 1.013 | 0.700 | AVRG | 0.5 | |
| Benzoic acid | 20.00 | 19.65 | 0.010 | 2ORDR | -1.8 | |
| 4-Chloroaniline | 0.449 | 0.430 | 0.010 | AVRG | -4.2 | |
| Hexachlorobutadiene | 0.173 | 0.179 | 0.010 | AVRG | 3.5 | |
| 4-Chloro-3-methylphenol | 0.304 | 0.311 | 0.200 | AVRG | 2.3 | |
| 2-Methylnaphthalene | 0.701 | 0.726 | 0.400 | AVRG | 3.6 | |
| Hexachlorocyclopentadiene | 10.00 | 7.483 | 0.050 | 2ORDR | -25.2 | <- |
| 2,4,6-Trichlorophenol | 0.394 | 0.404 | 0.200 | AVRG | 2.5 | |
| 2,4,5-Trichlorophenol | 0.422 | 0.445 | 0.200 | AVRG | 5.4 | |
| 2-Chloronaphthalene | 1.185 | 1.153 | 0.800 | AVRG | -2.7 | |
| 2-Nitroaniline | 0.283 | 0.275 | 0.010 | AVRG | -2.8 | |
| Acenaphthylene | 1.796 | 1.940 | 0.900 | AVRG | 8.0 | |
| Dimethylphthalate | 1.229 | 1.222 | 0.010 | AVRG | -0.6 | |
| 2,6-Dinitrotoluene | 0.299 | 0.304 | 0.200 | AVRG | 1.7 | |
| Acenaphthene | 1.084 | 1.071 | 0.900 | AVRG | -1.2 | |
| 3-Nitroaniline | 0.338 | 0.315 | 0.010 | AVRG | -6.8 | |
| 2,4-Dinitrophenol | 20.00 | 15.18 | 0.010 | 2ORDR | -24.1 | <- |
| Dibenzofuran | 1.587 | 1.594 | 0.800 | AVRG | 0.4 | |

<- Exceeds QC limit of 20% D

* RF less than minimum RF



FORM VII SV-1

UU52:00067

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No: UU52  Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10  Cont. Calib. Date: 05/29/12

Init. Calib. Date: 05/26/12  Cont. Calib. Time: 1101

| COMPOUND | CalAmt or ARF | CC Amt or RF | MIN RRF | CURVE TYPE | %D or Drift |
|---|---|---|---|---|---|
| 4-Nitrophenol | 0.130 | | 0.010 | AVRG | |
| 2,4-Dinitrotoluene | 0.386 | 0.405 | 0.200 | AVRG | 4.9 |
| Fluorene | 1.216 | 1.388 | 0.900 | AVRG | 14.1 |
| 4-Chlorophenyl-phenylether | 0.578 | 0.676 | 0.400 | AVRG | 17.0 |
| Diethylphthalate | 1.198 | 1.217 | 0.010 | AVRG | 1.6 |
| 4-Nitroaniline | 0.345 | 0.296 | 0.010 | AVRG | -14.2 |
| 4,6-Dinitro-2-methylphenol | 0.159 | 0.168 | 0.010 | AVRG | 5.7 |
| N-Nitrosodiphenylamine(1) | 0.538 | 0.520 | 0.010 | AVRG | -3.3 |
| 4-Bromophenyl-phenylether | 0.214 | 0.213 | 0.100 | AVRG | -0.5 |
| Hexachlorobenzene | 0.247 | 0.240 | 0.100 | AVRG | -2.8 |
| Pentachlorophenol | 10.00 | 9.609 | 0.050 | 2ORDR | -3.9 |
| Phenanthrene | 1.031 | 1.017 | 0.700 | AVRG | -1.4 |
| Anthracene | 1.077 | 1.095 | 0.700 | AVRG | 1.7 |
| Carbazole | 0.997 | 1.034 | 0.010 | AVRG | 3.7 |
| Di-n-butylphthalate | 1.403 | 1.460 | 0.010 | AVRG | 4.1 |
| Fluoranthene | 1.171 | 1.189 | 0.600 | AVRG | 1.5 |
| Pyrene | 1.217 | 1.244 | 0.600 | AVRG | 2.2 |
| Butylbenzylphthalate | 0.564 | 0.573 | 0.010 | AVRG | 1.6 |
| Benzo(a)anthracene | 1.125 | 1.114 | 0.800 | AVRG | -1.0 |
| 3,3'-Dichlorobenzidine | 0.616 | 0.650 | 0.010 | AVRG | 5.5 |
| Chrysene | 0.990 | 0.992 | 0.700 | AVRG | 0.2 |
| bis(2-Ethylhexyl)phthalate | 0.549 | 0.547 | 0.010 | AVRG | -0.4 |
| Di-n-octylphthalate | 0.973 | 0.961 | 0.010 | AVRG | -1.2 |
| Benzo(b)fluoranthene | 1.124 | 1.056 | 0.700 | AVRG | -6.0 |
| Benzo(k)fluoranthene | 1.237 | 1.252 | 0.700 | AVRG | 1.2 |
| Benzo(a)pyrene | 1.034 | 1.016 | 0.700 | AVRG | -1.7 |
| Indeno(1,2,3-cd)pyrene | 1.196 | 1.246 | 0.500 | AVRG | 4.2 |
| Dibenzo(a,h)anthracene | 0.942 | 0.999 | 0.400 | AVRG | 6.0 |
| Benzo(g,h,i)perylene | 1.026 | 1.061 | 0.500 | AVRG | 3.4 |
| N-Nitrosodimethylamine | 0.832 | 0.811 | 0.010 | AVRG | -2.5 |
| Aniline | 3.956 | 3.504 | 0.010 | AVRG | -11.4 |
| Benzidine | 0.457 | 0.426 | 0.010 | AVRG | -6.8 |
| Retene | 0.566 | 0.579 | 0.010 | AVRG | 2.3 |
| Perylene | 1.040 | 1.014 | 0.010 | AVRG | -2.5 |
| Pyridine | 0.718 | 0.661 | 0.010 | AVRG | -7.9 |
| 1-methylnaphthalene | 0.715 | 0.750 | 0.010 | AVRG | 4.9 |

(1) Cannot be separated from Diphenylamine

<- Exceeds QC limit of 20% D

* RF less than minimum RF



FORM VII SV-2

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No: UU52  Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10  Cont. Calib. Date: 05/29/12

Init. Calib. Date: 05/26/12  Cont. Calib. Time: 1101

| COMPOUND | CalAmt or ARF | CC Amt or RF | MIN RRF | CURVE TYPE | %D or Drift |
|---|---|---|---|---|---|
| Azobenzene (1,2-DP-Hydrazine | 1.214 | 1.179 | 0.010 | AVRG | -2.9 |
| Total Benzofluoranthenes | 1.110 | 1.089 | 0.010 | AVRG | -1.9 |
| 2-Fluorophenol | 1.398 | 1.341 | 0.010 | AVRG | -4.1 |
| Phenol-d5 | 1.742 | 1.645 | 0.010 | AVRG | -5.6 |
| 2-Chlorophenol-d4 | 1.526 | 1.482 | 0.010 | AVRG | -2.9 |
| 1,2-Dichlorobenzene-d4 | 1.001 | 1.015 | 0.010 | AVRG | 1.4 |
| Nitrobenzene-d5 | 0.358 | 0.344 | 0.010 | AVRG | -3.9 |
| 2-Fluorobiphenyl | 1.386 | 1.379 | 0.010 | AVRG | -0.5 |
| 2,4,6-Tribromophenol | 0.165 | 0.176 | 0.010 | AVRG | 6.7 |
| Terphenyl-d14 | 0.762 | 0.749 | 0.010 | AVRG | -1.7 |

<- Exceeds QC limit of 20% D

* RF less than minimum RF



FORM VII SV-3

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No: UU52  Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10  Cont. Calib. Date: 05/30/12

Init. Calib. Date: 05/26/12  Cont. Calib. Time: 1227

| COMPOUND | CalAmt or ARF | CC Amt or RF | MIN RRF | CURVE TYPE | %D or Drift | |
|---|---|---|---|---|---|---|
| Phenol | 1.857 | 1.912 | 0.800 | AVRG | 3.0 | |
| Bis(2-Chloroethyl)ether | 1.383 | 1.312 | 0.700 | AVRG | -5.1 | |
| 2-Chlorophenol | 1.640 | 1.555 | 0.800 | AVRG | -5.2 | |
| 1,3-Dichlorobenzene | 1.642 | 1.629 | 0.010 | AVRG | -0.8 | |
| 1,4-Dichlorobenzene | 1.603 | 1.584 | 0.010 | AVRG | -1.2 | |
| 1,2-Dichlorobenzene | 1.564 | 1.557 | 0.010 | AVRG | -0.4 | |
| Benzyl alcohol | 0.780 | 0.799 | 0.010 | AVRG | 2.4 | |
| 2,2'-oxybis(1-Chloropropane) | 0.509 | 0.506 | 0.010 | AVRG | -0.6 | |
| 2-Methylphenol | 1.464 | 1.374 | 0.700 | AVRG | -6.1 | |
| Hexachloroethane | 0.622 | 0.638 | 0.300 | AVRG | 2.6 | |
| N-Nitroso-di-n-propylamine | 0.862 | 0.808 | 0.500 | AVRG | -6.3 | |
| 4-Methylphenol | 1.527 | 1.376 | 0.600 | AVRG | -9.9 | |
| Nitrobenzene | 0.352 | 0.326 | 0.200 | AVRG | -7.4 | |
| Isophorone | 0.665 | 0.715 | 0.400 | AVRG | 7.5 | |
| 2-Nitrophenol | 0.222 | 0.221 | 0.100 | AVRG | -0.4 | |
| 2,4-Dimethylphenol | 0.352 | 0.340 | 0.200 | AVRG | -3.4 | |
| Bis(2-Chloroethoxy)methane | 0.396 | 0.378 | 0.300 | AVRG | -4.5 | |
| 2,4-Dichlorophenol | 0.339 | 0.328 | 0.200 | AVRG | -3.2 | |
| 1,2,4-Trichlorobenzene | 0.322 | 0.318 | 0.010 | AVRG | -1.2 | |
| Naphthalene | 1.008 | 1.009 | 0.700 | AVRG | 0.1 | |
| Benzoic acid | 20.00 | 10.23 | 0.010 | 2ORDR | -48.8 | <- |
| 4-Chloroaniline | 0.449 | 0.435 | 0.010 | AVRG | -3.1 | |
| Hexachlorobutadiene | 0.173 | 0.179 | 0.010 | AVRG | 3.5 | |
| 4-Chloro-3-methylphenol | 0.304 | 0.312 | 0.200 | AVRG | 2.6 | |
| 2-Methylnaphthalene | 0.701 | 0.714 | 0.400 | AVRG | 1.8 | |
| Hexachlorocyclopentadiene | 10.00 | 6.336 | 0.050 | 2ORDR | -36.6 | <- |
| 2,4,6-Trichlorophenol | 0.394 | 0.414 | 0.200 | AVRG | 5.1 | |
| 2,4,5-Trichlorophenol | 0.422 | 0.459 | 0.200 | AVRG | 8.8 | |
| 2-Chloronaphthalene | 1.185 | 1.210 | 0.800 | AVRG | 2.1 | |
| 2-Nitroaniline | 0.283 | 0.283 | 0.010 | AVRG | 0.0 | |
| Acenaphthylene | 1.796 | 1.952 | 0.900 | AVRG | 8.7 | |
| Dimethylphthalate | 1.229 | 1.247 | 0.010 | AVRG | 1.5 | |
| 2,6-Dinitrotoluene | 0.299 | 0.312 | 0.200 | AVRG | 4.3 | |
| Acenaphthene | 1.084 | 1.106 | 0.900 | AVRG | 2.0 | |
| 3-Nitroaniline | 0.338 | 0.329 | 0.010 | AVRG | -2.7 | |
| 2,4-Dinitrophenol | 20.00 | 5.842 | 0.010 | 2ORDR | -70.8 | <- |
| Dibenzofuran | 1.587 | 1.624 | 0.800 | AVRG | 2.3 | |

<- Exceeds QC limit of 20% D

* RF less than minimum RF



FORM VII SV-1

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC | Client: ANCHOR QEA

ARI Job No: UU52 | Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10 | Cont. Calib. Date: 05/30/12

Init. Calib. Date: 05/26/12 | Cont. Calib. Time: 1227

| COMPOUND | CalAmt or ARF | CC Amt or RF | MIN RRF | CURVE TYPE | %D or Drift | |
|---|---|---|---|---|---|---|
| 4-Nitrophenol | 0.130 | | 0.010 | AVRG | | |
| 2,4-Dinitrotoluene | 0.386 | 0.416 | 0.200 | AVRG | 7.8 | |
| Fluorene | 1.216 | 1.361 | 0.900 | AVRG | 11.9 | |
| 4-Chlorophenyl-phenylether | 0.578 | 0.693 | 0.400 | AVRG | 19.9 | |
| Diethylphthalate | 1.198 | 1.241 | 0.010 | AVRG | 3.6 | |
| 4-Nitroaniline | 0.345 | 0.339 | 0.010 | AVRG | -1.7 | |
| 4,6-Dinitro-2-methylphenol | 0.159 | 0.116 | 0.010 | AVRG | -27.0 | <- |
| N-Nitrosodiphenylamine(1) | 0.538 | 0.529 | 0.010 | AVRG | -1.7 | |
| 4-Bromophenyl-phenylether | 0.214 | 0.215 | 0.100 | AVRG | 0.5 | |
| Hexachlorobenzene | 0.247 | 0.240 | 0.100 | AVRG | -2.8 | |
| Pentachlorophenol | 10.00 | 9.754 | 0.050 | 2ORDR | -2.5 | |
| Phenanthrene | 1.031 | 1.028 | 0.700 | AVRG | -0.3 | |
| Anthracene | 1.077 | 1.135 | 0.700 | AVRG | 5.4 | |
| Carbazole | 0.997 | 1.083 | 0.010 | AVRG | 8.6 | |
| Di-n-butylphthalate | 1.403 | 1.492 | 0.010 | AVRG | 6.3 | |
| Fluoranthene | 1.171 | 1.255 | 0.600 | AVRG | 7.2 | |
| Pyrene | 1.217 | 1.220 | 0.600 | AVRG | 0.2 | |
| Butylbenzylphthalate | 0.564 | 0.582 | 0.010 | AVRG | 3.2 | |
| Benzo(a)anthracene | 1.125 | 1.093 | 0.800 | AVRG | -2.8 | |
| 3,3'-Dichlorobenzidine | 0.616 | 0.664 | 0.010 | AVRG | 7.8 | |
| Chrysene | 0.990 | 0.982 | 0.700 | AVRG | -0.8 | |
| bis(2-Ethylhexyl)phthalate | 0.549 | 0.533 | 0.010 | AVRG | -2.9 | |
| Di-n-octylphthalate | 0.973 | 0.958 | 0.010 | AVRG | -1.5 | |
| Benzo(b)fluoranthene | 1.124 | 1.180 | 0.700 | AVRG | 5.0 | |
| Benzo(k)fluoranthene | 1.237 | 1.207 | 0.700 | AVRG | -2.4 | |
| Benzo(a)pyrene | 1.034 | 1.041 | 0.700 | AVRG | 0.7 | |
| Indeno(1,2,3-cd)pyrene | 1.196 | 1.217 | 0.500 | AVRG | 1.8 | |
| Dibenzo(a,h)anthracene | 0.942 | 0.985 | 0.400 | AVRG | 4.6 | |
| Benzo(g,h,i)perylene | 1.026 | 1.029 | 0.500 | AVRG | 0.3 | |
| N-Nitrosodimethylamine | 0.832 | 0.815 | 0.010 | AVRG | -2.0 | |
| Aniline | 3.956 | 3.518 | 0.010 | AVRG | -11.1 | |
| Benzidine | 0.457 | 0.452 | 0.010 | AVRG | -1.1 | |
| Retene | 0.566 | 0.563 | 0.010 | AVRG | -0.5 | |
| Perylene | 1.040 | 1.043 | 0.010 | AVRG | 0.3 | |
| Pyridine | 0.718 | 0.674 | 0.010 | AVRG | -6.1 | |
| 1-methylnaphthalene | 0.715 | 0.746 | 0.010 | AVRG | 4.3 | |

(1) Cannot be separated from Diphenylamine

<- Exceeds QC limit of 20% D

* RF less than minimum RF



FORM VII SV-2

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No: UU52  Project: JELD WEN MAULSBY MARSH

Instrument ID: NT10  Cont. Calib. Date: 05/30/12

Init. Calib. Date: 05/26/12  Cont. Calib. Time: 1227

| COMPOUND | CalAmt or ARF | CC Amt or RF | MIN RRF | CURVE TYPE | %D or Drift |
|---|---|---|---|---|---|
| Azobenzene (1,2-DP-Hydrazine | 1.214 | 1.217 | 0.010 | AVRG | 0.2 |
| Total Benzofluoranthenes | 1.110 | 1.125 | 0.010 | AVRG | 1.4 |
| 2-Fluorophenol | 1.398 | 1.316 | 0.010 | AVRG | -5.9 |
| Phenol-d5 | 1.742 | 1.596 | 0.010 | AVRG | -8.4 |
| 2-Chlorophenol-d4 | 1.526 | 1.444 | 0.010 | AVRG | -5.4 |
| 1,2-Dichlorobenzene-d4 | 1.001 | 1.024 | 0.010 | AVRG | 2.3 |
| Nitrobenzene-d5 | 0.358 | 0.341 | 0.010 | AVRG | -4.7 |
| 2-Fluorobiphenyl | 1.386 | 1.400 | 0.010 | AVRG | 1.0 |
| 2,4,6-Tribromophenol | 0.165 | 0.176 | 0.010 | AVRG | 6.7 |
| Terphenyl-d14 | 0.762 | 0.746 | 0.010 | AVRG | -2.1 |

<- Exceeds QC limit of 20% D
* RF less than minimum RF



FORM VII SV-3

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No: UU52  Project: JELD WEN MAULSBY MARSH

Ical Midpoint ID: IC0526A  Ical Date: 05/26/12

Instrument ID: NT10  Cont. Cal Date: 05/26/12

| | | IS1(DCB) AREA # | RT # | IS2(NPT) AREA # | RT # | IS3(ANT) AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | ICAL MIDPT | 189516 | 8.86 | 730932 | 11.50 | 420698 | 15.37 |
| | UPPER LIMIT | 379032 | | 1461864 | | 841396 | |
| | LOWER LIMIT | 94758 | | 365466 | | 210349 | |
| | CCAL | 189516 | 8.86 | 730932 | 11.50 | 420698 | 15.37 |
| | UPPER LIMIT | | 9.36 | | 12.00 | | 15.87 |
| | LOWER LIMIT | | 8.36 | | 11.00 | | 14.87 |
| 01 | UU52MBS1 | 192270 | 8.86 | 755212 | 11.50 | 409923 | 15.36 |
| 02 | UU52LCSS1 | 180960 | 8.86 | 713226 | 11.50 | 402827 | 15.37 |
| 03 | MS001-SS-120 | 192479 | 8.86 | 766868 | 11.50 | 424558 | 15.37 |
| 04 | MS101-SS-120 | 191331 | 8.86 | 774622 | 11.50 | 431955 | 15.38 |
| 05 | MS002-SS-120 | 189793 | 8.86 | 762840 | 11.50 | 421087 | 15.38 |
| 06 | MS003-SS-120 | 195684 | 8.86 | 781696 | 11.50 | 433584 | 15.38 |
| 07 | MS004-SS-120 | 197248 | 8.86 | 788940 | 11.50 | 430674 | 15.38 |
| 08 | MS005-SS-120 | 190373 | 8.86 | 742174 | 11.51 | 431594 | 15.39 |
| 09 | MS006-SS-120 | 189614 | 8.86 | 736251 | 11.51 | 426687 | 15.38 |
| 10 | MS007-SS-120 | 194227 | 8.86 | 756334 | 11.51 | 437900 | 15.39 |
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.



FORM VIII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No: UU52  Project: JELD WEN MAULSBY MARSH

Ical Midpoint ID: IC0526A  Ical Date: 05/26/12

Instrument ID: NT10  Cont. Cal Date: 05/26/12

| | | IS4(PHN) AREA # | RT # | IS5(CRY) AREA # | RT # | IS6(PRY) AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | ICAL MIDPT | 638950 | 18.63 | 645065 | 23.71 | 650033 | 26.10 |
| | UPPER LIMIT | 1277900 | | 1290130 | | 1300066 | |
| | LOWER LIMIT | 319475 | | 322532 | | 325016 | |
| | CCAL | 638950 | 18.63 | 645065 | 23.71 | 650033 | 26.10 |
| | UPPER LIMIT | | 19.13 | | 24.21 | | 26.60 |
| | LOWER LIMIT | | 18.13 | | 23.21 | | 25.60 |
| 01 | UU52MBS1 | 652568 | 18.63 | 628746 | 23.70 | 575994 | 26.10 |
| 02 | UU52LCSS1 | 613172 | 18.63 | 610564 | 23.70 | 601200 | 26.10 |
| 03 | MS001-SS-120 | 586032 | 18.64 | 664578 | 23.71 | 673821 | 26.11 |
| 04 | MS101-SS-120 | 601035 | 18.64 | 668327 | 23.72 | 667061 | 26.12 |
| 05 | MS002-SS-120 | 644641 | 18.64 | 673614 | 23.72 | 665077 | 26.12 |
| 06 | MS003-SS-120 | 608068 | 18.64 | 705866 | 23.72 | 688484 | 26.12 |
| 07 | MS004-SS-120 | 660353 | 18.64 | 700903 | 23.72 | 683374 | 26.12 |
| 08 | MS005-SS-120 | 643967 | 18.66 | 721119 | 23.73 | 669438 | 26.14 |
| 09 | MS006-SS-120 | 605251 | 18.65 | 696152 | 23.72 | 658886 | 26.13 |
| 10 | MS007-SS-120 | 626572 | 18.66 | 703620 | 23.73 | 665896 | 26.13 |
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IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.



FORM VIII SV-2

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No: UU52  Project: JELD WEN MAULSBY MARSH

Ical Midpoint ID: IC0526A  Ical Date: 05/26/12

Instrument ID: NT10  Cont. Cal Date: 05/26/12

| | | IS7 AREA # | RT # | AREA # | RT # | AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | ICAL MIDPT | 1016118 | 24.79 | | | | |
| | UPPER LIMIT | 2032236 | | | | | |
| | LOWER LIMIT | 508059 | | | | | |
| | CCAL | 1016118 | 24.79 | | | | |
| | UPPER LIMIT | | 25.29 | | | | |
| | LOWER LIMIT | | 24.29 | | | | |
| 01 | UU52MBS1 | 911710 | 24.79 | | | | |
| 02 | UU52LCSS1 | 927500 | 24.79 | | | | |
| 03 | MS001-SS-120 | 1081857 | 24.79 | | | | |
| 04 | MS101-SS-120 | 1085453 | 24.80 | | | | |
| 05 | MS002-SS-120 | 1081717 | 24.80 | | | | |
| 06 | MS003-SS-120 | 1095300 | 24.80 | | | | |
| 07 | MS004-SS-120 | 1104559 | 24.80 | | | | |
| 08 | MS005-SS-120 | 1107167 | 24.81 | | | | |
| 09 | MS006-SS-120 | 1081407 | 24.81 | | | | |
| 10 | MS007-SS-120 | 1121633 | 24.81 | | | | |
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IS7 = Di-n-octylphthalate-d4

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.



FORM VIII SV-3

UU52:00075

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No: UU52  Project: JELD WEN MAULSBY MARSH

Ical Midpoint ID: IC0526A  Ical Date: 05/26/12

Instrument ID: NT10  Cont. Cal Date: 05/29/12

| | | IS1(DCB) AREA # | RT # | IS2(NPT) AREA # | RT # | IS3(ANT) AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | ICAL MIDPT | 189516 | 8.86 | 730932 | 11.50 | 420698 | 15.37 |
| | UPPER LIMIT | 379032 | | 1461864 | | 841396 | |
| | LOWER LIMIT | 94758 | | 365466 | | 210349 | |
| | CCAL | 201464 | 8.86 | 781105 | 11.51 | 450943 | 15.39 |
| | UPPER LIMIT | | 9.36 | | 12.01 | | 15.89 |
| | LOWER LIMIT | | 8.36 | | 11.01 | | 14.89 |
| 01 | MS007-SS-120 | 194036 | 8.87 | 746578 | 11.51 | 430169 | 15.39 |
| 02 | MS007-SS-120 | 198613 | 8.87 | 774430 | 11.51 | 446161 | 15.39 |
| 03 | MS008-SS-120 | 197513 | 8.86 | 791554 | 11.51 | 435113 | 15.39 |
| 04 | MS009-SS-120 | 192942 | 8.87 | 774858 | 11.51 | 438714 | 15.39 |
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.



FORM VIII SV-1

UU52:00076

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No: UU52  Project: JELD WEN MAULSBY MARSH

Ical Midpoint ID: IC0526A  Ical Date: 05/26/12

Instrument ID: NT10  Cont. Cal Date: 05/29/12

| | | IS4(PHN) AREA # | RT # | IS5(CRY) AREA # | RT # | IS6(PRY) AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | ICAL MIDPT | 638950 | 18.63 | 645065 | 23.71 | 650033 | 26.10 |
| | UPPER LIMIT | 1277900 | | 1290130 | | 1300066 | |
| | LOWER LIMIT | 319475 | | 322532 | | 325016 | |
| | CCAL | 697664 | 18.65 | 705871 | 23.73 | 704858 | 26.13 |
| | UPPER LIMIT | | 19.15 | | 24.23 | | 26.63 |
| | LOWER LIMIT | | 18.15 | | 23.23 | | 25.63 |
| 01 | MS007-SS-120 | 648205 | 18.66 | 694641 | 23.73 | 687334 | 26.13 |
| 02 | MS007-SS-120 | 635278 | 18.66 | 714204 | 23.73 | 706143 | 26.13 |
| 03 | MS008-SS-120 | 618705 | 18.66 | 705752 | 23.73 | 690654 | 26.13 |
| 04 | MS009-SS-120 | 619554 | 18.66 | 704418 | 23.73 | 689542 | 26.13 |
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IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.



FORM VIII SV-2

UU52:00077

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC | Client: ANCHOR QEA

ARI Job No: UU52 | Project: JELD WEN MAULSBY MARSH

Ical Midpoint ID: IC0526A | Ical Date: 05/26/12

Instrument ID: NT10 | Cont. Cal Date: 05/29/12

| | | IS7 AREA # | RT # | AREA # | RT # | AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | ICAL MIDPT | 1016118 | 24.79 | | | | |
| | UPPER LIMIT | 2032236 | | | | | |
| | LOWER LIMIT | 508059 | | | | | |
| | CCAL | 1102875 | 24.80 | | | | |
| | UPPER LIMIT | | 25.30 | | | | |
| | LOWER LIMIT | | 24.30 | | | | |
| 01 | MS007-SS-120 | 1111139 | 24.81 | | | | |
| 02 | MS007-SS-120 | 1120932 | 24.81 | | | | |
| 03 | MS008-SS-120 | 1101771 | 24.81 | | | | |
| 04 | MS009-SS-120 | 1108887 | 24.81 | | | | |
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IS7 = Di-n-octylphthalate-d4

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.



FORM VIII SV-3

UU52:00078

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No: UU52  Project: JELD WEN MAULSBY MARSH

Ical Midpoint ID: IC0526A  Ical Date: 05/26/12

Instrument ID: NT10  Cont. Cal Date: 05/30/12

| | | IS1(DCB) AREA # | RT # | IS2(NPT) AREA # | RT # | IS3(ANT) AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | ICAL MIDPT | 189516 | 8.86 | 730932 | 11.50 | 420698 | 15.37 |
| | UPPER LIMIT | 379032 | | 1461864 | | 841396 | |
| | LOWER LIMIT | 94758 | | 365466 | | 210349 | |
| | CCAL | 191858 | 8.86 | 750130 | 11.51 | 423103 | 15.39 |
| | UPPER LIMIT | | 9.36 | | 12.01 | | 15.89 |
| | LOWER LIMIT | | 8.36 | | 11.01 | | 14.89 |
| 01 | MS006-SS-120 | 186026 | 8.87 | 733531 | 11.51 | 426946 | 15.39 |
| 02 | | | | | | | |
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IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.



FORM VIII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No: UU52  Project: JELD WEN MAULSBY MARSH

Ical Midpoint ID: IC0526A  Ical Date: 05/26/12

Instrument ID: NT10  Cont. Cal Date: 05/30/12

| | | IS4(PHN) AREA # | RT # | IS5(CRY) AREA # | RT # | IS6(PRY) AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | ICAL MIDPT | 638950 | 18.63 | 645065 | 23.71 | 650033 | 26.10 |
| | UPPER LIMIT | 1277900 | | 1290130 | | 1300066 | |
| | LOWER LIMIT | 319475 | | 322532 | | 325016 | |
| | CCAL | 662850 | 18.66 | 713203 | 23.73 | 700277 | 26.13 |
| | UPPER LIMIT | | 19.16 | | 24.23 | | 26.63 |
| | LOWER LIMIT | | 18.16 | | 23.23 | | 25.63 |
| 01 | MS006-SS-120 | 591988 | 18.66 | 709441 | 23.73 | 662093 | 26.13 |
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IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.



FORM VIII SV-2

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No: UU52  Project: JELD WEN MAULSBY MARSH

Ical Midpoint ID: IC0526A  Ical Date: 05/26/12

Instrument ID: NT10  Cont. Cal Date: 05/30/12

| | | IS7 AREA # | RT # | AREA # | RT # | AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | ICAL MIDPT | 1016118 | 24.79 | | | | |
| | UPPER LIMIT | 2032236 | | | | | |
| | LOWER LIMIT | 508059 | | | | | |
| | CCAL | 1121736 | 24.81 | | | | |
| | UPPER LIMIT | | 25.31 | | | | |
| | LOWER LIMIT | | 24.31 | | | | |
| 01 | MS006-SS-120 | 1089932 | 24.81 | | | | |
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IS7 = Di-n-octylphthalate-d4

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.



FORM VIII SV-3

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**Semivolatiles by SW8270D GC/MS**
**Extraction Method: SW3520C**
Page 1 of 1

**Sample ID: MS-SSRB-120515**
**SAMPLE**

Lab Sample ID: UU62J
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized: MW
Reported: 05/30/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/21/12
Date Analyzed: 05/24/12 13:40
Instrument/Analyst: NT6/JZ

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 108-95-2 | Phenol | 0.52 | 1.0 | < 1.0 U |
| 106-44-5 | 4-Methylphenol | 0.52 | 1.0 | < 1.0 U |
| 65-85-0 | Benzoic Acid | 5.1 | 10 | < 10 U |
| 91-20-3 | Naphthalene | 0.52 | 1.0 | < 1.0 U |
| 91-57-6 | 2-Methylnaphthalene | 0.48 | 1.0 | < 1.0 U |
| **131-11-3** | **Dimethylphthalate** | **0.53** | **1.0** | **0.9 J** |
| 208-96-8 | Acenaphthylene | 0.48 | 1.0 | < 1.0 U |
| 83-32-9 | Acenaphthene | 0.55 | 1.0 | < 1.0 U |
| 132-64-9 | Dibenzofuran | 0.48 | 1.0 | < 1.0 U |
| 86-73-7 | Fluorene | 0.56 | 1.0 | < 1.0 U |
| 87-86-5 | Pentachlorophenol | 2.4 | 5.0 | < 5.0 U |
| 85-01-8 | Phenanthrene | 0.56 | 1.0 | < 1.0 U |
| 86-74-8 | Carbazole | 0.31 | 1.0 | < 1.0 U |
| 120-12-7 | Anthracene | 0.53 | 1.0 | < 1.0 U |
| 84-74-2 | Di-n-Butylphthalate | 0.54 | 1.0 | < 1.0 U |
| 206-44-0 | Fluoranthene | 0.52 | 1.0 | < 1.0 U |
| 129-00-0 | Pyrene | 0.55 | 1.0 | < 1.0 U |
| 85-68-7 | Butylbenzylphthalate | 0.56 | 1.0 | < 1.0 U |
| 56-55-3 | Benzo(a)anthracene | 0.52 | 1.0 | < 1.0 U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 1.9 | 1.0 | < 1.0 U |
| 218-01-9 | Chrysene | 0.55 | 1.0 | < 1.0 U |
| 117-84-0 | Di-n-Octyl phthalate | 0.51 | 1.0 | < 1.0 U |
| 50-32-8 | Benzo(a)pyrene | 0.48 | 1.0 | < 1.0 U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 0.48 | 1.0 | < 1.0 U |
| 53-70-3 | Dibenz(a,h)anthracene | 0.48 | 1.0 | < 1.0 U |
| 191-24-2 | Benzo(g,h,i)perylene | 0.55 | 1.0 | < 1.0 U |
| 483-65-8 | Retene | 0.44 | 1.0 | < 1.0 U |
| TOTBFA | Total Benzofluoranthenes | 0.48 | 1.0 | < 1.0 U |

Reported in µg/L (ppb)

**Semivolatile Surrogate Recovery**

| | | | |
|---|---|---|---|
| d5-Nitrobenzene | 73.2% | 2-Fluorobiphenyl | 67.6% |
| d14-p-Terphenyl | 82.8% | d4-1,2-Dichlorobenzene | 60.0% |
| d5-Phenol | 73.1% | 2-Fluorophenol | 76.3% |
| 2,4,6-Tribromophenol | 78.7% | d4-2-Chlorophenol | 72.8% |

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**Semivolatiles by SW8270D GC/MS**
**Extraction Method: SW3520C**
Page 1 of 1

**Sample ID: MS-SSFB-120515**
**SAMPLE**

Lab Sample ID: UU62K
LIMS ID: 12-8938
Matrix: Water
Data Release Authorized: MW
Reported: 05/30/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/21/12
Date Analyzed: 05/24/12 14:14
Instrument/Analyst: NT6/JZ

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 108-95-2 | Phenol | 0.52 | 1.0 | < 1.0 U |
| 106-44-5 | 4-Methylphenol | 0.52 | 1.0 | < 1.0 U |
| 65-85-0 | Benzoic Acid | 5.1 | 10 | < 10 U |
| 91-20-3 | Naphthalene | 0.52 | 1.0 | < 1.0 U |
| 91-57-6 | 2-Methylnaphthalene | 0.48 | 1.0 | < 1.0 U |
| **131-11-3** | **Dimethylphthalate** | **0.53** | **1.0** | **0.8 J** |
| 208-96-8 | Acenaphthylene | 0.48 | 1.0 | < 1.0 U |
| 83-32-9 | Acenaphthene | 0.55 | 1.0 | < 1.0 U |
| 132-64-9 | Dibenzofuran | 0.48 | 1.0 | < 1.0 U |
| 86-73-7 | Fluorene | 0.56 | 1.0 | < 1.0 U |
| 87-86-5 | Pentachlorophenol | 2.4 | 5.0 | < 5.0 U |
| 85-01-8 | Phenanthrene | 0.56 | 1.0 | < 1.0 U |
| 86-74-8 | Carbazole | 0.31 | 1.0 | < 1.0 U |
| 120-12-7 | Anthracene | 0.53 | 1.0 | < 1.0 U |
| **84-74-2** | **Di-n-Butylphthalate** | **0.54** | **1.0** | **3.7** |
| 206-44-0 | Fluoranthene | 0.52 | 1.0 | < 1.0 U |
| 129-00-0 | Pyrene | 0.55 | 1.0 | < 1.0 U |
| 85-68-7 | Butylbenzylphthalate | 0.56 | 1.0 | < 1.0 U |
| 56-55-3 | Benzo(a)anthracene | 0.52 | 1.0 | < 1.0 U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 1.9 | 1.0 | < 1.0 U |
| 218-01-9 | Chrysene | 0.55 | 1.0 | < 1.0 U |
| 117-84-0 | Di-n-Octyl phthalate | 0.51 | 1.0 | < 1.0 U |
| 50-32-8 | Benzo(a)pyrene | 0.48 | 1.0 | < 1.0 U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 0.48 | 1.0 | < 1.0 U |
| 53-70-3 | Dibenz(a,h)anthracene | 0.48 | 1.0 | < 1.0 U |
| 191-24-2 | Benzo(g,h,i)perylene | 0.55 | 1.0 | < 1.0 U |
| 483-65-8 | Retene | 0.44 | 1.0 | < 1.0 U |
| TOTBFA | Total Benzofluoranthenes | 0.48 | 1.0 | < 1.0 U |

Reported in µg/L (ppb)

**Semivolatile Surrogate Recovery**

| | | | |
|---|---|---|---|
| d5-Nitrobenzene | 69.6% | 2-Fluorobiphenyl | 62.8% |
| d14-p-Terphenyl | 79.2% | d4-1,2-Dichlorobenzene | 57.2% |
| d5-Phenol | 69.9% | 2-Fluorophenol | 68.5% |
| 2,4,6-Tribromophenol | 75.2% | d4-2-Chlorophenol | 68.8% |

ANALYTICAL RESOURCES INCORPORATED

## SW8270 SEMIVOLATILES WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01

| Client ID | NBZ | FBP | TPH | DCB | PHL | 2FP | TBP | 2CP | TOT OUT |
|---|---|---|---|---|---|---|---|---|---|
| MB-052112 | 72.8% | 68.4% | 80.8% | 59.2% | 73.3% | 75.5% | 72.3% | 72.3% | 0 |
| LCS-052112 | 70.0% | 70.0% | 80.0% | 55.6% | 75.7% | 69.1% | 86.4% | 69.9% | 0 |
| LCSD-052112 | 66.0% | 66.4% | 80.8% | 53.2% | 71.5% | 65.6% | 84.3% | 65.9% | 0 |
| MS-SSRB-120515 | 73.2% | 67.6% | 82.8% | 60.0% | 73.1% | 76.3% | 78.7% | 72.8% | 0 |
| MS-SSFB-120515 | 69.6% | 62.8% | 79.2% | 57.2% | 69.9% | 68.5% | 75.2% | 68.8% | 0 |

| | LCS/MB LIMITS | QC LIMITS |
|---|---|---|
| (NBZ) = d5-Nitrobenzene | (50-100) | (34-101) |
| (FBP) = 2-Fluorobiphenyl | (51-100) | (38-100) |
| (TPH) = d14-p-Terphenyl | (54-117) | (27-122) |
| (DCB) = d4-1,2-Dichlorobenzene | (40-100) | (27-100) |
| (PHL) = d5-Phenol | (15-121) | (16-106) |
| (2FP) = 2-Fluorophenol | (33-100) | (23-100) |
| (TBP) = 2,4,6-Tribromophenol | (46-125) | (31-128) |
| (2CP) = d4-2-Chlorophenol | (46-102) | (33-100) |

Prep Method: SW3520C
Log Number Range: 12-8937 to 12-8938

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**Semivolatiles by SW8270D GC/MS**
Page 1 of 1

**Sample ID: LCS-052112**
**LCS/LCSD**

Lab Sample ID: LCS-052112
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized: MW
Reported: 05/30/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted LCS/LCSD: 05/21/12

Date Analyzed LCS: 05/24/12 11:59
LCSD: 05/24/12 12:33
Instrument/Analyst LCS: NT6/JZ
LCSD: NT6/JZ
GPC Cleanup: NO

Sample Amount LCS: 500 mL
LCSD: 500 mL
Final Extract Volume LCS: 0.50 mL
LCSD: 0.50 mL
Dilution Factor LCS: 1.00
LCSD: 1.00

| Analyte | LCS | Spike Added-LCS | LCS Recovery | LCSD | Spike Added-LCSD | LCSD Recovery | RPD |
|---|---|---|---|---|---|---|---|
| Phenol | 16.6 | 25.0 | 66.4% | 16.1 | 25.0 | 64.4% | 3.1% |
| 4-Methylphenol | 32.1 | 50.0 | 64.2% | 31.2 | 50.0 | 62.4% | 2.8% |
| Benzoic Acid | 102 | 138 | 73.9% | 103 | 138 | 74.6% | 1.0% |
| Naphthalene | 15.2 | 25.0 | 60.8% | 14.9 | 25.0 | 59.6% | 2.0% |
| 2-Methylnaphthalene | 13.9 | 25.0 | 55.6% | 14.0 | 25.0 | 56.0% | 0.7% |
| Dimethylphthalate | 21.8 | 25.0 | 87.2% | 22.1 | 25.0 | 88.4% | 1.4% |
| Acenaphthylene | 18.3 | 25.0 | 73.2% | 18.0 | 25.0 | 72.0% | 1.7% |
| Acenaphthene | 17.2 | 25.0 | 68.8% | 17.0 | 25.0 | 68.0% | 1.2% |
| Dibenzofuran | 17.6 | 25.0 | 70.4% | 17.2 | 25.0 | 68.8% | 2.3% |
| Fluorene | 18.6 | 25.0 | 74.4% | 18.3 | 25.0 | 73.2% | 1.6% |
| Pentachlorophenol | 60.6 | 75.0 | 80.8% | 62.5 | 75.0 | 83.3% | 3.1% |
| Phenanthrene | 19.8 | 25.0 | 79.2% | 19.9 | 25.0 | 79.6% | 0.5% |
| Carbazole | 22.4 | 25.0 | 89.6% | 22.1 | 25.0 | 88.4% | 1.3% |
| Anthracene | 19.2 | 25.0 | 76.8% | 19.4 | 25.0 | 77.6% | 1.0% |
| Di-n-Butylphthalate | 23.2 | 25.0 | 92.8% | 23.3 | 25.0 | 93.2% | 0.4% |
| Fluoranthene | 21.6 | 25.0 | 86.4% | 21.3 | 25.0 | 85.2% | 1.4% |
| Pyrene | 19.3 | 25.0 | 77.2% | 19.9 | 25.0 | 79.6% | 3.1% |
| Butylbenzylphthalate | 21.0 | 25.0 | 84.0% | 21.6 | 25.0 | 86.4% | 2.8% |
| Benzo(a)anthracene | 18.4 | 25.0 | 73.6% | 18.6 | 25.0 | 74.4% | 1.1% |
| bis(2-Ethylhexyl)phthalate | 21.3 | 25.0 | 85.2% | 21.6 | 25.0 | 86.4% | 1.4% |
| Chrysene | 19.9 | 25.0 | 79.6% | 20.0 | 25.0 | 80.0% | 0.5% |
| Di-n-Octyl phthalate | 21.6 | 25.0 | 86.4% | 21.5 | 25.0 | 86.0% | 0.5% |
| Benzo(a)pyrene | 18.2 | 25.0 | 72.8% | 18.1 | 25.0 | 72.4% | 0.6% |
| Indeno(1,2,3-cd)pyrene | 18.2 | 25.0 | 72.8% | 18.9 | 25.0 | 75.6% | 3.8% |
| Dibenz(a,h)anthracene | 17.9 | 25.0 | 71.6% | 19.2 | 25.0 | 76.8% | 7.0% |
| Benzo(g,h,i)perylene | 19.0 | 25.0 | 76.0% | 19.4 | 25.0 | 77.6% | 2.1% |
| Total Benzofluoranthenes | 39.7 | 50.0 | 79.4% | 39.2 | 50.0 | 78.4% | 1.3% |

**Semivolatile Surrogate Recovery**

| | LCS | LCSD |
|---|---|---|
| d5-Nitrobenzene | 70.0% | 66.0% |
| 2-Fluorobiphenyl | 70.0% | 66.4% |
| d14-p-Terphenyl | 80.0% | 80.8% |
| d4-1,2-Dichlorobenzene | 55.6% | 53.2% |
| d5-Phenol | 75.7% | 71.5% |
| 2-Fluorophenol | 69.1% | 65.6% |
| 2,4,6-Tribromophenol | 86.4% | 84.3% |
| d4-2-Chlorophenol | 69.9% | 65.9% |

Results reported in µg/L
RPD calculated using sample concentrations per SW846.

4B

SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

UU62MBW1

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA, LLC.

ARI Job No: UU62

Project: JELD WEN - MAULSBY M

Lab File ID: 05241202

Date Extracted: 05/21/12

Instrument ID: NT6

Date Analyzed: 05/24/12

Matrix: LIQUID

Time Analyzed: 1126

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 01 | UU62LCSW1 | UU62LCSW1 | 05241203 | 05/24/12 |
| 02 | UU62LCSDW1 | UU62LCSDW1 | 05241204 | 05/24/12 |
| 03 | MS-SSRB-120515 | UU62J | 05241206 | 05/24/12 |
| 04 | MS-SSFB-120515 | UU62K | 05241207 | 05/24/12 |
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UU52:00086

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**Semivolatiles by SW8270D GC/MS**
**Extraction Method: SW3520C**
Page 1 of 1

**Sample ID: MB-052112**
**METHOD BLANK**

Lab Sample ID: MB-052112
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized: MW
Reported: 05/30/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 05/21/12
Date Analyzed: 05/24/12 11:26
Instrument/Analyst: NT6/JZ

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 108-95-2 | Phenol | 0.52 | 1.0 | < 1.0 U |
| 106-44-5 | 4-Methylphenol | 0.52 | 1.0 | < 1.0 U |
| 65-85-0 | Benzoic Acid | 5.1 | 10 | < 10 U |
| 91-20-3 | Naphthalene | 0.52 | 1.0 | < 1.0 U |
| 91-57-6 | 2-Methylnaphthalene | 0.48 | 1.0 | < 1.0 U |
| 131-11-3 | Dimethylphthalate | 0.53 | 1.0 | < 1.0 U |
| 208-96-8 | Acenaphthylene | 0.48 | 1.0 | < 1.0 U |
| 83-32-9 | Acenaphthene | 0.55 | 1.0 | < 1.0 U |
| 132-64-9 | Dibenzofuran | 0.48 | 1.0 | < 1.0 U |
| 86-73-7 | Fluorene | 0.56 | 1.0 | < 1.0 U |
| 87-86-5 | Pentachlorophenol | 2.4 | 5.0 | < 5.0 U |
| 85-01-8 | Phenanthrene | 0.56 | 1.0 | < 1.0 U |
| 86-74-8 | Carbazole | 0.31 | 1.0 | < 1.0 U |
| 120-12-7 | Anthracene | 0.53 | 1.0 | < 1.0 U |
| 84-74-2 | Di-n-Butylphthalate | 0.54 | 1.0 | < 1.0 U |
| 206-44-0 | Fluoranthene | 0.52 | 1.0 | < 1.0 U |
| 129-00-0 | Pyrene | 0.55 | 1.0 | < 1.0 U |
| 85-68-7 | Butylbenzylphthalate | 0.56 | 1.0 | < 1.0 U |
| 56-55-3 | Benzo(a)anthracene | 0.52 | 1.0 | < 1.0 U |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 1.9 | 1.0 | < 1.0 U |
| 218-01-9 | Chrysene | 0.55 | 1.0 | < 1.0 U |
| 117-84-0 | Di-n-Octyl phthalate | 0.51 | 1.0 | < 1.0 U |
| 50-32-8 | Benzo(a)pyrene | 0.48 | 1.0 | < 1.0 U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 0.48 | 1.0 | < 1.0 U |
| 53-70-3 | Dibenz(a,h)anthracene | 0.48 | 1.0 | < 1.0 U |
| 191-24-2 | Benzo(g,h,i)perylene | 0.55 | 1.0 | < 1.0 U |
| 483-65-8 | Retene | 0.44 | 1.0 | < 1.0 U |
| TOTBFA | Total Benzofluoranthenes | 0.48 | 1.0 | < 1.0 U |

Reported in µg/L (ppb)

**Semivolatile Surrogate Recovery**

| | | | |
|---|---|---|---|
| d5-Nitrobenzene | 72.8% | 2-Fluorobiphenyl | 68.4% |
| d14-p-Terphenyl | 80.8% | d4-1,2-Dichlorobenzene | 59.2% |
| d5-Phenol | 73.3% | 2-Fluorophenol | 75.5% |
| 2,4,6-Tribromophenol | 72.3% | d4-2-Chlorophenol | 72.3% |

5B

# SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
## DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC

Instrument ID: NT6  Project: JELD WEN-MAULSBY MARSH

DFTPP Injection Date: 05/23/12  DFTPP Injection Time: 1334

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 10.0 - 80.0% of mass 198 | 30.7 |
| 68 | Less than 2.0% of mass 69 | 0.3 ( 0.9)1 |
| 69 | Mass 69 relative abundance | 33.2 |
| 70 | Less than 2.0% of mass 69 | 0.3 ( 0.8)1 |
| 127 | 10.0 - 80.0% of mass 198 | 45.7 |
| 197 | Less than 2.0% of mass 198 | 0.0 |
| 198 | Base Peak, 100% relative abundance | 100.0 |
| 199 | 5.0 to 9.0% of mass 198 | 7.0 |
| 275 | 10.0 - 60.0% of mass 198 | 30.0 |
| 365 | Greater than 1.0% of mass 198 | 4.02 |
| 441 | 0.0 - 24.0% of mass 442 | 26.0 ( 14.3)2 |
| 442 | 50.0 - 200.0% of mass 198 | 182.2 |
| 443 | 15.0 - 24.0% of mass 442 | 35.2 ( 19.3)2 |

1-Value is % mass 69  2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | IC250523 | IC250523 | 05231201 | 05/23/12 | 1334 |
| 02 | IC50523 | IC50523 | 05231203 | 05/23/12 | 1441 |
| 03 | IC100523 | IC100523 | 05231204 | 05/23/12 | 1515 |
| 04 | IC400523 | IC400523 | 05231205 | 05/23/12 | 1548 |
| 05 | IC600523 | IC600523 | 05231206 | 05/23/12 | 1622 |
| 06 | IC800523 | IC800523 | 05231207 | 05/23/12 | 1656 |
| 07 | IC10523 | IC10523 | 05231208 | 05/23/12 | 1846 |
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UU52:00088

5B

# SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
## DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC

Instrument ID: NT6  Project: JELD WEN-MAULSBY MARSH

DFTPP Injection Date: 05/24/12  DFTPP Injection Time: 1050

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 10.0 - 80.0% of mass 198 | 28.3 |
| 68 | Less than 2.0% of mass 69 | 0.1 ( 0.4)1 |
| 69 | Mass 69 relative abundance | 32.3 |
| 70 | Less than 2.0% of mass 69 | 0.0 ( 0.0)1 |
| 127 | 10.0 - 80.0% of mass 198 | 45.2 |
| 197 | Less than 2.0% of mass 198 | 0.0 |
| 198 | Base Peak, 100% relative abundance | 100.0 |
| 199 | 5.0 to 9.0% of mass 198 | 7.0 |
| 275 | 10.0 - 60.0% of mass 198 | 30.2 |
| 365 | Greater than 1.0% of mass 198 | 3.91 |
| 441 | 0.0 - 24.0% of mass 442 | 27.1 ( 14.6)2 |
| 442 | 50.0 - 200.0% of mass 198 | 185.7 |
| 443 | 15.0 - 24.0% of mass 442 | 35.8 ( 19.3)2 |

1-Value is % mass 69  2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | CC0524 | CC0524 | 05241201 | 05/24/12 | 1050 |
| 02 | UU62MBW1 | UU62MBW1 | 05241202 | 05/24/12 | 1126 |
| 03 | UU62LCSW1 | UU62LCSW1 | 05241203 | 05/24/12 | 1159 |
| 04 | UU62LCSDW1 | UU62LCSDW1 | 05241204 | 05/24/12 | 1233 |
| 05 | MS-SSRB-120515 | UU62J | 05241206 | 05/24/12 | 1340 |
| 06 | MS-SSFB-120515 | UU62K | 05241207 | 05/24/12 | 1414 |
| 07 | | | | | |
| 08 | | | | | |
| 09 | | | | | |
| 10 | | | | | |
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| 21 | | | | | |
| 22 | | | | | |



FORM V SV

UU52:00089

6B

# SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC

ARI Job No: UU62  Project: JELD WEN-MAULSBY MARSH

Instrument ID: NT6  Calibration Date: 05/23/12

LAB FILE ID: RRF1 =05231208 RRF5 =05231203 RRF10 =05231204
RRF25 =05231201 RRF40 =05231205 RRF60 =05231206
RRF80 =05231207

| COMPOUND | RRF 1 | RRF 5 | RRF 10 | RRF 25 | RRF 40 | RRF 60 | RRF 80 | RRF | %RSD /R^2 |
|---|---|---|---|---|---|---|---|---|---|
| Phenol | 1.930 | 1.625 | 1.582 | 1.656 | 1.730 | 1.598 | 1.470 | 1.656 | 8.7 |
| Bis(2-Chloroethyl)ether | 1.138 | 1.120 | 1.169 | 1.107 | 1.250 | 1.176 | 1.089 | 1.150 | 4.7 |
| 2-Chlorophenol | 1.798 | 1.494 | 1.433 | 1.491 | 1.557 | 1.465 | 1.343 | 1.512 | 9.4 |
| 1,3-Dichlorobenzene | 1.596 | 1.581 | 1.586 | 1.463 | 1.646 | 1.558 | 1.417 | 1.550 | 5.2 |
| 1,4-Dichlorobenzene | 1.596 | 1.622 | 1.573 | 1.470 | 1.631 | 1.547 | 1.400 | 1.548 | 5.5 |
| 1,2-Dichlorobenzene | 1.512 | 1.518 | 1.502 | 1.414 | 1.581 | 1.492 | 1.358 | 1.482 | 5.0 |
| Benzyl alcohol | 0.594 | 0.890 | 0.877 | 0.839 | 1.006 | 0.944 | 0.902 | 0.864 | 15.1 |
| 2,2'-oxybis(1-Chloropropane) | 1.332 | 1.344 | 1.303 | 1.216 | 1.374 | 1.277 | 1.180 | 1.289 | 5.4 |
| 2-Methylphenol | 1.458 | 1.218 | 1.194 | 1.245 | 1.333 | 1.239 | 1.157 | 1.263 | 8.0 |
| Hexachloroethane | 0.535 | 0.548 | 0.549 | 0.525 | 0.597 | 0.584 | 0.545 | 0.555 | 4.7 |
| N-Nitroso-di-n-propylamine | 0.767 | 0.788 | 0.779 | 0.728 | 0.853 | 0.784 | 0.736 | 0.776 | 5.3 |
| 4-Methylphenol | 1.391 | 1.270 | 1.255 | 1.319 | 1.401 | 1.295 | 1.201 | 1.304 | 5.5 |
| Nitrobenzene | 0.326 | 0.341 | 0.335 | 0.316 | 0.351 | 0.332 | 0.305 | 0.329 | 4.7 |
| Isophorone | 0.488 | 0.506 | 0.494 | 0.458 | 0.516 | 0.483 | 0.449 | 0.485 | 5.0 |
| 2-Nitrophenol | 0.256 | 0.224 | 0.217 | 0.233 | 0.242 | 0.232 | 0.218 | 0.232 | 6.0 |
| 2,4-Dimethylphenol | 0.382 | 0.341 | 0.334 | 0.353 | 0.364 | 0.342 | 0.314 | 0.347 | 6.3 |
| Bis(2-Chloroethoxy)methane | 0.362 | 0.378 | 0.372 | 0.347 | 0.387 | 0.363 | 0.336 | 0.364 | 4.9 |
| 2,4-Dichlorophenol | 0.346 | 0.335 | 0.335 | 0.356 | 0.368 | 0.346 | 0.319 | 0.344 | 4.6 |
| 1,2,4-Trichlorobenzene | 0.380 | 0.379 | 0.373 | 0.349 | 0.392 | 0.371 | 0.340 | 0.369 | 5.0 |
| Naphthalene | 1.167 | 1.180 | 1.137 | 0.990 | 1.009 | 0.880 | 0.754 | 1.017 | 15.6 |
| Benzoic acid | | 0.122 | 0.146 | 0.194 | 0.228 | 0.218 | 0.212 | 0.187 | 0.993 |
| 4-Chloroaniline | 0.472 | 0.517 | 0.493 | 0.462 | 0.491 | 0.444 | 0.407 | 0.469 | 7.7 |
| Hexachlorobutadiene | 0.232 | 0.229 | 0.225 | 0.213 | 0.238 | 0.227 | 0.213 | 0.225 | 4.2 |
| 4-Chloro-3-methylphenol | 0.274 | 0.256 | 0.270 | 0.294 | 0.307 | 0.267 | 0.255 | 0.275 | 7.0 |
| 2-Methylnaphthalene | 0.682 | 0.709 | 0.667 | 0.596 | 0.657 | 0.588 | 0.524 | 0.632 | 10.2 |
| Hexachlorocyclopentadiene | | 0.219 | 0.283 | 0.307 | 0.371 | 0.375 | 0.335 | 0.315 | 18.7 |
| 2,4,6-Trichlorophenol | 0.410 | 0.376 | 0.377 | 0.405 | 0.436 | 0.441 | 0.426 | 0.410 | 6.4 |
| 2,4,5-Trichlorophenol | 0.330 | 0.376 | 0.373 | 0.422 | 0.442 | 0.431 | 0.400 | 0.396 | 10.0 |
| 2-Chloronaphthalene | 1.077 | 1.106 | 1.096 | 0.971 | 1.075 | 1.067 | 0.915 | 1.044 | 6.9 |
| 2-Nitroaniline | 0.179 | 0.281 | 0.280 | 0.242 | 0.279 | 0.275 | 0.258 | 0.256 | 14.4 |
| Acenaphthylene | 1.808 | 1.904 | 1.848 | 1.517 | 1.635 | 1.433 | 1.289 | 1.633 | 14.2 |
| Dimethylphthalate | 1.123 | 1.183 | 1.142 | 0.954 | 1.061 | 1.033 | 0.923 | 1.060 | 9.2 |
| 2,6-Dinitrotoluene | 0.231 | 0.274 | 0.275 | 0.241 | 0.276 | 0.278 | 0.260 | 0.262 | 7.3 |
| Acenaphthene | 1.156 | 1.195 | 1.162 | 0.978 | 1.062 | 1.023 | | 1.096 | 8.0 |
| 3-Nitroaniline | 0.263 | 0.348 | 0.341 | 0.293 | 0.308 | 0.291 | 0.255 | 0.300 | 11.9 |
| 2,4-Dinitrophenol | | 0.033 | 0.080 | 0.144 | 0.174 | 0.197 | 0.192 | 0.137 | 0.993 |
| Dibenzofuran | 1.746 | 1.843 | 1.720 | 1.390 | 1.481 | 1.371 | 1.197 | 1.535 | 15.5 |

<- Outside QC limits: %RSD <20% or R^2 > 0.990



FORM VI SV-1

6B

# SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC

ARI Job No: UU62  Project: JELD WEN-MAULSBY MARSH

Instrument ID: NT6  Calibration Date: 05/23/12

LAB FILE ID: RRF1 =05231208 RRF5 =05231203 RRF10 =05231204
RRF25 =05231201 RRF40 =05231205 RRF60 =05231206
RRF80 =05231207

| COMPOUND | RRF 1 | RRF 5 | RRF 10 | RRF 25 | RRF 40 | RRF 60 | RRF 80 | RRF | %RSD /R^2 | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | | 0.062 | 0.078 | 0.090 | 0.102 | 0.112 | 0.104 | 0.091 | 0.990 | |
| 2,4-Dinitrotoluene | 0.268 | 0.349 | 0.355 | 0.313 | 0.360 | 0.372 | 0.349 | 0.338 | 10.6 | |
| Fluorene | 1.296 | 1.408 | 1.369 | 1.158 | 1.256 | 1.189 | 1.034 | 1.244 | 10.4 | |
| 4-Chlorophenyl-phenylether | 0.629 | 0.643 | 0.633 | 0.550 | 0.630 | 0.617 | 0.572 | 0.610 | 5.8 | |
| Diethylphthalate | 1.081 | 1.120 | 1.084 | 0.897 | 1.004 | 0.995 | 0.887 | 1.010 | 9.1 | |
| 4-Nitroaniline | 0.232 | 0.311 | 0.288 | 0.254 | 0.292 | 0.309 | 0.290 | 0.282 | 10.2 | |
| 4,6-Dinitro-2-methylphenol | | 0.111 | 0.131 | 0.151 | 0.161 | 0.160 | 0.151 | 0.144 | 13.4 | |
| N-Nitrosodiphenylamine (1) | 0.506 | 0.543 | 0.550 | 0.476 | 0.538 | 0.484 | 0.432 | 0.504 | 8.5 | |
| 4-Bromophenyl-phenylether | 0.258 | 0.266 | 0.261 | 0.232 | 0.271 | 0.246 | 0.230 | 0.252 | 6.4 | |
| Hexachlorobenzene | 0.327 | 0.330 | 0.328 | 0.291 | 0.336 | 0.308 | 0.284 | 0.315 | 6.5 | |
| Pentachlorophenol | | 0.047 | 0.066 | 0.123 | 0.142 | 0.154 | 0.147 | 0.113 | 0.993 | |
| Phenanthrene | 1.163 | 1.220 | 1.179 | 0.990 | 1.039 | 0.907 | 0.780 | 1.040 | 15.4 | |
| Anthracene | 1.152 | 1.241 | 1.208 | 1.021 | 1.064 | 0.910 | 0.760 | 1.051 | 16.3 | |
| Carbazole | 0.882 | 0.932 | 0.891 | 0.764 | 0.824 | 0.762 | 0.653 | 0.815 | 11.8 | |
| Di-n-butylphthalate | 1.030 | 1.087 | 1.084 | 0.949 | 0.995 | 0.878 | 0.728 | 0.964 | 13.3 | |
| Fluoranthene | 1.247 | 1.280 | 1.261 | 1.086 | 1.107 | 0.990 | 0.816 | 1.112 | 15.2 | |
| Pyrene | 1.177 | 1.232 | 1.202 | 0.993 | 1.048 | 0.849 | 0.729 | 1.033 | 18.4 | |
| Butylbenzylphthalate | 0.362 | 0.408 | 0.412 | 0.372 | 0.432 | 0.398 | 0.361 | 0.392 | 7.0 | |
| Benzo(a)anthracene | 1.104 | 1.150 | 1.121 | 0.961 | 1.035 | 0.897 | | 1.045 | 9.5 | |
| 3,3'-Dichlorobenzidine | 0.402 | 0.454 | 0.418 | 0.374 | 0.413 | 0.370 | 0.333 | 0.395 | 10.0 | |
| Chrysene | 1.062 | 1.115 | 1.083 | 0.925 | 0.993 | 0.835 | 0.706 | 0.960 | 15.5 | |
| bis(2-Ethylhexyl)phthalate | 0.589 | 0.590 | 0.588 | 0.520 | 0.602 | 0.553 | 0.494 | 0.562 | 7.4 | |
| Di-n-octylphthalate | 1.048 | 1.054 | 1.035 | 0.884 | 0.962 | 0.838 | 0.720 | 0.934 | 13.5 | |
| Benzo(b)fluoranthene | 1.117 | 1.259 | 1.197 | 1.062 | 1.080 | 0.997 | 0.839 | 1.079 | 12.7 | |
| Benzo(k)fluoranthene | 1.091 | 1.176 | 1.195 | 0.963 | 1.110 | 0.809 | 0.839 | 1.026 | 15.3 | |
| Benzo(a)pyrene | 0.975 | 1.048 | 1.042 | 0.901 | 0.998 | 0.859 | 0.733 | 0.936 | 12.1 | |
| Indeno(1,2,3-cd)pyrene | 1.338 | 1.516 | 1.509 | 1.319 | 1.491 | 1.318 | 1.166 | 1.380 | 9.5 | |
| Dibenzo(a,h)anthracene | 1.098 | 1.270 | 1.261 | 1.100 | 1.197 | 1.002 | 0.836 | 1.109 | 13.9 | |
| Benzo(g,h,i)perylene | 1.145 | 1.306 | 1.290 | 1.116 | 1.257 | 1.097 | 0.935 | 1.164 | 11.3 | |
| N-Nitrosodimethylamine | 0.694 | 0.689 | 0.688 | 0.650 | 0.746 | 0.711 | 0.666 | 0.692 | 4.5 | |
| Aniline | 2.080 | 2.026 | 1.878 | 1.798 | 1.818 | 1.648 | 1.504 | 1.822 | 11.1 | |
| 1,2-Diphenylhydrazine | | | | | | | | | | |
| Benzidine | | 0.299 | 0.233 | 0.315 | 0.176 | 0.159 | 0.143 | 0.221 | 33.2 | <M |
| p-Cymene | | | | | | | | | | |
| Caffeine | | | | | | | | | | |
| Retene | 0.360 | 0.399 | 0.380 | 0.341 | 0.404 | 0.372 | 0.339 | 0.371 | 7.0 | |
| Perylene | 1.047 | 1.061 | 0.983 | 0.836 | 0.928 | 0.801 | 0.683 | 0.906 | 15.4 | |

(1) Cannot be seperated from Diphenylamine

<- Outside QC limits: %RSD <20% or R^2 > 0.990

05/24/12



FORM VI SV-2

UU52:00091

6B

# SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC

ARI Job No: UU62  Project: JELD WEN-MAULSBY MARSH

Instrument ID: NT6  Calibration Date: 05/23/12

LAB FILE ID: RRF1 =05231208 RRF5 =05231203 RRF10 =05231204
RRF25 =05231201 RRF40 =05231205 RRF60 =05231206
RRF80 =05231207

| COMPOUND | RRF 1 | RRF 5 | RRF 10 | RRF 25 | RRF 40 | RRF 60 | RRF 80 | RRF | %RSD /R^2 |
|---|---|---|---|---|---|---|---|---|---|
| 3-beta-Coprostanol | | | | | | | | | |
| Cholesterol | | | | | | | | | |
| beta-Sitosterol | | | | | | | | | |
| Pyridine | 0.978 | 1.146 | 1.225 | 1.149 | 1.259 | 1.218 | 1.116 | 1.156 | 8.1 |
| 1-methylnaphthalene | 0.531 | 0.533 | 0.497 | 0.445 | 0.506 | 0.462 | 0.424 | 0.485 | 8.8 |
| Guaiacol | 0.984 | 1.035 | 0.993 | 0.947 | 1.099 | 1.041 | 0.977 | 1.011 | 5.0 |
| 4,5-Dichloroguaiacol | 0.260 | 0.313 | 0.294 | 0.256 | 0.288 | 0.287 | 0.268 | 0.281 | 7.3 |
| 4,5,6-Trichloroguaiacol | 0.194 | 0.237 | 0.220 | 0.191 | 0.222 | 0.238 | 0.225 | 0.218 | 8.7 |
| 3,4,5-Trichloroguaiacol | 0.111 | 0.144 | 0.136 | 0.122 | 0.140 | 0.137 | 0.130 | 0.131 | 8.8 |
| Tetrachloroguaiacol | 0.091 | 0.131 | 0.133 | 0.129 | 0.153 | 0.148 | 0.140 | 0.132 | 15.2 |
| Azobenzene (1,2-DP-Hydrazine | 0.945 | 0.999 | 0.986 | 0.884 | 0.965 | 0.936 | 0.837 | 0.936 | 6.2 |
| Biphenyl | 1.216 | 1.282 | 1.198 | 1.024 | 1.130 | 1.022 | 0.943 | 1.116 | 11.1 |
| Diphenyl Oxide | 0.748 | 0.806 | 0.739 | 0.657 | 0.766 | 0.722 | 0.683 | 0.732 | 6.9 |
| Beta-Pinene | | | | | | | | | |
| Tributyl Phosphate | 0.592 | 0.656 | 0.626 | 0.552 | 0.628 | 0.583 | 0.513 | 0.593 | 8.3 |
| Dibutyl Phenyl Phosphate | 0.456 | 0.496 | 0.486 | 0.441 | 0.514 | 0.501 | 0.460 | 0.479 | 5.6 |
| Butyl Diphenyl Phosphate | 0.109 | 0.126 | 0.121 | 0.111 | 0.133 | 0.126 | 0.116 | 0.120 | 7.1 |
| Triphenyl Phosphate | 0.222 | 0.237 | 0.230 | 0.213 | 0.254 | 0.242 | 0.223 | 0.232 | 6.0 |
| 7,12-Dimethylbenz(a)anthrace | | | | | | | | | |
| 2,3,4,6-Tetrachlorophenol | 0.224 | 0.245 | 0.274 | 0.288 | 0.314 | 0.328 | 0.309 | 0.283 | 13.4 |
| Quinoline | | | | | | | | | |
| Furfuraldehyde | | | | | | | | | |
| Acetophenone | 1.546 | 1.599 | 1.592 | 1.483 | 1.699 | 1.580 | 1.464 | 1.566 | 5.0 |
| 3,4-Dimethylphenol | | | | | | | | | |
| Safrole | | | | | | | | | |
| N-Tetradecane | | | | | | | | | |
| 2-Isopropylnaphthalene | | | | | | | | | |
| N-Hexadecane | | | | | | | | | |
| 1-Methylfluorene | | | | | | | | | |
| Dibenzothiophene | | | | | | | | | |
| 1-Methylphenanthrene | | | | | | | | | |
| 3,6-Dimethylphenanthrene | | | | | | | | | |
| Butylatedhydroxytoluene | 0.866 | 0.810 | 0.781 | 0.731 | 0.796 | 0.784 | 0.698 | 0.781 | 7.0 |
| 2,3,5,6-Tetrachlorophenol | | | | | | | | | |
| 2,3,4,5-tetrachlorophenol | | | | | | | | | |
| Chlorobenzilate | | | | | | | | | |
| Isodrin | | | | | | | | | |

<- Outside QC limits: %RSD <20% or R^2 > 0.990





UU52:00092

6B

# SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC

ARI Job No: UU62  Project: JELD WEN-MAULSBY MARSH

Instrument ID: NT6  Calibration Date: 05/23/12

LAB FILE ID: RRF1 =05231208 RRF5 =05231203 RRF10 =05231204
RRF25 =05231201 RRF40 =05231205 RRF60 =05231206
RRF80 =05231207

| COMPOUND | RRF 1 | RRF 5 | RRF 10 | RRF 25 | RRF 40 | RRF 60 | RRF 80 | RRF | %RSD /R^2 |
|---|---|---|---|---|---|---|---|---|---|
| Diallate A | | | | | | | | | |
| Diallate B | | | | | | | | | |
| 1,2-Dibromo-3-Chloropropane | | | | | | | | | |
| 1,4-Dioxane | 0.400 | 0.435 | 0.423 | 0.398 | 0.433 | 0.442 | 0.403 | 0.419 | 4.4 |
| alpha-Terpineol | 0.198 | 0.204 | 0.194 | 0.177 | 0.204 | 0.190 | 0.177 | 0.192 | 6.0 |
| 4,4'-DDE | | | | | | | | | |
| 4,4'-DDD | | | | | | | | | |
| 4,4'-DDT | | | | | | | | | |
| Dieldrin | | | | | | | | | |
| TCMX | | | | | | | | | |
| DCBP | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | 0.554 | 0.564 | 0.553 | 0.493 | 0.558 | 0.568 | 0.510 | 0.543 | 5.4 |
| Benzo(e)pyrene | | | | | | | | | |
| Chlorpyrifos | | | | | | | | | |
| Diazinon | | | | | | | | | |
| Kelthane | | | | | | | | | |
| Methyl Parathion | | | | | | | | | |
| Ethyl Parathion | | | | | | | | | |
| Ethion | | | | | | | | | |
| 4-Nonylphenol | | | | | | | | | |
| Tetraethyl Tin | | | | | | | | | |
| 1,2,3-Trichloronaphthalene | | | | | | | | | |
| 1,2,3,4-Tetrachloronapthalen | | | | | | | | | |
| 1,2,3,5,8-Pentachloronaphtha | | | | | | | | | |
| 1,2,3,4,6,7-Hexachloronaphth | | | | | | | | | |
| 1,2,3,4,5,6,7-Heptachloronap | | | | | | | | | |
| Octachloronaphthalene | | | | | | | | | |
| 2,2',4,4',5-Pentabromobiphen | | | | | | | | | |
| Pentachlorobenzene | 0.527 | 0.541 | 0.533 | 0.473 | 0.549 | 0.522 | 0.484 | 0.518 | 5.6 |
| 4-tert-Butylphenol | | | | | | | | | |
| N,N-Dimethylaniline | | | | | | | | | |
| 2,3-Dimethylaniline | | | | | | | | | |
| 2,4-Dimethylaniline | | | | | | | | | |
| 2,5-Dimethylaniline | | | | | | | | | |
| 2,6-Dimethylaniline | | | | | | | | | |
| 3,4-Dimethylaniline | | | | | | | | | |
| 3,5-Dimethylaniline | | | | | | | | | |

<- Outside QC limits: %RSD <20% or R^2 > 0.990





UU52:00093

6B

# SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC

ARI Job No: UU62  Project: JELD WEN-MAULSBY MARSH

Instrument ID: NT6  Calibration Date: 05/23/12

LAB FILE ID: RRF1 =05231208 RRF5 =05231203 RRF10 =05231204
RRF25 =05231201 RRF40 =05231205 RRF60 =05231206
RRF80 =05231207

| COMPOUND | RRF 1 | RRF 5 | RRF 10 | RRF 25 | RRF 40 | RRF 60 | RRF 80 | RRF | %RSD /R^2 |
|---|---|---|---|---|---|---|---|---|---|
| p-Benzoquinone | | 0.044 | 0.050 | 0.055 | 0.064 | 0.061 | 0.054 | 0.055 | 13.5 |
| 2-Benzyl-4-Chlorophenol | 0.167 | 0.210 | 0.212 | 0.203 | 0.239 | 0.243 | 0.226 | 0.214 | 12.1 |
| n-Decane | | | | | | | | | |
| n-Octadecane | | | | | | | | | |
| 3,4,6-Trichloroguaiacol | 0.482 | 0.602 | 0.572 | 0.532 | 0.644 | 0.584 | 0.596 | 0.573 | 9.2 |
| 4,6-Dichloroguaiacol | 0.592 | 0.694 | 0.655 | 0.597 | 0.706 | 0.617 | 0.597 | 0.637 | 7.6 |
| 3,4-Dichloroguaiacol | 0.435 | 0.543 | 0.517 | 0.490 | 0.566 | 0.510 | 0.502 | 0.509 | 8.2 |
| 4-Chloroguaiacol | 0.440 | 0.514 | 0.491 | 0.470 | 0.558 | 0.480 | 0.500 | 0.493 | 7.5 |
| Carbaryl | 0.469 | 0.422 | 0.461 | 0.497 | 0.533 | 0.530 | 0.476 | 0.484 | 8.1 |
| Total Benzofluoranthenes | 1.052 | 1.132 | 1.129 | 0.951 | 1.029 | 0.851 | 0.703 | 0.978 | 16.0 |
| 2-Fluorophenol | 1.036 | 1.150 | 1.208 | 1.092 | 1.286 | 1.203 | | 1.162 | 7.7 |
| Phenol-d5 | 1.292 | 1.407 | 1.410 | 1.308 | 1.517 | 1.383 | | 1.386 | 5.9 |
| 2-Chlorophenol-d4 | 1.264 | 1.384 | 1.372 | 1.257 | 1.450 | 1.334 | | 1.344 | 5.5 |
| 1,2-Dichlorobenzene-d4 | 1.016 | 0.997 | 0.981 | 0.894 | 1.034 | 0.957 | | 0.980 | 5.1 |
| Nitrobenzene-d5 | 0.306 | 0.332 | 0.330 | 0.302 | 0.341 | 0.312 | | 0.320 | 4.9 |
| 2-Fluorobiphenyl | 1.323 | 1.302 | 1.271 | 1.073 | 1.186 | 1.134 | | 1.215 | 8.2 |
| 2,4,6-Tribromophenol | 0.238 | 0.263 | 0.268 | 0.232 | 0.277 | 0.279 | | 0.260 | 7.8 |
| Terphenyl-d14 | 0.704 | 0.753 | 0.750 | 0.626 | 0.714 | 0.608 | | 0.692 | 8.9 |
| p-Cresol-d4 | | | | | | | | | |
| Anthracene-d10 | | | | | | | | | |
| Fluoranthene-d10 | | | | | | | | | |
| Dibenz(a,h)anthracene-d14 | | | | | | | | | |
| Diphenyl-d10 | | | | | | | | | |
| D10-1-methylnaphthalene | | | | | | | | | |
| d8-1,4-Dioxane | 0.471 | 0.454 | 0.447 | 0.420 | 0.457 | 0.461 | 0.422 | 0.447 | 4.4 |

<- Outside QC limits: %RSD <20% or R^2 > 0.990



FORM VI SV-5

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC | Client: ANCHOR QEA, LLC

ARI Job No: UU62 | Project: JELD WEN-MAULSBY MARSH

Instrument ID: NT6 | Cont. Calib. Date: 05/24/12

Init. Calib. Date: 05/23/12 | Cont. Calib. Time: 1050

| COMPOUND | CalAmt or ARF | CC Amt or RF | MIN RRF | CURVE TYPE | %D or Drift |
|---|---|---|---|---|---|
| Phenol | 1.656 | 1.658 | 0.800 | AVRG | 0.1 |
| Bis(2-Chloroethyl)ether | 1.150 | 1.124 | 0.700 | AVRG | -2.3 |
| 2-Chlorophenol | 1.512 | 1.512 | 0.800 | AVRG | 0.0 |
| 1,3-Dichlorobenzene | 1.550 | 1.486 | 0.010 | AVRG | -4.1 |
| 1,4-Dichlorobenzene | 1.548 | 1.485 | 0.010 | AVRG | -4.1 |
| 1,2-Dichlorobenzene | 1.482 | 1.433 | 0.010 | AVRG | -3.3 |
| Benzyl alcohol | 0.864 | 0.754 | 0.010 | AVRG | -12.7 |
| 2,2'-oxybis(1-Chloropropane) | 1.289 | 1.262 | 0.010 | AVRG | -2.1 |
| 2-Methylphenol | 1.263 | 1.263 | 0.700 | AVRG | 0.0 |
| Hexachloroethane | 0.555 | 0.534 | 0.300 | AVRG | -3.8 |
| N-Nitroso-di-n-propylamine | 0.776 | 0.762 | 0.500 | AVRG | -1.8 |
| 4-Methylphenol | 1.304 | 1.320 | 0.600 | AVRG | 1.2 |
| Nitrobenzene | 0.329 | 0.310 | 0.200 | AVRG | -5.8 |
| Isophorone | 0.485 | 0.466 | 0.400 | AVRG | -3.9 |
| 2-Nitrophenol | 0.232 | 0.233 | 0.100 | AVRG | 0.4 |
| 2,4-Dimethylphenol | 0.347 | 0.350 | 0.200 | AVRG | 0.9 |
| Bis(2-Chloroethoxy)methane | 0.364 | 0.344 | 0.300 | AVRG | -5.5 |
| 2,4-Dichlorophenol | 0.344 | 0.356 | 0.200 | AVRG | 3.5 |
| 1,2,4-Trichlorobenzene | 0.369 | 0.349 | 0.010 | AVRG | -5.4 |
| Naphthalene | 1.017 | 1.005 | 0.700 | AVRG | -1.2 |
| Benzoic acid | 50.00 | 47.23 | 0.010 | LINR | -5.5 |
| 4-Chloroaniline | 0.469 | 0.449 | 0.010 | AVRG | -4.3 |
| Hexachlorobutadiene | 0.225 | 0.212 | 0.010 | AVRG | -5.8 |
| 4-Chloro-3-methylphenol | 0.275 | 0.298 | 0.200 | AVRG | 8.4 |
| 2-Methylnaphthalene | 0.632 | 0.605 | 0.400 | AVRG | -4.3 |
| Hexachlorocyclopentadiene | 0.315 | 0.316 | 0.050 | AVRG | 0.3 |
| 2,4,6-Trichlorophenol | 0.410 | 0.426 | 0.200 | AVRG | 3.9 |
| 2,4,5-Trichlorophenol | 0.396 | 0.428 | 0.200 | AVRG | 8.1 |
| 2-Chloronaphthalene | 1.044 | 1.017 | 0.800 | AVRG | -2.6 |
| 2-Nitroaniline | 0.256 | 0.247 | 0.010 | AVRG | -3.5 |
| Acenaphthylene | 1.633 | 1.589 | 0.900 | AVRG | -2.7 |
| Dimethylphthalate | 1.060 | 0.998 | 0.010 | AVRG | -5.8 |
| 2,6-Dinitrotoluene | 0.262 | 0.248 | 0.200 | AVRG | -5.3 |
| Acenaphthene | 1.096 | 1.014 | 0.900 | AVRG | -7.5 |
| 3-Nitroaniline | 0.300 | 0.284 | 0.010 | AVRG | -5.3 |
| 2,4-Dinitrophenol | 50.00 | 49.26 | 0.010 | 2ORDR | -1.5 |
| Dibenzofuran | 1.535 | 1.446 | 0.800 | AVRG | -5.8 |

<- Exceeds QC limit of 20% D

* RF less than minimum RF



FORM VII SV-1

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC | Client: ANCHOR QEA, LLC

ARI Job No: UU62 | Project: JELD WEN-MAULSBY MARSH

Instrument ID: NT6 | Cont. Calib. Date: 05/24/12

Init. Calib. Date: 05/23/12 | Cont. Calib. Time: 1050

| COMPOUND | CalAmt or ARF | CC Amt or RF | MIN RRF | CURVE TYPE | %D or Drift |
|---|---|---|---|---|---|
| 4-Nitrophenol | 25.00 | 22.50 | 0.010 | LINR | -10.0 |
| 2,4-Dinitrotoluene | 0.338 | 0.324 | 0.200 | AVRG | -4.1 |
| Fluorene | 1.244 | 1.200 | 0.900 | AVRG | -3.5 |
| 4-Chlorophenyl-phenylether | 0.610 | 0.568 | 0.400 | AVRG | -6.9 |
| Diethylphthalate | 1.010 | 0.939 | 0.010 | AVRG | -7.0 |
| 4-Nitroaniline | 0.282 | 0.275 | 0.010 | AVRG | -2.5 |
| 4,6-Dinitro-2-methylphenol | 0.144 | 0.150 | 0.010 | AVRG | 4.2 |
| N-Nitrosodiphenylamine(1) | 0.504 | 0.465 | 0.010 | AVRG | -7.7 |
| 4-Bromophenyl-phenylether | 0.252 | 0.227 | 0.100 | AVRG | -9.9 |
| Hexachlorobenzene | 0.315 | 0.286 | 0.100 | AVRG | -9.2 |
| Pentachlorophenol | 25.00 | 22.68 | 0.050 | 2ORDR | -9.3 |
| Phenanthrene | 1.040 | 1.012 | 0.700 | AVRG | -2.7 |
| Anthracene | 1.051 | 1.030 | 0.700 | AVRG | -2.0 |
| Carbazole | 0.815 | 0.777 | 0.010 | AVRG | -4.7 |
| Di-n-butylphthalate | 0.964 | 0.968 | 0.010 | AVRG | 0.4 |
| Fluoranthene | 1.112 | 1.128 | 0.600 | AVRG | 1.4 |
| Pyrene | 1.033 | 0.983 | 0.600 | AVRG | -4.8 |
| Butylbenzylphthalate | 0.392 | 0.371 | 0.010 | AVRG | -5.4 |
| Benzo(a)anthracene | 1.045 | 0.962 | 0.800 | AVRG | -7.9 |
| 3,3'-Dichlorobenzidine | 0.395 | 0.349 | 0.010 | AVRG | -11.6 |
| Chrysene | 0.960 | 0.927 | 0.700 | AVRG | -3.4 |
| bis(2-Ethylhexyl)phthalate | 0.562 | 0.525 | 0.010 | AVRG | -6.6 |
| Di-n-octylphthalate | 0.934 | 0.894 | 0.010 | AVRG | -4.3 |
| Benzo(b)fluoranthene | 1.079 | 1.049 | 0.700 | AVRG | -2.8 |
| Benzo(k)fluoranthene | 1.026 | 0.994 | 0.700 | AVRG | -3.1 |
| Benzo(a)pyrene | 0.936 | 0.906 | 0.700 | AVRG | -3.2 |
| Indeno(1,2,3-cd)pyrene | 1.380 | 1.333 | 0.500 | AVRG | -3.4 |
| Dibenzo(a,h)anthracene | 1.109 | 1.108 | 0.400 | AVRG | -0.1 |
| Benzo(g,h,i)perylene | 1.164 | 1.132 | 0.500 | AVRG | -2.7 |
| N-Nitrosodimethylamine | 0.692 | 0.648 | 0.010 | AVRG | -6.4 |
| Aniline | 1.822 | 1.788 | 0.010 | AVRG | -1.9 |
| Benzidine | 0.221 | 0.241 | 0.010 | AVRG | 9.0 |
| Pyridine | 1.156 | 1.157 | 0.010 | AVRG | 0.1 |
| 1-methylnaphthalene | 0.485 | 0.453 | 0.010 | AVRG | -6.6 |
| Azobenzene (1,2-DP-Hydrazine | 0.936 | 0.919 | 0.010 | AVRG | -1.8 |
| Total Benzofluoranthenes | 0.978 | 0.958 | 0.010 | AVRG | -2.0 |

(1) Cannot be separated from Diphenylamine

<- Exceeds QC limit of 20% D

* RF less than minimum RF



FORM VII SV-2

UU52:00096

7C

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC

ARI Job No: UU62  Project: JELD WEN-MAULSBY MARSH

Instrument ID: NT6  Cont. Calib. Date: 05/24/12

Init. Calib. Date: 05/23/12  Cont. Calib. Time: 1050

| COMPOUND | CalAmt or ARF | CC Amt or RF | MIN RRF | CURVE TYPE | %D or Drift |
|---|---|---|---|---|---|
| Retene | 0.371 | 0.341 | 0.010 | AVRG | -8.1 |
| 2-Fluorophenol | 1.162 | 1.102 | 0.010 | AVRG | -5.2 |
| Phenol-d5 | 1.386 | 1.314 | 0.010 | AVRG | -5.2 |
| 2-Chlorophenol-d4 | 1.344 | 1.272 | 0.010 | AVRG | -5.4 |
| 1,2-Dichlorobenzene-d4 | 0.980 | 0.916 | 0.010 | AVRG | -6.5 |
| Nitrobenzene-d5 | 0.320 | 0.305 | 0.010 | AVRG | -4.7 |
| 2-Fluorobiphenyl | 1.215 | 1.130 | 0.010 | AVRG | -7.0 |
| 2,4,6-Tribromophenol | 0.260 | 0.235 | 0.010 | AVRG | -9.6 |
| Terphenyl-d14 | 0.692 | 0.620 | 0.010 | AVRG | -10.4 |

<- Exceeds QC limit of 20% D

* RF less than minimum RF



FORM VII SV-3

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC

ARI Job No: UU62  Project: JELD WEN-MAULSBY MARSH

Ical Midpoint ID: 05231201  Ical Date: 05/23/12

Instrument ID: NT6  Cont. Cal Date: 05/24/12

| | | IS1(DCB) AREA # | RT # | IS2(NPT) AREA # | RT # | IS3(ANT) AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | ICAL MIDPT | 963757 | 7.19 | 3430476 | 9.26 | 2259168 | 12.11 |
| | UPPER LIMIT | 1927514 | | 6860952 | | 4518336 | |
| | LOWER LIMIT | 481878 | | 1715238 | | 1129584 | |
| | CCAL | 841610 | 7.19 | 3091072 | 9.26 | 1981765 | 12.11 |
| | UPPER LIMIT | | 7.69 | | 9.76 | | 12.61 |
| | LOWER LIMIT | | 6.69 | | 8.76 | | 11.61 |
| 01 | UU62MBW1 | 971489 | 7.19 | 3374983 | 9.25 | 2127525 | 12.10 |
| 02 | UU62LCSW1 | 847652 | 7.19 | 3074341 | 9.26 | 1869892 | 12.11 |
| 03 | UU62LCSDW1 | 912008 | 7.19 | 3381197 | 9.26 | 2121467 | 12.11 |
| 04 | MS-SSRB-1205 | 896401 | 7.19 | 3178107 | 9.25 | 2016726 | 12.10 |
| 05 | MS-SSFB-1205 | 948003 | 7.19 | 3347510 | 9.26 | 2141551 | 12.10 |
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| 25 | | | | | | | |

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.



FORM VIII SV-1

UU52:00098

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC | Client: ANCHOR QEA, LLC

ARI Job No: UU62 | Project: JELD WEN-MAULSBY MARSH

Ical Midpoint ID: 05231201 | Ical Date: 05/23/12

Instrument ID: NT6 | Cont. Cal Date: 05/24/12

| | | IS4(PHN) AREA # | RT # | IS5(CRY) AREA # | RT # | IS6(PRY) AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | ICAL MIDPT | 3446677 | 14.46 | 3961525 | 18.73 | 4154109 | 20.87 |
| | UPPER LIMIT | 6893354 | | 7923050 | | 8308218 | |
| | LOWER LIMIT | 1723338 | | 1980762 | | 2077054 | |
| | CCAL | 3205322 | 14.46 | 3861093 | 18.73 | 4039539 | 20.87 |
| | UPPER LIMIT | | 14.96 | | 19.23 | | 21.37 |
| | LOWER LIMIT | | 13.96 | | 18.23 | | 20.37 |
| 01 | UU62MBW1 | 3333166 | 14.45 | 3717834 | 18.73 | 4238968 | 20.87 |
| 02 | UU62LCSW1 | 3057363 | 14.45 | 3736704 | 18.73 | 3942542 | 20.87 |
| 03 | UU62LCSDW1 | 3414818 | 14.46 | 3963208 | 18.73 | 4232897 | 20.87 |
| 04 | MS-SSRB-1205 | 3170811 | 14.45 | 3765318 | 18.73 | 4272719 | 20.86 |
| 05 | MS-SSFB-1205 | 3383727 | 14.45 | 3983969 | 18.73 | 4429070 | 20.86 |
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IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.



FORM VIII SV-2

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC | Client: ANCHOR QEA, LLC

ARI Job No: UU62 | Project: JELD WEN-MAULSBY MARSH

Ical Midpoint ID: 05231201 | Ical Date: 05/23/12

Instrument ID: NT6 | Cont. Cal Date: 05/24/12

| | | IS7 AREA # | RT # | AREA # | RT # | AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | ICAL MIDPT | 3758743 | 19.96 | | | | |
| | UPPER LIMIT | 7517486 | | | | | |
| | LOWER LIMIT | 1879372 | | | | | |
| | CCAL | 3655319 | 19.96 | | | | |
| | UPPER LIMIT | | 20.46 | | | | |
| | LOWER LIMIT | | 19.46 | | | | |
| 01 | UU62MBW1 | 3450320 | 19.96 | | | | |
| 02 | UU62LCSW1 | 3533231 | 19.96 | | | | |
| 03 | UU62LCSDW1 | 3774442 | 19.96 | | | | |
| 04 | MS-SSRB-1205 | 3520284 | 19.96 | | | | |
| 05 | MS-SSFB-1205 | 3747644 | 19.96 | | | | |
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IS7 = Di-n-octylphthalate-d4

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.



FORM VIII SV-3

UU52:00100

Pesticide Analysis
Report and Summary QC Forms

ARI Job ID: UU52, UU62

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Pesticides/PCB by GC/ECD**
**Extraction Method: SW3546**
Page 1 of 1

**Sample ID: MS001-SS-120515**
**SAMPLE**

Lab Sample ID: UU52A
LIMS ID: 12-8893
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 06:56
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 90.3%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 14 | 50 | < 50 U |
| 60-57-1 | Dieldrin | 9.9 | 99 | < 99 U |
| 72-55-9 | 4,4'-DDE | 12 | 99 | < 99 U |
| 72-54-8 | 4,4'-DDD | 13 | 99 | < 99 U |
| 50-29-3 | 4,4'-DDT | 19 | 99 | < 99 U |
| 53494-70-5 | Endrin Ketone | 12 | 99 | < 99 U |

Reported in µg/kg (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | D |
| Tetrachlorometaxylene | D |

**FORM I**

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Pesticides/PCB by GC/ECD**
**Extraction Method: SW3546**
Page 1 of 1

**Sample ID: MS001-SS-120515**
**DILUTION**

Lab Sample ID: UU52A
LIMS ID: 12-8893
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 04:10
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1000
Silica Gel: Yes

Percent Moisture: 90.3%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 140 | 500 | < 500 U |
| 60-57-1 | Dieldrin | 99 | 990 | < 990 U |
| 72-55-9 | 4,4'-DDE | 120 | 990 | < 990 U |
| 72-54-8 | 4,4'-DDD | 130 | 990 | < 990 U |
| 50-29-3 | 4,4'-DDT | 190 | 990 | < 990 U |
| 53494-70-5 | Endrin Ketone | 120 | 990 | < 990 U |

Reported in µg/kg (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | D |
| Tetrachlorometaxylene | D |

**FORM I**

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Pesticides/PCB by GC/ECD**
**Extraction Method: SW3546**
Page 1 of 1

**Sample ID: MS101-SS-120515**
**SAMPLE**

Lab Sample ID: UU52B
LIMS ID: 12-8894
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 07:15
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 90.2%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 14 | 50 | < 50 U |
| 60-57-1 | Dieldrin | 9.9 | 99 | < 99 U |
| 72-55-9 | 4,4'-DDE | 12 | 99 | < 99 U |
| 72-54-8 | 4,4'-DDD | 13 | 99 | < 99 U |
| 50-29-3 | 4,4'-DDT | 19 | 99 | < 99 U |
| 53494-70-5 | Endrin Ketone | 12 | 99 | < 99 U |

Reported in µg/kg (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | D |
| Tetrachlorometaxylene | D |

**FORM I**

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Pesticides/PCB by GC/ECD**
**Extraction Method: SW3546**


**Sample ID: MS101-SS-120515**
**DILUTION**

Lab Sample ID: UU52B
LIMS ID: 12-8894
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 04:28
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1000
Silica Gel: Yes

Percent Moisture: 90.2%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 140 | 500 | < 500 U |
| 60-57-1 | Dieldrin | 99 | 990 | < 990 U |
| 72-55-9 | 4,4'-DDE | 120 | 990 | < 990 U |
| 72-54-8 | 4,4'-DDD | 130 | 990 | < 990 U |
| 50-29-3 | 4,4'-DDT | 190 | 990 | < 990 U |
| 53494-70-5 | Endrin Ketone | 120 | 990 | < 990 U |

Reported in µg/kg (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | D |
| Tetrachlorometaxylene | D |

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**Extraction Method: SW3546**
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**Sample ID: MS002-SS-120515**
**SAMPLE**

Lab Sample ID: UU52C
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 07:34
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 89.8%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 14 | 50 | < 50 U |
| 60-57-1 | Dieldrin | 9.9 | 99 | < 99 U |
| 72-55-9 | 4,4'-DDE | 12 | 99 | < 99 U |
| 72-54-8 | 4,4'-DDD | 13 | 99 | < 99 U |
| 50-29-3 | 4,4'-DDT | 19 | 99 | < 99 U |
| 53494-70-5 | Endrin Ketone | 12 | 99 | < 99 U |

Reported in µg/kg (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | D |
| Tetrachlorometaxylene | D |

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**PSDDA Pesticides/PCB by GC/ECD**
**Extraction Method: SW3546**
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**Sample ID: MS002-SS-120515**
**DILUTION**

Lab Sample ID: UU52C
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 04:46
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 5000
Silica Gel: Yes

Percent Moisture: 89.8%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 690 | 2500 | < 2,500 U |
| 60-57-1 | Dieldrin | 500 | 5000 | < 5,000 U |
| 72-55-9 | 4,4'-DDE | 620 | 5000 | < 5,000 U |
| 72-54-8 | 4,4'-DDD | 670 | 5000 | < 5,000 U |
| 50-29-3 | 4,4'-DDT | 950 | 5000 | < 5,000 U |
| 53494-70-5 | Endrin Ketone | 590 | 5000 | < 5,000 U |

Reported in µg/kg (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | D |
| Tetrachlorometaxylene | D |

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**PSDDA Pesticides/PCB by GC/ECD**
**Extraction Method: SW3546**
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**Sample ID: MS003-SS-120515**
**SAMPLE**

Lab Sample ID: UU52D
LIMS ID: 12-8896
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 08:31
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 90.7%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 14 | 50 | < 50 U |
| 60-57-1 | Dieldrin | 9.9 | 99 | < 99 U |
| 72-55-9 | 4,4'-DDE | 12 | 99 | < 99 U |
| 72-54-8 | 4,4'-DDD | 13 | 99 | < 99 U |
| 50-29-3 | 4,4'-DDT | 19 | 99 | < 99 U |
| 53494-70-5 | Endrin Ketone | 12 | 99 | < 99 U |

Reported in µg/kg (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | D |
| Tetrachlorometaxylene | D |

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**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Pesticides/PCB by GC/ECD**
**Extraction Method: SW3546**


**Sample ID: MS003-SS-120515**
**DILUTION**

Lab Sample ID: UU52D
LIMS ID: 12-8896
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 05:39
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1000
Silica Gel: Yes

Percent Moisture: 90.7%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 140 | 500 | < 500 U |
| 60-57-1 | Dieldrin | 99 | 990 | < 990 U |
| 72-55-9 | 4,4'-DDE | 120 | 990 | < 990 U |
| 72-54-8 | 4,4'-DDD | 130 | 990 | < 990 U |
| 50-29-3 | 4,4'-DDT | 190 | 990 | < 990 U |
| 53494-70-5 | Endrin Ketone | 120 | 990 | < 990 U |

Reported in µg/kg (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | D |
| Tetrachlorometaxylene | D |

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**PSDDA Pesticides/PCB by GC/ECD**
**Extraction Method: SW3546**
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**Sample ID: MS004-SS-120515**
**SAMPLE**

Lab Sample ID: UU52E
LIMS ID: 12-8897
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 08:50
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 90.4%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 14 | 50 | < 50 U |
| 60-57-1 | Dieldrin | 9.9 | 100 | < 100 U |
| 72-55-9 | 4,4'-DDE | 12 | 100 | < 100 U |
| 72-54-8 | 4,4'-DDD | 13 | 100 | < 100 U |
| 50-29-3 | 4,4'-DDT | 19 | 100 | < 100 U |
| 53494-70-5 | Endrin Ketone | 12 | 100 | < 100 U |

Reported in µg/kg (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | D |
| Tetrachlorometaxylene | D |

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**PSDDA Pesticides/PCB by GC/ECD**
**Extraction Method: SW3546**
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**Sample ID: MS004-SS-120515**
**DILUTION**

Lab Sample ID: UU52E
LIMS ID: 12-8897
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 05:57
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1000
Silica Gel: Yes

Percent Moisture: 90.4%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 140 | 500 | < 500 U |
| 60-57-1 | Dieldrin | 99 | 1000 | < 1,000 U |
| 72-55-9 | 4,4'-DDE | 120 | 1000 | < 1,000 U |
| 72-54-8 | 4,4'-DDD | 130 | 1000 | < 1,000 U |
| 50-29-3 | 4,4'-DDT | 190 | 1000 | < 1,000 U |
| 53494-70-5 | Endrin Ketone | 120 | 1000 | < 1,000 U |

Reported in µg/kg (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | D |
| Tetrachlorometaxylene | D |

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**PSDDA Pesticides/PCB by GC/ECD**
**Extraction Method: SW3546**


**Sample ID: MS005-SS-120515**
**SAMPLE**

Lab Sample ID: UU52F
LIMS ID: 12-8898
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 09:09
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 91.1%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 14 | 49 | < 49 U |
| 60-57-1 | Dieldrin | 9.9 | 99 | < 99 U |
| 72-55-9 | 4,4'-DDE | 12 | 99 | < 99 U |
| 72-54-8 | 4,4'-DDD | 13 | 99 | < 99 U |
| 50-29-3 | 4,4'-DDT | 19 | 99 | < 99 U |
| 53494-70-5 | Endrin Ketone | 12 | 99 | < 99 U |

Reported in µg/kg (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | D |
| Tetrachlorometaxylene | D |

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**PSDDA Pesticides/PCB by GC/ECD**
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**Sample ID: MS005-SS-120515**
**DILUTION**

Lab Sample ID: UU52F
LIMS ID: 12-8898
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 06:15
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1000
Silica Gel: Yes

Percent Moisture: 91.1%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 140 | 490 | < 490 U |
| 60-57-1 | Dieldrin | 99 | 990 | < 990 U |
| 72-55-9 | 4,4'-DDE | 120 | 990 | < 990 U |
| 72-54-8 | 4,4'-DDD | 130 | 990 | < 990 U |
| 50-29-3 | 4,4'-DDT | 190 | 990 | < 990 U |
| 53494-70-5 | Endrin Ketone | 120 | 990 | < 990 U |

Reported in µg/kg (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | D |
| Tetrachlorometaxylene | D |

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**PSDDA Pesticides/PCB by GC/ECD**
**Extraction Method: SW3546**
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**Sample ID: MS006-SS-120515**
**SAMPLE**

Lab Sample ID: UU52G
LIMS ID: 12-8899
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 11:02
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 10.0
Silica Gel: Yes

Percent Moisture: 90.8%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 1.4 | 12 | < 12 Y |
| 60-57-1 | Dieldrin | 0.99 | 9.9 | < 9.9 U |
| 72-55-9 | 4,4'-DDE | 1.2 | 9.9 | < 9.9 U |
| **72-54-8** | **4,4'-DDD** | **1.3** | **9.9** | **40 P** |
| **50-29-3** | **4,4'-DDT** | **1.9** | **9.9** | **19** |
| 53494-70-5 | Endrin Ketone | 1.2 | 28 | < 28 Y |

Reported in µg/kg (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | 64.2% |
| Tetrachlorometaxylene | 54.0% |

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**PSDDA Pesticides/PCB by GC/ECD**
**Extraction Method: SW3546**
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**Sample ID: MS006-SS-120515**
**DILUTION**

Lab Sample ID: UU52G
LIMS ID: 12-8899
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 08:19
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 90.8%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 14 | 50 | < 50 U |
| 60-57-1 | Dieldrin | 9.9 | 99 | < 99 U |
| 72-55-9 | 4,4'-DDE | 12 | 99 | < 99 U |
| 72-54-8 | 4,4'-DDD | 13 | 99 | < 99 U |
| 50-29-3 | 4,4'-DDT | 19 | 99 | < 99 U |
| 53494-70-5 | Endrin Ketone | 12 | 99 | < 99 U |

Reported in µg/kg (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | D |
| Tetrachlorometaxylene | D |

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**PSDDA Pesticides/PCB by GC/ECD**
**Extraction Method: SW3546**
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**Sample ID: MS007-SS-120515**
**SAMPLE**

Lab Sample ID: UU52H
LIMS ID: 12-8900
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 11:21
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 83.9%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 14 | 50 | < 50 U |
| 60-57-1 | Dieldrin | 9.9 | 99 | < 99 U |
| 72-55-9 | 4,4'-DDE | 12 | 99 | < 99 U |
| 72-54-8 | 4,4'-DDD | 13 | 99 | < 99 U |
| 50-29-3 | 4,4'-DDT | 19 | 99 | < 99 U |
| 53494-70-5 | Endrin Ketone | 12 | 99 | < 99 U |

Reported in µg/kg (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | D |
| Tetrachlorometaxylene | D |

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**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Pesticides/PCB by GC/ECD**
**Extraction Method: SW3546**


**Sample ID: MS007-SS-120515**
**DILUTION**

Lab Sample ID: UU52H
LIMS ID: 12-8900
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 08:37
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1000
Silica Gel: Yes

Percent Moisture: 83.9%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 140 | 500 | < 500 U |
| 60-57-1 | Dieldrin | 99 | 990 | < 990 U |
| 72-55-9 | 4,4'-DDE | 120 | 990 | < 990 U |
| 72-54-8 | 4,4'-DDD | 130 | 990 | < 990 U |
| 50-29-3 | 4,4'-DDT | 190 | 990 | < 990 U |
| 53494-70-5 | Endrin Ketone | 120 | 990 | < 990 U |

Reported in µg/kg (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | D |
| Tetrachlorometaxylene | D |

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**PSDDA Pesticides/PCB by GC/ECD**
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**Sample ID: MS008-SS-120515**
**SAMPLE**

Lab Sample ID: UU52I
LIMS ID: 12-8901
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 11:40
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 89.0%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 14 | 50 | < 50 U |
| 60-57-1 | Dieldrin | 9.9 | 99 | < 99 U |
| 72-55-9 | 4,4'-DDE | 12 | 99 | < 99 U |
| 72-54-8 | 4,4'-DDD | 13 | 99 | < 99 U |
| 50-29-3 | 4,4'-DDT | 19 | 99 | < 99 U |
| 53494-70-5 | Endrin Ketone | 12 | 99 | < 99 U |

Reported in µg/kg (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | D |
| Tetrachlorometaxylene | D |

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**Sample ID: MS008-SS-120515**
**DILUTION**

Lab Sample ID: UU52I
LIMS ID: 12-8901
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 08:55
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 5000
Silica Gel: Yes

Percent Moisture: 89.0%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 690 | 2500 | < 2,500 U |
| 60-57-1 | Dieldrin | 500 | 5000 | < 5,000 U |
| 72-55-9 | 4,4'-DDE | 620 | 5000 | < 5,000 U |
| 72-54-8 | 4,4'-DDD | 670 | 5000 | < 5,000 U |
| 50-29-3 | 4,4'-DDT | 950 | 5000 | < 5,000 U |
| 53494-70-5 | Endrin Ketone | 590 | 5000 | < 5,000 U |

Reported in µg/kg (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | D |
| Tetrachlorometaxylene | D |

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**PSDDA Pesticides/PCB by GC/ECD**
**Extraction Method: SW3546**
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**Sample ID: MS009-SS-120515**
**SAMPLE**

Lab Sample ID: UU52J
LIMS ID: 12-8902
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 11:59
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 90.2%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 14 | 50 | < 50 U |
| 60-57-1 | Dieldrin | 10 | 100 | < 100 U |
| 72-55-9 | 4,4'-DDE | 12 | 100 | < 100 U |
| 72-54-8 | 4,4'-DDD | 13 | 100 | < 100 U |
| 50-29-3 | 4,4'-DDT | 19 | 100 | < 100 U |
| 53494-70-5 | Endrin Ketone | 12 | 100 | < 100 U |

Reported in µg/kg (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | D |
| Tetrachlorometaxylene | D |

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**PSDDA Pesticides/PCB by GC/ECD**
**Extraction Method: SW3546**
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**Sample ID: MS009-SS-120515**
**DILUTION**

Lab Sample ID: UU52J
LIMS ID: 12-8902
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 09:31
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1000
Silica Gel: Yes

Percent Moisture: 90.2%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 140 | 500 | < 500 U |
| 60-57-1 | Dieldrin | 100 | 1000 | < 1,000 U |
| 72-55-9 | 4,4'-DDE | 120 | 1000 | < 1,000 U |
| 72-54-8 | 4,4'-DDD | 130 | 1000 | < 1,000 U |
| 50-29-3 | 4,4'-DDT | 190 | 1000 | < 1,000 U |
| 53494-70-5 | Endrin Ketone | 120 | 1000 | < 1,000 U |

Reported in µg/kg (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | D |
| Tetrachlorometaxylene | D |

**FORM I**

ANALYTICAL RESOURCES INCORPORATED

## SW8081 PESTICIDE SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01

| Client ID | DCBP | TCMX | TOT OUT |
|---|---|---|---|
| MS001-SS-120515 | D | D | 0 |
| MS001-SS-120515 DL | D | D | 0 |
| MS101-SS-120515 | D | D | 0 |
| MS101-SS-120515 DL | D | D | 0 |
| MB-052212 | 87.0% | 77.8% | 0 |
| LCS-052212 | 81.8% | 76.2% | 0 |
| MS002-SS-120515 | D | D | 0 |
| MS002-SS-120515 DL | D | D | 0 |
| MS002-SS-120515 MS | D | D | 0 |
| MS002-SS-120515 MSD | D | D | 0 |
| MS003-SS-120515 | D | D | 0 |
| MS003-SS-120515 DL | D | D | 0 |
| MS004-SS-120515 | D | D | 0 |
| MS004-SS-120515 DL | D | D | 0 |
| MS005-SS-120515 | D | D | 0 |
| MS005-SS-120515 DL | D | D | 0 |
| MS006-SS-120515 | 64.2% | 54.0% | 0 |
| MS006-SS-120515 DL | D | D | 0 |
| MS007-SS-120515 | D | D | 0 |
| MS007-SS-120515 DL | D | D | 0 |
| MS008-SS-120515 | D | D | 0 |
| MS008-SS-120515 DL | D | D | 0 |
| MS009-SS-120515 | D | D | 0 |
| MS009-SS-120515 DL | D | D | 0 |

| | LCS/MB LIMITS | QC LIMITS |
|---|---|---|
| (DCBP) = Decachlorobiphenyl | (59-123) | (22-156) |
| (TCMX) = Tetrachlorometaxylene | (42-112) | (29-142) |

Prep Method: SW3546
Log Number Range: 12-8893 to 12-8902

FORM-II SW8081



UU52:00122

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Pesticides/PCB by GC/ECD**
Page 1 of 1

**Sample ID: MS002-SS-120515**
**MS/MSD**

Lab Sample ID: UU52C
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted MS/MSD: 05/22/12

Date Analyzed MS: 05/26/12 07:53
MSD: 05/26/12 08:12
Instrument/Analyst MS: ECD8/AAR
MSD: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount MS: 12.6 g-dry-wt
MSD: 12.6 g-dry-wt
Final Extract Volume MS: 2.5 mL
MSD: 2.5 mL
Dilution Factor MS: 100
MSD: 100
Silica Gel: Yes

Percent Moisture: 89.8%

| Analyte | Sample | MS | Spike Added-MS | MS Recovery | MSD | Spike Added-MSD | MSD Recovery | RPD |
|---|---|---|---|---|---|---|---|---|
| beta-BHC | < 49.7 | < 49.5 U | 3.96 | NA | < 49.8 U | 3.98 | NA | NA |
| Dieldrin | < 99.3 | < 99.0 U | 7.92 | NA | < 99.5 U | 7.96 | NA | NA |
| 4,4'-DDE | < 99.3 | < 99.0 U | 7.92 | NA | < 99.5 U | 7.96 | NA | NA |
| 4,4'-DDD | < 99.3 | < 99.0 U | 7.92 | NA | < 99.5 U | 7.96 | NA | NA |
| 4,4'-DDT | < 99.3 | < 99.0 U | 7.92 | NA | < 99.5 U | 7.96 | NA | NA |
| Endrin Ketone | < 99.3 | < 99.0 U | 7.92 | NA | < 99.5 U | 7.96 | NA | NA |

Reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Pesticides/PCB by GC/ECD**
**Extraction Method: SW3546**


**Sample ID: MS002-SS-120515**
**MATRIX SPIKE**

Lab Sample ID: UU52C
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 07:53
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 89.8%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 14 | 50 | --- |
| 60-57-1 | Dieldrin | 9.9 | 99 | --- |
| 72-55-9 | 4,4'-DDE | 12 | 99 | --- |
| 72-54-8 | 4,4'-DDD | 13 | 99 | --- |
| 50-29-3 | 4,4'-DDT | 19 | 99 | --- |
| 53494-70-5 | Endrin Ketone | 12 | 99 | --- |

Reported in µg/kg (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | D |
| Tetrachlorometaxylene | D |

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Pesticides/PCB by GC/ECD**
**Extraction Method: SW3546**
Page 1 of 1

**Sample ID: MS002-SS-120515**
**MATRIX SPIKE DUP**

Lab Sample ID: UU52C
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 08:12
Instrument/Analyst: ECD8/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 100
Silica Gel: Yes

Percent Moisture: 89.8%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 14 | 50 | --- |
| 60-57-1 | Dieldrin | 10 | 100 | --- |
| 72-55-9 | 4,4'-DDE | 12 | 100 | --- |
| 72-54-8 | 4,4'-DDD | 13 | 100 | --- |
| 50-29-3 | 4,4'-DDT | 19 | 100 | --- |
| 53494-70-5 | Endrin Ketone | 12 | 100 | --- |

Reported in µg/kg (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | D |
| Tetrachlorometaxylene | D |

**FORM I**

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Pesticides/PCB by GC/ECD**
Page 1 of 1

**Sample ID: LCS-052212**
**LAB CONTROL**

Lab Sample ID: LCS-052212
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 03:52
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

| Analyte | Lab Control | Spike Added | Recovery |
|---|---|---|---|
| beta-BHC | 3.30 | 4.00 | 82.5% |
| Dieldrin | 7.42 | 8.00 | 92.8% |
| 4,4'-DDE | 9.48 | 8.00 | 118% |
| 4,4'-DDD | 7.32 | 8.00 | 91.5% |
| 4,4'-DDT | 7.18 | 8.00 | 89.8% |
| Endrin Ketone | 6.64 | 8.00 | 83.0% |

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | 81.8% |
| Tetrachlorometaxylene | 76.2% |

Reported in µg/kg (ppb)

FORM 4
PESTICIDE METHOD BLANK SUMMARY

BLANK NO.

UU52MBS1

Lab Name: ANALYTICAL RESOURCES INC
Client: ANCHOR QEA, LLC.

ARI Job No.: UU52
Project: JELD WEN MAULSBY MAR

Lab Sample ID: UU52MBS1
Lab File ID: 0523A131

Date Extracted: 05/22/12
Matrix: SOLID

Date Analyzed: 05/25/12
Instrument ID: ECD6 & ECD8

Time Analyzed: 0334
GC Columns: STX-CLP1/STX-CLP2

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

| | CLIENT SAMPLE NO. | | LAB SAMPLE ID | DATE ANALYZED |
|---|---|---|---|---|
| 01 | UU52LCSS1 | | UU52LCSS1 | 05/25/12 |
| 02 | MS001-SS-120515 | | UU52A | 05/25/12 |
| 03 | MS101-SS-120515 | | UU52B | 05/25/12 |
| 04 | MS002-SS-120515 | | UU52C | 05/25/12 |
| 05 | MS002-SS-120515 | MS | UU52CMS | 05/25/12 |
| 06 | MS002-SS-120515 | MSD | UU52CMSD | 05/25/12 |
| 07 | MS003-SS-120515 | | UU52D | 05/25/12 |
| 08 | MS004-SS-120515 | | UU52E | 05/25/12 |
| 09 | MS005-SS-120515 | | UU52F | 05/25/12 |
| 10 | MS006-SS-120515 | | UU52G | 05/25/12 |
| 11 | MS007-SS-120515 | | UU52H | 05/25/12 |
| 12 | MS008-SS-120515 | | UU52I | 05/25/12 |
| 13 | MS009-SS-120515 | | UU52J | 05/25/12 |
| 02 | MS001-SS-120515 | | UU52A | 05/26/12 |
| 03 | MS101-SS-120515 | | UU52B | 05/26/12 |
| 04 | MS002-SS-120515 | | UU52C | 05/26/12 |
| 05 | MS002-SS-120515 | MS | UU52CMS | 05/26/12 |
| 06 | MS002-SS-120515 | MSD | UU52CMSD | 05/26/12 |
| 07 | MS003-SS-120515 | | UU52D | 05/26/12 |
| 08 | MS004-SS-120515 | | UU52E | 05/26/12 |
| 09 | MS005-SS-120515 | | UU52F | 05/26/12 |
| 10 | MS006-SS-120515 | | UU52G | 05/26/12 |
| 11 | MS007-SS-120515 | | UU52H | 05/26/12 |
| 12 | MS008-SS-120515 | | UU52I | 05/26/12 |
| 13 | MS009-SS-120515 | | UU52J | 05/26/12 |

ALL RUNS ARE DUAL COLUMN

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA Pesticides/PCB by GC/ECD**
**Extraction Method: SW3546**
Page 1 of 1

**Sample ID: MB-052212**
**METHOD BLANK**

Lab Sample ID: MB-052212
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 03:34
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.5 g
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 0.14 | 0.50 | < 0.50 U |
| 60-57-1 | Dieldrin | 0.10 | 1.0 | < 1.0 U |
| 72-55-9 | 4,4'-DDE | 0.12 | 1.0 | < 1.0 U |
| 72-54-8 | 4,4'-DDD | 0.14 | 1.0 | < 1.0 U |
| 50-29-3 | 4,4'-DDT | 0.19 | 1.0 | < 1.0 U |
| 53494-70-5 | Endrin Ketone | 0.12 | 1.0 | < 1.0 U |

Reported in µg/kg (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | 87.0% |
| Tetrachlorometaxylene | 77.8% |

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**Pesticides/PCB by GC/ECD Method SW8081B** **Sample ID: MS-SSRB-120515**
Page 1 of 1 **SAMPLE**

Lab Sample ID: UU62J
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized:
Reported: 05/25/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/18/12
Date Analyzed: 05/24/12 18:23
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 0.0098 | 0.050 | < 0.050 U |
| 60-57-1 | Dieldrin | 0.017 | 0.10 | < 0.10 U |
| 72-55-9 | 4,4'-DDE | 0.018 | 0.10 | < 0.10 U |
| 72-54-8 | 4,4'-DDD | 0.019 | 0.10 | < 0.10 U |
| 50-29-3 | 4,4'-DDT | 0.017 | 0.10 | < 0.10 U |
| 53494-70-5 | Endrin Ketone | 0.015 | 0.10 | < 0.10 U |

Reported in µg/L (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | 64.5% |
| Tetrachlorometaxylene | 85.0% |

**FORM I**

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**Pesticides/PCB by GC/ECD Method SW8081B** **Sample ID: MS-SSFB-120515**
Page 1 of 1 **SAMPLE**

Lab Sample ID: UU62K
LIMS ID: 12-8938
Matrix: Water
Data Release Authorized:
Reported: 05/25/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/18/12
Date Analyzed: 05/24/12 18:40
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 0.0098 | 0.050 | < 0.050 U |
| 60-57-1 | Dieldrin | 0.017 | 0.10 | < 0.10 U |
| 72-55-9 | 4,4'-DDE | 0.018 | 0.10 | < 0.10 U |
| 72-54-8 | 4,4'-DDD | 0.019 | 0.10 | < 0.10 U |
| 50-29-3 | 4,4'-DDT | 0.017 | 0.10 | < 0.10 U |
| 53494-70-5 | Endrin Ketone | 0.015 | 0.10 | < 0.10 U |

Reported in µg/L (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | 62.0% |
| Tetrachlorometaxylene | 65.0% |

**FORM I**

ANALYTICAL RESOURCES INCORPORATED

## SW8081/PESTICIDE WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01

| Client ID | DCBP | TCMX | TOT OUT |
|---|---|---|---|
| MB-051812 | 75.5% | 69.0% | 0 |
| LCS-051812 | 76.5% | 66.2% | 0 |
| LCSD-051812 | 78.2% | 60.8% | 0 |
| MS-SSRB-120515 | 64.5% | 85.0% | 0 |
| MS-SSFB-120515 | 62.0% | 65.0% | 0 |

| | LCS/MB LIMITS | QC LIMITS |
|---|---|---|
| (DCBP) = Decachlorobiphenyl | (54-100) | (32-116) |
| (TCMX) = Tetrachlorometaxylene | (52-100) | (43-106) |

Prep Method: SW3510C
Log Number Range: 12-8937 to 12-8938

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**Pesticides/PCB by GC/ECD Method SW8081B** **Sample ID: LCS-051812**
Page 1 of 1 **LCS/LCSD**

Lab Sample ID: LCS-051812
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized:
Reported: 05/25/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted LCS/LCSD: 05/18/12

Date Analyzed LCS: 05/24/12 15:42
LCSD: 05/24/12 16:00
Instrument/Analyst LCS: ECD6/AAR
LCSD: ECD6/AAR
GPC Cleanup: No
Florisil Cleanup: No

Sample Amount LCS: 500 mL
LCSD: 500 mL
Final Extract Volume LCS: 5.0 mL
LCSD: 5.0 mL
Dilution Factor LCS: 1.00
LCSD: 1.00
Sulfur Cleanup: Yes
Silica Gel: Yes

| Analyte | LCS | Spike Added-LCS | LCS Recovery | LCSD | Spike Added-LCSD | LCSD Recovery | RPD |
|---|---|---|---|---|---|---|---|
| beta-BHC | 0.171 | 0.200 | 85.5% | 0.164 | 0.200 | 82.0% | 4.2% |
| Dieldrin | 0.375 | 0.400 | 93.8% | 0.368 | 0.400 | 92.0% | 1.9% |
| 4,4'-DDE | 0.494 | 0.400 | 124% | 0.481 | 0.400 | 120% | 2.7% |
| 4,4'-DDD | 0.398 | 0.400 | 99.5% | 0.384 | 0.400 | 96.0% | 3.6% |
| 4,4'-DDT | 0.385 | 0.400 | 96.2% | 0.375 | 0.400 | 93.8% | 2.6% |
| Endrin Ketone | 0.351 | 0.400 | 87.8% | 0.347 | 0.400 | 86.8% | 1.1% |

**Pest/PCB Surrogate Recovery**

| | LCS | LCSD |
|---|---|---|
| Decachlorobiphenyl | 76.5% | 78.2% |
| Tetrachlorometaxylene | 66.2% | 60.8% |

Results reported in µg/L (ppb)
RPD calculated using sample concentrations per SW846.

FORM 4
PESTICIDE METHOD BLANK SUMMARY

BLANK NO.

UU37MBW1

Lab Name: ANALYTICAL RESOURCES INC
Client: DOF

ARI Job No.: UU62
Project: ARKEMA MFG.

Lab Sample ID: UU37MBW1
Lab File ID: 0523A090

Date Extracted: 05/18/12
Matrix: LIQUID

Date Analyzed: 05/24/12
Instrument ID: ECD6

Time Analyzed: 1524
GC Columns: STX-CLP1/STX-CLP2

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED |
|---|---|---|---|
| 01 | UU37LCSW1 | UU37LCSW1 | 05/24/12 |
| 02 | UU37LCSDW1 | UU37LCSDW1 | 05/24/12 |
| 03 | MS-SSRB-120515 | UU62J | 05/24/12 |
| 04 | MS-SSFB-120515 | UU62K | 05/24/12 |

ALL RUNS ARE DUAL COLUMN

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**Pesticides/PCB by GC/ECD Method SW8081B** **Sample ID: MB-051812**
Page 1 of 1 **METHOD BLANK**

Lab Sample ID: MB-051812
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized:
Reported: 05/25/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 05/18/12
Date Analyzed: 05/24/12 15:24
Instrument/Analyst: ECD6/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 319-85-7 | beta-BHC | 0.0098 | 0.050 | < 0.050 U |
| 60-57-1 | Dieldrin | 0.017 | 0.10 | < 0.10 U |
| 72-55-9 | 4,4'-DDE | 0.018 | 0.10 | < 0.10 U |
| 72-54-8 | 4,4'-DDD | 0.019 | 0.10 | < 0.10 U |
| 50-29-3 | 4,4'-DDT | 0.017 | 0.10 | < 0.10 U |
| 53494-70-5 | Endrin Ketone | 0.015 | 0.10 | < 0.10 U |

Reported in µg/L (ppb)

**Pest/PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | 75.5% |
| Tetrachlorometaxylene | 69.0% |

6D

# 8081 INITIAL CALIBRATION RETENTION TIMES

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm)  Instrument ID: ECD6

Calibration Date: 05/23/12

| | RT OF STANDARDS | | | | | | | MEAN | RT WINDOW | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | RT | FROM | TO |
| alpha-BHC | 3.85 | 3.85 | 3.85 | 3.85 | 3.85 | 3.85 | 3.85 | 3.85 | 3.80 | 3.90 |
| beta-BHC | 4.19 | 4.19 | 4.19 | 4.18 | 4.18 | 4.18 | 4.18 | 4.18 | 4.13 | 4.23 |
| delta-BHC | 4.34 | 4.34 | 4.34 | 4.34 | 4.34 | 4.34 | 4.34 | 4.34 | 4.29 | 4.39 |
| gamma-BHC (Lindane) | 4.11 | 4.11 | 4.11 | 4.11 | 4.11 | 4.11 | 4.11 | 4.11 | 4.06 | 4.16 |
| Heptachlor | 4.52 | 4.52 | 4.52 | 4.52 | 4.52 | 4.52 | 4.52 | 4.52 | 4.47 | 4.57 |
| Aldrin | 4.79 | 4.79 | 4.79 | 4.79 | 4.79 | 4.79 | 4.79 | 4.79 | 4.74 | 4.84 |
| Heptachlor epoxide b | 5.35 | 5.35 | 5.35 | 5.35 | 5.35 | 5.35 | 5.35 | 5.35 | 5.30 | 5.40 |
| Endosulfan I | 5.72 | 5.72 | 5.72 | 5.72 | 5.72 | 5.72 | 5.72 | 5.72 | 5.67 | 5.77 |
| Dieldrin | 5.95 | 5.95 | 5.95 | 5.95 | 5.95 | 5.95 | 5.95 | 5.95 | 5.90 | 6.00 |
| 4,4'-DDE | 5.68 | 5.68 | 5.68 | 5.67 | 5.67 | 5.67 | 5.67 | 5.67 | 5.62 | 5.72 |
| Endrin | 6.16 | 6.16 | 6.16 | 6.16 | 6.16 | 6.16 | 6.16 | 6.16 | 6.11 | 6.21 |
| Endosulfan II | 6.37 | 6.37 | 6.37 | 6.37 | 6.37 | 6.37 | 6.37 | 6.37 | 6.32 | 6.42 |
| 4,4'-DDD | 6.23 | 6.23 | 6.23 | 6.23 | 6.23 | 6.23 | 6.23 | 6.23 | 6.18 | 6.28 |
| Endosulfan sulfate | 7.14 | 7.14 | 7.14 | 7.14 | 7.14 | 7.14 | 7.14 | 7.14 | 7.09 | 7.19 |
| 4,4'-DDT | 6.49 | 6.49 | 6.49 | 6.48 | 6.48 | 6.48 | 6.48 | 6.48 | 6.43 | 6.53 |
| Methoxychlor | 6.93 | 6.93 | 6.92 | 6.92 | 6.92 | 6.92 | 6.92 | 6.92 | 6.87 | 6.97 |
| Endrin ketone | 7.39 | 7.39 | 7.39 | 7.39 | 7.39 | 7.39 | 7.39 | 7.39 | 7.34 | 7.44 |
| Endrin aldehyde | 6.75 | 6.75 | 6.75 | 6.75 | 6.75 | 6.75 | 6.75 | 6.75 | 6.70 | 6.80 |
| gamma-Chlordane | 5.47 | 5.47 | 5.47 | 5.47 | 5.47 | 5.47 | 5.47 | 5.47 | 5.42 | 5.52 |
| alpha-Chlordane | 5.59 | 5.59 | 5.59 | 5.59 | 5.59 | 5.59 | 5.59 | 5.59 | 5.54 | 5.64 |
| Hexachlorobutadiene | 2.05 | 2.05 | 2.05 | 2.05 | 2.05 | 2.05 | 2.05 | 2.05 | 2.00 | 2.10 |
| Hexachlorobenzene | 3.72 | 3.72 | 3.72 | 3.72 | 3.72 | 3.72 | 3.72 | 3.72 | 3.67 | 3.77 |
| Tetrachloro-m-xylene | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.36 | 3.46 |
| Decachlorobiphenyl | 8.25 | 8.25 | 8.25 | 8.25 | 8.25 | 8.25 | 8.25 | 8.25 | 8.20 | 8.30 |

6D

# 8081 INITIAL CALIBRATION RETENTION TIMES

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm)  Instrument ID: ECD6

Calibration Date: 05/23/12

| | RT OF STANDARDS | | | | | | | MEAN | RT WINDOW | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | RT | FROM | TO |
| alpha-BHC | 4.11 | 4.11 | 4.11 | 4.11 | 4.11 | 4.11 | 4.11 | 4.11 | 4.06 | 4.16 |
| beta-BHC | 4.50 | 4.50 | 4.50 | 4.50 | 4.50 | 4.50 | 4.50 | 4.50 | 4.45 | 4.55 |
| delta-BHC | 4.79 | 4.78 | 4.78 | 4.78 | 4.78 | 4.78 | 4.78 | 4.78 | 4.73 | 4.83 |
| gamma-BHC (Lindane) | 4.43 | 4.43 | 4.43 | 4.43 | 4.43 | 4.43 | 4.43 | 4.43 | 4.38 | 4.48 |
| Heptachlor | 4.85 | 4.85 | 4.85 | 4.85 | 4.85 | 4.85 | 4.85 | 4.85 | 4.80 | 4.90 |
| Aldrin | 5.17 | 5.17 | 5.17 | 5.17 | 5.17 | 5.17 | 5.17 | 5.17 | 5.12 | 5.22 |
| Heptachlor epoxide b | 5.73 | 5.73 | 5.73 | 5.73 | 5.73 | 5.73 | 5.73 | 5.73 | 5.68 | 5.78 |
| Endosulfan I | 6.12 | 6.12 | 6.12 | 6.12 | 6.12 | 6.12 | 6.12 | 6.12 | 6.07 | 6.17 |
| Dieldrin | 6.38 | 6.38 | 6.38 | 6.38 | 6.38 | 6.38 | 6.38 | 6.38 | 6.33 | 6.43 |
| 4,4'-DDE | 6.21 | 6.21 | 6.21 | 6.21 | 6.21 | 6.21 | 6.21 | 6.21 | 6.16 | 6.26 |
| Endrin | 6.66 | 6.66 | 6.66 | 6.66 | 6.66 | 6.66 | 6.66 | 6.66 | 6.61 | 6.71 |
| Endosulfan II | 6.86 | 6.86 | 6.86 | 6.86 | 6.86 | 6.86 | 6.86 | 6.86 | 6.81 | 6.91 |
| 4,4'-DDD | 6.75 | 6.75 | 6.75 | 6.75 | 6.75 | 6.75 | 6.75 | 6.75 | 6.70 | 6.80 |
| Endosulfan sulfate | 7.40 | 7.40 | 7.40 | 7.40 | 7.40 | 7.40 | 7.40 | 7.40 | 7.35 | 7.45 |
| 4,4'-DDT | 7.04 | 7.04 | 7.04 | 7.04 | 7.03 | 7.03 | 7.03 | 7.04 | 6.98 | 7.08 |
| Methoxychlor | 7.63 | 7.63 | 7.63 | 7.63 | 7.63 | 7.63 | 7.63 | 7.63 | 7.58 | 7.68 |
| Endrin ketone | 7.88 | 7.88 | 7.88 | 7.88 | 7.88 | 7.88 | 7.88 | 7.88 | 7.83 | 7.93 |
| Endrin aldehyde | 7.16 | 7.16 | 7.16 | 7.16 | 7.16 | 7.16 | 7.16 | 7.16 | 7.11 | 7.21 |
| gamma-Chlordane | 5.92 | 5.92 | 5.92 | 5.92 | 5.92 | 5.92 | 5.92 | 5.92 | 5.87 | 5.97 |
| alpha-Chlordane | 6.06 | 6.06 | 6.06 | 6.06 | 6.06 | 6.06 | 6.06 | 6.06 | 6.01 | 6.11 |
| Hexachlorobutadiene | 2.11 | 2.11 | 2.11 | 2.11 | 2.11 | 2.11 | 2.11 | 2.11 | 2.06 | 2.16 |
| Hexachlorobenzene | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 3.99 | 3.99 | 4.00 | 3.94 | 4.04 |
| Tetrachloro-m-xylene | 3.59 | 3.59 | 3.59 | 3.59 | 3.59 | 3.59 | 3.59 | 3.59 | 3.54 | 3.64 |
| Decachlorobiphenyl | 8.91 | 8.91 | 8.91 | 8.91 | 8.91 | 8.91 | 8.91 | 8.91 | 8.86 | 8.96 |

6E

# 8081 PESTICIDE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm)  Instrument ID: ECD6

Calibration Date: 05/23/12

| | CALIBRATION FACTORS | | | | | | | | R^2 |
|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | MEAN | %RSD |
| alpha-BHC | 1.3961 | 1.5362 | 1.5052 | 1.6394 | 1.6886 | 1.7072 | 1.7006 | 1.5962 | 7.5 |
| beta-BHC | 0.6074 | 0.6114 | 0.5639 | 0.5839 | 0.5995 | 0.6023 | 0.5992 | 0.5954 | 2.7 |
| delta-BHC | 1.0852 | 1.0636 | 1.0330 | 1.1308 | 1.2320 | 1.2888 | 1.3184 | 1.1645 | 9.8 |
| gamma-BHC (Lindane) | 1.2631 | 1.2563 | 1.2345 | 1.3512 | 1.4062 | 1.4284 | 1.4330 | 1.3390 | 6.5 |
| Heptachlor | 1.4636 | 1.4409 | 1.3883 | 1.5050 | 1.5332 | 1.5278 | 1.4876 | 1.4780 | 3.5 |
| Aldrin | 1.3041 | 1.2760 | 1.2538 | 1.3809 | 1.4238 | 1.4381 | 1.4136 | 1.3558 | 5.6 |
| Heptachlor epoxide b | 1.2379 | 1.2162 | 1.1189 | 1.2088 | 1.2297 | 1.2301 | 1.2094 | 1.2073 | 3.4 |
| Endosulfan I | 1.7288 | 1.6336 | 1.5627 | 1.6835 | 1.6439 | 1.6263 | 1.5281 | 1.6296 | 4.2 |
| Dieldrin | 1.2797 | 1.2500 | 1.2400 | 1.3306 | 1.3459 | 1.3325 | 1.3034 | 1.2974 | 3.2 |
| 4,4'-DDE | 0.7021 | 0.6787 | 0.7155 | 0.7867 | 0.9118 | 0.9521 | 0.9986 | 0.8208 | 16.0 |
| Endrin | 0.8563 | 0.8180 | 0.8493 | 0.8801 | 0.8952 | 0.8796 | 0.8432 | 0.8602 | 3.1 |
| Endosulfan II | 0.8510 | 0.8055 | 0.8249 | 0.8500 | 0.8626 | 0.8495 | 0.8170 | 0.8372 | 2.5 |
| 4,4'-DDD | 0.6294 | 0.5967 | 0.6286 | 0.6644 | 0.7320 | 0.7473 | 0.7429 | 0.6773 | 9.2 |
| Endosulfan sulfate | 0.7733 | 0.7162 | 0.7256 | 0.7353 | 0.7482 | 0.7384 | 0.7154 | 0.7360 | 2.8 |
| 4,4'-DDT | 0.6866 | 0.6578 | 0.7024 | 0.7409 | 0.7961 | 0.8159 | 0.8073 | 0.7438 | 8.6 |
| Methoxychlor | 0.3995 | 0.3922 | 0.3821 | 0.3766 | 0.3726 | 0.3709 | 0.3590 | 0.3790 | 3.6 |
| Endrin ketone | 1.0470 | 0.9403 | 0.9255 | 0.9186 | 0.9251 | 0.9021 | 0.8733 | 0.9331 | 5.9 |
| Endrin aldehyde | 0.7213 | 0.6630 | 0.6658 | 0.6741 | 0.6847 | 0.6714 | 0.6459 | 0.6752 | 3.5 |
| gamma-Chlordane | 1.3860 | 1.2528 | 1.2054 | 1.2938 | 1.3381 | 1.3514 | 1.3360 | 1.3091 | 4.8 |
| alpha-Chlordane | 1.3087 | 1.2015 | 1.1587 | 1.2448 | 1.2666 | 1.2741 | 1.2660 | 1.2458 | 4.0 |
| Hexachlorobutadiene | 1.8887 | 1.7760 | 1.6850 | 1.7896 | 1.7704 | 1.7361 | 1.7026 | 1.7640 | 3.8 |
| Hexachlorobenzene | 1.2023 | 1.1534 | 1.0481 | 1.0745 | 1.0829 | 1.0721 | 1.0690 | 1.1003 | 5.1 |
| Tetrachloro-m-xylene | 1.3485 | 1.2600 | 1.1514 | 1.1874 | 1.1820 | 1.1598 | 0.9972 | 1.1838 | 9.1 |
| Decachlorobiphenyl | 1.0782 | 0.9484 | 0.9010 | 0.8830 | 0.8549 | 0.8291 | 0.7963 | 0.8987 | 10.4 |

6E

# 8081 PESTICIDE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm)  Instrument ID: ECD6

Calibration Date: 05/23/12

| | CALIBRATION FACTORS | | | | | | | | R^2 |
|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | MEAN | %RSD |
| alpha-BHC | 1.3295 | 1.2895 | 1.4006 | 1.3768 | 1.3838 | 1.3494 | 1.4062 | 1.3622 | 3.1 |
| beta-BHC | 0.6250 | 0.5153 | 0.5371 | 0.5049 | 0.5013 | 0.4827 | 0.5018 | 0.5240 | 9.1 |
| delta-BHC | 0.9615 | 0.8751 | 0.9581 | 0.9336 | 1.0036 | 1.0017 | 1.0729 | 0.9724 | 6.4 |
| gamma-BHC (Lindane) | 1.2389 | 1.1098 | 1.1798 | 1.1410 | 1.1569 | 1.1282 | 1.1816 | 1.1623 | 3.7 |
| Heptachlor | 1.3402 | 1.1973 | 1.2505 | 1.1806 | 1.1190 | 1.0573 | 1.0433 | 1.1697 | 9.1 |
| Aldrin | 1.1083 | 1.0144 | 1.0603 | 1.0079 | 0.9924 | 0.9498 | 0.9640 | 1.0139 | 5.4 |
| Heptachlor epoxide b | 1.1018 | 1.0473 | 1.0324 | 0.9676 | 0.9471 | 0.8931 | 0.8959 | 0.9836 | 8.1 |
| Endosulfan I | 1.0055 | 0.8787 | 0.8934 | 0.8353 | 0.8145 | 0.7771 | 0.7884 | 0.8561 | 9.2 |
| Dieldrin | 1.0056 | 0.9015 | 0.9326 | 0.8880 | 0.8592 | 0.8043 | 0.8042 | 0.8850 | 8.1 |
| 4,4'-DDE | 0.8953 | 0.7868 | 0.8083 | 0.7531 | 0.7573 | 0.7280 | 0.7504 | 0.7827 | 7.2 |
| Endrin | 1.6139 | 1.4319 | 1.4062 | 1.3634 | 1.3502 | 1.2845 | 1.1634 | 1.3734 | 10.1 |
| Endosulfan II | 1.6366 | 1.4646 | 1.4296 | 1.3806 | 1.3552 | 1.2978 | 1.1760 | 1.3915 | 10.3 |
| 4,4'-DDD | 1.3096 | 1.1537 | 1.1355 | 1.0924 | 1.1471 | 1.1234 | 1.0717 | 1.1476 | 6.7 |
| Endosulfan sulfate | 1.2046 | 1.1010 | 1.0906 | 1.0620 | 1.0531 | 1.0210 | 0.9513 | 1.0691 | 7.3 |
| 4,4'-DDT | 1.2392 | 1.1135 | 1.1153 | 1.0970 | 1.1375 | 1.1286 | 1.0796 | 1.1301 | 4.6 |
| Methoxychlor | 0.5905 | 0.5399 | 0.5098 | 0.4790 | 0.4419 | 0.4008 | 0.3579 | 0.4742 | 13.8 |
| Endrin ketone | 1.5816 | 1.4470 | 1.4293 | 1.3670 | 1.3511 | 1.2822 | 1.1765 | 1.3764 | 9.4 |
| Endrin aldehyde | 1.2635 | 1.1160 | 1.0805 | 1.0377 | 1.0313 | 0.9824 | 0.9074 | 1.0598 | 10.6 |
| gamma-Chlordane | 0.9908 | 0.9083 | 0.9620 | 0.9002 | 0.8893 | 0.8570 | 0.8808 | 0.9126 | 5.2 |
| alpha-Chlordane | 0.9926 | 0.8840 | 0.9001 | 0.8439 | 0.8326 | 0.7992 | 0.8274 | 0.8685 | 7.4 |
| Hexachlorobutadiene | 1.6564 | 1.5016 | 1.5788 | 1.4707 | 1.4186 | 1.3278 | 1.3980 | 1.4788 | 7.6 |
| Hexachlorobenzene | 1.3572 | 1.2382 | 1.2912 | 1.2186 | 1.2172 | 1.1688 | 1.2165 | 1.2440 | 5.0 |
| Tetrachloro-m-xylene | 1.0605 | 0.9847 | 1.0412 | 0.9924 | 0.9771 | 0.9289 | 0.9643 | 0.9927 | 4.5 |
| Decachlorobiphenyl | 1.3344 | 1.1954 | 1.1305 | 1.0799 | 1.0375 | 1.0114 | 0.9637 | 1.1075 | 11.4 |

6D

# 8081 INITIAL CALIBRATION RETENTION TIMES

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm)  Instrument ID: ECD8

Calibration Date: 05/25/12

| | RT OF STANDARDS | | | | | | | MEAN | RT WINDOW | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | RT | FROM | TO |
| alpha-BHC | 4.45 | 4.45 | 4.45 | 4.45 | 4.45 | 4.45 | 4.45 | 4.45 | 4.40 | 4.50 |
| beta-BHC | 4.85 | 4.85 | 4.85 | 4.85 | 4.85 | 4.85 | 4.85 | 4.85 | 4.80 | 4.90 |
| delta-BHC | 5.01 | 5.01 | 5.01 | 5.01 | 5.01 | 5.01 | 5.01 | 5.01 | 4.96 | 5.06 |
| gamma-BHC (Lindane) | 4.75 | 4.76 | 4.76 | 4.75 | 4.75 | 4.76 | 4.76 | 4.76 | 4.71 | 4.81 |
| Heptachlor | 5.20 | 5.20 | 5.20 | 5.20 | 5.20 | 5.20 | 5.20 | 5.20 | 5.15 | 5.25 |
| Aldrin | 5.48 | 5.48 | 5.48 | 5.48 | 5.48 | 5.48 | 5.48 | 5.48 | 5.43 | 5.53 |
| Heptachlor epoxide b | 6.03 | 6.03 | 6.03 | 6.03 | 6.03 | 6.03 | 6.03 | 6.03 | 5.98 | 6.08 |
| Endosulfan I | 6.39 | 6.39 | 6.39 | 6.38 | 6.38 | 6.39 | 6.38 | 6.39 | 6.33 | 6.43 |
| Dieldrin | 6.60 | 6.60 | 6.60 | 6.60 | 6.60 | 6.60 | 6.60 | 6.60 | 6.55 | 6.65 |
| 4,4'-DDE | 6.35 | 6.35 | 6.34 | 6.34 | 6.34 | 6.34 | 6.34 | 6.34 | 6.29 | 6.39 |
| Endrin | 6.81 | 6.81 | 6.81 | 6.81 | 6.81 | 6.81 | 6.81 | 6.81 | 6.76 | 6.86 |
| Endosulfan II | 7.02 | 7.02 | 7.02 | 7.02 | 7.01 | 7.02 | 7.02 | 7.02 | 6.97 | 7.07 |
| 4,4'-DDD | 6.89 | 6.89 | 6.88 | 6.88 | 6.88 | 6.88 | 6.87 | 6.88 | 6.82 | 6.92 |
| Endosulfan sulfate | 7.80 | 7.80 | 7.80 | 7.80 | 7.80 | 7.80 | 7.80 | 7.80 | 7.75 | 7.85 |
| 4,4'-DDT | 7.13 | 7.13 | 7.13 | 7.13 | 7.12 | 7.13 | 7.12 | 7.13 | 7.07 | 7.17 |
| Methoxychlor | 7.57 | 7.56 | 7.56 | 7.56 | 7.56 | 7.56 | 7.56 | 7.56 | 7.51 | 7.61 |
| Endrin ketone | 8.06 | 8.06 | 8.06 | 8.06 | 8.06 | 8.06 | 8.06 | 8.06 | 8.01 | 8.11 |
| Endrin aldehyde | 7.40 | 7.40 | 7.40 | 7.40 | 7.40 | 7.40 | 7.40 | 7.40 | 7.35 | 7.45 |
| gamma-Chlordane | 6.14 | 6.14 | 6.14 | 6.14 | 6.14 | 6.14 | 6.14 | 6.14 | 6.09 | 6.19 |
| alpha-Chlordane | 6.26 | 6.26 | 6.26 | 6.26 | 6.26 | 6.26 | 6.26 | 6.26 | 6.21 | 6.31 |
| Hexachlorobutadiene | 1.73 | 1.73 | 1.73 | 1.73 | 1.73 | 1.73 | 1.73 | 1.73 | 1.68 | 1.78 |
| Hexachlorobenzene | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.29 | 4.24 | 4.34 |
| Tetrachloro-m-xylene | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.85 | 3.95 |
| Decachlorobiphenyl | 8.98 | 8.98 | 8.98 | 8.98 | 8.98 | 8.98 | 8.98 | 8.98 | 8.93 | 9.03 |

6D

# 8081 INITIAL CALIBRATION RETENTION TIMES

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm)  Instrument ID: ECD8

Calibration Date: 05/25/12

| | RT OF STANDARDS | | | | | | | MEAN | RT WINDOW | |
|---|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | RT | FROM | TO |
| alpha-BHC | 4.93 | 4.93 | 4.93 | 4.93 | 4.93 | 4.93 | 4.93 | 4.93 | 4.88 | 4.98 |
| beta-BHC | 5.37 | 5.37 | 5.37 | 5.37 | 5.37 | 5.37 | 5.37 | 5.37 | 5.32 | 5.42 |
| delta-BHC | 5.65 | 5.65 | 5.65 | 5.65 | 5.65 | 5.65 | 5.65 | 5.65 | 5.60 | 5.70 |
| gamma-BHC (Lindane) | 5.28 | 5.28 | 5.28 | 5.28 | 5.28 | 5.28 | 5.28 | 5.28 | 5.23 | 5.33 |
| Heptachlor | 5.71 | 5.71 | 5.71 | 5.71 | 5.71 | 5.71 | 5.71 | 5.71 | 5.66 | 5.76 |
| Aldrin | 6.03 | 6.03 | 6.03 | 6.03 | 6.03 | 6.03 | 6.03 | 6.03 | 5.98 | 6.08 |
| Heptachlor epoxide b | 6.57 | 6.57 | 6.57 | 6.57 | 6.57 | 6.57 | 6.57 | 6.57 | 6.52 | 6.62 |
| Endosulfan I | 6.94 | 6.94 | 6.94 | 6.94 | 6.94 | 6.94 | 6.94 | 6.94 | 6.89 | 6.99 |
| Dieldrin | 7.20 | 7.20 | 7.20 | 7.20 | 7.20 | 7.20 | 7.20 | 7.20 | 7.15 | 7.25 |
| 4,4'-DDE | 7.03 | 7.03 | 7.03 | 7.03 | 7.02 | 7.03 | 7.02 | 7.03 | 6.97 | 7.07 |
| Endrin | 7.49 | 7.49 | 7.49 | 7.49 | 7.49 | 7.49 | 7.49 | 7.49 | 7.44 | 7.54 |
| Endosulfan II | 7.69 | 7.69 | 7.69 | 7.69 | 7.68 | 7.69 | 7.69 | 7.69 | 7.64 | 7.74 |
| 4,4'-DDD | 7.57 | 7.57 | 7.57 | 7.57 | 7.57 | 7.57 | 7.56 | 7.57 | 7.51 | 7.61 |
| Endosulfan sulfate | 8.26 | 8.26 | 8.26 | 8.26 | 8.26 | 8.26 | 8.26 | 8.26 | 8.21 | 8.31 |
| 4,4'-DDT | 7.86 | 7.86 | 7.86 | 7.86 | 7.86 | 7.86 | 7.86 | 7.86 | 7.81 | 7.91 |
| Methoxychlor | 8.49 | 8.49 | 8.49 | 8.49 | 8.49 | 8.49 | 8.49 | 8.49 | 8.44 | 8.54 |
| Endrin ketone | 8.78 | 8.78 | 8.78 | 8.78 | 8.78 | 8.78 | 8.78 | 8.78 | 8.73 | 8.83 |
| Endrin aldehyde | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 7.95 | 8.05 |
| gamma-Chlordane | 6.75 | 6.75 | 6.75 | 6.75 | 6.74 | 6.75 | 6.75 | 6.75 | 6.70 | 6.80 |
| alpha-Chlordane | 6.88 | 6.88 | 6.88 | 6.88 | 6.88 | 6.88 | 6.88 | 6.88 | 6.83 | 6.93 |
| Hexachlorobutadiene | 2.04 | 2.04 | 2.04 | 2.04 | 2.04 | 2.04 | 2.04 | 2.04 | 1.99 | 2.09 |
| Hexachlorobenzene | 4.79 | 4.79 | 4.79 | 4.79 | 4.79 | 4.79 | 4.79 | 4.79 | 4.74 | 4.84 |
| Tetrachloro-m-xylene | 4.30 | 4.30 | 4.30 | 4.30 | 4.30 | 4.30 | 4.30 | 4.30 | 4.25 | 4.35 |
| Decachlorobiphenyl | 9.92 | 9.92 | 9.92 | 9.92 | 9.92 | 9.92 | 9.92 | 9.92 | 9.87 | 9.97 |

6E
# 8081 PESTICIDE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm)  Instrument ID: ECD8

Calibration Date: 05/25/12

| | CALIBRATION FACTORS | | | | | | | | R^2 |
|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | MEAN | %RSD |
| alpha-BHC | 1.3333 | 1.3065 | 1.3561 | 1.4891 | 1.6958 | 1.7274 | 1.8451 | 1.5362 | 14.2 |
| beta-BHC | 0.7303 | 0.6503 | 0.5221 | 0.5728 | 0.5545 | 0.5484 | 0.5610 | 0.5913 | 12.4 |
| delta-BHC | 1.1032 | 1.0535 | 1.0389 | 1.1370 | 1.3213 | 1.3723 | 1.5227 | 1.2213 | 15.2 |
| gamma-BHC (Lindane) | 1.1874 | 1.1266 | 1.0984 | 1.1794 | 1.3484 | 1.3553 | 1.4450 | 1.2486 | 10.6 |
| Heptachlor | 1.1670 | 1.1208 | 1.1121 | 1.1992 | 1.3337 | 1.3142 | 1.3727 | 1.2314 | 8.7 |
| Aldrin | 1.3481 | 1.3007 | 1.3239 | 1.4168 | 1.5772 | 1.6002 | 1.6852 | 1.4646 | 10.5 |
| Heptachlor epoxide b | 1.3278 | 1.2310 | 1.2211 | 1.2711 | 1.3678 | 1.3561 | 1.4064 | 1.3116 | 5.5 |
| Endosulfan I | 2.0165 | 2.2801 | 2.1031 | 2.1292 | 2.1762 | 1.9534 | 1.8046 | 2.0662 | 7.6 |
| Dieldrin | 1.2856 | 1.3037 | 1.3194 | 1.4071 | 1.5346 | 1.4596 | 1.5037 | 1.4020 | 7.2 |
| 4,4'-DDE | 0.7192 | 0.7154 | 0.8400 | 0.8683 | 1.1742 | 1.2564 | 1.4784 | 1.0074 | 0.9991 |
| Endrin | 0.8180 | 0.7802 | 0.7848 | 0.8281 | 0.9775 | 0.9118 | 0.9835 | 0.8691 | 10.1 |
| Endosulfan II | 0.9066 | 0.8470 | 0.8182 | 0.8560 | 0.9788 | 0.9002 | 0.9494 | 0.8937 | 6.4 |
| 4,4'-DDD | 0.8544 | 0.7346 | 0.6333 | 0.6274 | 0.7160 | 0.6613 | 0.7256 | 0.7075 | 11.1 |
| Endosulfan sulfate | 0.7475 | 0.7004 | 0.6943 | 0.6940 | 0.8070 | 0.7619 | 0.8256 | 0.7472 | 7.3 |
| 4,4'-DDT | 0.3895 | 0.4033 | 0.3904 | 0.4490 | 0.5487 | 0.5536 | 0.6230 | 0.4796 | 19.7 |
| Methoxychlor | 0.2607 | 0.2482 | 0.2521 | 0.2558 | 0.2871 | 0.2848 | 0.3170 | 0.2722 | 9.2 |
| Endrin ketone | 1.1371 | 0.9623 | 0.8789 | 0.8430 | 0.9205 | 0.8584 | 0.9040 | 0.9292 | 10.8 |
| Endrin aldehyde | 0.7450 | 0.6838 | 0.6599 | 0.6730 | 0.7567 | 0.7073 | 0.7533 | 0.7113 | 5.7 |
| gamma-Chlordane | 1.3054 | 1.2226 | 1.2034 | 1.2573 | 1.3816 | 1.3669 | 1.4525 | 1.3128 | 7.0 |
| alpha-Chlordane | 1.2912 | 1.2331 | 1.3452 | 1.3004 | 1.4230 | 1.3964 | 1.4853 | 1.3535 | 6.4 |
| Hexachlorobutadiene | 2.3488 | 2.2283 | 2.7224 | 2.2581 | 2.5279 | 2.3530 | 2.6456 | 2.4406 | 7.9 |
| Hexachlorobenzene | 1.5112 | 1.3748 | 1.3205 | 1.3327 | 1.4802 | 1.3608 | 1.4365 | 1.4024 | 5.3 |
| Tetrachloro-m-xylene | 1.1560 | 1.0735 | 1.0552 | 1.0854 | 1.2249 | 1.1434 | 1.1885 | 1.1324 | 5.6 |
| Decachlorobiphenyl | 1.5636 | 1.3534 | 1.2681 | 1.2454 | 1.4036 | 1.2781 | 1.3497 | 1.3517 | 8.1 |

6E

# 8081 PESTICIDE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm)  Instrument ID: ECD8

Calibration Date: 05/25/12

| | CALIBRATION FACTORS | | | | | | | | R^2 |
|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | MEAN | %RSD |
| alpha-BHC | 1.6897 | 1.5651 | 1.5759 | 1.6186 | 1.7782 | 1.7155 | 1.7110 | 1.6648 | 4.8 |
| beta-BHC | 0.7765 | 0.7223 | 0.6933 | 0.6686 | 0.6901 | 0.6576 | 0.6512 | 0.6942 | 6.3 |
| delta-BHC | 1.2218 | 1.1299 | 1.1598 | 1.1513 | 1.3020 | 1.2999 | 1.3337 | 1.2283 | 6.8 |
| gamma-BHC (Lindane) | 1.4702 | 1.3473 | 1.3285 | 1.3368 | 1.4332 | 1.4079 | 1.4108 | 1.3907 | 3.9 |
| Heptachlor | 1.3276 | 1.2884 | 1.2113 | 1.2570 | 1.2984 | 1.2626 | 1.2149 | 1.2657 | 3.4 |
| Aldrin | 1.6265 | 1.4983 | 1.4918 | 1.5158 | 1.6501 | 1.5855 | 1.5708 | 1.5627 | 4.0 |
| Heptachlor epoxide b | 1.4701 | 1.3581 | 1.2848 | 1.2439 | 1.2993 | 1.2431 | 1.2184 | 1.3025 | 6.7 |
| Endosulfan I | 1.3767 | 1.2504 | 1.3172 | 1.2013 | 1.2718 | 1.2308 | 1.2117 | 1.2657 | 4.9 |
| Dieldrin | 1.4393 | 1.3250 | 1.3210 | 1.3164 | 1.4046 | 1.3249 | 1.2897 | 1.3458 | 4.0 |
| 4,4'-DDE | 1.5093 | 1.3879 | 1.4761 | 1.4034 | 1.5902 | 1.5221 | 1.5058 | 1.4850 | 4.7 |
| Endrin | 1.0498 | 0.9429 | 0.9330 | 0.9324 | 1.0197 | 0.9055 | 0.8880 | 0.9530 | 6.2 |
| Endosulfan II | 1.1204 | 1.0030 | 1.0010 | 1.0107 | 1.0630 | 0.9733 | 0.9352 | 1.0152 | 5.9 |
| 4,4'-DDD | 0.9882 | 0.8743 | 0.8629 | 0.8381 | 0.8904 | 0.8128 | 0.8020 | 0.8670 | 7.2 |
| Endosulfan sulfate | 0.9224 | 0.8380 | 0.8279 | 0.8308 | 0.8895 | 0.8295 | 0.8326 | 0.8530 | 4.4 |
| 4,4'-DDT | 0.4783 | 0.4513 | 0.4925 | 0.5178 | 0.5834 | 0.6105 | 0.6507 | 0.5406 | 13.8 |
| Methoxychlor | 0.2775 | 0.2638 | 0.2716 | 0.2738 | 0.2880 | 0.2763 | 0.2814 | 0.2760 | 2.8 |
| Endrin ketone | 1.0070 | 0.9207 | 0.8984 | 0.9076 | 0.9483 | 0.8866 | 0.8798 | 0.9212 | 4.8 |
| Endrin aldehyde | 1.0053 | 0.8806 | 0.8438 | 0.8305 | 0.8790 | 0.7925 | 0.7781 | 0.8585 | 8.8 |
| gamma-Chlordane | 1.5144 | 1.3876 | 1.3445 | 1.3510 | 1.4119 | 1.3973 | 1.4026 | 1.4013 | 4.0 |
| alpha-Chlordane | 1.4947 | 1.3563 | 1.4595 | 1.3254 | 1.4251 | 1.3902 | 1.3934 | 1.4064 | 4.2 |
| Hexachlorobutadiene | 2.9191 | 2.5788 | 2.4523 | 2.3628 | 2.6336 | 2.3791 | 2.3713 | 2.5281 | 8.0 |
| Hexachlorobenzene | 1.7719 | 1.5566 | 1.4684 | 1.4238 | 1.6213 | 1.4275 | 1.4161 | 1.5265 | 8.7 |
| Tetrachloro-m-xylene | 2.0602 | 1.9043 | 1.8602 | 1.8581 | 2.1305 | 1.8544 | 1.7918 | 1.9228 | 6.5 |
| Decachlorobiphenyl | 1.6751 | 1.4341 | 1.3540 | 1.2589 | 1.3459 | 1.1860 | 1.1591 | 1.3447 | 13.0 |

7E
8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20120523PEST

Analysis Date: 24-MAY-2012 14:13 Init. Calib. Date: 23-MAY-2012

GC Column: STX-CLP1 ID: 0.53(mm)

| COMPOUND | RT | AREA |
|---|---|---|
| 4,4'-DDE | 5.673 | 48669 |
| Endrin | 6.163 | 7553882 |
| 4,4'-DDD | 6.230 | 267215 |
| 4,4'-DDT | 6.484 | 6718434 |
| Endrin ketone | 7.388 | 340774 |
| Endrin aldehyde | 6.748 | 133821 |

DDT Percent Breakdown = 4.5 %
((48669+267215) * 100)/(48669+267215+6718434)

Endrin Percent Breakdown = 5.9 %
((133821+340774) * 100)/(133821+340774+7553882)

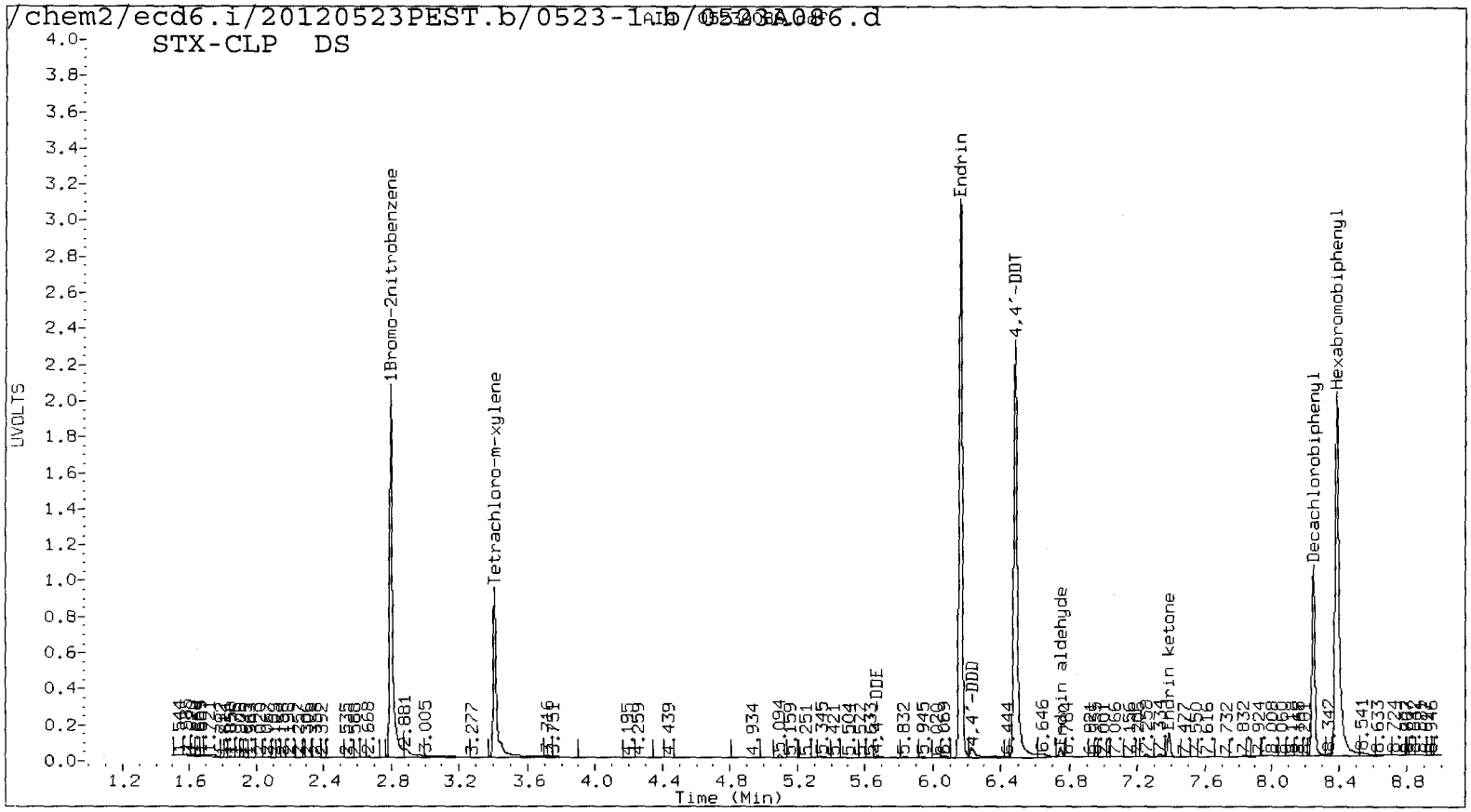
GC Column: STX-CLP2 ID: 0.53(mm)

| COMPOUND | RT | AREA |
|---|---|---|
| 4,4'-DDE | 6.208 | 206052 |
| Endrin | 6.663 | 14721691 |
| 4,4'-DDD | 6.748 | 672648 |
| 4,4'-DDT | 7.033 | 12825820 |
| Endrin ketone | 7.879 | 708380 |
| Endrin aldehyde | 7.157 | 407513 |

DDT Percent Breakdown = 6.4 %
((206052+672648) * 100)/(206052+672648+12825820)

Endrin Percent Breakdown = 7.0 %
((407513+708380) * 100)/(407513+708380+14721691)

Form VII Pest-1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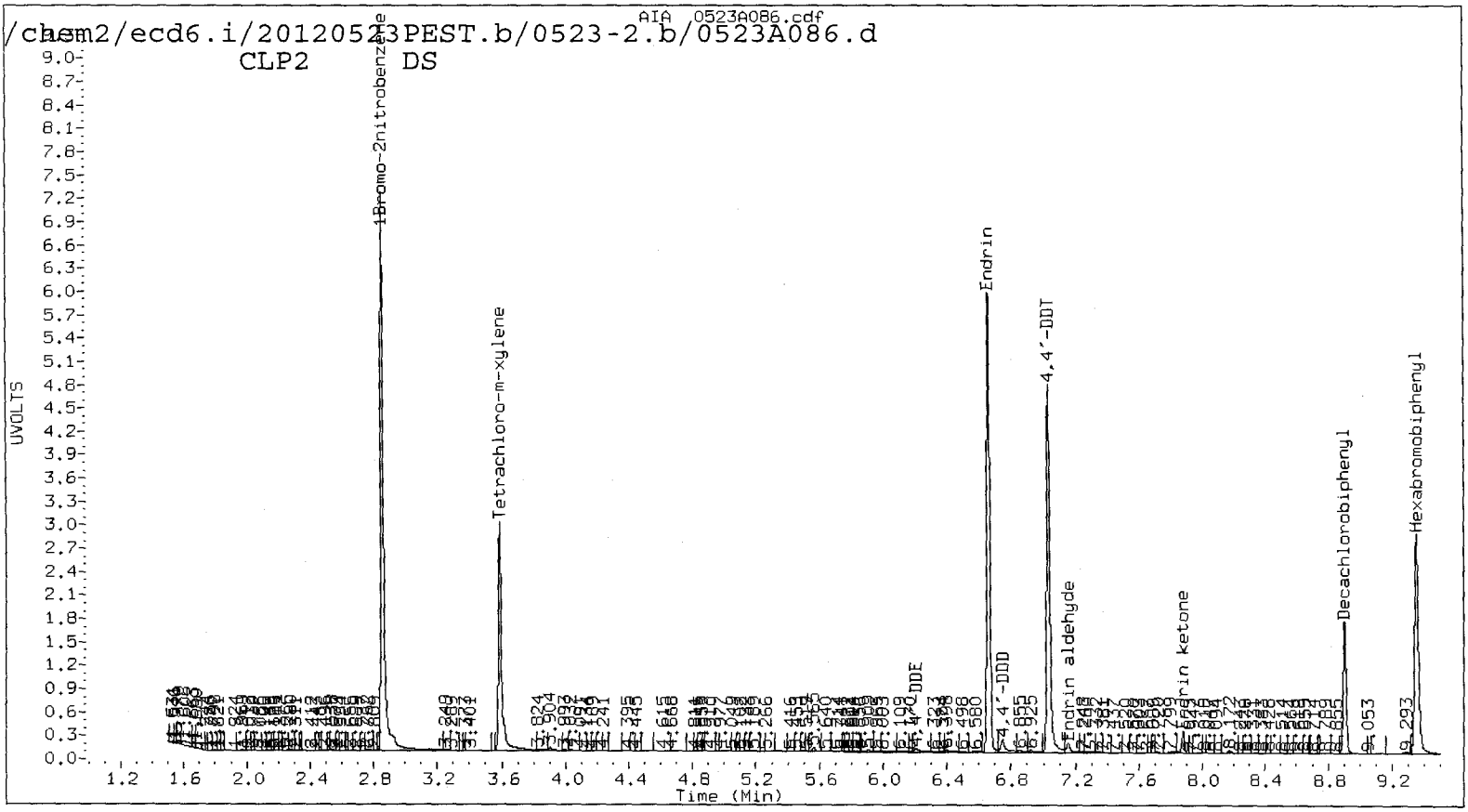
STX-CLP DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
DDE
4,4'-DDD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CLP2 DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
DDE
4,4'-DDD

7E

# 8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU62  Project: JELD WEN - MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 05/23/12

Lab Ccal ID: INDAE  Date/Time Analyzed: 05/24/12,1431

| PEST MIX COMPOUND | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| alpha-BHC | 3.85 | 3.80 | 3.90 | 21.0 | 20.0 | 5.0 |
| beta-BHC | 4.18 | 4.13 | 4.23 | 20.1 | 20.0 | 0.4 |
| delta-BHC | 4.34 | 4.29 | 4.39 | 21.0 | 20.0 | 5.1 |
| gamma-BHC (Lindane) | 4.11 | 4.06 | 4.16 | 20.8 | 20.0 | 4.1 |
| Heptachlor | 4.52 | 4.47 | 4.57 | 20.7 | 20.0 | 3.2 |
| Aldrin | 4.79 | 4.74 | 4.84 | 20.8 | 20.0 | 4.2 |
| Heptachlor epoxide b | 5.35 | 5.30 | 5.40 | 20.1 | 20.0 | 0.4 |
| Endosulfan I | 5.72 | 5.67 | 5.77 | 19.7 | 20.0 | -1.5 |
| Dieldrin | 5.95 | 5.90 | 6.00 | 40.7 | 40.0 | 1.8 |
| 4,4'-DDE | 5.67 | 5.62 | 5.72 | 44.8 | 40.0 | 12.0 |
| Endrin | 6.16 | 6.11 | 6.21 | 40.4 | 40.0 | 0.9 |
| Endosulfan II | 6.37 | 6.32 | 6.42 | 40.0 | 40.0 | 0.1 |
| 4,4'-DDD | 6.23 | 6.18 | 6.28 | 42.3 | 40.0 | 5.8 |
| Endosulfan sulfate | 7.14 | 7.09 | 7.19 | 39.6 | 40.0 | -0.9 |
| 4,4'-DDT | 6.48 | 6.43 | 6.53 | 41.7 | 40.0 | 4.3 |
| Methoxychlor | 6.92 | 6.87 | 6.97 | 193.3 | 200.0 | -3.3 |
| Endrin ketone | 7.39 | 7.34 | 7.44 | 38.5 | 40.0 | -3.8 |
| Endrin aldehyde | 6.75 | 6.70 | 6.80 | 39.3 | 40.0 | -1.6 |
| gamma-Chlordane | 5.47 | 5.42 | 5.52 | 20.2 | 20.0 | 1.2 |
| alpha-Chlordane | 5.59 | 5.54 | 5.64 | 19.3 | 20.0 | -3.7 |
| Hexachlorobutadiene | 2.05 | 2.00 | 2.10 | 20.0 | 20.0 | -0.0 |
| Hexachlorobenzene | 3.72 | 3.67 | 3.77 | 19.6 | 20.0 | -2.0 |
| Tetrachloro-m-xylene | 3.41 | 3.36 | 3.46 | 39.6 | 40.0 | -1.0 |
| Decachlorobiphenyl | 8.25 | 8.20 | 8.30 | 36.9 | 40.0 | -7.7 |

FORM VII PEST-2

7E

# 8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU62  Project: JELD WEN - MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 05/23/12

Lab Ccal ID: INDAE  Date/Time Analyzed: 05/24/12,1431

| PEST MIX COMPOUND | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ug/L) | NOM AMOUNT (ug/L) | %D |
|---|---|---|---|---|---|---|
| alpha-BHC | 4.11 | 4.06 | 4.16 | 20.0 | 20.0 | -0.2 |
| beta-BHC | 4.50 | 4.45 | 4.55 | 18.6 | 20.0 | -7.0 |
| delta-BHC | 4.78 | 4.73 | 4.83 | 20.2 | 20.0 | 0.8 |
| gamma-BHC (Lindane) | 4.43 | 4.38 | 4.48 | 19.5 | 20.0 | -2.6 |
| Heptachlor | 4.85 | 4.80 | 4.90 | 18.7 | 20.0 | -6.4 |
| Aldrin | 5.17 | 5.12 | 5.22 | 19.1 | 20.0 | -4.7 |
| Heptachlor epoxide b | 5.73 | 5.68 | 5.78 | 19.0 | 20.0 | -5.0 |
| Endosulfan I | 6.12 | 6.07 | 6.17 | 18.8 | 20.0 | -6.0 |
| Dieldrin | 6.38 | 6.33 | 6.43 | 38.3 | 40.0 | -4.3 |
| 4,4'-DDE | 6.21 | 6.16 | 6.26 | 38.5 | 40.0 | -3.7 |
| Endrin | 6.66 | 6.61 | 6.71 | 37.0 | 40.0 | -7.5 |
| Endosulfan II | 6.86 | 6.81 | 6.91 | 36.6 | 40.0 | -8.5 |
| 4,4'-DDD | 6.75 | 6.70 | 6.80 | 38.0 | 40.0 | -5.0 |
| Endosulfan sulfate | 7.40 | 7.35 | 7.45 | 37.5 | 40.0 | -6.2 |
| 4,4'-DDT | 7.03 | 6.98 | 7.08 | 38.3 | 40.0 | -4.4 |
| Methoxychlor | 7.63 | 7.58 | 7.68 | 169.6 | 200.0 | -15.2 |
| Endrin ketone | 7.88 | 7.83 | 7.93 | 37.2 | 40.0 | -7.0 |
| Endrin aldehyde | 7.16 | 7.11 | 7.21 | 36.7 | 40.0 | -8.3 |
| gamma-Chlordane | 5.92 | 5.87 | 5.97 | 19.3 | 20.0 | -3.5 |
| alpha-Chlordane | 6.06 | 6.01 | 6.11 | 19.0 | 20.0 | -5.2 |
| Hexachlorobutadiene | 2.11 | 2.06 | 2.16 | 19.1 | 20.0 | -4.7 |
| Hexachlorobenzene | 4.00 | 3.94 | 4.04 | 19.2 | 20.0 | -4.2 |
| Tetrachloro-m-xylene | 3.59 | 3.54 | 3.64 | 39.1 | 40.0 | -2.3 |
| Decachlorobiphenyl | 8.91 | 8.86 | 8.96 | 37.0 | 40.0 | -7.4 |

7E

# 8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20120523PEST

Analysis Date: 24-MAY-2012 19:34 Init. Calib. Date: 23-MAY-2012

GC Column: STX-CLP1 ID: 0.53(mm)

| COMPOUND | RT | AREA |
|---|---|---|
| 4,4'-DDE | 5.674 | 56397 |
| Endrin | 6.163 | 7372484 |
| 4,4'-DDD | 6.231 | 222167 |
| 4,4'-DDT | 6.485 | 6581180 |
| Endrin ketone | 7.388 | 353697 |
| Endrin aldehyde | 6.749 | 151404 |

DDT Percent Breakdown = 4.1 %
((56397+222167) * 100)/(56397+222167+6581180)

Endrin Percent Breakdown = 6.4 %
((151404+353697) * 100)/(151404+353697+7372484)

GC Column: STX-CLP2 ID: 0.53(mm)

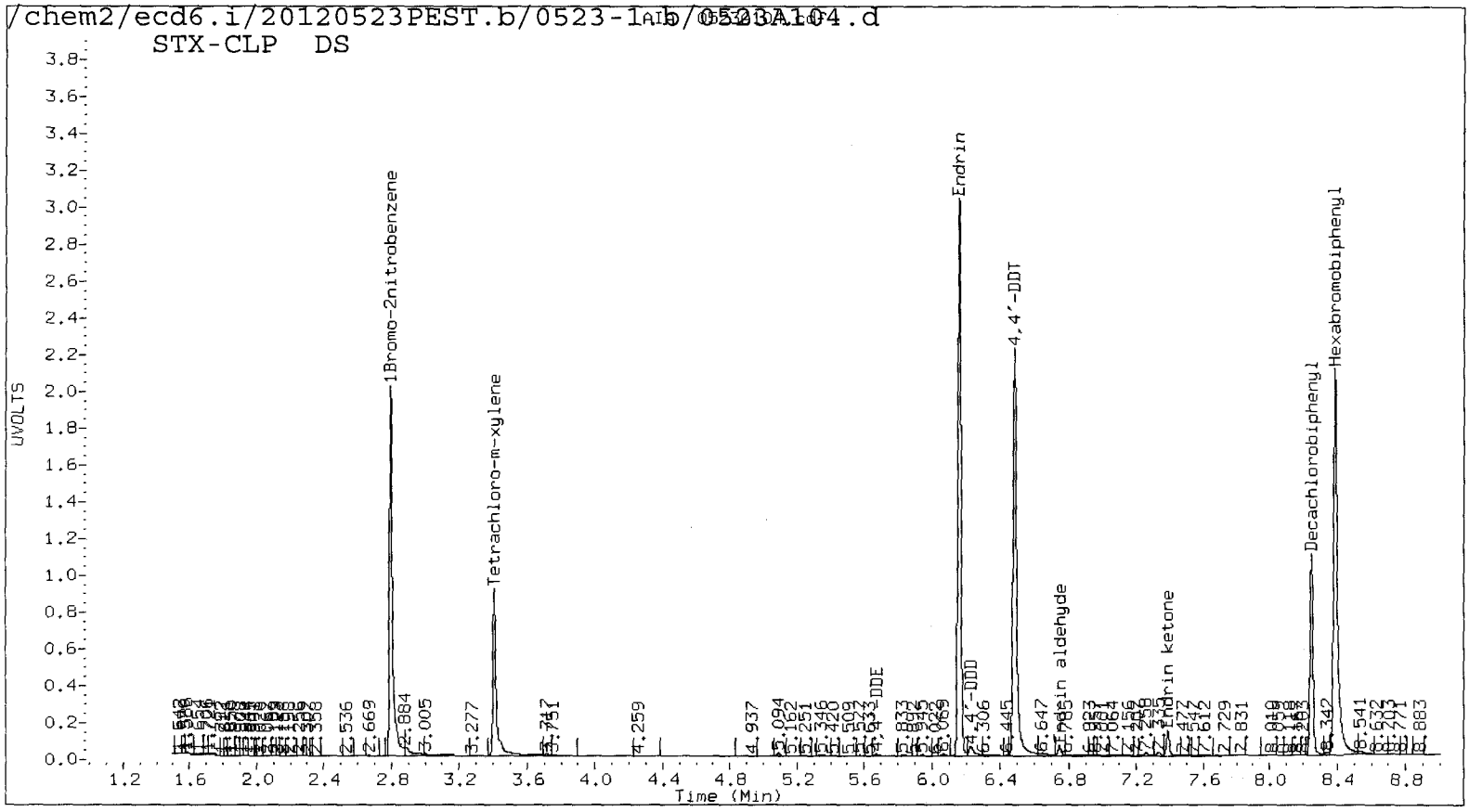
| COMPOUND | RT | AREA |
|---|---|---|
| 4,4'-DDE | 6.209 | 242224 |
| Endrin | 6.663 | 15024594 |
| 4,4'-DDD | 6.749 | 701823 |
| 4,4'-DDT | 7.034 | 13167851 |
| Endrin ketone | 7.880 | 767688 |
| Endrin aldehyde | 7.157 | 466274 |

DDT Percent Breakdown = 6.7 %
((242224+701823) * 100)/(242224+701823+13167851)

Endrin Percent Breakdown = 7.6 %
((466274+767688) * 100)/(466274+767688+15024594)



UU52:00147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STX-CLP DS
UVOLTS
Time (Min)
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Tetrachloro-m-xylene
Endrin
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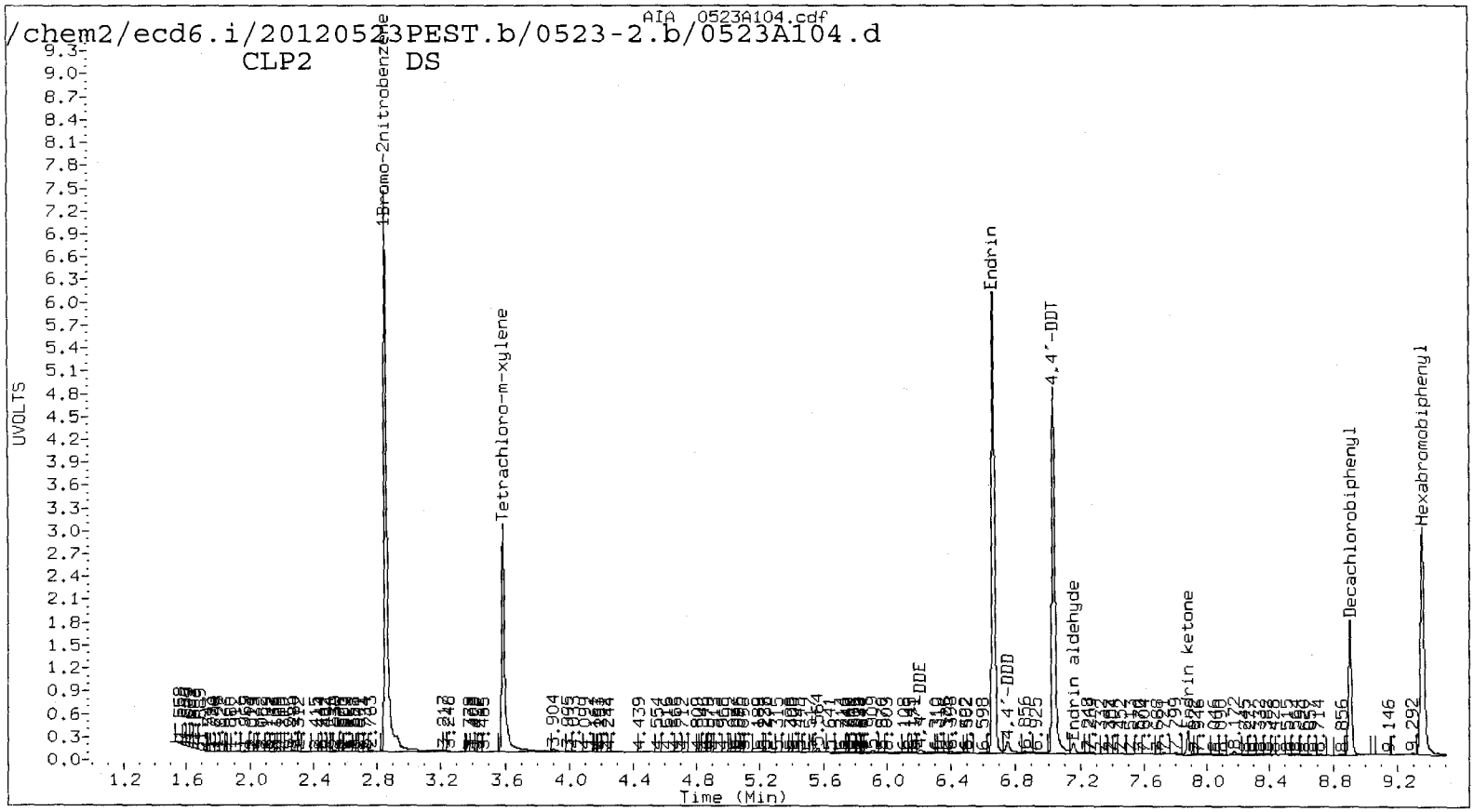
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
4,4'-DDE
4,4'-DDD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CLP2 DS
UVOLTS
Time (Min)
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Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
4,4'-DDE
4,4'-DDD

7E

# 8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU62  Project: JELD WEN - MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 05/23/12

Lab Ccal ID: INDAE  Date/Time Analyzed: 05/24/12,1952

| PEST MIX COMPOUND | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| alpha-BHC | 3.85 | 3.80 | 3.90 | 20.2 | 20.0 | 1.1 |
| beta-BHC | 4.18 | 4.13 | 4.23 | 19.3 | 20.0 | -3.4 |
| delta-BHC | 4.34 | 4.29 | 4.39 | 20.2 | 20.0 | 1.1 |
| gamma-BHC (Lindane) | 4.11 | 4.06 | 4.16 | 20.0 | 20.0 | -0.2 |
| Heptachlor | 4.52 | 4.47 | 4.57 | 19.9 | 20.0 | -0.6 |
| Aldrin | 4.79 | 4.74 | 4.84 | 20.1 | 20.0 | 0.3 |
| Heptachlor epoxide b | 5.35 | 5.30 | 5.40 | 19.3 | 20.0 | -3.6 |
| Endosulfan I | 5.72 | 5.67 | 5.77 | 18.9 | 20.0 | -5.4 |
| Dieldrin | 5.95 | 5.90 | 6.00 | 39.2 | 40.0 | -2.0 |
| 4,4'-DDE | 5.67 | 5.62 | 5.72 | 43.3 | 40.0 | 8.2 |
| Endrin | 6.16 | 6.11 | 6.21 | 39.6 | 40.0 | -1.0 |
| Endosulfan II | 6.37 | 6.32 | 6.42 | 39.2 | 40.0 | -2.1 |
| 4,4'-DDD | 6.23 | 6.18 | 6.28 | 41.6 | 40.0 | 3.9 |
| Endosulfan sulfate | 7.14 | 7.09 | 7.19 | 39.0 | 40.0 | -2.5 |
| 4,4'-DDT | 6.48 | 6.43 | 6.53 | 41.2 | 40.0 | 3.0 |
| Methoxychlor | 6.92 | 6.87 | 6.97 | 189.9 | 200.0 | -5.1 |
| Endrin ketone | 7.39 | 7.34 | 7.44 | 38.0 | 40.0 | -5.1 |
| Endrin aldehyde | 6.75 | 6.70 | 6.80 | 38.6 | 40.0 | -3.4 |
| gamma-Chlordane | 5.47 | 5.42 | 5.52 | 19.5 | 20.0 | -2.5 |
| alpha-Chlordane | 5.59 | 5.54 | 5.64 | 18.2 | 20.0 | -9.0 |
| Hexachlorobutadiene | 2.05 | 2.00 | 2.10 | 19.2 | 20.0 | -4.0 |
| Hexachlorobenzene | 3.72 | 3.67 | 3.77 | 18.8 | 20.0 | -6.1 |
| Tetrachloro-m-xylene | 3.41 | 3.36 | 3.46 | 38.1 | 40.0 | -4.8 |
| Decachlorobiphenyl | 8.25 | 8.20 | 8.30 | 37.0 | 40.0 | -7.6 |

7E

# 8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU62  Project: JELD WEN - MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 05/23/12

Lab Ccal ID: INDAE  Date/Time Analyzed: 05/24/12,1952

| PEST MIX COMPOUND | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ug/L) | NOM AMOUNT (ug/L) | %D |
|---|---|---|---|---|---|---|
| alpha-BHC | 4.11 | 4.06 | 4.16 | 20.2 | 20.0 | 1.0 |
| beta-BHC | 4.50 | 4.45 | 4.55 | 19.0 | 20.0 | -5.2 |
| delta-BHC | 4.78 | 4.73 | 4.83 | 20.3 | 20.0 | 1.5 |
| gamma-BHC (Lindane) | 4.43 | 4.38 | 4.48 | 19.7 | 20.0 | -1.6 |
| Heptachlor | 4.85 | 4.80 | 4.90 | 19.0 | 20.0 | -4.8 |
| Aldrin | 5.17 | 5.12 | 5.22 | 19.4 | 20.0 | -3.0 |
| Heptachlor epoxide b | 5.73 | 5.68 | 5.78 | 19.2 | 20.0 | -3.8 |
| Endosulfan I | 6.12 | 6.07 | 6.17 | 19.1 | 20.0 | -4.4 |
| Dieldrin | 6.38 | 6.33 | 6.43 | 38.7 | 40.0 | -3.3 |
| 4,4'-DDE | 6.21 | 6.16 | 6.26 | 39.2 | 40.0 | -2.0 |
| Endrin | 6.66 | 6.61 | 6.71 | 36.3 | 40.0 | -9.3 |
| Endosulfan II | 6.86 | 6.81 | 6.91 | 36.0 | 40.0 | -10.1 |
| 4,4'-DDD | 6.75 | 6.70 | 6.80 | 37.3 | 40.0 | -6.7 |
| Endosulfan sulfate | 7.40 | 7.35 | 7.45 | 36.7 | 40.0 | -8.1 |
| 4,4'-DDT | 7.03 | 6.98 | 7.08 | 38.0 | 40.0 | -5.0 |
| Methoxychlor | 7.63 | 7.58 | 7.68 | 165.9 | 200.0 | -17.1 |
| Endrin ketone | 7.88 | 7.83 | 7.93 | 36.9 | 40.0 | -7.7 |
| Endrin aldehyde | 7.16 | 7.11 | 7.21 | 35.9 | 40.0 | -10.3 |
| gamma-Chlordane | 5.92 | 5.87 | 5.97 | 19.7 | 20.0 | -1.4 |
| alpha-Chlordane | 6.06 | 6.01 | 6.11 | 19.3 | 20.0 | -3.6 |
| Hexachlorobutadiene | 2.11 | 2.06 | 2.16 | 19.4 | 20.0 | -3.0 |
| Hexachlorobenzene | 4.00 | 3.94 | 4.04 | 19.3 | 20.0 | -3.5 |
| Tetrachloro-m-xylene | 3.59 | 3.54 | 3.64 | 39.1 | 40.0 | -2.2 |
| Decachlorobiphenyl | 8.91 | 8.86 | 8.96 | 37.0 | 40.0 | -7.6 |

ECD6

7E

# 8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20120523PEST

Analysis Date: 25-MAY-2012 02:23 Init. Calib. Date: 23-MAY-2012

GC Column: STX-CLP1 ID: 0.53(mm)

| COMPOUND | RT | AREA |
|---|---|---|
| 4,4'-DDE | 5.675 | 57262 |
| Endrin | 6.163 | 7254760 |
| 4,4'-DDD | 6.232 | 249394 |
| 4,4'-DDT | 6.485 | 6485399 |
| Endrin ketone | 7.389 | 336450 |
| Endrin aldehyde | 6.749 | 139214 |

DDT Percent Breakdown = 4.5 %
((57262+249394) * 100)/(57262+249394+6485399)

Endrin Percent Breakdown = 6.2 %
((139214+336450) * 100)/(139214+336450+7254760)

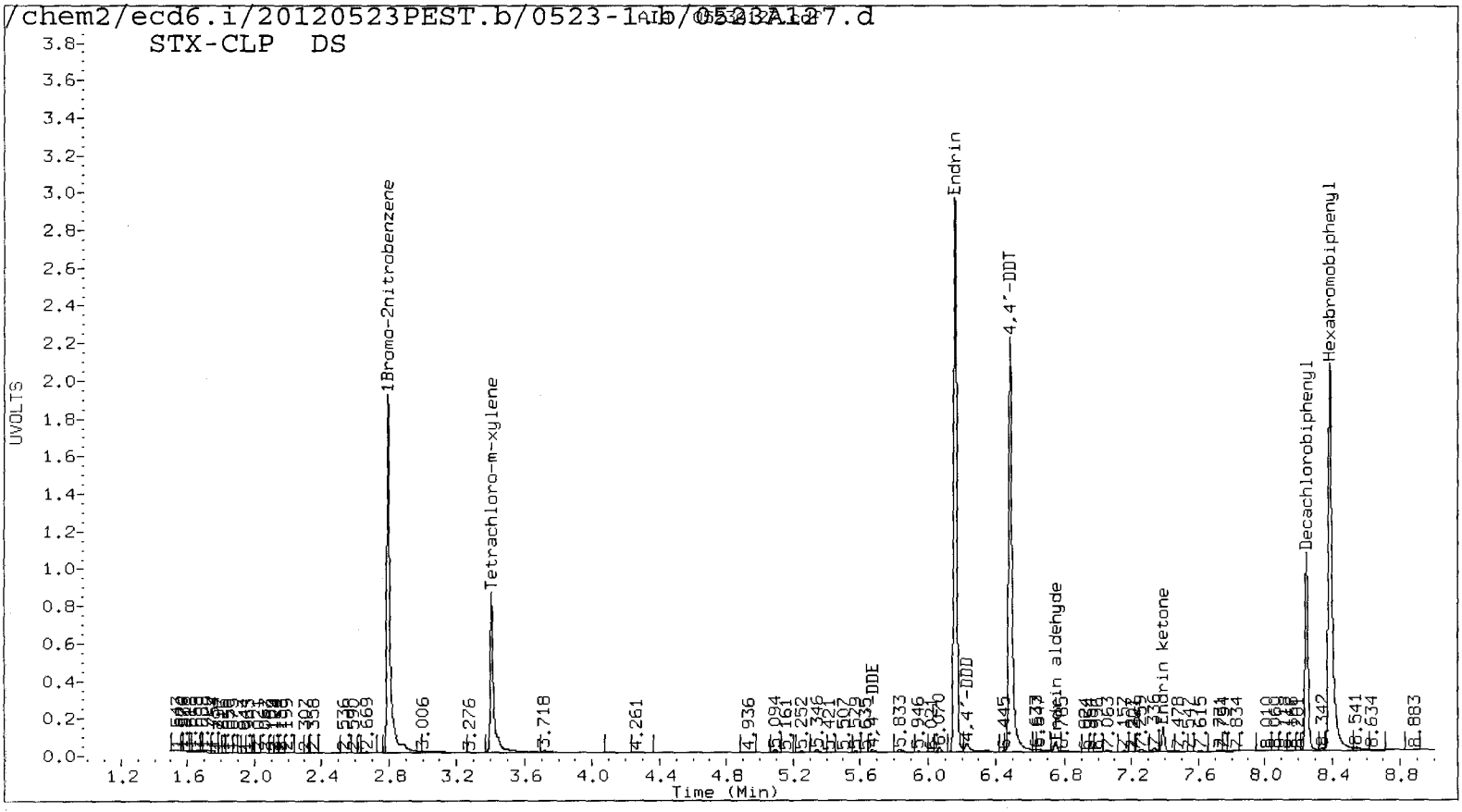
GC Column: STX-CLP2 ID: 0.53(mm)

| COMPOUND | RT | AREA |
|---|---|---|
| 4,4'-DDE | 6.209 | 268703 |
| Endrin | 6.663 | 15667414 |
| 4,4'-DDD | 6.749 | 728359 |
| 4,4'-DDT | 7.034 | 13764969 |
| Endrin ketone | 7.880 | 797118 |
| Endrin aldehyde | 7.157 | 459948 |

DDT Percent Breakdown = 6.8 %
((268703+728359) * 100)/(268703+728359+13764969)

Endrin Percent Breakdown = 7.4 %
((459948+797118) * 100)/(459948+797118+15667414)

Form VII Pest-1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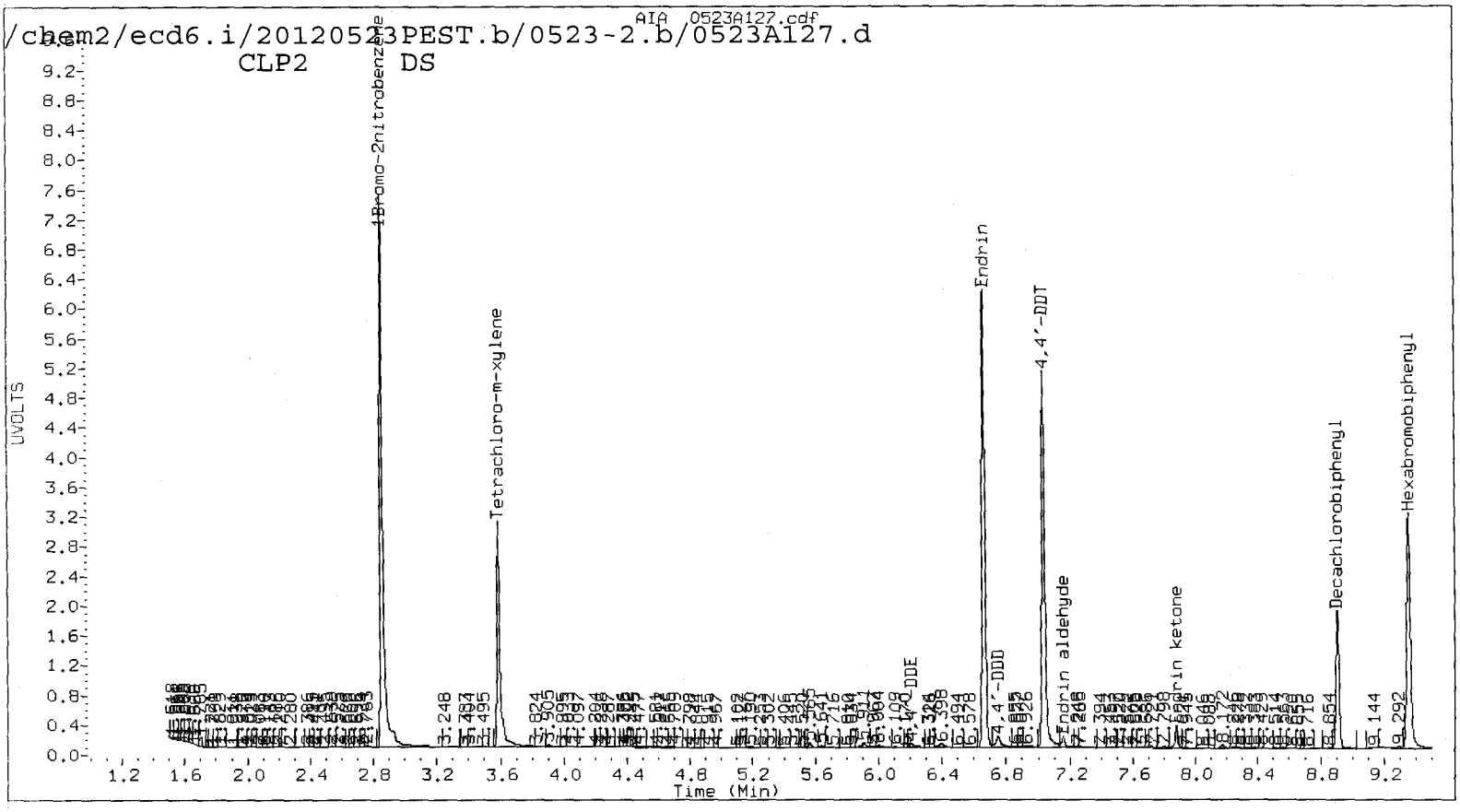
AIA 0523A127.cdf
STX-CLP DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
4,4'-DDE
4,4'-DDD
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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CLP2 DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
4,4'-DDE
4,4'-DDD
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

7E

# 8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 05/23/12

Lab Ccal ID: INDAE  Date/Time Analyzed: 05/25/12,0241

| PEST MIX COMPOUND | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| alpha-BHC | 3.85 | 3.80 | 3.90 | 20.9 | 20.0 | 4.7 |
| beta-BHC | 4.18 | 4.13 | 4.23 | 20.0 | 20.0 | -0.1 |
| delta-BHC | 4.34 | 4.29 | 4.39 | 20.9 | 20.0 | 4.3 |
| gamma-BHC (Lindane) | 4.11 | 4.06 | 4.16 | 20.7 | 20.0 | 3.4 |
| Heptachlor | 4.52 | 4.47 | 4.57 | 20.7 | 20.0 | 3.6 |
| Aldrin | 4.79 | 4.74 | 4.84 | 20.9 | 20.0 | 4.3 |
| Heptachlor epoxide b | 5.35 | 5.30 | 5.40 | 20.1 | 20.0 | 0.7 |
| Endosulfan I | 5.72 | 5.67 | 5.77 | 19.6 | 20.0 | -1.9 |
| Dieldrin | 5.95 | 5.90 | 6.00 | 40.7 | 40.0 | 1.8 |
| 4,4'-DDE | 5.67 | 5.62 | 5.72 | 45.1 | 40.0 | 12.7 |
| Endrin | 6.16 | 6.11 | 6.21 | 39.8 | 40.0 | -0.4 |
| Endosulfan II | 6.37 | 6.32 | 6.42 | 39.1 | 40.0 | -2.2 |
| 4,4'-DDD | 6.23 | 6.18 | 6.28 | 41.6 | 40.0 | 3.9 |
| Endosulfan sulfate | 7.14 | 7.09 | 7.19 | 38.9 | 40.0 | -2.7 |
| 4,4'-DDT | 6.48 | 6.43 | 6.53 | 41.4 | 40.0 | 3.4 |
| Methoxychlor | 6.92 | 6.87 | 6.97 | 189.4 | 200.0 | -5.3 |
| Endrin ketone | 7.39 | 7.34 | 7.44 | 38.0 | 40.0 | -5.0 |
| Endrin aldehyde | 6.75 | 6.70 | 6.80 | 38.6 | 40.0 | -3.6 |
| gamma-Chlordane | 5.47 | 5.42 | 5.52 | 20.3 | 20.0 | 1.3 |
| alpha-Chlordane | 5.59 | 5.54 | 5.64 | 18.6 | 20.0 | -7.0 |
| Hexachlorobutadiene | 2.05 | 2.00 | 2.10 | 19.9 | 20.0 | -0.6 |
| Hexachlorobenzene | 3.72 | 3.67 | 3.77 | 19.4 | 20.0 | -2.8 |
| Tetrachloro-m-xylene | 3.41 | 3.36 | 3.46 | 39.5 | 40.0 | -1.2 |
| Decachlorobiphenyl | 8.25 | 8.20 | 8.30 | 36.8 | 40.0 | -8.1 |

7E

# 8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 05/23/12

Lab Ccal ID: INDAE  Date/Time Analyzed: 05/25/12,0241

| PEST MIX COMPOUND | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ug/L) | NOM AMOUNT (ug/L) | %D |
|---|---|---|---|---|---|---|
| alpha-BHC | 4.11 | 4.06 | 4.16 | 20.2 | 20.0 | 1.0 |
| beta-BHC | 4.50 | 4.45 | 4.55 | 18.9 | 20.0 | -5.4 |
| delta-BHC | 4.78 | 4.73 | 4.83 | 20.1 | 20.0 | 0.3 |
| gamma-BHC (Lindane) | 4.43 | 4.38 | 4.48 | 19.6 | 20.0 | -2.0 |
| Heptachlor | 4.85 | 4.80 | 4.90 | 19.1 | 20.0 | -4.6 |
| Aldrin | 5.17 | 5.12 | 5.22 | 19.3 | 20.0 | -3.5 |
| Heptachlor epoxide b | 5.73 | 5.68 | 5.78 | 19.3 | 20.0 | -3.5 |
| Endosulfan I | 6.12 | 6.07 | 6.17 | 19.1 | 20.0 | -4.5 |
| Dieldrin | 6.38 | 6.33 | 6.43 | 38.7 | 40.0 | -3.2 |
| 4,4'-DDE | 6.21 | 6.16 | 6.26 | 39.4 | 40.0 | -1.6 |
| Endrin | 6.66 | 6.61 | 6.71 | 36.2 | 40.0 | -9.5 |
| Endosulfan II | 6.86 | 6.81 | 6.91 | 35.6 | 40.0 | -11.1 |
| 4,4'-DDD | 6.75 | 6.70 | 6.80 | 37.0 | 40.0 | -7.6 |
| Endosulfan sulfate | 7.40 | 7.35 | 7.45 | 36.4 | 40.0 | -9.1 |
| 4,4'-DDT | 7.03 | 6.98 | 7.08 | 37.8 | 40.0 | -5.5 |
| Methoxychlor | 7.63 | 7.58 | 7.68 | 164.1 | 200.0 | -17.9 |
| Endrin ketone | 7.88 | 7.83 | 7.93 | 36.6 | 40.0 | -8.4 |
| Endrin aldehyde | 7.16 | 7.11 | 7.21 | 35.4 | 40.0 | -11.6 |
| gamma-Chlordane | 5.92 | 5.87 | 5.97 | 19.7 | 20.0 | -1.3 |
| alpha-Chlordane | 6.06 | 6.01 | 6.11 | 19.3 | 20.0 | -3.7 |
| Hexachlorobutadiene | 2.11 | 2.06 | 2.16 | 19.0 | 20.0 | -5.1 |
| Hexachlorobenzene | 4.00 | 3.94 | 4.04 | 19.3 | 20.0 | -3.3 |
| Tetrachloro-m-xylene | 3.59 | 3.54 | 3.64 | 39.4 | 40.0 | -1.6 |
| Decachlorobiphenyl | 8.91 | 8.86 | 8.96 | 37.0 | 40.0 | -7.4 |

7E

# 8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20120523PEST

Analysis Date: 25-MAY-2012 07:08 Init. Calib. Date: 23-MAY-2012

GC Column: STX-CLP1 ID: 0.53(mm)

| COMPOUND | RT | AREA |
|---|---|---|
| 4,4'-DDE | 5.674 | 61750 |
| Endrin | 6.163 | 7164509 |
| 4,4'-DDD | 6.231 | 279308 |
| 4,4'-DDT | 6.484 | 6331123 |
| Endrin ketone | 7.388 | 355397 |
| Endrin aldehyde | 6.749 | 152508 |

DDT Percent Breakdown = 5.1 %
((61750+279308) * 100)/(61750+279308+6331123)

Endrin Percent Breakdown = 6.6 %
((152508+355397) * 100)/(152508+355397+7164509)

GC Column: STX-CLP2 ID: 0.53(mm)

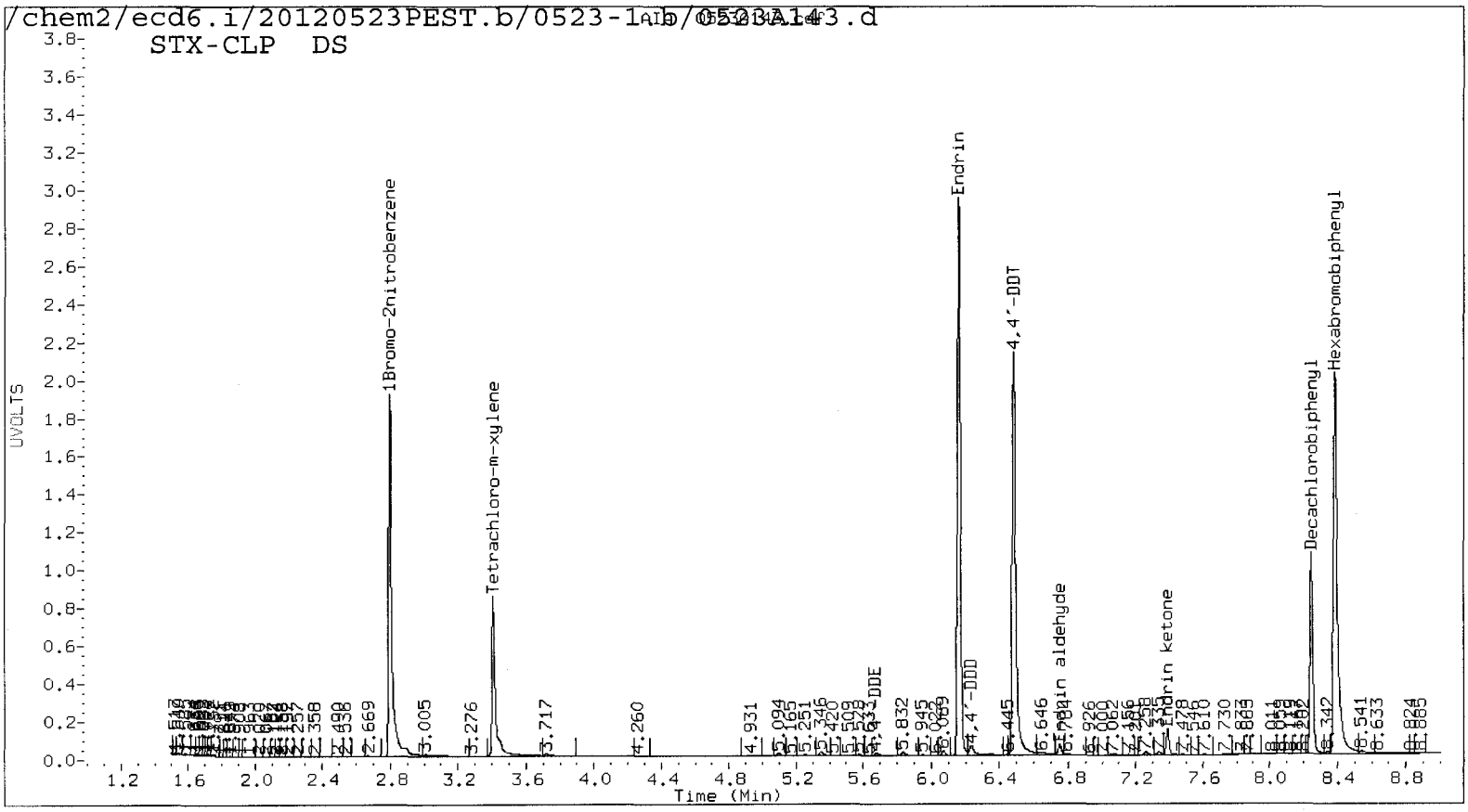
| COMPOUND | RT | AREA |
|---|---|---|
| 4,4'-DDE | 6.209 | 290928 |
| Endrin | 6.662 | 15862156 |
| 4,4'-DDD | 6.748 | 831899 |
| 4,4'-DDT | 7.033 | 13787412 |
| Endrin ketone | 7.879 | 867868 |
| Endrin aldehyde | 7.157 | 499203 |

DDT Percent Breakdown = 7.5 %
((290928+831899) * 100)/(290928+831899+13787412)

Endrin Percent Breakdown = 7.9 %
((499203+867868) * 100)/(499203+867868+15862156)



UU52:00155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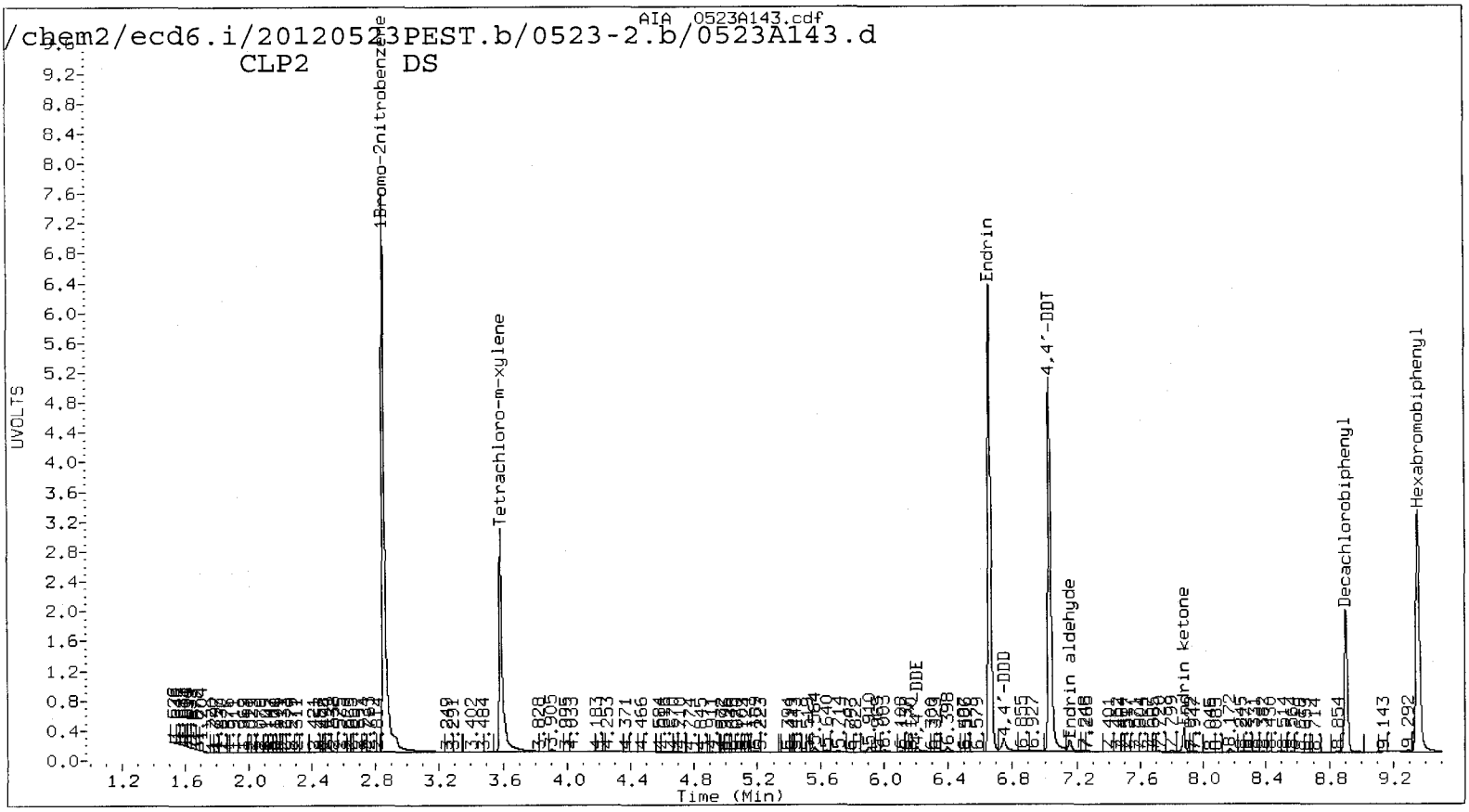
STX-CLP DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
4,4'-DDE
4,4'-DDD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CLP2 DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
4,4'-DDE
4,4'-DDD

7E

# 8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 05/23/12

Lab Ccal ID: INDAE  Date/Time Analyzed: 05/25/12,0726

| PEST MIX COMPOUND | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| alpha-BHC | 3.85 | 3.80 | 3.90 | 21.1 | 20.0 | 5.5 |
| beta-BHC | 4.18 | 4.13 | 4.23 | 20.1 | 20.0 | 0.6 |
| delta-BHC | 4.34 | 4.29 | 4.39 | 21.1 | 20.0 | 5.4 |
| gamma-BHC (Lindane) | 4.11 | 4.06 | 4.16 | 20.8 | 20.0 | 4.0 |
| Heptachlor | 4.52 | 4.47 | 4.57 | 20.9 | 20.0 | 4.3 |
| Aldrin | 4.79 | 4.74 | 4.84 | 21.0 | 20.0 | 5.0 |
| Heptachlor epoxide b | 5.35 | 5.30 | 5.40 | 20.1 | 20.0 | 0.7 |
| Endosulfan I | 5.72 | 5.67 | 5.77 | 19.6 | 20.0 | -2.0 |
| Dieldrin | 5.95 | 5.90 | 6.00 | 40.9 | 40.0 | 2.2 |
| 4,4'-DDE | 5.67 | 5.62 | 5.72 | 46.0 | 40.0 | 15.0 |
| Endrin | 6.16 | 6.11 | 6.21 | 39.8 | 40.0 | -0.5 |
| Endosulfan II | 6.37 | 6.32 | 6.42 | 38.9 | 40.0 | -2.7 |
| 4,4'-DDD | 6.23 | 6.18 | 6.28 | 41.5 | 40.0 | 3.6 |
| Endosulfan sulfate | 7.14 | 7.09 | 7.19 | 38.8 | 40.0 | -2.9 |
| 4,4'-DDT | 6.48 | 6.43 | 6.53 | 41.2 | 40.0 | 3.0 |
| Methoxychlor | 6.92 | 6.87 | 6.97 | 189.2 | 200.0 | -5.4 |
| Endrin ketone | 7.39 | 7.34 | 7.44 | 37.7 | 40.0 | -5.7 |
| Endrin aldehyde | 6.75 | 6.70 | 6.80 | 38.3 | 40.0 | -4.2 |
| gamma-Chlordane | 5.47 | 5.42 | 5.52 | 20.4 | 20.0 | 1.9 |
| alpha-Chlordane | 5.59 | 5.54 | 5.64 | 18.4 | 20.0 | -8.1 |
| Hexachlorobutadiene | 2.05 | 2.00 | 2.10 | 20.1 | 20.0 | 0.2 |
| Hexachlorobenzene | 3.72 | 3.67 | 3.77 | 19.5 | 20.0 | -2.4 |
| Tetrachloro-m-xylene | 3.41 | 3.36 | 3.46 | 39.8 | 40.0 | -0.6 |
| Decachlorobiphenyl | 8.25 | 8.20 | 8.30 | 36.8 | 40.0 | -8.1 |

FORM VII PEST-2

7E

# 8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 05/23/12

Lab Ccal ID: INDAE  Date/Time Analyzed: 05/25/12,0726

| PEST MIX COMPOUND | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ug/L) | NOM AMOUNT (ug/L) | %D |
|---|---|---|---|---|---|---|
| alpha-BHC | 4.11 | 4.06 | 4.16 | 20.3 | 20.0 | 1.3 |
| beta-BHC | 4.50 | 4.45 | 4.55 | 19.0 | 20.0 | -5.2 |
| delta-BHC | 4.78 | 4.73 | 4.83 | 20.2 | 20.0 | 0.8 |
| gamma-BHC (Lindane) | 4.43 | 4.38 | 4.48 | 19.7 | 20.0 | -1.3 |
| Heptachlor | 4.85 | 4.80 | 4.90 | 19.1 | 20.0 | -4.6 |
| Aldrin | 5.17 | 5.12 | 5.22 | 19.3 | 20.0 | -3.3 |
| Heptachlor epoxide b | 5.73 | 5.68 | 5.78 | 19.3 | 20.0 | -3.3 |
| Endosulfan I | 6.12 | 6.07 | 6.17 | 19.2 | 20.0 | -3.9 |
| Dieldrin | 6.37 | 6.33 | 6.43 | 38.8 | 40.0 | -3.1 |
| 4,4'-DDE | 6.21 | 6.16 | 6.26 | 39.8 | 40.0 | -0.4 |
| Endrin | 6.66 | 6.61 | 6.71 | 36.1 | 40.0 | -9.6 |
| Endosulfan II | 6.86 | 6.81 | 6.91 | 35.9 | 40.0 | -10.4 |
| 4,4'-DDD | 6.75 | 6.70 | 6.80 | 36.9 | 40.0 | -7.8 |
| Endosulfan sulfate | 7.40 | 7.35 | 7.45 | 36.3 | 40.0 | -9.3 |
| 4,4'-DDT | 7.03 | 6.98 | 7.08 | 37.7 | 40.0 | -5.8 |
| Methoxychlor | 7.63 | 7.58 | 7.68 | 162.9 | 200.0 | -18.5 |
| Endrin ketone | 7.88 | 7.83 | 7.93 | 36.5 | 40.0 | -8.8 |
| Endrin aldehyde | 7.16 | 7.11 | 7.21 | 35.1 | 40.0 | -12.2 |
| gamma-Chlordane | 5.92 | 5.87 | 5.97 | 19.9 | 20.0 | -0.6 |
| alpha-Chlordane | 6.06 | 6.01 | 6.11 | 19.4 | 20.0 | -3.1 |
| Hexachlorobutadiene | 2.11 | 2.06 | 2.16 | 19.0 | 20.0 | -5.0 |
| Hexachlorobenzene | 3.99 | 3.94 | 4.04 | 19.4 | 20.0 | -3.2 |
| Tetrachloro-m-xylene | 3.59 | 3.54 | 3.64 | 39.4 | 40.0 | -1.5 |
| Decachlorobiphenyl | 8.91 | 8.86 | 8.96 | 37.1 | 40.0 | -7.3 |

7E

# 8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20120523PEST

Analysis Date: 25-MAY-2012 10:24 Init. Calib. Date: 23-MAY-2012

GC Column: STX-CLP1 ID: 0.53(mm)

| COMPOUND | RT | AREA |
|---|---|---|
| 4,4'-DDE | 5.674 | 67411 |
| Endrin | 6.162 | 7786639 |
| 4,4'-DDD | 6.230 | 311251 |
| 4,4'-DDT | 6.484 | 6874710 |
| Endrin ketone | 7.388 | 377111 |
| Endrin aldehyde | 6.748 | 161016 |

DDT Percent Breakdown = 5.2 %
((67411+311251) * 100)/(67411+311251+6874710)

Endrin Percent Breakdown = 6.5 %
((161016+377111) * 100)/(161016+377111+7786639)

GC Column: STX-CLP2 ID: 0.53(mm)

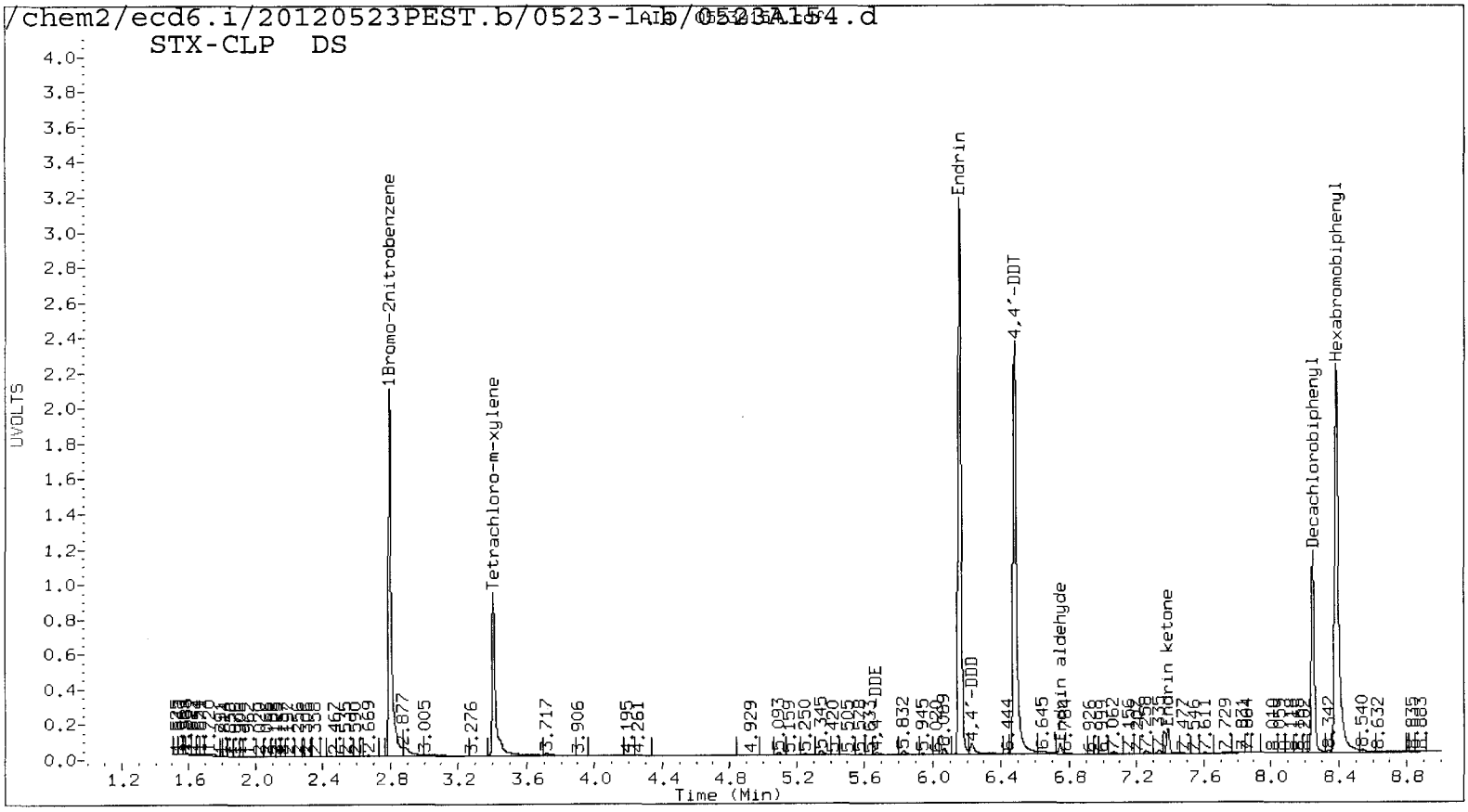
| COMPOUND | RT | AREA |
|---|---|---|
| 4,4'-DDE | 6.207 | 303621 |
| Endrin | 6.662 | 16024257 |
| 4,4'-DDD | 6.747 | 865792 |
| 4,4'-DDT | 7.032 | 13823879 |
| Endrin ketone | 7.879 | 863471 |
| Endrin aldehyde | 7.156 | 487468 |

DDT Percent Breakdown = 7.8 %
((303621+865792) * 100)/(303621+865792+13823879)

Endrin Percent Breakdown = 7.8 %
((487468+863471) * 100)/(487468+863471+16024257)



UU52:00159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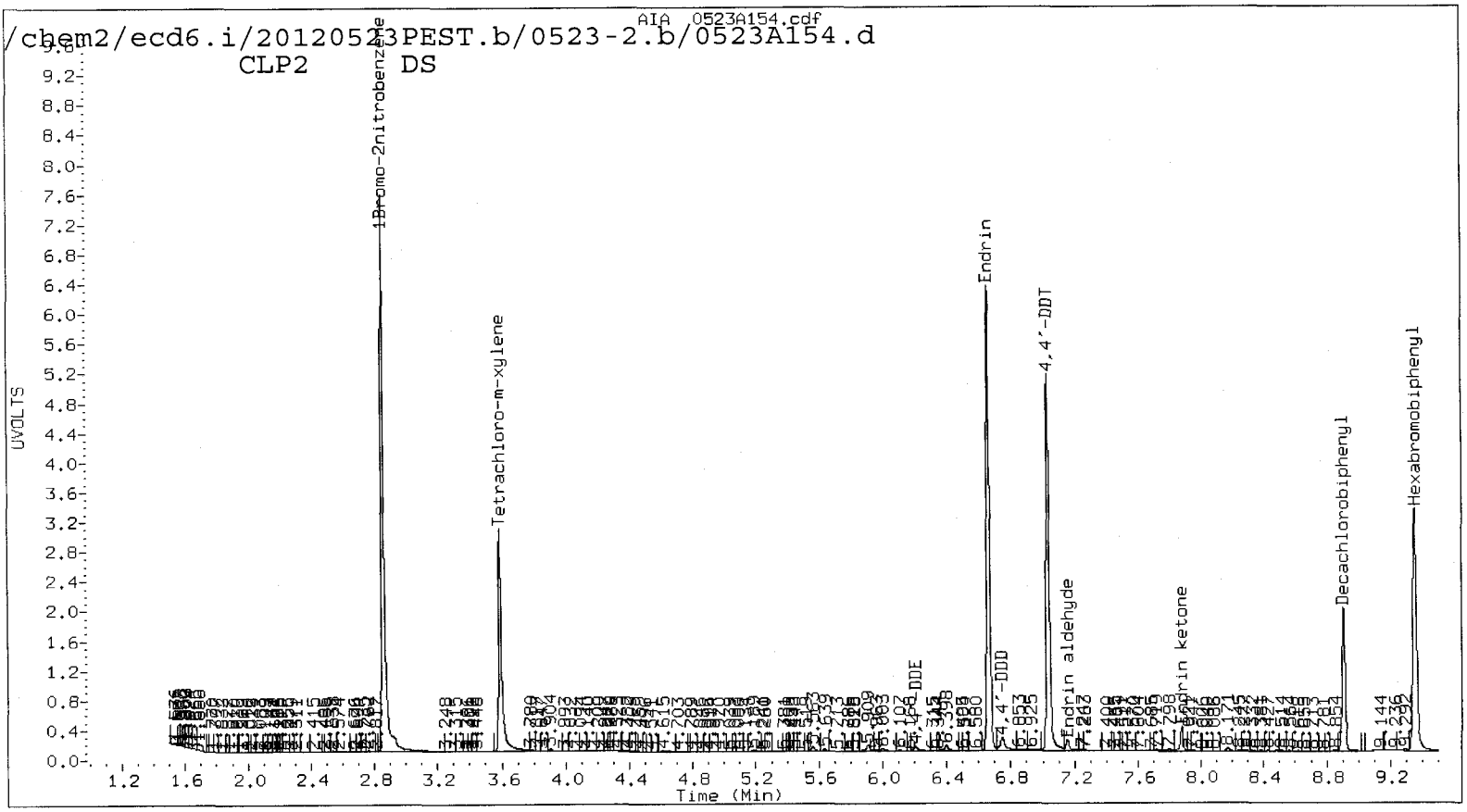
AIA 0523A154.cdf
STX-CLP DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
4,4'-DDE
4,4'-DDD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CLP2 DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
4,4'-DDE
4,4'-DDD

7E

# 8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 05/23/12

Lab Ccal ID: INDAE  Date/Time Analyzed: 05/25/12,1042

| PEST MIX COMPOUND | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| alpha-BHC | 3.85 | 3.80 | 3.90 | 21.0 | 20.0 | 4.8 |
| beta-BHC | 4.18 | 4.13 | 4.23 | 20.1 | 20.0 | 0.4 |
| delta-BHC | 4.34 | 4.29 | 4.39 | 20.9 | 20.0 | 4.7 |
| gamma-BHC (Lindane) | 4.11 | 4.06 | 4.16 | 20.7 | 20.0 | 3.4 |
| Heptachlor | 4.52 | 4.47 | 4.57 | 20.7 | 20.0 | 3.6 |
| Aldrin | 4.79 | 4.74 | 4.84 | 20.8 | 20.0 | 4.2 |
| Heptachlor epoxide b | 5.34 | 5.30 | 5.40 | 20.1 | 20.0 | 0.3 |
| Endosulfan I | 5.72 | 5.67 | 5.77 | 19.4 | 20.0 | -2.8 |
| Dieldrin | 5.95 | 5.90 | 6.00 | 40.7 | 40.0 | 1.7 |
| 4,4'-DDE | 5.67 | 5.62 | 5.72 | 46.6 | 40.0 | 16.4 |
| Endrin | 6.16 | 6.11 | 6.21 | 39.6 | 40.0 | -1.0 |
| Endosulfan II | 6.37 | 6.32 | 6.42 | 38.6 | 40.0 | -3.5 |
| 4,4'-DDD | 6.23 | 6.18 | 6.28 | 41.6 | 40.0 | 4.1 |
| Endosulfan sulfate | 7.14 | 7.09 | 7.19 | 38.5 | 40.0 | -3.8 |
| 4,4'-DDT | 6.48 | 6.43 | 6.53 | 40.9 | 40.0 | 2.4 |
| Methoxychlor | 6.92 | 6.87 | 6.97 | 187.9 | 200.0 | -6.0 |
| Endrin ketone | 7.39 | 7.34 | 7.44 | 37.4 | 40.0 | -6.4 |
| Endrin aldehyde | 6.75 | 6.70 | 6.80 | 38.0 | 40.0 | -5.0 |
| gamma-Chlordane | 5.47 | 5.42 | 5.52 | 20.3 | 20.0 | 1.6 |
| alpha-Chlordane | 5.59 | 5.54 | 5.64 | 18.1 | 20.0 | -9.3 |
| Hexachlorobutadiene | 2.05 | 2.00 | 2.10 | 19.8 | 20.0 | -1.1 |
| Hexachlorobenzene | 3.72 | 3.67 | 3.77 | 19.5 | 20.0 | -2.5 |
| Tetrachloro-m-xylene | 3.41 | 3.36 | 3.46 | 39.6 | 40.0 | -1.0 |
| Decachlorobiphenyl | 8.25 | 8.20 | 8.30 | 36.7 | 40.0 | -8.4 |

7E

# 8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 05/23/12

Lab Ccal ID: INDAE  Date/Time Analyzed: 05/25/12,1042

| PEST MIX COMPOUND | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| alpha-BHC | 4.11 | 4.06 | 4.16 | 20.2 | 20.0 | 0.8 |
| beta-BHC | 4.50 | 4.45 | 4.55 | 19.0 | 20.0 | -5.1 |
| delta-BHC | 4.78 | 4.73 | 4.83 | 20.2 | 20.0 | 1.0 |
| gamma-BHC (Lindane) | 4.43 | 4.38 | 4.48 | 19.7 | 20.0 | -1.5 |
| Heptachlor | 4.85 | 4.80 | 4.90 | 19.3 | 20.0 | -3.4 |
| Aldrin | 5.17 | 5.12 | 5.22 | 19.4 | 20.0 | -3.1 |
| Heptachlor epoxide b | 5.73 | 5.68 | 5.78 | 19.5 | 20.0 | -2.4 |
| Endosulfan I | 6.11 | 6.07 | 6.17 | 19.3 | 20.0 | -3.5 |
| Dieldrin | 6.37 | 6.33 | 6.43 | 39.1 | 40.0 | -2.2 |
| 4,4'-DDE | 6.21 | 6.16 | 6.26 | 40.2 | 40.0 | 0.5 |
| Endrin | 6.66 | 6.61 | 6.71 | 36.9 | 40.0 | -7.8 |
| Endosulfan II | 6.85 | 6.81 | 6.91 | 36.1 | 40.0 | -9.8 |
| 4,4'-DDD | 6.75 | 6.70 | 6.80 | 37.9 | 40.0 | -5.4 |
| Endosulfan sulfate | 7.40 | 7.35 | 7.45 | 36.9 | 40.0 | -7.6 |
| 4,4'-DDT | 7.03 | 6.98 | 7.08 | 38.4 | 40.0 | -4.1 |
| Methoxychlor | 7.63 | 7.58 | 7.68 | 165.6 | 200.0 | -17.2 |
| Endrin ketone | 7.88 | 7.83 | 7.93 | 37.2 | 40.0 | -6.9 |
| Endrin aldehyde | 7.16 | 7.11 | 7.21 | 35.6 | 40.0 | -10.9 |
| gamma-Chlordane | 5.92 | 5.87 | 5.97 | 20.0 | 20.0 | -0.1 |
| alpha-Chlordane | 6.05 | 6.01 | 6.11 | 19.5 | 20.0 | -2.7 |
| Hexachlorobutadiene | 2.11 | 2.06 | 2.16 | 18.8 | 20.0 | -6.1 |
| Hexachlorobenzene | 3.99 | 3.94 | 4.04 | 19.4 | 20.0 | -2.8 |
| Tetrachloro-m-xylene | 3.59 | 3.54 | 3.64 | 39.7 | 40.0 | -0.9 |
| Decachlorobiphenyl | 8.91 | 8.86 | 8.96 | 38.0 | 40.0 | -4.9 |

ECD8

7E
8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20120525PEST

Analysis Date: 26-MAY-2012 00:58 Init. Calib. Date: 25-MAY-2012

GC Column: STX-CLP1 ID: 0.53(mm)

| COMPOUND | RT | AREA |
|---|---|---|
| 4,4'-DDE | 6.349 | 19995 |
| Endrin | 6.814 | 1819185 |
| 4,4'-DDD | 6.886 | 107049 |
| 4,4'-DDT | 7.130 | 1027435 |
| Endrin ketone | 8.060 | 83939 |
| Endrin aldehyde | 7.400 | 45095 |

DDT Percent Breakdown = 11.0 %
((19995+107049) * 100)/(19995+107049+1027435)

Endrin Percent Breakdown = 6.6 %
((45095+83939) * 100)/(45095+83939+1819185)

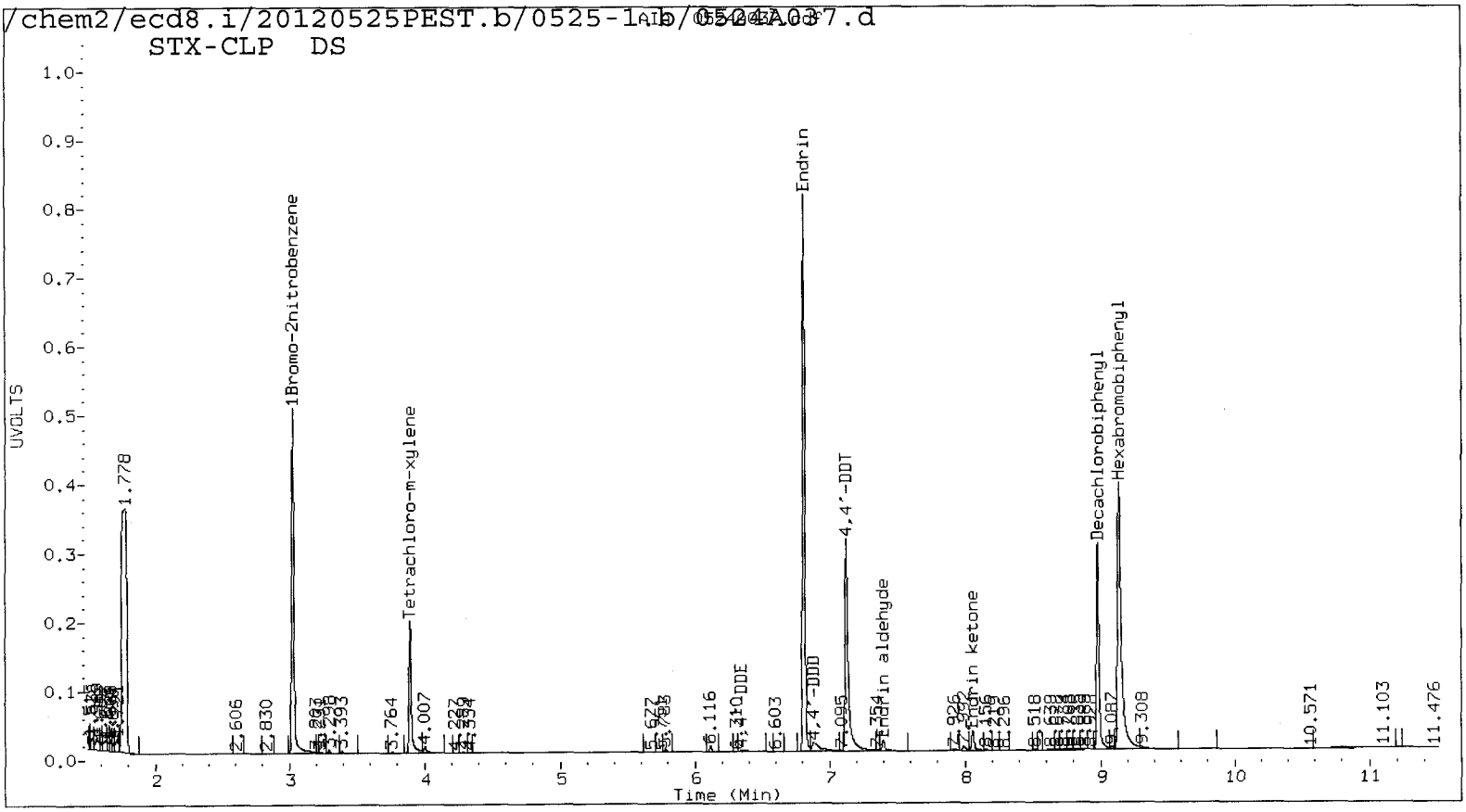
GC Column: STX-CLP2 ID: 0.53(mm)

| COMPOUND | RT | AREA |
|---|---|---|
| 4,4'-DDE | 7.031 | 38650 |
| Endrin | 7.492 | 2327518 |
| 4,4'-DDD | 7.572 | 172813 |
| 4,4'-DDT | 7.863 | 1769991 |
| Endrin ketone | 8.784 | 132641 |
| Endrin aldehyde | 8.001 | 93851 |

DDT Percent Breakdown = 10.7 %
((38650+172813) * 100)/(38650+172813+1769991)

Endrin Percent Breakdown = 8.9 %
((93851+132641) * 100)/(93851+132641+2327518)

Form VII Pest-1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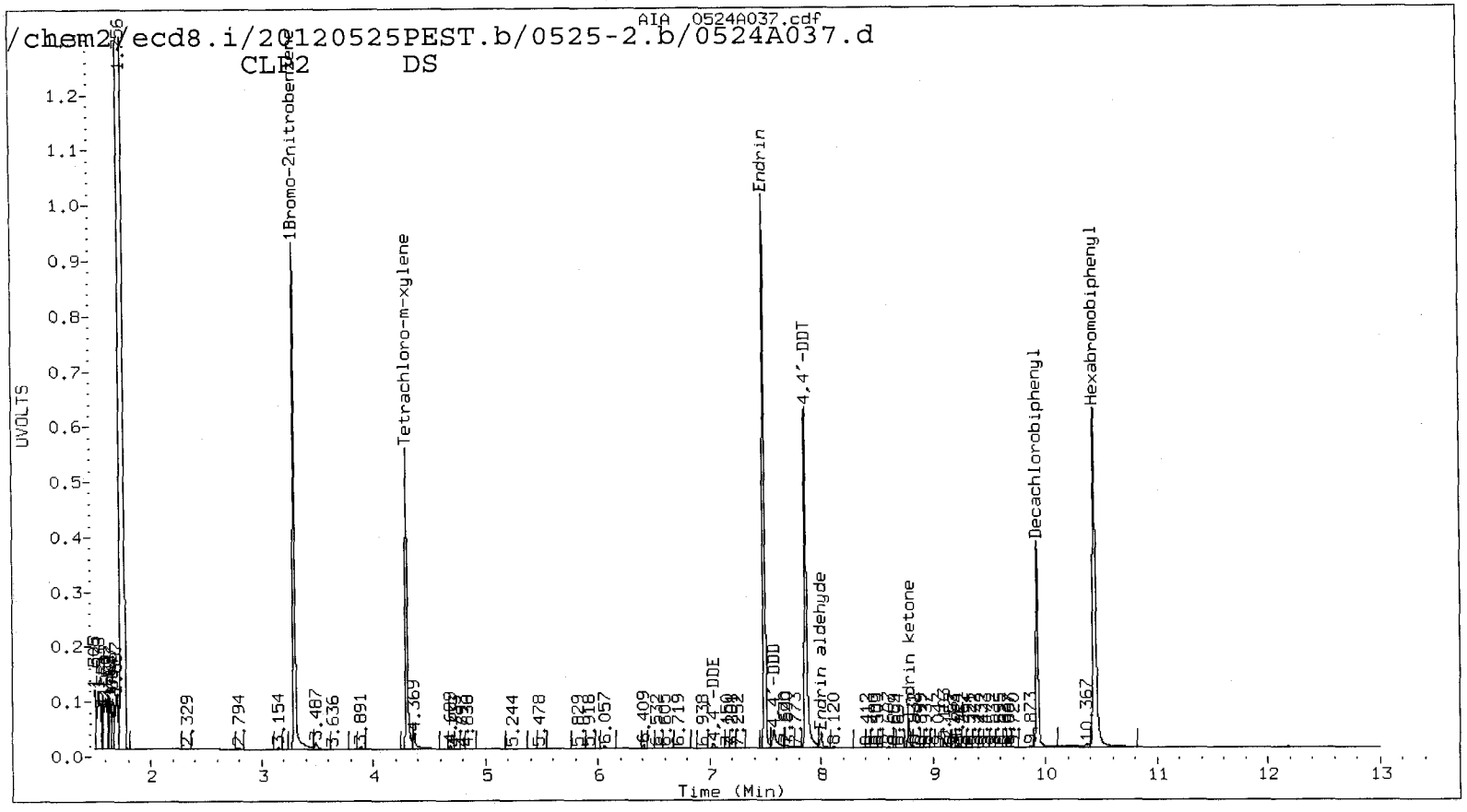
STX-CLP DS
UV0LTS
1.778
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)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CLP2 DS
UV0LTS
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)

7E

# 8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20120525PEST

Analysis Date: 26-MAY-2012 05:41 Init. Calib. Date: 25-MAY-2012

GC Column: STX-CLP1 ID: 0.53(mm)

| COMPOUND | RT | AREA |
|---|---|---|
| 4,4'-DDE | 6.341 | 6865 |
| Endrin | 6.814 | 2185317 |
| 4,4'-DDD | 6.880 | 108051 |
| 4,4'-DDT | 7.127 | 1438504 |
| Endrin ketone | 8.059 | 118280 |
| Endrin aldehyde | 7.399 | 35526 |

DDT Percent Breakdown = 7.4 %
((6865+108051) * 100)/(6865+108051+1438504)

Endrin Percent Breakdown = 6.6 %
((35526+118280) * 100)/(35526+118280+2185317)

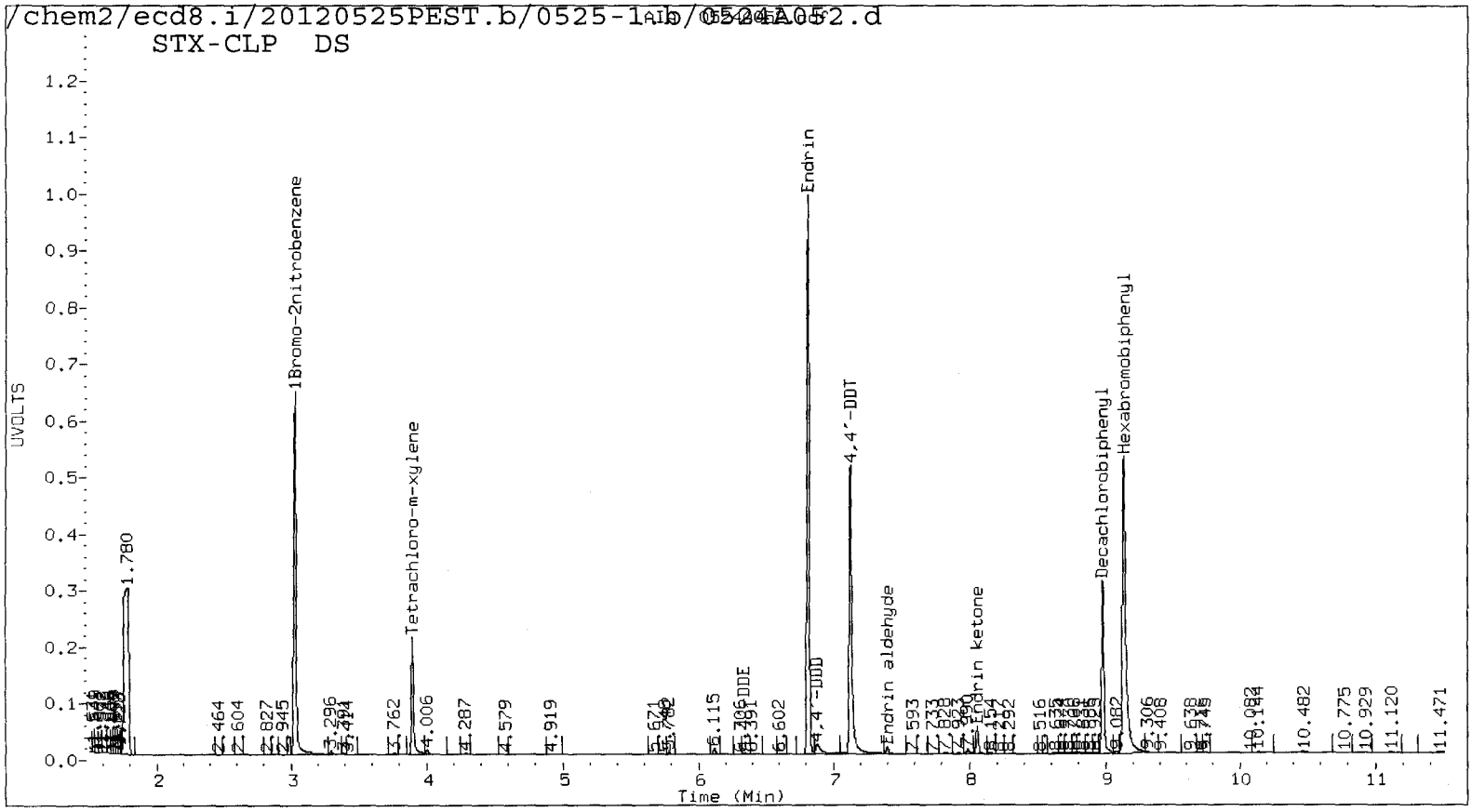
GC Column: STX-CLP2 ID: 0.53(mm)

| COMPOUND | RT | AREA |
|---|---|---|
| 4,4'-DDE | 7.027 | 18118 |
| Endrin | 7.491 | 2038815 |
| 4,4'-DDD | 7.569 | 136564 |
| 4,4'-DDT | 7.860 | 1410778 |
| Endrin ketone | 8.783 | 118093 |
| Endrin aldehyde | 8.000 | 51598 |

DDT Percent Breakdown = 9.9 %
((18118+136564) * 100)/(18118+136564+1410778)

Endrin Percent Breakdown = 7.7 %
((51598+118093) * 100)/(51598+118093+2038815)

Form VII Pest-1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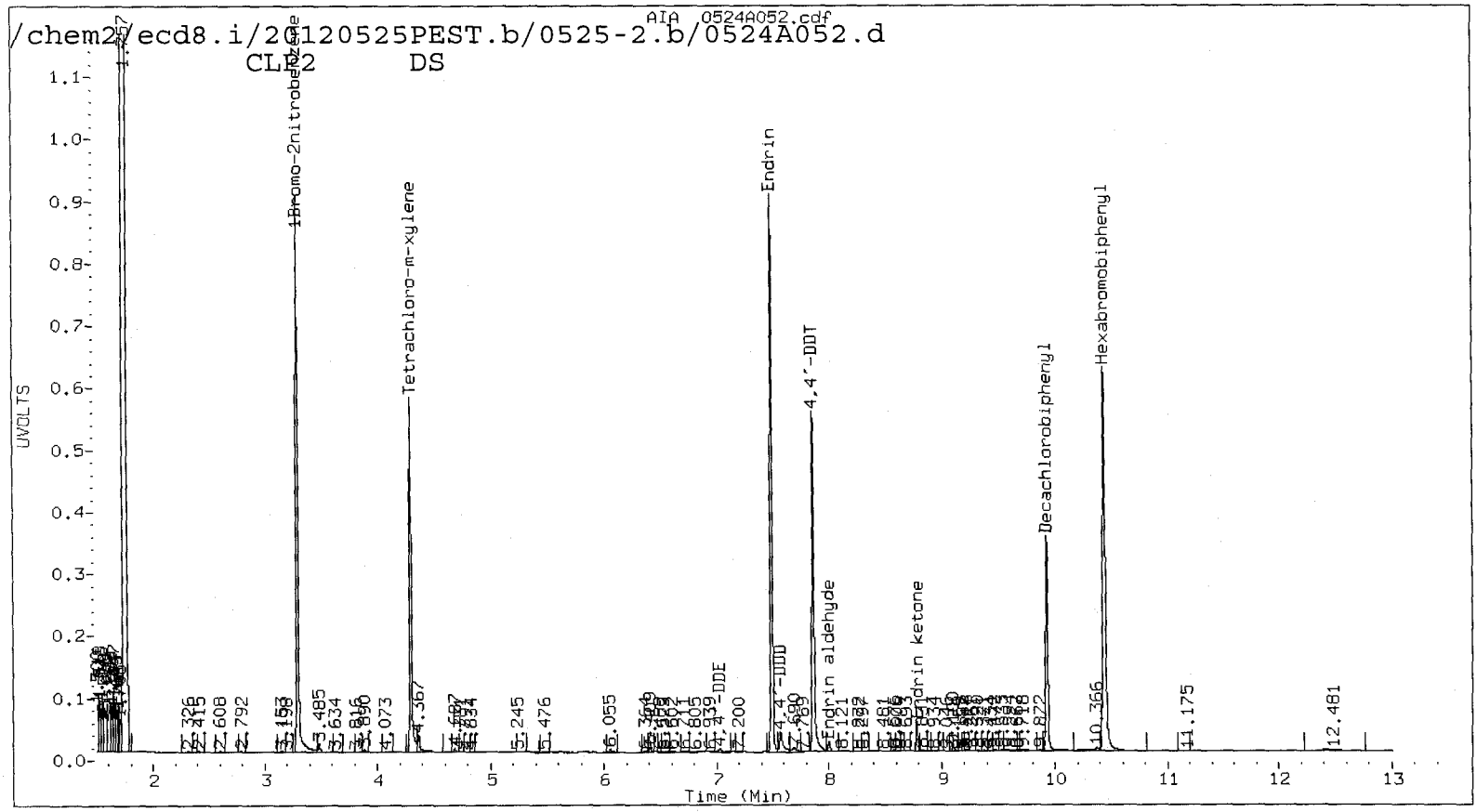
AIA 0524A052.cdf
STX-CLP DS
UVOLTS
Time (Min)
1.780
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl


/chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A052.d
AIA 0524A052.cdf
CLP2 DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

7E

# 8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 05/25/12

Lab Ccal ID: INDAE  Date/Time Analyzed: 05/26/12,0600

| PEST MIX COMPOUND | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D | |
|---|---|---|---|---|---|---|---|
| alpha-BHC | 4.45 | 4.40 | 4.50 | 21.2 | 20.0 | 6.2 | |
| beta-BHC | 4.85 | 4.80 | 4.90 | 19.1 | 20.0 | -4.4 | |
| delta-BHC | 5.01 | 4.96 | 5.06 | 21.3 | 20.0 | 6.7 | |
| gamma-BHC (Lindane) | 4.76 | 4.71 | 4.81 | 22.4 | 20.0 | 11.8 | |
| Heptachlor | 5.20 | 5.15 | 5.25 | 23.0 | 20.0 | 15.1 | |
| Aldrin | 5.48 | 5.43 | 5.53 | 20.9 | 20.0 | 4.7 | |
| Heptachlor epoxide b | 6.03 | 5.98 | 6.08 | 20.4 | 20.0 | 2.1 | |
| Endosulfan I | 6.39 | 6.33 | 6.43 | 17.9 | 20.0 | -10.4 | |
| Dieldrin | 6.60 | 6.55 | 6.65 | 43.4 | 40.0 | 8.4 | |
| 4,4'-DDE | 6.34 | 6.29 | 6.39 | 33.5 | 40.0 | -16.3 | |
| Endrin | 6.81 | 6.76 | 6.86 | 47.4 | 40.0 | 18.5 | |
| Endosulfan II | 7.02 | 6.97 | 7.07 | 45.9 | 40.0 | 14.7 | |
| 4,4'-DDD | 6.88 | 6.82 | 6.92 | 43.2 | 40.0 | 8.0 | |
| Endosulfan sulfate | 7.80 | 7.75 | 7.85 | 46.4 | 40.0 | 15.9 | |
| 4,4'-DDT | 7.13 | 7.07 | 7.17 | 44.1 | 40.0 | 10.2 | |
| Methoxychlor | 7.57 | 7.51 | 7.61 | 225.6 | 200.0 | 12.8 | |
| Endrin ketone | 8.06 | 8.01 | 8.11 | 46.9 | 40.0 | 17.3 | |
| Endrin aldehyde | 7.40 | 7.35 | 7.45 | 44.0 | 40.0 | 10.0 | |
| gamma-Chlordane | 6.14 | 6.09 | 6.19 | 21.2 | 20.0 | 6.0 | |
| alpha-Chlordane | 6.26 | 6.21 | 6.31 | 19.9 | 20.0 | -0.5 | |
| Hexachlorobutadiene | 1.73 | 1.68 | 1.78 | 16.9 | 20.0 | -15.4 | |
| Hexachlorobenzene | 4.29 | 4.24 | 4.34 | 15.6 | 20.0 | -22.1 | <- |
| Tetrachloro-m-xylene | 3.90 | 3.85 | 3.95 | 31.5 | 40.0 | -21.4 | <- |
| Decachlorobiphenyl | 8.98 | 8.93 | 9.03 | 32.1 | 40.0 | -19.9 | |

FORM VII PEST-2

# 8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 05/25/12

Lab Ccal ID: INDAE  Date/Time Analyzed: 05/26/12,0600

| PEST MIX COMPOUND | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| alpha-BHC | 4.93 | 4.88 | 4.98 | 20.6 | 20.0 | 3.2 |
| beta-BHC | 5.37 | 5.32 | 5.42 | 19.0 | 20.0 | -5.0 |
| delta-BHC | 5.65 | 5.60 | 5.70 | 21.7 | 20.0 | 8.4 |
| gamma-BHC (Lindane) | 5.28 | 5.23 | 5.33 | 20.6 | 20.0 | 2.8 |
| Heptachlor | 5.71 | 5.66 | 5.76 | 20.0 | 20.0 | -0.0 |
| Aldrin | 6.03 | 5.98 | 6.08 | 19.6 | 20.0 | -2.0 |
| Heptachlor epoxide b | 6.57 | 6.52 | 6.62 | 18.3 | 20.0 | -8.4 |
| Endosulfan I | 6.94 | 6.89 | 6.99 | 18.1 | 20.0 | -9.5 |
| Dieldrin | 7.20 | 7.15 | 7.25 | 36.6 | 40.0 | -8.5 |
| 4,4'-DDE | 7.03 | 6.97 | 7.07 | 37.1 | 40.0 | -7.3 |
| Endrin | 7.49 | 7.44 | 7.54 | 36.4 | 40.0 | -9.1 |
| Endosulfan II | 7.69 | 7.64 | 7.74 | 38.5 | 40.0 | -3.8 |
| 4,4'-DDD | 7.57 | 7.51 | 7.61 | 37.8 | 40.0 | -5.4 |
| Endosulfan sulfate | 8.26 | 8.21 | 8.31 | 38.6 | 40.0 | -3.6 |
| 4,4'-DDT | 7.86 | 7.81 | 7.91 | 43.2 | 40.0 | 7.9 |
| Methoxychlor | 8.49 | 8.44 | 8.54 | 197.8 | 200.0 | -1.1 |
| Endrin ketone | 8.78 | 8.73 | 8.83 | 36.8 | 40.0 | -8.0 |
| Endrin aldehyde | 8.00 | 7.95 | 8.05 | 36.1 | 40.0 | -9.8 |
| gamma-Chlordane | 6.75 | 6.70 | 6.80 | 19.0 | 20.0 | -5.0 |
| alpha-Chlordane | 6.88 | 6.83 | 6.93 | 18.5 | 20.0 | -7.4 |
| Hexachlorobutadiene | 2.04 | 1.99 | 2.09 | 16.7 | 20.0 | -16.4 |
| Hexachlorobenzene | 4.79 | 4.74 | 4.84 | 16.6 | 20.0 | -17.1 |
| Tetrachloro-m-xylene | 4.30 | 4.25 | 4.35 | 33.9 | 40.0 | -15.4 |
| Decachlorobiphenyl | 9.92 | 9.87 | 9.97 | 33.1 | 40.0 | -17.1 |

7E

# 8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20120525PEST

Analysis Date: 26-MAY-2012 10:24 Init. Calib. Date: 25-MAY-2012

GC Column: STX-CLP1 ID: 0.53(mm)

| COMPOUND | RT | AREA |
|---|---|---|
| 4,4'-DDE | 6.343 | 14333 |
| Endrin | 6.815 | 2221952 |
| 4,4'-DDD | 6.883 | 323880 |
| 4,4'-DDT | 7.129 | 890499 |
| Endrin ketone | 8.060 | 124457 |
| Endrin aldehyde | 7.400 | 33019 |

DDT Percent Breakdown = 27.5 %
((14333+323880) * 100)/(14333+323880+890499)

Endrin Percent Breakdown = 6.6 %
((33019+124457) * 100)/(33019+124457+2221952)

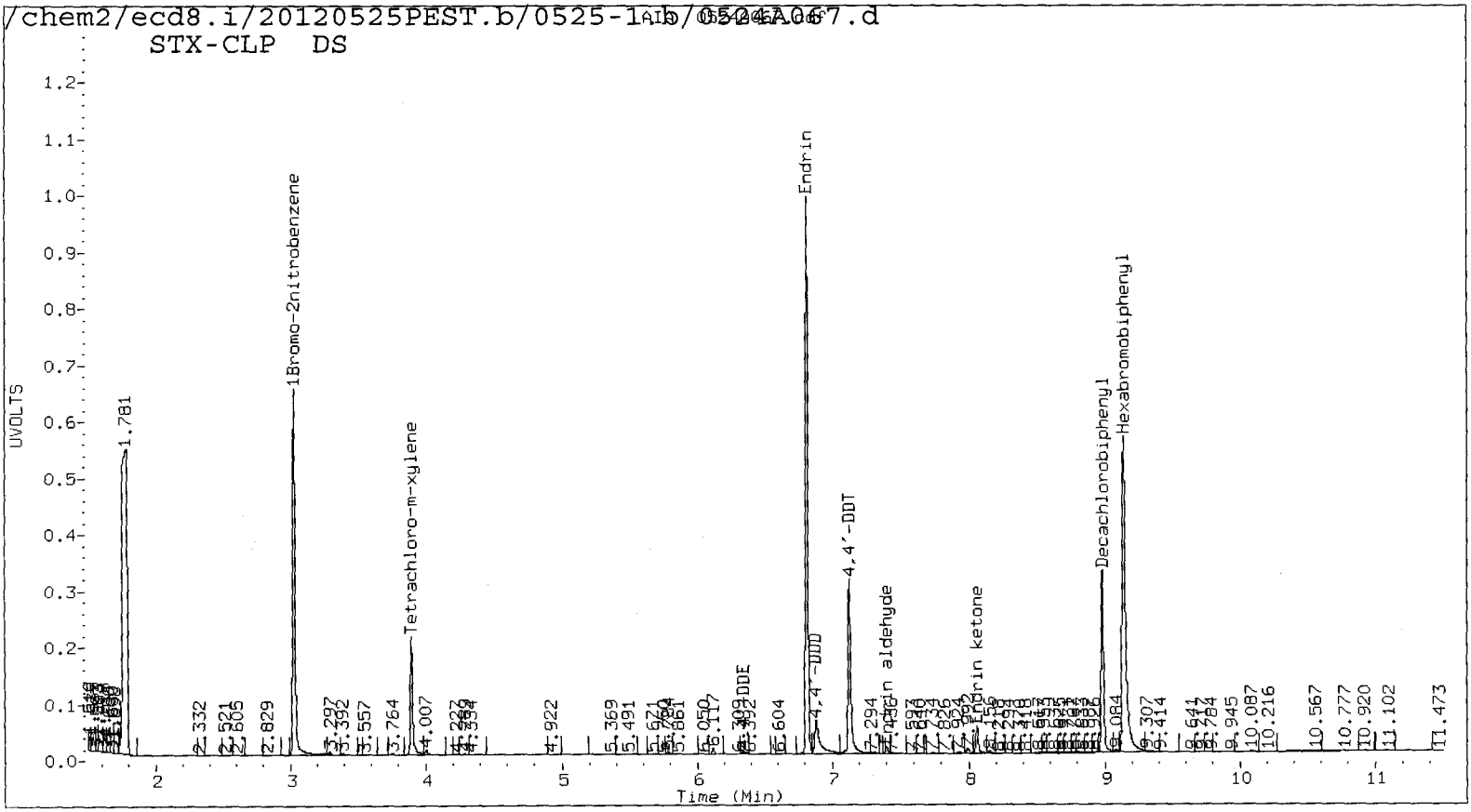
GC Column: STX-CLP2 ID: 0.53(mm)

| COMPOUND | RT | AREA |
|---|---|---|
| 4,4'-DDE | 7.028 | 38103 |
| Endrin | 7.492 | 2227506 |
| 4,4'-DDD | 7.570 | 502198 |
| 4,4'-DDT | 7.862 | 789110 |
| Endrin ketone | 8.783 | 128470 |
| Endrin aldehyde | 8.002 | 51421 |

DDT Percent Breakdown = 40.6 %
((38103+502198) * 100)/(38103+502198+789110)

Endrin Percent Breakdown = 7.5 %
((51421+128470) * 100)/(51421+128470+2227506)

Form VII Pest-1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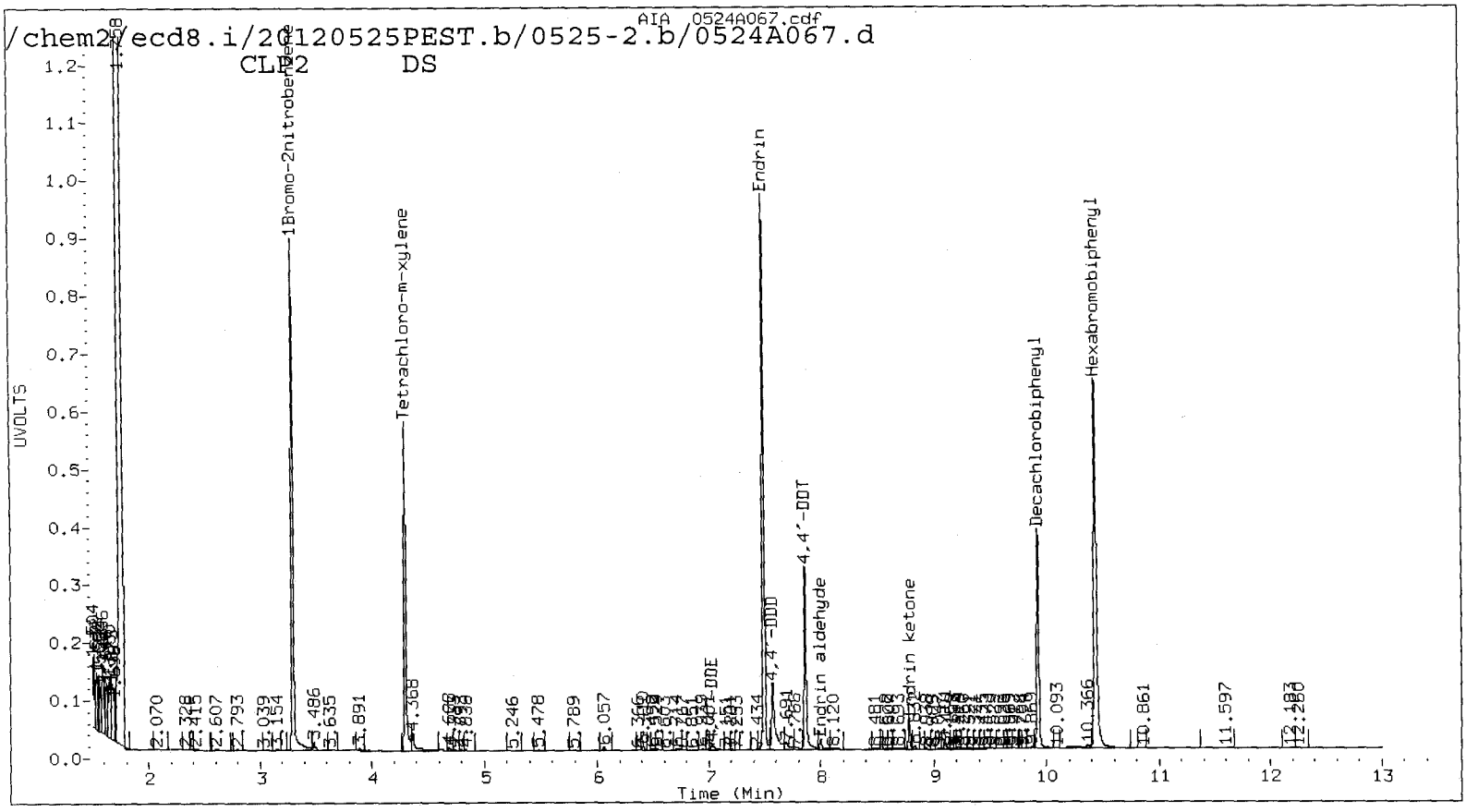
STX-CLP DS
UVOLTS
Time (Min)
1.781
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDD
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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CLP2 DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDD
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

7E

# 8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 05/25/12

Lab Ccal ID: INDAE  Date/Time Analyzed: 05/26/12,1043

| PEST MIX COMPOUND | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D | |
|---|---|---|---|---|---|---|---|
| alpha-BHC | 4.45 | 4.40 | 4.50 | 18.9 | 20.0 | -5.6 | |
| beta-BHC | 4.85 | 4.80 | 4.90 | 16.2 | 20.0 | -19.2 | |
| delta-BHC | 5.01 | 4.96 | 5.06 | 17.5 | 20.0 | -12.4 | |
| gamma-BHC (Lindane) | 4.76 | 4.71 | 4.81 | 19.4 | 20.0 | -3.2 | |
| Heptachlor | 5.20 | 5.15 | 5.25 | 19.7 | 20.0 | -1.7 | |
| Aldrin | 5.48 | 5.43 | 5.53 | 18.5 | 20.0 | -7.3 | |
| Heptachlor epoxide b | 6.03 | 5.98 | 6.08 | 18.2 | 20.0 | -9.0 | |
| Endosulfan I | 6.39 | 6.33 | 6.43 | 16.0 | 20.0 | -19.8 | |
| Dieldrin | 6.60 | 6.55 | 6.65 | 38.7 | 40.0 | -3.2 | |
| 4,4'-DDE | 6.34 | 6.29 | 6.39 | 29.4 | 40.0 | -26.6 | <- |
| Endrin | 6.81 | 6.76 | 6.86 | 42.5 | 40.0 | 6.2 | |
| Endosulfan II | 7.02 | 6.97 | 7.07 | 41.8 | 40.0 | 4.6 | |
| 4,4'-DDD | 6.88 | 6.82 | 6.92 | 44.3 | 40.0 | 10.7 | |
| Endosulfan sulfate | 7.80 | 7.75 | 7.85 | 41.6 | 40.0 | 4.0 | |
| 4,4'-DDT | 7.13 | 7.07 | 7.17 | 32.4 | 40.0 | -18.9 | |
| Methoxychlor | 7.56 | 7.51 | 7.61 | 186.3 | 200.0 | -6.8 | |
| Endrin ketone | 8.06 | 8.01 | 8.11 | 39.9 | 40.0 | -0.1 | |
| Endrin aldehyde | 7.40 | 7.35 | 7.45 | 38.7 | 40.0 | -3.2 | |
| gamma-Chlordane | 6.14 | 6.09 | 6.19 | 18.8 | 20.0 | -6.2 | |
| alpha-Chlordane | 6.26 | 6.21 | 6.31 | 17.7 | 20.0 | -11.6 | |
| Hexachlorobutadiene | 1.73 | 1.68 | 1.78 | 14.8 | 20.0 | -26.2 | <- |
| Hexachlorobenzene | 4.29 | 4.24 | 4.34 | 13.6 | 20.0 | -31.9 | <- |
| Tetrachloro-m-xylene | 3.90 | 3.85 | 3.95 | 26.9 | 40.0 | -32.8 | <- |
| Decachlorobiphenyl | 8.98 | 8.93 | 9.03 | 29.5 | 40.0 | -26.3 | <- |

FORM VII PEST-2

7E

# 8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 05/25/12

Lab Ccal ID: INDAE  Date/Time Analyzed: 05/26/12,1043

| PEST MIX COMPOUND | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ug/L) | NOM AMOUNT (ug/L) | %D | |
|---|---|---|---|---|---|---|---|
| alpha-BHC | 4.93 | 4.88 | 4.98 | 19.7 | 20.0 | -1.6 | |
| beta-BHC | 5.37 | 5.32 | 5.42 | 18.5 | 20.0 | -7.7 | |
| delta-BHC | 5.66 | 5.60 | 5.70 | 19.7 | 20.0 | -1.6 | |
| gamma-BHC (Lindane) | 5.28 | 5.23 | 5.33 | 19.5 | 20.0 | -2.7 | |
| Heptachlor | 5.72 | 5.66 | 5.76 | 18.0 | 20.0 | -9.8 | |
| Aldrin | 6.03 | 5.98 | 6.08 | 18.9 | 20.0 | -5.7 | |
| Heptachlor epoxide b | 6.57 | 6.52 | 6.62 | 19.1 | 20.0 | -4.7 | |
| Endosulfan I | 6.94 | 6.89 | 6.99 | 18.8 | 20.0 | -5.9 | |
| Dieldrin | 7.20 | 7.15 | 7.25 | 38.9 | 40.0 | -2.6 | |
| 4,4'-DDE | 7.03 | 6.97 | 7.07 | 37.8 | 40.0 | -5.4 | |
| Endrin | 7.49 | 7.44 | 7.54 | 39.3 | 40.0 | -1.8 | |
| Endosulfan II | 7.69 | 7.64 | 7.74 | 41.7 | 40.0 | 4.3 | |
| 4,4'-DDD | 7.57 | 7.51 | 7.61 | 45.2 | 40.0 | 13.0 | |
| Endosulfan sulfate | 8.26 | 8.21 | 8.31 | 39.3 | 40.0 | -1.7 | |
| 4,4'-DDT | 7.86 | 7.81 | 7.91 | 24.2 | 40.0 | -39.6 | <- |
| Methoxychlor | 8.49 | 8.44 | 8.54 | 151.6 | 200.0 | -24.2 | <- |
| Endrin ketone | 8.78 | 8.73 | 8.83 | 35.6 | 40.0 | -10.9 | |
| Endrin aldehyde | 8.00 | 7.95 | 8.05 | 37.5 | 40.0 | -6.2 | |
| gamma-Chlordane | 6.75 | 6.70 | 6.80 | 18.7 | 20.0 | -6.5 | |
| alpha-Chlordane | 6.88 | 6.83 | 6.93 | 18.3 | 20.0 | -8.3 | |
| Hexachlorobutadiene | 2.04 | 1.99 | 2.09 | 16.3 | 20.0 | -18.7 | |
| Hexachlorobenzene | 4.79 | 4.74 | 4.84 | 15.9 | 20.0 | -20.4 | <- |
| Tetrachloro-m-xylene | 4.30 | 4.25 | 4.35 | 32.7 | 40.0 | -18.3 | |
| Decachlorobiphenyl | 9.93 | 9.87 | 9.97 | 34.3 | 40.0 | -14.3 | |

7E

# 8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS  ARI Job No.: 20120525PEST

Analysis Date: 26-MAY-2012 13:14  Init. Calib. Date: 25-MAY-2012

GC Column: STX-CLP1  ID: 0.53(mm)

| COMPOUND | RT | AREA |
|---|---|---|
| 4,4'-DDE | 6.342 | 16399 |
| Endrin | 6.816 | 2205755 |
| 4,4'-DDD | 6.882 | 433570 |
| 4,4'-DDT | 7.129 | 484753 |
| Endrin ketone | 8.060 | 126240 |
| Endrin aldehyde | 7.400 | 26710 |

DDT Percent Breakdown = 48.1 %
((16399+433570) * 100)/(16399+433570+484753)

Endrin Percent Breakdown = 6.5 %
((26710+126240) * 100)/(26710+126240+2205755)

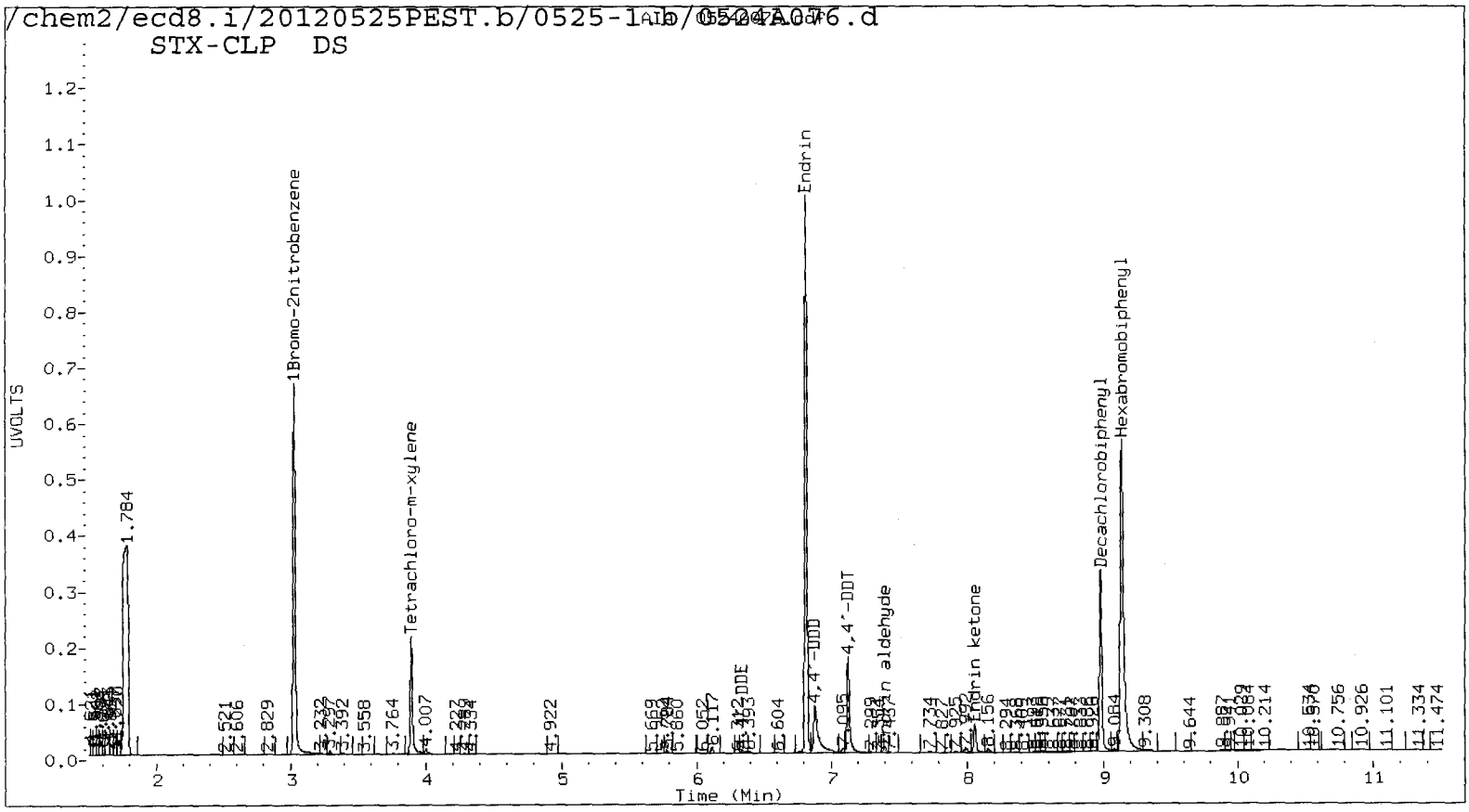
GC Column: STX-CLP2  ID: 0.53(mm)

| COMPOUND | RT | AREA |
|---|---|---|
| 4,4'-DDE | 7.028 | 49065 |
| Endrin | 7.493 | 2272594 |
| 4,4'-DDD | 7.571 | 665792 |
| 4,4'-DDT | 7.863 | 371333 |
| Endrin ketone | 8.784 | 133410 |
| Endrin aldehyde | 8.002 | 44980 |

DDT Percent Breakdown = 65.8 %
((49065+665792) * 100)/(49065+665792+371333)

Endrin Percent Breakdown = 7.3 %
((44980+133410) * 100)/(44980+133410+2272594)

Form VII Pest-1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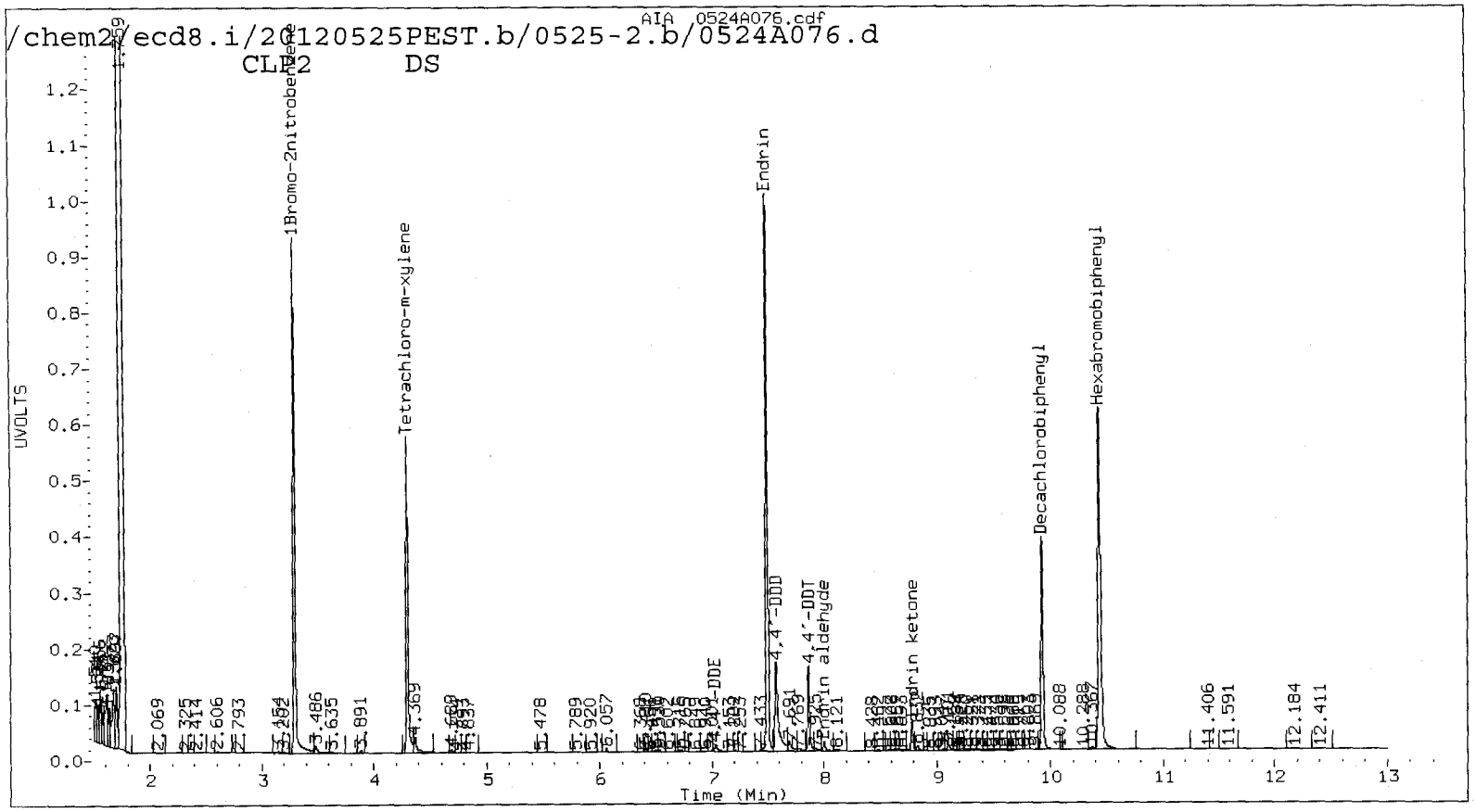
AIA 0524A076.cdf
STX-CLP DS
UVOLTS
Time (Min)
1.784
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDD
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0524A076.cdf
CLP2 DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDD
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

UU52:00174

7E

# 8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53 (mm)

Init. Calib. Date: 05/25/12

Lab Ccal ID: INDAE  Date/Time Analyzed: 05/26/12,1333

| PEST MIX COMPOUND | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D | |
|---|---|---|---|---|---|---|---|
| alpha-BHC | 4.45 | 4.40 | 4.50 | 19.3 | 20.0 | -3.6 | |
| beta-BHC | 4.85 | 4.80 | 4.90 | 17.1 | 20.0 | -14.6 | |
| delta-BHC | 5.01 | 4.96 | 5.06 | 17.8 | 20.0 | -11.1 | |
| gamma-BHC (Lindane) | 4.76 | 4.71 | 4.81 | 19.6 | 20.0 | -2.0 | |
| Heptachlor | 5.20 | 5.15 | 5.25 | 19.7 | 20.0 | -1.3 | |
| Aldrin | 5.48 | 5.43 | 5.53 | 19.3 | 20.0 | -3.3 | |
| Heptachlor epoxide b | 6.03 | 5.98 | 6.08 | 19.0 | 20.0 | -4.9 | |
| Endosulfan I | 6.39 | 6.33 | 6.43 | 16.7 | 20.0 | -16.6 | |
| Dieldrin | 6.60 | 6.55 | 6.65 | 40.5 | 40.0 | 1.4 | |
| 4,4'-DDE | 6.34 | 6.29 | 6.39 | 31.6 | 40.0 | -21.0 | <- |
| Endrin | 6.81 | 6.76 | 6.86 | 42.0 | 40.0 | 4.9 | |
| Endosulfan II | 7.02 | 6.97 | 7.07 | 41.3 | 40.0 | 3.1 | |
| 4,4'-DDD | 6.88 | 6.82 | 6.92 | 47.3 | 40.0 | 18.2 | |
| Endosulfan sulfate | 7.80 | 7.75 | 7.85 | 39.5 | 40.0 | -1.3 | |
| 4,4'-DDT | 7.13 | 7.07 | 7.17 | 18.7 | 40.0 | -53.2 | <- |
| Methoxychlor | 7.57 | 7.51 | 7.61 | 134.8 | 200.0 | -32.6 | <- |
| Endrin ketone | 8.06 | 8.01 | 8.11 | 35.1 | 40.0 | -12.3 | |
| Endrin aldehyde | 7.40 | 7.35 | 7.45 | 37.8 | 40.0 | -5.4 | |
| gamma-Chlordane | 6.14 | 6.09 | 6.19 | 19.7 | 20.0 | -1.3 | |
| alpha-Chlordane | 6.26 | 6.21 | 6.31 | 18.5 | 20.0 | -7.3 | |
| Hexachlorobutadiene | 1.73 | 1.68 | 1.78 | 15.4 | 20.0 | -22.8 | <- |
| Hexachlorobenzene | 4.29 | 4.24 | 4.34 | 14.5 | 20.0 | -27.4 | <- |
| Tetrachloro-m-xylene | 3.90 | 3.85 | 3.95 | 27.8 | 40.0 | -30.4 | <- |
| Decachlorobiphenyl | 8.98 | 8.93 | 9.03 | 29.1 | 40.0 | -27.2 | <- |

7E

# 8081 PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53 (mm)

Init. Calib. Date: 05/25/12

Lab Ccal ID: INDAE  Date/Time Analyzed: 05/26/12,1333

| PEST MIX COMPOUND | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ug/L) | NOM AMOUNT (ug/L) | %D | |
|---|---|---|---|---|---|---|---|
| alpha-BHC | 4.93 | 4.88 | 4.98 | 19.5 | 20.0 | -2.7 | |
| beta-BHC | 5.37 | 5.32 | 5.42 | 18.3 | 20.0 | -8.5 | |
| delta-BHC | 5.66 | 5.60 | 5.70 | 18.9 | 20.0 | -5.4 | |
| gamma-BHC (Lindane) | 5.28 | 5.23 | 5.33 | 18.9 | 20.0 | -5.4 | |
| Heptachlor | 5.71 | 5.66 | 5.76 | 16.8 | 20.0 | -16.1 | |
| Aldrin | 6.03 | 5.98 | 6.08 | 18.7 | 20.0 | -6.4 | |
| Heptachlor epoxide b | 6.57 | 6.52 | 6.62 | 19.1 | 20.0 | -4.4 | |
| Endosulfan I | 6.94 | 6.89 | 6.99 | 18.8 | 20.0 | -6.2 | |
| Dieldrin | 7.20 | 7.15 | 7.25 | 39.3 | 40.0 | -1.7 | |
| 4,4'-DDE | 7.03 | 6.97 | 7.07 | 37.5 | 40.0 | -6.2 | |
| Endrin | 7.49 | 7.44 | 7.54 | 38.7 | 40.0 | -3.3 | |
| Endosulfan II | 7.69 | 7.64 | 7.74 | 42.6 | 40.0 | 6.5 | |
| 4,4'-DDD | 7.57 | 7.51 | 7.61 | 48.1 | 40.0 | 20.2 | <- |
| Endosulfan sulfate | 8.26 | 8.21 | 8.31 | 37.4 | 40.0 | -6.4 | |
| 4,4'-DDT | 7.86 | 7.81 | 7.91 | 11.4 | 40.0 | -71.4 | <- |
| Methoxychlor | 8.49 | 8.44 | 8.54 | 102.9 | 200.0 | -48.6 | <- |
| Endrin ketone | 8.78 | 8.73 | 8.83 | 30.7 | 40.0 | -23.2 | <- |
| Endrin aldehyde | 8.00 | 7.95 | 8.05 | 36.7 | 40.0 | -8.2 | |
| gamma-Chlordane | 6.75 | 6.70 | 6.80 | 18.6 | 20.0 | -6.8 | |
| alpha-Chlordane | 6.88 | 6.83 | 6.93 | 18.2 | 20.0 | -9.2 | |
| Hexachlorobutadiene | 2.04 | 1.99 | 2.09 | 15.9 | 20.0 | -20.3 | <- |
| Hexachlorobenzene | 4.79 | 4.74 | 4.84 | 15.6 | 20.0 | -21.8 | <- |
| Tetrachloro-m-xylene | 4.30 | 4.25 | 4.35 | 32.0 | 40.0 | -20.0 | |
| Decachlorobiphenyl | 9.93 | 9.87 | 9.97 | 33.3 | 40.0 | -16.6 | |

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53(mm)  Instrument ID: ECD6

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

| | | IS1 AREA | RT | IS2 AREA | RT |
|---|---|---|---|---|---|
| | ICAL MIDPT | 4841592 | 2.797 | 6506091 | 8.390 |
| | UPPER LIMIT | 9683184 | 2.847 | 13012182 | 8.440 |
| | LOWER LIMIT | 2420796 | 2.747 | 3253046 | 8.340 |

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME | IS1 AREA | RT | IS2 AREA | RT |
|---|---|---|---|---|---|---|---|---|
| 01 | | DS | 05/23/12 | 1354 | 4833957 | 2.796 | 6341334 | 8.389 |
| 02 | ZZZZZ | ZZZZZ | 05/23/12 | 1412 | 4843734 | 2.796 | 6419201 | 8.389 |
| 03 | | INDAE | 05/23/12 | 1429 | 4841592 | 2.797 | 6506091 | 8.390 |
| 04 | | INDAA | 05/23/12 | 1447 | 4662553 | 2.796 | 6288842 | 8.390 |
| 05 | | INDAB | 05/23/12 | 1505 | 4901931 | 2.796 | 6700380 | 8.390 |
| 06 | | INDAC | 05/23/12 | 1523 | 5097624 | 2.796 | 6671309 | 8.390 |
| 07 | | INDAD | 05/23/12 | 1541 | 4846850 | 2.796 | 6537086 | 8.390 |
| 08 | | INDAF | 05/23/12 | 1558 | 4867401 | 2.797 | 6610265 | 8.390 |
| 09 | | INDAG | 05/23/12 | 1616 | 4944488 | 2.797 | 6853296 | 8.390 |
| 10 | ZZZZZ | ZZZZZ | 05/23/12 | 1634 | 4744837 | 2.796 | 6458219 | 8.388 |
| 11 | ZZZZZ | ZZZZZ | 05/23/12 | 1652 | 4813617 | 2.796 | 6719941 | 8.387 |
| 12 | | TOXAPH 2500 | 05/23/12 | 1710 | 4791619 | 2.796 | 6609775 | 8.391 |
| 13 | | WNDE | 05/23/12 | 1727 | 4835108 | 2.797 | 6638127 | 8.390 |
| 14 | | WNDA | 05/23/12 | 1745 | 4751592 | 2.796 | 6557663 | 8.390 |
| 15 | | WNDB | 05/23/12 | 1803 | 4969001 | 2.796 | 6623328 | 8.390 |
| 16 | | WNDC | 05/23/12 | 1821 | 5151057 | 2.796 | 6848602 | 8.390 |
| 17 | | WNDD | 05/23/12 | 1839 | 5139758 | 2.796 | 6817214 | 8.389 |
| 18 | | WNDF | 05/23/12 | 1856 | 4866835 | 2.796 | 6708266 | 8.390 |
| 19 | | WNDG | 05/23/12 | 1914 | 4729578 | 2.796 | 6555048 | 8.389 |
| 20 | ZZZZZ | ZZZZZ | 05/23/12 | 1932 | 4525140 | 2.796 | 6284187 | 8.390 |
| 21 | ZZZZZ | ZZZZZ | 05/23/12 | 1950 | 4534400 | 2.796 | 6568755 | 8.387 |
| 22 | ZZZZZ | ZZZZZ | 05/23/12 | 2008 | 4602996 | 2.797 | 6326954 | 8.392 |
| 23 | ZZZZZ | ZZZZZ | 05/23/12 | 2025 | 4562991 | 2.796 | 6285326 | 8.393 |
| 24 | | DS | 05/25/12 | 0223 | 5067401 | 2.797 | 6720149 | 8.389 |
| 25 | | INDAE | 05/25/12 | 0241 | 4955560 | 2.797 | 6854371 | 8.391 |
| 26 | | TOXAPH 2500 | 05/25/12 | 0259 | 4636797 | 2.796 | 6709612 | 8.391 |
| 27 | | WNDE | 05/25/12 | 0317 | 5180137 | 2.797 | 7007027 | 8.390 |
| 28 | UU52MBS1 | UU52MBS1 | 05/25/12 | 0334 | 4647725 | 2.794 | 6849218 | 8.387 |
| 29 | UU52LCSS1 | UU52LCSS1 | 05/25/12 | 0352 | 4684042 | 2.794 | 6674886 | 8.387 |
| 30 | MS001-SS-120 | UU52A | 05/25/12 | 0410 | 4448672 | 2.796 | 6207764 | 8.387 |
| 31 | MS101-SS-120 | UU52B | 05/25/12 | 0428 | 4445233 | 2.796 | 6264658 | 8.388 |
| 32 | MS002-SS-120 | UU52C | 05/25/12 | 0446 | 4528822 | 2.796 | 6642351 | 8.389 |
| 33 | MS002-SS-120 | UU52CMS | 05/25/12 | 0503 | 4545279 | 2.796 | 6683385 | 8.390 |
| 34 | MS002-SS-120 | UU52CMSD | 05/25/12 | 0521 | 4553875 | 2.797 | 6751377 | 8.390 |
| 35 | MS003-SS-120 | UU52D | 05/25/12 | 0539 | 4611525 | 2.796 | 6596017 | 8.388 |

IS1 = 1-Bromo-2-Nitrobenzene  RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53(mm)  Instrument ID: ECD6

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

| | | | | | IS1 AREA | RT | IS2 AREA | RT |
|---|---|---|---|---|---|---|---|---|
| | | | | ICAL MIDPT | 4841592 | 2.797 | 6506091 | 8.390 |
| | | | | UPPER LIMIT | 9683184 | 2.847 | 13012182 | 8.440 |
| | | | | LOWER LIMIT | 2420796 | 2.747 | 3253046 | 8.340 |
| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME | IS1 AREA | RT | IS2 AREA | RT |
| 36 | MS004-SS-120 | UU52E | 05/25/12 | 0557 | 4552402 | 2.796 | 6562955 | 8.387 |
| 37 | MS005-SS-120 | UU52F | 05/25/12 | 0615 | 4643697 | 2.796 | 6659647 | 8.387 |
| 38 | ZZZZZ | ZZZZZ | 05/25/12 | 0632 | 4577913 | 2.796 | 6465101 | 8.391 |
| 39 | ZZZZZ | ZZZZZ | 05/25/12 | 0650 | 4432627 | 2.796 | 6265518 | 8.390 |
| 40 | | DS | 05/25/12 | 0708 | 5021107 | 2.796 | 6732865 | 8.389 |
| 41 | | INDAE | 05/25/12 | 0726 | 5028638 | 2.796 | 7030803 | 8.389 |
| 42 | | TOXAPH 2500 | 05/25/12 | 0744 | 4747596 | 2.796 | 6884033 | 8.390 |
| 43 | | WNDE | 05/25/12 | 0801 | 4983028 | 2.796 | 7160490 | 8.389 |
| 44 | MS006-SS-120 | UU52G | 05/25/12 | 0819 | 4585680 | 2.794 | 6127046 | 8.384 |
| 45 | MS007-SS-120 | UU52H | 05/25/12 | 0837 | 4472999 | 2.796 | 6150437 | 8.387 |
| 46 | MS008-SS-120 | UU52I | 05/25/12 | 0855 | 4586393 | 2.796 | 6672960 | 8.389 |
| 47 | MS009-SS-120 | UU52J | 05/25/12 | 0913 | 4922422 | 2.796 | 6706260 | 8.389 |
| 48 | MS009-SS-120 | UU52J | 05/25/12 | 0931 | 4668866 | 2.796 | 6624396 | 8.387 |
| 49 | ZZZZZ | ZZZZZ | 05/25/12 | 0948 | 5079021 | 2.796 | 6849629 | 8.390 |
| 50 | ZZZZZ | ZZZZZ | 05/25/12 | 1006 | 4743284 | 2.796 | 6754121 | 8.389 |
| 51 | | DS | 05/25/12 | 1024 | 5112143 | 2.796 | 7365911 | 8.389 |
| 52 | | INDAE | 05/25/12 | 1042 | 5494582 | 2.797 | 7700454 | 8.389 |

IS1 = 1-Bromo-2-Nitrobenzene  RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53(mm)  Instrument ID: ECD6

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

| | | | | | IS1 AREA | RT | IS2 AREA | RT |
|---|---|---|---|---|---|---|---|---|
| | | | | ICAL MIDPT | 16226991 | 2.855 | 8472750 | 9.355 |
| | | | | UPPER LIMIT | 32453982 | 2.905 | 16945500 | 9.405 |
| | | | | LOWER LIMIT | 8113496 | 2.805 | 4236375 | 9.305 |
| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME | IS1 AREA | RT | IS2 AREA | RT |
| 01 | | DS | 05/23/12 | 1354 | 15824122 | 2.854 | 8060309 | 9.355 |
| 02 | ZZZZZ | ZZZZZ | 05/23/12 | 1412 | 16148392 | 2.854 | 8335866 | 9.355 |
| 03 | | INDAE | 05/23/12 | 1429 | 16226991 | 2.855 | 8472750 | 9.355 |
| 04 | | INDAA | 05/23/12 | 1447 | 16229726 | 2.855 | 8157989 | 9.355 |
| 05 | | INDAB | 05/23/12 | 1505 | 16989055 | 2.855 | 8678314 | 9.355 |
| 06 | | INDAC | 05/23/12 | 1523 | 15963413 | 2.855 | 8650070 | 9.355 |
| 07 | | INDAD | 05/23/12 | 1541 | 16200736 | 2.855 | 8616973 | 9.355 |
| 08 | | INDAF | 05/23/12 | 1558 | 16682441 | 2.855 | 8629150 | 9.355 |
| 09 | | INDAG | 05/23/12 | 1616 | 15540466 | 2.855 | 8844674 | 9.355 |
| 10 | ZZZZZ | ZZZZZ | 05/23/12 | 1634 | 15077669 | 2.854 | 8393228 | 9.354 |
| 11 | ZZZZZ | ZZZZZ | 05/23/12 | 1652 | 15147530 | 2.854 | 8680249 | 9.354 |
| 12 | | TOXAPH 2500 | 05/23/12 | 1710 | 16477086 | 2.855 | 8490411 | 9.356 |
| 13 | | WNDE | 05/23/12 | 1727 | 16832865 | 2.855 | 8707514 | 9.355 |
| 14 | | WNDA | 05/23/12 | 1745 | 16405407 | 2.854 | 8503685 | 9.355 |
| 15 | | WNDB | 05/23/12 | 1803 | 16776826 | 2.855 | 8683498 | 9.355 |
| 16 | | WNDC | 05/23/12 | 1821 | 17441474 | 2.855 | 9031272 | 9.355 |
| 17 | | WNDD | 05/23/12 | 1839 | 16765159 | 2.855 | 8985763 | 9.355 |
| 18 | | WNDF | 05/23/12 | 1856 | 17245332 | 2.855 | 8983150 | 9.355 |
| 19 | | WNDG | 05/23/12 | 1914 | 15111899 | 2.855 | 8767543 | 9.355 |
| 20 | ZZZZZ | ZZZZZ | 05/23/12 | 1932 | 16193143 | 2.855 | 8526437 | 9.356 |
| 21 | ZZZZZ | ZZZZZ | 05/23/12 | 1950 | 15076973 | 2.855 | 8649007 | 9.354 |
| 22 | ZZZZZ | ZZZZZ | 05/23/12 | 2008 | 16499244 | 2.855 | 8801559 | 9.357 |
| 23 | ZZZZZ | ZZZZZ | 05/23/12 | 2025 | 15945583 | 2.855 | 8717161 | 9.357 |
| 24 | | DS | 05/25/12 | 0223 | 18680732 | 2.855 | 10341957 | 9.353 |
| 25 | | INDAE | 05/25/12 | 0241 | 18405466 | 2.854 | 10501931 | 9.354 |
| 26 | | TOXAPH 2500 | 05/25/12 | 0259 | 16731154 | 2.854 | 9993164 | 9.354 |
| 27 | | WNDE | 05/25/12 | 0317 | 19009774 | 2.855 | 10683549 | 9.354 |
| 28 | UU52MBS1 | UU52MBS1 | 05/25/12 | 0334 | 15596280 | 2.852 | 9694026 | 9.351 |
| 29 | UU52LCSS1 | UU52LCSS1 | 05/25/12 | 0352 | 15002976 | 2.852 | 9418383 | 9.352 |
| 30 | MS001-SS-120 | UU52A | 05/25/12 | 0410 | 15927983 | 2.854 | 9456432 | 9.352 |
| 31 | MS101-SS-120 | UU52B | 05/25/12 | 0428 | 16124314 | 2.854 | 9599569 | 9.352 |
| 32 | MS002-SS-120 | UU52C | 05/25/12 | 0446 | 17351744 | 2.854 | 10223208 | 9.353 |
| 33 | MS002-SS-120 | UU52CMS | 05/25/12 | 0503 | 16507021 | 2.854 | 10340179 | 9.353 |
| 34 | MS002-SS-120 | UU52CMSD | 05/25/12 | 0521 | 17532552 | 2.854 | 10481320 | 9.354 |
| 35 | MS003-SS-120 | UU52D | 05/25/12 | 0539 | 16504915 | 2.853 | 10155427 | 9.351 |

IS1 = 1-Bromo-2-Nitrobenzene  RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53(mm)  Instrument ID: ECD6

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

| | | | | | IS1 AREA | RT | IS2 AREA | RT |
|---|---|---|---|---|---|---|---|---|
| | | | | ICAL MIDPT | 16226991 | 2.855 | 8472750 | 9.355 |
| | | | | UPPER LIMIT | 32453982 | 2.905 | 16945500 | 9.405 |
| | | | | LOWER LIMIT | 8113496 | 2.805 | 4236375 | 9.305 |
| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME | IS1 AREA | RT | IS2 AREA | RT |
| 36 | MS004-SS-120 | UU52E | 05/25/12 | 0557 | 16594344 | 2.854 | 10154249 | 9.351 |
| 37 | MS005-SS-120 | UU52F | 05/25/12 | 0615 | 16826089 | 2.853 | 10193857 | 9.352 |
| 38 | ZZZZZ | ZZZZZ | 05/25/12 | 0632 | 18159212 | 2.854 | 10310274 | 9.353 |
| 39 | ZZZZZ | ZZZZZ | 05/25/12 | 0650 | 17581405 | 2.854 | 9901467 | 9.353 |
| 40 | | DS | 05/25/12 | 0708 | 18903117 | 2.854 | 10617170 | 9.353 |
| 41 | | INDAE | 05/25/12 | 0726 | 19069062 | 2.854 | 10992494 | 9.353 |
| 42 | | TOXAPH 2500 | 05/25/12 | 0744 | 17227818 | 2.854 | 10349014 | 9.353 |
| 43 | | WNDE | 05/25/12 | 0801 | 19228977 | 2.854 | 10987644 | 9.352 |
| 44 | MS006-SS-120 | UU52G | 05/25/12 | 0819 | 14867921 | 2.851 | 8841689 | 9.350 |
| 45 | MS007-SS-120 | UU52H | 05/25/12 | 0837 | 15828133 | 2.853 | 9340210 | 9.351 |
| 46 | MS008-SS-120 | UU52I | 05/25/12 | 0855 | 16288145 | 2.854 | 9809409 | 9.352 |
| 47 | MS009-SS-120 | UU52J | 05/25/12 | 0913 | 17116997 | 2.854 | 10340868 | 9.352 |
| 48 | MS009-SS-120 | UU52J | 05/25/12 | 0931 | 16138891 | 2.853 | 9808477 | 9.351 |
| 49 | ZZZZZ | ZZZZZ | 05/25/12 | 0948 | 17828740 | 2.854 | 10261474 | 9.353 |
| 50 | ZZZZZ | ZZZZZ | 05/25/12 | 1006 | 16049918 | 2.854 | 9959865 | 9.352 |
| 51 | | DS | 05/25/12 | 1024 | 18886232 | 2.853 | 10783171 | 9.351 |
| 52 | | INDAE | 05/25/12 | 1042 | 18934934 | 2.854 | 10762965 | 9.352 |

IS1 = 1-Bromo-2-Nitrobenzene  RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53(mm)  Instrument ID: ECD8

Init. Calib. Date: 05/25/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

| | | | IS1 AREA | RT | IS2 AREA | RT |
|---|---|---|---|---|---|---|
| | | ICAL MIDPT | 836406 | 3.028 | 1091107 | 9.138 |
| | | UPPER LIMIT | 1672812 | 3.078 | 2182214 | 9.188 |
| | | LOWER LIMIT | 418203 | 2.978 | 545554 | 9.088 |

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME | IS1 AREA | RT | IS2 AREA | RT |
|---|---|---|---|---|---|---|---|---|
| 01 | | DS | 05/25/12 | 1434 | 901464 | 3.029 | 1202286 | 9.136 |
| 02 | ZZZZZ | ZZZZZ | 05/25/12 | 1453 | 847392 | 3.028 | 1085236 | 9.137 |
| 03 | | INDAE | 05/25/12 | 1512 | 836406 | 3.028 | 1091107 | 9.138 |
| 04 | | INDAA | 05/25/12 | 1531 | 890226 | 3.029 | 1219330 | 9.138 |
| 05 | | INDAB | 05/25/12 | 1550 | 893818 | 3.029 | 1236219 | 9.137 |
| 06 | | INDAC | 05/25/12 | 1609 | 874235 | 3.029 | 1210916 | 9.137 |
| 07 | | INDAD | 05/25/12 | 1628 | 860198 | 3.029 | 1188090 | 9.138 |
| 08 | | INDAF | 05/25/12 | 1647 | 893087 | 3.029 | 1211217 | 9.138 |
| 09 | | IDNAG | 05/25/12 | 1706 | 878201 | 3.029 | 1148660 | 9.137 |
| 10 | ZZZZZ | ZZZZZ | 05/25/12 | 1725 | 932869 | 3.028 | 1276127 | 9.135 |
| 11 | ZZZZZ | ZZZZZ | 05/25/12 | 1743 | 892508 | 3.029 | 1283811 | 9.132 |
| 12 | | TOXAPH 2500 | 05/25/12 | 1802 | 916675 | 3.028 | 1213703 | 9.139 |
| 13 | | WNDE | 05/25/12 | 1821 | 834385 | 3.028 | 1140256 | 9.137 |
| 14 | | WNDA | 05/25/12 | 1840 | 917368 | 3.029 | 1270740 | 9.135 |
| 15 | | WNDB | 05/25/12 | 1859 | 954109 | 3.029 | 1337121 | 9.136 |
| 16 | | WNDC | 05/25/12 | 1918 | 1016707 | 3.029 | 1441035 | 9.136 |
| 17 | | WNDD | 05/25/12 | 1937 | 957727 | 3.030 | 1319523 | 9.139 |
| 18 | | WNDF | 05/25/12 | 1956 | 978714 | 3.030 | 1335739 | 9.140 |
| 19 | | WNDG | 05/25/12 | 2014 | 965763 | 3.030 | 1321879 | 9.138 |
| 20 | ZZZZZ | ZZZZZ | 05/25/12 | 2033 | 965292 | 3.031 | 1273565 | 9.140 |
| 21 | ZZZZZ | ZZZZZ | 05/25/12 | 2052 | 961204 | 3.029 | 1378461 | 9.135 |
| 22 | ZZZZZ | ZZZZZ | 05/25/12 | 2111 | 970671 | 3.030 | 1346689 | 9.142 |
| 23 | ZZZZZ | ZZZZZ | 05/25/12 | 2130 | 1032950 | 3.029 | 1375257 | 9.139 |
| 24 | | DS | 05/26/12 | 0541 | 1571633 | 3.029 | 1886951 | 9.137 |
| 25 | | INDAE | 05/26/12 | 0600 | 1236508 | 3.030 | 1519532 | 9.139 |
| 26 | UU52MBS1 | UU52MBS1 | 05/26/12 | 0619 | 1244861 | 3.032 | 1681868 | 9.133 |
| 27 | UU52LCSS1 | UU52LCSS1 | 05/26/12 | 0638 | 1615040 | 3.033 | 2179045 | 9.133 |
| 28 | MS001-SS-120 | UU52A | 05/26/12 | 0656 | 1465559 | 3.031 | 1634931 | 9.132 |
| 29 | MS101-SS-120 | UU52B | 05/26/12 | 0715 | 1509170 | 3.030 | 1715727 | 9.130 |
| 30 | MS002-SS-120 | UU52C | 05/26/12 | 0734 | 1537602 | 3.030 | 1774891 | 9.130 |
| 31 | MS002-SS-120 | UU52CMS | 05/26/12 | 0753 | 1542820 | 3.031 | 1764083 | 9.133 |
| 32 | MS002-SS-120 | UU52CMSD | 05/26/12 | 0812 | 1496969 | 3.032 | 1748676 | 9.134 |
| 33 | MS003-SS-120 | UU52D | 05/26/12 | 0831 | 1588078 | 3.031 | 1812949 | 9.131 |
| 34 | MS004-SS-120 | UU52E | 05/26/12 | 0850 | 1590197 | 3.032 | 1789929 | 9.133 |
| 35 | MS005-SS-120 | UU52F | 05/26/12 | 0909 | 1570030 | 3.031 | 1880039 | 9.133 |

IS1 = 1-Bromo-2-Nitrobenzene  RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits



FORM VIII PEST

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53(mm)  Instrument ID: ECD8

Init. Calib. Date: 05/25/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

| | | | | | IS1 AREA | RT | IS2 AREA | RT |
|---|---|---|---|---|---|---|---|---|
| | | | | ICAL MIDPT | 836406 | 3.028 | 1091107 | 9.138 |
| | | | | UPPER LIMIT | 1672812 | 3.078 | 2182214 | 9.188 |
| | | | | LOWER LIMIT | 418203 | 2.978 | 545554 | 9.088 |
| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME | IS1 AREA | RT | IS2 AREA | RT |
| 36 | ZZZZZ | ZZZZZ | 05/26/12 | 0927 | | | 11684* | 9.145 |
| 37 | ZZZZZ | ZZZZZ | 05/26/12 | 0946 | 1380566 | 3.030 | 1726411 | 9.137 |
| 38 | ZZZZZ | ZZZZZ | 05/26/12 | 1005 | 1524912 | 3.030 | 1921328 | 9.136 |
| 39 | | DS | 05/26/12 | 1024 | 1590828 | 3.031 | 2030288 | 9.139 |
| 40 | | INDAE | 05/26/12 | 1043 | 1381366 | 3.030 | 1717350 | 9.140 |
| 41 | MS006-SS-120 | UU52G | 05/26/12 | 1102 | 1403389 | 3.031 | 1599002 | 9.134 |
| 42 | MS007-SS-120 | UU52H | 05/26/12 | 1121 | 1485976 | 3.032 | 1657319 | 9.132 |
| 43 | MS008-SS-120 | UU52I | 05/26/12 | 1140 | 1468582 | 3.031 | 1761217 | 9.133 |
| 44 | MS009-SS-120 | UU52J | 05/26/12 | 1159 | 1504730 | 3.031 | 1763076 | 9.133 |
| 45 | ZZZZZ | ZZZZZ | 05/26/12 | 1218 | | | 13382* | 9.142 |
| 46 | ZZZZZ | ZZZZZ | 05/26/12 | 1236 | 1377891 | 3.030 | 1681139 | 9.136 |
| 47 | ZZZZZ | ZZZZZ | 05/26/12 | 1255 | 1522591 | 3.030 | 1953798 | 9.136 |
| 48 | | DS | 05/26/12 | 1314 | 1592001 | 3.031 | 2036474 | 9.138 |
| 49 | | INDAE | 05/26/12 | 1333 | 1321741 | 3.031 | 1733918 | 9.140 |

IS1 = 1-Bromo-2-Nitrobenzene  RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53(mm)  Instrument ID: ECD8

Init. Calib. Date: 05/25/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

| | | IS1 AREA | RT | IS2 AREA | RT |
|---|---|---|---|---|---|
| | ICAL MIDPT | 1248621 | 3.295 | 1339634 | 10.431 |
| | UPPER LIMIT | 2497242 | 3.345 | 2679268 | 10.481 |
| | LOWER LIMIT | 624310 | 3.245 | 669817 | 10.381 |

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME | IS1 AREA | RT | IS2 AREA | RT |
|---|---|---|---|---|---|---|---|---|
| 01 | | DS | 05/25/12 | 1434 | 1296044 | 3.295 | 1419721 | 10.432 |
| 02 | ZZZZZ | ZZZZZ | 05/25/12 | 1453 | 1216529 | 3.294 | 1332632 | 10.432 |
| 03 | | INDAE | 05/25/12 | 1512 | 1248621 | 3.295 | 1339634 | 10.431 |
| 04 | | INDAA | 05/25/12 | 1531 | 1353989 | 3.295 | 1476221 | 10.432 |
| 05 | | INDAB | 05/25/12 | 1550 | 1375217 | 3.295 | 1509551 | 10.433 |
| 06 | | INDAC | 05/25/12 | 1609 | 1357862 | 3.295 | 1497654 | 10.433 |
| 07 | | INDAD | 05/25/12 | 1628 | 1348234 | 3.295 | 1464302 | 10.433 |
| 08 | | INDAF | 05/25/12 | 1647 | 1357917 | 3.296 | 1544067 | 10.433 |
| 09 | | IDNAG | 05/25/12 | 1706 | 1350929 | 3.296 | 1529548 | 10.432 |
| 10 | ZZZZZ | ZZZZZ | 05/25/12 | 1725 | 1487234 | 3.295 | 1625382 | 10.431 |
| 11 | ZZZZZ | ZZZZZ | 05/25/12 | 1743 | 1427760 | 3.295 | 1626638 | 10.429 |
| 12 | | TOXAPH 2500 | 05/25/12 | 1802 | 1457356 | 3.294 | 1606848 | 10.432 |
| 13 | | WNDE | 05/25/12 | 1821 | 1356458 | 3.295 | 1506571 | 10.431 |
| 14 | | WNDA | 05/25/12 | 1840 | 1508923 | 3.296 | 1657404 | 10.430 |
| 15 | | WNDB | 05/25/12 | 1859 | 1572890 | 3.295 | 1737844 | 10.431 |
| 16 | | WNDC | 05/25/12 | 1918 | 1666113 | 3.295 | 1817495 | 10.431 |
| 17 | | WNDD | 05/25/12 | 1937 | 1586601 | 3.297 | 1734283 | 10.433 |
| 18 | | WNDF | 05/25/12 | 1956 | 1573708 | 3.297 | 1779668 | 10.435 |
| 19 | | WNDG | 05/25/12 | 2014 | 1560131 | 3.296 | 1740403 | 10.433 |
| 20 | ZZZZZ | ZZZZZ | 05/25/12 | 2033 | 1605656 | 3.297 | 1716700 | 10.434 |
| 21 | ZZZZZ | ZZZZZ | 05/25/12 | 2052 | 1621863 | 3.296 | 1793995 | 10.432 |
| 22 | ZZZZZ | ZZZZZ | 05/25/12 | 2111 | 1648261 | 3.296 | 1796277 | 10.436 |
| 23 | ZZZZZ | ZZZZZ | 05/25/12 | 2130 | 1750849 | 3.296 | 1860213 | 10.434 |
| 24 | | DS | 05/26/12 | 0541 | 2005466 | 3.295 | 2046165 | 10.434 |
| 25 | | INDAE | 05/26/12 | 0600 | 1702782 | 3.296 | 1824435 | 10.436 |
| 26 | UU52MBS1 | UU52MBS1 | 05/26/12 | 0619 | 1645708 | 3.298 | 1788951 | 10.432 |
| 27 | UU52LCSS1 | UU52LCSS1 | 05/26/12 | 0638 | 2077989 | 3.298 | 2282423 | 10.432 |
| 28 | MS001-SS-120 | UU52A | 05/26/12 | 0656 | 1800758 | 3.297 | 2039779 | 10.431 |
| 29 | MS101-SS-120 | UU52B | 05/26/12 | 0715 | 1864073 | 3.296 | 2110184 | 10.429 |
| 30 | MS002-SS-120 | UU52C | 05/26/12 | 0734 | 1918734 | 3.296 | 2154033 | 10.429 |
| 31 | MS002-SS-120 | UU52CMS | 05/26/12 | 0753 | 1933553 | 3.297 | 2152932 | 10.433 |
| 32 | MS002-SS-120 | UU52CMSD | 05/26/12 | 0812 | 1900593 | 3.299 | 2129930 | 10.432 |
| 33 | MS003-SS-120 | UU52D | 05/26/12 | 0831 | 2015578 | 3.297 | 2225921 | 10.431 |
| 34 | MS004-SS-120 | UU52E | 05/26/12 | 0850 | 1990201 | 3.298 | 2219745 | 10.432 |
| 35 | MS005-SS-120 | UU52F | 05/26/12 | 0909 | 1986131 | 3.297 | 2196333 | 10.434 |

IS1 = 1-Bromo-2-Nitrobenzene  RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53(mm)  Instrument ID: ECD8

Init. Calib. Date: 05/25/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

| | | | | | IS1 AREA | RT | IS2 AREA | RT |
|---|---|---|---|---|---|---|---|---|
| | | | | ICAL MIDPT | 1248621 | 3.295 | 1339634 | 10.431 |
| | | | | UPPER LIMIT | 2497242 | 3.345 | 2679268 | 10.481 |
| | | | | LOWER LIMIT | 624310 | 3.245 | 669817 | 10.381 |
| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME | IS1 AREA | RT | IS2 AREA | RT |
| 36 | ZZZZZ | ZZZZZ | 05/26/12 | 0927 | | | 9637* | 10.439 |
| 37 | ZZZZZ | ZZZZZ | 05/26/12 | 0946 | 1731609 | 3.296 | 1872053 | 10.432 |
| 38 | ZZZZZ | ZZZZZ | 05/26/12 | 1005 | 1892309 | 3.296 | 2032283 | 10.432 |
| 39 | | DS | 05/26/12 | 1024 | 1967623 | 3.296 | 2159064 | 10.435 |
| 40 | ZZZZZ | ZZZZZ | 05/26/12 | 1043 | 1734872 | 3.297 | 1860256 | 10.435 |
| 41 | MS006-SS-120 | UU52G | 05/26/12 | 1102 | 1921460 | 3.297 | 2044331 | 10.433 |
| 42 | MS007-SS-120 | UU52H | 05/26/12 | 1121 | 1948265 | 3.298 | 2023771 | 10.432 |
| 43 | MS008-SS-120 | UU52I | 05/26/12 | 1140 | 1925279 | 3.298 | 2061329 | 10.432 |
| 44 | MS009-SS-120 | UU52J | 05/26/12 | 1159 | 1970396 | 3.297 | 2169151 | 10.432 |
| 45 | ZZZZZ | ZZZZZ | 05/26/12 | 1218 | | | 10470* | 10.439 |
| 46 | ZZZZZ | ZZZZZ | 05/26/12 | 1236 | 1704274 | 3.297 | 1837874 | 10.433 |
| 47 | ZZZZZ | ZZZZZ | 05/26/12 | 1255 | 1950819 | 3.297 | 2083775 | 10.432 |
| 48 | | DS | 05/26/12 | 1314 | 2024513 | 3.297 | 2059232 | 10.435 |
| 49 | | INDAE | 05/26/12 | 1333 | 1755648 | 3.297 | 1916442 | 10.436 |

IS1 = 1-Bromo-2-Nitrobenzene  RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU62  Project: JELD WEN - MAULSBY MARSH

GC Column: STX-CLP1 ID: 0.53(mm)  Instrument ID: ECD6

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

| | | IS1 AREA | RT | IS2 AREA | RT |
|---|---|---|---|---|---|
| | ICAL MIDPT | 4841592 | 2.797 | 6506091 | 8.390 |
| | UPPER LIMIT | 9683184 | 2.847 | 13012182 | 8.440 |
| | LOWER LIMIT | 2420796 | 2.747 | 3253046 | 8.340 |

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME | IS1 AREA | RT | IS2 AREA | RT |
|---|---|---|---|---|---|---|---|---|
| 01 | | DS | 05/23/12 | 1354 | 4833957 | 2.796 | 6341334 | 8.389 |
| 02 | ZZZZZ | ZZZZZ | 05/23/12 | 1412 | 4843734 | 2.796 | 6419201 | 8.389 |
| 03 | | INDAE | 05/23/12 | 1429 | 4841592 | 2.797 | 6506091 | 8.390 |
| 04 | | INDAA | 05/23/12 | 1447 | 4662553 | 2.796 | 6288842 | 8.390 |
| 05 | | INDAB | 05/23/12 | 1505 | 4901931 | 2.796 | 6700380 | 8.390 |
| 06 | | INDAC | 05/23/12 | 1523 | 5097624 | 2.796 | 6671309 | 8.390 |
| 07 | | INDAD | 05/23/12 | 1541 | 4846850 | 2.796 | 6537086 | 8.390 |
| 08 | | INDAF | 05/23/12 | 1558 | 4867401 | 2.797 | 6610265 | 8.390 |
| 09 | | INDAG | 05/23/12 | 1616 | 4944488 | 2.797 | 6853296 | 8.390 |
| 10 | ZZZZZ | ZZZZZ | 05/23/12 | 1634 | 4744837 | 2.796 | 6458219 | 8.388 |
| 11 | ZZZZZ | ZZZZZ | 05/23/12 | 1652 | 4813617 | 2.796 | 6719941 | 8.387 |
| 12 | | TOXAPH 2500 | 05/23/12 | 1710 | 4791619 | 2.796 | 6609775 | 8.391 |
| 13 | | WNDE | 05/23/12 | 1727 | 4835108 | 2.797 | 6638127 | 8.390 |
| 14 | | WNDA | 05/23/12 | 1745 | 4751592 | 2.796 | 6557663 | 8.390 |
| 15 | | WNDB | 05/23/12 | 1803 | 4969001 | 2.796 | 6623328 | 8.390 |
| 16 | | WNDC | 05/23/12 | 1821 | 5151057 | 2.796 | 6848602 | 8.390 |
| 17 | | WNDD | 05/23/12 | 1839 | 5139758 | 2.796 | 6817214 | 8.389 |
| 18 | | WNDF | 05/23/12 | 1856 | 4866835 | 2.796 | 6708266 | 8.390 |
| 19 | | WNDG | 05/23/12 | 1914 | 4729578 | 2.796 | 6555048 | 8.389 |
| 20 | ZZZZZ | ZZZZZ | 05/23/12 | 1932 | 4525140 | 2.796 | 6284187 | 8.390 |
| 21 | ZZZZZ | ZZZZZ | 05/23/12 | 1950 | 4534400 | 2.796 | 6568755 | 8.387 |
| 22 | ZZZZZ | ZZZZZ | 05/23/12 | 2008 | 4602996 | 2.797 | 6326954 | 8.392 |
| 23 | ZZZZZ | ZZZZZ | 05/23/12 | 2025 | 4562991 | 2.796 | 6285326 | 8.393 |
| 24 | | DS | 05/24/12 | 1413 | 5001681 | 2.796 | 6754331 | 8.388 |
| 25 | | INDAE | 05/24/12 | 1431 | 5138026 | 2.796 | 6987948 | 8.389 |
| 26 | UU37MBW1 | UU37MBW1 | 05/24/12 | 1524 | 5071443 | 2.794 | 7166255 | 8.386 |
| 27 | UU37LCSW1 | UU37LCSW1 | 05/24/12 | 1542 | 5352442 | 2.794 | 7455456 | 8.386 |
| 28 | UU37LCSDW1 | UU37LCSDW1 | 05/24/12 | 1600 | 5188717 | 2.794 | 7272835 | 8.387 |
| 29 | MS-SSRB-1205 | UU62J | 05/24/12 | 1823 | 5273774 | 2.794 | 7217767 | 8.387 |
| 30 | MS-SSFB-1205 | UU62K | 05/24/12 | 1840 | 5100774 | 2.794 | 7241256 | 8.387 |
| 31 | | DS | 05/24/12 | 1934 | 4908784 | 2.796 | 6876904 | 8.389 |
| 32 | | INDAE | 05/24/12 | 1952 | 5328098 | 2.797 | 7126502 | 8.390 |

IS1 = 1-Bromo-2-Nitrobenzene  RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PESTICIDE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU62  Project: JELD WEN - MAULSBY MARSH

GC Column: STX-CLP2 ID: 0.53(mm)  Instrument ID: ECD6

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

| | | IS1 AREA | RT | IS2 AREA | RT |
|---|---|---|---|---|---|
| | ICAL MIDPT | 16226991 | 2.855 | 8472750 | 9.355 |
| | UPPER LIMIT | 32453982 | 2.905 | 16945500 | 9.405 |
| | LOWER LIMIT | 8113496 | 2.805 | 4236375 | 9.305 |

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME | IS1 AREA | RT | IS2 AREA | RT |
|---|---|---|---|---|---|---|---|---|
| 01 | | DS | 05/23/12 | 1354 | 15824122 | 2.854 | 8060309 | 9.355 |
| 02 | ZZZZZ | ZZZZZ | 05/23/12 | 1412 | 16148392 | 2.854 | 8335866 | 9.355 |
| 03 | | INDAE | 05/23/12 | 1429 | 16226991 | 2.855 | 8472750 | 9.355 |
| 04 | | INDAA | 05/23/12 | 1447 | 16229726 | 2.855 | 8157989 | 9.355 |
| 05 | | INDAB | 05/23/12 | 1505 | 16989055 | 2.855 | 8678314 | 9.355 |
| 06 | | INDAC | 05/23/12 | 1523 | 15963413 | 2.855 | 8650070 | 9.355 |
| 07 | | INDAD | 05/23/12 | 1541 | 16200736 | 2.855 | 8616973 | 9.355 |
| 08 | | INDAF | 05/23/12 | 1558 | 16682441 | 2.855 | 8629150 | 9.355 |
| 09 | | INDAG | 05/23/12 | 1616 | 15540466 | 2.855 | 8844674 | 9.355 |
| 10 | ZZZZZ | ZZZZZ | 05/23/12 | 1634 | 15077669 | 2.854 | 8393228 | 9.354 |
| 11 | ZZZZZ | ZZZZZ | 05/23/12 | 1652 | 15147530 | 2.854 | 8680249 | 9.354 |
| 12 | | TOXAPH 2500 | 05/23/12 | 1710 | 16477086 | 2.855 | 8490411 | 9.356 |
| 13 | | WNDE | 05/23/12 | 1727 | 16832865 | 2.855 | 8707514 | 9.355 |
| 14 | | WNDA | 05/23/12 | 1745 | 16405407 | 2.854 | 8503685 | 9.355 |
| 15 | | WNDB | 05/23/12 | 1803 | 16776826 | 2.855 | 8683498 | 9.355 |
| 16 | | WNDC | 05/23/12 | 1821 | 17441474 | 2.855 | 9031272 | 9.355 |
| 17 | | WNDD | 05/23/12 | 1839 | 16765159 | 2.855 | 8985763 | 9.355 |
| 18 | | WNDF | 05/23/12 | 1856 | 17245332 | 2.855 | 8983150 | 9.355 |
| 19 | | WNDG | 05/23/12 | 1914 | 15111899 | 2.855 | 8767543 | 9.355 |
| 20 | ZZZZZ | ZZZZZ | 05/23/12 | 1932 | 16193143 | 2.855 | 8526437 | 9.356 |
| 21 | ZZZZZ | ZZZZZ | 05/23/12 | 1950 | 15076973 | 2.855 | 8649007 | 9.354 |
| 22 | ZZZZZ | ZZZZZ | 05/23/12 | 2008 | 16499244 | 2.855 | 8801559 | 9.357 |
| 23 | ZZZZZ | ZZZZZ | 05/23/12 | 2025 | 15945583 | 2.855 | 8717161 | 9.357 |
| 24 | | DS | 05/24/12 | 1413 | 17666780 | 2.854 | 9318641 | 9.353 |
| 25 | | INDAE | 05/24/12 | 1431 | 17460248 | 2.854 | 9570322 | 9.353 |
| 26 | UU37MBW1 | UU37MBW1 | 05/24/12 | 1524 | 15720442 | 2.853 | 9530794 | 9.352 |
| 27 | UU37LCSW1 | UU37LCSW1 | 05/24/12 | 1542 | 16498690 | 2.852 | 9917993 | 9.351 |
| 28 | UU37LCSDW1 | UU37LCSDW1 | 05/24/12 | 1600 | 16262258 | 2.852 | 9792052 | 9.352 |
| 29 | MS-SSRB-1205 | UU62J | 05/24/12 | 1823 | 15899944 | 2.852 | 9649398 | 9.351 |
| 30 | MS-SSFB-1205 | UU62K | 05/24/12 | 1840 | 16009521 | 2.852 | 9745131 | 9.352 |
| 31 | | DS | 05/24/12 | 1934 | 18068667 | 2.854 | 9866692 | 9.353 |
| 32 | | INDAE | 05/24/12 | 1952 | 18001293 | 2.854 | 10197850 | 9.353 |

IS1 = 1-Bromo-2-Nitrobenzene  RT Window = RT +/- .05 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

PCB Analysis
Report and Summary QC Forms

ARI Job ID: UU52, UU62

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA PCB by GC/ECD**
**Extraction Method: SW3546**
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**Sample ID: MS001-SS-120515**
**SAMPLE**

Lab Sample ID: UU52A
LIMS ID: 12-8893
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 22:50
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 90.3%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | 1.0 | 4.0 | < 4.0 U |
| 53469-21-9 | Aroclor 1242 | 1.4 | 4.0 | < 4.0 U |
| **12672-29-6** | **Aroclor 1248** | **1.4** | **4.0** | **22** |
| **11097-69-1** | **Aroclor 1254** | **1.4** | **4.0** | **44** |
| 11096-82-5 | Aroclor 1260 | 1.4 | 20 | < 20 Y |
| 11104-28-2 | Aroclor 1221 | 1.4 | 4.0 | < 4.0 U |
| 11141-16-5 | Aroclor 1232 | 1.4 | 4.0 | < 4.0 U |
| 37324-23-5 | Aroclor 1262 | 1.4 | 4.0 | < 4.0 U |
| 11100-14-4 | Aroclor 1268 | 1.4 | 4.0 | < 4.0 U |

Reported in µg/kg (ppb)

**PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | 98.2% |
| Tetrachlorometaxylene | 84.0% |

**FORM I**

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA PCB by GC/ECD**
**Extraction Method: SW3546**
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**Sample ID: MS101-SS-120515**
**SAMPLE**

Lab Sample ID: UU52B
LIMS ID: 12-8894
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 23:09
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.7 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 90.2%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | 1.0 | 4.0 | < 4.0 U |
| 53469-21-9 | Aroclor 1242 | 1.3 | 4.0 | < 4.0 U |
| **12672-29-6** | **Aroclor 1248** | **1.3** | **4.0** | **17** |
| **11097-69-1** | **Aroclor 1254** | **1.3** | **4.0** | **37** |
| 11096-82-5 | Aroclor 1260 | 1.3 | 16 | < 16 Y |
| 11104-28-2 | Aroclor 1221 | 1.3 | 4.0 | < 4.0 U |
| 11141-16-5 | Aroclor 1232 | 1.3 | 4.0 | < 4.0 U |
| 37324-23-5 | Aroclor 1262 | 1.3 | 4.0 | < 4.0 U |
| 11100-14-4 | Aroclor 1268 | 1.3 | 4.0 | < 4.0 U |

Reported in µg/kg (ppb)

**PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | 91.5% |
| Tetrachlorometaxylene | 77.2% |

**FORM I**

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA PCB by GC/ECD**
**Extraction Method: SW3546**
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**Sample ID: MS002-SS-120515**
**SAMPLE**

Lab Sample ID: UU52C
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 23:28
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 89.8%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | 1.0 | 4.0 | < 4.0 U |
| 53469-21-9 | Aroclor 1242 | 1.4 | 4.0 | < 4.0 U |
| **12672-29-6** | **Aroclor 1248** | **1.4** | **4.0** | **17 P** |
| **11097-69-1** | **Aroclor 1254** | **1.4** | **4.0** | **39** |
| 11096-82-5 | Aroclor 1260 | 1.4 | 20 | < 20 Y |
| 11104-28-2 | Aroclor 1221 | 1.4 | 4.0 | < 4.0 U |
| 11141-16-5 | Aroclor 1232 | 1.4 | 4.0 | < 4.0 U |
| 37324-23-5 | Aroclor 1262 | 1.4 | 4.0 | < 4.0 U |
| 11100-14-4 | Aroclor 1268 | 1.4 | 4.0 | < 4.0 U |

Reported in µg/kg (ppb)

**PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | 103% |
| Tetrachlorometaxylene | 85.2% |

**FORM I**

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA PCB by GC/ECD**
**Extraction Method: SW3546**
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**Sample ID: MS003-SS-120515**
**SAMPLE**

Lab Sample ID: UU52D
LIMS ID: 12-8896
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 23:47
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 90.7%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | 1.0 | 4.0 | < 4.0 U |
| 53469-21-9 | Aroclor 1242 | 1.4 | 4.0 | < 4.0 U |
| 12672-29-6 | Aroclor 1248 | 1.4 | 20 | < 20 Y |
| **11097-69-1** | **Aroclor 1254** | **1.4** | **4.0** | **28** |
| 11096-82-5 | Aroclor 1260 | 1.4 | 14 | < 14 Y |
| 11104-28-2 | Aroclor 1221 | 1.4 | 4.0 | < 4.0 U |
| 11141-16-5 | Aroclor 1232 | 1.4 | 4.0 | < 4.0 U |
| 37324-23-5 | Aroclor 1262 | 1.4 | 4.0 | < 4.0 U |
| 11100-14-4 | Aroclor 1268 | 1.4 | 4.0 | < 4.0 U |

Reported in µg/kg (ppb)

**PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | 97.2% |
| Tetrachlorometaxylene | 81.5% |

**FORM I**

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA PCB by GC/ECD**
**Extraction Method: SW3546**
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**Sample ID: MS004-SS-120515**
**SAMPLE**

Lab Sample ID: UU52E
LIMS ID: 12-8897
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 00:06
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 90.4%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | 1.0 | 4.0 | < 4.0 U |
| 53469-21-9 | Aroclor 1242 | 1.4 | 4.0 | < 4.0 U |
| 12672-29-6 | Aroclor 1248 | 1.4 | 16 | < 16 Y |
| **11097-69-1** | **Aroclor 1254** | **1.4** | **4.0** | **28 P** |
| 11096-82-5 | Aroclor 1260 | 1.4 | 20 | < 20 Y |
| 11104-28-2 | Aroclor 1221 | 1.4 | 4.0 | < 4.0 U |
| 11141-16-5 | Aroclor 1232 | 1.4 | 4.0 | < 4.0 U |
| 37324-23-5 | Aroclor 1262 | 1.4 | 4.0 | < 4.0 U |
| 11100-14-4 | Aroclor 1268 | 1.4 | 4.0 | < 4.0 U |

Reported in µg/kg (ppb)

**PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | 89.0% |
| Tetrachlorometaxylene | 80.5% |

**FORM I**

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA PCB by GC/ECD**
**Extraction Method: SW3546**
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**Sample ID: MS005-SS-120515**
**SAMPLE**

Lab Sample ID: UU52F
LIMS ID: 12-8898
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 00:25
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 91.1%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | 1.0 | 4.0 | < 4.0 U |
| 53469-21-9 | Aroclor 1242 | 1.3 | 4.0 | < 4.0 U |
| **12672-29-6** | **Aroclor 1248** | **1.3** | **4.0** | **12** |
| **11097-69-1** | **Aroclor 1254** | **1.3** | **4.0** | **25** |
| 11096-82-5 | Aroclor 1260 | 1.3 | 12 | < 12 Y |
| 11104-28-2 | Aroclor 1221 | 1.3 | 4.0 | < 4.0 U |
| 11141-16-5 | Aroclor 1232 | 1.3 | 4.0 | < 4.0 U |
| 37324-23-5 | Aroclor 1262 | 1.3 | 4.0 | < 4.0 U |
| 11100-14-4 | Aroclor 1268 | 1.3 | 4.0 | < 4.0 U |

Reported in µg/kg (ppb)

**PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | 87.0% |
| Tetrachlorometaxylene | 67.0% |

**FORM I**

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA PCB by GC/ECD**
**Extraction Method: SW3546**
Page 1 of 1

**Sample ID: MS006-SS-120515**
**SAMPLE**

Lab Sample ID: UU52G
LIMS ID: 12-8899
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 00:44
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 90.8%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | 1.0 | 4.0 | < 4.0 U |
| 53469-21-9 | Aroclor 1242 | 1.4 | 4.0 | < 4.0 U |
| **12672-29-6** | **Aroclor 1248** | **1.4** | **4.0** | **16** |
| **11097-69-1** | **Aroclor 1254** | **1.4** | **4.0** | **27** |
| 11096-82-5 | Aroclor 1260 | 1.4 | 20 | < 20 Y |
| 11104-28-2 | Aroclor 1221 | 1.4 | 4.0 | < 4.0 U |
| 11141-16-5 | Aroclor 1232 | 1.4 | 4.0 | < 4.0 U |
| 37324-23-5 | Aroclor 1262 | 1.4 | 4.0 | < 4.0 U |
| 11100-14-4 | Aroclor 1268 | 1.4 | 4.0 | < 4.0 U |

Reported in µg/kg (ppb)

**PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | 92.8% |
| Tetrachlorometaxylene | 77.5% |

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA PCB by GC/ECD**
**Extraction Method: SW3546**
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**Sample ID: MS007-SS-120515**
**SAMPLE**

Lab Sample ID: UU52H
LIMS ID: 12-8900
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 01:41
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 83.9%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | 1.0 | 4.0 | < 4.0 U |
| 53469-21-9 | Aroclor 1242 | 1.3 | 4.0 | < 4.0 U |
| **12672-29-6** | **Aroclor 1248** | **1.3** | **4.0** | **15** |
| **11097-69-1** | **Aroclor 1254** | **1.3** | **4.0** | **31** |
| 11096-82-5 | Aroclor 1260 | 1.3 | 14 | < 14 Y |
| 11104-28-2 | Aroclor 1221 | 1.3 | 4.0 | < 4.0 U |
| 11141-16-5 | Aroclor 1232 | 1.3 | 4.0 | < 4.0 U |
| 37324-23-5 | Aroclor 1262 | 1.3 | 4.0 | < 4.0 U |
| 11100-14-4 | Aroclor 1268 | 1.3 | 4.0 | < 4.0 U |

Reported in µg/kg (ppb)

**PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | 81.5% |
| Tetrachlorometaxylene | 69.2% |

**FORM I**

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA PCB by GC/ECD**
**Extraction Method: SW3546**


**Sample ID: MS008-SS-120515**
**SAMPLE**

Lab Sample ID: UU52I
LIMS ID: 12-8901
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 02:00
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 89.0%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | 1.0 | 4.0 | < 4.0 U |
| 53469-21-9 | Aroclor 1242 | 1.4 | 4.0 | < 4.0 U |
| 12672-29-6 | Aroclor 1248 | 1.4 | 9.9 | < 9.9 Y |
| **11097-69-1** | **Aroclor 1254** | **1.4** | **4.0** | **23** |
| 11096-82-5 | Aroclor 1260 | 1.4 | 9.9 | < 9.9 Y |
| 11104-28-2 | Aroclor 1221 | 1.4 | 4.0 | < 4.0 U |
| 11141-16-5 | Aroclor 1232 | 1.4 | 4.0 | < 4.0 U |
| 37324-23-5 | Aroclor 1262 | 1.4 | 4.0 | < 4.0 U |
| 11100-14-4 | Aroclor 1268 | 1.4 | 4.0 | < 4.0 U |

Reported in µg/kg (ppb)

**PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | 97.8% |
| Tetrachlorometaxylene | 65.2% |

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA PCB by GC/ECD**
**Extraction Method: SW3546**
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**Sample ID: MS009-SS-120515**
**SAMPLE**

Lab Sample ID: UU52J
LIMS ID: 12-8902
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 02:19
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 90.2%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | 1.0 | 4.0 | < 4.0 U |
| 53469-21-9 | Aroclor 1242 | 1.4 | 4.0 | < 4.0 U |
| 12672-29-6 | Aroclor 1248 | 1.4 | 10 | < 10 Y |
| **11097-69-1** | **Aroclor 1254** | **1.4** | **4.0** | **20** |
| 11096-82-5 | Aroclor 1260 | 1.4 | 10 | < 10 Y |
| 11104-28-2 | Aroclor 1221 | 1.4 | 4.0 | < 4.0 U |
| 11141-16-5 | Aroclor 1232 | 1.4 | 4.0 | < 4.0 U |
| 37324-23-5 | Aroclor 1262 | 1.4 | 4.0 | < 4.0 U |
| 11100-14-4 | Aroclor 1268 | 1.4 | 4.0 | < 4.0 U |

Reported in µg/kg (ppb)

**PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | 92.0% |
| Tetrachlorometaxylene | 69.5% |

ANALYTICAL RESOURCES INCORPORATED

## SW8082/PCB SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01

| Client ID | DCBP % REC | DCBP LCL-UCL | TCMX % REC | TCMX LCL-UCL | TOT OUT |
|---|---|---|---|---|---|
| MS001-SS-120515 | 98.2% | 24-127 | 84.0% | 34-109 | 0 |
| MS101-SS-120515 | 91.5% | 24-127 | 77.2% | 34-109 | 0 |
| MS002-SS-120515 | 103% | 24-127 | 85.2% | 34-109 | 0 |
| MS003-SS-120515 | 97.2% | 24-127 | 81.5% | 34-109 | 0 |
| MS004-SS-120515 | 89.0% | 24-127 | 80.5% | 34-109 | 0 |
| MS005-SS-120515 | 87.0% | 24-127 | 67.0% | 34-109 | 0 |
| MS006-SS-120515 | 92.8% | 24-127 | 77.5% | 34-109 | 0 |
| MS007-SS-120515 | 81.5% | 24-127 | 69.2% | 34-109 | 0 |
| MS008-SS-120515 | 97.8% | 24-127 | 65.2% | 34-109 | 0 |
| MB-052212 | 95.8% | 48-123 | 72.8% | 43-107 | 0 |
| LCS-052212 | 93.2% | 48-123 | 70.5% | 43-107 | 0 |
| MS009-SS-120515 | 92.0% | 24-127 | 69.5% | 34-109 | 0 |
| MS009-SS-120515 MS | 88.5% | 24-127 | 70.5% | 34-109 | 0 |
| MS009-SS-120515 MSD | 88.5% | 24-127 | 71.8% | 34-109 | 0 |

Microwave (MARS) Control Limits PCBSMM
Prep Method: SW3546
Log Number Range: 12-8893 to 12-8902

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA PCB by GC/ECD**
Page 1 of 1

**Sample ID: MS009-SS-120515**
**MS/MSD**

Lab Sample ID: UU52J
LIMS ID: 12-8902
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted MS/MSD: 05/22/12

Date Analyzed MS: 05/26/12 02:38
MSD: 05/26/12 02:57
Instrument/Analyst MS: ECD5/JGR
MSD: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount MS: 12.6 g-dry-wt
MSD: 12.5 g-dry-wt
Final Extract Volume MS: 2.5 mL
MSD: 2.5 mL
Dilution Factor MS: 1.00
MSD: 1.00
Silica Gel: Yes

Percent Moisture: 90.2%

| Analyte | Sample | MS | Spike Added-MS | MS Recovery | MSD | Spike Added-MSD | MSD Recovery | RPD |
|---|---|---|---|---|---|---|---|---|
| Aroclor 1016 | < 4.0 U | 51.1 | 100 | 51.1% | 53.6 | 101 | 53.1% | 4.8% |
| Aroclor 1260 | < 10.0 Y | 64.5 | 100 | 64.5% | 69.4 | 101 | 68.7% | 7.3% |

Results reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA PCB by GC/ECD**
**Extraction Method: SW3546**
Page 1 of 1

**Sample ID: MS009-SS-120515**
**MATRIX SPIKE**

Lab Sample ID: UU52J
LIMS ID: 12-8902
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 02:38
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.6 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 90.2%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | 1.0 | 4.0 | --- |
| 53469-21-9 | Aroclor 1242 | 1.4 | 4.0 | < 4.0 U |
| 12672-29-6 | Aroclor 1248 | 1.4 | 24 | < 24 Y |
| **11097-69-1** | **Aroclor 1254** | **1.4** | **4.0** | **39** |
| 11096-82-5 | Aroclor 1260 | 1.4 | 4.0 | --- |
| 11104-28-2 | Aroclor 1221 | 1.4 | 4.0 | < 4.0 U |
| 11141-16-5 | Aroclor 1232 | 1.4 | 4.0 | < 4.0 U |
| 37324-23-5 | Aroclor 1262 | 1.4 | 4.0 | < 4.0 U |
| 11100-14-4 | Aroclor 1268 | 1.4 | 4.0 | < 4.0 U |

Reported in µg/kg (ppb)

**PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | 88.5% |
| Tetrachlorometaxylene | 70.5% |

**FORM I**

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA PCB by GC/ECD**
**Extraction Method: SW3546**
Page 1 of 1

**Sample ID: MS009-SS-120515**
**MATRIX SPIKE DUP**

Lab Sample ID: UU52J
LIMS ID: 12-8902
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/22/12
Date Analyzed: 05/26/12 02:57
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: 90.2%

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | 1.0 | 4.0 | --- |
| 53469-21-9 | Aroclor 1242 | 1.4 | 4.0 | < 4.0 U |
| 12672-29-6 | Aroclor 1248 | 1.4 | 25 | < 25 Y |
| **11097-69-1** | **Aroclor 1254** | **1.4** | **4.0** | **40** |
| 11096-82-5 | Aroclor 1260 | 1.4 | 4.0 | --- |
| 11104-28-2 | Aroclor 1221 | 1.4 | 4.0 | < 4.0 U |
| 11141-16-5 | Aroclor 1232 | 1.4 | 4.0 | < 4.0 U |
| 37324-23-5 | Aroclor 1262 | 1.4 | 4.0 | < 4.0 U |
| 11100-14-4 | Aroclor 1268 | 1.4 | 4.0 | < 4.0 U |

Reported in µg/kg (ppb)

**PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | 88.5% |
| Tetrachlorometaxylene | 71.8% |

**FORM I**

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA PCB by GC/ECD**
Page 1 of 1

**Sample ID: LCS-052212**
**LAB CONTROL**

Lab Sample ID: LCS-052212
LIMS ID: 12-8902
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 22:31
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 12.5 g-dry-wt
Final Extract Volume: 2.50 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

| Analyte | Lab Control | Spike Added | Recovery |
|---|---|---|---|
| Aroclor 1016 | 77.7 | 101 | 76.9% |
| Aroclor 1260 | 90.8 | 101 | 89.9% |

**PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | 93.2% |
| Tetrachlorometaxylene | 70.5% |

Results reported in µg/kg (ppb)

# PCB METHOD BLANK SUMMARY

BLANK NO.

UU52MBS1

Lab Name: ANALYTICAL RESOURCES INC
Client: ANCHOR QEA, LLC.

ARI Job No.: UU52
Project: JELD WEN MAULSBY MAR

Lab Sample ID: UU52MBS1
Lab File ID: 0525A045

Date Extracted: 05/22/12
Matrix: SOLID

Date Analyzed: 05/25/12
Instrument ID: ECD5

Time Analyzed: 2212
GC Columns: ZB5/ZB35

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED |
|---|---|---|---|
| 01 | UU52LCSS1 | UU52LCSS1 | 05/25/12 |
| 02 | MS001-SS-120515 | UU52A | 05/25/12 |
| 03 | MS101-SS-120515 | UU52B | 05/25/12 |
| 04 | MS002-SS-120515 | UU52C | 05/25/12 |
| 05 | MS003-SS-120515 | UU52D | 05/25/12 |
| 06 | MS004-SS-120515 | UU52E | 05/26/12 |
| 07 | MS005-SS-120515 | UU52F | 05/26/12 |
| 08 | MS006-SS-120515 | UU52G | 05/26/12 |
| 09 | MS007-SS-120515 | UU52H | 05/26/12 |
| 10 | MS008-SS-120515 | UU52I | 05/26/12 |
| 11 | MS009-SS-120515 | UU52J | 05/26/12 |
| 12 | MS009-SS-120515 MS | UU52JMS | 05/26/12 |
| 13 | MS009-SS-120515 MSD | UU52JMSD | 05/26/12 |

ALL RUNS ARE DUAL COLUMN



FORM IV PCB

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PSDDA PCB by GC/ECD**
**Extraction Method: SW3546**
Page 1 of 1

**Sample ID: MB-052212**
**METHOD BLANK**

Lab Sample ID: MB-052212
LIMS ID: 12-8902
Matrix: Sediment
Data Release Authorized:
Reported: 05/29/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 05/22/12
Date Analyzed: 05/25/12 22:12
Instrument/Analyst: ECD5/JGR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes

Sample Amount: 12.5 g
Final Extract Volume: 2.5 mL
Dilution Factor: 1.00
Silica Gel: Yes

Percent Moisture: NA

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | 1.0 | 4.0 | < 4.0 U |
| 53469-21-9 | Aroclor 1242 | 1.4 | 4.0 | < 4.0 U |
| 12672-29-6 | Aroclor 1248 | 1.4 | 4.0 | < 4.0 U |
| 11097-69-1 | Aroclor 1254 | 1.4 | 4.0 | < 4.0 U |
| 11096-82-5 | Aroclor 1260 | 1.4 | 4.0 | < 4.0 U |
| 11104-28-2 | Aroclor 1221 | 1.4 | 4.0 | < 4.0 U |
| 11141-16-5 | Aroclor 1232 | 1.4 | 4.0 | < 4.0 U |
| 37324-23-5 | Aroclor 1262 | 1.4 | 4.0 | < 4.0 U |
| 11100-14-4 | Aroclor 1268 | 1.4 | 4.0 | < 4.0 U |

Reported in µg/kg (ppb)

**PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | 95.8% |
| Tetrachlorometaxylene | 72.8% |

**FORM I**

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PCB by GC/ECD Method SW8082**
Page 1 of 1

**Sample ID: MS-SSRB-120515**
**SAMPLE**

Lab Sample ID: UU62J
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized: MW
Reported: 05/24/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/21/12
Date Analyzed: 05/23/12 23:27
Instrument/Analyst: ECD5/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: Yes

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | 0.13 | 1.0 | < 1.0 U |
| 53469-21-9 | Aroclor 1242 | 0.15 | 1.0 | < 1.0 U |
| 12672-29-6 | Aroclor 1248 | 0.15 | 1.0 | < 1.0 U |
| 11097-69-1 | Aroclor 1254 | 0.15 | 1.0 | < 1.0 U |
| 11096-82-5 | Aroclor 1260 | 0.15 | 1.0 | < 1.0 U |
| 11104-28-2 | Aroclor 1221 | 0.15 | 1.0 | < 1.0 U |
| 11141-16-5 | Aroclor 1232 | 0.15 | 1.0 | < 1.0 U |
| 37324-23-5 | Aroclor 1262 | 0.15 | 1.0 | < 1.0 U |
| 11100-14-4 | Aroclor 1268 | 0.15 | 1.0 | < 1.0 U |

Reported in µg/L (ppb)

**PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | 22.5% |
| Tetrachlorometaxylene | 63.8% |



UU52:00206

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PCB by GC/ECD Method SW8082**
Page 1 of 1

**Sample ID: MS-SSFB-120515**
**SAMPLE**

Lab Sample ID: UU62K
LIMS ID: 12-8938
Matrix: Water
Data Release Authorized:
Reported: 05/24/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/21/12
Date Analyzed: 05/23/12 23:46
Instrument/Analyst: ECD5/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: Yes

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | 0.13 | 1.0 | < 1.0 U |
| 53469-21-9 | Aroclor 1242 | 0.15 | 1.0 | < 1.0 U |
| 12672-29-6 | Aroclor 1248 | 0.15 | 1.0 | < 1.0 U |
| 11097-69-1 | Aroclor 1254 | 0.15 | 1.0 | < 1.0 U |
| 11096-82-5 | Aroclor 1260 | 0.15 | 1.0 | < 1.0 U |
| 11104-28-2 | Aroclor 1221 | 0.15 | 1.0 | < 1.0 U |
| 11141-16-5 | Aroclor 1232 | 0.15 | 1.0 | < 1.0 U |
| 37324-23-5 | Aroclor 1262 | 0.15 | 1.0 | < 1.0 U |
| 11100-14-4 | Aroclor 1268 | 0.15 | 1.0 | < 1.0 U |

Reported in µg/L (ppb)

**PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | 78.0% |
| Tetrachlorometaxylene | 90.0% |

ANALYTICAL RESOURCES INCORPORATED

## SW8082/PCB WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01

| Client ID | DCBP % REC | DCBP LCL-UCL | TCMX % REC | TCMX LCL-UCL | TOT OUT |
|---|---|---|---|---|---|
| MB-052112 | 83.8% | 41-111 | 78.0% | 40-118 | 0 |
| LCS-052112 | 85.0% | 41-111 | 88.0% | 40-118 | 0 |
| LCSD-052112 | 81.0% | 41-111 | 84.8% | 40-118 | 0 |
| MS-SSRB-120515 | 22.5%* | 29-118 | 63.8% | 38-118 | 1 |
| MS-SSFB-120515 | 78.0% | 29-118 | 90.0% | 38-118 | 0 |

Prep Method: SW3510C
Log Number Range: 12-8937 to 12-8938

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PCB by GC/ECD Method SW8082**
Page 1 of 1

**Sample ID: LCS-052112**
**LCS/LCSD**

Lab Sample ID: LCS-052112
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized:
Reported: 05/24/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

Date Extracted LCS/LCSD: 05/21/12

Date Analyzed LCS: 05/23/12 22:30
LCSD: 05/23/12 22:49
Instrument/Analyst LCS: ECD5/YZ
LCSD: ECD5/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount LCS: 500 mL
LCSD: 500 mL
Final Extract Volume LCS: 5.0 mL
LCSD: 5.0 mL
Dilution Factor LCS: 1.00
LCSD: 1.00
Silica Gel: No
Acid Cleanup: Yes

| Analyte | LCS | Spike Added-LCS | LCS Recovery | LCSD | Spike Added-LCSD | LCSD Recovery | RPD |
|---|---|---|---|---|---|---|---|
| Aroclor 1016 | 4.60 | 5.00 | 92.0% | 4.46 | 5.00 | 89.2% | 3.1% |
| Aroclor 1260 | 4.08 | 5.00 | 81.6% | 4.05 | 5.00 | 81.0% | 0.7% |

**PCB Surrogate Recovery**

| | LCS | LCSD |
|---|---|---|
| Decachlorobiphenyl | 85.0% | 81.0% |
| Tetrachlorometaxylene | 88.0% | 84.8% |

Results reported in µg/L
RPD calculated using sample concentrations per SW846.



UU52:00209

4

PCB METHOD BLANK SUMMARY

BLANK NO.

| UU62MBW1 |
|---|

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA, LLC.

ARI Job No.: UU62

Project: JELD WEN - MAULSBY M

Lab Sample ID: UU62MBW1

Lab File ID: 0523A038

Date Extracted: 05/21/12

Matrix: LIQUID

Date Analyzed: 05/23/12

Instrument ID: ECD5

Time Analyzed: 2211

GC Columns: ZB5/ZB35

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED |
|---|---|---|---|
| 01 | UU62LCSW1 | UU62LCSW1 | 05/23/12 |
| 02 | UU62LCSDW1 | UU62LCSDW1 | 05/23/12 |
| 03 | MS-SSRB-120515 | UU62J | 05/23/12 |
| 04 | MS-SSFB-120515 | UU62K | 05/23/12 |

ALL RUNS ARE DUAL COLUMN



FORM IV PCB

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**PCB by GC/ECD Method SW8082**
Page 1 of 1

**Sample ID: MB-052112**
**METHOD BLANK**

Lab Sample ID: MB-052112
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized:
Reported: 05/24/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 05/21/12
Date Analyzed: 05/23/12 22:11
Instrument/Analyst: ECD5/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: Yes

| CAS Number | Analyte | MDL | RL | Result |
|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | 0.13 | 1.0 | < 1.0 U |
| 53469-21-9 | Aroclor 1242 | 0.15 | 1.0 | < 1.0 U |
| 12672-29-6 | Aroclor 1248 | 0.15 | 1.0 | < 1.0 U |
| 11097-69-1 | Aroclor 1254 | 0.15 | 1.0 | < 1.0 U |
| 11096-82-5 | Aroclor 1260 | 0.15 | 1.0 | < 1.0 U |
| 11104-28-2 | Aroclor 1221 | 0.15 | 1.0 | < 1.0 U |
| 11141-16-5 | Aroclor 1232 | 0.15 | 1.0 | < 1.0 U |
| 37324-23-5 | Aroclor 1262 | 0.15 | 1.0 | < 1.0 U |
| 11100-14-4 | Aroclor 1268 | 0.15 | 1.0 | < 1.0 U |

Reported in µg/L (ppb)

**PCB Surrogate Recovery**

| | |
|---|---|
| Decachlorobiphenyl | 83.8% |
| Tetrachlorometaxylene | 78.0% |

# 8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: ZB5  Instrument ID: ECD5

Calibration Date: 05/23/12

SURROGATES

| | RT WIN | LVL1 | LVL2 | LVL3 | LVL4 | LVL5 | LVL6 | MEAN | %RSD |
|---|---|---|---|---|---|---|---|---|---|
| TCX | 4.51- 4.71 | 1.3170 | 1.3646 | 1.3837 | 1.3019 | 1.2161 | 1.1301 | 1.2856 | 7.5 |
| DCB | 12.89-13.09 | 1.5532 | 1.4116 | 1.2892 | 1.1209 | 1.0329 | 0.9578 | 1.2276 | 18.8 |

| Aroclor-1016 Peak | RT WIN | LVL1 .02 | LVL2 0.05 | LVL3 0.1 | LVL4 .25 | LVL5 0.5 | LVL6 1.0 | MEAN | %RSD R^2 |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.14- 6.34 | 0.0417 | 0.0367 | 0.0354 | 0.0316 | 0.0282 | 0.0266 | 0.0334 | 16.9 |
| 2 | 6.54- 6.74 | 0.1232 | 0.1236 | 0.1188 | 0.1058 | 0.0941 | 0.0874 | 0.1088 | 14.3 |
| 3 | 6.69- 6.89 | 0.0437 | 0.0495 | 0.0477 | 0.0425 | 0.0378 | 0.0362 | 0.0429 | 12.2 |
| 4 | 6.80- 7.00 | 0.0435 | 0.0388 | 0.0344 | 0.0304 | 0.0275 | 0.0283 | 0.0338 | 18.8 |

AROCLOR AVERAGE %RSD = 15.6

| Aroclor-1260 Peak | RT WIN | LVL1 .02 | LVL2 0.05 | LVL3 0.1 | LVL4 .25 | LVL5 0.5 | LVL6 1.0 | MEAN | %RSD R^2 |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 10.35-10.55 | 0.0523 | 0.0482 | 0.0458 | 0.0418 | 0.0380 | 0.0343 | 0.0434 | 15.4 |
| 2 | 10.72-10.92 | 0.1294 | 0.1187 | 0.1125 | 0.1027 | 0.0942 | 0.0887 | 0.1077 | 14.3 |
| 3 | 11.12-11.32 | 0.0705 | 0.0661 | 0.0631 | 0.0579 | 0.0530 | 0.0486 | 0.0599 | 13.8 |
| 4 | 11.24-11.44 | 0.0306 | 0.0284 | 0.0271 | 0.0247 | 0.0227 | 0.0207 | 0.0257 | 14.4 |
| 5 | 11.31-11.51 | 0.0354 | 0.0336 | 0.0323 | 0.0298 | 0.0276 | 0.0252 | 0.0307 | 12.5 |

AROCLOR AVERAGE %RSD = 14.1

6F

# 8082 INITIAL CALIBRATION OF AROCLOR 1016/1260

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: ZB35  Instrument ID: ECD5

Calibration Date: 05/23/12

SURROGATES

| | RT WIN | LVL1 | LVL2 | LVL3 | LVL4 | LVL5 | LVL6 | MEAN | %RSD |
|---|---|---|---|---|---|---|---|---|---|
| TCX | 4.51- 4.71 | 1.1260 | 1.1449 | 1.1900 | 1.1549 | 1.1019 | 1.0349 | 1.1254 | 4.7 |
| DCB | 13.27-13.47 | 1.1570 | 1.1117 | 1.0852 | 1.0055 | 0.9520 | 0.8908 | 1.0337 | 9.8 |

| Aroclor-1016 Peak | RT WIN | LVL1 .02 | LVL2 0.05 | LVL3 0.1 | LVL4 .25 | LVL5 0.5 | LVL6 1.0 | MEAN | %RSD R^2 |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.25- 6.45 | 0.0494 | 0.0465 | 0.0456 | 0.0408 | 0.0365 | 0.0317 | 0.0418 | 16.0 |
| 2 | 6.87- 7.07 | 0.1060 | 0.1026 | 0.1017 | 0.0944 | 0.0866 | 0.0775 | 0.0948 | 11.6 |
| 3 | 7.26- 7.46 | 0.0271 | 0.0260 | 0.0260 | 0.0238 | 0.0227 | 0.0212 | 0.0245 | 9.3 |
| 4 | 7.36- 7.56 | 0.0300 | 0.0290 | 0.0288 | 0.0268 | 0.0252 | 0.0232 | 0.0272 | 9.6 |

AROCLOR AVERAGE %RSD = 11.6

| Aroclor-1260 Peak | RT WIN | LVL1 .02 | LVL2 0.05 | LVL3 0.1 | LVL4 .25 | LVL5 0.5 | LVL6 1.0 | MEAN | %RSD R^2 |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 10.32-10.52 | 0.0506 | 0.0489 | 0.0483 | 0.0452 | 0.0429 | 0.0394 | 0.0459 | 9.2 |
| 2 | 10.77-10.97 | 0.0635 | 0.0603 | 0.0595 | 0.0560 | 0.0534 | 0.0491 | 0.0570 | 9.1 |
| 3 | 11.04-11.24 | 0.1272 | 0.1225 | 0.1212 | 0.1139 | 0.1085 | 0.1009 | 0.1157 | 8.5 |
| 4 | 11.57-11.77 | 0.0384 | 0.0353 | 0.0348 | 0.0328 | 0.0317 | 0.0296 | 0.0338 | 9.1 |

AROCLOR AVERAGE %RSD = 9.0

6G

# 8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: ZB5  Instrument ID: ECD5

Calibration Date: 05/23/12

| Aroclor-1221 | | | |
|---|---|---|---|
| Peak | RT | RT WIN | Cal Factor |
| 1 | 4.884 | 4.78- 4.98 | 0.00600 |
| 2 | 5.153 | 5.05- 5.25 | 0.00966 |
| 3 | 5.258 | 5.16- 5.36 | 0.03163 |

| Aroclor-1232 | | | |
|---|---|---|---|
| Peak | RT | RT WIN | Cal Factor |
| 1 | 6.238 | 6.14- 6.34 | 0.01394 |
| 2 | 6.639 | 6.54- 6.74 | 0.04636 |
| 3 | 6.788 | 6.69- 6.89 | 0.01880 |
| 4 | 7.980 | 7.88- 8.08 | 0.01806 |

| Aroclor-1242 | | | |
|---|---|---|---|
| Peak | RT | RT WIN | Cal Factor |
| 1 | 6.242 | 6.14- 6.34 | 0.02518 |
| 2 | 6.642 | 6.54- 6.74 | 0.08396 |
| 3 | 6.791 | 6.69- 6.89 | 0.03350 |
| 4 | 7.983 | 7.88- 8.08 | 0.03120 |

| Aroclor-1248 | | | |
|---|---|---|---|
| Peak | RT | RT WIN | Cal Factor |
| 1 | 6.640 | 6.54- 6.74 | 0.05616 |
| 2 | 7.438 | 7.34- 7.54 | 0.04243 |
| 3 | 7.984 | 7.88- 8.08 | 0.05435 |
| 4 | 8.274 | 8.17- 8.37 | 0.05485 |



UU52:00214

6G

# 8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: ZB5  Instrument ID: ECD5

Calibration Date: 05/23/12

| Aroclor-1254 | | | |
|---|---|---|---|
| Peak | RT | RT WIN | Cal Factor |
| 1 | 8.357 | 8.26- 8.46 | 0.07344 |
| 2 | 8.728 | 8.63- 8.83 | 0.04727 |
| 3 | 8.863 | 8.76- 8.96 | 0.09126 |
| 4 | 9.213 | 9.11- 9.31 | 0.09827 |
| 5 | 9.574 | 9.47- 9.67 | 0.06112 |

| Aroclor-1262 | | | |
|---|---|---|---|
| Peak | RT | RT WIN | Cal Factor |
| 1 | 10.128 | 10.03-10.23 | 0.06377 |
| 2 | 10.444 | 10.34-10.54 | 0.04872 |
| 3 | 10.818 | 10.72-10.92 | 0.13314 |
| 4 | 11.334 | 11.23-11.43 | 0.04866 |
| 5 | 11.408 | 11.31-11.51 | 0.05533 |

| Aroclor-1268 | | | |
|---|---|---|---|
| Peak | RT | RT WIN | Cal Factor |
| 1 | 11.336 | 11.24-11.44 | 0.13622 |
| 2 | 11.407 | 11.31-11.51 | 0.13695 |
| 3 | 11.793 | 11.69-11.89 | 0.11433 |
| 4 | 12.585 | 12.48-12.68 | 0.33618 |



UU52:00215

6G

# 8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: ZB35  Instrument ID: ECD5

Calibration Date: 05/23/12

| Aroclor-1221 | | | |
|---|---|---|---|
| Peak | RT | RT WIN | Cal Factor |
| 1 | 5.290 | 5.19- 5.39 | 0.01261 |
| 2 | 5.536 | 5.44- 5.64 | 0.00745 |
| 3 | 5.649 | 5.55- 5.75 | 0.02330 |
| 4 | 5.717 | 5.62- 5.82 | 0.00427 |

| Aroclor-1232 | | | |
|---|---|---|---|
| Peak | RT | RT WIN | Cal Factor |
| 1 | 6.345 | 6.25- 6.45 | 0.01927 |
| 2 | 6.971 | 6.87- 7.07 | 0.04034 |
| 3 | 7.179 | 7.08- 7.28 | 0.01361 |
| 4 | 8.325 | 8.23- 8.43 | 0.01492 |

| Aroclor-1242 | | | |
|---|---|---|---|
| Peak | RT | RT WIN | Cal Factor |
| 1 | 6.348 | 6.25- 6.45 | 0.03264 |
| 2 | 6.974 | 6.87- 7.07 | 0.07413 |
| 3 | 7.182 | 7.08- 7.28 | 0.03012 |
| 4 | 8.327 | 8.23- 8.43 | 0.02619 |

| Aroclor-1248 | | | |
|---|---|---|---|
| Peak | RT | RT WIN | Cal Factor |
| 1 | 6.971 | 6.87- 7.07 | 0.04804 |
| 2 | 7.875 | 7.77- 7.97 | 0.03849 |
| 3 | 8.327 | 8.23- 8.43 | 0.04628 |
| 4 | 8.747 | 8.65- 8.85 | 0.05224 |

6G

# 8082 INITIAL CALIBRATION OF SINGLE POINT PCBs

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: ZB35  Instrument ID: ECD5

Calibration Date: 05/23/12

| Aroclor-1254 | | | |
|---|---|---|---|
| Peak | RT | RT WIN | Cal Factor |
| 1 | 8.466 | 8.37- 8.57 | 0.03512 |
| 2 | 8.639 | 8.54- 8.74 | 0.04464 |
| 3 | 9.160 | 9.06- 9.26 | 0.03411 |
| 4 | 9.310 | 9.21- 9.41 | 0.07546 |
| 5 | 10.093 | 9.99-10.19 | 0.04423 |

| Aroclor-1262 | | | |
|---|---|---|---|
| Peak | RT | RT WIN | Cal Factor |
| 1 | 10.419 | 10.32-10.52 | 0.07493 |
| 2 | 10.870 | 10.77-10.97 | 0.06463 |
| 3 | 11.142 | 11.04-11.24 | 0.14676 |
| 4 | 11.664 | 11.56-11.76 | 0.05904 |
| 5 | 12.463 | 12.36-12.56 | 0.05498 |

| Aroclor-1268 | | | |
|---|---|---|---|
| Peak | RT | RT WIN | Cal Factor |
| 1 | 11.664 | 11.56-11.76 | 0.15273 |
| 2 | 11.730 | 11.63-11.83 | 0.14397 |
| 3 | 12.128 | 12.03-12.23 | 0.12090 |
| 4 | 12.950 | 12.85-13.05 | 0.34151 |



UU52:00217

7F

# PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No.: UU62  Project: JELD WEN - MAULSBY MARSH

GC Column: ZB5  Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/23/12

Lab Standard ID: AR1248  Time Analyzed :2017

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1248-1 | 6.64 | 6.54 | 6.74 | 245.6 | 250.0 | -1.8 |
| Aroclor-1248-2 | 7.44 | 7.34 | 7.54 | 238.7 | 250.0 | -4.5 |
| Aroclor-1248-3 | 7.98 | 7.88 | 8.08 | 244.5 | 250.0 | -2.2 |
| Aroclor-1248-4 | 8.27 | 8.17 | 8.37 | 242.4 | 250.0 | -3.0 |

AVERAGE %D = 2.9

FORM VII PCB

7F

# PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No.: UU62  Project: JELD WEN - MAULSBY MARSH

GC Column: ZB35  Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/23/12

Lab Standard ID: AR1248  Time Analyzed :2017

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1248-1 | 6.97 | 6.87 | 7.07 | 241.9 | 250.0 | -3.2 |
| Aroclor-1248-2 | 7.87 | 7.77 | 7.97 | 229.1 | 250.0 | -8.4 |
| Aroclor-1248-3 | 8.33 | 8.23 | 8.43 | 231.0 | 250.0 | -7.6 |
| Aroclor-1248-4 | 8.75 | 8.65 | 8.85 | 240.1 | 250.0 | -3.9 |

AVERAGE %D = 5.8

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No.: UU62  Project: JELD WEN - MAULSBY MARSH

GC Column: ZB5  Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/23/12

Lab Standard ID: AR1660  Time Analyzed :2037

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1016-1 | 6.24 | 6.14 | 6.34 | 232.8 | 250.0 | -6.9 |
| Aroclor-1016-2 | 6.64 | 6.54 | 6.74 | 241.7 | 250.0 | -3.3 |
| Aroclor-1016-3 | 6.79 | 6.69 | 6.89 | 244.3 | 250.0 | -2.3 |
| Aroclor-1016-4 | 6.90 | 6.80 | 7.00 | 223.0 | 250.0 | -10.8 |

AVERAGE %D = 5.8

Date Analyzed :05/23/12

Lab Standard ID: AR1660  Time Analyzed :2037

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1260-1 | 10.45 | 10.35 | 10.55 | 252.7 | 250.0 | 1.1 |
| Aroclor-1260-2 | 10.82 | 10.72 | 10.92 | 250.5 | 250.0 | 0.2 |
| Aroclor-1260-3 | 11.22 | 11.12 | 11.32 | 253.0 | 250.0 | 1.2 |
| Aroclor-1260-4 | 11.34 | 11.24 | 11.44 | 247.4 | 250.0 | -1.0 |
| Aroclor-1260-5 | 11.41 | 11.31 | 11.51 | 251.1 | 250.0 | 0.4 |

AVERAGE %D = 0.8



UU52:00220

7F

# PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No.: UU62  Project: JELD WEN - MAULSBY MARSH

GC Column: ZB35  Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/23/12

Lab Standard ID: AR1660  Time Analyzed :2037

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1016-1 | 6.35 | 6.25 | 6.45 | 244.5 | 250.0 | -2.2 |
| Aroclor-1016-2 | 6.97 | 6.87 | 7.07 | 249.0 | 250.0 | -0.4 |
| Aroclor-1016-3 | 7.36 | 7.26 | 7.46 | 253.7 | 250.0 | 1.5 |
| Aroclor-1016-4 | 7.46 | 7.36 | 7.56 | 246.3 | 250.0 | -1.5 |

AVERAGE %D = 1.4

Date Analyzed :05/23/12

Lab Standard ID: AR1660  Time Analyzed :2037

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1260-1 | 10.42 | 10.32 | 10.52 | 258.2 | 250.0 | 3.3 |
| Aroclor-1260-2 | 10.87 | 10.77 | 10.97 | 262.8 | 250.0 | 5.1 |
| Aroclor-1260-3 | 11.14 | 11.04 | 11.24 | 265.3 | 250.0 | 6.1 |
| Aroclor-1260-4 | 11.66 | 11.57 | 11.77 | 258.8 | 250.0 | 3.5 |

AVERAGE %D = 4.5

7F

# PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No.: UU62  Project: JELD WEN - MAULSBY MARSH

GC Column: ZB35  Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/24/12

Lab Standard ID: AR1254  Time Analyzed :0005

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1254-1 | 8.47 | 8.37 | 8.57 | 249.8 | 250.0 | -0.1 |
| Aroclor-1254-2 | 8.64 | 8.54 | 8.74 | 250.5 | 250.0 | 0.2 |
| Aroclor-1254-3 | 9.16 | 9.06 | 9.26 | 250.3 | 250.0 | 0.1 |
| Aroclor-1254-4 | 9.31 | 9.21 | 9.41 | 248.6 | 250.0 | -0.5 |
| Aroclor-1254-5 | 10.09 | 9.99 | 10.19 | 250.7 | 250.0 | 0.3 |

AVERAGE %D = 0.2



UU52:00222

7F

# PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No.: UU62  Project: JELD WEN - MAULSBY MARSH

GC Column: ZB5  Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/24/12

Lab Standard ID: AR1254  Time Analyzed :0005

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1254-1 | 8.36 | 8.26 | 8.46 | 252.8 | 250.0 | 1.1 |
| Aroclor-1254-2 | 8.73 | 8.63 | 8.83 | 254.3 | 250.0 | 1.7 |
| Aroclor-1254-3 | 8.86 | 8.76 | 8.96 | 254.2 | 250.0 | 1.7 |
| Aroclor-1254-4 | 9.21 | 9.11 | 9.31 | 255.3 | 250.0 | 2.1 |
| Aroclor-1254-5 | 9.57 | 9.47 | 9.67 | 255.9 | 250.0 | 2.4 |

AVERAGE %D = 1.8

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No.: UU62  Project: JELD WEN - MAULSBY MARSH

GC Column: ZB35  Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/24/12

Lab Standard ID: AR1660  Time Analyzed :0024

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1016-1 | 6.35 | 6.25 | 6.45 | 243.7 | 250.0 | -2.5 |
| Aroclor-1016-2 | 6.97 | 6.87 | 7.07 | 247.5 | 250.0 | -1.0 |
| Aroclor-1016-3 | 7.36 | 7.26 | 7.46 | 244.0 | 250.0 | -2.4 |
| Aroclor-1016-4 | 7.46 | 7.36 | 7.56 | 247.1 | 250.0 | -1.1 |

AVERAGE %D = 1.8

Date Analyzed :05/24/12

Lab Standard ID: AR1660  Time Analyzed :0024

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1260-1 | 10.42 | 10.32 | 10.52 | 254.3 | 250.0 | 1.7 |
| Aroclor-1260-2 | 10.87 | 10.77 | 10.97 | 254.7 | 250.0 | 1.9 |
| Aroclor-1260-3 | 11.14 | 11.04 | 11.24 | 255.5 | 250.0 | 2.2 |
| Aroclor-1260-4 | 11.67 | 11.57 | 11.77 | 252.1 | 250.0 | 0.8 |

AVERAGE %D = 1.6

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No.: UU62  Project: JELD WEN - MAULSBY MARSH

GC Column: ZB5  Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/24/12

Lab Standard ID: AR1660  Time Analyzed :0024

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1016-1 | 6.24 | 6.14 | 6.34 | 236.4 | 250.0 | -5.4 |
| Aroclor-1016-2 | 6.64 | 6.54 | 6.74 | 244.5 | 250.0 | -2.2 |
| Aroclor-1016-3 | 6.79 | 6.69 | 6.89 | 247.3 | 250.0 | -1.1 |
| Aroclor-1016-4 | 6.90 | 6.80 | 7.00 | 226.0 | 250.0 | -9.6 |

AVERAGE %D = 4.6

Date Analyzed :05/24/12

Lab Standard ID: AR1660  Time Analyzed :0024

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1260-1 | 10.45 | 10.35 | 10.55 | 248.1 | 250.0 | -0.7 |
| Aroclor-1260-2 | 10.82 | 10.72 | 10.92 | 243.9 | 250.0 | -2.4 |
| Aroclor-1260-3 | 11.22 | 11.12 | 11.32 | 248.6 | 250.0 | -0.5 |
| Aroclor-1260-4 | 11.34 | 11.24 | 11.44 | 245.3 | 250.0 | -1.9 |
| Aroclor-1260-5 | 11.41 | 11.31 | 11.51 | 249.6 | 250.0 | -0.2 |

AVERAGE %D = 1.1



UU52:00225

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: ZB5  Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/25/12

Lab Standard ID: AR1254  Time Analyzed :2134

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1254-1 | 8.36 | 8.26 | 8.46 | 210.5 | 250.0 | -15.8 |
| Aroclor-1254-2 | 8.73 | 8.63 | 8.83 | 215.3 | 250.0 | -13.9 |
| Aroclor-1254-3 | 8.86 | 8.76 | 8.96 | 222.1 | 250.0 | -11.2 |
| Aroclor-1254-4 | 9.21 | 9.11 | 9.31 | 225.5 | 250.0 | -9.8 |
| Aroclor-1254-5 | 9.57 | 9.47 | 9.67 | 225.5 | 250.0 | -9.8 |

AVERAGE %D = 12.1

FORM VII PCB

7F

# PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: ZB35  Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/25/12

Lab Standard ID: AR1254  Time Analyzed :2134

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1254-1 | 8.47 | 8.37 | 8.57 | 214.0 | 250.0 | -14.4 |
| Aroclor-1254-2 | 8.64 | 8.54 | 8.74 | 214.1 | 250.0 | -14.3 |
| Aroclor-1254-3 | 9.16 | 9.06 | 9.26 | 213.6 | 250.0 | -14.6 |
| Aroclor-1254-4 | 9.31 | 9.21 | 9.41 | 213.7 | 250.0 | -14.5 |
| Aroclor-1254-5 | 10.09 | 9.99 | 10.19 | 208.2 | 250.0 | -16.7 |

AVERAGE %D = 14.9

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: ZB5  Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/25/12

Lab Standard ID: AR1660  Time Analyzed :2153

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1016-1 | 6.24 | 6.14 | 6.34 | 259.6 | 250.0 | 3.8 |
| Aroclor-1016-2 | 6.64 | 6.54 | 6.74 | 258.6 | 250.0 | 3.4 |
| Aroclor-1016-3 | 6.79 | 6.69 | 6.89 | 274.8 | 250.0 | 9.9 |
| Aroclor-1016-4 | 6.90 | 6.80 | 7.00 | 267.4 | 250.0 | 6.9 |

AVERAGE %D = 6.0

Date Analyzed :05/25/12

Lab Standard ID: AR1660  Time Analyzed :2153

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1260-1 | 10.45 | 10.35 | 10.55 | 289.1 | 250.0 | 15.6 |
| Aroclor-1260-2 | 10.82 | 10.72 | 10.92 | 266.7 | 250.0 | 6.7 |
| Aroclor-1260-3 | 11.22 | 11.12 | 11.32 | 272.4 | 250.0 | 9.0 |
| Aroclor-1260-4 | 11.34 | 11.24 | 11.44 | 273.3 | 250.0 | 9.3 |
| Aroclor-1260-5 | 11.41 | 11.31 | 11.51 | 280.5 | 250.0 | 12.2 |

AVERAGE %D = 10.6

7F

# PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: ZB35  Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/25/12

Lab Standard ID: AR1660  Time Analyzed :2153

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1016-1 | 6.35 | 6.25 | 6.45 | 243.0 | 250.0 | -2.8 |
| Aroclor-1016-2 | 6.97 | 6.87 | 7.07 | 248.5 | 250.0 | -0.6 |
| Aroclor-1016-3 | 7.36 | 7.26 | 7.46 | 257.9 | 250.0 | 3.2 |
| Aroclor-1016-4 | 7.46 | 7.36 | 7.56 | 248.3 | 250.0 | -0.7 |

AVERAGE %D = 1.8

Date Analyzed :05/25/12

Lab Standard ID: AR1660  Time Analyzed :2153

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1260-1 | 10.42 | 10.32 | 10.52 | 283.5 | 250.0 | 13.4 |
| Aroclor-1260-2 | 10.87 | 10.77 | 10.97 | 286.2 | 250.0 | 14.5 |
| Aroclor-1260-3 | 11.14 | 11.04 | 11.24 | 280.3 | 250.0 | 12.1 |
| Aroclor-1260-4 | 11.67 | 11.57 | 11.77 | 261.5 | 250.0 | 4.6 |

AVERAGE %D = 11.2

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: ZB5  Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/26/12

Lab Standard ID: AR1242  Time Analyzed :0103

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1242-1 | 6.24 | 6.14 | 6.34 | 240.4 | 250.0 | -3.8 |
| Aroclor-1242-2 | 6.64 | 6.54 | 6.74 | 238.6 | 250.0 | -4.5 |
| Aroclor-1242-3 | 6.79 | 6.69 | 6.89 | 242.7 | 250.0 | -2.9 |
| Aroclor-1242-4 | 7.98 | 7.88 | 8.08 | 218.9 | 250.0 | -12.4 |

AVERAGE %D = 5.9

FORM VII PCB

7F

# PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: ZB35  Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/26/12

Lab Standard ID: AR1242  Time Analyzed :0103

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1242-1 | 6.35 | 6.25 | 6.45 | 235.3 | 250.0 | -5.9 |
| Aroclor-1242-2 | 6.97 | 6.87 | 7.07 | 228.3 | 250.0 | -8.7 |
| Aroclor-1242-3 | 7.18 | 7.08 | 7.28 | 223.9 | 250.0 | -10.4 |
| Aroclor-1242-4 | 8.33 | 8.23 | 8.43 | 217.8 | 250.0 | -12.9 |

AVERAGE %D = 9.5

FORM VII PCB

7F
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: ZB5  Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/26/12

Lab Standard ID: AR1660  Time Analyzed :0122

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1016-1 | 6.24 | 6.14 | 6.34 | 240.0 | 250.0 | -4.0 |
| Aroclor-1016-2 | 6.64 | 6.54 | 6.74 | 243.9 | 250.0 | -2.4 |
| Aroclor-1016-3 | 6.79 | 6.69 | 6.89 | 253.5 | 250.0 | 1.4 |
| Aroclor-1016-4 | 6.90 | 6.80 | 7.00 | 244.3 | 250.0 | -2.3 |

AVERAGE %D = 2.5

Date Analyzed :05/26/12

Lab Standard ID: AR1660  Time Analyzed :0122

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1260-1 | 10.45 | 10.35 | 10.55 | 273.0 | 250.0 | 9.2 |
| Aroclor-1260-2 | 10.82 | 10.72 | 10.92 | 259.1 | 250.0 | 3.6 |
| Aroclor-1260-3 | 11.22 | 11.12 | 11.32 | 238.4 | 250.0 | -4.6 |
| Aroclor-1260-4 | 11.34 | 11.24 | 11.44 | 234.5 | 250.0 | -6.2 |
| Aroclor-1260-5 | 11.41 | 11.31 | 11.51 | 241.4 | 250.0 | -3.4 |

AVERAGE %D = 5.4

FORM VII PCB

7F

# PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: ZB35  Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/26/12

Lab Standard ID: AR1660  Time Analyzed :0122

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1016-1 | 6.35 | 6.25 | 6.45 | 236.3 | 250.0 | -5.5 |
| Aroclor-1016-2 | 6.97 | 6.87 | 7.07 | 238.0 | 250.0 | -4.8 |
| Aroclor-1016-3 | 7.36 | 7.26 | 7.46 | 229.6 | 250.0 | -8.2 |
| Aroclor-1016-4 | 7.46 | 7.36 | 7.56 | 229.5 | 250.0 | -8.2 |

AVERAGE %D = 6.7

Date Analyzed :05/26/12

Lab Standard ID: AR1660  Time Analyzed :0122

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1260-1 | 10.42 | 10.32 | 10.52 | 219.8 | 250.0 | -12.1 |
| Aroclor-1260-2 | 10.87 | 10.77 | 10.97 | 264.6 | 250.0 | 5.8 |
| Aroclor-1260-3 | 11.14 | 11.04 | 11.24 | 262.4 | 250.0 | 5.0 |
| Aroclor-1260-4 | 11.66 | 11.57 | 11.77 | 231.7 | 250.0 | -7.3 |

AVERAGE %D = 7.5

7F

# PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC

Client: ANCHOR QEA, LLC.

ARI Job No.: UU52

Project: JELD WEN MAULSBY MARSH

GC Column: ZB5

Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/26/12

Lab Standard ID: AR1248

Time Analyzed :0316

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1248-1 | 6.64 | 6.54 | 6.74 | 232.5 | 250.0 | -7.0 |
| Aroclor-1248-2 | 7.44 | 7.34 | 7.54 | 222.6 | 250.0 | -10.9 |
| Aroclor-1248-3 | 7.98 | 7.88 | 8.08 | 219.4 | 250.0 | -12.2 |
| Aroclor-1248-4 | 8.27 | 8.17 | 8.37 | 210.2 | 250.0 | -15.9 |

AVERAGE %D = 11.5

FORM VII PCB

7F

# PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: ZB35  Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/26/12

Lab Standard ID: AR1248  Time Analyzed :0316

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1248-1 | 6.97 | 6.87 | 7.07 | 224.1 | 250.0 | -10.4 |
| Aroclor-1248-2 | 7.87 | 7.77 | 7.97 | 208.6 | 250.0 | -16.6 |
| Aroclor-1248-3 | 8.33 | 8.23 | 8.43 | 211.4 | 250.0 | -15.4 |
| Aroclor-1248-4 | 8.75 | 8.65 | 8.85 | 203.9 | 250.0 | -18.4 |

AVERAGE %D = 15.2

FORM VII PCB

7F

# PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: ZB5  Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/26/12

Lab Standard ID: AR1660  Time Analyzed :0335

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1016-1 | 6.24 | 6.14 | 6.34 | 239.1 | 250.0 | -4.4 |
| Aroclor-1016-2 | 6.64 | 6.54 | 6.74 | 243.2 | 250.0 | -2.7 |
| Aroclor-1016-3 | 6.79 | 6.69 | 6.89 | 252.7 | 250.0 | 1.1 |
| Aroclor-1016-4 | 6.90 | 6.80 | 7.00 | 242.3 | 250.0 | -3.1 |

AVERAGE %D = 2.8

Date Analyzed :05/26/12

Lab Standard ID: AR1660  Time Analyzed :0335

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1260-1 | 10.45 | 10.35 | 10.55 | 265.0 | 250.0 | 6.0 |
| Aroclor-1260-2 | 10.82 | 10.72 | 10.92 | 254.5 | 250.0 | 1.8 |
| Aroclor-1260-3 | 11.22 | 11.12 | 11.32 | 236.7 | 250.0 | -5.3 |
| Aroclor-1260-4 | 11.34 | 11.24 | 11.44 | 231.0 | 250.0 | -7.6 |
| Aroclor-1260-5 | 11.41 | 11.31 | 11.51 | 237.8 | 250.0 | -4.9 |

AVERAGE %D = 5.1

7F

# PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: ZB35  Intrument: ECD5

Init. Calib. Date: 05/23/12

Date Analyzed :05/26/12

Lab Standard ID: AR1660  Time Analyzed :0335

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1016-1 | 6.35 | 6.25 | 6.45 | 237.7 | 250.0 | -4.9 |
| Aroclor-1016-2 | 6.97 | 6.87 | 7.07 | 238.7 | 250.0 | -4.5 |
| Aroclor-1016-3 | 7.36 | 7.26 | 7.46 | 227.4 | 250.0 | -9.0 |
| Aroclor-1016-4 | 7.46 | 7.36 | 7.56 | 224.6 | 250.0 | -10.1 |

AVERAGE %D = 7.1

Date Analyzed :05/26/12

Lab Standard ID: AR1660  Time Analyzed :0335

| COMPOUND/PEAK NO. | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng) | NOM AMOUNT (ng) | %D |
|---|---|---|---|---|---|---|
| Aroclor-1260-1 | 10.42 | 10.32 | 10.52 | 233.8 | 250.0 | -6.5 |
| Aroclor-1260-2 | 10.87 | 10.77 | 10.97 | 269.9 | 250.0 | 7.9 |
| Aroclor-1260-3 | 11.14 | 11.04 | 11.24 | 264.5 | 250.0 | 5.8 |
| Aroclor-1260-4 | 11.67 | 11.57 | 11.77 | 237.2 | 250.0 | -5.1 |

AVERAGE %D = 6.3

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: ZB5  ID: 0.53(mm)  Instrument ID: ECD5

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

| | | IS1 AREA | RT | IS2 AREA | RT |
|---|---|---|---|---|---|
| | ICAL MIDPT | 154228462 | 2.409 | 248602423 | 13.353 |
| | UPPER LIMIT | 308456924 | 2.509 | 497204846 | 13.453 |
| | LOWER LIMIT | 77114231 | 2.309 | 124301212 | 13.253 |

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME | IS1 AREA | RT | IS2 AREA | RT |
|---|---|---|---|---|---|---|---|---|
| 01 | ZZZZZ | ZZZZZ | 05/23/12 | 1125 | 151362399 | 2.409 | 242394135 | 13.352 |
| 02 | | 0.25PPM AR16 | 05/23/12 | 1144 | 154228462 | 2.409 | 248602423 | 13.353 |
| 03 | | 0.02 PPM AR1 | 05/23/12 | 1203 | 155920235 | 2.409 | 247239477 | 13.353 |
| 04 | | 0.05 PPM AR1 | 05/23/12 | 1222 | 160667727 | 2.409 | 259094728 | 13.353 |
| 05 | | 1 PPM AR1660 | 05/23/12 | 1241 | 151523547 | 2.408 | 250278423 | 13.352 |
| 06 | | 0.1 PPM AR16 | 05/23/12 | 1301 | 160526987 | 2.408 | 260875166 | 13.352 |
| 07 | | 0.5 PPM ARR1 | 05/23/12 | 1320 | 157116261 | 2.408 | 255504461 | 13.352 |
| 08 | | AR1242 | 05/23/12 | 1339 | 158724720 | 2.408 | 254953104 | 13.352 |
| 09 | | AR1248 | 05/23/12 | 1358 | 156181919 | 2.408 | 256386929 | 13.351 |
| 10 | | AR1254 | 05/23/12 | 1417 | 161042809 | 2.408 | 259540024 | 13.351 |
| 11 | | AR2162 | 05/23/12 | 1436 | 162569387 | 2.408 | 261988725 | 13.352 |
| 12 | | AR3268 | 05/23/12 | 1455 | 159979493 | 2.408 | 255983137 | 13.353 |
| 13 | ZZZZZ | ZZZZZ | 05/23/12 | 1514 | 159402616 | 2.409 | 257592431 | 13.351 |
| 14 | ZZZZZ | ZZZZZ | 05/23/12 | 1533 | 160396254 | 2.409 | 259869369 | 13.352 |
| 15 | ZZZZZ | ZZZZZ | 05/23/12 | 1552 | 162864330 | 2.409 | 264734547 | 13.353 |
| 16 | ZZZZZ | ZZZZZ | 05/23/12 | 1611 | 162740264 | 2.408 | 264518414 | 13.352 |
| 17 | ZZZZZ | ZZZZZ | 05/23/12 | 1630 | 163574544 | 2.407 | 271794659 | 13.351 |
| 18 | ZZZZZ | ZZZZZ | 05/23/12 | 1649 | 160640381 | 2.408 | 259555077 | 13.351 |
| 19 | | AR1254 | 05/25/12 | 2134 | 173442054 | 2.412 | 210335776 | 13.353 |
| 20 | | AR1660 | 05/25/12 | 2153 | 183205555 | 2.413 | 232118987 | 13.353 |
| 21 | UU52MBS1 | UU52MBS1 | 05/25/12 | 2212 | 151934719 | 2.411 | 203842677 | 13.354 |
| 22 | UU52LCSS1 | UU52LCSS1 | 05/25/12 | 2231 | 166230424 | 2.412 | 227742315 | 13.354 |
| 23 | MS001-SS-120 | UU52A | 05/25/12 | 2250 | 137150739 | 2.413 | 187389119 | 13.355 |
| 24 | MS101-SS-120 | UU52B | 05/25/12 | 2309 | 155679232 | 2.412 | 203740008 | 13.355 |
| 25 | MS002-SS-120 | UU52C | 05/25/12 | 2328 | 148018037 | 2.412 | 201405366 | 13.356 |
| 26 | MS003-SS-120 | UU52D | 05/25/12 | 2347 | 158091448 | 2.413 | 206785616 | 13.355 |
| 27 | MS004-SS-120 | UU52E | 05/26/12 | 0006 | 155584352 | 2.414 | 186599931 | 13.354 |
| 28 | MS005-SS-120 | UU52F | 05/26/12 | 0025 | 172898823 | 2.412 | 187722287 | 13.356 |
| 29 | MS006-SS-120 | UU52G | 05/26/12 | 0044 | 186718284 | 2.412 | 189013662 | 13.355 |
| 30 | | AR1242 | 05/26/12 | 0103 | 176614782 | 2.412 | 193649204 | 13.354 |
| 31 | | AR1660 | 05/26/12 | 0122 | 186031488 | 2.413 | 214386625 | 13.352 |
| 32 | MS007-SS-120 | UU52H | 05/26/12 | 0141 | 172760776 | 2.412 | 210736401 | 13.354 |

IS1 = 1-Bromo-2-Nitrobenzene  RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: ZB5  ID: 0.53(mm)  Instrument ID: ECD5

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

| | | | | | IS1 AREA | RT | IS2 AREA | RT |
|---|---|---|---|---|---|---|---|---|
| | | | | ICAL MIDPT | 154228462 | 2.409 | 248602423 | 13.353 |
| | | | | UPPER LIMIT | 308456924 | 2.509 | 497204846 | 13.453 |
| | | | | LOWER LIMIT | 77114231 | 2.309 | 124301212 | 13.253 |
| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME | IS1 AREA | RT | IS2 AREA | RT |
| 33 | MS008-SS-120 | UU52I | 05/26/12 | 0200 | 170997221 | 2.413 | 204648375 | 13.355 |
| 34 | MS009-SS-120 | UU52J | 05/26/12 | 0219 | 165312726 | 2.413 | 213969653 | 13.353 |
| 35 | MS009-SS-120 | UU52JMS | 05/26/12 | 0238 | 170569379 | 2.414 | 215844910 | 13.353 |
| 36 | MS009-SS-120 | UU52JMSD | 05/26/12 | 0257 | 158624279 | 2.414 | 200326069 | 13.354 |
| 37 | | AR1248 | 05/26/12 | 0316 | 180219526 | 2.413 | 206032453 | 13.353 |
| 38 | | AR1660 | 05/26/12 | 0335 | 186870454 | 2.412 | 221590214 | 13.353 |

IS1 = 1-Bromo-2-Nitrobenzene  RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: ZB35  ID: 0.53(mm)  Instrument ID: ECD5

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

| | | IS1 AREA | RT | IS2 AREA | RT |
|---|---|---|---|---|---|
| | ICAL MIDPT | 110618229 | 2.893 | 108855531 | 14.232 |
| | UPPER LIMIT | 221236458 | 2.993 | 217711062 | 14.332 |
| | LOWER LIMIT | 55309114 | 2.793 | 54427766 | 14.132 |

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME | IS1 AREA | RT | IS2 AREA | RT |
|---|---|---|---|---|---|---|---|---|
| 01 | ZZZZZ | ZZZZZ | 05/23/12 | 1125 | 109883399 | 2.894 | 107569893 | 14.232 |
| 02 | | 0.25PPM AR16 | 05/23/12 | 1144 | 110618229 | 2.893 | 108855531 | 14.232 |
| 03 | | 0.02 PPM AR1 | 05/23/12 | 1203 | 110153498 | 2.893 | 108023463 | 14.232 |
| 04 | | 0.05 PPM AR1 | 05/23/12 | 1222 | 114159374 | 2.893 | 112747731 | 14.231 |
| 05 | | 1 PPM AR1660 | 05/23/12 | 1241 | 108018292 | 2.893 | 108555775 | 14.230 |
| 06 | | 0.1 PPM AR16 | 05/23/12 | 1301 | 113263758 | 2.893 | 111845806 | 14.231 |
| 07 | | 0.5 PPM ARR1 | 05/23/12 | 1320 | 111611648 | 2.893 | 109698277 | 14.232 |
| 08 | | AR1242 | 05/23/12 | 1339 | 111472971 | 2.893 | 109000932 | 14.232 |
| 09 | | AR1248 | 05/23/12 | 1358 | 110993433 | 2.894 | 110340661 | 14.232 |
| 10 | | AR1254 | 05/23/12 | 1417 | 113709110 | 2.893 | 111392465 | 14.231 |
| 11 | | AR2162 | 05/23/12 | 1436 | 110843806 | 2.894 | 112143757 | 14.232 |
| 12 | | AR3268 | 05/23/12 | 1455 | 110553251 | 2.894 | 110210828 | 14.232 |
| 13 | ZZZZZ | ZZZZZ | 05/23/12 | 1514 | 113559639 | 2.895 | 110023028 | 14.232 |
| 14 | ZZZZZ | ZZZZZ | 05/23/12 | 1533 | 113869542 | 2.894 | 110961202 | 14.231 |
| 15 | ZZZZZ | ZZZZZ | 05/23/12 | 1552 | 115475995 | 2.895 | 113328734 | 14.232 |
| 16 | ZZZZZ | ZZZZZ | 05/23/12 | 1611 | 114989370 | 2.895 | 113322609 | 14.232 |
| 17 | ZZZZZ | ZZZZZ | 05/23/12 | 1630 | 111586981 | 2.893 | 116428224 | 14.231 |
| 18 | ZZZZZ | ZZZZZ | 05/23/12 | 1649 | 112744652 | 2.893 | 112598173 | 14.231 |
| 19 | | AR1254 | 05/25/12 | 2134 | 117403542 | 2.898 | 87153825 | 14.233 |
| 20 | | AR1660 | 05/25/12 | 2153 | 129531011 | 2.898 | 96406184 | 14.233 |
| 21 | UU52MBS1 | UU52MBS1 | 05/25/12 | 2212 | 107842922 | 2.896 | 82401791 | 14.232 |
| 22 | UU52LCSS1 | UU52LCSS1 | 05/25/12 | 2231 | 118374711 | 2.897 | 91190750 | 14.234 |
| 23 | MS001-SS-120 | UU52A | 05/25/12 | 2250 | 89256090 | 2.899 | 75797350 | 14.233 |
| 24 | MS101-SS-120 | UU52B | 05/25/12 | 2309 | 97771108 | 2.899 | 82250498 | 14.233 |
| 25 | MS002-SS-120 | UU52C | 05/25/12 | 2328 | 95290249 | 2.898 | 75841965 | 14.233 |
| 26 | MS003-SS-120 | UU52D | 05/25/12 | 2347 | 103030460 | 2.900 | 76927516 | 14.233 |
| 27 | MS004-SS-120 | UU52E | 05/26/12 | 0006 | 89134654 | 2.900 | 73010686 | 14.233 |
| 28 | MS005-SS-120 | UU52F | 05/26/12 | 0025 | 100165112 | 2.898 | 76493069 | 14.234 |
| 29 | MS006-SS-120 | UU52G | 05/26/12 | 0044 | 94995771 | 2.898 | 81349843 | 14.234 |
| 30 | | AR1242 | 05/26/12 | 0103 | 121560832 | 2.898 | 80152570 | 14.234 |
| 31 | | AR1660 | 05/26/12 | 0122 | 131165353 | 2.898 | 87667967 | 14.232 |
| 32 | MS007-SS-120 | UU52H | 05/26/12 | 0141 | 103821331 | 2.899 | 85307879 | 14.233 |

IS1 = 1-Bromo-2-Nitrobenzene  RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC.

ARI Job No.: UU52  Project: JELD WEN MAULSBY MARSH

GC Column: ZB35  ID: 0.53(mm)  Instrument ID: ECD5

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

| | | | | IS1 AREA | RT | IS2 AREA | RT |
|---|---|---|---|---|---|---|---|
| | | | ICAL MIDPT | 110618229 | 2.893 | 108855531 | 14.232 |
| | | | UPPER LIMIT | 221236458 | 2.993 | 217711062 | 14.332 |
| | | | LOWER LIMIT | 55309114 | 2.793 | 54427766 | 14.132 |
| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME | IS1 AREA | RT | IS2 AREA | RT |
| 33 | MS008-SS-120 | UU52I | 05/26/12 | 0200 | 110753933 | 2.898 | 81238436 | 14.234 |
| 34 | MS009-SS-120 | UU52J | 05/26/12 | 0219 | 114133347 | 2.899 | 79253731 | 14.233 |
| 35 | MS009-SS-120 | UU52JMS | 05/26/12 | 0238 | 115176537 | 2.899 | 78007406 | 14.232 |
| 36 | MS009-SS-120 | UU52JMSD | 05/26/12 | 0257 | 106578291 | 2.899 | 74927298 | 14.233 |
| 37 | | AR1248 | 05/26/12 | 0316 | 127736774 | 2.898 | 86154804 | 14.232 |
| 38 | | AR1660 | 05/26/12 | 0335 | 132614849 | 2.897 | 91835798 | 14.233 |

IS1 = 1-Bromo-2-Nitrobenzene  RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No.: UU62  Project: JELD WEN - MAULSBY MARSH

GC Column: ZB5  ID: 0.53(mm)  Instrument ID: ECD5

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

| | | | | | IS1 AREA | RT | IS2 AREA | RT |
|---|---|---|---|---|---|---|---|---|
| | | | | ICAL MIDPT | 154228462 | 2.409 | 248602423 | 13.353 |
| | | | | UPPER LIMIT | 308456924 | 2.509 | 497204846 | 13.453 |
| | | | | LOWER LIMIT | 77114231 | 2.309 | 124301212 | 13.253 |
| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME | IS1 AREA | RT | IS2 AREA | RT |
| 01 | | 0.25PPM AR16 | 05/23/12 | 1144 | 154228462 | 2.409 | 248602423 | 13.353 |
| 02 | | 0.02 PPM AR1 | 05/23/12 | 1203 | 155920235 | 2.409 | 247239477 | 13.353 |
| 03 | | 0.05 PPM AR1 | 05/23/12 | 1222 | 160667727 | 2.409 | 259094728 | 13.353 |
| 04 | | 1 PPM AR1660 | 05/23/12 | 1241 | 151523547 | 2.408 | 250278423 | 13.352 |
| 05 | | 0.1 PPM AR16 | 05/23/12 | 1301 | 160526987 | 2.408 | 260875166 | 13.352 |
| 06 | | 0.5 PPM ARR1 | 05/23/12 | 1320 | 157116261 | 2.408 | 255504461 | 13.352 |
| 07 | | AR1242 | 05/23/12 | 1339 | 158724720 | 2.408 | 254953104 | 13.352 |
| 08 | | AR1248 | 05/23/12 | 1358 | 156181919 | 2.408 | 256386929 | 13.351 |
| 09 | | AR1254 | 05/23/12 | 1417 | 161042809 | 2.408 | 259540024 | 13.351 |
| 10 | | AR2162 | 05/23/12 | 1436 | 162569387 | 2.408 | 261988725 | 13.352 |
| 11 | | AR3268 | 05/23/12 | 1455 | 159979493 | 2.408 | 255983137 | 13.353 |
| 12 | | AR1248 | 05/23/12 | 2017 | 157953737 | 2.412 | 233547465 | 13.354 |
| 13 | | AR1660 | 05/23/12 | 2037 | 163348755 | 2.411 | 243593184 | 13.354 |
| 14 | UU62MBW1 | UU62MBW1 | 05/23/12 | 2211 | 150139970 | 2.413 | 280007398 | 13.353 |
| 15 | UU62LCSW1 | UU62LCSW1 | 05/23/12 | 2230 | 146162804 | 2.413 | 278529213 | 13.354 |
| 16 | UU62LCSDW1 | UU62LCSDW1 | 05/23/12 | 2249 | 145934035 | 2.413 | 285560925 | 13.355 |
| 17 | MS-SSRB-1205 | UU62J | 05/23/12 | 2327 | 145833693 | 2.414 | 274879722 | 13.354 |
| 18 | MS-SSFB-1205 | UU62K | 05/23/12 | 2346 | 143187362 | 2.412 | 276489856 | 13.355 |
| 19 | | AR1254 | 05/24/12 | 0005 | 160327246 | 2.410 | 252246910 | 13.353 |
| 20 | | AR1660 | 05/24/12 | 0024 | 161663605 | 2.410 | 256774071 | 13.354 |

IS1 = 1-Bromo-2-Nitrobenzene  RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

FORM 8
PCB INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

ARI Job No.: UU62  Project: JELD WEN - MAULSBY MARSH

GC Column: ZB35  ID: 0.53(mm)  Instrument ID: ECD5

Init. Calib. Date: 05/23/12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

| | | | | | IS1 AREA | RT | IS2 AREA | RT |
|---|---|---|---|---|---|---|---|---|
| | | | | ICAL MIDPT | 110618229 | 2.893 | 108855531 | 14.232 |
| | | | | UPPER LIMIT | 221236458 | 2.993 | 217711062 | 14.332 |
| | | | | LOWER LIMIT | 55309114 | 2.793 | 54427766 | 14.132 |
| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME | IS1 AREA | RT | IS2 AREA | RT |
| 01 | | 0.25PPM AR16 | 05/23/12 | 1144 | 110618229 | 2.893 | 108855531 | 14.232 |
| 02 | | 0.02 PPM AR1 | 05/23/12 | 1203 | 110153498 | 2.893 | 108023463 | 14.232 |
| 03 | | 0.05 PPM AR1 | 05/23/12 | 1222 | 114159374 | 2.893 | 112747731 | 14.231 |
| 04 | | 1 PPM AR1660 | 05/23/12 | 1241 | 108018292 | 2.893 | 108555775 | 14.230 |
| 05 | | 0.1 PPM AR16 | 05/23/12 | 1301 | 113263758 | 2.893 | 111845806 | 14.231 |
| 06 | | 0.5 PPM ARR1 | 05/23/12 | 1320 | 111611648 | 2.893 | 109698277 | 14.232 |
| 07 | | AR1242 | 05/23/12 | 1339 | 111472971 | 2.893 | 109000932 | 14.232 |
| 08 | | AR1248 | 05/23/12 | 1358 | 110993433 | 2.894 | 110340661 | 14.232 |
| 09 | | AR1254 | 05/23/12 | 1417 | 113709110 | 2.893 | 111392465 | 14.231 |
| 10 | | AR2162 | 05/23/12 | 1436 | 110843806 | 2.894 | 112143757 | 14.232 |
| 11 | | AR3268 | 05/23/12 | 1455 | 110553251 | 2.894 | 110210828 | 14.232 |
| 12 | | AR1248 | 05/23/12 | 2017 | 112376967 | 2.897 | 103819809 | 14.232 |
| 13 | | AR1660 | 05/23/12 | 2037 | 115501356 | 2.895 | 106216352 | 14.233 |
| 14 | UU62MBW1 | UU62MBW1 | 05/23/12 | 2211 | 122436878 | 2.896 | 121592797 | 14.233 |
| 15 | UU62LCSW1 | UU62LCSW1 | 05/23/12 | 2230 | 120879756 | 2.897 | 120832932 | 14.233 |
| 16 | UU62LCSDW1 | UU62LCSDW1 | 05/23/12 | 2249 | 122645230 | 2.897 | 123839457 | 14.233 |
| 17 | MS-SSRB-1205 | UU62J | 05/23/12 | 2327 | 120702373 | 2.898 | 119021355 | 14.231 |
| 18 | MS-SSFB-1205 | UU62K | 05/23/12 | 2346 | 119881217 | 2.896 | 120505308 | 14.233 |
| 19 | | AR1254 | 05/24/12 | 0005 | 116212123 | 2.896 | 110664641 | 14.233 |
| 20 | | AR1660 | 05/24/12 | 0024 | 117932972 | 2.895 | 112374282 | 14.233 |

IS1 = 1-Bromo-2-Nitrobenzene  RT Window = RT +/- 0.1 min
IS2 = Hexabromobiphenyl

* Indicates value outside QC Limits

TPHD Analysis
Report and Summary QC Forms

ARI Job ID: UU52, UU62

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**TOTAL DIESEL RANGE HYDROCARBONS**
NWTPHD by GC/FID-Silica and Acid Cleaned
Page 1 of 2
Matrix: Sediment

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01

Data Release Authorized:
Reported: 05/23/12

| ARI ID | Sample ID | Extraction Date | Analysis Date | EFV DL | Range | MDL | RL | Result |
|---|---|---|---|---|---|---|---|---|
| UU52A | MS001-SS-120515 | 05/21/12 | 05/22/12 | 1.00 | **Diesel** | **13** | **51** | **53** |
| 12-8893 | HC ID: **DRO/MOTOR OIL** | | FID4A | 1.0 | **Motor Oil** | **16** | **100** | **150** |
| | | | | | o-Terphenyl | | | 92.8% |
| UU52B | MS101-SS-120515 | 05/21/12 | 05/22/12 | 1.00 | **Diesel** | **13** | **50** | **54** |
| 12-8894 | HC ID: **DRO/MOTOR OIL** | | FID4A | 1.0 | **Motor Oil** | **16** | **100** | **140** |
| | | | | | o-Terphenyl | | | 103% |
| UU52C | MS002-SS-120515 | 05/21/12 | 05/22/12 | 1.00 | **Diesel** | **12** | **48** | **69** |
| 12-8895 | HC ID: **DRO/MOTOR OIL** | | FID4A | 1.0 | **Motor Oil** | **15** | **97** | **180** |
| | | | | | o-Terphenyl | | | 101% |
| UU52D | MS003-SS-120515 | 05/21/12 | 05/22/12 | 1.00 | **Diesel** | **14** | **53** | **71** |
| 12-8896 | HC ID: **DRO/MOTOR OIL** | | FID4A | 1.0 | **Motor Oil** | **17** | **110** | **170** |
| | | | | | o-Terphenyl | | | 103% |
| UU52E | MS004-SS-120515 | 05/21/12 | 05/22/12 | 1.00 | Diesel | 13 | 52 | < 52 U |
| 12-8897 | HC ID: **MOTOR OIL** | | FID4A | 1.0 | **Motor Oil** | **16** | **100** | **110** |
| | | | | | o-Terphenyl | | | 103% |
| UU52F | MS005-SS-120515 | 05/21/12 | 05/22/12 | 1.00 | Diesel | 14 | 54 | < 54 U |
| 12-8898 | HC ID: **MOTOR OIL** | | FID4A | 1.0 | **Motor Oil** | **17** | **110** | **160** |
| | | | | | o-Terphenyl | | | 103% |
| UU52G | MS006-SS-120515 | 05/21/12 | 05/22/12 | 1.00 | **Diesel** | **14** | **53** | **64** |
| 12-8899 | HC ID: **DRO/MOTOR OIL** | | FID4A | 1.0 | **Motor Oil** | **17** | **110** | **190** |
| | | | | | o-Terphenyl | | | 101% |
| UU52H | MS007-SS-120515 | 05/21/12 | 05/22/12 | 1.00 | **Diesel** | **7.9** | **31** | **37** |
| 12-8900 | HC ID: **DRO/MOTOR OIL** | | FID4A | 1.0 | **Motor Oil** | **9.6** | **61** | **120** |
| | | | | | o-Terphenyl | | | 104% |
| MB-052112 | Method Blank | 05/21/12 | 05/22/12 | 1.00 | Diesel | 1.3 | 5.0 | < 5.0 U |
| 12-8901 | HC ID: --- | | FID4A | 1.0 | Motor Oil | 1.6 | 10 | < 10 U |
| | | | | | o-Terphenyl | | | 95.9% |
| UU52I | MS008-SS-120515 | 05/21/12 | 05/22/12 | 1.00 | Diesel | 12 | 45 | < 45 U |
| 12-8901 | HC ID: **MOTOR OIL** | | FID4A | 1.0 | **Motor Oil** | **14** | **90** | **120** |
| | | | | | o-Terphenyl | | | 99.7% |
| UU52J | MS009-SS-120515 | 05/21/12 | 05/22/12 | 1.00 | Diesel | 13 | 50 | < 50 U |
| 12-8902 | HC ID: --- | | FID4A | 1.0 | Motor Oil | 16 | 100 | < 100 U |
| | | | | | o-Terphenyl | | | 101% |

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**TOTAL DIESEL RANGE HYDROCARBONS**
NWTPHD by GC/FID-Silica and Acid Cleaned

Matrix: Sediment

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01

Data Release Authorized:
Reported: 05/23/12

| ARI ID | Sample ID | Extraction Date | Analysis Date | EFV DL | Range | MDL | RL | Result |
|---|---|---|---|---|---|---|---|---|

Reported in mg/kg (ppm)

EFV-Effective Final Volume in mL.
DL-Dilution of extract prior to analysis.
RL-Reporting limit.

Diesel quantitation on total peaks in the range from C12 to C24.
Motor Oil quantitation on total peaks in the range from C24 to C38.
HC ID: DRO/RRO indicate results of organics or additional hydrocarbons in ranges are not identifiable.

ANALYTICAL RESOURCES INCORPORATED

## CLEANED TPHD SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01

| Client ID | OTER | TOT OUT |
|---|---|---|
| MS001-SS-120515 | 92.8% | 0 |
| MS101-SS-120515 | 103% | 0 |
| MS002-SS-120515 | 101% | 0 |
| MS003-SS-120515 | 103% | 0 |
| MS004-SS-120515 | 103% | 0 |
| MS005-SS-120515 | 103% | 0 |
| MS006-SS-120515 | 101% | 0 |
| MS007-SS-120515 | 104% | 0 |
| MB-052112 | 95.9% | 0 |
| LCS-052112 | 94.2% | 0 |
| MS008-SS-120515 | 99.7% | 0 |
| MS008-SS-120515 MS | 100% | 0 |
| MS008-SS-120515 MSD | 105% | 0 |
| MS009-SS-120515 | 101% | 0 |

| | LCS/MB LIMITS | QC LIMITS |
|---|---|---|
| (OTER) = o-Terphenyl | (50-150) | (50-150) |

Prep Method: SW3546
Log Number Range: 12-8893 to 12-8902

FORM-II TPHD



UU52:00247

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**TOTAL DIESEL RANGE HYDROCARBONS**
NWTPHD by GC/FID-Silica and Acid Cleaned
Page 1 of 1
Matrix: Water

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01

Data Release Authorized: MW
Reported: 05/22/12

| ARI ID | Sample ID | Extraction Date | Analysis Date | EFV DL | Range/Surrogate | RL | Result |
|---|---|---|---|---|---|---|---|
| MB-051812 | Method Blank | 05/18/12 | 05/21/12 | 1.00 | Diesel Range | 0.10 | < 0.10 U |
| 12-8937 | HC ID: --- | | FID4A | 1.0 | Motor Oil Range | 0.20 | < 0.20 U |
| | | | | | o-Terphenyl | | 101% |
| UU62J | MS-SSRB-120515 | 05/18/12 | 05/21/12 | 1.00 | Diesel Range | 0.10 | < 0.10 U |
| 12-8937 | HC ID: --- | | FID4A | 1.0 | Motor Oil Range | 0.20 | < 0.20 U |
| | | | | | o-Terphenyl | | 105% |
| UU62K | MS-SSFB-120515 | 05/18/12 | 05/21/12 | 1.00 | Diesel Range | 0.10 | < 0.10 U |
| 12-8938 | HC ID: --- | | FID4A | 1.0 | Motor Oil Range | 0.20 | < 0.20 U |
| | | | | | o-Terphenyl | | 99.6% |

Reported in mg/L (ppm)

EFV-Effective Final Volume in mL.
DL-Dilution of extract prior to analysis.
RL-Reporting limit.

Diesel range quantitation on total peaks in the range from C12 to C24.
Motor Oil range quantitation on total peaks in the range from C24 to C38.
HC ID: DRO/RRO indicate results of organics or additional hydrocarbons in ranges are not identifiable.

ANALYTICAL RESOURCES INCORPORATED

## CLEANED TPHD SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01

| Client ID | OTER | TOT OUT |
|---|---|---|
| MB-051812 | 101% | 0 |
| LCS-051812 | 107% | 0 |
| LCSD-051812 | 108% | 0 |
| MS-SSRB-120515 | 105% | 0 |
| MS-SSFB-120515 | 99.6% | 0 |

| | LCS/MB LIMITS | QC LIMITS |
|---|---|---|
| (OTER) = o-Terphenyl | (50-150) | (50-150) |

Prep Method: SW3510C
Log Number Range: 12-8937 to 12-8938

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**NWTPHD by GC/FID-Silica and Acid Cleaned** **Sample ID: MS008-SS-120515**
Page 1 of 1 **MS/MSD**

Lab Sample ID: UU52I
LIMS ID: 12-8901
Matrix: Sediment
Data Release Authorized:
Reported: 05/23/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted MS/MSD: 05/21/12

Date Analyzed MS: 05/22/12 14:23
MSD: 05/22/12 14:48
Instrument/Analyst MS: FID/MH
MSD: FID/MH

Sample Amount MS: 1.11 g-dry-wt
MSD: 1.11 g-dry-wt
Final Extract Volume MS: 1.0 mL
MSD: 1.0 mL
Dilution Factor MS: 1.0
MSD: 1.0
Percent Moisture: 89.0%

| Range | Sample | MS | Spike Added-MS | MS Recovery | MSD | Spike Added-MSD | MSD Recovery | RPD |
|---|---|---|---|---|---|---|---|---|
| Diesel | < 45.0 | 984 | 1350 | 72.9% | 1010 | 1350 | 74.8% | 2.6% |

**TPHD Surrogate Recovery**

| | MS | MSD |
|---|---|---|
| o-Terphenyl | 100% | 105% |

Results reported in mg/kg
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**NWTPHD by GC/FID-Silica and Acid Cleaned** **Sample ID: LCS-052112**
Page 1 of 1 **LAB CONTROL**

Lab Sample ID: LCS-052112
LIMS ID: 12-8901
Matrix: Sediment
Data Release Authorized:
Reported: 05/23/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 05/21/12
Date Analyzed: 05/22/12 08:45
Instrument/Analyst: FID/MH

Sample Amount: 10.0 g
Final Extract Volume: 1.0 mL
Dilution Factor: 1.0

| Range | Lab Control | Spike Added | Recovery |
|---|---|---|---|
| Diesel | 120 | 150 | 80.0% |

**TPHD Surrogate Recovery**

| | |
|---|---|
| o-Terphenyl | 94.2% |

Results reported in mg/kg

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**NWTPHD by GC/FID-Silica and Acid Cleaned** **Sample ID: LCS-051812**
Page 1 of 1 **LCS/LCSD**

Lab Sample ID: LCS-051812
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized:
Reported: 05/22/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted LCS/LCSD: 05/18/12

Date Analyzed LCS: 05/21/12 12:08
LCSD: 05/21/12 12:33
Instrument/Analyst LCS: FID/MH
LCSD: FID/MH

Sample Amount LCS: 500 mL
LCSD: 500 mL
Final Extract Volume LCS: 1.0 mL
LCSD: 1.0 mL
Dilution Factor LCS: 1.00
LCSD: 1.00

| Range | LCS | Spike Added-LCS | LCS Recovery | LCSD | Spike Added-LCSD | LCSD Recovery | RPD |
|---|---|---|---|---|---|---|---|
| Diesel | 2.65 | 3.00 | 88.3% | 2.68 | 3.00 | 89.3% | 1.1% |

**TPHD Surrogate Recovery**

| | LCS | LCSD |
|---|---|---|
| o-Terphenyl | 107% | 108% |

Results reported in mg/L
RPD calculated using sample concentrations per SW846.

**FORM III**

ANALYTICAL RESOURCES INCORPORATED

## TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

ARI Job: UU52
Matrix: Sediment
Project: Jeld Wen Maulsby Marsh
Date Received: 05/16/12
120909-01.01

| ARI ID | Client ID | Client Amt | Final Vol | Basis | Prep Date |
|---|---|---|---|---|---|
| 12-8893-UU52A | MS001-SS-120515 | 0.98 g | 1.00 mL | D | 05/21/12 |
| 12-8894-UU52B | MS101-SS-120515 | 0.99 g | 1.00 mL | D | 05/21/12 |
| 12-8895-UU52C | MS002-SS-120515 | 1.03 g | 1.00 mL | D | 05/21/12 |
| 12-8896-UU52D | MS003-SS-120515 | 0.94 g | 1.00 mL | D | 05/21/12 |
| 12-8897-UU52E | MS004-SS-120515 | 0.97 g | 1.00 mL | D | 05/21/12 |
| 12-8898-UU52F | MS005-SS-120515 | 0.92 g | 1.00 mL | D | 05/21/12 |
| 12-8899-UU52G | MS006-SS-120515 | 0.94 g | 1.00 mL | D | 05/21/12 |
| 12-8900-UU52H | MS007-SS-120515 | 1.63 g | 1.00 mL | D | 05/21/12 |
| 12-8901-052112MB1 | Method Blank | 10.0 g | 1.00 mL | - | 05/21/12 |
| 12-8901-052112LCS1 | Lab Control | 10.0 g | 1.00 mL | - | 05/21/12 |
| 12-8901-UU52I | MS008-SS-120515 | 1.11 g | 1.00 mL | D | 05/21/12 |
| 12-8901-UU52IMS | MS008-SS-120515 | 1.11 g | 1.00 mL | D | 05/21/12 |
| 12-8901-UU52IMSD | MS008-SS-120515 | 1.11 g | 1.00 mL | D | 05/21/12 |
| 12-8902-UU52J | MS009-SS-120515 | 1.00 g | 1.00 mL | D | 05/21/12 |

Basis: D=Dry Weight W=As Received

ANALYTICAL RESOURCES INCORPORATED

# TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

ARI Job: UU62
Matrix: Water
Project: Jeld Wen - Maulsby Marsh
Date Received: 05/16/12
120909-01.01

| ARI ID | Client ID | Samp Amt | Final Vol | Prep Date |
|---|---|---|---|---|
| 12-8937-051812MB1 | Method Blank | 500 mL | 1.00 mL | 05/18/12 |
| 12-8937-051812LCS1 | Lab Control | 500 mL | 1.00 mL | 05/18/12 |
| 12-8937-051812LCSD1 | Lab Control Dup | 500 mL | 1.00 mL | 05/18/12 |
| 12-8937-UU62J | MS-SSRB-120515 | 500 mL | 1.00 mL | 05/18/12 |
| 12-8938-UU62K | MS-SSFB-120515 | 500 mL | 1.00 mL | 05/18/12 |



UU52:00254

4

# TPH METHOD BLANK SUMMARY

BLANK NO.

UU52MBS1

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC

SDG No.: UU52  Project No.: PSR 120909-01.01

Date Extracted: 05/21/12  Matrix: SOLID

Date Analyzed : 05/22/12  Instrument ID : FID4A

Time Analyzed : 0822

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED |
|---|---|---|---|
| 01 | UU52LCSS1 | UU52LCSS1 | 05/22/12 |
| 02 | MS001-SS-120 | UU52A | 05/22/12 |
| 03 | MS101-SS-120 | UU52B | 05/22/12 |
| 04 | MS002-SS-120 | UU52C | 05/22/12 |
| 05 | MS003-SS-120 | UU52D | 05/22/12 |
| 06 | MS004-SS-120 | UU52E | 05/22/12 |
| 07 | MS005-SS-120 | UU52F | 05/22/12 |
| 08 | MS006-SS-120 | UU52G | 05/22/12 |
| 09 | MS007-SS-120 | UU52H | 05/22/12 |
| 10 | MS008-SS-120 | UU52I | 05/22/12 |
| 11 | MS008-SS-120 | UU52IMS | 05/22/12 |
| 12 | MS008-SS-120 | UU52IMSD | 05/22/12 |
| 13 | MS009-SS-120 | UU52J | 05/22/12 |
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FORM IV TPH

4

# TPH METHOD BLANK SUMMARY

BLANK NO.

UU62MBW1

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC

SDG No.: UU62  Project No.: 120909-01.01

Date Extracted: 05/18/12  Matrix: LIQUID

Date Analyzed : 05/21/12  Instrument ID : FID4A

Time Analyzed : 1144

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED |
|---|---|---|---|
| 01 | UU62LCSW1 | UU62LCSW1 | 05/21/12 |
| 02 | UU62LCSDW1 | UU62LCSDW1 | 05/21/12 |
| 03 | MS-SSRB-1205 | UU62J | 05/21/12 |
| 04 | MS-SSFB-1205 | UU62K | 05/21/12 |
| 05 | | | |



FORM IV TPH

6a

# DIESEL INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: ANCHOR QEA

Instrument: FID4A.I Project: 120909-01.01

Calibration Date: 15-MAY-2012 SDG No.: UU62

| Diesel Range | RF1 50 | RF2 100 | RF3 250 | RF4 500 | RF5 1000 | RF6 2500 | Ave RF | %RSD |
|---|---|---|---|---|---|---|---|---|
| WA Diesel | 13022 | 13848 | 14060 | 13795 | 13351 | 13694 | 13628 | 2.8 |
| AK Diesel | 15020 | 16298 | 16660 | 16557 | 16083 | 16540 | 16193 | 3.8 |
| OR Diesel | 15480 | 16499 | 16821 | 16683 | 16190 | 16621 | 16382 | 3.0 |
| Cal Diesel | 14927 | 16230 | 16597 | 16502 | 16048 | 16500 | 16134 | 3.9 |
| o-Terph | 18437 | 16300 | 16636 | 17165 | 17397 | ***** | 17187 | 4.8 |

<- Indicates %RSD outside limits
Surrogate areas are not included in Diesel RF calculation.

Quant Ranges : WA Diesel C12-C24 (4.163-7.782)
AK Diesel C10-C25 (3.126-8.028)
OR Diesel C10-C28 (3.126-8.726)
Cal Diesel C10-C24 (3.126-7.782)

| Calibration Files | Analysis Time |
|---|---|
| 0515a005a.d | 15-MAY-2012 11:30 |
| 0515a005b.d | 15-MAY-2012 11:53 |
| 0515a005c.d | 15-MAY-2012 12:17 |
| 0515a005d.d | 15-MAY-2012 12:41 |
| 0515a005e.d | 15-MAY-2012 13:05 |
| 0515a006.d | 15-MAY-2012 13:29 |

6a

# NW MOTOR OIL RANGE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: ANCHOR QEA

Instrument: FID4A.I Project: 120909-01.01

Calibration Date: 14-MAY-2012 SDG No.: UU62

| Product Range | RF1 100 | RF2 250 | RF3 500 | RF4 1000 | RF5 2500 | RF6 5000 | Ave RF | %RSD |
|---|---|---|---|---|---|---|---|---|
| WA M.Oil C24-C38 | 9819 | 9803 | 9816 | 9634 | 9822 | 9604 | 9750 | 1.0 |
| Triac Surr | 15850 | 17196 | 17920 | 17089 | 17653 | ***** | 17142 | 4.65 |

<- Indicates %RSD outside limits
Surrogate areas are not included in Motor Oil RF calculation.

| Calibration Files | Analysis Time |
|---|---|
| 0514a020.d | 14-MAY-2012 13:51 |
| 0514a021.d | 14-MAY-2012 14:15 |
| 0514a022.d | 14-MAY-2012 14:39 |
| 0514a023.d | 14-MAY-2012 15:03 |
| 0514a024.d | 14-MAY-2012 15:27 |
| 0514a025.d | 14-MAY-2012 15:51 |



UU52:00258

7a

# DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20120521

ICal Date: 15-MAY-2012 Project:

CCal Date: 21-MAY-2012 SDG No.: 20120521

Analysis Time: 10:25 Lab ID: DIESEL #1

Instrument: FID4A.I Lab File Name: 0521a004.d

| Diesel Range | Area* | CalcAmnt | NomAmnt | % D |
|---|---|---|---|---|
| WADies(C12-C24) | 3581267 | 262.8 | 250 | 5.1 |
| AK102 (C10-C25) | 4244941 | 262.1 | 250 | 4.9 |
| Terphenyl | 835976 | 48.6 | 45 | 8.1 |

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25



UU52:00259

7a

# MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20120521

ICal Date: 14-MAY-2012 Project:

CCal Date: 21-MAY-2012 SDG No.: 20120521

Analysis Time: 10:49 Lab ID: MOIL #1

Instrument: FID4A.I Lab File Name: 0521a005.d

| M.oil Range | Area* | CalcAmnt | NomAmnt | % D |
|---|---|---|---|---|
| WAMoil(C24-C38) | 4834117 | 495.8 | 500 | -0.8 |
| AK103 (C25-C36) | 4334601 | 558.6 | 500 | 11.7 |
| OR. MOIL (C28-C40) | 3386343 | 448.4 | 500 | -10.3 |
| CRUDE(Tol-C40) | 5798539 | 767.7 | 500 | 53.5 |
| n-Triacontane | 764223 | 44.6 | 45 | -0.9 |

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36
OR M.Oil C28-C40

7a

# DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20120521

ICal Date: 15-MAY-2012 Project:

CCal Date: 21-MAY-2012 SDG No.: 20120521

Analysis Time: 16:13 Lab ID: DIESEL #2

Instrument: FID4A.I Lab File Name: 0521a017.d

| Diesel Range | Area* | CalcAmnt | NomAmnt | % D |
|---|---|---|---|---|
| WADies(C12-C24) | 3640149 | 267.1 | 250 | 6.8 |
| AK102 (C10-C25) | 4335684 | 267.8 | 250 | 7.1 |
| Terphenyl | 821721 | 47.8 | 45 | 6.2 |

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25



UU52:00261

7a

# MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20120521

ICal Date: 14-MAY-2012 Project:

CCal Date: 21-MAY-2012 SDG No.: 20120521

Analysis Time: 16:37 Lab ID: MOIL #2

Instrument: FID4A.I Lab File Name: 0521a018.d

| M.oil Range | Area* | CalcAmnt | NomAmnt | % D |
|---|---|---|---|---|
| WAMoil(C24-C38) | 4694165 | 481.5 | 500 | -3.7 |
| AK103 (C25-C36) | 4238035 | 546.2 | 500 | 9.2 |
| OR. MOIL (C28-C40) | 3216871 | 425.9 | 500 | -14.8 |
| CRUDE(Tol-C40) | 5558563 | 736.0 | 500 | 47.2 |
| n-Triacontane | 744597 | 43.4 | 45 | -3.5 |

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36
OR M.Oil C28-C40

7a

# DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20120522

ICal Date: 15-MAY-2012 Project:

CCal Date: 22-MAY-2012 SDG No.: 20120522

Analysis Time: 07:13 Lab ID: DIESEL #1

Instrument: FID4A.I Lab File Name: 0522a004.d

| Diesel Range | Area* | CalcAmnt | NomAmnt | % D |
|---|---|---|---|---|
| WADies(C12-C24) | 3701588 | 271.6 | 250 | 8.6 |
| AK102 (C10-C25) | 4416510 | 272.7 | 250 | 9.1 |
| Terphenyl | 830385 | 48.3 | 45 | 7.4 |

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25



UU52:00263

7a

# MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20120522

ICal Date: 14-MAY-2012 Project:

CCal Date: 22-MAY-2012 SDG No.: 20120522

Analysis Time: 07:37 Lab ID: MOIL #1

Instrument: FID4A.I Lab File Name: 0522a005.d

| M.oil Range | Area* | CalcAmnt | NomAmnt | % D |
|---|---|---|---|---|
| WAMoil(C24-C38) | 4707921 | 482.9 | 500 | -3.4 |
| AK103 (C25-C36) | 4237450 | 546.1 | 500 | 9.2 |
| OR. MOIL (C28-C40) | 3228096 | 427.4 | 500 | -14.5 |
| CRUDE(Tol-C40) | 5522743 | 731.2 | 500 | 46.2 |
| n-Triacontane | 756798 | 44.1 | 45 | -1.9 |

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36
OR M.Oil C28-C40

7a

# DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20120522

ICal Date: 15-MAY-2012 Project:

CCal Date: 22-MAY-2012 SDG No.: 20120522

Analysis Time: 11:33 Lab ID: DIESEL #2

Instrument: FID4A.I Lab File Name: 0522a014.d

| Diesel Range | Area* | CalcAmnt | NomAmnt | % D |
|---|---|---|---|---|
| WADies(C12-C24) | 3484324 | 255.7 | 250 | 2.3 |
| AK102 (C10-C25) | 4164714 | 257.2 | 250 | 2.9 |
| Terphenyl | 773980 | 45.0 | 45 | 0.1 |

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25



UU52:00265

7a

# MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20120522

ICal Date: 14-MAY-2012 Project:

CCal Date: 22-MAY-2012 SDG No.: 20120522

Analysis Time: 11:57 Lab ID: MOIL #2

Instrument: FID4A.I Lab File Name: 0522a015.d

| M.oil Range | Area* | CalcAmnt | NomAmnt | % D |
|---|---|---|---|---|
| WAMoil(C24-C38) | 4703644 | 482.4 | 500 | -3.5 |
| AK103 (C25-C36) | 4221468 | 544.1 | 500 | 8.8 |
| OR. MOIL (C28-C40) | 3160071 | 418.4 | 500 | -16.3 |
| CRUDE(Tol-C40) | 5544308 | 734.1 | 500 | 46.8 |
| n-Triacontane | 774056 | 45.2 | 45 | 0.3 |

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36
OR M.Oil C28-C40

7a

# DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20120522

ICal Date: 15-MAY-2012 Project:

CCal Date: 22-MAY-2012 SDG No.: 20120522

Analysis Time: 15:37 Lab ID: DIESEL #3

Instrument: FID4A.I Lab File Name: 0522a024.d

| Diesel Range | Area* | CalcAmnt | NomAmnt | % D |
|---|---|---|---|---|
| WADies(C12-C24) | 3577293 | 262.5 | 250 | 5.0 |
| AK102 (C10-C25) | 4275348 | 264.0 | 250 | 5.6 |
| Terphenyl | 796052 | 46.3 | 45 | 2.9 |

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25



UU52:00267

7a

# MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20120522

ICal Date: 14-MAY-2012 Project:

CCal Date: 22-MAY-2012 SDG No.: 20120522

Analysis Time: 16:01 Lab ID: MOIL #3

Instrument: FID4A.I Lab File Name: 0522a025.d

| M.oil Range | Area* | CalcAmnt | NomAmnt | % D |
|---|---|---|---|---|
| WAMoil(C24-C38) | 4642811 | 476.2 | 500 | -4.8 |
| AK103 (C25-C36) | 4213139 | 543.0 | 500 | 8.6 |
| OR. MOIL (C28-C40) | 3138606 | 415.6 | 500 | -16.9 |
| CRUDE(Tol-C40) | 5488979 | 726.8 | 500 | 45.4 |
| n-Triacontane | 758370 | 44.2 | 45 | -1.7 |

* Surrogate areas are subtracted from range areas

<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36
OR M.Oil C28-C40

# TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA

SDG No.: UU52  Project: 120909-01.01

Instrument ID: FID4A  GC Column: RTX-1

Run Date: 05/14/12

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 6.31  TRIAC: 9.20

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME ANALYZED | TERPH RT # | TRIAC RT # |
|---|---|---|---|---|---|---|
| 01 | | MOIL 100 | 05/14/12 | 1351 | 6.32 | 9.19 |
| 02 | | MOIL 250 | 05/14/12 | 1415 | 6.32 | 9.19 |
| 03 | | MOIL 500 | 05/14/12 | 1439 | 6.33 | 9.21 |
| 04 | | MOIL 1000 | 05/14/12 | 1503 | 6.32 | 9.24 |
| 05 | | MOIL 2500 | 05/14/12 | 1527 | 6.31 | 9.29* |
| 06 | | MOIL 5000 | 05/14/12 | 1551 | 6.31 | 9.37* |

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

# TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC

SDG No.: UU52  Project: PSR 120909-01.01

Instrument ID: FID4A  GC Column: RTX-1

Run Date: 05/22/12

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 6.31  TRIAC: 9.19

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME ANALYZED | TERPH RT # | TRIAC RT # |
|---|---|---|---|---|---|---|
| 01 | ZZZZZ | ZZZZZ | 05/22/12 | 0603 | 6.31 | 9.20 |
| 02 | RT | RT | 05/22/12 | 0626 | 6.31 | 9.19 |
| 03 | IB | IB | 05/22/12 | 0650 | 6.31 | 9.18 |
| 04 | | DIESEL #1 | 05/22/12 | 0713 | 6.31 | 9.19 |
| 05 | | MOIL #1 | 05/22/12 | 0737 | 6.32 | 9.19 |
| 06 | UU52MBS1 | UU52MBS1 | 05/22/12 | 0822 | 6.31 | 9.19 |
| 07 | UU52LCSS1 | UU52LCSS1 | 05/22/12 | 0845 | 6.31 | 9.18 |
| 08 | MS001-SS-120 | UU52A | 05/22/12 | 0909 | 6.31 | 9.18 |
| 09 | MS101-SS-120 | UU52B | 05/22/12 | 0933 | 6.31 | 9.18 |
| 10 | MS002-SS-120 | UU52C | 05/22/12 | 0957 | 6.31 | 9.19 |
| 11 | MS003-SS-120 | UU52D | 05/22/12 | 1021 | 6.31 | 9.18 |
| 12 | ZZZZZ | ZZZZZ | 05/22/12 | 1045 | 6.32 | 9.17 |
| 13 | ZZZZZ | ZZZZZ | 05/22/12 | 1109 | 6.31 | 9.19 |
| 14 | | DIESEL #2 | 05/22/12 | 1133 | 6.31 | 9.18 |
| 15 | | MOIL #2 | 05/22/12 | 1157 | 6.32 | 9.19 |
| 16 | MS004-SS-120 | UU52E | 05/22/12 | 1221 | 6.31 | 9.19 |
| 17 | MS005-SS-120 | UU52F | 05/22/12 | 1245 | 6.31 | 9.18 |
| 18 | MS006-SS-120 | UU52G | 05/22/12 | 1310 | 6.31 | 9.19 |
| 19 | MS007-SS-120 | UU52H | 05/22/12 | 1334 | 6.31 | 9.19 |
| 20 | MS008-SS-120 | UU52I | 05/22/12 | 1359 | 6.31 | 9.19 |
| 21 | MS008-SS-120 | UU52IMS | 05/22/12 | 1423 | 6.31 | 9.19 |
| 22 | MS008-SS-120 | UU52IMSD | 05/22/12 | 1448 | 6.32 | 9.19 |
| 23 | MS009-SS-120 | UU52J | 05/22/12 | 1513 | 6.31 | 9.18 |
| 24 | | DIESEL #3 | 05/22/12 | 1537 | 6.31 | 9.20 |
| 25 | | MOIL #3 | 05/22/12 | 1601 | 6.32 | 9.19 |

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.



FORM VIII TPH

# TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR QEA, LLC

SDG No.: UU62  Project: 120909-01.01

Instrument ID: FID4A  GC Column: RTX-1

Run Date: 05/21/12

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 6.31  TRIAC: 9.19

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME ANALYZED | TERPH RT # | TRIAC RT # |
|---|---|---|---|---|---|---|
| 01 | ZZZZZ | ZZZZZ | 05/21/12 | 0913 | 6.32 | 9.20 |
| 02 | RT | RT | 05/21/12 | 0936 | 6.31 | 9.19 |
| 03 | IB | IB | 05/21/12 | 1001 | 6.31 | 9.19 |
| 04 | | DIESEL #1 | 05/21/12 | 1025 | 6.31 | 9.19 |
| 05 | | MOIL #1 | 05/21/12 | 1049 | 6.32 | 9.20 |
| 06 | UU62MBW1 | UU62MBW1 | 05/21/12 | 1144 | 6.31 | 9.20 |
| 07 | UU62LCSW1 | UU62LCSW1 | 05/21/12 | 1208 | 6.32 | 9.19 |
| 08 | UU62LCSDW1 | UU62LCSDW1 | 05/21/12 | 1233 | 6.32 | 9.19 |
| 09 | ZZZZZ | ZZZZZ | 05/21/12 | 1257 | 6.31 | 9.19 |
| 10 | MS-SSRB-1205 | UU62J | 05/21/12 | 1322 | 6.31 | 9.19 |
| 11 | MS-SSFB-1205 | UU62K | 05/21/12 | 1346 | 6.31 | 9.19 |
| 12 | ZZZZZ | ZZZZZ | 05/21/12 | 1411 | 6.32 | 9.20 |
| 13 | ZZZZZ | ZZZZZ | 05/21/12 | 1435 | 6.31 | 9.19 |
| 14 | ZZZZZ | ZZZZZ | 05/21/12 | 1500 | 6.31 | 9.19 |
| 15 | ZZZZZ | ZZZZZ | 05/21/12 | 1524 | 6.31 | 9.19 |
| 16 | ZZZZZ | ZZZZZ | 05/21/12 | 1549 | 6.31 | 9.19 |
| 17 | | DIESEL #2 | 05/21/12 | 1613 | 6.31 | 9.19 |
| 18 | | MOIL #2 | 05/21/12 | 1637 | 6.33 | 9.19 |

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

Metals Analysis
Report and Summary QC Forms

ARI Job ID: UU52, UU62

# Cover Page

**INORGANIC ANALYSIS DATA PACKAGE**

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

**SDG:** UU52

| CLIENT ID | ARI ID | ARI LIMS ID | REPREP |
|---|---|---|---|
| MS001-SS-120515 | UU52A | 12-8893 | |
| MS101-SS-120515 | UU52B | 12-8894 | |
| MS002-SS-120515 | UU52C | 12-8895 | |
| MS002-SS-120515D | UU52CDUP | 12-8895 | |
| MS002-SS-120515S | UU52CSPK | 12-8895 | |
| MS003-SS-120515 | UU52D | 12-8896 | |
| PBS | UU52MB1 | 12-8896 | |
| LCSS | UU52MB1SPK | 12-8896 | |
| MS004-SS-120515 | UU52E | 12-8897 | |
| MS005-SS-120515 | UU52F | 12-8898 | |
| MS006-SS-120515 | UU52G | 12-8899 | |
| MS007-SS-120515 | UU52H | 12-8900 | |
| MS008-SS-120515 | UU52I | 12-8901 | |
| MS009-SS-120515 | UU52J | 12-8902 | |

| | | |
|---|---|---|
| Were ICP interelement corrections applied ? | Yes/No | YES |
| Were ICP background corrections applied ? | Yes/No | YES |
| If yes - were raw data generated before application of background corrections ? | Yes/No | NO |

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 5/31/12 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

**INORGANICS ANALYSIS DATA SHEET**
**TOTAL METALS**
Page 1 of 1

**Sample ID: MS001-SS-120515**
**SAMPLE**

Lab Sample ID: UU52A
LIMS ID: 12-8893
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Percent Total Solids: 10.1%

| Prep Meth | Prep Date | Analysis Method | Analysis Date | CAS Number | Analyte | MDL | RL | Result | Q |
|---|---|---|---|---|---|---|---|---|---|
| 3050B | 05/18/12 | 200.8 | 05/23/12 | 7440-36-0 | Antimony | 0.12 | 2 | 2 | U |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | **7440-38-2** | **Arsenic** | 0.82 | 2 | **33** | |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | **7440-43-9** | **Cadmium** | 0.11 | 0.9 | **3.2** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-47-3** | **Chromium** | 2.6 | 5 | **37** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-50-8** | **Copper** | 0.48 | 2 | **129** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7439-92-1** | **Lead** | 1.2 | 20 | **170** | |
| CLP | 05/18/12 | 7471A | 05/21/12 | **7439-97-6** | **Mercury** | 0.011 | 0.2 | **0.4** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-02-0** | **Nickel** | 2.9 | 10 | **50** | |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | 7440-22-4 | Silver | 0.076 | 2 | 2 | U |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-66-6** | **Zinc** | 1.2 | 10 | **400** | |

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

**INORGANICS ANALYSIS DATA SHEET**
**TOTAL METALS**
Page 1 of 1

**Sample ID: MS101-SS-120515**
**SAMPLE**

Lab Sample ID: UU52B
LIMS ID: 12-8894
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Percent Total Solids: 10.4%

| Prep Meth | Prep Date | Analysis Method | Analysis Date | CAS Number | Analyte | MDL | RL | Result | Q |
|---|---|---|---|---|---|---|---|---|---|
| 3050B | 05/18/12 | 200.8 | 05/23/12 | 7440-36-0 | Antimony | 0.12 | 2 | 2 | U |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | **7440-38-2** | **Arsenic** | 0.81 | 2 | **33** | |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | **7440-43-9** | **Cadmium** | 0.11 | 0.9 | **3.4** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-47-3** | **Chromium** | 2.5 | 5 | **38** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-50-8** | **Copper** | 0.47 | 2 | **125** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7439-92-1** | **Lead** | 1.2 | 20 | **170** | |
| CLP | 05/18/12 | 7471A | 05/21/12 | **7439-97-6** | **Mercury** | 0.0093 | 0.2 | **0.4** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-02-0** | **Nickel** | 2.8 | 9 | **42** | |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | 7440-22-4 | Silver | 0.074 | 2 | 2 | U |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-66-6** | **Zinc** | 1.1 | 9 | **374** | |

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

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**TOTAL METALS**
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**Sample ID: MS002-SS-120515**
**SAMPLE**

Lab Sample ID: UU52C
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Percent Total Solids: 10.6%

| Prep Meth | Prep Date | Analysis Method | Analysis Date | CAS Number | Analyte | MDL | RL | Result | Q |
|---|---|---|---|---|---|---|---|---|---|
| 3050B | 05/18/12 | 200.8 | 05/23/12 | 7440-36-0 | Antimony | 0.12 | 2 | 2 | U |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | **7440-38-2** | **Arsenic** | 0.81 | 2 | **27** | |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | **7440-43-9** | **Cadmium** | 0.11 | 0.9 | **2.9** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-47-3** | **Chromium** | 2.4 | 5 | **41** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-50-8** | **Copper** | 0.45 | 2 | **139** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7439-92-1** | **Lead** | 1.2 | 20 | **150** | |
| CLP | 05/18/12 | 7471A | 05/21/12 | **7439-97-6** | **Mercury** | 0.0092 | 0.2 | **0.3** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-02-0** | **Nickel** | 2.7 | 9 | **46** | |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | 7440-22-4 | Silver | 0.075 | 2 | 2 | U |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-66-6** | **Zinc** | 1.1 | 9 | **330** | |

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

**INORGANICS ANALYSIS DATA SHEET**
**TOTAL METALS**
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**Sample ID: MS003-SS-120515**
**SAMPLE**

Lab Sample ID: UU52D
LIMS ID: 12-8896
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Percent Total Solids: 10.0%

| Prep Meth | Prep Date | Analysis Method | Analysis Date | CAS Number | Analyte | MDL | RL | Result | Q |
|---|---|---|---|---|---|---|---|---|---|
| 3050B | 05/18/12 | 200.8 | 05/23/12 | 7440-36-0 | Antimony | 0.12 | 2 | 2 | U |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | **7440-38-2** | **Arsenic** | 0.81 | 2 | **19** | |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | **7440-43-9** | **Cadmium** | 0.11 | 0.9 | **2.2** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-47-3** | **Chromium** | 2.6 | 5 | **32** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-50-8** | **Copper** | 0.49 | 2 | **78** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7439-92-1** | **Lead** | 1.3 | 20 | **100** | |
| CLP | 05/18/12 | 7471A | 05/21/12 | **7439-97-6** | **Mercury** | 0.010 | 0.2 | **0.3** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-02-0** | **Nickel** | 2.9 | 10 | **30** | |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | 7440-22-4 | Silver | 0.075 | 2 | 2 | U |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-66-6** | **Zinc** | 1.2 | 10 | **210** | |

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit



UU52:00277

ANALYTICAL RESOURCES INCORPORATED

**INORGANICS ANALYSIS DATA SHEET**
**TOTAL METALS**
Page 1 of 1

**Sample ID: MS004-SS-120515**
**SAMPLE**

Lab Sample ID: UU52E
LIMS ID: 12-8897
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Percent Total Solids: 10.0%

| Prep Meth | Prep Date | Analysis Method | Analysis Date | CAS Number | Analyte | MDL | RL | Result | Q |
|---|---|---|---|---|---|---|---|---|---|
| 3050B | 05/18/12 | 200.8 | 05/23/12 | 7440-36-0 | Antimony | 0.13 | 2 | 2 | U |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | **7440-38-2** | **Arsenic** | 0.84 | 2 | **24** | |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | **7440-43-9** | **Cadmium** | 0.12 | 1 | **3** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-47-3** | **Chromium** | 2.6 | 5 | **34** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-50-8** | **Copper** | 0.49 | 2 | **99** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7439-92-1** | **Lead** | 1.3 | 20 | **110** | |
| CLP | 05/18/12 | 7471A | 05/21/12 | **7439-97-6** | **Mercury** | 0.0097 | 0.2 | **0.2** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-02-0** | **Nickel** | 2.9 | 10 | **40** | |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | 7440-22-4 | Silver | 0.077 | 2 | 2 | U |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-66-6** | **Zinc** | 1.2 | 10 | **260** | |

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

**INORGANICS ANALYSIS DATA SHEET**
**TOTAL METALS**
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**Sample ID: MS005-SS-120515**
**SAMPLE**

Lab Sample ID: UU52F
LIMS ID: 12-8898
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Percent Total Solids: 7.8%

| Prep Meth | Prep Date | Analysis Method | Analysis Date | CAS Number | Analyte | MDL | RL | Result | Q |
|---|---|---|---|---|---|---|---|---|---|
| 3050B | 05/18/12 | 200.8 | 05/23/12 | **7440-36-0** | **Antimony** | 0.15 | 2 | **3** | |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | **7440-38-2** | **Arsenic** | 1.0 | 2 | **55** | |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | **7440-43-9** | **Cadmium** | 0.14 | 1 | **3** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-47-3** | **Chromium** | 3.3 | 6 | **25** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-50-8** | **Copper** | 0.61 | 2 | **251** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7439-92-1** | **Lead** | 1.6 | 20 | **1,180** | |
| CLP | 05/18/12 | 7471A | 05/21/12 | **7439-97-6** | **Mercury** | 0.015 | 0.3 | **0.4** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-02-0** | **Nickel** | 3.6 | 10 | **40** | |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | 7440-22-4 | Silver | 0.095 | 2 | 2 | U |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-66-6** | **Zinc** | 1.5 | 10 | **500** | |

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

**INORGANICS ANALYSIS DATA SHEET**
**TOTAL METALS**
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**Sample ID: MS006-SS-120515**
**SAMPLE**

Lab Sample ID: UU52G
LIMS ID: 12-8899
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Percent Total Solids: 9.7%

| Prep Meth | Prep Date | Analysis Method | Analysis Date | CAS Number | Analyte | MDL | RL | Result | Q |
|---|---|---|---|---|---|---|---|---|---|
| 3050B | 05/18/12 | 200.8 | 05/23/12 | **7440-36-0** | **Antimony** | 0.13 | 2 | **5** | |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | **7440-38-2** | **Arsenic** | 0.86 | 2 | **80** | |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | **7440-43-9** | **Cadmium** | 0.12 | 1 | **3** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-47-3** | **Chromium** | 2.6 | 5 | **17** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-50-8** | **Copper** | 0.47 | 2 | **91** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7439-92-1** | **Lead** | 1.2 | 20 | **360** | |
| CLP | 05/18/12 | 7471A | 05/21/12 | **7439-97-6** | **Mercury** | 0.012 | 0.2 | **0.7** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-02-0** | **Nickel** | 2.8 | 9 | **33** | |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | 7440-22-4 | Silver | 0.079 | 2 | 2 | U |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-66-6** | **Zinc** | 1.1 | 9 | **217** | |

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

**INORGANICS ANALYSIS DATA SHEET**
**TOTAL METALS**
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**Sample ID: MS007-SS-120515**
**SAMPLE**

Lab Sample ID: UU52H
LIMS ID: 12-8900
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Percent Total Solids: 16.7%

| Prep Meth | Prep Date | Analysis Method | Analysis Date | CAS Number | Analyte | MDL | RL | Result | Q |
|---|---|---|---|---|---|---|---|---|---|
| 3050B | 05/18/12 | 200.8 | 05/23/12 | 7440-36-0 | Antimony | 0.077 | 1 | 1 | U |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | **7440-38-2** | **Arsenic** | 0.51 | 1 | **28** | |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | **7440-43-9** | **Cadmium** | 0.071 | 0.6 | **3.7** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-47-3** | **Chromium** | 1.5 | 3 | **40** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-50-8** | **Copper** | 0.28 | 1 | **111** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7439-92-1** | **Lead** | 0.74 | 10 | **350** | |
| CLP | 05/18/12 | 7471A | 05/21/12 | **7439-97-6** | **Mercury** | 0.0062 | 0.1 | **0.2** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-02-0** | **Nickel** | 1.7 | 6 | **44** | |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | 7440-22-4 | Silver | 0.047 | 1 | 1 | U |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-66-6** | **Zinc** | 0.68 | 6 | **594** | |

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

**INORGANICS ANALYSIS DATA SHEET**
**TOTAL METALS**
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**Sample ID: MS008-SS-120515**
**SAMPLE**

Lab Sample ID: UU52I
LIMS ID: 12-8901
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Percent Total Solids: 10.8%

| Prep Meth | Prep Date | Analysis Method | Analysis Date | CAS Number | Analyte | MDL | RL | Result | Q |
|---|---|---|---|---|---|---|---|---|---|
| 3050B | 05/18/12 | 200.8 | 05/23/12 | 7440-36-0 | Antimony | 0.11 | 2 | 2 | U |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | **7440-38-2** | **Arsenic** | 0.75 | 2 | **27** | |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | **7440-43-9** | **Cadmium** | 0.10 | 0.9 | **3.0** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-47-3** | **Chromium** | 2.4 | 4 | **37** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-50-8** | **Copper** | 0.44 | 2 | **94** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7439-92-1** | **Lead** | 1.2 | 20 | **160** | |
| CLP | 05/18/12 | 7471A | 05/21/12 | **7439-97-6** | **Mercury** | 0.010 | 0.2 | **0.2** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-02-0** | **Nickel** | 2.7 | 9 | **37** | |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | 7440-22-4 | Silver | 0.069 | 2 | 2 | U |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-66-6** | **Zinc** | 1.1 | 9 | **251** | |

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

**INORGANICS ANALYSIS DATA SHEET**
**TOTAL METALS**
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**Sample ID: MS009-SS-120515**
**SAMPLE**

Lab Sample ID: UU52J
LIMS ID: 12-8902
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Percent Total Solids: 10.3%

| Prep Meth | Prep Date | Analysis Method | Analysis Date | CAS Number | Analyte | MDL | RL | Result | Q |
|---|---|---|---|---|---|---|---|---|---|
| 3050B | 05/18/12 | 200.8 | 05/23/12 | 7440-36-0 | Antimony | 0.12 | 2 | 2 | U |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | **7440-38-2** | **Arsenic** | 0.83 | 2 | **8** | |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | **7440-43-9** | **Cadmium** | 0.11 | 1 | **2** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-47-3** | **Chromium** | 2.4 | 4 | **43** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-50-8** | **Copper** | 0.45 | 2 | **66** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7439-92-1** | **Lead** | 1.2 | 20 | **60** | |
| CLP | 05/18/12 | 7471A | 05/21/12 | **7439-97-6** | **Mercury** | 0.0088 | 0.2 | **0.2** | |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-02-0** | **Nickel** | 2.7 | 9 | **38** | |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | 7440-22-4 | Silver | 0.076 | 2 | 2 | U |
| 3050B | 05/18/12 | 6010C | 05/29/12 | **7440-66-6** | **Zinc** | 1.1 | 9 | **162** | |

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

**INORGANICS ANALYSIS DATA SHEET**
**TOTAL METALS**
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**Sample ID: MS002-SS-120515**
**MATRIX SPIKE**

Lab Sample ID: UU52C
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

**MATRIX SPIKE QUALITY CONTROL REPORT**

| Analyte | Analysis Method | Sample | Spike | Spike Added | % Recovery | Q |
|---|---|---|---|---|---|---|
| Antimony | 200.8 | 2 U | 23 | 234 | 9.8% | N |
| Arsenic | 200.8 | 27 | 261 | 234 | 100% | |
| Cadmium | 200.8 | 2.9 | 224 | 234 | 94.5% | |
| Chromium | 6010C | 41 | 473 | 448 | 96.4% | |
| Copper | 6010C | 139 | 588 | 448 | 100% | |
| Lead | 6010C | 150 | 1,930 | 1,790 | 99.4% | |
| Mercury | 7471A | 0.3 | 2.3 | 1.77 | 113% | |
| Nickel | 6010C | 46 | 477 | 448 | 96.2% | |
| Silver | 200.8 | 2 U | 222 | 234 | 94.9% | |
| Zinc | 6010C | 330 | 751 | 448 | 94.0% | |

Reported in mg/kg-dry

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%



UU52:00284

ANALYTICAL RESOURCES INCORPORATED

**INORGANICS ANALYSIS DATA SHEET**
**TOTAL METALS**
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**Sample ID: MS002-SS-120515**
**DUPLICATE**

Lab Sample ID: UU52C
LIMS ID: 12-8895
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

## MATRIX DUPLICATE QUALITY CONTROL REPORT

| Analyte | Analysis Method | Sample | Duplicate | RPD | Control Limit | Q |
|---|---|---|---|---|---|---|
| Antimony | 200.8 | 2 U | 2 U | 0.0% | +/- 2 | L |
| Arsenic | 200.8 | 27 | 27 | 0.0% | +/- 20% | |
| Cadmium | 200.8 | 2.9 | 3.0 | 3.4% | +/- 0.9 | L |
| Chromium | 6010C | 41 | 40 | 2.5% | +/- 20% | |
| Copper | 6010C | 139 | 138 | 0.7% | +/- 20% | |
| Lead | 6010C | 150 | 150 | 0.0% | +/- 20% | |
| Mercury | 7471A | 0.3 | 0.3 | 0.0% | +/- 0.2 | L |
| Nickel | 6010C | 46 | 46 | 0.0% | +/- 20% | |
| Silver | 200.8 | 2 U | 2 U | 0.0% | +/- 2 | L |
| Zinc | 6010C | 330 | 334 | 1.2% | +/- 20% | |

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

**INORGANICS ANALYSIS DATA SHEET**
**TOTAL METALS** **Sample ID: LAB CONTROL**


Lab Sample ID: UU52LCS
LIMS ID: 12-8896
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

| Analyte | Analysis Method | Spike Found | Spike Added | % Recovery | Q |
|---|---|---|---|---|---|
| Antimony | 200.8 | 24.8 | 25.0 | 99.2% | |
| Arsenic | 200.8 | 25.5 | 25.0 | 102% | |
| Cadmium | 200.8 | 24.1 | 25.0 | 96.4% | |
| Chromium | 6010C | 50.5 | 50.0 | 101% | |
| Copper | 6010C | 51.7 | 50.0 | 103% | |
| Lead | 6010C | 208 | 200 | 104% | |
| Mercury | 7471A | 0.53 | 0.50 | 106% | |
| Nickel | 6010C | 49 | 50 | 98.0% | |
| Silver | 200.8 | 25.0 | 25.0 | 100% | |
| Zinc | 6010C | 50 | 50 | 100% | |

Reported in mg/kg-dry

N-Control limit not met
NA-Not Applicable, Analyte Not Spiked
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

**INORGANICS ANALYSIS DATA SHEET**
**TOTAL METALS**
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**Sample ID: METHOD BLANK**

Lab Sample ID: UU52MB
LIMS ID: 12-8896
Matrix: Sediment
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU52-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

| Prep Meth | Prep Date | Analysis Method | Analysis Date | CAS Number | Analyte | MDL | RL | Result | Q |
|---|---|---|---|---|---|---|---|---|---|
| 3050B | 05/18/12 | 200.8 | 05/23/12 | 7440-36-0 | Antimony | 0.013 | 0.2 | 0.2 | U |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | 7440-38-2 | Arsenic | 0.087 | 0.2 | 0.2 | U |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | 7440-43-9 | Cadmium | 0.012 | 0.1 | 0.1 | U |
| 3050B | 05/18/12 | 6010C | 05/29/12 | 7440-47-3 | Chromium | 0.27 | 0.5 | 0.5 | U |
| 3050B | 05/18/12 | 6010C | 05/29/12 | 7440-50-8 | Copper | 0.050 | 0.2 | 0.2 | U |
| 3050B | 05/18/12 | 6010C | 05/29/12 | 7439-92-1 | Lead | 0.13 | 2 | 2 | U |
| CLP | 05/18/12 | 7471A | 05/21/12 | 7439-97-6 | Mercury | 0.0013 | 0.02 | 0.02 | U |
| 3050B | 05/18/12 | 6010C | 05/29/12 | 7440-02-0 | Nickel | 0.30 | 1 | 1 | U |
| 3050B | 05/18/12 | 200.8 | 05/23/12 | 7440-22-4 | Silver | 0.0080 | 0.2 | 0.2 | U |
| 3050B | 05/18/12 | 6010C | 05/29/12 | 7440-66-6 | Zinc | 0.12 | 1 | 1 | U |

Reported in mg/kg (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

# Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

UNITS: ug/L

**SDG:** UU52

| ANALYTE | EL | M | RUN | ICVTV | ICV | %R | CCVTV | CCV1 | %R | CCV2 | %R | CCV3 | %R | CCV4 | %R | CCV5 | %R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | SB | PMS | MS052381 | 50.0 | 48.94 | **97.9** | 50.0 | 49.55 | **99.1** | 49.92 | **99.8** | 50.56 | **101.1** | 50.08 | **100.2** | 50.66 | **101.3** |
| Arsenic | AS | PMS | MS052381 | 50.0 | 49.58 | **99.2** | 50.0 | 50.39 | **100.8** | 50.54 | **101.1** | 50.38 | **100.8** | 50.74 | **101.5** | 50.17 | **100.3** |
| Cadmium | CD | PMS | MS052381 | 50.0 | 49.26 | **98.5** | 50.0 | 49.93 | **99.9** | 51.05 | **102.1** | 50.01 | **100.0** | 49.82 | **99.6** | 49.69 | **99.4** |
| Chromium | CR | ICP | IP052921 | 1000.0 | 952.21 | **95.2** | 1000.0 | 955.71 | **95.6** | 969.44 | **96.9** | 958.42 | **95.8** | 967.84 | **96.8** | 965.99 | **96.6** |
| Copper | CU | ICP | IP052921 | 1000.0 | 1018.90 | **101.9** | 1000.0 | 1022.83 | **102.3** | 1026.48 | **102.6** | 1028.22 | **102.8** | 1032.55 | **103.3** | 1031.20 | **103.1** |
| Lead | PB | ICP | IP052921 | 2000.0 | 1985.98 | **99.3** | 2000.0 | 1992.73 | **99.6** | 2005.36 | **100.3** | 1989.83 | **99.5** | 1965.06 | **98.3** | 2002.22 | **100.1** |
| Mercury | HG | CVA | HG052102 | 8.0 | 8.26 | **103.3** | 4.0 | 4.18 | **104.5** | 4.21 | **105.3** | 4.19 | **104.8** | | | | |
| Nickel | NI | ICP | IP052921 | 1000.0 | 959.39 | **95.9** | 1000.0 | 969.42 | **96.9** | 987.90 | **98.8** | 978.45 | **97.8** | 993.21 | **99.3** | 983.21 | **98.3** |
| Silver | AG | PMS | MS052381 | 50.0 | 49.85 | **99.7** | 50.0 | 50.32 | **100.6** | 50.65 | **101.3** | 49.79 | **99.6** | 50.39 | **100.8** | 50.33 | **100.7** |
| Zinc | ZN | ICP | IP052921 | 1000.0 | 1002.35 | **100.2** | 1000.0 | 1011.70 | **101.2** | 1032.32 | **103.2** | 1020.62 | **102.1** | 1036.95 | **103.7** | 1028.11 | **102.8** |

Control Limits: Mercury 80-120; Other Metals 90-110



UU52:00288

# Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

**SDG:** UU52

UNITS: ug/L

| ANALYTE | EL | M | RUN | CCVTV | CCV6 | %R | CCV7 | %R | CCV8 | %R | CCV9 | %R | CCV10 | %R | CCV11 | %R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | SB | PMS | MS052381 | 50.0 | 49.61 | **99.2** | 49.48 | **99.0** | 49.82 | **99.6** | | | | | | |
| Arsenic | AS | PMS | MS052381 | 50.0 | 50.22 | **100.4** | 50.11 | **100.2** | 50.86 | **101.7** | | | | | | |
| Cadmium | CD | PMS | MS052381 | 50.0 | 48.99 | **98.0** | 49.97 | **99.9** | 50.16 | **100.3** | | | | | | |
| Chromium | CR | ICP | IP052921 | 1000.0 | | | | | | | | | | | | |
| Copper | CU | ICP | IP052921 | 1000.0 | | | | | | | | | | | | |
| Lead | PB | ICP | IP052921 | 2000.0 | | | | | | | | | | | | |
| Mercury | HG | CVA | HG052102 | 4.0 | | | | | | | | | | | | |
| Nickel | NI | ICP | IP052921 | 1000.0 | | | | | | | | | | | | |
| Silver | AG | PMS | MS052381 | 50.0 | 49.58 | **99.2** | 50.24 | **100.5** | 50.57 | **101.1** | | | | | | |
| Zinc | ZN | ICP | IP052921 | 1000.0 | | | | | | | | | | | | |

Control Limits: Mercury 80-120; Other Metals 90-110



UU52:98289

# CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

**SDG:** UU52

UNITS: ug/L

| ANALYTE | EL | M | RUN | CRA/I TV | CR-1 | %R | CR-2 | %R | CR-3 | %R | CR-4 | %R | CR-5 | %R | CR-6 | %R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | SB | PMS | MS052381 | 0.2 | 0.20 | **100.0** | | | | | | | | | | |
| Arsenic | AS | PMS | MS052381 | 0.2 | 0.28 | **140.0** | | | | | | | | | | |
| Cadmium | CD | PMS | MS052381 | 0.1 | 0.10 | **100.0** | | | | | | | | | | |
| Chromium | CR | ICP | IP052921 | 5.0 | 4.72 | **94.4** | | | | | | | | | | |
| Copper | CU | ICP | IP052921 | 2.0 | 2.11 | **105.5** | | | | | | | | | | |
| Lead | PB | ICP | IP052921 | 20.0 | 20.11 | **100.6** | | | | | | | | | | |
| Mercury | HG | CVA | HG052102 | 0.1 | 0.11 | **110.0** | | | | | | | | | | |
| Nickel | NI | ICP | IP052921 | 10.0 | 10.85 | **108.5** | | | | | | | | | | |
| Silver | AG | PMS | MS052381 | 0.2 | 0.19 | **95.0** | | | | | | | | | | |
| Zinc | ZN | ICP | IP052921 | 10.0 | 9.55 | **95.5** | | | | | | | | | | |

Control Limits: *no control limits have been established by the EPA at this time.*



UU52 : 9259

# Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

**SDG:** UU52

UNITS: ug/L

| ANALYTE | EL | METH | RUN | CRDL | IDL | ICB | C | CCB1 | C | CCB2 | C | CCB3 | C | CCB4 | C | CCB5 | C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | SB | PMS | MS052381 | 60.0 | 0.2 | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U |
| Arsenic | AS | PMS | MS052381 | 10.0 | 0.2 | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U |
| Cadmium | CD | PMS | MS052381 | 5.0 | 0.1 | 0.1 | U | 0.1 | U | 0.1 | U | 0.1 | U | 0.1 | U | 0.1 | U |
| Chromium | CR | ICP | IP052921 | 10.0 | 5.0 | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U |
| Copper | CU | ICP | IP052921 | 25.0 | 2.0 | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U |
| Lead | PB | ICP | IP052921 | 3.0 | 20.0 | 20.0 | U | 20.0 | U | 20.0 | U | 20.0 | U | 20.0 | U | 20.0 | U |
| Mercury | HG | CVA | HG052102 | 0.2 | 0.1 | 0.1 | U | 0.1 | U | 0.1 | U | 0.1 | U | | | | |
| Nickel | NI | ICP | IP052921 | 40.0 | 10.0 | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U |
| Silver | AG | PMS | MS052381 | 10.0 | 0.2 | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U |
| Zinc | ZN | ICP | IP052921 | 20.0 | 10.0 | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U |

UU52 : 9629

# Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

UNITS: ug/L

**SDG:** UU52

| ANALYTE | EL | METH | RUN | CRDL | IDL | CCB6 | C | CCB7 | C | CCB8 | C | CCB9 | C | CCB10 | C | CCB11 | C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | SB | PMS | MS052381 | 60.0 | 0.2 | 0.2 | U | 0.2 | U | 0.2 | U | | | | | | |
| Arsenic | AS | PMS | MS052381 | 10.0 | 0.2 | 0.2 | U | 0.2 | U | 0.2 | U | | | | | | |
| Cadmium | CD | PMS | MS052381 | 5.0 | 0.1 | 0.1 | U | 0.1 | U | 0.1 | U | | | | | | |
| Chromium | CR | ICP | IP052921 | 10.0 | 5.0 | | | | | | | | | | | | |
| Copper | CU | ICP | IP052921 | 25.0 | 2.0 | | | | | | | | | | | | |
| Lead | PB | ICP | IP052921 | 3.0 | 20.0 | | | | | | | | | | | | |
| Mercury | HG | CVA | HG052102 | 0.2 | 0.1 | | | | | | | | | | | | |
| Nickel | NI | ICP | IP052921 | 40.0 | 10.0 | | | | | | | | | | | | |
| Silver | AG | PMS | MS052381 | 10.0 | 0.2 | 0.2 | U | 0.2 | U | 0.2 | U | | | | | | |
| Zinc | ZN | ICP | IP052921 | 20.0 | 10.0 | | | | | | | | | | | | |



UU52 : 00292

# ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

**SDG:** UU52

ICS SOURCE: I.V.

RUNID: IP052921

INSTRUMENT ID: OPTIMA ICP 1

UNITS: ug/L

| ANALYTE | ICSA TV | ICSAB TV | ICSA1 | ICSAB1 | %R | ICSA2 | ICSAB2 | %R | ICSA3 | ICSAB3 | %R |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 200000 | 200000 | 211269.8 | 206979.3 | **103.5** | | | | | | |
| Antimony | | 1000 | -32.1 | 1032.0 | **103.2** | | | | | | |
| Arsenic | | 1000 | -2.8 | 1046.1 | **104.6** | | | | | | |
| Barium | | 1000 | 1.8 | 956.5 | **95.7** | | | | | | |
| Beryllium | | 1000 | 0.0 | 1010.4 | **101.0** | | | | | | |
| Boron | | | -13.6 | -19.0 | | | | | | | |
| Cadmium | | 1000 | 1.0 | 1003.4 | **100.3** | | | | | | |
| Calcium | 100000 | 100000 | 101025.3 | 102192.3 | **102.2** | | | | | | |
| Chromium | | 1000 | 2.1 | 963.1 | **96.3** | | | | | | |
| Cobalt | | 1000 | 0.9 | 925.6 | **92.6** | | | | | | |
| Copper | | 1000 | 2.6 | 1039.9 | **104.0** | | | | | | |
| Iron | 200000 | 200000 | 205569.9 | 203892.9 | **101.9** | | | | | | |
| Lead | | 1000 | 4.8 | 965.0 | **96.5** | | | | | | |
| Magnesium | 100000 | 100000 | 103325.9 | 104634.5 | **104.6** | | | | | | |
| Manganese | | 1000 | 0.1 | 961.7 | **96.2** | | | | | | |
| Molybdenum | | | 7.3 | 8.2 | | | | | | | |
| Nickel | | 1000 | 0.8 | 935.3 | **93.5** | | | | | | |
| Potassium | | | 0.9 | 7.4 | | | | | | | |
| Selenium | | 1000 | -4.0 | 1009.8 | **101.0** | | | | | | |
| Silicon | | | -11.9 | -9.6 | | | | | | | |
| Silver | | 1000 | 2.1 | 1035.9 | **103.6** | | | | | | |
| Sodium | | | 50.3 | 59.4 | | | | | | | |
| Strontium | | | 10.3 | 11.2 | | | | | | | |
| Thallium | | 1000 | -8.8 | 941.9 | **94.2** | | | | | | |
| Tin | | | -27.3 | -29.3 | | | | | | | |
| Titanium | | | 0.7 | -0.1 | | | | | | | |
| Vanadium | | 1000 | -5.6 | 1005.7 | **100.6** | | | | | | |
| Zinc | | 1000 | -1.8 | 925.4 | **92.5** | | | | | | |



UU52:00293

# ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

**SDG:** UU52

ICS SOURCE: I.V.

RUNID: MS052381

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

| ANALYTE | ICSA TV | ICSAB TV | ICSA1 | ICSAB1 | %R | ICSA2 | ICSAB2 | %R | ICSA3 | ICSAB3 | %R |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.0 | 0.1 | | | | | | | |
| Cadmium | | 20 | 0.0 | 19.4 | **97.0** | | | | | | |
| Chromium | | 20 | 0.7 | 20.1 | **100.5** | | | | | | |
| Cobalt | | 20 | 0.0 | 19.3 | **96.5** | | | | | | |
| Copper | | 20 | 0.5 | 20.0 | **100.0** | | | | | | |
| Lead | | | 0.1 | 0.1 | | | | | | | |
| Manganese | | 20 | 0.0 | 19.6 | **98.0** | | | | | | |
| Molybdenum | 400 | 400 | 401.6 | 403.3 | **100.8** | | | | | | |
| Nickel | | 20 | 0.6 | 19.2 | **96.0** | | | | | | |
| Selenium | | | -0.1 | -0.1 | | | | | | | |
| Silver | | 20 | 0.0 | 18.9 | **94.5** | | | | | | |
| Thorium | | | 0.1 | 0.1 | | | | | | | |
| Vanadium | | | 0.0 | -0.4 | | | | | | | |
| Zinc | | 20 | 1.1 | 20.1 | **100.5** | | | | | | |



UU52 : 00294

# Post Digest Spike Sample Recovery

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

ANALYSIS METHOD: PMS

**SDG:** UU52

UNITS: ug/L

| ANALYTE | CLIENT ID | ARI ID | RUNID | SPIKED SAMPLE RESULT | C | SAMPLE RESULT | C | SPIKE ADDED | MATRIX | %R |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | MS002-SS-120515A | UU52CPOST | MS052381 | 503.10 | B | 4.00 | U | 500 | Sediment | **100.6** |

# IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

**SDG:** UU52 UNITS: ug/L

| ANALYTE | EL | METH | INSTRUMENT | WAVELENTH (nm) | GFA BACK-GROUND | CLP CRDL | RL | RL DATE | ICP LINEAR RANGE (ug/L) | ICP LR DATE |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | SB | PMS | PE ELAN 6000 MS | 0.00 | | 60 | 0.2 | 4/1/2011 | | |
| Arsenic | AS | PMS | PE ELAN 6000 MS | 0.00 | | 10 | 0.2 | 4/1/2011 | | |
| Cadmium | CD | PMS | PE ELAN 6000 MS | 0.00 | | 5 | 0.1 | 4/1/2011 | | |
| Chromium | CR | ICP | OPTIMA ICP 1 | 267.72 | | 10 | 5.0 | 4/1/2011 | 100000.0 | 7/12/2010 |
| Copper | CU | ICP | OPTIMA ICP 1 | 324.75 | | 25 | 2.0 | 4/1/2011 | 40000.0 | 7/12/2010 |
| Lead | PB | ICP | OPTIMA ICP 1 | 220.35 | | 3 | 20.0 | 4/1/2011 | 300000.0 | 7/12/2010 |
| Mercury | HG | CVA | CETAC MERCURY | 253.70 | | 0.2 | 0.1 | 4/1/2011 | | |
| Nickel | NI | ICP | OPTIMA ICP 1 | 231.60 | | 40 | 10.0 | 4/1/2011 | 100000.0 | 7/12/2010 |
| Silver | AG | PMS | PE ELAN 6000 MS | 0.00 | | 10 | 0.2 | 4/1/2011 | | |
| Zinc | ZN | ICP | OPTIMA ICP 1 | 206.20 | | 20 | 10.0 | 4/1/2011 | 100000.0 | 7/12/2010 |

# ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

IEC DATE: 5/29/2012

**SDG:** UU52

INSTRUMENT ID: OPTIMA ICP 1

| ANALYTE | WAVELENGTH | AL | AS | BA | BE | CA | CD | CO | CR | CU | FE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 308.22 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Antimony | 206.84 | -0.2671460 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 15.1857000 | 0.0000000 | 0.0000000 |
| Arsenic | 188.98 | 0.0968366 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0278042 | 0.0000000 | -1.2026700 | 0.9023870 | 0.0000000 | 0.0754059 |
| Barium | 233.53 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.1888640 | 0.0000000 | 0.0000000 | 0.0355242 |
| Beryllium | 313.04 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Cadmium | 228.80 | 0.0000000 | 1.7599700 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.1139620 | 0.0000000 | 0.0000000 | 0.0000000 |
| Calcium | 317.93 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Chromium | 267.72 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0099375 | 0.0000000 | -0.1609150 | 0.0000000 | 0.0000000 | -0.0194781 |
| Cobalt | 228.62 | 0.0000000 | 0.0000000 | 0.3593720 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.0383107 | 0.0000000 | 0.0000000 |
| Copper | 324.75 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.3423600 | -0.0466820 | 0.0000000 | -0.0878400 |
| Iron | 273.96 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.7651920 | 0.0000000 | 0.0000000 |
| Lead | 220.35 | -0.3177780 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -2.3759900 | 0.8342190 | 0.0000000 |
| Magnesium | 279.08 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -1.1612800 | -1.0216800 | 0.0000000 | 0.6175170 |
| Manganese | 257.61 | 0.0084860 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Molybdenum | 202.03 | 0.0180771 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0257018 | 0.0000000 | 0.0000000 | 0.0933245 | 0.0000000 | 0.0124101 |
| Nickel | 231.60 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.3321560 | 0.0000000 | 0.0000000 | -0.0599311 |
| Potassium | 766.49 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Selenium | 196.03 | 0.2679630 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0589810 | 0.0000000 | 0.4514010 | 0.0000000 | 0.0000000 | 0.0000000 |
| Silicon | 288.16 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -3.5681100 | 0.0000000 | -1.0020900 | 0.0000000 | 0.0000000 |
| Silver | 328.07 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.0403784 |
| Sodium | 589.59 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 4.4818000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Thallium | 190.80 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 9.0986000 | 0.3674950 | 0.0000000 | -0.1085490 |
| Tin | 189.93 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Titanium | 334.90 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0373290 | 0.0000000 | 0.0000000 | 0.2444290 | 0.0000000 | 0.0000000 |
| Vanadium | 292.40 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -7.0524000 | 0.0000000 | 0.1302620 |
| Zinc | 206.20 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.0165094 | 0.0000000 | 0.0000000 | 0.7289660 | 0.0000000 | 0.0000000 |

UU52 - 5/29/2012

# ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

IEC DATE: 5/29/2012

**SDG:** UU52

INSTRUMENT ID: OPTIMA ICP 1

| ANALYTE | WAVELENGTH | MG | MN | MO | NI | PB | SB | TI | TL | V | ZN |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 308.22 | 0.0000000 | 0.0000000 | 21.7825000 | 0.0000000 | 0.0000000 | 0.0000000 | 1.9524000 | 0.0000000 | 15.3881000 | 0.0000000 |
| Antimony | 206.84 | -0.1041080 | 0.0000000 | 1.3316900 | -0.3291700 | 0.0000000 | 0.0000000 | -1.5094000 | 0.0000000 | -3.7687600 | 0.9674010 |
| Arsenic | 188.98 | 0.0000000 | 0.0000000 | 2.0738500 | 0.0000000 | 0.0000000 | 0.0000000 | -1.5162600 | 0.0000000 | 0.0000000 | 0.0000000 |
| Barium | 233.53 | 0.0000000 | 0.0000000 | 0.0000000 | 0.1281830 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.4160660 | 0.0000000 |
| Beryllium | 313.04 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0160627 | 0.0000000 | 2.4958300 | 0.0000000 |
| Cadmium | 228.80 | 0.0000000 | 0.0000000 | 0.0000000 | -0.3045470 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Calcium | 317.93 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Chromium | 267.72 | 0.0380258 | 0.2350890 | 0.1566040 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0287539 | 0.0000000 | 0.1196170 | 0.0000000 |
| Cobalt | 228.62 | 0.0000000 | 0.0000000 | -0.2354060 | 0.0970896 | 0.0000000 | 0.0000000 | 1.6689900 | 0.0000000 | 0.0000000 | 0.0000000 |
| Copper | 324.75 | 0.0000000 | 0.0000000 | 0.2757360 | 0.0000000 | 0.0000000 | 0.0000000 | 0.2149870 | 0.0000000 | 0.0000000 | 0.0000000 |
| Iron | 273.96 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Lead | 220.35 | 0.0000000 | 0.0000000 | -0.2855620 | 0.1706620 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Magnesium | 279.08 | 0.0000000 | 0.0000000 | -2.0298600 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Manganese | 257.61 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.2307900 | 0.0000000 | 0.0000000 | 0.0000000 | -0.0231031 | 0.0000000 |
| Molybdenum | 202.03 | 0.0073210 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.1048000 |
| Nickel | 231.60 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.6505180 | 0.0000000 | 0.5517490 | 0.0000000 | 0.0000000 |
| Potassium | 766.49 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Selenium | 196.03 | 0.0000000 | 0.0000000 | 0.0000000 | 1.3045900 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Silicon | 288.16 | -0.1820250 | 0.0000000 | -1.7127900 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Silver | 328.07 | 0.0000000 | 0.1800920 | 0.1409550 | 0.0000000 | 0.0000000 | 0.0000000 | -0.0336215 | 0.0000000 | -0.2541170 | 0.0000000 |
| Sodium | 589.59 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 27.0360000 | 0.0000000 | 0.0000000 | 42.7190000 |
| Thallium | 190.80 | 0.0000000 | 1.9622100 | -2.1053700 | 0.0000000 | 0.0000000 | 0.0000000 | 1.4997300 | 0.0000000 | 5.6218000 | 0.0000000 |
| Tin | 189.93 | -0.0536731 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.4036970 | -0.4257350 | 0.0000000 | 0.0000000 | 0.0000000 |
| Titanium | 334.90 | 0.0000000 | 0.0000000 | 0.9908490 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Vanadium | 292.40 | 0.0000000 | -0.1434250 | -6.5129600 | 0.0000000 | 0.0000000 | 0.0000000 | 0.8061690 | 0.0000000 | 0.0000000 | 0.0000000 |
| Zinc | 206.20 | -0.0199339 | 0.0000000 | 0.2750230 | 0.0000000 | -0.0830846 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |

UU52.9298

# Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

**SDG:** UU52

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 5/18/2012

| CLIENT ID | ARI ID | MASS (g) | INITIAL VOLUME (mL) | FINAL VOLUME (mL) |
|---|---|---|---|---|
| MS001-SS-120515 | UU52A | 1.033 | 0.0 | 50.0 |
| MS101-SS-120515 | UU52B | 1.024 | 0.0 | 50.0 |
| MS002-SS-120515 | UU52C | 1.050 | 0.0 | 50.0 |
| MS002-SS-120515D | UU52CDUP | 1.051 | 0.0 | 50.0 |
| MS002-SS-120515S | UU52CSPK | 1.054 | 0.0 | 50.0 |
| MS003-SS-120515 | UU52D | 1.017 | 0.0 | 50.0 |
| MS004-SS-120515 | UU52E | 1.034 | 0.0 | 50.0 |
| MS005-SS-120515 | UU52F | 1.049 | 0.0 | 50.0 |
| MS006-SS-120515 | UU52G | 1.086 | 0.0 | 50.0 |
| MS007-SS-120515 | UU52H | 1.057 | 0.0 | 50.0 |
| MS008-SS-120515 | UU52I | 1.038 | 0.0 | 50.0 |
| MS009-SS-120515 | UU52J | 1.082 | 0.0 | 50.0 |
| PBS | UU52MB1 | 1.000 | 0.0 | 50.0 |
| LCSS | UU52MB1SPK | 1.000 | 0.0 | 50.0 |

# Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

**SDG:** UU52

ANALYSIS METHOD: PMS

ARI PREP CODE: SWN

PREPDATE: 5/18/2012

| CLIENT ID | ARI ID | MASS (g) | INITIAL VOLUME (mL) | FINAL VOLUME (mL) |
|---|---|---|---|---|
| MS001-SS-120515 | UU52A | 1.052 | 0.0 | 50.0 |
| MS101-SS-120515 | UU52B | 1.039 | 0.0 | 50.0 |
| MS002-SS-120515 | UU52C | 1.013 | 0.0 | 50.0 |
| MS002-SS-120515D | UU52CDUP | 1.012 | 0.0 | 50.0 |
| MS002-SS-120515S | UU52CSPK | 1.011 | 0.0 | 50.0 |
| MS003-SS-120515 | UU52D | 1.063 | 0.0 | 50.0 |
| MS004-SS-120515 | UU52E | 1.036 | 0.0 | 50.0 |
| MS005-SS-120515 | UU52F | 1.070 | 0.0 | 50.0 |
| MS006-SS-120515 | UU52G | 1.041 | 0.0 | 50.0 |
| MS007-SS-120515 | UU52H | 1.014 | 0.0 | 50.0 |
| MS008-SS-120515 | UU52I | 1.065 | 0.0 | 50.0 |
| MS009-SS-120515 | UU52J | 1.019 | 0.0 | 50.0 |
| PBS | UU52MB1 | 1.000 | 0.0 | 50.0 |
| LCSS | UU52MB1SPK | 1.000 | 0.0 | 50.0 |

# Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar

**SDG:** UU52

ANALYSIS METHOD: CVA

ARI PREP CODE: SMM

PREPDATE: 5/18/2012

| CLIENT ID | ARI ID | MASS (g) | INITIAL VOLUME (mL) | FINAL VOLUME (mL) |
|---|---|---|---|---|
| MS001-SS-120515 | UU52A | 0.225 | 0.0 | 50.0 |
| MS101-SS-120515 | UU52B | 0.269 | 0.0 | 50.0 |
| MS002-SS-120515 | UU52C | 0.267 | 0.0 | 50.0 |
| MS002-SS-120515D | UU52CDUP | 0.268 | 0.0 | 50.0 |
| MS002-SS-120515S | UU52CSPK | 0.267 | 0.0 | 50.0 |
| MS003-SS-120515 | UU52D | 0.247 | 0.0 | 50.0 |
| MS004-SS-120515 | UU52E | 0.270 | 0.0 | 50.0 |
| MS005-SS-120515 | UU52F | 0.216 | 0.0 | 50.0 |
| MS006-SS-120515 | UU52G | 0.223 | 0.0 | 50.0 |
| MS007-SS-120515 | UU52H | 0.253 | 0.0 | 50.0 |
| MS008-SS-120515 | UU52I | 0.234 | 0.0 | 50.0 |
| MS009-SS-120515 | UU52J | 0.286 | 0.0 | 50.0 |
| PBS | UU52MB1 | 0.200 | 0.0 | 50.0 |
| LCSW | UU52MB1SPK | 0.200 | 0.0 | 50.0 |

# Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar  INSTRUMENT ID: OPTIMA ICP 1  START DATE: 5/29/2012

**SDG:** UU52  RUNID: IP052921  METHOD: ICP  END DATE: 5/29/2012

| CLIENT ID | ARI ID | DIL. | TIME | %R | AG | AL | AS | B | BA | BE | CA | CD | CO | CR | CU | FE | HG | K | MG | MN | MO | NA | NI | PB | SB | SE | SI | SN | TI | TL | U | V | ZN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S0 | S0 | 1.00 | 13225 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| S2 | S2 | 1.00 | 13285 | | | | | | | | | | | X | X | | | | | | | | | | | | | | | | | | |
| S3 | S3 | 1.00 | 13324 | | | | | | | | | | | | | | | | | | | | X | X | | | | | | | | | X |
| S4 | S4 | 1.00 | 13370 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S5 | S5 | 1.00 | 13411 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ICV | ICV | 1.00 | 13552 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| ICB | ICB | 1.00 | 14012 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| ZZZZZZ | ZZZZZZ | 1.00 | 14072 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S0 | S0 | 1.00 | 14135 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| CCV | CCV1 | 1.00 | 14181 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| CCB | CCB1 | 1.00 | 14241 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| CRI | CRII | 1.00 | 14301 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| ICSA | ICSAI | 1.00 | 14361 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| ICSAB | ICSABI | 1.00 | 14421 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| CCV | CCV2 | 1.00 | 14491 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| CCB | CCB2 | 1.00 | 14551 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| ZZZZZZ | DICHECK | 1.00 | 15011 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PBS | UU52MB1 | 2.00 | 15071 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| ZZZZZZ | QC21 | 1.00 | 15131 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | QC7M | 1.00 | 15193 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MS001-SS-120515 | UU52A | 2.00 | 15253 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| MS101-SS-120515 | UU52B | 2.00 | 15313 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| MS002-SS-120515D | UU52CDUP | 2.00 | 15373 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| MS002-SS-120515 | UU52C | 2.00 | 15434 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| MS002-SS-120515S | UU52CSPK | 2.00 | 15494 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| LCSS | UU52MB1SPK | 2.00 | 15554 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| CCV | CCV3 | 1.00 | 16015 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| CCB | CCB3 | 1.00 | 16075 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| ZZZZZZ | UU62MB1 | 1.00 | 16135 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU62K | 1.00 | 16195 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU62JDUP | 1.00 | 16255 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU62J | 1.00 | 16315 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU62JSPK | 1.00 | 16375 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MS003-SS-120515 | UU52D | 2.00 | 16435 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| MS004-SS-120515 | UU52E | 2.00 | 16500 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |

FORM XIV

UU52 : 00302

# Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar | INSTRUMENT ID: OPTIMA ICP 1 | START DATE: 5/29/2012

**SDG:** UU52 | RUNID: IP052921 | METHOD: ICP | END DATE: 5/29/2012

| CLIENT ID | ARI ID | DIL. | TIME | %R | AG | AL | AS | B | BA | BE | CA | CD | CO | CR | CU | FE | HG | K | MG | MN | MO | NA | NI | PB | SB | SE | SI | SN | TI | TL | U | V | ZN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS005-SS-120515 | UU52F | 2.00 | 16560 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| MS006-SS-120515 | UU52G | 2.00 | 17020 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| ZZZZZZ | UU62MB1SPK | 1.00 | 17080 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV | CCV4 | 1.00 | 17140 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| CCB | CCB4 | 1.00 | 17195 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| ZZZZZZ | UU94MB | 1.00 | 17255 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU94B | 1.00 | 17315 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU94C | 1.00 | 17381 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU94ADUP | 1.00 | 17442 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU94A | 1.00 | 17504 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU94ASPK | 1.00 | 17571 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MS007-SS-120515 | UU52H | 2.00 | 18031 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| MS008-SS-120515 | UU52I | 2.00 | 18092 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| MS009-SS-120515 | UU52J | 2.00 | 18152 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| ZZZZZZ | UU94MBSPK | 1.00 | 18212 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV | CCV5 | 1.00 | 18272 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| CCB | CCB5 | 1.00 | 18333 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |

UU52 : 595393

# Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar  INSTRUMENT ID: PE ELAN 6000 MS  START DATE: 5/23/2012

**SDG:** UU52  RUNID: MS052381  METHOD: PMS  END DATE: 5/24/2012

| CLIENT ID | ARI ID | DIL. | TIME | %R | AG | AL | AS | B | BA | BE | CA | CD | CO | CR | CU | FE | HG | K | MG | MN | MO | NA | NI | PB | SB | SE | SI | SN | TI | TL | U | V | ZN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S0 | S0 | 1.00 | 16000 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| S1 | S1 | 1.00 | 16060 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| S2 | S2 | 1.00 | 16130 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| S3 | S3 | 1.00 | 16190 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| S4 | S4 | 1.00 | 16250 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| ZZZZZZ | Rinse Sampl | 1.00 | 16310 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S0 | S0 | 1.00 | 16440 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| ICV | MICV | 1.00 | 16510 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| ICB | ICB | 1.00 | 16580 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| CCV | MCCV1 | 1.00 | 17040 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| CCB | CCB1 | 1.00 | 17100 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| CRI | MCRI | 1.00 | 17160 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| ICSA | ICSAI | 1.00 | 17220 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| ICSAB | ICSABI | 1.00 | 17280 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| ZZZZZZ | LR200 | 1.00 | 17350 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | LR300 | 1.00 | 17410 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV | MCCV2 | 1.00 | 17480 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| CCB | CCB2 | 1.00 | 17540 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| ZZZZZZ | NEW IS | 1.00 | 18010 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV05MB1 | 2.00 | 18070 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV05MB2 | 2.00 | 18130 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV06MB1 | 2.00 | 18190 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV06MB2 | 2.00 | 18250 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV06MB2SPK | 2.00 | 18300 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV06MB1SPK | 2.00 | 18370 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV05MB2SPK | 2.00 | 18430 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV05MB1SPK | 2.00 | 18490 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV05A | 2.00 | 18560 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV | MCCV3 | 1.00 | 19020 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| CCB | CCB3 | 1.00 | 19080 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| ZZZZZZ | UV14MB1 | 2.00 | 19140 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV14MB2 | 2.00 | 19200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV14MB2SPK | 2.00 | 19260 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV14MB1SPK | 2.00 | 19320 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV14A | 2.00 | 19380 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIV

UU52 : 00304

# Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar  INSTRUMENT ID: PE ELAN 6000 MS  START DATE: 5/23/2012

**SDG:** UU52  RUNID: MS052381  METHOD: PMS  END DATE: 5/24/2012

| CLIENT ID | ARI ID | DIL. | TIME | %R | AG | AL | AS | B | BA | BE | CA | CD | CO | CR | CU | FE | HG | K | MG | MN | MO | NA | NI | PB | SB | SE | SI | SN | TI | TL | U | V | ZN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ZZZZZZ | UV14B | 2.00 | 19450 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV14C | 2.00 | 19510 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV05B | 2.00 | 19570 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV06A | 2.00 | 20040 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV06B | 2.00 | 20100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV | MCCV4 | 1.00 | 20160 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| CCB | CCB4 | 1.00 | 20230 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| ZZZZZZ | UV16MB1 | 2.00 | 20290 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV16MB2 | 2.00 | 20340 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV16MB2SPK | 2.00 | 20400 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV16MB1SPK | 2.00 | 20470 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV16A | 2.00 | 20530 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV14D | 2.00 | 20590 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV14E | 2.00 | 21050 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV14F | 2.00 | 21120 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV14G | 2.00 | 21180 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV14H | 2.00 | 21240 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV | MCCV5 | 1.00 | 21310 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| CCB | CCB5 | 1.00 | 21370 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| ZZZZZZ | UU62MB1 | 2.00 | 21430 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU62MB1SPK | 2.00 | 21490 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU62JDUP | 2.00 | 21550 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU62J | 2.00 | 22010 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU62JSPK | 2.00 | 22080 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU62K | 2.00 | 22140 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU27G | 2.00 | 22200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV16B | 2.00 | 22270 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV16C | 2.00 | 22330 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV16D | 2.00 | 22390 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV | MCCV6 | 1.00 | 22450 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| CCB | CCB6 | 1.00 | 22520 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| PBS | UU52MB1 | 20.00 | 22580 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| LCSS | UU52MB1SPK | 20.00 | 23040 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| MS002-SS-120515D | UU52CDUP | 20.00 | 23100 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| MS002-SS-120515 | UU52C | 20.00 | 23160 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |

FORM XIV

UU52 : 00305

# Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar | INSTRUMENT ID: PE ELAN 6000 MS | START DATE: 5/23/2012

**SDG:** UU52 | RUNID: MS052381 METHOD: PMS | END DATE: 5/24/2012

| CLIENT ID | ARI ID | DIL. | TIME | %R | AG | AL | AS | B | BA | BE | CA | CD | CO | CR | CU | FE | HG | K | MG | MN | MO | NA | NI | PB | SB | SE | SI | SN | TI | TL | U | V | ZN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS002-SS-120515S | UU52CSPK | 20.00 | 23230 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| MS002-SS-120515A | UU52CPOST | 20.00 | 23290 | | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | |
| MS001-SS-120515 | UU52A | 20.00 | 23350 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| MS101-SS-120515 | UU52B | 20.00 | 23420 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| MS003-SS-120515 | UU52D | 20.00 | 23480 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| MS004-SS-120515 | UU52E | 20.00 | 23540 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| CCV | MCCV7 | 1.00 | 00000 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| CCB | CCB7 | 1.00 | 00070 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| ZZZZZZ | UU31MB | 2.00 | 00130 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU31MBSPK | 2.00 | 00180 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU31ADUP | 2.00 | 00250 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU31A | 2.00 | 00310 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU31ASPK | 2.00 | 00370 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MS005-SS-120515 | UU52F | 20.00 | 00440 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| MS006-SS-120515 | UU52G | 20.00 | 00500 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| MS007-SS-120515 | UU52H | 20.00 | 00560 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| MS008-SS-120515 | UU52I | 20.00 | 01030 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| MS009-SS-120515 | UU52J | 20.00 | 01090 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| CCV | MCCV8 | 1.00 | 01150 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| CCB | CCB8 | 1.00 | 01220 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |

UU52 9999

# Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen Maulsby Mar  INSTRUMENT ID: CETAC MERCURY  START DATE: 5/21/2012

**SDG:** UU52  RUNID: HG052102  METHOD: CVA  END DATE: 5/21/2012

| CLIENT ID | ARI ID | DIL. | TIME | %R | AG | AL | AS | B | BA | BE | CA | CD | CO | CR | CU | FE | HG | K | MG | MN | MO | NA | NI | PB | SB | SE | SI | SN | TI | TL | U | V | ZN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S0 | S0 | 1.00 | 14162 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| S0.1 | S0.1 | 1.00 | 14180 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| S0.5 | S0.5 | 1.00 | 14194 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| S1 | S1 | 1.00 | 14211 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| S2 | S2 | 1.00 | 14225 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| S5 | S5 | 1.00 | 14243 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| S10 | S10 | 1.00 | 14261 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| ICV | AICV | 1.00 | 14291 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| ICB | ICB | 1.00 | 14304 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| CCV | ACCV1 | 1.00 | 14322 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| CCB | CCB1 | 1.00 | 14340 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| CRA | CRA | 1.00 | 14354 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| PBW | UU52MB1 | 1.00 | 14372 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| LCSW | UU52MB1SPK | 1.00 | 14385 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| MS001-SS-120515 | UU52A | 1.00 | 14403 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| MS101-SS-120515 | UU52B | 1.00 | 14420 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| MS002-SS-120515 | UU52C | 1.00 | 14434 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| MS002-SS-120515D | UU52CDUP | 1.00 | 14452 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| MS002-SS-120515S | UU52CSPK | 1.00 | 14465 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| MS003-SS-120515 | UU52D | 1.00 | 14483 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| MS004-SS-120515 | UU52E | 1.00 | 14501 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| CCV | ACCV2 | 1.00 | 14515 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| CCB | CCB2 | 1.00 | 14533 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| MS005-SS-120515 | UU52F | 1.00 | 14551 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| MS006-SS-120515 | UU52G | 1.00 | 14564 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| MS007-SS-120515 | UU52H | 1.00 | 14582 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| MS008-SS-120515 | UU52I | 1.00 | 14595 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| MS009-SS-120515 | UU52J | 1.00 | 15013 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU77MB1 | 1.00 | 15031 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU77MB1SPK | 1.00 | 15044 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU77A | 1.00 | 15062 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU77B | 1.00 | 15080 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU77BDUP | 1.00 | 15094 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV | ACCV3 | 1.00 | 15112 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| CCB | CCB3 | 1.00 | 15130 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |

FORM XIV

UU52:00307

# Cover Page

**INORGANIC ANALYSIS DATA PACKAGE**

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

**SDG:** UU62

| CLIENT ID | ARI ID | ARI LIMS ID | REPREP |
|---|---|---|---|
| MS-SSRB-120515 | UU62J | 12-8937 | |
| MS-SSRB-120515D | UU62JDUP | 12-8937 | |
| MS-SSRB-120515S | UU62JSPK | 12-8937 | |
| MS-SSFB-120515 | UU62K | 12-8938 | |
| PBW | UU62MB1 | 12-8938 | |
| LCSW | UU62MB1SPK | 12-8938 | |

| | | |
|---|---|---|
| Were ICP interelement corrections applied ? | Yes/No | YES |
| Were ICP background corrections applied ? | Yes/No | YES |
| If yes - were raw data generated before application of background corrections ? | Yes/No | NO |

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 6/3/12 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

**INORGANICS ANALYSIS DATA SHEET**
**TOTAL METALS**
Page 1 of 1

**Sample ID: MS-SSRB-120515**
**SAMPLE**

Lab Sample ID: UU62J
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

| Prep Meth | Prep Date | Analysis Method | Analysis Date | CAS Number | Analyte | MDL | RL | Result | Q |
|---|---|---|---|---|---|---|---|---|---|
| 200.8 | 05/21/12 | 200.8 | 05/23/12 | 7440-36-0 | Antimony | 0.010 | 0.2 | 0.2 | U |
| 200.8 | 05/21/12 | 200.8 | 05/23/12 | 7440-38-2 | Arsenic | 0.048 | 0.2 | 0.2 | U |
| 200.8 | 05/21/12 | 200.8 | 05/23/12 | 7440-43-9 | Cadmium | 0.010 | 0.1 | 0.1 | U |
| 3010A | 05/18/12 | 6010C | 05/29/12 | 7440-47-3 | Chromium | 1.24 | 5 | 5 | U |
| 3010A | 05/18/12 | 6010C | 05/29/12 | 7440-50-8 | Copper | 0.92 | 2 | 2 | U |
| 3010A | 05/18/12 | 6010C | 05/29/12 | 7439-92-1 | Lead | 1.6 | 20 | 20 | U |
| 7470A | 05/18/12 | 7470A | 05/21/12 | 7439-97-6 | Mercury | 0.007 | 0.1 | 0.1 | U |
| 3010A | 05/18/12 | 6010C | 05/29/12 | 7440-02-0 | Nickel | 3.9 | 10 | 10 | U |
| 200.8 | 05/21/12 | 200.8 | 05/23/12 | 7440-22-4 | Silver | 0.008 | 0.2 | 0.2 | U |
| 3010A | 05/18/12 | 6010C | 05/29/12 | 7440-66-6 | Zinc | 1.4 | 10 | 10 | U |

Reported in ug/L (ppb).
U-Analyte undetected at given RL
RL-Reporting Limit



UU52 : 00309

ANALYTICAL RESOURCES INCORPORATED

**INORGANICS ANALYSIS DATA SHEET**
**TOTAL METALS**
Page 1 of 1

**Sample ID: MS-SSFB-120515**
**SAMPLE**

Lab Sample ID: UU62K
LIMS ID: 12-8938
Matrix: Water
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

| Prep Meth | Prep Date | Analysis Method | Analysis Date | CAS Number | Analyte | MDL | RL | Result | Q |
|---|---|---|---|---|---|---|---|---|---|
| 200.8 | 05/21/12 | 200.8 | 05/23/12 | 7440-36-0 | Antimony | 0.010 | 0.2 | 0.2 | U |
| 200.8 | 05/21/12 | 200.8 | 05/23/12 | 7440-38-2 | Arsenic | 0.048 | 0.2 | 0.2 | U |
| 200.8 | 05/21/12 | 200.8 | 05/23/12 | 7440-43-9 | Cadmium | 0.010 | 0.1 | 0.1 | U |
| 3010A | 05/18/12 | 6010C | 05/29/12 | 7440-47-3 | Chromium | 1.24 | 5 | 5 | U |
| 3010A | 05/18/12 | 6010C | 05/29/12 | **7440-50-8** | **Copper** | 0.92 | 2 | **7** | |
| 3010A | 05/18/12 | 6010C | 05/29/12 | 7439-92-1 | Lead | 1.6 | 20 | 20 | U |
| 7470A | 05/18/12 | 7470A | 05/21/12 | 7439-97-6 | Mercury | 0.007 | 0.1 | 0.1 | U |
| 3010A | 05/18/12 | 6010C | 05/29/12 | 7440-02-0 | Nickel | 3.9 | 10 | 10 | U |
| 200.8 | 05/21/12 | 200.8 | 05/23/12 | 7440-22-4 | Silver | 0.008 | 0.2 | 0.2 | U |
| 3010A | 05/18/12 | 6010C | 05/29/12 | 7440-66-6 | Zinc | 1.4 | 10 | 10 | U |

Reported in ug/L (ppb).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

**INORGANICS ANALYSIS DATA SHEET**
**TOTAL METALS**
Page 1 of 1

**Sample ID: MS-SSRB-120515**
**MATRIX SPIKE**

Lab Sample ID: UU62J
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

**MATRIX SPIKE QUALITY CONTROL REPORT**

| Analyte | Analysis Method | Sample | Spike | Spike Added | % Recovery | Q |
|---|---|---|---|---|---|---|
| Antimony | 200.8 | 0.200 U | 24.3 | 25.0 | 97.2% | |
| Arsenic | 200.8 | 0.200 U | 25.4 | 25.0 | 102% | |
| Cadmium | 200.8 | 0.100 U | 24.6 | 25.0 | 98.4% | |
| Chromium | 6010C | 5.00 U | 510 | 500 | 102% | |
| Copper | 6010C | 2.00 U | 508 | 500 | 102% | |
| Lead | 6010C | 20.0 U | 2,040 | 2,000 | 102% | |
| Mercury | 7470A | 0.100 U | 1.13 | 1.00 | 113% | |
| Nickel | 6010C | 10.0 U | 485 | 500 | 97.0% | |
| Silver | 200.8 | 0.200 U | 25.1 | 25.0 | 100% | |
| Zinc | 6010C | 10.0 U | 499 | 500 | 99.8% | |

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked
NR-Not Recovered

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

**INORGANICS ANALYSIS DATA SHEET**
**TOTAL METALS**


**Sample ID: MS-SSRB-120515**
**DUPLICATE**

Lab Sample ID: UU62J
LIMS ID: 12-8937
Matrix: Water
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

**MATRIX DUPLICATE QUALITY CONTROL REPORT**

| Analyte | Analysis Method | Sample | Duplicate | RPD | Control Limit | Q |
|---|---|---|---|---|---|---|
| Antimony | 200.8 | 0.2 U | 0.2 U | 0.0% | +/- 0.2 | L |
| Arsenic | 200.8 | 0.2 U | 0.2 U | 0.0% | +/- 0.2 | L |
| Cadmium | 200.8 | 0.1 U | 0.1 U | 0.0% | +/- 0.1 | L |
| Chromium | 6010C | 5 U | 5 U | 0.0% | +/- 5 | L |
| Copper | 6010C | 2 U | 2 U | 0.0% | +/- 2 | L |
| Lead | 6010C | 20 U | 20 U | 0.0% | +/- 20 | L |
| Mercury | 7470A | 0.1 U | 0.1 U | 0.0% | +/- 0.1 | L |
| Nickel | 6010C | 10 U | 10 U | 0.0% | +/- 10 | L |
| Silver | 200.8 | 0.2 U | 0.2 U | 0.0% | +/- 0.2 | L |
| Zinc | 6010C | 10 U | 10 U | 0.0% | +/- 10 | L |

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

**INORGANICS ANALYSIS DATA SHEET**
**TOTAL METALS**
Page 1 of 1

**Sample ID: LAB CONTROL**

Lab Sample ID: UU62LCS
LIMS ID: 12-8938
Matrix: Water
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

| Analyte | Analysis Method | Spike Found | Spike Added | % Recovery | Q |
|---|---|---|---|---|---|
| Antimony | 200.8 | 24.5 | 25.0 | 98.0% | |
| Arsenic | 200.8 | 25.7 | 25.0 | 103% | |
| Cadmium | 200.8 | 24.1 | 25.0 | 96.4% | |
| Chromium | 6010C | 508 | 500 | 102% | |
| Copper | 6010C | 516 | 500 | 103% | |
| Lead | 6010C | 2080 | 2000 | 104% | |
| Mercury | 7470A | 2.21 | 2.00 | 110% | |
| Nickel | 6010C | 487 | 500 | 97.4% | |
| Silver | 200.8 | 24.4 | 25.0 | 97.6% | |
| Zinc | 6010C | 497 | 500 | 99.4% | |

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%



UU52:00313

ANALYTICAL RESOURCES INCORPORATED

**INORGANICS ANALYSIS DATA SHEET**
**TOTAL METALS** **Sample ID: METHOD BLANK**


Lab Sample ID: UU62MB
LIMS ID: 12-8938
Matrix: Water
Data Release Authorized:
Reported: 05/31/12

QC Report No: UU62-Anchor QEA, LLC.
Project: Jeld Wen - Maulsby Marsh 120909-01.01
Date Sampled: NA
Date Received: NA

| Prep Meth | Prep Date | Analysis Method | Analysis Date | CAS Number | Analyte | MDL | RL | Result | Q |
|---|---|---|---|---|---|---|---|---|---|
| 200.8 | 05/21/12 | 200.8 | 05/23/12 | 7440-36-0 | Antimony | 0.010 | 0.2 | 0.2 | U |
| 200.8 | 05/21/12 | 200.8 | 05/23/12 | 7440-38-2 | Arsenic | 0.048 | 0.2 | 0.2 | U |
| 200.8 | 05/21/12 | 200.8 | 05/23/12 | 7440-43-9 | Cadmium | 0.010 | 0.1 | 0.1 | U |
| 3010A | 05/18/12 | 6010C | 05/29/12 | 7440-47-3 | Chromium | 1.24 | 5 | 5 | U |
| 3010A | 05/18/12 | 6010C | 05/29/12 | 7440-50-8 | Copper | 0.92 | 2 | 2 | U |
| 3010A | 05/18/12 | 6010C | 05/29/12 | 7439-92-1 | Lead | 1.6 | 20 | 20 | U |
| 7470A | 05/18/12 | 7470A | 05/21/12 | 7439-97-6 | Mercury | 0.007 | 0.1 | 0.1 | U |
| 3010A | 05/18/12 | 6010C | 05/29/12 | 7440-02-0 | Nickel | 3.9 | 10 | 10 | U |
| 200.8 | 05/21/12 | 200.8 | 05/23/12 | 7440-22-4 | Silver | 0.008 | 0.2 | 0.2 | U |
| 3010A | 05/18/12 | 6010C | 05/29/12 | 7440-66-6 | Zinc | 1.4 | 10 | 10 | U |

Reported in ug/L (ppb).
U-Analyte undetected at given RL
RL-Reporting Limit

# Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

**SDG:** UU62

UNITS:ug/L

| ANALYTE | EL | M | RUN | ICVTV | ICV | %R | CCVTV | CCV1 | %R | CCV2 | %R | CCV3 | %R | CCV4 | %R | CCV5 | %R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | SB | PMS | MS052381 | 50.0 | 48.94 | **97.9** | 50.0 | 49.55 | **99.1** | 49.92 | **99.8** | 50.56 | **101.1** | 50.08 | **100.2** | 50.66 | **101.3** |
| Arsenic | AS | PMS | MS052381 | 50.0 | 49.58 | **99.2** | 50.0 | 50.39 | **100.8** | 50.54 | **101.1** | 50.38 | **100.8** | 50.74 | **101.5** | 50.17 | **100.3** |
| Cadmium | CD | PMS | MS052381 | 50.0 | 49.26 | **98.5** | 50.0 | 49.93 | **99.9** | 51.05 | **102.1** | 50.01 | **100.0** | 49.82 | **99.6** | 49.69 | **99.4** |
| Chromium | CR | ICP | IP052921 | 1000.0 | 952.21 | **95.2** | 1000.0 | 955.71 | **95.6** | 969.44 | **96.9** | 958.42 | **95.8** | 967.84 | **96.8** | | |
| Copper | CU | ICP | IP052921 | 1000.0 | 1018.90 | **101.9** | 1000.0 | 1022.83 | **102.3** | 1026.48 | **102.6** | 1028.22 | **102.8** | 1032.55 | **103.3** | | |
| Lead | PB | ICP | IP052921 | 2000.0 | 1985.98 | **99.3** | 2000.0 | 1992.73 | **99.6** | 2005.36 | **100.3** | 1989.83 | **99.5** | 1965.06 | **98.3** | | |
| Mercury | HG | CVA | HG052101 | 8.0 | 8.42 | **105.3** | 4.0 | 4.17 | **104.3** | 4.14 | **103.5** | | | | | | |
| Nickel | NI | ICP | IP052921 | 1000.0 | 959.39 | **95.9** | 1000.0 | 969.42 | **96.9** | 987.90 | **98.8** | 978.45 | **97.8** | 993.21 | **99.3** | | |
| Silver | AG | PMS | MS052381 | 50.0 | 49.85 | **99.7** | 50.0 | 50.32 | **100.6** | 50.65 | **101.3** | 49.79 | **99.6** | 50.39 | **100.8** | 50.33 | **100.7** |
| Zinc | ZN | ICP | IP052921 | 1000.0 | 1002.35 | **100.2** | 1000.0 | 1011.70 | **101.2** | 1032.32 | **103.2** | 1020.62 | **102.1** | 1036.95 | **103.7** | | |

Control Limits: Mercury 80-120; Other Metals 90-110



UU62 : 93515

# Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

UNITS: ug/L

**SDG:** UU62

| ANALYTE | EL | M | RUN | CCVTV | CCV6 | %R | CCV7 | %R | CCV8 | %R | CCV9 | %R | CCV10 | %R | CCV11 | %R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | SB | PMS | MS052381 | 50.0 | 49.61 | **99.2** | | | | | | | | | | |
| Arsenic | AS | PMS | MS052381 | 50.0 | 50.22 | **100.4** | | | | | | | | | | |
| Cadmium | CD | PMS | MS052381 | 50.0 | 48.99 | **98.0** | | | | | | | | | | |
| Chromium | CR | ICP | IP052921 | 1000.0 | | | | | | | | | | | | |
| Copper | CU | ICP | IP052921 | 1000.0 | | | | | | | | | | | | |
| Lead | PB | ICP | IP052921 | 2000.0 | | | | | | | | | | | | |
| Mercury | HG | CVA | HG052101 | 4.0 | | | | | | | | | | | | |
| Nickel | NI | ICP | IP052921 | 1000.0 | | | | | | | | | | | | |
| Silver | AG | PMS | MS052381 | 50.0 | 49.58 | **99.2** | | | | | | | | | | |
| Zinc | ZN | ICP | IP052921 | 1000.0 | | | | | | | | | | | | |

Control Limits: Mercury 80-120; Other Metals 90-110



UU52:00316

# CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

**SDG:** UU62

UNITS: ug/L

| ANALYTE | EL | M | RUN | CRA/I TV | CR-1 | %R | CR-2 | %R | CR-3 | %R | CR-4 | %R | CR-5 | %R | CR-6 | %R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | SB | PMS | MS052381 | 0.2 | 0.20 | **100.0** | | | | | | | | | | |
| Arsenic | AS | PMS | MS052381 | 0.2 | 0.28 | **140.0** | | | | | | | | | | |
| Cadmium | CD | PMS | MS052381 | 0.1 | 0.10 | **100.0** | | | | | | | | | | |
| Chromium | CR | ICP | IP052921 | 5.0 | 4.72 | **94.4** | | | | | | | | | | |
| Copper | CU | ICP | IP052921 | 2.0 | 2.11 | **105.5** | | | | | | | | | | |
| Lead | PB | ICP | IP052921 | 20.0 | 20.11 | **100.6** | | | | | | | | | | |
| Mercury | HG | CVA | HG052101 | 0.1 | 0.10 | **100.0** | | | | | | | | | | |
| Nickel | NI | ICP | IP052921 | 10.0 | 10.85 | **108.5** | | | | | | | | | | |
| Silver | AG | PMS | MS052381 | 0.2 | 0.19 | **95.0** | | | | | | | | | | |
| Zinc | ZN | ICP | IP052921 | 10.0 | 9.55 | **95.5** | | | | | | | | | | |

Control Limits: no control limits have been established by the EPA at this time.



J1552.2551

# Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

**SDG:** UU62

UNITS:ug/L

| ANALYTE | EL | METH | RUN | CRDL | IDL | ICB | C | CCB1 | C | CCB2 | C | CCB3 | C | CCB4 | C | CCB5 | C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | SB | PMS | MS052381 | 60.0 | 0.2 | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U |
| Arsenic | AS | PMS | MS052381 | 10.0 | 0.2 | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U |
| Cadmium | CD | PMS | MS052381 | 5.0 | 0.1 | 0.1 | U | 0.1 | U | 0.1 | U | 0.1 | U | 0.1 | U | 0.1 | U |
| Chromium | CR | ICP | IP052921 | 10.0 | 5.0 | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U | 5.0 | U | | |
| Copper | CU | ICP | IP052921 | 25.0 | 2.0 | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | 2.0 | U | | |
| Lead | PB | ICP | IP052921 | 3.0 | 20.0 | 20.0 | U | 20.0 | U | 20.0 | U | 20.0 | U | 20.0 | U | | |
| Mercury | HG | CVA | HG052101 | 0.2 | 0.1 | 0.1 | U | 0.1 | U | 0.1 | U | | | | | | |
| Nickel | NI | ICP | IP052921 | 40.0 | 10.0 | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U | | |
| Silver | AG | PMS | MS052381 | 10.0 | 0.2 | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U | 0.2 | U |
| Zinc | ZN | ICP | IP052921 | 20.0 | 10.0 | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U | 10.0 | U | | |



UU52:00318

# Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

UNITS: ug/L

**SDG:** UU62

| ANALYTE | EL | METH | RUN | CRDL | IDL | CCB6 | C | CCB7 | C | CCB8 | C | CCB9 | C | CCB10 | C | CCB11 | C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | SB | PMS | MS052381 | 60.0 | 0.2 | 0.2 | U | | | | | | | | | | |
| Arsenic | AS | PMS | MS052381 | 10.0 | 0.2 | 0.2 | U | | | | | | | | | | |
| Cadmium | CD | PMS | MS052381 | 5.0 | 0.1 | 0.1 | U | | | | | | | | | | |
| Chromium | CR | ICP | IP052921 | 10.0 | 5.0 | | | | | | | | | | | | |
| Copper | CU | ICP | IP052921 | 25.0 | 2.0 | | | | | | | | | | | | |
| Lead | PB | ICP | IP052921 | 3.0 | 20.0 | | | | | | | | | | | | |
| Mercury | HG | CVA | HG052101 | 0.2 | 0.1 | | | | | | | | | | | | |
| Nickel | NI | ICP | IP052921 | 40.0 | 10.0 | | | | | | | | | | | | |
| Silver | AG | PMS | MS052381 | 10.0 | 0.2 | 0.2 | U | | | | | | | | | | |
| Zinc | ZN | ICP | IP052921 | 20.0 | 10.0 | | | | | | | | | | | | |



UU52:00319

# ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

**SDG:** UU62

ICS SOURCE: I.V.

RUNID: IP052921

INSTRUMENT ID: OPTIMA ICP 1

UNITS: ug/L

| ANALYTE | ICSA TV | ICSAB TV | ICSA1 | ICSAB1 | %R | ICSA2 | ICSAB2 | %R | ICSA3 | ICSAB3 | %R |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 200000 | 200000 | 211269.8 | 206979.3 | **103.5** | | | | | | |
| Antimony | | 1000 | -32.1 | 1032.0 | **103.2** | | | | | | |
| Arsenic | | 1000 | -2.8 | 1046.1 | **104.6** | | | | | | |
| Barium | | 1000 | 1.8 | 956.5 | **95.7** | | | | | | |
| Beryllium | | 1000 | 0.0 | 1010.4 | **101.0** | | | | | | |
| Boron | | | -13.6 | -19.0 | | | | | | | |
| Cadmium | | 1000 | 1.0 | 1003.4 | **100.3** | | | | | | |
| Calcium | 100000 | 100000 | 101025.3 | 102192.3 | **102.2** | | | | | | |
| Chromium | | 1000 | 2.1 | 963.1 | **96.3** | | | | | | |
| Cobalt | | 1000 | 0.9 | 925.6 | **92.6** | | | | | | |
| Copper | | 1000 | 2.6 | 1039.9 | **104.0** | | | | | | |
| Iron | 200000 | 200000 | 205569.9 | 203892.9 | **101.9** | | | | | | |
| Lead | | 1000 | 4.8 | 965.0 | **96.5** | | | | | | |
| Magnesium | 100000 | 100000 | 103325.9 | 104634.5 | **104.6** | | | | | | |
| Manganese | | 1000 | 0.1 | 961.7 | **96.2** | | | | | | |
| Molybdenum | | | 7.3 | 8.2 | | | | | | | |
| Nickel | | 1000 | 0.8 | 935.3 | **93.5** | | | | | | |
| Potassium | | | 0.9 | 7.4 | | | | | | | |
| Selenium | | 1000 | -4.0 | 1009.8 | **101.0** | | | | | | |
| Silicon | | | -11.9 | -9.6 | | | | | | | |
| Silver | | 1000 | 2.1 | 1035.9 | **103.6** | | | | | | |
| Sodium | | | 50.3 | 59.4 | | | | | | | |
| Strontium | | | 10.3 | 11.2 | | | | | | | |
| Thallium | | 1000 | -8.8 | 941.9 | **94.2** | | | | | | |
| Tin | | | -27.3 | -29.3 | | | | | | | |
| Titanium | | | 0.7 | -0.1 | | | | | | | |
| Vanadium | | 1000 | -5.6 | 1005.7 | **100.6** | | | | | | |
| Zinc | | 1000 | -1.8 | 925.4 | **92.5** | | | | | | |



UU52:00320

# ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

**SDG:** UU62

ICS SOURCE: I.V.

RUNID: MS052381

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

| ANALYTE | ICSA TV | ICSAB TV | ICSA1 | ICSAB1 | %R | ICSA2 | ICSAB2 | %R | ICSA3 | ICSAB3 | %R |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.0 | 0.1 | | | | | | | |
| Cadmium | | 20 | 0.0 | 19.4 | **97.0** | | | | | | |
| Chromium | | 20 | 0.7 | 20.1 | **100.5** | | | | | | |
| Cobalt | | 20 | 0.0 | 19.3 | **96.5** | | | | | | |
| Copper | | 20 | 0.5 | 20.0 | **100.0** | | | | | | |
| Lead | | | 0.1 | 0.1 | | | | | | | |
| Manganese | | 20 | 0.0 | 19.6 | **98.0** | | | | | | |
| Molybdenum | 400 | 400 | 401.6 | 403.3 | **100.8** | | | | | | |
| Nickel | | 20 | 0.6 | 19.2 | **96.0** | | | | | | |
| Selenium | | | -0.1 | -0.1 | | | | | | | |
| Silver | | 20 | 0.0 | 18.9 | **94.5** | | | | | | |
| Thorium | | | 0.1 | 0.1 | | | | | | | |
| Vanadium | | | 0.0 | -0.4 | | | | | | | |
| Zinc | | 20 | 1.1 | 20.1 | **100.5** | | | | | | |

UU52:00321

# IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

**SDG:** UU62 UNITS: ug/L

| ANALYTE | EL | METH | INSTRUMENT | WAVELENTH (nm) | GFA BACK-GROUND | CLP CRDL | RL | RL DATE | ICP LINEAR RANGE (ug/L) | ICP LR DATE |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | SB | PMS | PE ELAN 6000 MS | 0.00 | | 60 | 0.2 | 4/1/2011 | | |
| Arsenic | AS | PMS | PE ELAN 6000 MS | 0.00 | | 10 | 0.2 | 4/1/2011 | | |
| Cadmium | CD | PMS | PE ELAN 6000 MS | 0.00 | | 5 | 0.1 | 4/1/2011 | | |
| Chromium | CR | ICP | OPTIMA ICP 1 | 267.72 | | 10 | 5.0 | 4/1/2011 | 100000.0 | 7/12/2010 |
| Copper | CU | ICP | OPTIMA ICP 1 | 324.75 | | 25 | 2.0 | 4/1/2011 | 40000.0 | 7/12/2010 |
| Lead | PB | ICP | OPTIMA ICP 1 | 220.35 | | 3 | 20.0 | 4/1/2011 | 300000.0 | 7/12/2010 |
| Mercury | HG | CVA | CETAC MERCURY | 253.70 | | 0.2 | 0.1 | 4/1/2011 | | |
| Nickel | NI | ICP | OPTIMA ICP 1 | 231.60 | | 40 | 10.0 | 4/1/2011 | 100000.0 | 7/12/2010 |
| Silver | AG | PMS | PE ELAN 6000 MS | 0.00 | | 10 | 0.2 | 4/1/2011 | | |
| Zinc | ZN | ICP | OPTIMA ICP 1 | 206.20 | | 20 | 10.0 | 4/1/2011 | 100000.0 | 7/12/2010 |

# ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

IEC DATE: 5/29/2012

**SDG:** UU62

INSTRUMENT ID: OPTIMA ICP 1

| ANALYTE | WAVELENGTH | AL | AS | BA | BE | CA | CD | CO | CR | CU | FE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 308.22 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Antimony | 206.84 | -0.2671460 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 15.1857000 | 0.0000000 | 0.0000000 |
| Arsenic | 188.98 | 0.0968366 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0278042 | 0.0000000 | -1.2026700 | 0.9023870 | 0.0000000 | 0.0754059 |
| Barium | 233.53 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.1888640 | 0.0000000 | 0.0000000 | 0.0355242 |
| Beryllium | 313.04 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Cadmium | 228.80 | 0.0000000 | 1.7599700 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.1139620 | 0.0000000 | 0.0000000 | 0.0000000 |
| Calcium | 317.93 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Chromium | 267.72 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0099375 | 0.0000000 | -0.1609150 | 0.0000000 | 0.0000000 | -0.0194781 |
| Cobalt | 228.62 | 0.0000000 | 0.0000000 | 0.3593720 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.0383107 | 0.0000000 | 0.0000000 |
| Copper | 324.75 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.3423600 | -0.0466820 | 0.0000000 | -0.0878400 |
| Iron | 273.96 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.7651920 | 0.0000000 | 0.0000000 |
| Lead | 220.35 | -0.3177780 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -2.3759900 | 0.8342190 | 0.0000000 |
| Magnesium | 279.08 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -1.1612800 | -1.0216800 | 0.0000000 | 0.6175170 |
| Manganese | 257.61 | 0.0084860 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Molybdenum | 202.03 | 0.0180771 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0257018 | 0.0000000 | 0.0000000 | 0.0933245 | 0.0000000 | 0.0124101 |
| Nickel | 231.60 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.3321560 | 0.0000000 | 0.0000000 | -0.0599311 |
| Potassium | 766.49 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Selenium | 196.03 | 0.2679630 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0589810 | 0.0000000 | 0.4514010 | 0.0000000 | 0.0000000 | 0.0000000 |
| Silicon | 288.16 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -3.5681100 | 0.0000000 | -1.0020900 | 0.0000000 | 0.0000000 |
| Silver | 328.07 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.0403784 |
| Sodium | 589.59 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 4.4818000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Thallium | 190.80 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 9.0986000 | 0.3674950 | 0.0000000 | -0.1085490 |
| Tin | 189.93 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Titanium | 334.90 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0373290 | 0.0000000 | 0.0000000 | 0.2444290 | 0.0000000 | 0.0000000 |
| Vanadium | 292.40 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -7.0524000 | 0.0000000 | 0.1302620 |
| Zinc | 206.20 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.0165094 | 0.0000000 | 0.0000000 | 0.7289660 | 0.0000000 | 0.0000000 |

225969 : 225969

# ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

IEC DATE: 5/29/2012

**SDG:** UU62

INSTRUMENT ID: OPTIMA ICP 1

| ANALYTE | WAVELENGTH | MG | MN | MO | NI | PB | SB | TI | TL | V | ZN |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 308.22 | 0.0000000 | 0.0000000 | 21.7825000 | 0.0000000 | 0.0000000 | 0.0000000 | 1.9524000 | 0.0000000 | 15.3881000 | 0.0000000 |
| Antimony | 206.84 | -0.1041080 | 0.0000000 | 1.3316900 | -0.3291700 | 0.0000000 | 0.0000000 | -1.5094000 | 0.0000000 | -3.7687600 | 0.9674010 |
| Arsenic | 188.98 | 0.0000000 | 0.0000000 | 2.0738500 | 0.0000000 | 0.0000000 | 0.0000000 | -1.5162600 | 0.0000000 | 0.0000000 | 0.0000000 |
| Barium | 233.53 | 0.0000000 | 0.0000000 | 0.0000000 | 0.1281830 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.4160660 | 0.0000000 |
| Beryllium | 313.04 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0160627 | 0.0000000 | 2.4958300 | 0.0000000 |
| Cadmium | 228.80 | 0.0000000 | 0.0000000 | 0.0000000 | -0.3045470 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Calcium | 317.93 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Chromium | 267.72 | 0.0380258 | 0.2350890 | 0.1566040 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0287539 | 0.0000000 | 0.1196170 | 0.0000000 |
| Cobalt | 228.62 | 0.0000000 | 0.0000000 | -0.2354060 | 0.0970896 | 0.0000000 | 0.0000000 | 1.6689900 | 0.0000000 | 0.0000000 | 0.0000000 |
| Copper | 324.75 | 0.0000000 | 0.0000000 | 0.2757360 | 0.0000000 | 0.0000000 | 0.0000000 | 0.2149870 | 0.0000000 | 0.0000000 | 0.0000000 |
| Iron | 273.96 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Lead | 220.35 | 0.0000000 | 0.0000000 | -0.2855620 | 0.1706620 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Magnesium | 279.08 | 0.0000000 | 0.0000000 | -2.0298600 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Manganese | 257.61 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.2307900 | 0.0000000 | 0.0000000 | 0.0000000 | -0.0231031 | 0.0000000 |
| Molybdenum | 202.03 | 0.0073210 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.1048000 |
| Nickel | 231.60 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.6505180 | 0.0000000 | 0.5517490 | 0.0000000 | 0.0000000 |
| Potassium | 766.49 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Selenium | 196.03 | 0.0000000 | 0.0000000 | 0.0000000 | 1.3045900 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Silicon | 288.16 | -0.1820250 | 0.0000000 | -1.7127900 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Silver | 328.07 | 0.0000000 | 0.1800920 | 0.1409550 | 0.0000000 | 0.0000000 | 0.0000000 | -0.0336215 | 0.0000000 | -0.2541170 | 0.0000000 |
| Sodium | 589.59 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 27.0360000 | 0.0000000 | 0.0000000 | 42.7190000 |
| Thallium | 190.80 | 0.0000000 | 1.9622100 | -2.1053700 | 0.0000000 | 0.0000000 | 0.0000000 | 1.4997300 | 0.0000000 | 5.6218000 | 0.0000000 |
| Tin | 189.93 | -0.0536731 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.4036970 | -0.4257350 | 0.0000000 | 0.0000000 | 0.0000000 |
| Titanium | 334.90 | 0.0000000 | 0.0000000 | 0.9908490 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Vanadium | 292.40 | 0.0000000 | -0.1434250 | -6.5129600 | 0.0000000 | 0.0000000 | 0.0000000 | 0.8061690 | 0.0000000 | 0.0000000 | 0.0000000 |
| Zinc | 206.20 | -0.0199339 | 0.0000000 | 0.2750230 | 0.0000000 | -0.0830846 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |

1205 · 1205 · 1205

# Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

**SDG:** UU62

ANALYSIS METHOD: ICP

ARI PREP CODE: TWC

PREPDATE: 5/18/2012

| CLIENT ID | ARI ID | MASS (g) | INITIAL VOLUME (mL) | FINAL VOLUME (mL) |
|---|---|---|---|---|
| MS-SSRB-120515 | UU62J | 0.000 | 50.0 | 50.0 |
| MS-SSRB-120515D | UU62JDUP | 0.000 | 50.0 | 50.0 |
| MS-SSRB-120515S | UU62JSPK | 0.000 | 50.0 | 50.0 |
| MS-SSFB-120515 | UU62K | 0.000 | 50.0 | 50.0 |
| PBW | UU62MB1 | 0.000 | 50.0 | 50.0 |
| LCSW | UU62MB1SPK | 0.000 | 50.0 | 50.0 |

# Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M

**SDG:** UU62

ANALYSIS METHOD: PMS

ARI PREP CODE: REN

PREPDATE: 5/21/2012

| CLIENT ID | ARI ID | MASS (g) | INITIAL VOLUME (mL) | FINAL VOLUME (mL) |
|---|---|---|---|---|
| MS-SSRB-120515 | UU62J | 0.000 | 50.0 | 25.0 |
| MS-SSRB-120515D | UU62JDUP | 0.000 | 50.0 | 25.0 |
| MS-SSRB-120515S | UU62JSPK | 0.000 | 50.0 | 25.0 |
| MS-SSFB-120515 | UU62K | 0.000 | 50.0 | 25.0 |
| PBW | UU62MB1 | 0.000 | 50.0 | 25.0 |
| LCSW | UU62MB1SPK | 0.000 | 50.0 | 25.0 |

# Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

ANALYSIS METHOD: CVA

PROJECT: Jeld Wen - Maulsby M

ARI PREP CODE: TWM

**SDG:** UU62

PREPDATE: 5/18/2012

| CLIENT ID | ARI ID | MASS (g) | INITIAL VOLUME (mL) | FINAL VOLUME (mL) |
|---|---|---|---|---|
| MS-SSRB-120515 | UU62J | 0.000 | 20.0 | 20.0 |
| MS-SSRB-120515D | UU62JDUP | 0.000 | 20.0 | 20.0 |
| MS-SSRB-120515S | UU62JSPK | 0.000 | 20.0 | 20.0 |
| MS-SSFB-120515 | UU62K | 0.000 | 20.0 | 20.0 |
| PBW | UU62MB1 | 0.000 | 20.0 | 20.0 |
| LCSW | UU62MB1SPK | 0.000 | 20.0 | 20.0 |

# Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M | INSTRUMENT ID: OPTIMA ICP 1 | START DATE: 5/29/2012

**SDG:** UU62 | RUNID: IP052921 | METHOD: ICP | END DATE: 5/29/2012

| CLIENT ID | ARI ID | DIL. | TIME | %R | AG | AL | AS | B | BA | BE | CA | CD | CO | CR | CU | FE | HG | K | MG | MN | MO | NA | NI | PB | SB | SE | SI | SN | TI | TL | U | V | ZN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S0 | S0 | 1.00 | 13225 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| S2 | S2 | 1.00 | 13285 | | | | | | | | | | | X | X | | | | | | | | | | | | | | | | | | |
| S3 | S3 | 1.00 | 13324 | | | | | | | | | | | | | | | | | | | | X | X | | | | | | | | | X |
| S4 | S4 | 1.00 | 13370 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S5 | S5 | 1.00 | 13411 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ICV | ICV | 1.00 | 13552 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| ICB | ICB | 1.00 | 14012 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| ZZZZZZ | ZZZZZZ | 1.00 | 14072 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S0 | S0 | 1.00 | 14135 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| CCV | CCV1 | 1.00 | 14181 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| CCB | CCB1 | 1.00 | 14241 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| CRI | CRII | 1.00 | 14301 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| ICSA | ICSAI | 1.00 | 14361 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| ICSAB | ICSABI | 1.00 | 14421 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| CCV | CCV2 | 1.00 | 14491 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| CCB | CCB2 | 1.00 | 14551 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| ZZZZZZ | DICHECK | 1.00 | 15011 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU52MB1 | 2.00 | 15071 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | QC21 | 1.00 | 15131 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | QC7M | 1.00 | 15193 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU52A | 2.00 | 15253 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU52B | 2.00 | 15313 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU52CDUP | 2.00 | 15373 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU52C | 2.00 | 15434 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU52CSPK | 2.00 | 15494 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU52MB1SPK | 2.00 | 15554 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV | CCV3 | 1.00 | 16015 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| CCB | CCB3 | 1.00 | 16075 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| PBW | UU62MB1 | 1.00 | 16135 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| MS-SSFB-120515 | UU62K | 1.00 | 16195 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| MS-SSRB-120515D | UU62JDUP | 1.00 | 16255 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| MS-SSRB-120515 | UU62J | 1.00 | 16315 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| MS-SSRB-120515S | UU62JSPK | 1.00 | 16375 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| ZZZZZZ | UU52D | 2.00 | 16435 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU52E | 2.00 | 16500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIV

UU52 5/29/12

# Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M | INSTRUMENT ID: OPTIMA ICP 1 | START DATE: 5/29/2012

**SDG:** UU62 | RUNID: IP052921 | METHOD: ICP | END DATE: 5/29/2012

| CLIENT ID | ARI ID | DIL. | TIME | %R | AG | AL | AS | B | BA | BE | CA | CD | CO | CR | CU | FE | HG | K | MG | MN | MO | NA | NI | PB | SB | SE | SI | SN | TI | TL | U | V | ZN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ZZZZZZ | UU52F | 2.00 | 16560 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UU52G | 2.00 | 17020 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LCSW | UU62MB1SPK | 1.00 | 17080 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| CCV | CCV4 | 1.00 | 17140 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |
| CCB | CCB4 | 1.00 | 17195 | | | | | | | | | | | X | X | | | | | | | | X | X | | | | | | | | | X |

USGS 9525

# Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M  INSTRUMENT ID: PE ELAN 6000 MS  START DATE: 5/23/2012

**SDG:** UU62  RUNID: MS052381  METHOD: PMS  END DATE: 5/23/2012

| CLIENT ID | ARI ID | DIL. | TIME | %R | AG | AL | AS | B | BA | BE | CA | CD | CO | CR | CU | FE | HG | K | MG | MN | MO | NA | NI | PB | SB | SE | SI | SN | TI | TL | U | V | ZN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S0 | S0 | 1.00 | 16000 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| S1 | S1 | 1.00 | 16060 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| S2 | S2 | 1.00 | 16130 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| S3 | S3 | 1.00 | 16190 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| S4 | S4 | 1.00 | 16250 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| ZZZZZZ | Rinse Sampl | 1.00 | 16310 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S0 | S0 | 1.00 | 16440 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| ICV | MICV | 1.00 | 16510 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| ICB | ICB | 1.00 | 16580 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| CCV | MCCV1 | 1.00 | 17040 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| CCB | CCB1 | 1.00 | 17100 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| CRI | MCRI | 1.00 | 17160 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| ICSA | ICSAI | 1.00 | 17220 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| ICSAB | ICSABI | 1.00 | 17280 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| ZZZZZZ | LR200 | 1.00 | 17350 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | LR300 | 1.00 | 17410 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV | MCCV2 | 1.00 | 17480 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| CCB | CCB2 | 1.00 | 17540 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| ZZZZZZ | NEW IS | 1.00 | 18010 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV05MB1 | 2.00 | 18070 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV05MB2 | 2.00 | 18130 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV06MB1 | 2.00 | 18190 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV06MB2 | 2.00 | 18250 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV06MB2SPK | 2.00 | 18300 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV06MB1SPK | 2.00 | 18370 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV05MB2SPK | 2.00 | 18430 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV05MB1SPK | 2.00 | 18490 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV05A | 2.00 | 18560 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV | MCCV3 | 1.00 | 19020 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| CCB | CCB3 | 1.00 | 19080 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| ZZZZZZ | UV14MB1 | 2.00 | 19140 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV14MB2 | 2.00 | 19200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV14MB2SPK | 2.00 | 19260 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV14MB1SPK | 2.00 | 19320 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV14A | 2.00 | 19380 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIV

UU52:00330

# Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M  INSTRUMENT ID: PE ELAN 6000 MS  START DATE: 5/23/2012

**SDG:** UU62  RUNID: MS052381  METHOD: PMS  END DATE: 5/23/2012

| CLIENT ID | ARI ID | DIL. | TIME | %R | AG | AL | AS | B | BA | BE | CA | CD | CO | CR | CU | FE | HG | K | MG | MN | MO | NA | NI | PB | SB | SE | SI | SN | TI | TL | U | V | ZN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ZZZZZZ | UV14B | 2.00 | 19450 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV14C | 2.00 | 19510 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV05B | 2.00 | 19570 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV06A | 2.00 | 20040 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV06B | 2.00 | 20100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV | MCCV4 | 1.00 | 20160 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| CCB | CCB4 | 1.00 | 20230 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| ZZZZZZ | UV16MB1 | 2.00 | 20290 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV16MB2 | 2.00 | 20340 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV16MB2SPK | 2.00 | 20400 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV16MB1SPK | 2.00 | 20470 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV16A | 2.00 | 20530 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV14D | 2.00 | 20590 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV14E | 2.00 | 21050 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV14F | 2.00 | 21120 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV14G | 2.00 | 21180 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV14H | 2.00 | 21240 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV | MCCV5 | 1.00 | 21310 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| CCB | CCB5 | 1.00 | 21370 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| PBW | UU62MB1 | 2.00 | 21430 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| LCSW | UU62MB1SPK | 2.00 | 21490 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| MS-SSRB-120515D | UU62JDUP | 2.00 | 21550 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| MS-SSRB-120515 | UU62J | 2.00 | 22010 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| MS-SSRB-120515S | UU62JSPK | 2.00 | 22080 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| MS-SSFB-120515 | UU62K | 2.00 | 22140 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| ZZZZZZ | UU27G | 2.00 | 22200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV16B | 2.00 | 22270 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV16C | 2.00 | 22330 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | UV16D | 2.00 | 22390 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV | MCCV6 | 1.00 | 22450 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |
| CCB | CCB6 | 1.00 | 22520 | | X | | X | | | | | X | | | | | | | | | | | | | X | | | | | | | | |



UU52:00331

# Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Anchor QEA, LLC.

PROJECT: Jeld Wen - Maulsby M | INSTRUMENT ID: CETAC MERCURY | START DATE: 5/21/2012

**SDG:** UU62 | RUNID: HG052101 | METHOD: CVA | END DATE: 5/21/2012

| CLIENT ID | ARI ID | DIL. | TIME | %R | AG | AL | AS | B | BA | BE | CA | CD | CO | CR | CU | FE | HG | K | MG | MN | MO | NA | NI | PB | SB | SE | SI | SN | TI | TL | U | V | ZN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S0 | S0 | 1.00 | 13145 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| S0.1 | S0.1 | 1.00 | 13162 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| S0.5 | S0.5 | 1.00 | 13180 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| S1 | S1 | 1.00 | 13193 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| S2 | S2 | 1.00 | 13211 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| S5 | S5 | 1.00 | 13225 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| S10 | S10 | 1.00 | 13243 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| ICV | AICV | 1.00 | 13273 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| ICB | ICB | 1.00 | 13290 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| CCV | ACCV1 | 1.00 | 13304 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| CCB | CCB1 | 1.00 | 13322 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| CRA | CRA | 1.00 | 13340 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| PBW | UU62MB1 | 1.00 | 13353 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| LCSW | UU62MB1SPK | 1.00 | 13371 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| MS-SSRB-120515 | UU62J | 1.00 | 13384 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| MS-SSRB-120515D | UU62JDUP | 1.00 | 13402 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| MS-SSRB-120515S | UU62JSPK | 1.00 | 13420 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| MS-SSFB-120515 | UU62K | 1.00 | 13433 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| CCV | ACCV2 | 1.00 | 13451 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| CCB | CCB2 | 1.00 | 13465 | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |

SDG: UU62

General Chemistry Analysis
Report and Summary QC Forms

ARI Job ID: UU52, UU62

**SAMPLE RESULTS-CONVENTIONALS**
**UU52-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

**Client ID: MS001-SS-120515**
**ARI ID: 12-8893 UU52A**

| Analyte | Date | Method | Units | RL | Sample |
|---|---|---|---|---|---|
| Total Solids | 05/22/12<br>052212#1 | SM2540B | Percent | 0.01 | 10.20 |
| Preserved Total Solids | 05/21/12<br>052112#1 | SM2540B | Percent | 0.01 | 9.70 |
| N-Ammonia | 05/21/12<br>052112#1 | EPA 350.1M | mg-N/kg | 1.94 | 132 |
| Sulfide | 05/18/12<br>051812#1 | EPA 376.2 | mg/kg | 207 | 2,960 |
| Total Organic Carbon | 05/24/12<br>052412#1 | EPA 9060M | Percent | 0.194 | 19.6 |

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.



UU52:00334

**SAMPLE RESULTS-CONVENTIONALS**
**UU52-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

**Client ID: MS101-SS-120515**
**ARI ID: 12-8894 UU52B**

| Analyte | Date | Method | Units | RL | Sample |
|---|---|---|---|---|---|
| Total Solids | 05/22/12<br>052212#1 | SM2540B | Percent | 0.01 | 10.20 |
| Preserved Total Solids | 05/21/12<br>052112#1 | SM2540B | Percent | 0.01 | 9.70 |
| N-Ammonia | 05/21/12<br>052112#1 | EPA 350.1M | mg-N/kg | 1.99 | 130 |
| Sulfide | 05/18/12<br>051812#1 | EPA 376.2 | mg/kg | 206 | 3,100 |
| Total Organic Carbon | 05/24/12<br>052412#1 | EPA 9060M | Percent | 0.186 | 18.4 |

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.



UU52:00335

**SAMPLE RESULTS-CONVENTIONALS**
**UU52-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

**Client ID: MS002-SS-120515**
**ARI ID: 12-8895 UU52C**

| Analyte | Date | Method | Units | RL | Sample |
|---|---|---|---|---|---|
| Total Solids | 05/22/12<br>052212#1 | SM2540B | Percent | 0.01 | 10.40 |
| Preserved Total Solids | 05/21/12<br>052112#1 | SM2540B | Percent | 0.01 | 10.50 |
| N-Ammonia | 05/21/12<br>052112#1 | EPA 350.1M | mg-N/kg | 5.02 | 213 |
| Sulfide | 05/18/12<br>051812#1 | EPA 376.2 | mg/kg | 197 | 2,350 |
| Total Organic Carbon | 05/24/12<br>052412#1 | EPA 9060M | Percent | 0.194 | 17.1 |

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.



UU52:00336

**SAMPLE RESULTS-CONVENTIONALS**
**UU52-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

**Client ID: MS003-SS-120515**
**ARI ID: 12-8896 UU52D**

| Analyte | Date | Method | Units | RL | Sample |
|---|---|---|---|---|---|
| Total Solids | 05/22/12<br>052212#1 | SM2540B | Percent | 0.01 | 9.30 |
| Preserved Total Solids | 05/21/12<br>052112#1 | SM2540B | Percent | 0.01 | 10.90 |
| N-Ammonia | 05/21/12<br>052112#1 | EPA 350.1M | mg-N/kg | 2.28 | 170 |
| Sulfide | 05/18/12<br>051812#1 | EPA 376.2 | mg/kg | 201 | 3,640 |
| Total Organic Carbon | 05/24/12<br>052412#1 | EPA 9060M | Percent | 0.200 | 23.6 |

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.



UU52:00337

**SAMPLE RESULTS-CONVENTIONALS**
**UU52-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

**Client ID: MS004-SS-120515**
**ARI ID: 12-8897 UU52E**

| Analyte | Date | Method | Units | RL | Sample |
|---|---|---|---|---|---|
| Total Solids | 05/22/12<br>052212#1 | SM2540B | Percent | 0.01 | 10.30 |
| Preserved Total Solids | 05/21/12<br>052112#1 | SM2540B | Percent | 0.01 | 10.00 |
| N-Ammonia | 05/21/12<br>052112#1 | EPA 350.1M | mg-N/kg | 4.85 | 178 |
| Sulfide | 05/18/12<br>051812#1 | EPA 376.2 | mg/kg | 207 | 4,070 |
| Total Organic Carbon | 05/24/12<br>052412#1 | EPA 9060M | Percent | 0.184 | 17.9 |

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.



UU52:00338

**SAMPLE RESULTS-CONVENTIONALS**
**UU52-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

**Client ID: MS005-SS-120515**
**ARI ID: 12-8898 UU52F**

| Analyte | Date | Method | Units | RL | Sample |
|---|---|---|---|---|---|
| Total Solids | 05/22/12<br>052212#1 | SM2540B | Percent | 0.01 | 9.20 |
| Preserved Total Solids | 05/21/12<br>052112#1 | SM2540B | Percent | 0.01 | 8.30 |
| N-Ammonia | 05/21/12<br>052112#1 | EPA 350.1M | mg-N/kg | 1.15 | 71.1 |
| Sulfide | 05/18/12<br>051812#1 | EPA 376.2 | mg/kg | 118 | 1,840 |
| Total Organic Carbon | 05/24/12<br>052412#1 | EPA 9060M | Percent | 0.192 | 29.0 |

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.



UU52:00339

**SAMPLE RESULTS-CONVENTIONALS**
**UU52-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

**Client ID: MS006-SS-120515**
**ARI ID: 12-8899 UU52G**

| Analyte | Date | Method | Units | RL | Sample |
|---|---|---|---|---|---|
| Total Solids | 05/22/12<br>052212#1 | SM2540B | Percent | 0.01 | 9.80 |
| Preserved Total Solids | 05/21/12<br>052112#1 | SM2540B | Percent | 0.01 | 6.90 |
| N-Ammonia | 05/21/12<br>052112#1 | EPA 350.1M | mg-N/kg | 1.02 | 17.9 |
| Sulfide | 05/18/12<br>051812#1 | EPA 376.2 | mg/kg | 14.1 | 20.5 |
| Total Organic Carbon | 05/24/12<br>052412#1 | EPA 9060M | Percent | 0.208 | 31.9 |

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.



UU52:00340

**SAMPLE RESULTS-CONVENTIONALS**
**UU52-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

**Client ID: MS007-SS-120515**
**ARI ID: 12-8900 UU52H**

| Analyte | Date | Method | Units | RL | Sample |
|---|---|---|---|---|---|
| Total Solids | 05/22/12<br>052212#1 | SM2540B | Percent | 0.01 | 16.80 |
| Preserved Total Solids | 05/21/12<br>052112#1 | SM2540B | Percent | 0.01 | 19.00 |
| N-Ammonia | 05/21/12<br>052112#1 | EPA 350.1M | mg-N/kg | 0.59 | 33.2 |
| Sulfide | 05/18/12<br>051812#1 | EPA 376.2 | mg/kg | 52.6 | 718 |
| Total Organic Carbon | 05/24/12<br>052412#1 | EPA 9060M | Percent | 0.196 | 16.7 |

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.



UU52:00341

**SAMPLE RESULTS-CONVENTIONALS**
**UU52-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

**Client ID: MS008-SS-120515**
**ARI ID: 12-8901 UU52I**

| Analyte | Date | Method | Units | RL | Sample |
|---|---|---|---|---|---|
| Total Solids | 05/22/12<br>052212#1 | SM2540B | Percent | 0.01 | 10.70 |
| Preserved Total Solids | 05/21/12<br>052112#1 | SM2540B | Percent | 0.01 | 8.10 |
| N-Ammonia | 05/21/12<br>052112#1 | EPA 350.1M | mg-N/kg | 0.99 | 12.6 |
| Sulfide | 05/18/12<br>051812#1 | EPA 376.2 | mg/kg | 113 | 1,770 |
| Total Organic Carbon | 05/24/12<br>052412#1 | EPA 9060M | Percent | 0.200 | 22.5 |

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.



UU52:00342

**SAMPLE RESULTS-CONVENTIONALS**
**UU52-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

**Client ID: MS009-SS-120515**
**ARI ID: 12-8902 UU52J**

| Analyte | Date | Method | Units | RL | Sample |
|---|---|---|---|---|---|
| Total Solids | 05/22/12<br>052212#1 | SM2540B | Percent | 0.01 | 10.10 |
| Preserved Total Solids | 05/21/12<br>052112#1 | SM2540B | Percent | 0.01 | 10.60 |
| N-Ammonia | 05/21/12<br>052112#1 | EPA 350.1M | mg-N/kg | 2.06 | 117 |
| Sulfide | 05/18/12<br>051812#1 | EPA 376.2 | mg/kg | 89.8 | 1,720 |
| Total Organic Carbon | 05/24/12<br>052412#1 | EPA 9060M | Percent | 0.190 | 12.2 |

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.



UU52:00343

**SAMPLE RESULTS-CONVENTIONALS**
**UU52-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

**Client ID: MS010-SS-120515**
**ARI ID: 12-8903 UU52K**

| Analyte | Date | Method | Units | RL | Sample |
|---|---|---|---|---|---|
| Total Solids | 05/22/12 052212#1 | SM2540B | Percent | 0.01 | 10.60 |
| Preserved Total Solids | 05/21/12 052112#1 | SM2540B | Percent | 0.01 | 10.50 |
| N-Ammonia | 05/21/12 052112#1 | EPA 350.1M | mg-N/kg | 1.76 | 100 |
| Sulfide | 05/18/12 051812#1 | EPA 376.2 | mg/kg | 177 | 2,030 |
| Total Organic Carbon | 05/24/12 052412#1 | EPA 9060M | Percent | 0.164 | 11.8 |

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.



UU52:00344

**LAB CONTROL RESULTS-CONVENTIONALS**
**UU52-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: NA
Date Received: NA

| Analyte/Method | QC ID | Date | Units | LCS | Spike Added | Recovery |
|---|---|---|---|---|---|---|
| Sulfide<br>EPA 376.2 | PREP | 05/18/12 | mg/kg | 125 | 127 | 98.3% |
| Total Organic Carbon<br>EPA 9060M | ICVL | 05/24/12 | Percent | 0.097 | 0.100 | 97.0% |



UU52:00345

**METHOD BLANK RESULTS-CONVENTIONALS**
**UU52-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: NA
Date Received: NA

| Analyte | Date | Units | Blank |
|---|---|---|---|
| Total Solids | 05/22/12 | Percent | < 0.01 U |
| Preserved Total Solids | 05/21/12 | Percent | < 0.01 U |
| N-Ammonia | 05/21/12 | mg-N/kg | < 0.10 U |
| Sulfide | 05/18/12 | mg/kg | < 1.00 U |
| Total Organic Carbon | 05/24/12 | Percent | < 0.020 U |



UU52:00346

**STANDARD REFERENCE RESULTS-CONVENTIONALS**
**UU52-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen Maulsby Marsh
Event: 120909-01.01
Date Sampled: NA
Date Received: NA

| Analyte/SRM ID | Date | Units | SRM | True Value | Recovery |
|---|---|---|---|---|---|
| N-Ammonia<br>ERA 160510 | 05/21/12 | mg-N/kg | 101 | 100 | 101.0% |
| Total Organic Carbon<br>NIST 1941B | 05/24/12 | Percent | 2.74 | 2.99 | 91.6% |



UU52:00347

**SAMPLE RESULTS-CONVENTIONALS**
**UU62-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

**Client ID: MS110-SS-120515**
**ARI ID: 12-8928 UU62A**

| Analyte | Date | Method | Units | RL | Sample |
|---|---|---|---|---|---|
| Total Solids | 05/22/12<br>052212#1 | SM2540B | Percent | 0.01 | 10.40 |
| Preserved Total Solids | 05/21/12<br>052112#1 | SM2540B | Percent | 0.01 | 10.70 |
| N-Ammonia | 05/21/12<br>052112#1 | EPA 350.1M | mg-N/kg | 0.97 | 95.6 |
| Sulfide | 05/18/12<br>051812#1 | EPA 376.2 | mg/kg | 91.4 | 1,750 |
| Total Organic Carbon | 05/24/12<br>052412#1 | EPA 9060M | Percent | 0.200 | 15.7 |

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.



UU52:00348

**SAMPLE RESULTS-CONVENTIONALS**
**UU62-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

**Client ID: MS011-SS-120515**
**ARI ID: 12-8929 UU62B**

| Analyte | Date | Method | Units | RL | Sample |
|---|---|---|---|---|---|
| Total Solids | 05/22/12<br>052212#1 | SM2540B | Percent | 0.01 | 9.80 |
| Preserved Total Solids | 05/21/12<br>052112#1 | SM2540B | Percent | 0.01 | 11.00 |
| N-Ammonia | 05/21/12<br>052112#1 | EPA 350.1M | mg-N/kg | 0.96 | 20.8 |
| Sulfide | 05/18/12<br>051812#1 | EPA 376.2 | mg/kg | 8.88 | < 8.88 U |
| Total Organic Carbon | 05/24/12<br>052412#1 | EPA 9060M | Percent | 0.198 | 31.5 |

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.



UU52:00349

**SAMPLE RESULTS-CONVENTIONALS**
**UU62-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

**Client ID: MS012-SS-120515**
**ARI ID: 12-8930 UU62C**

| Analyte | Date | Method | Units | RL | Sample |
|---|---|---|---|---|---|
| Total Solids | 05/22/12<br>052212#1 | SM2540B | Percent | 0.01 | 9.70 |
| Preserved Total Solids | 05/21/12<br>052112#1 | SM2540B | Percent | 0.01 | 10.50 |
| N-Ammonia | 05/21/12<br>052112#1 | EPA 350.1M | mg-N/kg | 2.02 | 155 |
| Sulfide | 05/18/12<br>051812#1 | EPA 376.2 | mg/kg | 189 | 2,180 |
| Total Organic Carbon | 05/24/12<br>052412#1 | EPA 9060M | Percent | 0.200 | 22.6 |

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.



UU52:00350

**SAMPLE RESULTS-CONVENTIONALS**
**UU62-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

**Client ID: MS013-SS-120515**
**ARI ID: 12-8931 UU62D**

| Analyte | Date | Method | Units | RL | Sample |
|---|---|---|---|---|---|
| Total Solids | 05/22/12<br>052212#1 | SM2540B | Percent | 0.01 | 9.30 |
| Preserved Total Solids | 05/21/12<br>052112#1 | SM2540B | Percent | 0.01 | 9.60 |
| N-Ammonia | 05/21/12<br>052112#1 | EPA 350.1M | mg-N/kg | 2.01 | 107 |
| Sulfide | 05/18/12<br>051812#1 | EPA 376.2 | mg/kg | 103 | 1,520 |
| Total Organic Carbon | 05/24/12<br>052412#1 | EPA 9060M | Percent | 0.194 | 18.8 |

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.



UU52:00351

**SAMPLE RESULTS-CONVENTIONALS**
**UU62-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

**Client ID: MS014-SS-120515**
**ARI ID: 12-8932 UU62E**

| Analyte | Date | Method | Units | RL | Sample |
|---|---|---|---|---|---|
| Total Solids | 05/22/12<br>052212#1 | SM2540B | Percent | 0.01 | 9.80 |
| Preserved Total Solids | 05/21/12<br>052112#1 | SM2540B | Percent | 0.01 | 10.80 |
| N-Ammonia | 05/21/12<br>052112#1 | EPA 350.1M | mg-N/kg | 5.27 | 204 |
| Sulfide | 05/18/12<br>051812#1 | EPA 376.2 | mg/kg | 441 | 4,450 |
| Total Organic Carbon | 05/24/12<br>052412#1 | EPA 9060M | Percent | 0.192 | 16.9 |

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.



UU52:00352

**SAMPLE RESULTS-CONVENTIONALS**
**UU62-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

**Client ID: MS015-SS-120515**
**ARI ID: 12-8933 UU62F**

| Analyte | Date | Method | Units | RL | Sample |
|---|---|---|---|---|---|
| Total Solids | 05/22/12<br>052212#1 | SM2540B | Percent | 0.01 | 10.30 |
| Preserved Total Solids | 05/21/12<br>052112#1 | SM2540B | Percent | 0.01 | 11.00 |
| N-Ammonia | 05/21/12<br>052112#1 | EPA 350.1M | mg-N/kg | 1.89 | 121 |
| Sulfide | 05/18/12<br>051812#1 | EPA 376.2 | mg/kg | 178 | 2,130 |
| Total Organic Carbon | 05/24/12<br>052412#1 | EPA 9060M | Percent | 0.200 | 14.3 |

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.



UU52 : 00353

**SAMPLE RESULTS-CONVENTIONALS**
**UU62-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

**Client ID: MS016-SS-120515**
**ARI ID: 12-8934 UU62G**

| Analyte | Date | Method | Units | RL | Sample |
|---|---|---|---|---|---|
| Total Solids | 05/22/12<br>052212#1 | SM2540B | Percent | 0.01 | 12.40 |
| Preserved Total Solids | 05/21/12<br>052112#1 | SM2540B | Percent | 0.01 | 11.00 |
| N-Ammonia | 05/21/12<br>052112#1 | EPA 350.1M | mg-N/kg | 1.70 | 129 |
| Sulfide | 05/18/12<br>051812#1 | EPA 376.2 | mg/kg | 89.5 | 702 |
| Total Organic Carbon | 05/24/12<br>052412#1 | EPA 9060M | Percent | 0.194 | 19.6 |

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.



UU52:00354

**SAMPLE RESULTS-CONVENTIONALS**
**UU62-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

**Client ID: MS017-SS-120515**
**ARI ID: 12-8935 UU62H**

| Analyte | Date | Method | Units | RL | Sample |
|---|---|---|---|---|---|
| Total Solids | 05/22/12<br>052212#1 | SM2540B | Percent | 0.01 | 8.40 |
| Preserved Total Solids | 05/21/12<br>052112#1 | SM2540B | Percent | 0.01 | 7.40 |
| N-Ammonia | 05/21/12<br>052112#1 | EPA 350.1M | mg-N/kg | 1.23 | 117 |
| Sulfide | 05/18/12<br>051812#1 | EPA 376.2 | mg/kg | 131 | 2,450 |
| Total Organic Carbon | 05/24/12<br>052412#1 | EPA 9060M | Percent | 0.198 | 21.8 |

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.



UU52:00355

**SAMPLE RESULTS-CONVENTIONALS**
**UU62-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

**Client ID: MS018-SS-120515**
**ARI ID: 12-8936 UU62I**

| Analyte | Date | Method | Units | RL | Sample |
|---|---|---|---|---|---|
| Total Solids | 05/22/12<br>052212#1 | SM2540B | Percent | 0.01 | 11.70 |
| Preserved Total Solids | 05/21/12<br>052112#1 | SM2540B | Percent | 0.01 | 11.10 |
| N-Ammonia | 05/21/12<br>052112#1 | EPA 350.1M | mg-N/kg | 1.80 | 130 |
| Sulfide | 05/18/12<br>051812#1 | EPA 376.2 | mg/kg | 190 | 2,960 |
| Total Organic Carbon | 05/24/12<br>052412#1 | EPA 9060M | Percent | 0.198 | 18.0 |

RL Analytical reporting limit
U Undetected at reported detection limit

Ammonia determined on 2N KCl extracts.



UU52:00356

**MS/MSD RESULTS-CONVENTIONALS**
**UU62-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

| Analyte | Date | Units | Sample | Spike | Spike Added | Recovery |
|---|---|---|---|---|---|---|
| **ARI ID: UU62A Client ID: MS110-SS-120515** | | | | | | |
| N-Ammonia | 05/21/12 | mg-N/kg | 95.6 | 1,040 | 1,000 | 94.3% |
| Sulfide | 05/18/12 | mg/kg | 1,750 | 4,240 | 2,300 | 108.3% |
| Total Organic Carbon | 05/24/12 | Percent | 15.7 | 38.1 | 18.7 | 120.0% |



UU52:00357

**REPLICATE RESULTS-CONVENTIONALS**
**UU62-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

| Analyte | Date | Units | Sample | Replicate(s) | RPD/RSD |
|---|---|---|---|---|---|
| **ARI ID: UU62A Client ID: MS110-SS-120515** | | | | | |
| Total Solids | 05/22/12 | Percent | 10.40 | 10.30<br>10.40 | 0.6% |
| Preserved Total Solids | 05/21/12 | Percent | 10.70 | 10.70 | 0.0% |
| N-Ammonia | 05/21/12 | mg-N/kg | 95.6 | 98.5 | 3.0% |
| Sulfide | 05/18/12 | mg/kg | 1,750 | 1,520 | 14.1% |
| Total Organic Carbon | 05/24/12 | Percent | 15.7 | 14.9<br>15.9 | 3.4% |



UU52:00358

**LAB CONTROL RESULTS-CONVENTIONALS**
**UU62-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: NA
Date Received: NA

| Analyte/Method | QC ID | Date | Units | LCS | Spike Added | Recovery |
|---|---|---|---|---|---|---|
| Sulfide EPA 376.2 | PREP | 05/18/12 | mg/kg | 125 | 127 | 98.3% |
| Total Organic Carbon EPA 9060M | ICVL | 05/24/12 | Percent | 0.097 | 0.100 | 97.0% |



UU62:00359

**METHOD BLANK RESULTS-CONVENTIONALS**
**UU62-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: NA
Date Received: NA

| Analyte | Date | Units | Blank |
|---|---|---|---|
| Total Solids | 05/22/12 | Percent | < 0.01 U |
| Preserved Total Solids | 05/21/12 | Percent | < 0.01 U |
| N-Ammonia | 05/21/12 | mg-N/kg | < 0.10 U |
| Sulfide | 05/18/12 | mg/kg | < 1.00 U |
| Total Organic Carbon | 05/24/12 | Percent | < 0.020 U |



UU52:00360

**STANDARD REFERENCE RESULTS-CONVENTIONALS**
**UU62-Anchor QEA, LLC.**

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 05/25/12

Project: Jeld Wen - Maulsby Marsh
Event: 120909-01.01
Date Sampled: NA
Date Received: NA

| Analyte/SRM ID | Date | Units | SRM | True Value | Recovery |
|---|---|---|---|---|---|
| N-Ammonia<br>ERA 160510 | 05/21/12 | mg-N/kg | 101 | 100 | 101.0% |
| Total Organic Carbon<br>NIST 1941B | 05/24/12 | Percent | 2.74 | 2.99 | 91.6% |



UU52:00361

Geotechnical Analysis
Report and Summary QC Forms

ARI Job ID: UU52, UU62

Anchor QEA, LLC
120909-01.01
Jeld Wen Maulsby Marsh

Apparent Grain Size Distribution Summary
Percent Finer Than Indicated Size

| Sample No. | Gravel | | | Very Coarse Sand | Coarse Sand | Medium Sand | Fine Sand | Very Fine Sand | Silt | | | | Clay | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phi Size | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Sieve Size (microns) | 3/8" | #4 (4750) | #10 (2000) | #18 (1000) | #35 (500) | #60 (250) | #120 (125) | #230 (63) | 31.00 | 15.60 | 7.80 | 3.90 | 2.00 | 1.00 |
| MS002-SS-120515 | 100.0 | 100.0 | 99.6 | 85.4 | 79.4 | 75.0 | 72.0 | 69.8 | 68.3 | 49.5 | 37.3 | 22.1 | 17.6 | 12.2 |
| | 100.0 | 99.4 | 99.1 | 89.0 | 83.1 | 78.9 | 75.9 | 73.3 | 72.3 | 52.9 | 39.1 | 22.6 | 18.2 | 13.0 |
| | 100.0 | 100.0 | 97.3 | 81.9 | 74.8 | 69.8 | 66.3 | 63.5 | 62.7 | 49.2 | 35.7 | 20.6 | 16.5 | 11.7 |
| MS001-SS-120515 | 100.0 | 100.0 | 100.0 | 75.6 | 68.4 | 63.9 | 60.9 | 58.8 | 57.5 | 44.4 | 33.1 | 20.6 | 17.6 | 14.2 |
| MS101-SS-120515 | 100.0 | 100.0 | 88.2 | 71.2 | 63.3 | 58.5 | 55.3 | 52.9 | 51.8 | 40.3 | 30.4 | 19.2 | 15.9 | 12.5 |
| MS003-SS-120515 | 100.0 | 99.3 | 92.5 | 80.7 | 72.6 | 66.9 | 62.9 | 60.1 | 54.9 | 30.3 | 22.7 | 16.8 | 15.5 | 12.9 |
| MS004-SS-120515 | 100.0 | 100.0 | 95.4 | 87.2 | 79.7 | 73.0 | 67.7 | 64.1 | 59.9 | 34.7 | 26.3 | 18.8 | 15.6 | 11.8 |
| MS005-SS-120515 | 100.0 | 97.4 | 80.9 | 67.0 | 55.7 | 46.3 | 39.6 | 35.6 | 32.8 | 28.7 | 22.2 | 16.2 | 11.4 | 9.1 |
| MS006-SS-120515 | 100.0 | 99.6 | 83.8 | 64.8 | 48.2 | 35.6 | 27.7 | 22.7 | 19.5 | 17.1 | 13.6 | 10.7 | 7.3 | 5.0 |
| MS007-SS-120515 | 100.0 | 99.7 | 98.8 | 82.4 | 72.7 | 64.6 | 55.0 | 44.8 | 33.6 | 23.8 | 16.6 | 9.7 | 7.5 | 5.3 |
| MS008-SS-120515 | 100.0 | 64.4 | 55.9 | 44.5 | 37.3 | 31.9 | 27.7 | 24.6 | 19.4 | 16.8 | 12.6 | 8.5 | 5.5 | 3.4 |
| MS009-SS-120515 | 100.0 | 99.7 | 94.5 | 86.2 | 79.2 | 72.9 | 67.6 | 63.2 | 52.9 | 40.7 | 31.7 | 21.0 | 16.8 | 12.7 |
| MS010-SS-120515 | 100.0 | 97.3 | 88.6 | 79.1 | 72.1 | 66.3 | 61.6 | 57.9 | 49.8 | 35.3 | 27.2 | 18.4 | 15.5 | 11.6 |

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.



UU52 : 00363

Anchor QEA, LLC
120909-01.01
Jeld Wen Maulsby Marsh

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

| Sample No. | Gravel | Very Coarse Sand | Coarse Sand | Medium Sand | Fine Sand | Very Fine Sand | Coarse Silt | Medium Silt | Fine Silt | Very Fine Silt | Clay | | | Total Fines |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phi Size | > -1 | -1 to 0 | 0 to 1 | 1 to 2 | 2 to 3 | 3 to 4 | 4 to 5 | 5 to 6 | 6 to 7 | 7 to 8 | 8 to 9 | 9 to 10 | < 10 | <4 |
| Sieve Size (microns) | > #10 (2000) | 10 to 18 (2000-1000) | 18-35 (1000-500) | 35-60 (500-250) | 60-120 (250-125) | 120-230 (125-62) | 62.5-31.0 | 31.0-15.6 | 15.6-7.8 | 7.8-3.9 | 3.9-2.0 | 2.0-1.0 | <1.0 | <230 (<62) |
| MS002-SS-120515 | 0.4 | 14.2 | 6.0 | 4.4 | 3.0 | 2.3 | 1.5 | 18.8 | 12.2 | 15.2 | 4.5 | 5.4 | 12.2 | 69.8 |
| | 0.9 | 10.1 | 5.9 | 4.2 | 3.1 | 2.6 | 1.0 | 19.5 | 13.8 | 16.4 | 4.5 | 5.1 | 13.0 | 73.3 |
| | 2.7 | 15.5 | 7.1 | 5.0 | 3.5 | 2.7 | 0.9 | 13.5 | 13.5 | 15.1 | 4.1 | 4.7 | 11.7 | 63.5 |
| MS001-SS-120515 | 0.0 | 24.4 | 7.1 | 4.5 | 3.0 | 2.1 | 1.3 | 13.1 | 11.3 | 12.4 | 3.1 | 3.3 | 14.2 | 58.8 |
| MS101-SS-120515 | 11.8 | 17.1 | 7.9 | 4.8 | 3.2 | 2.4 | 1.0 | 11.5 | 9.9 | 11.2 | 3.4 | 3.4 | 12.5 | 52.9 |
| MS003-SS-120515 | 7.5 | 11.8 | 8.1 | 5.7 | 4.0 | 2.7 | 5.2 | 24.5 | 7.7 | 5.9 | 1.3 | 2.5 | 12.9 | 60.1 |
| MS004-SS-120515 | 4.6 | 8.2 | 7.5 | 6.7 | 5.3 | 3.7 | 4.2 | 25.2 | 8.4 | 7.5 | 3.2 | 3.7 | 11.8 | 64.1 |
| MS005-SS-120515 | 19.1 | 13.9 | 11.2 | 9.5 | 6.6 | 4.1 | 2.8 | 4.1 | 6.5 | 6.0 | 4.8 | 2.3 | 9.1 | 35.6 |
| MS006-SS-120515 | 16.2 | 19.0 | 16.5 | 12.6 | 8.0 | 4.9 | 3.3 | 2.4 | 3.5 | 2.9 | 3.4 | 2.3 | 5.0 | 22.7 |
| MS007-SS-120515 | 1.2 | 16.4 | 9.7 | 8.2 | 9.6 | 10.2 | 11.2 | 9.7 | 7.2 | 6.9 | 2.2 | 2.2 | 5.3 | 44.8 |
| MS008-SS-120515 | 44.1 | 11.4 | 7.2 | 5.4 | 4.2 | 3.1 | 5.2 | 2.6 | 4.3 | 4.1 | 3.0 | 2.0 | 3.4 | 24.6 |
| MS009-SS-120515 | 5.5 | 8.3 | 7.0 | 6.3 | 5.3 | 4.5 | 10.3 | 12.2 | 9.0 | 10.7 | 4.2 | 4.1 | 12.7 | 63.2 |
| MS010-SS-120515 | 11.4 | 9.5 | 7.1 | 5.8 | 4.7 | 3.8 | 8.1 | 14.5 | 8.1 | 8.7 | 2.9 | 3.9 | 11.6 | 57.9 |

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.



UU52 : 00364

## QA SUMMARY

| | | | |
|---|---|---|---|
| Client: | Anchor QEA, LLC | Client Project No.: | 120909-01.01 |
| | | Client Project: | Jeld Wen Maulsby Marsh |
| ARI Trip. Sample ID: | UU52C | Batch No.: | UU52-1 |
| Client Trip. Sample ID: | MS002-SS-120515 | Page: | 1 of 1 |

Relative Standard Deviation, By Phi Size

| Sample ID | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS002-SS-120515 | 100.0 | 100.0 | 99.6 | 85.4 | 79.4 | 75.0 | 72.0 | 69.8 | 68.3 | 49.5 | 37.3 | 22.1 | 17.6 | 12.2 |
| | 100.0 | 99.4 | 99.1 | 89.0 | 83.1 | 78.9 | 75.9 | 73.3 | 72.3 | 52.9 | 39.1 | 22.6 | 18.2 | 13.0 |
| | 100.0 | 100.0 | 97.3 | 81.9 | 74.8 | 69.8 | 66.3 | 63.5 | 62.7 | 49.2 | 35.7 | 20.6 | 16.5 | 11.7 |
| AVE | NA | 99.80 | 98.68 | 85.44 | 79.12 | 74.58 | 71.39 | 68.87 | 67.78 | 50.54 | 37.37 | 21.80 | 17.42 | 12.32 |
| STDEV | NA | 0.35 | 1.20 | 3.58 | 4.19 | 4.61 | 4.82 | 4.94 | 4.85 | 2.04 | 1.69 | 1.07 | 0.87 | 0.65 |
| %RSD | NA | 0.35 | 1.22 | 4.19 | 5.30 | 6.18 | 6.76 | 7.17 | 7.15 | 4.04 | 4.51 | 4.89 | 4.97 | 5.28 |

The Triplicate Applies To The Following Samples

| Client ID | Date Sampled | Date Extracted | Date Complete | QA Ratio (95-105) | Data Qualifiers | Pipette Portion (5.0-25.0g) |
|---|---|---|---|---|---|---|
| MS002-SS-120515 | 5/15/2012 | 5/18/2012 | 5/25/2012 | 96.8 | | 6.6 |
| | 5/15/2012 | 5/18/2012 | 5/25/2012 | 97.7 | | 7.0 |
| | 5/15/2012 | 5/18/2012 | 5/25/2012 | 98.6 | | 6.1 |
| MS001-SS-120515 | 5/15/2012 | 5/18/2012 | 5/25/2012 | 97.9 | | 5.4 |
| MS101-SS-120515 | 5/15/2012 | 5/18/2012 | 5/25/2012 | 99.9 | | 5.0 |
| MS003-SS-120515 | 5/15/2012 | 5/22/2012 | 5/25/2012 | 99.3 | | 8.4 |
| MS004-SS-120515 | 5/15/2012 | 5/22/2012 | 5/25/2012 | 99.5 | | 9.5 |
| MS005-SS-120515 | 5/15/2012 | 5/18/2012 | 5/25/2012 | 103.1 | SS, W | 3.4 |
| MS006-SS-120515 | 5/15/2012 | 5/18/2012 | 5/25/2012 | 103.5 | SS, W | 2.8 |
| MS007-SS-120515 | 5/15/2012 | 5/18/2012 | 5/25/2012 | 100.7 | | 9.3 |
| MS008-SS-120515 | 5/15/2012 | 5/18/2012 | 5/25/2012 | 106.0 | SS,SM,W | 4.1 |
| MS009-SS-120515 | 5/15/2012 | 5/22/2012 | 5/25/2012 | 100.1 | | 9.5 |
| MS010-SS-120515 | 5/15/2012 | 5/22/2012 | 5/25/2012 | 98.2 | | 8.9 |

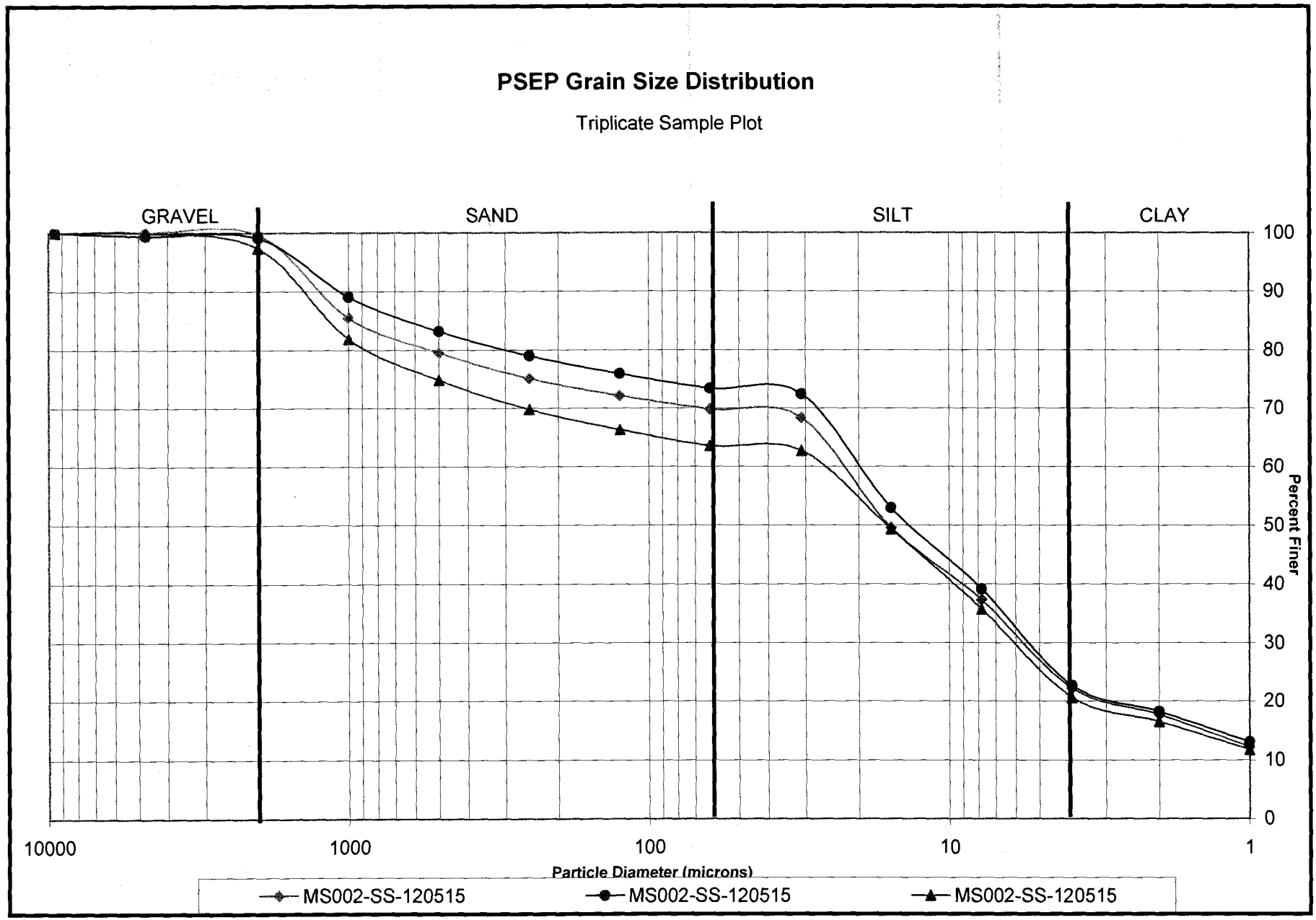
* ARI Internal QA limits = 95-105%

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.



UU52 : 00365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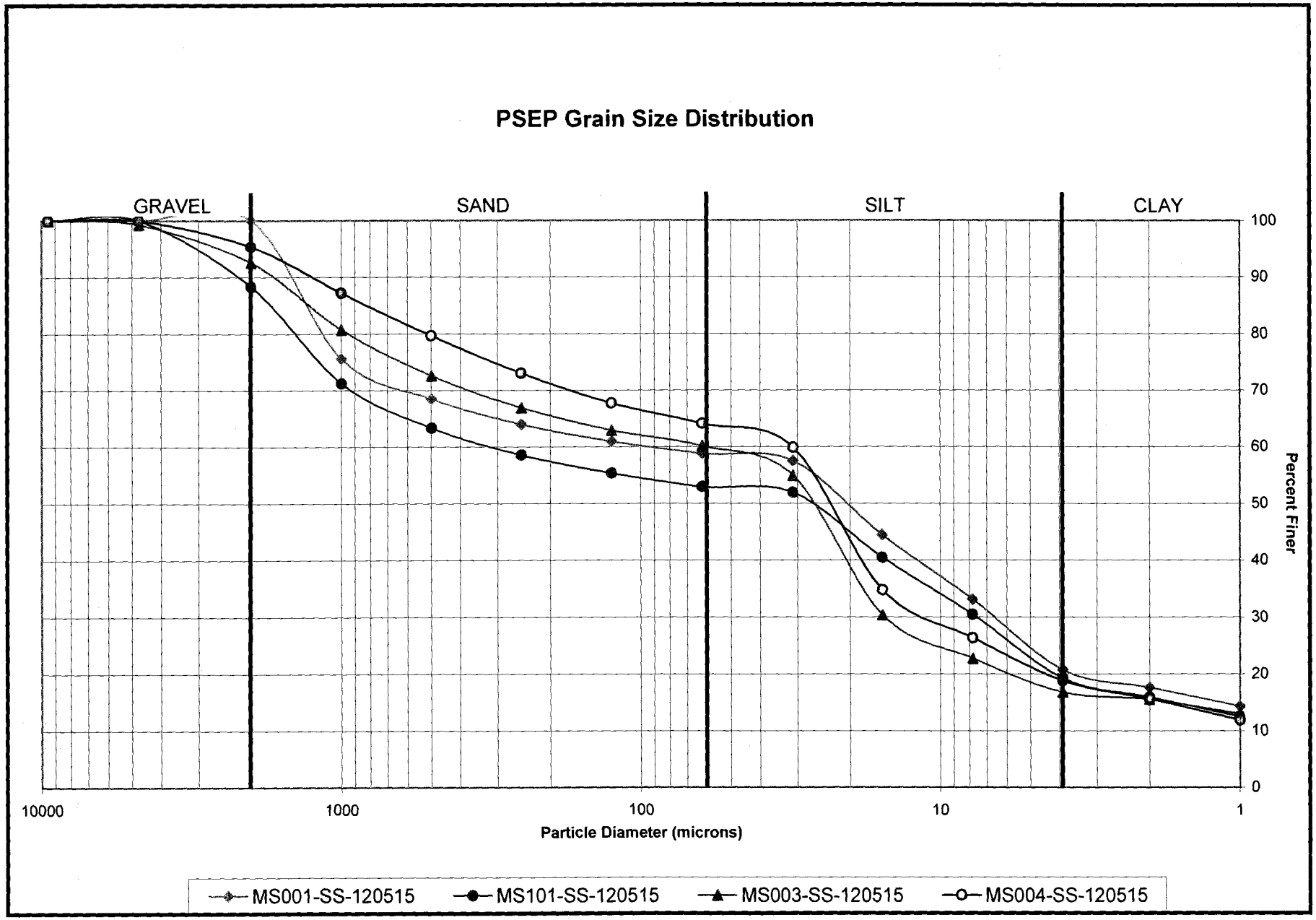
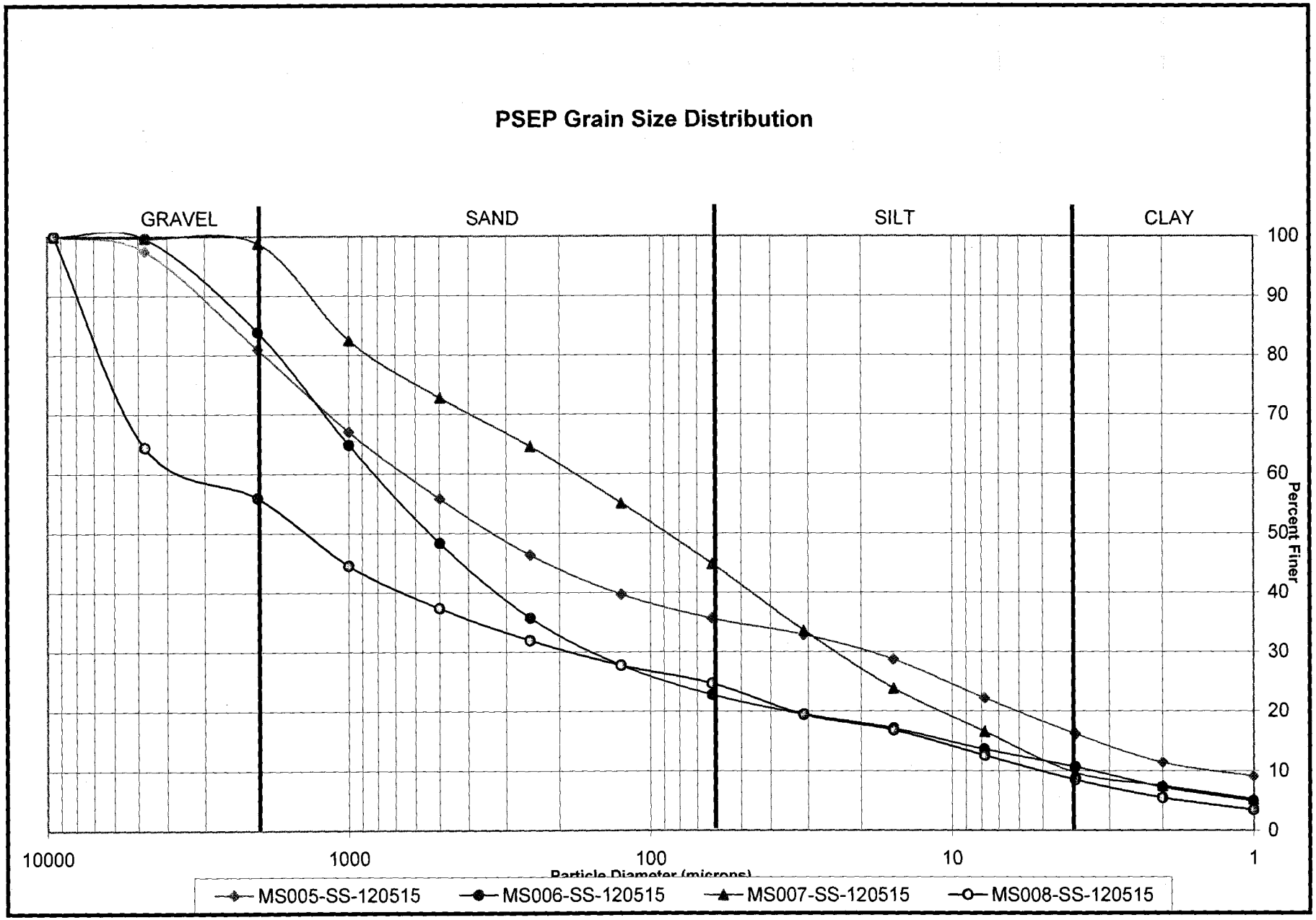
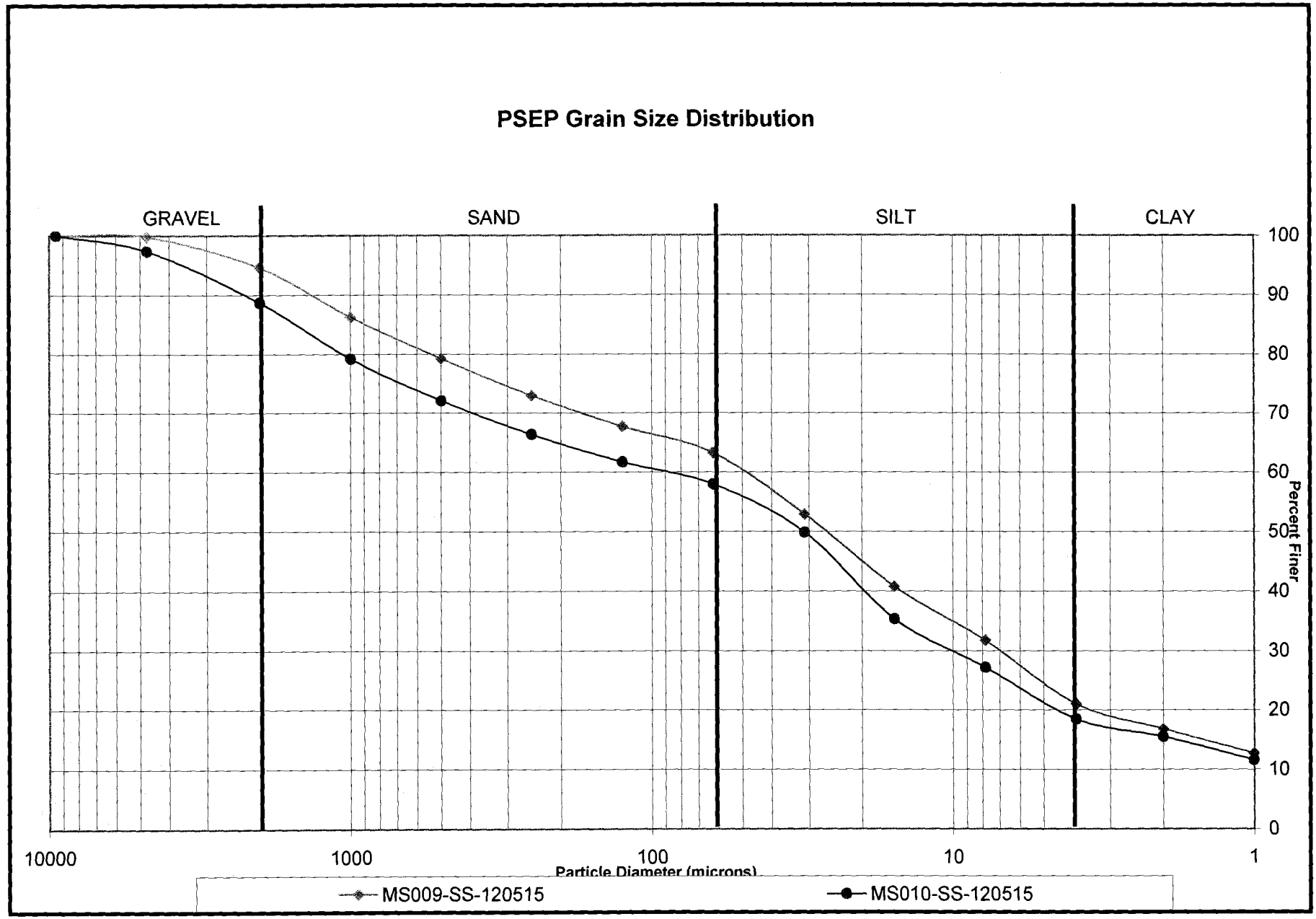
Triplicate Sample Plot
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
MS002-SS-120515
MS002-SS-120515
MS002-SS-120515

UU52:00366


PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
MS001-SS-120515
MS101-SS-120515
MS003-SS-120515
MS004-SS-120515


PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
MS005-SS-120515
MS006-SS-120515
MS007-SS-120515
MS008-SS-120515


PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
MS009-SS-120515
MS010-SS-120515

Anchor QEA, LLC
120909-01.01
Jeld Wen Maulsby Marsh

Apparent Grain Size Distribution Summary
Percent Finer Than Indicated Size

| Sample No. | Gravel | | | Very Coarse Sand | Coarse Sand | Medium Sand | Fine Sand | Very Fine Sand | Silt | | | | Clay | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phi Size | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Sieve Size (microns) | 3/8" | #4 (4750) | #10 (2000) | #18 (1000) | #35 (500) | #60 (250) | #120 (125) | #230 (63) | 31.00 | 15.60 | 7.80 | 3.90 | 2.00 | 1.00 |
| MS002-SS-120515 | 100.0 | 100.0 | 99.6 | 85.4 | 79.4 | 75.0 | 72.0 | 69.8 | 68.3 | 49.5 | 37.3 | 22.1 | 17.6 | 12.2 |
| | 100.0 | 99.4 | 99.1 | 89.0 | 83.1 | 78.9 | 75.9 | 73.3 | 72.3 | 52.9 | 39.1 | 22.6 | 18.2 | 13.0 |
| | 100.0 | 100.0 | 97.3 | 81.9 | 74.8 | 69.8 | 66.3 | 63.5 | 62.7 | 49.2 | 35.7 | 20.6 | 16.5 | 11.7 |
| MS110-SS-120515 | 100.0 | 100.0 | 97.4 | 83.2 | 73.8 | 67.4 | 62.3 | 58.5 | 56.1 | 46.6 | 37.1 | 21.7 | 16.1 | 12.0 |
| MS011-SS-120515 | 100.0 | 95.6 | 76.4 | 58.6 | 44.1 | 32.4 | 25.0 | 20.4 | 20.3 | 18.7 | 15.1 | 10.9 | 7.7 | 5.1 |
| MS012-SS-120515 | 100.0 | 99.3 | 78.7 | 67.7 | 61.8 | 57.7 | 54.9 | 53.0 | 48.1 | 29.2 | 22.7 | 18.5 | 17.4 | 15.2 |
| MS013-SS-120515 | 100.0 | 99.7 | 76.4 | 64.8 | 57.8 | 54.1 | 49.8 | 48.0 | 43.8 | 30.9 | 19.3 | 12.4 | 10.2 | 9.3 |
| MS014-SS-120515 | 100.0 | 100.0 | 93.1 | 79.7 | 69.4 | 62.4 | 57.5 | 54.3 | 52.4 | 44.6 | 32.7 | 19.9 | 15.2 | 11.8 |
| MS015-SS-120515 | 100.0 | 96.0 | 83.8 | 72.5 | 65.0 | 60.2 | 57.5 | 56.0 | 53.9 | 42.1 | 30.1 | 17.4 | 13.4 | 10.5 |
| MS016-SS-120515 | 100.0 | 93.4 | 82.7 | 68.7 | 58.3 | 51.1 | 46.6 | 43.8 | 43.6 | 35.0 | 22.1 | 12.8 | 10.7 | 8.2 |
| MS017-SS-120515 | 100.0 | 97.4 | 80.4 | 66.1 | 54.6 | 46.4 | 41.1 | 37.7 | 37.0 | 33.6 | 24.7 | 16.4 | 14.0 | 11.4 |
| MS018-SS-120515 | 100.0 | 100.0 | 83.2 | 74.5 | 69.9 | 66.6 | 63.8 | 61.7 | 59.9 | 42.2 | 29.3 | 22.2 | 17.6 | 12.9 |

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

UU62

GJ 2015 - 2575

Anchor QEA, LLC
120909-01.01
Jeld Wen Maulsby Marsh

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

| Sample No. | Gravel | Very Coarse Sand | Coarse Sand | Medium Sand | Fine Sand | Very Fine Sand | Coarse Silt | Medium Silt | Fine Silt | Very Fine Silt | Clay | | | Total Fines |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phi Size | > -1 | -1 to 0 | 0 to 1 | 1 to 2 | 2 to 3 | 3 to 4 | 4 to 5 | 5 to 6 | 6 to 7 | 7 to 8 | 8 to 9 | 9 to 10 | < 10 | <4 |
| Sieve Size (microns) | > #10 (2000) | 10 to 18 (2000-1000) | 18-35 (1000-500) | 35-60 (500-250) | 60-120 (250-125) | 120-230 (125-62) | 62.5-31.0 | 31.0-15.6 | 15.6-7.8 | 7.8-3.9 | 3.9-2.0 | 2.0-1.0 | <1.0 | <230 (<62) |
| MS002-SS-120515 | 0.4 | 14.2 | 6.0 | 4.4 | 3.0 | 2.3 | 1.5 | 18.8 | 12.2 | 15.2 | 4.5 | 5.4 | 12.2 | 69.8 |
| | 0.9 | 10.1 | 5.9 | 4.2 | 3.1 | 2.6 | 1.0 | 19.5 | 13.8 | 16.4 | 4.5 | 5.1 | 13.0 | 73.3 |
| | 2.7 | 15.5 | 7.1 | 5.0 | 3.5 | 2.7 | 0.9 | 13.5 | 13.5 | 15.1 | 4.1 | 4.7 | 11.7 | 63.5 |
| MS110-SS-120515 | 2.6 | 14.2 | 9.4 | 6.5 | 5.0 | 3.8 | 2.4 | 9.5 | 9.5 | 15.4 | 5.5 | 4.1 | 12.0 | 58.5 |
| MS011-SS-120515 | 23.6 | 17.8 | 14.5 | 11.7 | 7.4 | 4.6 | 0.2 | 1.6 | 3.7 | 4.2 | 3.2 | 2.6 | 5.1 | 20.4 |
| MS012-SS-120515 | 21.3 | 11.0 | 5.9 | 4.1 | 2.8 | 1.9 | 4.9 | 18.9 | 6.5 | 4.1 | 1.2 | 2.2 | 15.2 | 53.0 |
| MS013-SS-120515 | 23.6 | 11.6 | 7.1 | 3.7 | 4.2 | 1.8 | 4.2 | 12.9 | 11.6 | 6.9 | 2.2 | 0.8 | 9.3 | 48.0 |
| MS014-SS-120515 | 6.9 | 13.4 | 10.3 | 7.0 | 4.9 | 3.2 | 1.9 | 7.7 | 11.9 | 12.8 | 4.7 | 3.4 | 11.8 | 54.3 |
| MS015-SS-120515 | 16.2 | 11.3 | 7.5 | 4.8 | 2.7 | 1.5 | 2.1 | 11.8 | 11.9 | 12.8 | 4.0 | 2.9 | 10.5 | 56.0 |
| MS016-SS-120515 | 17.3 | 14.0 | 10.4 | 7.2 | 4.5 | 2.8 | 0.2 | 8.5 | 12.9 | 9.3 | 2.1 | 2.5 | 8.2 | 43.8 |
| MS017-SS-120515 | 19.6 | 14.3 | 11.5 | 8.2 | 5.3 | 3.4 | 0.7 | 3.4 | 9.0 | 8.3 | 2.4 | 2.5 | 11.4 | 37.7 |
| MS018-SS-120515 | 16.8 | 8.7 | 4.6 | 3.3 | 2.8 | 2.1 | 1.8 | 17.7 | 12.9 | 7.1 | 4.6 | 4.7 | 12.9 | 61.7 |

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

UU62

7 1 3 8 9 : 2 5 1 5 5

## QA SUMMARY

| | | | |
|---|---|---|---|
| Client: | Anchor QEA, LLC | Client Project No.: | 120909-01.01 |
| | | Client Project: | Jeld Wen Maulsby Marsh |
| ARI Trip. Sample ID: | UU52 C | Batch No.: | UU62-1 |
| Client Trip. Sample ID: | MS002-SS-120515 | Page: | 1 of 1 |

Relative Standard Deviation, By Phi Size

| Sample ID | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS002-SS-120515 | 100.0 | 100.0 | 99.6 | 85.4 | 79.4 | 75.0 | 72.0 | 69.8 | 68.3 | 49.5 | 37.3 | 22.1 | 17.6 | 12.2 |
| | 100.0 | 99.4 | 99.1 | 89.0 | 83.1 | 78.9 | 75.9 | 73.3 | 72.3 | 52.9 | 39.1 | 22.6 | 18.2 | 13.0 |
| | 100.0 | 100.0 | 97.3 | 81.9 | 74.8 | 69.8 | 66.3 | 63.5 | 62.7 | 49.2 | 35.7 | 20.6 | 16.5 | 11.7 |
| AVE | NA | 99.80 | 98.68 | 85.44 | 79.12 | 74.58 | 71.39 | 68.87 | 67.78 | 50.54 | 37.37 | 21.80 | 17.42 | 12.32 |
| STDEV | NA | 0.35 | 1.20 | 3.58 | 4.19 | 4.61 | 4.82 | 4.94 | 4.85 | 2.04 | 1.69 | 1.07 | 0.87 | 0.65 |
| %RSD | NA | 0.35 | 1.22 | 4.19 | 5.30 | 6.18 | 6.76 | 7.17 | 7.15 | 4.04 | 4.51 | 4.89 | 4.97 | 5.28 |

The Triplicate Applies To The Following Samples

| Client ID | Date Sampled | Date Extracted | Date Complete | QA Ratio (95-105) | Data Qualifiers | Pipette Portion (5.0-25.0g) |
|---|---|---|---|---|---|---|
| MS002-SS-120515 | 5/15/2012 | 5/18/2012 | 5/25/2012 | 96.8 | | 6.6 |
| | 5/15/2012 | 5/18/2012 | 5/25/2012 | 97.7 | | 7.0 |
| | 5/15/2012 | 5/18/2012 | 5/25/2012 | 98.6 | | 6.1 |
| MS110-SS-120515 | 5/15/2012 | 5/18/2012 | 5/25/2012 | 100.8 | | 5.4 |
| MS011-SS-120515 | 5/15/2012 | 5/18/2012 | 5/25/2012 | 98.8 | SS | 2.5 |
| MS012-SS-120515 | 5/15/2012 | 5/18/2012 | 5/25/2012 | 99.1 | | 7.5 |
| MS013-SS-120515 | 5/15/2012 | 5/18/2012 | 5/25/2012 | 100.5 | | 6.7 |
| MS014-SS-120515 | 5/15/2012 | 5/18/2012 | 5/25/2012 | 102.0 | | 5.0 |
| MS015-SS-120515 | 5/15/2012 | 5/18/2012 | 5/25/2012 | 101.3 | | 6.0 |
| MS016-SS-120515 | 5/15/2012 | 5/18/2012 | 5/25/2012 | 98.5 | | 5.9 |
| MS017-SS-120515 | 5/15/2012 | 5/18/2012 | 5/25/2012 | 99.9 | SS | 3.1 |
| MS018-SS-120515 | 5/15/2012 | 5/18/2012 | 5/25/2012 | 98.6 | | 10.5 |

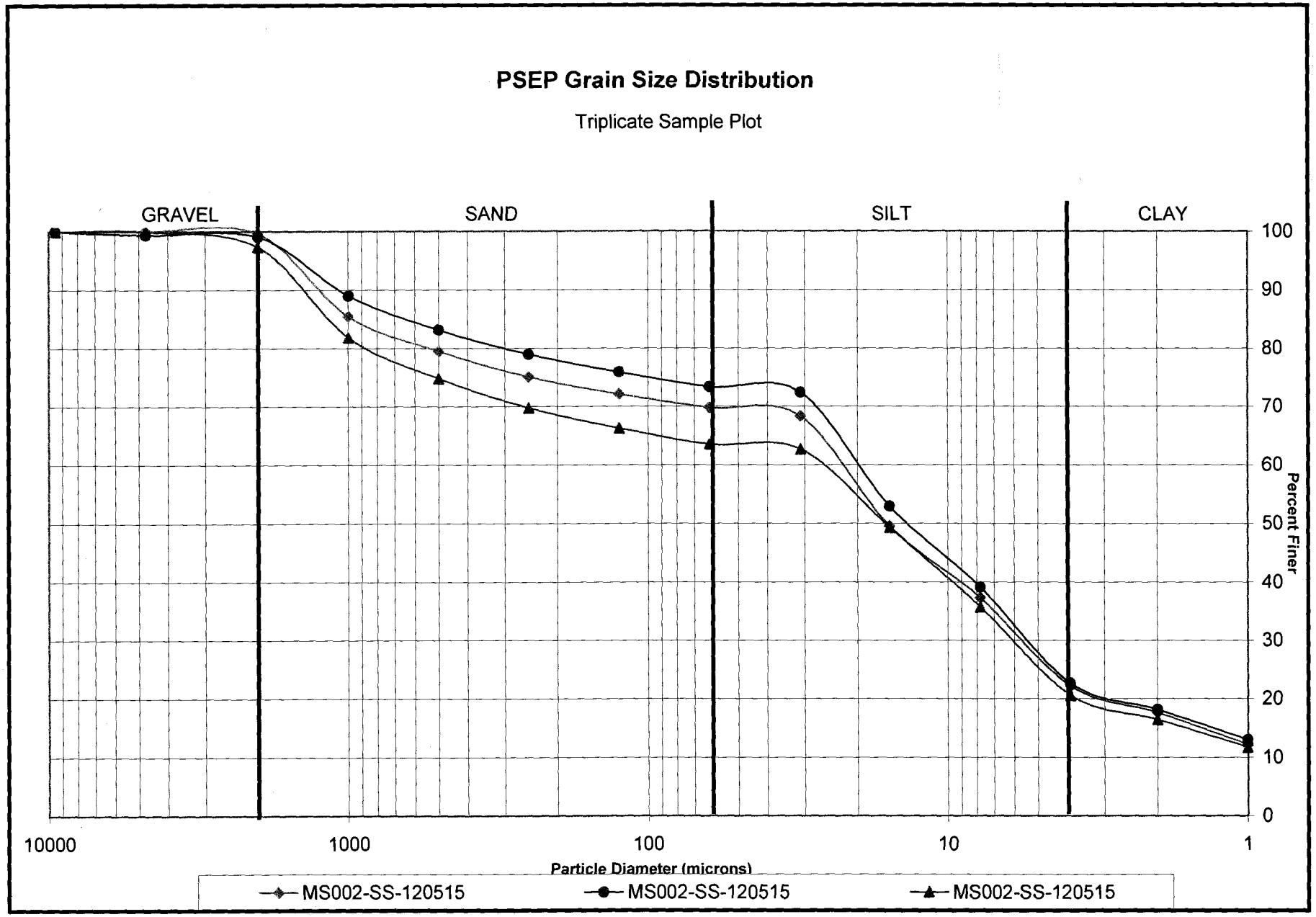
* ARI Internal QA limits = 95-105%

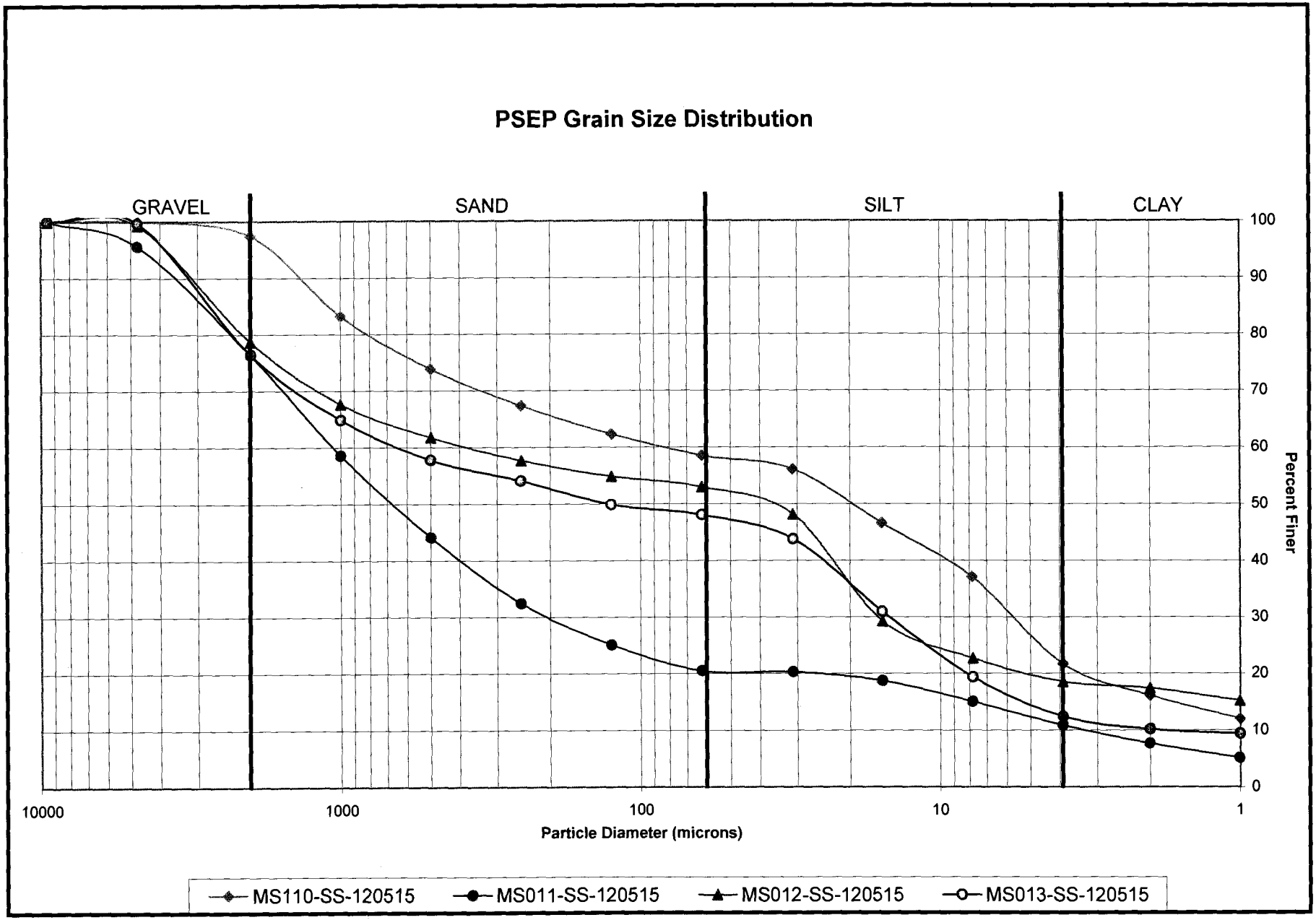
Notes to the Testing:

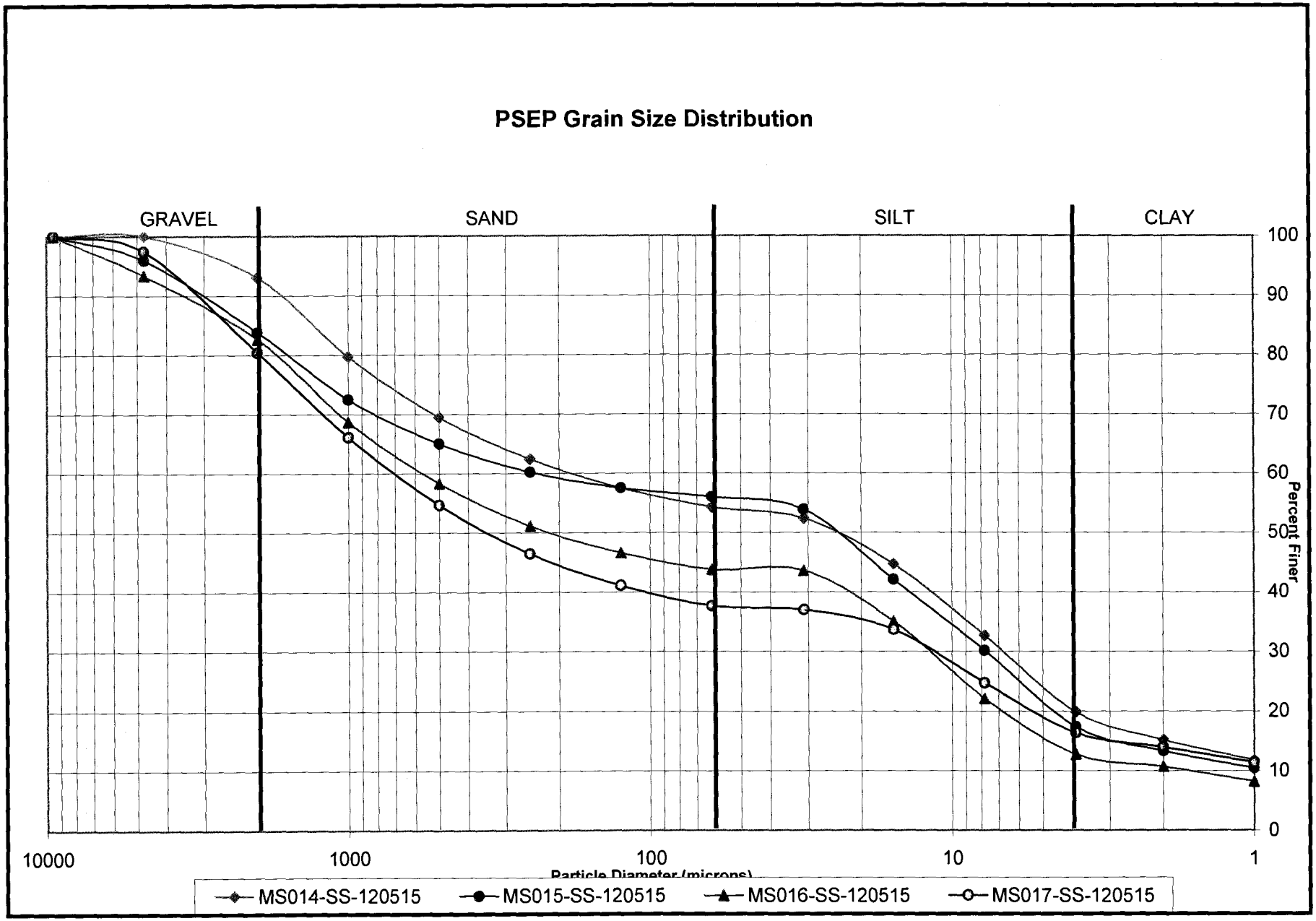
1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

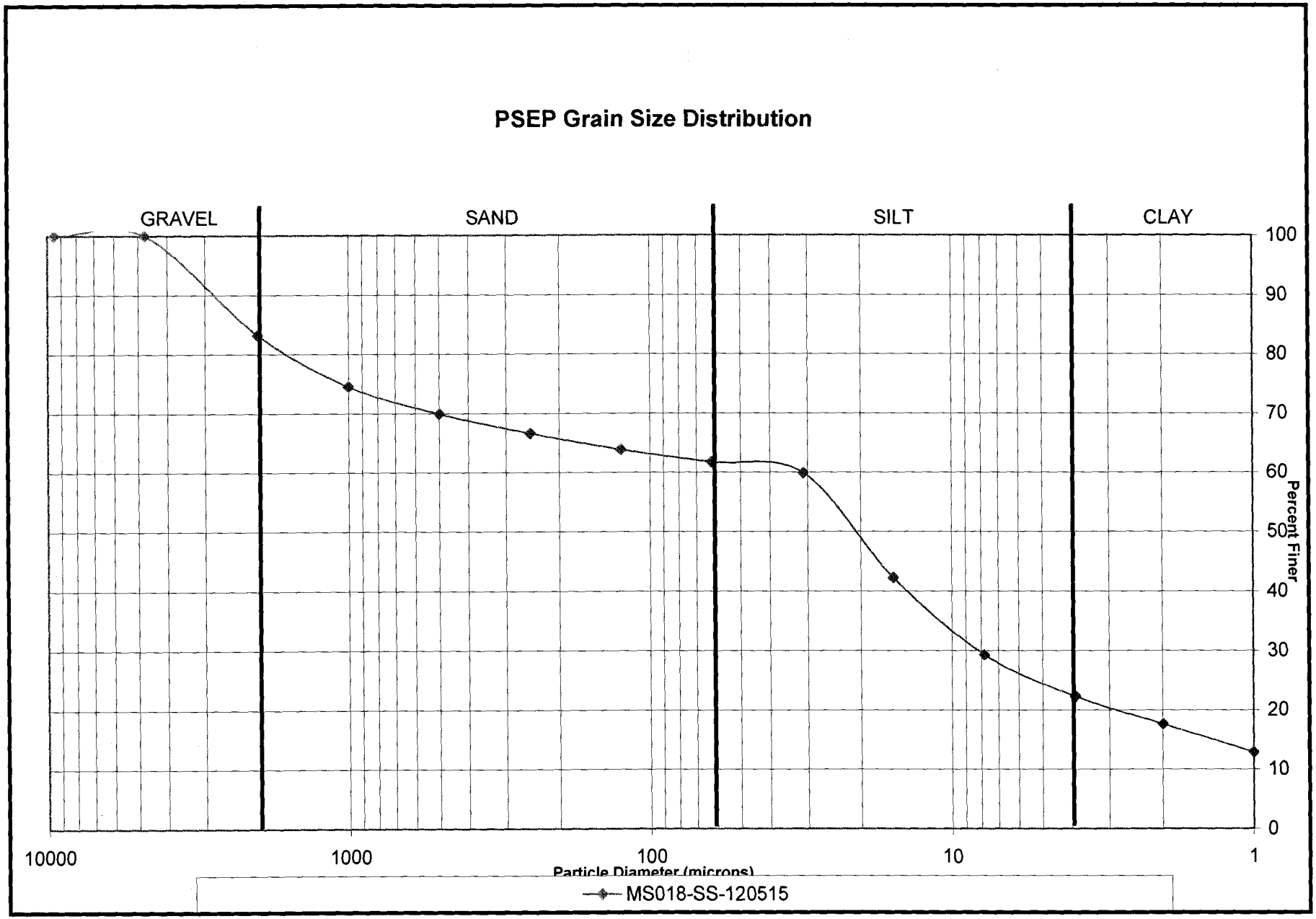


2155 SE 59th


PSEP Grain Size Distribution
Triplicate Sample Plot
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
MS002-SS-120515
MS002-SS-120515
MS002-SS-120515


PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
MS110-SS-120515
MS011-SS-120515
MS012-SS-120515
MS013-SS-120515


PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
MS014-SS-120515
MS015-SS-120515
MS016-SS-120515
MS017-SS-120515


PSEP Grain Size Distribution
GRAVEL
SAND
SILT
CLAY
100
90
80
70
60
50
40
30
20
10
0
Percent Finer
10000
1000
100
10
1
Particle Diameter (microns)
MS018-SS-120515

Total Solids

ARI Job ID: UU52, UU62

Extractions Total Solids-extts
Data By: Alex Choeng
Created: 5/16/12

Worklist: 1682
Analyst: AC
Comments:

Oven ID:_____

Balance ID:_____

Samples In: Date:_____ Time:_____ Temp:_____ Analyst:_____

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

| | ARI ID / CLIENT ID | Tare Wt (g) | Wet Wt (g) | Dry Wt (g) | % Solids | pH |
|---|---|---|---|---|---|---|
| 1. | UU52B<br>12-8894<br>MS101-SS-120515 | 1.13 | 11.68 | 2.16 | 9.76 | NR |
| 2. | UU52C<br>12-8895<br>MS002-SS-120515 | 1.14 | 12.09 | 2.26 | 10.2 | NR |
| 3. | UU52D<br>12-8896<br>MS003-SS-120515 | 1.14 | 11.81 | 2.13 | 9.28 | NR |
| 4. | UU52E<br>12-8897<br>MS004-SS-120515 | 1.13 | 12.65 | 2.23 | 9.55 | NR |
| 5. | UU52F<br>12-8898<br>MS005-SS-120515 | 1.14 | 11.67 | 2.08 | 8.93 | NR |
| 6. | UU52G<br>12-8899<br>MS006-SS-120515 | 1.14 | 11.99 | 2.14 | 9.22 | NR |
| 7. | UU52H<br>12-8900<br>MS007-SS-120515 | 1.12 | 13.33 | 3.09 | 16.1 | NR |
| 8. | UU52I<br>12-8901<br>MS008-SS-120515 | 1.14 | 11.32 | 2.26 | 11.0 | NR |
| 9. | UU52J<br>12-8902<br>MS009-SS-120515 | 1.13 | 12.50 | 2.25 | 9.85 | NR |



UU52:00378

Extractions Total Solids-extts
Data By: Alex Choeng
Created: 5/16/12

Worklist: 1682
Analyst: AC
Comments:

Oven ID: ϕ15

Balance ID: B13798002

Samples In: Date: 5-16-12 Time: _____ Temp: _____ Analyst: AC

Samples Out: Date: 5/17/12 Time: 0724 Temp: 10.2°C Analyst: _____

| | ARI ID / CLIENT ID | Tare Wt (g) | Wet Wt (g) | Dry Wt (g) | % Solids | pH |
|---|---|---|---|---|---|---|
| 1. | UU52B<br>12-8894<br>MS101-SS-120515 | 1.13 | 11.68 | 2.16g | | NR |
| 2. | UU52C<br>12-8895<br>MS002-SS-120515 | 1.14 | 12.09 | 2.26g | | NR |
| 3. | UU52D<br>12-8896<br>MS003-SS-120515 | 1.14 | 11.81 | 2.13g | | NR |
| 4. | UU52E<br>12-8897<br>MS004-SS-120515 | 1.13 | 12.65 | 2.23g | | NR |
| 5. | UU52F<br>12-8898<br>MS005-SS-120515 | 1.14 | 11.67 | 2.18g | | NR |
| 6. | UU52G<br>12-8899<br>MS006-SS-120515 | 1.14 | 11.99 | 2.14g | | NR |
| 7. | UU52H<br>12-8900<br>MS007-SS-120515 | 1.12 | 13.33 | 3.49g | | NR |
| 8. | UU52I<br>12-8901<br>MS008-SS-120515 | 1.14 | 11.32 | 2.26g | | NR |
| 9. | UU52J<br>12-8902<br>MS009-SS-120515 | 1.13 | 12.59 | 2.25g | | NR |
| 10. | ~~UU52K~~<br>12-8903<br>MS010-SS-120515 | | | | | NR |

NOT For QE
SP 5/17/12

Extractions Total Solids-extts
Data By: Warren P. Woodard
Created: 5/17/12

Worklist: 2060
Analyst: WPW
Comments:

Oven ID:_____

Balance ID:_____

Samples In: Date:_____ Time:_____ Temp:_____ Analyst:_____

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

| | ARI ID<br>CLIENT ID | Tare Wt<br>(g) | Wet Wt<br>(g) | Dry Wt<br>(g) | % Solids | pH |
|---|---|---|---|---|---|---|
| 1. | UU52A<br>12-8893<br>MS001-SS-120515 | 1.15 | 13.57 | 2.35 | 9.66 | NR |



UU52:00380

Extractions Total Solids-extts
Data By: Warren P. Woodard
Created: 5/17/12

Worklist: 2060
Analyst: WPW
Comments:

Oven ID: 015

Balance ID: B139298042

Samples In: Date: 5/17/12 Time: ~~1106~~ mw 5/17/12 15:55 Temp: 106°C Analyst: WW

Samples Out: Date: 5/18/12 Time: 0714 Temp: rd2 Analyst: AC

| | ARI ID<br>CLIENT ID | Tare Wt<br>(g) | Wet Wt<br>(g) | Dry Wt<br>(g) | % Solids | pH |
|---|---|---|---|---|---|---|
| 1. | UU52A<br>12-8893<br>MS001-SS-120515 | 1.15g | 13.57g | 2.35g | | NR |



UU52:00381

Semivolatile Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: UU52, UU62

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Organic Extractions Benchsheet

## 8270 BAN PSDDA–Soil/(Sediment) Microwave (3546) (SOP # 3304S)

**Preparation Test BAN PSDDA # 6 (BANSDMP)** PSDDA (20ppb)

ARI Job No(s) UU52 Page 1 of 1 Batch set up by: ~~SH~~

| Bottle # | Extraction Requirements | Weight Extracted (eq. to 10g dry wt) | (Opt/REQ) GPC (1:1) 1 or 2 Y / N | Final Effective Volume | Volume to Lab | Comments | Verifty Client ID / Analyst/Date |
|---|---|---|---|---|---|---|---|
| | UU52 MBS | 10g | (1:1) Y / N 5/24/12 | 1mL | 1mL | (Use 5g Pre-Deactivated Sodium Sulfate for Blanks) | Microwave NL 5/23/12 Analyst/Date |
| | ↓ SBS | 10g | (1:1) Y / N 5/24/12 | 1mL | 1mL | (Use 5g Pre-Deactivated Sodium Sulfate for Blanks) | |
| | ~~SBS Dup.~~ | ~~10g~~ | (1:1) Y / N | ~~1mL~~ | ~~1mL~~ | (Use 5g Pre-Deactivated Sodium Sulfate for Blanks) | |
| 5 | UU52 ~~Client~~ A | ~~10g~~ 104.26 | (1:1) Y / N 5/24/12 | 1mL | 1mL | ~~(Use 5g Pre-Deactivated Sodium Sulfate for Blanks)~~ | KD 80-85°C |
| 5 | B | 103.22 | (1:1) Y / N 5/24/12 | 1mL | 1mL | | YL 5/23/12 Analyst/Date |
| 5 | C | 99.09 | (1:1) Y / N 5/24/12 | 1mL | 1mL | | |
| 5 | D | 108.47 | (1:1) Y / N 5/24/12 | 1mL | 1mL | | TurboVap 1 (2) 3 |
| 5 | E | 105.11 | (1:1) Y / N 5/24/12 | 1mL | 1mL | | Analyst/Date |
| 5 | F | 113.54 | (1:1) Y / N | 1mL | 1mL | | GPC Prep Filter (1:1) |
| 5 | G | 109.43 | (1:1) Y / N | 1mL | 1mL | | Analyst/Date |
| 5 | H | 63.41 | (1:1) Y / N | 1mL | 1mL | | |
| 5 | Hms | 63.10 | (1:1) Y / N | 1mL | 1mL | | Post GPC KD 80-85°C |
| 5 | Hmsd | 63.14 | (1:1) Y / N | 1mL | 1mL | | 5/25/12 Analyst/Date |
| 5 | I | 91.40 | (1:1) Y / N | 1mL | 1mL | | |
| 5 | ↓ J | 102.09 | (1:1) Y / N | 1mL | 1mL | | TurboVap 1 2 3 |
| Analyst/Date | Weighed ER 5/22/12 Microwaved 5/22/12 | | WW 5/24/12 | SC 5/25/12 | SC 5/25/12 | | Analyst/Date SC 5/25/12 |

| Standard | Standard ID | Concentration | Volume | Expiration Date | Analyst | Witness |
|---|---|---|---|---|---|---|
| Surrogate | A ( 1975-1 ) | 100/150µg/mL | 50µL | 7/05/12 | WW | TH |
| Full List Spike (Freezer) | 7 ( 1926-2 ) | 100µg/mL | 50µL | 5/31/12 | WW | TH |
| Base Spike | 56( 1952-3 ) | 200µg/mL | 50µL | 8/14/12 | WW | TH |
| Acid Spike | 38( 1926-3 ) | 100/200µg/mL | 50µL | 6/19/12 | WW | TH |
| ~~QLS Spike (14 in freezer)~~ | ~~14( )~~ | ~~10-100µg/mL~~ | ~~20µL~~ | | | |

Extraction Time: 20:55 Balance ID: B1392 [illegible]

SPECIAL INSTRUCTIONS: Weigh into beakers-lightly dry with Sodium Sulfate. 2. Transfer to microwave vessel. Note: do not fill vessel more than 2/3rd full. Some samples may require two vessels). → or more
3. Add 1:1 DCM/ACE to the vessels (until solvent is 3" above soil layer after homogenization). 4. Add surr/spike.
5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-re-homogenize while hot then let cool 10-15 min in cold water. 7. Decant 1:1 DCM/ACE into Erlenmeyer flask with sodium sulfate in the bottom and funnel containing pre-deactivated glasswool. 8. Rinse with DCM 9. Microwave a 2nd time using DCM only (until solvent is 3" above soil layer after homogenization). 10. Let cool and decant the solvent then empty the soil into the funnel and rinse with DCM.
11. KD ([redacted]/large drying column with pre-deactivated glasswool-Blanks=5g of sulfate)) to 5mL at 80- 85°C.
12. GPC Optional. 13. TurboVap. 14. IF NO GPC: TurboVap to 3mL add 2mL Hexane. TurboVap to Final Volume and vial in DCM. 15. (After GPC): KD at 80-85°. 16. TurboVap. 17. Vial in DCM.

A. Need Total Solids Y / (N) B. Archive/Freeze Y / (N)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Organic Extractions Laboratory Analyst Notes

ARI Job No.: UU52

Client ID: Anchor QEA, LLC

Parameter: BAN PSDDA

Client Project: Jeld Wen Maulsby Marsh

| Screens: Soil/Sediment/Solid/Other: | Analyst/Date |
|---|---|
| ☐ No Anomalies (standard soil/wet sediment/sand/gravel)= | AC 5-16-12 |
| ☐ Standing Water Decanted (Not shared)= | |
| ☐ Standing Water Homogenized (Shared samples)= | |
| ☐ Clay/Clumps (Difficult to homogenize)= | |
| ☐ Rocks (%+size)? | |
| ☐ Organics (Leaves/sticks/grass)= B < 5% sticks D= 30% grass/sticks E=10% grass F=60% grass/sticks g=50% grass/sticks h=30% i=50% | AC 5-16-12 |
| ☐ Oily, obvious fuel/sulfur odors= B- | |
| ☒ Other (Details)= UU52 - A - J samples & surrogates & spikes then to | NL 5/23/12 |
| Splitted into multi vessels prior to microwaved ace samples | |
| combined after microwaved. | |
| microwave #01 samples A ~~GE~~ M 5/23/12 Microwave #02 samples F - J | NL 5/23/12 |
| **Aqueous:** | |
| ☐ No Anomalies | |
| ☐ Turbid/Color= | |
| ☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead) | |
| ☐ Emulsions (%)= | |
| ☐ Other (Details)= | |
| | |
| | |
| ☐ Other Notes/Comments= (Note problems, concerns, corrective actions). | |

3056F

Revision 008
11/02/11

UU52 : 00384

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Organic Extractions Benchsheet

## 8270 BAN –Water
## Liquid/Liquid (3520C) (SOP # 3311S)

**Preparation Test BAN # 2 (BANWLI)** In-House (1.0-10.0ppb)

ARI Job No(s) UU62, UU68, UU66 Page 1 of 1 Batch set up by: SP

| Bottle # | Extraction Requirements | Volume Extracted | Disassemble Liq/Liq (Mantle #) | DryVap Module # Y / N | Final Effective Volume | Volume to Lab | Comments | Verifty Client ID |
|---|---|---|---|---|---|---|---|---|
| | UU62 MBW | 500mL | 21 | # Y / N | 0.5mL | 0.5mL | | AC |
| | SBW | 500mL | 22 | # Y / N | 0.5mL | 0.5mL | | |
| | SBW Dup | 500mL | 23 | # Y / N | 0.5mL | 0.5mL | | |
| | QLS | 500mL | 25 | # Y / N | 0.5mL | 0.5mL | | 5-21-12 |
| | J | 500mL | 26 | # Y / N | 0.5mL | 0.5mL | | |
| | K | 500mL | 27 | # Y / N | 0.5mL | 0.5mL | | Analyst/Date |
| 12 | UU68 A | 500mL | 28 | # Y / N | 0.5mL | 0.5mL | | KD 80-85°C (Y) N |
| 11 | UU66 A | 500mL | 29 | # Y / N | 0.5mL | 0.5mL | | |
| 9 | B | 500mL | 30 | # Y / N | 0.5mL | 0.5mL | | |
| | | 500mL | | # Y / N | 0.5mL | 0.5mL | | YL |
| | | 500mL | | # Y / N | 0.5mL | 0.5mL | | |
| | | 500mL | | # Y / N | 0.5mL | 0.5mL | | 5/22/12 |
| | | 500mL | | # Y / N | 0.5mL | 0.5mL | | |
| | | 500mL | | # Y / N | 0.5mL | 0.5mL | | Analyst/Date |
| | | 500mL | | # Y / N | 0.5mL | 0.5mL | | TurboVap (1) 2 3 |
| | | 500mL | | # Y / N | 0.5mL | 0.5mL | | |
| | | 500mL | | # Y / N | 0.5mL | 0.5mL | | AC |
| | | 500mL | | # Y / N | 0.5mL | 0.5mL | | 5-23-12 |
| | | 500mL | | # Y / N | 0.5mL | 0.5mL | | |
| Analyst/Date | AC 5-21-12 | | MC 5/22/12 | | AC 5-23-12 | AC 5-23-12 | | Analyst/Date |

| Standard | Standard ID | Concentration | Volume | Expiration Date | Analyst | Witness |
|---|---|---|---|---|---|---|
| Surrogate | A ( 1975-1 ) | 100/150µg/mL | 125µL | 7/5/12 | AR | AC |
| Full List Spike (Freezer) | 7 ( 1926-2 ) | 100µg/mL | 125µL | 5/31/12 | AR | AC |
| Base Spike | 56( 1952-3 ) | 200µg/mL | 125µL | 8/14/12 | AR | AC |
| Acid Spike | 38( 1926-3 ) | 100/200µg/mL | 125µL | 6/19/12 | AR | AC |
| QLS Spike (Freezer) | 14( 1901-1 ) | 10-100µg/mL | 50µL | 6/21/12 | AR | AC |
| Extraction Time: 1548 | | Liq/Liq Start: 16:20 | | | Liq/Liq Stop: 15:58 | |

SPECIAL INSTRUCTIONS: 1. Add ~200mL DCM to Liq/Liq. 2. Add 500mL sample. 3. Add surr/spk. 4. Adjust Acid (pH <2) using 1:1 Sulfuric Acid. (1/4 pipet for blanks & 1/2 pipet for samples). Stir to mix. Verify pH! Let sit 10 minutes. Verify pH again. 5. Extract minimum 8 hrs. 6. DryVap to 0.5mL or KD (NO drying column) to 8mL at 80°. 7. (If KD)=TurboVap to 0.5mL. 8. Vial in DCM.

A. Archive Y / (N) SP 5/21/SP



UU52 : 00385

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Organic Extractions Laboratory Analyst Notes

ARI Job No.: uu62

Client ID: Anchor QEA, LLC

Parameter: BAN

Client Project: Jeld Wen - Maulsby Mar

| Screens: Soil/Sediment/Solid/Other: | Analyst/Date |
|---|---|
| ☐ No Anomalies (standard soil/wet sediment/sand/gravel)= | |
| ☐ Standing Water Decanted (Not shared)= | |
| ☐ Standing Water Homogenized (Shared samples)= | |
| ☐ Clay/Clumps (Difficult to homogenize)= | |
| ☐ Rocks (%+size)? | |
| ☐ Organics (Leaves/sticks/grass)= | |
| ☐ Oily, obvious fuel/sulfur odors= | |
| ☐ Other (Details)= | |
| | |
| | |
| | |
| Aqueous: | |
| ☑ No Anomalies J, K | AC 5-21-12 |
| ☐ Turbid/Color= | |
| ☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead) | |
| ☐ Emulsions (%)= | |
| ☐ Other (Details)= | |
| | |
| | |
| ☐ Other Notes/Comments= (Note problems, concerns, corrective actions). | |

Semivolatile Raw Data
Initial Calibration

ARI Job ID: UU52, UU62

**Analytical Resources, Incorporated**
Analytical Chemists and Consultants

# *Initial Calibration Notes* GC/MS SVOA

ARI SOP: **801S**(SIM-PNA) **802S**(Butyl Tins) **804S**(SVOA-8270D) **805S**(op-Pest)

Instrument: NT-4 NT-6 NT-8 NT-10 NT11 NT12

Curve Date(s): 5/26/12 Internal Standard ID 1875-1 Expiration 7/15/12

| | | | |
|---|---|---|---|
| DFTPP Tune Meets Criteria? | YES / NO | Minimum Response Factors Met/ | YES / NO |
| DDT Breakdown <20%? | YES / NO | ICV Exceeding ±20%? | YES / NO |
| Peak Tailing Factor ≤2? | YES / NO | ICV Exceeding ±30%? | YES / NO |
| ICal acceptable? | YES / NO | Linear Fits Used? | YES / NO |
| Q flag applied? | YES / NO | Quadratic Fits Used? | YES / NO |
| Manual Integrations for ICal? | YES / NO | Calibration Points Dropped? | YES / NO |
| Spectral Library Updated? | YES / NO | | |

| Primary Source | Standard # | Expiration | Secondary Source | Standard # | Expiration |
|---|---|---|---|---|---|
| Supelco | 1949-2 | 12/19/12 | Ultra | 1941-1 | 7/27/12 |
| | 1950-1 | 10/31/12 | | 1940-1 | 7/27/12 |
| | 1891-2 | 6/1/12 | | 1932-2 | 7/6/12 |
| | 1892-1 | 7/5/12 | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

**Detail problems, corrective actions and/or other pertinent information below:**

Benzoic Acid
Hexachlorocyclopentadiene
2,4 Dinitrophenol
PCP
} Quadratic fit. Low point dropped.

ICV: Benzyl alcohol, 2,4 Dinitrophenol, 3,3 Dichlorobenzidine, N-Nitrosodiphenylamine, Benzidine above 30%

**Analyst:** YZ **Date:** 5/30/12

**Reviewer:** _____ **Date:** _____



UU52 : 00388

# Analytical Resources Inc.: Volatile Organics Instrument Log

## NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 5/26/12 Analysis: ABN Analyst: VS / YZ

GC Program: ABN2 Column No: 227815 Column Type: ZB5 msi

Instrument Tune (.U or .CT.): 112164 EM Voltage: 1800

Calibration File: DF0514 Curve Date: 5/26/12 Injection Vol.: 1.ul

| IS/SS | Ical/Ccal | | LCS/ICV |
|---|---|---|---|
| 1875-1 | 1949-2 | 1891-2 | 1941-1 |
| | 1950-1 | 1892-1 | 1940-1 |
| | | | 1932-2. |

## Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20120526.b

| | Time | Filename | LabID | ClientId | DF | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1044 | df0526.d | DFTPP | DFTPP | 1 | NO ISTDS FOUND | | | | | | | | | | |
| 2 | 1059 | ic0526a.d | ABN5 | | 1 | 8.86 | 189516 | 11.50 | 730932 | 15.37 | 420698 | 18.63 | 638950 | 23.71 | 645065 | 26.10 | 650033 | 24.79 | 1016118 |
| 3 | 1136 | ic0526b.d | ABN20 | | 1 | 8.86 | 184424 | 11.50 | 732078 | 15.38 | 416049 | 18.64 | 604660 | 23.71 | 638131 | 26.11 | 642084 | 24.80 | 1045968 |
| 4 | 1213 | ic0526c.d | ABN.2 | | 1 | 8.86 | 196685 | 11.50 | 765616 | 15.37 | 413229 | 18.63 | 646258 | 23.70 | 644080 | 26.10 | 645156 | 24.79 | 952925 |
| 5 | 1250 | ic0526d.d | ABN10 | | 1 | 8.86 | 182402 | 11.50 | 714951 | 15.38 | 396335 | 18.64 | 598080 | 23.71 | 620456 | 26.10 | 621376 | 24.79 | 977954 |
| 6 | 1327 | ic0526e.d | ABN.5 | | 1 | 8.86 | 190457 | 11.50 | 743799 | 15.37 | 404393 | 18.63 | 632241 | 23.70 | 634764 | 26.10 | 624951 | 24.79 | 934301 |
| 7 | 1405 | ic0526f.d | ABN2.5 | | 1 | 8.86 | 187226 | 11.50 | 736534 | 15.37 | 398626 | 18.63 | 624933 | 23.70 | 619154 | 26.10 | 625787 | 24.79 | 927369 |
| 8 | 1442 | ic0526g.d | ABN1.0 | | 1 | 8.86 | 193887 | 11.50 | 750391 | 15.37 | 411692 | 18.63 | 635080 | 23.70 | 638910 | 26.10 | 628310 | 24.79 | 937949 |
| 9 | 1519 | icv0526.d | ICV-5 | | 1 | 8.86 | 249364 | 11.50 | 989810 | 15.37 | 545323 | 18.63 | 840695 | 23.71 | 872921 | 26.10 | 859333 | 24.79 | 1354341 |
| 10 | 1556 | uu52mb.d | UU52MBS1 | UU52MBS1 | 1 | 8.86 | 192270 | 11.50 | 755212 | 15.36 | 409923 | 18.63 | 652568 | 23.70 | 628746 | 24.79 | 911710 | 26.10 | 575994 |
| 11 | 1634 | uu52sb.d | UU52LCSS1 | UU52LCSS1 | 1 | 8.86 | 180960 | 11.50 | 713226 | 15.37 | 402827 | 18.63 | 613172 | 23.70 | 610564 | 24.79 | 927500 | 26.10 | 601200 |
| 12 | 1711 | uu52a.d | UU52A | MS001-SS-120 | 3 | 8.86 | 192479 | 11.50 | 766868 | 15.37 | 424558 | 18.64 | 586032 | 23.71 | 664578 | 24.79 | 1081857 | 26.11 | 673821 |
| 13 | 1748 | uu52b.d | UU52B | MS101-SS-120 | 3 | 8.86 | 191331 | 11.50 | 774622 | 15.38 | 431955 | 18.64 | 601035 | 23.72 | 668327 | 24.80 | 1085453 | 26.12 | 667061 |
| 14 | 1825 | uu52c.d | UU52C | MS002-SS-120 | 3 | 8.86 | 189793 | 11.50 | 762840 | 15.38 | 421087 | 18.64 | 644641 | 23.72 | 673614 | 24.80 | 1081717 | 26.12 | 665077 |
| 15 | 1902 | uu52d.d | UU52D | MS003-SS-120 | 3 | 8.86 | 195684 | 11.50 | 781696 | 15.38 | 433584 | 18.64 | 608068 | 23.72 | 705866 | 24.80 | 1095300 | 26.12 | 688484 |
| 16 | 1939 | uu52e.d | UU52E | MS004-SS-120 | 3 | 8.86 | 197248 | 11.50 | 788940 | 15.38 | 430674 | 18.64 | 660353 | 23.72 | 700903 | 24.80 | 1104559 | 26.12 | 683374 |
| 17 | 2016 | uu52f.d | UU52F | MS005-SS-120 | 3 | 8.86 | 190373 | 11.51 | 742174 | 15.39 | 431594 | 18.66 | 643967 | 23.73 | 721119 | 24.81 | 1107167 | 26.14 | 669438 |
| 18 | 2054 | uu52g.d | UU52G | MS006-SS-120 | 3 | 8.86 | 189614 | 11.51 | 736251 | 15.38 | 426687 | 18.65 | 605251 | 23.72 | 696152 | 24.81 | 1081407 | 26.13 | 658886 |
| 19 | 2131 | uu52h.d | UU52H | MS007-SS-120 | 3 | 8.86 | 194227 | 11.51 | 756334 | 15.39 | 437900 | 18.66 | 626572 | 23.73 | 703620 | 24.81 | 1121633 | 26.13 | 665896 |
| 20 | 2208 | uu52hms.d | UU52HMS | MS007-SS-120 | 3 | 8.86 | 189708 | 11.51 | 749764 | 15.39 | 426739 | 18.66 | 614981 | 23.73 | 691706 | 24.81 | 1104162 | 26.13 | 671591 |
| 21 | 2245 | uu52hmsd.d | UU52HMSD | MS007-SS-120 | 3 | 8.86 | 190489 | 11.50 | 741504 | 15.39 | 417132 | 18.66 | 622626 | 23.73 | 711179 | 24.81 | 1127612 | 26.13 | 667595 |

**Every line must contain information or be lined out. Make all entries legible.**
**Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS**

YZ 5/31/12

Report Date : 30-May-2012 11:39



UU52:00390

# Analytical Resources, Inc.
## RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20120526.b/ABN.m
Batch File: /chem1/nt10.i/20120526.b
Inst ID: nt10.i

| ID: | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 |
|---|---|---|---|---|---|---|---|
| FILENAME: | ic0526a | ic0526b | ic0526c | ic0526d | ic0526e | ic0526f | ic0526g |
| INJ.DATE: | 26-MAY-2012 | 26-MAY-2012 | 26-MAY-2012 | 26-MAY-2012 | 26-MAY-2012 | 26-MAY-2012 | 26-MAY-2012 |
| INJ.TIME: | 10:59 | 11:36 | 12:13 | 12:50 | 13:27 | 14:05 | 14:42 |

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $ 1 2-Fluorophenol | 6.537 | 6.544 | 6.537 | 6.537 | 6.537 | 6.537 | 6.537 | 6.537 | 3.537-9.537 | 6.538 | 0.003 |
| 186 Carbaryl | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 18.620 | 15.620-21.620 | +++++ | +++++ |
| 179 n-Decane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.672 | 5.673-11.672 | +++++ | +++++ |
| 180 n-Octadecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 17.599 | 14.599-20.599 | +++++ | +++++ |
| 169 4-tert-Butylphenol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 21.120 | 18.120-24.120 | +++++ | +++++ |
| 170 N,N-Dimethylaniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 19.015 | 16.015-22.015 | +++++ | +++++ |
| 171 2,3-Dimethylaniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 20.090 | 17.090-23.090 | +++++ | +++++ |
| 172 2,4-Dimethylaniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 19.317 | 16.317-22.317 | +++++ | +++++ |
| 173 2,5-Dimethylaniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 23.482 | 20.482-26.482 | +++++ | +++++ |
| 174 2,6-Dimethylaniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 19.348 | 16.348-22.348 | +++++ | +++++ |
| 175 3,4-Dimethylaniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 20.090 | 17.090-23.090 | +++++ | +++++ |
| 176 3,5-Dimethylaniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 19.967 | 16.967-22.967 | +++++ | +++++ |
| 177 p-Benzoquinone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.790 | 4.790-10.790 | +++++ | +++++ |
| 168 Pentachlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 15.914 | 12.914-18.914 | +++++ | +++++ |
| 145 4,4'-DDE | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 47.212 | 44.212-50.212 | +++++ | +++++ |
| 146 4,4'-DDD | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 47.746 | 44.746-50.746 | +++++ | +++++ |
| 147 4,4'-DDT | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 48.216 | 45.216-51.216 | +++++ | +++++ |

Reviewer 1 _____ Date: 5/30/12
Reviewer 2 _____ Date: _____

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20120526.b/ABN.m
Batch File: /chem1/nt10.i/20120526.b
Inst ID: nt10.i

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 148 Dieldrin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 47.281 | 44.281-50.281 | +++++ | +++++ |
| 149 TCMX | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 43.387 | 40.387-46.387 | +++++ | +++++ |
| 150 DCBP | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 50.989 | 47.989-53.989 | +++++ | +++++ |
| 138 Chlorobenzilate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 67.733 | 64.733-70.733 | +++++ | +++++ |
| 139 Isodrin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 65.067 | 62.067-68.067 | +++++ | +++++ |
| 140 Diallate A | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 65.487 | 62.487-68.487 | +++++ | +++++ |
| 141 Diallate B | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 65.487 | 62.487-68.487 | +++++ | +++++ |
| 142 1,2-Dibromo-3-Chloropr | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 49.917 | 46.917-52.917 | +++++ | +++++ |
| 135 2,3,5,6-Tetrachlorophe | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 15.767 | 12.767-18.767 | +++++ | +++++ |
| 136 2,3,4,5-tetrachlorophe | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 39.317 | 36.317-42.317 | +++++ | +++++ |
| $ 137 d8-1,4-Dioxane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 2.445 | 0.000-5.445 | +++++ | +++++ |
| * 134 Di-n-octylphthalate-d4 | 24.794 | 24.802 | 24.794 | 24.794 | 24.794 | 24.794 | 24.794 | 24.794 | 21.794-27.794 | 24.795 | 0.003 |
| 133 Butylatedhydroxytoluen | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 15.397 | 12.397-18.397 | +++++ | +++++ |
| 132 3,6-Dimethylphenanthre | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 65.450 | 62.450-68.450 | +++++ | +++++ |
| 131 1-Methylphenanthrene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 64.400 | 61.400-67.400 | +++++ | +++++ |
| 130 Dibenzothiophene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 62.100 | 59.100-65.100 | +++++ | +++++ |
| 129 1-Methylfluorene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 54.912 | 51.912-57.912 | +++++ | +++++ |
| 128 N-Hexadecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 54.212 | 51.212-57.212 | +++++ | +++++ |
| 127 2-Isopropylnaphthalene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 57.650 | 54.650-60.650 | +++++ | +++++ |
| 126 N-Tetradecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 56.750 | 53.750-59.750 | +++++ | +++++ |
| 144 alpha-Terpineol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 11.799 | 8.799-14.799 | +++++ | +++++ |
| 125 Safrole | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 52.166 | 49.166-55.166 | +++++ | +++++ |

UU52:00391

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20120526.b/ABN.m
Batch File: /chem1/nt10.i/20120526.b
Inst ID: nt10.i

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 124 3,4-Dimethylphenol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 50.617 | 47.617-53.617 | +++++ | +++++ |
| 123 Acetophenone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 10.308 | 7.308-13.308 | +++++ | +++++ |
| 122 Furfuraldehyde | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 43.467 | 40.467-46.467 | +++++ | +++++ |
| 143 1,4-Dioxane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 2.697 | 0.000-5.697 | +++++ | +++++ |
| 121 Quinoline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 54.500 | 51.500-57.500 | +++++ | +++++ |
| 120 2,3,4,6-Tetrachlorophe | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 13.541 | 10.541-16.541 | +++++ | +++++ |
| 178 2-Benzyl-4-Chloropheno | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 18.644 | 15.644-21.644 | +++++ | +++++ |
| 119 7,12-Dimethylbenz(a)an | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 47.069 | 44.069-50.069 | +++++ | +++++ |
| 118 Triphenyl Phosphate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 21.283 | 18.283-24.283 | +++++ | +++++ |
| 117 Butyl Diphenyl Phospha | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 16.750 | 13.750-19.750 | +++++ | +++++ |
| 116 Dibutyl Phenyl Phospha | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 18.520 | 15.520-21.520 | +++++ | +++++ |
| 115 Tributyl Phosphate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 16.732 | 13.732-19.732 | +++++ | +++++ |
| 114 Beta-Pinene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 48.950 | 45.950-51.950 | +++++ | +++++ |
| 113 Diphenyl Oxide | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 14.438 | 11.438-17.438 | +++++ | +++++ |
| 112 Biphenyl | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 14.368 | 11.368-17.368 | +++++ | +++++ |
| 111 Azobenzene (1,2-DP-Hyd | 16.926 | 16.941 | 16.926 | 16.934 | 16.926 | 16.926 | 16.926 | 16.926 | 13.926-19.926 | 16.929 | 0.006 |
| 110 Tetrachloroguaiacol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 16.564 | 13.564-19.564 | +++++ | +++++ |
| 109 3,4,5-Trichloroguaiaco | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 14.525 | 11.525-17.525 | +++++ | +++++ |
| 181 3,4,6-Trichloroguaiaco | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 14.680 | 11.680-17.680 | +++++ | +++++ |
| 108 4,5,6-Trichloroguaiaco | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 15.829 | 12.829-18.829 | +++++ | +++++ |
| 184 3,4-Dichloroguaiacol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 12.599 | 9.599-15.599 | +++++ | +++++ |
| 107 4,5-Dichloroguaiacol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 13.574 | 10.574-16.574 | +++++ | +++++ |
| 182 4,6-Dichloroguaiacol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 13.605 | 10.605-16.605 | +++++ | +++++ |
| 185 4-Chloroguaiacol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 11.261 | 8.261-14.261 | +++++ | +++++ |

UU52:00392

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20120526.b/ABN.m
Batch File: /chem1/nt10.i/20120526.b
Inst ID: nt10.i

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 106 Guaiacol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 9.231 | 6.231-12.231 | +++++ | +++++ |
| 105 1-methylnaphthalene | 13.275 | 13.283 | 13.275 | 13.283 | 13.275 | 13.275 | 13.275 | 13.275 | 10.275-16.275 | 13.278 | 0.004 |
| 151 1,2,4,5-Tetrachloroben | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 11.499 | 8.499-14.499 | +++++ | +++++ |
| 152 Benzo(e)pyrene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 30.943 | 27.943-33.943 | +++++ | +++++ |
| 153 Chlorpyrifos | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 27.466 | 24.466-30.466 | +++++ | +++++ |
| 154 Diazinon | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 25.712 | 22.712-28.712 | +++++ | +++++ |
| 155 Kelthane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 27.505 | 24.505-30.505 | +++++ | +++++ |
| 156 Methyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 26.783 | 23.783-29.783 | +++++ | +++++ |
| 157 Ethyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 27.451 | 24.451-30.451 | +++++ | +++++ |
| 158 Ethion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 24.952 | 21.952-27.952 | +++++ | +++++ |
| 159 4-Nonylphenol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 25.480 | 22.480-28.480 | +++++ | +++++ |
| 160 Tetraethyl Tin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 20.346 | 17.346-23.346 | +++++ | +++++ |
| 161 1,2,3-Trichloronaphtha | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 36.246 | 33.246-39.246 | +++++ | +++++ |
| 162 1,2,3,4-Tetrachloronap | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 37.506 | 34.506-40.506 | +++++ | +++++ |
| 163 1,2,3,5,8-Pentachloron | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 38.893 | 35.893-41.893 | +++++ | +++++ |
| 164 1,2,3,4,6,7-Hexachloro | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 39.681 | 36.681-42.681 | +++++ | +++++ |
| 165 1,2,3,4,5,6,7-Heptachl | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 41.123 | 38.123-44.123 | +++++ | +++++ |
| 166 Octachloronaphthalene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 42.253 | 39.253-45.253 | +++++ | +++++ |
| 167 2,2',4,4',5-Pentabromo | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 42.033 | 39.033-45.033 | +++++ | +++++ |
| $ 2 Phenol-d5 | 8.237 | 8.244 | 8.237 | 8.237 | 8.237 | 8.237 | 8.229 | 8.237 | 5.237-11.237 | 8.237 | 0.004 |
| 3 Phenol | 8.260 | 8.268 | 8.260 | 8.260 | 8.252 | 8.252 | 8.252 | 8.260 | 5.260-11.260 | 8.258 | 0.006 |
| 4 Bis(2-Chloroethyl)ethe | 8.399 | 8.407 | 8.399 | 8.407 | 8.399 | 8.399 | 8.399 | 8.399 | 5.399-11.399 | 8.401 | 0.004 |
| $ 5 2-Chlorophenol-d4 | 8.476 | 8.484 | 8.476 | 8.484 | 8.476 | 8.476 | 8.476 | 8.476 | 5.476-11.476 | 8.478 | 0.004 |

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20120526.b/ABN.m
Batch File: /chem1/nt10.i/20120526.b
Inst ID: nt10.i

| | Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6 2-Chlorophenol | 8.507 | 8.515 | 8.507 | 8.515 | 8.507 | 8.507 | 8.507 | 8.507 | 5.507-11.507 | 8.509 | 0.004 |
| * | 8 1,4-Dichlorobenzene-d4 | 8.855 | 8.863 | 8.855 | 8.855 | 8.856 | 8.855 | 8.856 | 8.855 | 5.855-11.855 | 8.857 | 0.003 |
| | 9 1,4-Dichlorobenzene | 8.886 | 8.894 | 8.886 | 8.894 | 8.887 | 8.886 | 8.887 | 8.886 | 5.886-11.886 | 8.889 | 0.004 |
| $ | 10 1,2-Dichlorobenzene-d4 | 9.236 | 9.243 | 9.236 | 9.236 | 9.236 | 9.236 | 9.236 | 9.236 | 6.236-12.236 | 9.237 | 0.003 |
| | 11 Benzyl alcohol | 9.166 | 9.181 | 9.166 | 9.174 | 9.166 | 9.166 | 9.166 | 9.166 | 6.166-12.166 | 9.169 | 0.006 |
| | 12 1,2-Dichlorobenzene | 9.267 | 9.267 | 9.259 | 9.267 | 9.267 | 9.267 | 9.267 | 9.267 | 6.267-12.267 | 9.266 | 0.003 |
| | 13 2-Methylphenol | 9.430 | 9.438 | 9.430 | 9.438 | 9.430 | 9.430 | 9.430 | 9.430 | 6.430-12.430 | 9.432 | 0.004 |
| | 14 2,2'-oxybis(1-Chloropr | 9.492 | 9.500 | 9.492 | 9.492 | 9.492 | 9.492 | 9.492 | 9.492 | 6.492-12.492 | 9.493 | 0.003 |
| | 15 4-Methylphenol | 9.725 | 9.740 | 9.725 | 9.733 | 9.725 | 9.725 | 9.725 | 9.725 | 6.725-12.725 | 9.728 | 0.006 |
| | 16 N-Nitroso-di-n-propyla | 9.764 | 9.779 | 9.764 | 9.771 | 9.764 | 9.764 | 9.756 | 9.764 | 6.764-12.764 | 9.766 | 0.007 |
| | 17 Hexachloroethane | 9.888 | 9.888 | 9.888 | 9.888 | 9.888 | 9.888 | 9.888 | 9.888 | 6.888-12.888 | 9.888 | 0.000 |
| $ | 18 Nitrobenzene-d5 | 10.027 | 10.035 | 10.020 | 10.028 | 10.020 | 10.027 | 10.020 | 10.027 | 7.027-13.027 | 10.025 | 0.006 |
| | 19 Nitrobenzene | 10.058 | 10.074 | 10.059 | 10.066 | 10.059 | 10.059 | 10.059 | 10.058 | 7.058-13.058 | 10.062 | 0.006 |
| | 20 Isophorone | 10.547 | 10.563 | 10.547 | 10.555 | 10.540 | 10.547 | 10.540 | 10.547 | 7.547-13.547 | 10.549 | 0.008 |
| | 21 2-Nitrophenol | 10.733 | 10.741 | 10.733 | 10.741 | 10.733 | 10.733 | 10.733 | 10.733 | 7.733-13.733 | 10.735 | 0.004 |
| | 22 2,4-Dimethylphenol | 10.833 | 10.849 | 10.833 | 10.841 | 10.833 | 10.833 | 10.833 | 10.833 | 7.833-13.833 | 10.837 | 0.006 |
| | 23 Bis(2-Chloroethoxy)met | 11.033 | 11.041 | 11.034 | 11.034 | 11.034 | 11.034 | 11.034 | 11.033 | 8.033-14.033 | 11.035 | 0.003 |
| | 24 Benzoic acid | 11.087 | 11.249 | 10.972 | 11.157 | 10.972 | 11.041 | 10.995 | 11.087 | 8.087-14.087 | 11.068 | 0.105 |
| | 25 2,4-Dichlorophenol | 11.234 | 11.242 | 11.234 | 11.234 | 11.226 | 11.234 | 11.226 | 11.234 | 8.234-14.234 | 11.233 | 0.005 |
| | 26 1,2,4-Trichlorobenzene | 11.419 | 11.419 | 11.411 | 11.419 | 11.411 | 11.419 | 11.411 | 11.419 | 8.419-14.419 | 11.416 | 0.004 |
| * | 27 Naphthalene-d8 | 11.504 | 11.504 | 11.496 | 11.504 | 11.496 | 11.496 | 11.496 | 11.504 | 8.504-14.504 | 11.500 | 0.004 |
| | 28 Naphthalene | 11.542 | 11.550 | 11.543 | 11.543 | 11.543 | 11.543 | 11.543 | 11.542 | 8.542-14.542 | 11.544 | 0.003 |
| | 29 4-Chloroaniline | 11.705 | 11.720 | 11.705 | 11.712 | 11.705 | 11.705 | 11.705 | 11.705 | 8.705-14.705 | 11.708 | 0.006 |

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20120526.b/ABN.m
Batch File: /chem1/nt10.i/20120526.b
Inst ID: nt10.i

| | Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 30 Hexachlorobutadiene | 11.952 | 11.952 | 11.944 | 11.952 | 11.952 | 11.952 | 11.944 | 11.952 | 8.952-14.952 | 11.950 | 0.004 |
| | 31 4-Chloro-3-methylpheno | 12.780 | 12.788 | 12.780 | 12.780 | 12.780 | 12.772 | 12.772 | 12.780 | 9.780-15.780 | 12.779 | 0.005 |
| | 32 2-Methylnaphthalene | 13.043 | 13.051 | 13.043 | 13.043 | 13.043 | 13.043 | 13.043 | 13.043 | 10.043-16.043 | 13.044 | 0.003 |
| | 33 Hexachlorocyclopentadi | 13.554 | 13.554 | 13.554 | 13.554 | 13.546 | 13.554 | 13.554 | 13.554 | 10.554-16.554 | 13.553 | 0.003 |
| | 34 2,4,6-Trichlorophenol | 13.732 | 13.740 | 13.732 | 13.732 | 13.724 | 13.724 | 13.724 | 13.732 | 10.732-16.732 | 13.730 | 0.006 |
| | 35 2,4,5-Trichlorophenol | 13.809 | 13.817 | 13.817 | 13.809 | 13.809 | 13.809 | 13.809 | 13.809 | 10.809-16.809 | 13.812 | 0.004 |
| $ | 36 2-Fluorobiphenyl | 13.902 | 13.910 | 13.895 | 13.902 | 13.902 | 13.902 | 13.902 | 13.902 | 10.902-16.902 | 13.902 | 0.004 |
| | 37 2-Chloronaphthalene | 14.103 | 14.111 | 14.104 | 14.104 | 14.104 | 14.103 | 14.104 | 14.103 | 11.103-17.103 | 14.105 | 0.003 |
| | 38 2-Nitroaniline | 14.405 | 14.421 | 14.398 | 14.413 | 14.398 | 14.398 | 14.398 | 14.405 | 11.405-17.405 | 14.404 | 0.009 |
| | 39 Dimethylphthalate | 14.893 | 14.908 | 14.885 | 14.893 | 14.885 | 14.893 | 14.885 | 14.893 | 11.893-17.893 | 14.892 | 0.008 |
| | 40 Acenaphthylene | 15.032 | 15.040 | 15.032 | 15.032 | 15.032 | 15.032 | 15.032 | 15.032 | 12.032-18.032 | 15.033 | 0.003 |
| | 41 2,6-Dinitrotoluene | 15.032 | 15.048 | 15.025 | 15.032 | 15.025 | 15.025 | 15.025 | 15.032 | 12.032-18.032 | 15.030 | 0.009 |
| * | 42 Acenaphthene-d10 | 15.373 | 15.380 | 15.373 | 15.380 | 15.373 | 15.373 | 15.373 | 15.373 | 12.373-18.373 | 15.375 | 0.004 |
| | 43 3-Nitroaniline | 15.326 | 15.342 | 15.319 | 15.334 | 15.319 | 15.326 | 15.319 | 15.326 | 12.326-18.326 | 15.326 | 0.009 |
| | 44 Acenaphthene | 15.442 | 15.450 | 15.442 | 15.450 | 15.442 | 15.442 | 15.442 | 15.442 | 12.442-18.442 | 15.444 | 0.004 |
| | 45 2,4-Dinitrophenol | 15.558 | 15.581 | 15.605 | 15.566 | 15.566 | 15.550 | 15.558 | 15.558 | 12.558-18.558 | 15.569 | 0.018 |
| | 46 Dibenzofuran | 15.798 | 15.813 | 15.798 | 15.806 | 15.798 | 15.798 | 15.798 | 15.798 | 12.798-18.798 | 15.801 | 0.006 |
| | 47 4-Nitrophenol | 15.728 | 15.751 | 15.759 | 15.736 | 15.752 | 15.728 | 15.736 | 15.728 | 12.728-18.728 | 15.742 | 0.012 |
| | 48 2,4-Dinitrotoluene | 15.898 | 15.914 | 15.891 | 15.906 | 15.891 | 15.891 | 15.891 | 15.898 | 12.898-18.898 | 15.897 | 0.009 |
| | 49 Fluorene | 16.563 | 16.571 | 16.563 | 16.571 | 16.563 | 16.563 | 16.563 | 16.563 | 13.563-19.563 | 16.566 | 0.004 |
| | 50 Diethylphthalate | 16.470 | 16.494 | 16.463 | 16.478 | 16.463 | 16.470 | 16.463 | 16.470 | 13.470-19.470 | 16.472 | 0.011 |
| | 51 4-Chlorophenyl-phenyle | 16.579 | 16.586 | 16.579 | 16.587 | 16.579 | 16.579 | 16.579 | 16.579 | 13.579-19.579 | 16.581 | 0.004 |
| | 52 4-Nitroaniline | 16.687 | 16.725 | 16.687 | 16.702 | 16.687 | 16.687 | 16.687 | 16.687 | 13.687-19.687 | 16.695 | 0.015 |
| | 53 4,6-Dinitro-2-methylph | 16.802 | 16.826 | 16.803 | 16.810 | 16.795 | 16.795 | 16.795 | 16.802 | 13.802-19.802 | 16.804 | 0.011 |

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/nt10.i/20120526.b/ABN.m
Batch File: /chem1/nt10.i/20120526.b
Inst ID: nt10.i

| | Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 54 N-Nitrosodiphenylamine | 16.856 | 16.872 | 16.857 | 16.864 | 16.857 | 16.857 | 16.857 | 16.856 | 13.856-19.856 | 16.860 | 0.006 |
| $ | 55 2,4,6-Tribromophenol | 17.142 | 17.149 | 17.142 | 17.150 | 17.142 | 17.142 | 17.142 | 17.142 | 14.142-20.142 | 17.144 | 0.004 |
| | 56 4-Bromophenyl-phenylet | 17.658 | 17.666 | 17.651 | 17.658 | 17.659 | 17.658 | 17.659 | 17.658 | 14.658-20.658 | 17.658 | 0.004 |
| | 57 Hexachlorobenzene | 17.975 | 17.983 | 17.975 | 17.975 | 17.976 | 17.975 | 17.976 | 17.975 | 14.975-20.975 | 17.977 | 0.003 |
| | 58 Pentachlorophenol | 18.378 | 18.386 | 18.394 | 18.378 | 18.386 | 18.378 | 18.386 | 18.378 | 15.378-21.378 | 18.384 | 0.006 |
| * | 59 Phenanthrene-d10 | 18.633 | 18.641 | 18.633 | 18.641 | 18.633 | 18.633 | 18.633 | 18.633 | 15.633-21.633 | 18.636 | 0.004 |
| | 60 Phenanthrene | 18.687 | 18.695 | 18.680 | 18.688 | 18.680 | 18.680 | 18.680 | 18.687 | 15.687-21.687 | 18.684 | 0.006 |
| | 61 Anthracene | 18.780 | 18.788 | 18.780 | 18.788 | 18.780 | 18.780 | 18.780 | 18.780 | 15.780-21.780 | 18.783 | 0.004 |
| | 62 Carbazole | 19.144 | 19.152 | 19.144 | 19.144 | 19.144 | 19.144 | 19.144 | 19.144 | 16.144-22.144 | 19.145 | 0.003 |
| | 63 Di-n-butylphthalate | 20.010 | 20.011 | 20.011 | 20.011 | 20.011 | 20.011 | 20.003 | 20.010 | 17.010-23.010 | 20.009 | 0.003 |
| | 64 Fluoranthene | 21.101 | 21.109 | 21.101 | 21.109 | 21.102 | 21.101 | 21.102 | 21.101 | 18.101-24.101 | 21.104 | 0.004 |
| | 65 Pyrene | 21.519 | 21.527 | 21.519 | 21.527 | 21.519 | 21.519 | 21.519 | 21.519 | 18.519-24.519 | 21.521 | 0.004 |
| $ | 66 Terphenyl-d14 | 21.844 | 21.844 | 21.844 | 21.844 | 21.837 | 21.844 | 21.837 | 21.844 | 18.844-24.844 | 21.842 | 0.004 |
| | 67 Butylbenzylphthalate | 22.781 | 22.789 | 22.781 | 22.789 | 22.781 | 22.781 | 22.781 | 22.781 | 19.781-25.781 | 22.783 | 0.004 |
| | 68 Benzo(a)anthracene | 23.679 | 23.687 | 23.679 | 23.679 | 23.679 | 23.679 | 23.679 | 23.679 | 20.679-26.679 | 23.680 | 0.003 |
| * | 69 Chrysene-d12 | 23.710 | 23.710 | 23.702 | 23.710 | 23.703 | 23.702 | 23.703 | 23.710 | 20.710-26.710 | 23.706 | 0.004 |
| | 70 3,3'-Dichlorobenzidine | 23.656 | 23.671 | 23.656 | 23.664 | 23.656 | 23.656 | 23.656 | 23.656 | 20.656-26.656 | 23.659 | 0.006 |
| | 71 Chrysene | 23.749 | 23.764 | 23.749 | 23.757 | 23.749 | 23.749 | 23.749 | 23.749 | 20.749-26.749 | 23.752 | 0.006 |
| | 72 bis(2-Ethylhexyl)phtha | 23.818 | 23.826 | 23.819 | 23.826 | 23.819 | 23.819 | 23.819 | 23.818 | 20.818-26.818 | 23.821 | 0.004 |
| | 73 Di-n-octylphthalate | 24.802 | 24.809 | 24.802 | 24.802 | 24.802 | 24.802 | 24.802 | 24.802 | 21.802-27.802 | 24.803 | 0.003 |
| | 74 Benzo(b)fluoranthene | 25.452 | 25.460 | 25.444 | 25.452 | 25.444 | 25.444 | 25.444 | 25.452 | 22.452-28.452 | 25.449 | 0.006 |
| | 75 Benzo(k)fluoranthene | 25.483 | 25.498 | 25.483 | 25.491 | 25.483 | 25.483 | 25.483 | 25.483 | 22.483-28.483 | 25.486 | 0.006 |
| | 187 Total Benzofluoranthen | 25.483 | 25.498 | 25.483 | 25.491 | 25.483 | 25.483 | 25.483 | 25.483 | 22.483-28.483 | 25.486 | 0.006 |
| | 76 Benzo(a)pyrene | 26.002 | 26.017 | 26.002 | 26.002 | 26.002 | 26.002 | 26.002 | 26.002 | 23.002-29.002 | 26.004 | 0.006 |

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem1/nt10.i/20120526.b

ARI Job No.: ABN5 Method: ABN.m Instrument: nt10.i Date: 26-MAY-2012

| Time | Filename | LabID | ClientId | DF | Manually Integrated Compounds |
|---|---|---|---|---|---|
| 1059 | ic0526a.d | ABN5 | | 1 | NO MANUAL INTEGRATION |
| 1136 | ic0526b.d | ABN20 | | 1 | NO MANUAL INTEGRATION |
| 1213 | ic0526c.d | ABN.2 | | 1 | Benzyl alcohol, Benzoic acid, 2,4-Dinitrophenol, 4-Nitrophenol, |
| 1250 | ic0526d.d | ABN10 | | 1 | NO MANUAL INTEGRATION |
| 1327 | ic0526e.d | ABN.5 | | 1 | Benzyl alcohol, 2,4-Dinitrophenol, |
| 1405 | ic0526f.d | ABN2.5 | | 1 | NO MANUAL INTEGRATION |
| 1442 | ic0526g.d | ABN1.0 | | 1 | NO MANUAL INTEGRATION |

UU52:00397

Averaged

Report Date : 26-May-2012 15:50



Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van
Curve Type : Average

Calibration File Names:
Level 1: /chem1/nt10.i/20120526.b/ic0526c.d
Level 2: /chem1/nt10.i/20120526.b/ic0526e.d
Level 3: /chem1/nt10.i/20120526.b/ic0526g.d
Level 4: /chem1/nt10.i/20120526.b/ic0526f.d
Level 5: /chem1/nt10.i/20120526.b/ic0526a.d
Level 6: /chem1/nt10.i/20120526.b/ic0526d.d
Level 7: /chem1/nt10.i/20120526.b/ic0526b.d

| Compound | 0.20000 Level 1 | 0.50000 Level 2 | 1.000 Level 3 | 2.500 Level 4 | 5.000 Level 5 | 10.000 Level 6 | 20.000 Level 7 | RRF | % RSD | |
|---|---|---|---|---|---|---|---|---|---|---|
| 186 Carbaryl | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | <- |
| 179 n-Decane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | <- |
| 180 n-Octadecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | <- |
| 169 4-tert-Butylphenol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 170 N,N-Dimethylaniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 171 2,3-Dimethylaniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van
Curve Type : Average

| Compound | 0.20000 Level 1 | 0.50000 Level 2 | 1.000 Level 3 | 2.500 Level 4 | 5.000 Level 5 | 10.000 Level 6 | RRF | % RSD | |
|---|---|---|---|---|---|---|---|---|---|
| | 20.000 Level 7 | | | | | | | | |
| 111 Azobenzene (1,2-DP-Hydrazine) | 1.29168 | 1.21488 | 1.24456 | 1.24502 | 1.18683 | 1.20842 | | | |
| | 1.10678 | | | | | | 1.21402 | 4.779 | |
| 110 Tetrachloroguaiacol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | |
| | +++++ | | | | | | +++++ | +++++ | <- |
| 109 3,4,5-Trichloroguaiacol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | |
| | +++++ | | | | | | +++++ | +++++ | <- |
| 181 3,4,6-Trichloroguaiacol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | |
| | +++++ | | | | | | +++++ | +++++ | <- |
| 108 4,5,6-Trichloroguaiacol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | |
| | +++++ | | | | | | +++++ | +++++ | <- |
| 184 3,4-Dichloroguaiacol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | |
| | +++++ | | | | | | +++++ | +++++ | <- |
| 107 4,5-Dichloroguaiacol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | |
| | +++++ | | | | | | +++++ | +++++ | <- |
| 182 4,6-Dichloroguaiacol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | |
| | +++++ | | | | | | +++++ | +++++ | <- |
| 185 4-Chloroguaiacol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | |
| | +++++ | | | | | | +++++ | +++++ | <- |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van
Curve Type : Average

| Compound | 0.20000 Level 1 | 0.50000 Level 2 | 1.000 Level 3 | 2.500 Level 4 | 5.000 Level 5 | 10.000 Level 6 | 20.000 Level 7 | RRF | % RSD | |
|---|---|---|---|---|---|---|---|---|---|---|
| 106 Guaiacol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | <- |
| 105 1-methylnaphthalene | 0.69053 | 0.69006 | 0.69964 | 0.71032 | 0.74060 | 0.73836 | 0.73504 | 0.71493 | 3.170 | |
| 151 1,2,4,5-Tetrachlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | <- |
| 152 Benzo(e)pyrene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 153 Chlorpyrifos | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 154 Diazinon | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 155 Kelthane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 156 Methyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 157 Ethyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van
Curve Type : Average

| Compound | 0.20000 Level 1 | 0.50000 Level 2 | 1.000 Level 3 | 2.500 Level 4 | 5.000 Level 5 | 10.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 20.000 Level 7 | | | | | | | |
| 167 2,2',4,4',5-Pentabromobipheny | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 3 Phenol | 1.93782 | 1.78241 | 1.79890 | 1.83686 | 1.94466 | 1.85875 | | |
| | 1.84111 | | | | | | 1.85722 | 3.392 |
| 4 Bis(2-Chloroethyl)ether | 1.46051 | 1.38677 | 1.40901 | 1.37934 | 1.35886 | 1.35721 | | |
| | 1.32810 | | | | | | 1.38283 | 3.093 |
| 6 2-Chlorophenol | 1.59117 | 1.56214 | 1.60149 | 1.59927 | 1.64063 | 1.74942 | | |
| | 1.73628 | | | | | | 1.64006 | 4.510 |
| 7 1,3-Dichlorobenzene | 1.71981 | 1.64778 | 1.66204 | 1.65240 | 1.65734 | 1.60670 | | |
| | 1.54816 | | | | | | 1.64203 | 3.231 |
| 9 1,4-Dichlorobenzene | 1.67008 | 1.61418 | 1.60209 | 1.61372 | 1.59176 | 1.58483 | | |
| | 1.54228 | | | | | | 1.60271 | 2.401 |
| 11 Benzyl alcohol | 0.79060 | 0.75427 | 0.68638 | 0.75631 | 0.80699 | 0.83518 | | |
| | 0.83216 | | | | | | 0.78027 | 6.740 |
| 12 1,2-Dichlorobenzene | 1.58456 | 1.56907 | 1.61577 | 1.55958 | 1.56974 | 1.54243 | | |
| | 1.50567 | | | | | | 1.56383 | 2.192 |
| 13 2-Methylphenol | 1.53698 | 1.41390 | 1.45396 | 1.44476 | 1.46574 | 1.47126 | | |
| | 1.45988 | | | | | | 1.46378 | 2.553 |

Analytical Resources, Inc.

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Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van
Curve Type : Average

| Compound | 0.20000 Level 1 | 0.50000 Level 2 | 1.000 Level 3 | 2.500 Level 4 | 5.000 Level 5 | 10.000 Level 6 | 20.000 Level 7 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 14 2,2'-oxybis(1-Chloropropane) | 0.53070 | 0.52169 | 0.50970 | 0.49884 | 0.51514 | 0.49675 | 0.49076 | 0.50908 | 2.842 |
| 15 4-Methylphenol | 1.51979 | 1.51828 | 1.52051 | 1.54947 | 1.53207 | 1.54139 | 1.50849 | 1.52714 | 0.945 |
| 16 N-Nitroso-di-n-propylamine | 0.85751 | 0.88217 | 0.88208 | 0.88036 | 0.85602 | 0.85073 | 0.82905 | 0.86256 | 2.325 |
| 17 Hexachloroethane | 0.61611 | 0.61683 | 0.61533 | 0.61819 | 0.62403 | 0.63110 | 0.63717 | 0.62268 | 1.366 |
| 19 Nitrobenzene | 0.37089 | 0.35013 | 0.35505 | 0.34631 | 0.35216 | 0.35110 | 0.34346 | 0.35273 | 2.515 |
| 20 Isophorone | 0.64743 | 0.61491 | 0.66071 | 0.65386 | 0.67901 | 0.68000 | 0.71877 | 0.66495 | 4.862 |
| 21 2-Nitrophenol | 0.21671 | 0.20611 | 0.21765 | 0.22034 | 0.23433 | 0.23211 | 0.22968 | 0.22242 | 4.548 |
| 22 2,4-Dimethylphenol | 0.34704 | 0.34026 | 0.36562 | 0.35606 | 0.36445 | 0.35120 | 0.34185 | 0.35235 | 2.890 |
| 23 Bis(2-Chloroethoxy)methane | 0.41334 | 0.39088 | 0.40919 | 0.38692 | 0.39819 | 0.38969 | 0.38389 | 0.39601 | 2.869 |

Analytical Resources, Inc.

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Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van
Curve Type : Average

| Compound | 0.20000 Level 1 | 0.50000 Level 2 | 1.000 Level 3 | 2.500 Level 4 | 5.000 Level 5 | 10.000 Level 6 | RRF | % RSD | |
|---|---|---|---|---|---|---|---|---|---|
| | 20.000 Level 7 | | | | | | | | |
| 24 Benzoic acid | +++++ | 0.09377 | 0.13003 | 0.18809 | 0.23596 | 0.25300 | | | |
| | 0.27005 | | | | | | 0.19515 | 36.371 | <-- Qual |
| 25 2,4-Dichlorophenol | 0.29664 | 0.33637 | 0.34059 | 0.34593 | 0.35431 | 0.36260 | | | |
| | 0.33599 | | | | | | 0.33892 | 6.204 | |
| 26 1,2,4-Trichlorobenzene | 0.34022 | 0.33179 | 0.32911 | 0.31462 | 0.32535 | 0.31448 | | | |
| | 0.30297 | | | | | | 0.32265 | 3.920 | |
| 28 Naphthalene | 1.01892 | 0.98976 | 1.02001 | 0.98738 | 1.02274 | 1.02205 | | | |
| | 0.99794 | | | | | | 1.00840 | 1.587 | |
| 29 4-Chloroaniline | 0.42321 | 0.40373 | 0.46985 | 0.48491 | 0.45332 | 0.45549 | | | |
| | 0.45438 | | | | | | 0.44927 | 6.114 | |
| 30 Hexachlorobutadiene | 0.17092 | 0.17389 | 0.17330 | 0.17339 | 0.18139 | 0.17507 | | | |
| | 0.16653 | | | | | | 0.17350 | 2.580 | |
| 31 4-Chloro-3-methylphenol | 0.27800 | 0.27685 | 0.30318 | 0.30088 | 0.32058 | 0.32488 | | | |
| | 0.32433 | | | | | | 0.30410 | 6.776 | |
| 32 2-Methylnaphthalene | 0.68928 | 0.67454 | 0.69249 | 0.69355 | 0.72209 | 0.72089 | | | |
| | 0.71436 | | | | | | 0.70103 | 2.594 | |
| 33 Hexachlorocyclopentadiene | +++++ | 0.11438 | 0.17125 | 0.23350 | 0.27883 | 0.31960 | | | |
| | 0.34105 | | | | | | 0.24310 | 36.117 | <-- Qual |

Analytical Resources, Inc.

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Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van
Curve Type : Average

| Compound | 0.20000 Level 1 | 0.50000 Level 2 | 1.000 Level 3 | 2.500 Level 4 | 5.000 Level 5 | 10.000 Level 6 | 20.000 Level 7 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 34 2,4,6-Trichlorophenol | 0.36549 | 0.36162 | 0.38350 | 0.40696 | 0.41230 | 0.42053 | 0.40888 | 0.39418 | 6.039 |
| 35 2,4,5-Trichlorophenol | 0.37272 | 0.37175 | 0.41544 | 0.42942 | 0.45764 | 0.45956 | 0.44725 | 0.42197 | 8.851 |
| 37 2-Chloronaphthalene | 1.18617 | 1.15537 | 1.21364 | 1.19177 | 1.18318 | 1.20605 | 1.16137 | 1.18536 | 1.806 |
| 38 2-Nitroaniline | 0.27665 | 0.27060 | 0.28017 | 0.28833 | 0.28524 | 0.29564 | 0.28790 | 0.28350 | 2.943 |
| 39 Dimethylphthalate | 1.28781 | 1.23703 | 1.27665 | 1.25445 | 1.22652 | 1.21880 | 1.10195 | 1.22903 | 5.004 |
| 40 Acenaphthylene | 1.85098 | 1.79087 | 1.80389 | 1.80942 | 1.78241 | 1.82303 | 1.71476 | 1.79648 | 2.362 |
| 41 2,6-Dinitrotoluene | 0.28468 | 0.28754 | 0.30858 | 0.30612 | 0.30537 | 0.31266 | 0.29106 | 0.29943 | 3.778 |
| 43 3-Nitroaniline | 0.33023 | 0.33054 | 0.34327 | 0.34560 | 0.33584 | 0.35434 | 0.32669 | 0.33807 | 2.961 |
| 44 Acenaphthene | 1.09150 | 1.05515 | 1.08275 | 1.09356 | 1.09053 | 1.10299 | 1.06860 | 1.08358 | 1.517 |

Analytical Resources, Inc.

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Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van
Curve Type : Average

| Compound | 0.20000 Level 1 | 0.50000 Level 2 | 1.000 Level 3 | 2.500 Level 4 | 5.000 Level 5 | 10.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 20.000 Level 7 | | | | | | | |
| 45 2,4-Dinitrophenol | +++++ | 0.03405 | 0.07702 | 0.13789 | 0.18678 | 0.21686 | | |
| | 0.22394 | | | | | | 0.14609 | 53.124 |
| 46 Dibenzofuran | 1.56097 | 1.55749 | 1.61928 | 1.61975 | 1.57536 | 1.60948 | | |
| | 1.57012 | | | | | | 1.58749 | 1.742 |
| 47 4-Nitrophenol | 0.10653 | 0.11184 | 0.12375 | 0.13675 | 0.14215 | 0.15101 | | |
| | 0.13872 | | | | | | 0.13011 | 12.670 |
| 48 2,4-Dinitrotoluene | 0.33964 | 0.36432 | 0.39526 | 0.39871 | 0.41047 | 0.41320 | | |
| | 0.38262 | | | | | | 0.38632 | 6.861 |
| 49 Fluorene | 1.27900 | 1.20760 | 1.22333 | 1.21133 | 1.20161 | 1.20576 | | |
| | 1.18598 | | | | | | 1.21637 | 2.450 |
| 50 Diethylphthalate | 1.23815 | 1.22983 | 1.21878 | 1.23534 | 1.20929 | 1.16965 | | |
| | 1.08612 | | | | | | 1.19817 | 4.559 |
| 51 4-Chlorophenyl-phenylether | 0.59904 | 0.57024 | 0.58557 | 0.58172 | 0.57842 | 0.58070 | | |
| | 0.54735 | | | | | | 0.57758 | 2.756 |
| 52 4-Nitroaniline | 0.30121 | 0.35825 | 0.37660 | 0.35473 | 0.33940 | 0.33793 | | |
| | 0.34993 | | | | | | 0.34544 | 6.779 |
| 53 4,6-Dinitro-2-methylphenol | +++++ | 0.10673 | 0.13877 | 0.16176 | 0.17907 | 0.18626 | | |
| | 0.17970 | | | | | | 0.15872 | 19.364 |

Analytical Resources, Inc.

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Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van
Curve Type : Average

| Compound | 0.20000 Level 1 | 0.50000 Level 2 | 1.000 Level 3 | 2.500 Level 4 | 5.000 Level 5 | 10.000 Level 6 | 20.000 Level 7 | RRF | % RSD | |
|---|---|---|---|---|---|---|---|---|---|---|
| 54 N-Nitrosodiphenylamine | 0.56377 | 0.55022 | 0.56120 | 0.53574 | 0.53680 | 0.52692 | 0.49201 | 0.53809 | 4.550 | |
| 56 4-Bromophenyl-phenylether | 0.21951 | 0.20081 | 0.21443 | 0.21141 | 0.21685 | 0.22361 | 0.21231 | 0.21413 | 3.381 | |
| 57 Hexachlorobenzene | 0.24619 | 0.25325 | 0.25223 | 0.24875 | 0.24201 | 0.24485 | 0.24098 | 0.24689 | 1.927 | |
| 58 Pentachlorophenol | +++++ | 0.05177 | 0.07801 | 0.09799 | 0.12954 | 0.13754 | 0.14340 | 0.10637 | 34.505 | <- Qnc |
| 60 Phenanthrene | 1.06051 | 0.97569 | 1.03599 | 1.00825 | 1.02336 | 1.04091 | 1.07540 | 1.03144 | 3.215 | |
| 61 Anthracene | 1.06960 | 1.03049 | 1.06853 | 1.05383 | 1.11319 | 1.10262 | 1.10413 | 1.07748 | 2.817 | |
| 62 Carbazole | 1.02492 | 1.03777 | 1.07002 | 0.99487 | 0.94857 | 0.89007 | 1.01254 | 0.99697 | 6.046 | |
| 63 Di-n-butylphthalate | 1.33414 | 1.27773 | 1.38366 | 1.37095 | 1.47098 | 1.48637 | 1.49795 | 1.40311 | 5.993 | |
| 64 Fluoranthene | 1.15455 | 1.11006 | 1.13082 | 1.13925 | 1.20211 | 1.21842 | 1.24253 | 1.17111 | 4.261 | |

Analytical Resources, Inc.

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Start Cal Date : 26-MAY-2012 10:59
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Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van
Curve Type : Average

| Compound | 0.20000 Level 1 | 0.50000 Level 2 | 1.000 Level 3 | 2.500 Level 4 | 5.000 Level 5 | 10.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 20.000 Level 7 | | | | | | | |
| 65 Pyrene | 1.20581 | 1.15940 | 1.23562 | 1.20914 | 1.24483 | 1.23328 | | |
| | 1.23141 | | | | | | 1.21707 | 2.395 |
| 67 Butylbenzylphthalate | 0.57732 | 0.55533 | 0.57114 | 0.56183 | 0.58390 | 0.55369 | | |
| | 0.54876 | | | | | | 0.56457 | 2.333 |
| 68 Benzo(a)anthracene | 1.20699 | 1.09061 | 1.11889 | 1.09881 | 1.11070 | 1.11657 | | |
| | 1.13357 | | | | | | 1.12516 | 3.438 |
| 70 3,3'-Dichlorobenzidine | +++++ | 0.63372 | 0.64623 | 0.63929 | 0.58563 | 0.53713 | | |
| | 0.65445 | | | | | | 0.61607 | 7.400 |
| 71 Chrysene | 0.98916 | 0.95229 | 0.99774 | 0.96476 | 1.00552 | 1.00986 | | |
| | 1.00931 | | | | | | 0.98981 | 2.307 |
| 72 bis(2-Ethylhexyl)phthalate | 0.60670 | 0.55059 | 0.53958 | 0.53786 | 0.54429 | 0.54605 | | |
| | 0.52007 | | | | | | 0.54931 | 4.937 |
| 73 Di-n-octylphthalate | 1.03576 | 0.96337 | 0.98665 | 0.95638 | 0.96678 | 0.95873 | | |
| | 0.94454 | | | | | | 0.97317 | 3.124 |
| 74 Benzo(b)fluoranthene | 1.09905 | 1.05571 | 1.10041 | 1.06208 | 1.18164 | 1.12420 | | |
| | 1.24247 | | | | | | 1.12365 | 5.974 |
| 75 Benzo(k)fluoranthene | 1.27389 | 1.28509 | 1.28535 | 1.25133 | 1.19165 | 1.26526 | | |
| | 1.10821 | | | | | | 1.23726 | 5.286 |

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| Compound | 0.20000 Level 1 | 0.50000 Level 2 | 1.000 Level 3 | 2.500 Level 4 | 5.000 Level 5 | 10.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 20.000 Level 7 | | | | | | | |
| 187 Total Benzofluoranthenes | 1.12458 | 1.09115 | 1.12381 | 1.08314 | 1.11851 | 1.12409 | | |
| | 1.10396 | | | | | | 1.10989 | 1.555 |
| 76 Benzo(a)pyrene | 1.06539 | 0.98413 | 1.03837 | 1.01500 | 1.04753 | 1.05076 | | |
| | 1.03871 | | | | | | 1.03427 | 2.600 |
| 78 Indeno(1,2,3-cd)pyrene | 1.12137 | 1.11892 | 1.17740 | 1.21207 | 1.24880 | 1.25883 | | |
| | 1.23722 | | | | | | 1.19637 | 4.892 |
| 79 Dibenzo(a,h)anthracene | 0.84993 | 0.86647 | 0.93647 | 0.95859 | 0.99213 | 1.00399 | | |
| | 0.98932 | | | | | | 0.94241 | 6.581 |
| 80 Benzo(g,h,i)perylene | 1.00242 | 0.95348 | 0.99998 | 1.02510 | 1.06812 | 1.07231 | | |
| | 1.05992 | | | | | | 1.02591 | 4.279 |
| 90 N-Nitrosodimethylamine | 0.86183 | 0.83324 | 0.83206 | 0.84563 | 0.84431 | 0.82304 | | |
| | 0.78150 | | | | | | 0.83166 | 3.049 |
| 91 Aniline | 4.08674 | 3.96856 | 4.06292 | 3.99679 | 3.98672 | 3.87415 | | |
| | 3.71782 | | | | | | 3.95624 | 3.176 |
| 92 1,2-Diphenylhydrazine | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 93 Benzidine | 0.47016 | 0.46697 | 0.47552 | 0.42523 | 0.33981 | 0.44103 | | |
| | 0.57927 | | | | | | 0.45686 | 15.622 |

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| Compound | 0.20000 Level 1 | 0.50000 Level 2 | 1.000 Level 3 | 2.500 Level 4 | 5.000 Level 5 | 10.000 Level 6 | RRF | % RSD | |
|---|---|---|---|---|---|---|---|---|---|
| | 20.000 Level 7 | | | | | | | | |
| 96 p-Cymene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | |
| | +++++ | | | | | | +++++ | +++++ | |
| 97 Caffeine | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | |
| | +++++ | | | | | | +++++ | +++++ | |
| 98 Retene | 0.55139 | 0.53775 | 0.55210 | 0.55985 | 0.58856 | 0.58501 | | | |
| | 0.59254 | | | | | | 0.56674 | 3.821 | |
| 99 Perylene | 1.06737 | 1.00429 | 1.04991 | 1.00327 | 1.04442 | 1.05530 | | | |
| | 1.05357 | | | | | | 1.03973 | 2.455 | |
| 100 3-beta-Coprostanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | |
| | +++++ | | | | | | +++++ | +++++ | <- |
| 101 Cholesterol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | |
| | +++++ | | | | | | +++++ | +++++ | <- |
| 102 beta-Sitosterol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | |
| | +++++ | | | | | | +++++ | +++++ | |
| 103 Pyridine | 0.73569 | 0.69513 | 0.75065 | 0.74068 | 0.69537 | 0.71095 | | | |
| | 0.69810 | | | | | | 0.71808 | 3.303 | |
| $ 1 2-Fluorophenol | 1.37967 | 1.38916 | 1.39694 | 1.40122 | 1.41730 | 1.43750 | | | |
| | 1.36950 | | | | | | 1.39876 | 1.642 | |

Analytical Resources, Inc.

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Curve Type : Average

| Compound | 0.20000 Level 1 | 0.50000 Level 2 | 1.000 Level 3 | 2.500 Level 4 | 5.000 Level 5 | 10.000 Level 6 | RRF | % RSD | |
|---|---|---|---|---|---|---|---|---|---|
| | 20.000 Level 7 | | | | | | | | |
| $ 137 d8-1,4-Dioxane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | |
| | +++++ | | | | | | +++++ | +++++ | <- |
| $ 2 Phenol-d5 | 1.67567 | 1.69701 | 1.70877 | 1.73959 | 1.77639 | 1.80843 | | | |
| | 1.79085 | | | | | | 1.74239 | 2.918 | |
| $ 5 2-Chlorophenol-d4 | 1.55701 | 1.52354 | 1.53700 | 1.49714 | 1.52331 | 1.52306 | | | |
| | 1.52463 | | | | | | 1.52653 | 1.177 | |
| $ 10 1,2-Dichlorobenzene-d4 | 1.00618 | 0.97328 | 1.01684 | 0.99736 | 1.01271 | 1.00671 | | | |
| | 0.99684 | | | | | | 1.00142 | 1.438 | |
| $ 18 Nitrobenzene-d5 | 0.35681 | 0.34705 | 0.36221 | 0.35991 | 0.36634 | 0.36081 | | | |
| | 0.35564 | | | | | | 0.35840 | 1.707 | |
| $ 36 2-Fluorobiphenyl | 1.42231 | 1.38804 | 1.38526 | 1.40503 | 1.35546 | 1.40214 | | | |
| | 1.34814 | | | | | | 1.38663 | 1.933 | |
| $ 55 2,4,6-Tribromophenol | 0.15415 | 0.15709 | 0.16428 | 0.16515 | 0.17168 | 0.17449 | | | |
| | 0.16886 | | | | | | 0.16510 | 4.494 | |
| $ 66 Terphenyl-d14 | 0.79176 | 0.75544 | 0.77467 | 0.77718 | 0.77623 | 0.74269 | | | |
| | 0.71899 | | | | | | 0.76242 | 3.277 | |
| $ 85 p-Cresol-d4 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | |
| | +++++ | | | | | | +++++ | +++++ | |

"The curve"

Report Date : 26-May-2012 15:53



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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

Calibration File Names:
Level 1: /chem1/nt10.i/20120526.b/ic0526c.d
Level 2: /chem1/nt10.i/20120526.b/ic0526e.d
Level 3: /chem1/nt10.i/20120526.b/ic0526g.d
Level 4: /chem1/nt10.i/20120526.b/ic0526f.d
Level 5: /chem1/nt10.i/20120526.b/ic0526a.d
Level 6: /chem1/nt10.i/20120526.b/ic0526d.d
Level 7: /chem1/nt10.i/20120526.b/ic0526b.d

| Compound | 0.2000 Level 1 / 20 Level 7 | 0.5000 Level 2 | 1 Level 3 | 2 Level 4 | 5 Level 5 | 10 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 186 Carbaryl | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 | <- |
| 179 n-Decane | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 | <- |
| 180 n-Octadecane | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 | <- |
| 169 4-tert-Butylphenol | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 | |

UU52:00412

# Analytical Resources, Inc.

## INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

| Compound | 0.2000 Level 1 / 20 Level 7 | 0.5000 Level 2 | 1 Level 3 | 2 Level 4 | 5 Level 5 | 10 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 116 Dibutyl Phenyl Phosphate | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 | <- |
| 115 Tributyl Phosphate | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 | <- |
| 114 Beta-Pinene | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 | |
| 113 Diphenyl Oxide | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 | <- |
| 112 Biphenyl | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 | <- |
| 111 Azobenzene (1,2-DP-Hydrazine) | 1.29168 1.10678 | 1.21488 | 1.24456 | 1.24502 | 1.18683 | 1.20842 | AVRG | | 1.21402 | | 4.77901 | |
| 110 Tetrachloroguaiacol | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 | <- |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
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Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

| Compound | 0.2000 Level 1 / 20 Level 7 | 0.5000 Level 2 | 1 Level 3 | 2 Level 4 | 5 Level 5 | 10 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 106 Guaiacol | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 <- |
| 105 1-methylnaphthalene | 0.69053 0.73504 | 0.69006 | 0.69964 | 0.71032 | 0.74060 | 0.73836 | AVRG | | 0.71493 | | 3.16988 |
| 151 1,2,4,5-Tetrachlorobenzene | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 <- |
| 152 Benzo(e)pyrene | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 |
| 153 Chlorpyrifos | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 |
| 154 Diazinon | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 |
| 155 Kelthane | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 |

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# Analytical Resources, Inc.

## INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

| Compound | 0.2000 Level 1 / 20 Level 7 | 0.5000 Level 2 | 1 Level 3 | 2 Level 4 | 5 Level 5 | 10 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 163 1,2,3,5,8-Pentachloronaphthal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+00 | | 0.000e+00 |
| 164 1,2,3,4,6,7-Hexachloronaphtha | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+00 | | 0.000e+00 |
| 165 1,2,3,4,5,6,7-Heptachloronaph | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+00 | | 0.000e+00 |
| 166 Octachloronaphthalene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+00 | | 0.000e+00 |
| 167 2,2',4,4',5-Pentabromobipheny | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+00 | | 0.000e+00 |
| 3 Phenol | 1.93782 | 1.78241 | 1.79890 | 1.83686 | 1.94466 | 1.85875 | | | | | |
| | 1.84111 | | | | | | AVRG | | 1.85722 | | 3.39231 |
| 4 Bis(2-Chloroethyl)ether | 1.46051 | 1.38677 | 1.40901 | 1.37934 | 1.35886 | 1.35721 | | | | | |
| | 1.32810 | | | | | | AVRG | | 1.38283 | | 3.09264 |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

| Compound | 0.2000 Level 1 | 0.5000 Level 2 | 1 Level 3 | 2 Level 4 | 5 Level 5 | 10 Level 6 | 20 Level 7 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 2-Chlorophenol | 1.59117 | 1.56214 | 1.60149 | 1.59927 | 1.64063 | 1.74942 | 1.73628 | AVRG | | 1.64006 | | 4.51030 |
| 7 1,3-Dichlorobenzene | 1.71981 | 1.64778 | 1.66204 | 1.65240 | 1.65734 | 1.60670 | 1.54816 | AVRG | | 1.64203 | | 3.23056 |
| 9 1,4-Dichlorobenzene | 1.67008 | 1.61418 | 1.60209 | 1.61372 | 1.59176 | 1.58483 | 1.54228 | AVRG | | 1.60271 | | 2.40082 |
| 11 Benzyl alcohol | 0.79060 | 0.75427 | 0.68638 | 0.75631 | 0.80699 | 0.83518 | 0.83216 | AVRG | | 0.78027 | | 6.73992 |
| 12 1,2-Dichlorobenzene | 1.58456 | 1.56907 | 1.61577 | 1.55958 | 1.56974 | 1.54243 | 1.50567 | AVRG | | 1.56383 | | 2.19174 |
| 13 2-Methylphenol | 1.53698 | 1.41390 | 1.45396 | 1.44476 | 1.46574 | 1.47126 | 1.45988 | AVRG | | 1.46378 | | 2.55288 |
| 14 2,2'-oxybis(1-Chloropropane) | 0.53070 | 0.52169 | 0.50970 | 0.49884 | 0.51514 | 0.49675 | 0.49076 | AVRG | | 0.50908 | | 2.84196 |

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

| Compound | 0.2000 Level 1 | 0.5000 Level 2 | 1 Level 3 | 2 Level 4 | 5 Level 5 | 10 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 20 Level 7 | | | | | | | | | | |
| 15 4-Methylphenol | 1.51979 | 1.51828 | 1.52051 | 1.54947 | 1.53207 | 1.54139 | | | | | |
| | 1.50849 | | | | | | AVRG | | 1.52714 | | 0.94515 |
| 16 N-Nitroso-di-n-propylamine | 0.85751 | 0.88217 | 0.88208 | 0.88036 | 0.85602 | 0.85073 | | | | | |
| | 0.82905 | | | | | | AVRG | | 0.86256 | | 2.32546 |
| 17 Hexachloroethane | 0.61611 | 0.61683 | 0.61533 | 0.61819 | 0.62403 | 0.63110 | | | | | |
| | 0.63717 | | | | | | AVRG | | 0.62268 | | 1.36641 |
| 19 Nitrobenzene | 0.37089 | 0.35013 | 0.35505 | 0.34631 | 0.35216 | 0.35110 | | | | | |
| | 0.34346 | | | | | | AVRG | | 0.35273 | | 2.51451 |
| 20 Isophorone | 0.64743 | 0.61491 | 0.66071 | 0.65386 | 0.67901 | 0.68000 | | | | | |
| | 0.71877 | | | | | | AVRG | | 0.66495 | | 4.86239 |
| 21 2-Nitrophenol | 0.21671 | 0.20611 | 0.21765 | 0.22034 | 0.23433 | 0.23211 | | | | | |
| | 0.22968 | | | | | | AVRG | | 0.22242 | | 4.54831 |
| 22 2,4-Dimethylphenol | 0.34704 | 0.34026 | 0.36562 | 0.35606 | 0.36445 | 0.35120 | | | | | |
| | 0.34185 | | | | | | AVRG | | 0.35235 | | 2.89029 |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

| Compound | 0.2000 Level 1 | 0.5000 Level 2 | 1 Level 3 | 2 Level 4 | 5 Level 5 | 10 Level 6 | 20 Level 7 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 23 Bis(2-Chloroethoxy)methane | 0.41334 | 0.39088 | 0.40919 | 0.38692 | 0.39819 | 0.38969 | 0.38389 | AVRG | | 0.39601 | | 2.86933 |
| 24 Benzoic acid | +++++ | 34874 | 97576 | 346329 | 862339 | 1808839 | 3954019 | QUAD | 0.000e+00 | 4.35066 | -0.12146 | 0.99921 |
| 25 2,4-Dichlorophenol | 0.29664 | 0.33637 | 0.34059 | 0.34593 | 0.35431 | 0.36260 | 0.33599 | AVRG | | 0.33892 | | 6.20399 |
| 26 1,2,4-Trichlorobenzene | 0.34022 | 0.33179 | 0.32911 | 0.31462 | 0.32535 | 0.31448 | 0.30297 | AVRG | | 0.32265 | | 3.92022 |
| 28 Naphthalene | 1.01892 | 0.98976 | 1.02001 | 0.98738 | 1.02274 | 1.02205 | 0.99794 | AVRG | | 1.00840 | | 1.58668 |
| 29 4-Chloroaniline | 0.42321 | 0.40373 | 0.46985 | 0.48491 | 0.45332 | 0.45549 | 0.45438 | AVRG | | 0.44927 | | 6.11437 |
| 30 Hexachlorobutadiene | 0.17092 | 0.17389 | 0.17330 | 0.17339 | 0.18139 | 0.17507 | 0.16653 | AVRG | | 0.17350 | | 2.58021 |

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

| Compound | 0.2000 Level 1 | 0.5000 Level 2 | 1 Level 3 | 2 Level 4 | 5 Level 5 | 10 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 20 Level 7 | | | | | | | | | | |
| 31 4-Chloro-3-methylphenol | 0.27800 | 0.27685 | 0.30318 | 0.30088 | 0.32058 | 0.32488 | | | | | |
| | 0.32433 | | | | | | AVRG | | 0.30410 | | 6.77614 |
| 32 2-Methylnaphthalene | 0.68928 | 0.67454 | 0.69249 | 0.69355 | 0.72209 | 0.72089 | | | | | |
| | 0.71436 | | | | | | AVRG | | 0.70103 | | 2.59425 |
| 33 Hexachlorocyclopentadiene | +++++ | 11564 | 35252 | 116347 | 293255 | 633343 | | | | | |
| | 1418921 | | | | | | QUAD | 0.000e+00 | 3.52578 | -0.17688 | 0.99896 |
| 34 2,4,6-Trichlorophenol | 0.36549 | 0.36162 | 0.38350 | 0.40696 | 0.41230 | 0.42053 | | | | | |
| | 0.40888 | | | | | | AVRG | | 0.39418 | | 6.03893 |
| 35 2,4,5-Trichlorophenol | 0.37272 | 0.37175 | 0.41544 | 0.42942 | 0.45764 | 0.45956 | | | | | |
| | 0.44725 | | | | | | AVRG | | 0.42197 | | 8.85120 |
| 37 2-Chloronaphthalene | 1.18617 | 1.15537 | 1.21364 | 1.19177 | 1.18318 | 1.20605 | | | | | |
| | 1.16137 | | | | | | AVRG | | 1.18536 | | 1.80578 |
| 38 2-Nitroaniline | 0.27665 | 0.27060 | 0.28017 | 0.28833 | 0.28524 | 0.29564 | | | | | |
| | 0.28790 | | | | | | AVRG | | 0.28350 | | 2.94270 |

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

| Compound | 0.2000 Level 1 / 20 Level 7 | 0.5000 Level 2 | 1 Level 3 | 2 Level 4 | 5 Level 5 | 10 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 39 Dimethylphthalate | 1.28781<br>1.10195 | 1.23703 | 1.27665 | 1.25445 | 1.22652 | 1.21880 | AVRG | | 1.22903 | | 5.00399 |
| 40 Acenaphthylene | 1.85098<br>1.71476 | 1.79087 | 1.80389 | 1.80942 | 1.78241 | 1.82303 | AVRG | | 1.79648 | | 2.36222 |
| 41 2,6-Dinitrotoluene | 0.28468<br>0.29106 | 0.28754 | 0.30858 | 0.30612 | 0.30537 | 0.31266 | AVRG | | 0.29943 | | 3.77761 |
| 43 3-Nitroaniline | 0.33023<br>0.32669 | 0.33054 | 0.34327 | 0.34560 | 0.33584 | 0.35434 | AVRG | | 0.33807 | | 2.96080 |
| 44 Acenaphthene | 1.09150<br>1.06860 | 1.05515 | 1.08275 | 1.09356 | 1.09053 | 1.10299 | AVRG | | 1.08358 | | 1.51680 |
| 45 2,4-Dinitrophenol | +++++<br>1863407 | 6885 | 31710 | 137413 | 392895 | 859509 | QUAD | 0.000e+00 | 5.17724 | -0.16339 | 0.99805 |
| 46 Dibenzofuran | 1.56097<br>1.57012 | 1.55749 | 1.61928 | 1.61975 | 1.57536 | 1.60948 | AVRG | | 1.58749 | | 1.74156 |

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
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Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

| Compound | 0.2000 Level 1 | 0.5000 Level 2 | 1 Level 3 | 2 Level 4 | 5 Level 5 | 10 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 20 Level 7 | | | | | | | | | | |
| 47 4-Nitrophenol | 0.10653 | 0.11184 | 0.12375 | 0.13675 | 0.14215 | 0.15101 | | | | | |
| | 0.13872 | | | | | | AVRG | | 0.13011 | | 12.67018 |
| 48 2,4-Dinitrotoluene | 0.33964 | 0.36432 | 0.39526 | 0.39871 | 0.41047 | 0.41320 | | | | | |
| | 0.38262 | | | | | | AVRG | | 0.38632 | | 6.86139 |
| 49 Fluorene | 1.27900 | 1.20760 | 1.22333 | 1.21133 | 1.20161 | 1.20576 | | | | | |
| | 1.18598 | | | | | | AVRG | | 1.21637 | | 2.44972 |
| 50 Diethylphthalate | 1.23815 | 1.22983 | 1.21878 | 1.23534 | 1.20929 | 1.16965 | | | | | |
| | 1.08612 | | | | | | AVRG | | 1.19817 | | 4.55852 |
| 51 4-Chlorophenyl-phenylether | 0.59904 | 0.57024 | 0.58557 | 0.58172 | 0.57842 | 0.58070 | | | | | |
| | 0.54735 | | | | | | AVRG | | 0.57758 | | 2.75565 |
| 52 4-Nitroaniline | 0.30121 | 0.35825 | 0.37660 | 0.35473 | 0.33940 | 0.33793 | | | | | |
| | 0.34993 | | | | | | AVRG | | 0.34544 | | 6.77926 |
| 53 4,6-Dinitro-2-methylphenol | +++++ | 0.10673 | 0.13877 | 0.16176 | 0.17907 | 0.18626 | | | | | |
| | 0.17970 | | | | | | AVRG | | 0.15872 | | 19.36391 |

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
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Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

| Compound | 0.2000 Level 1 | 0.5000 Level 2 | 1 Level 3 | 2 Level 4 | 5 Level 5 | 10 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 20 Level 7 | | | | | | | | | | |
| 54 N-Nitrosodiphenylamine | 0.56377 | 0.55022 | 0.56120 | 0.53574 | 0.53680 | 0.52692 | | | | | |
| | 0.49201 | | | | | | AVRG | | 0.53809 | | 4.54957 |
| 56 4-Bromophenyl-phenylether | 0.21951 | 0.20081 | 0.21443 | 0.21141 | 0.21685 | 0.22361 | | | | | |
| | 0.21231 | | | | | | AVRG | | 0.21413 | | 3.38083 |
| 57 Hexachlorobenzene | 0.24619 | 0.25325 | 0.25223 | 0.24875 | 0.24201 | 0.24485 | | | | | |
| | 0.24098 | | | | | | AVRG | | 0.24689 | | 1.92672 |
| 58 Pentachlorophenol | +++++ | 8182 | 24770 | 76549 | 206931 | 411314 | | | | | |
| | 867054 | | | | | | QUAD | 0.000e+00 | 7.90524 | -0.66208 | 0.99899 |
| 60 Phenanthrene | 1.06051 | 0.97569 | 1.03599 | 1.00825 | 1.02336 | 1.04091 | | | | | |
| | 1.07540 | | | | | | AVRG | | 1.03144 | | 3.21523 |
| 61 Anthracene | 1.06960 | 1.03049 | 1.06853 | 1.05383 | 1.11319 | 1.10262 | | | | | |
| | 1.10413 | | | | | | AVRG | | 1.07748 | | 2.81670 |
| 62 Carbazole | 1.02492 | 1.03777 | 1.07002 | 0.99487 | 0.94857 | 0.89007 | | | | | |
| | 1.01254 | | | | | | AVRG | | 0.99697 | | 6.04596 |

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

| Compound | 0.2000 Level 1 / 20 Level 7 | 0.5000 Level 2 | 1 Level 3 | 2 Level 4 | 5 Level 5 | 10 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 63 Di-n-butylphthalate | 1.33414<br>1.49795 | 1.27773 | 1.38366 | 1.37095 | 1.47098 | 1.48637 | AVRG | | 1.40311 | | 5.99287 |
| 64 Fluoranthene | 1.15455<br>1.24253 | 1.11006 | 1.13082 | 1.13925 | 1.20211 | 1.21842 | AVRG | | 1.17111 | | 4.26094 |
| 65 Pyrene | 1.20581<br>1.23141 | 1.15940 | 1.23562 | 1.20914 | 1.24483 | 1.23328 | AVRG | | 1.21707 | | 2.39516 |
| 67 Butylbenzylphthalate | 0.57732<br>0.54876 | 0.55533 | 0.57114 | 0.56183 | 0.58390 | 0.55369 | AVRG | | 0.56457 | | 2.33295 |
| 68 Benzo(a)anthracene | 1.20699<br>1.13357 | 1.09061 | 1.11889 | 1.09881 | 1.11070 | 1.11657 | AVRG | | 1.12516 | | 3.43783 |
| 70 3,3'-Dichlorobenzidine | +++++<br>0.65445 | 0.63372 | 0.64623 | 0.63929 | 0.58563 | 0.53713 | AVRG | | 0.61607 | | 7.39980 |
| 71 Chrysene | 0.98916<br>1.00931 | 0.95229 | 0.99774 | 0.96476 | 1.00552 | 1.00986 | AVRG | | 0.98981 | | 2.30658 |

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

| Compound | 0.2000 Level 1 | 0.5000 Level 2 | 1 Level 3 | 2 Level 4 | 5 Level 5 | 10 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 20 Level 7 | | | | | | | | | | |
| 72 bis(2-Ethylhexyl)phthalate | 0.60670 | 0.55059 | 0.53958 | 0.53786 | 0.54429 | 0.54605 | | | | | |
| | 0.52007 | | | | | | AVRG | | 0.54931 | | 4.93651 |
| 73 Di-n-octylphthalate | 1.03576 | 0.96337 | 0.98665 | 0.95638 | 0.96678 | 0.95873 | | | | | |
| | 0.94454 | | | | | | AVRG | | 0.97317 | | 3.12405 |
| 74 Benzo(b)fluoranthene | 1.09905 | 1.05571 | 1.10041 | 1.06208 | 1.18164 | 1.12420 | | | | | |
| | 1.24247 | | | | | | AVRG | | 1.12365 | | 5.97365 |
| 75 Benzo(k)fluoranthene | 1.27389 | 1.28509 | 1.28535 | 1.25133 | 1.19165 | 1.26526 | | | | | |
| | 1.10821 | | | | | | AVRG | | 1.23726 | | 5.28550 |
| 187 Total Benzofluoranthenes | 1.12458 | 1.09115 | 1.12381 | 1.08314 | 1.11851 | 1.12409 | | | | | |
| | 1.10396 | | | | | | AVRG | | 1.10989 | | 1.55494 |
| 76 Benzo(a)pyrene | 1.06539 | 0.98413 | 1.03837 | 1.01500 | 1.04753 | 1.05076 | | | | | |
| | 1.03871 | | | | | | AVRG | | 1.03427 | | 2.59978 |
| 78 Indeno(1,2,3-cd)pyrene | 1.12137 | 1.11892 | 1.17740 | 1.21207 | 1.24880 | 1.25883 | | | | | |
| | 1.23722 | | | | | | AVRG | | 1.19637 | | 4.89151 |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

| Compound | 0.2000 Level 1 / 20 Level 7 | 0.5000 Level 2 | 1 Level 3 | 2 Level 4 | 5 Level 5 | 10 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 79 Dibenzo(a,h)anthracene | 0.84993<br>0.98932 | 0.86647 | 0.93647 | 0.95859 | 0.99213 | 1.00399 | AVRG | | 0.94241 | | 6.58108 |
| 80 Benzo(g,h,i)perylene | 1.00242<br>1.05992 | 0.95348 | 0.99998 | 1.02510 | 1.06812 | 1.07231 | AVRG | | 1.02591 | | 4.27892 |
| 90 N-Nitrosodimethylamine | 0.86183<br>0.78150 | 0.83324 | 0.83206 | 0.84563 | 0.84431 | 0.82304 | AVRG | | 0.83166 | | 3.04924 |
| 91 Aniline | 4.08674<br>3.71782 | 3.96856 | 4.06292 | 3.99679 | 3.98672 | 3.87415 | AVRG | | 3.95624 | | 3.17588 |
| 92 1,2-Diphenylhydrazine | +++++<br>+++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 |
| 93 Benzidine | 0.47016<br>0.57927 | 0.46697 | 0.47552 | 0.42523 | 0.33981 | 0.44103 | AVRG | | 0.45686 | | 15.62231 |
| 96 p-Cymene | +++++<br>+++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 |

UU52:00424

UU52:00425

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

| Compound | 0.2000 Level 1 / 20 Level 7 | 0.5000 Level 2 | 1 Level 3 | 2 Level 4 | 5 Level 5 | 10 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 97 Caffeine | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+00 | | 0.000e+00 | |
| 98 Retene | 0.55139 | 0.53775 | 0.55210 | 0.55985 | 0.58856 | 0.58501 | | | | | | |
| | 0.59254 | | | | | | AVRG | | 0.56674 | | 3.82090 | |
| 99 Perylene | 1.06737 | 1.00429 | 1.04991 | 1.00327 | 1.04442 | 1.05530 | | | | | | |
| | 1.05357 | | | | | | AVRG | | 1.03973 | | 2.45482 | |
| 100 3-beta-Coprostanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+00 | | 0.000e+00 | <- |
| 101 Cholesterol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+00 | | 0.000e+00 | <- |
| 102 beta-Sitosterol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+00 | | 0.000e+00 | |
| 103 Pyridine | 0.73569 | 0.69513 | 0.75065 | 0.74068 | 0.69537 | 0.71095 | | | | | | |
| | 0.69810 | | | | | | AVRG | | 0.71808 | | 3.30261 | |

UU52:00426

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

| Compound | 0.2000 Level 1 / 20 Level 7 | 0.5000 Level 2 | 1 Level 3 | 2 Level 4 | 5 Level 5 | 10 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $ 1 2-Fluorophenol | 1.37967<br>1.36950 | 1.38916 | 1.39694 | 1.40122 | 1.41730 | 1.43750 | AVRG | | 1.39876 | | 1.64242 |
| $ 137 d8-1,4-Dioxane | +++++<br>+++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 <- |
| $ 2 Phenol-d5 | 1.67567<br>1.79085 | 1.69701 | 1.70877 | 1.73959 | 1.77639 | 1.80843 | AVRG | | 1.74239 | | 2.91839 |
| $ 5 2-Chlorophenol-d4 | 1.55701<br>1.52463 | 1.52354 | 1.53700 | 1.49714 | 1.52331 | 1.52306 | AVRG | | 1.52653 | | 1.17704 |
| $ 10 1,2-Dichlorobenzene-d4 | 1.00618<br>0.99684 | 0.97328 | 1.01684 | 0.99736 | 1.01271 | 1.00671 | AVRG | | 1.00142 | | 1.43849 |
| $ 18 Nitrobenzene-d5 | 0.35681<br>0.35564 | 0.34705 | 0.36221 | 0.35991 | 0.36634 | 0.36081 | AVRG | | 0.35840 | | 1.70700 |
| $ 36 2-Fluorobiphenyl | 1.42231<br>1.34814 | 1.38804 | 1.38526 | 1.40503 | 1.35546 | 1.40214 | AVRG | | 1.38663 | | 1.93263 |

UU52:00427

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

| Compound | 0.2000 Level 1 / 20 Level 7 | 0.5000 Level 2 | 1 Level 3 | 2 Level 4 | 5 Level 5 | 10 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $ 55 2,4,6-Tribromophenol | 0.15415<br>0.16886 | 0.15709 | 0.16428 | 0.16515 | 0.17168 | 0.17449 | AVRG | | 0.16510 | | 4.49377 |
| $ 66 Terphenyl-d14 | 0.79176<br>0.71899 | 0.75544 | 0.77467 | 0.77718 | 0.77623 | 0.74269 | AVRG | | 0.76242 | | 3.27653 |
| $ 85 p-Cresol-d4 | +++++<br>+++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 |
| $ 86 Anthracene-d10 | +++++<br>+++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 |
| $ 87 Fluoranthene-d10 | +++++<br>+++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 |
| $ 88 Dibenz(a,h)anthracene-d14 | +++++<br>+++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 |
| $ 89 Diphenyl-d10 | +++++<br>+++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 |

UU52:00428

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

| Compound | 0.2000 Level 1 | 0.5000 Level 2 | 1 Level 3 | 2 Level 4 | 5 Level 5 | 10 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 20 Level 7 | | | | | | | | | | |
| $ 95 D10-1-methylnaphthalene | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 |

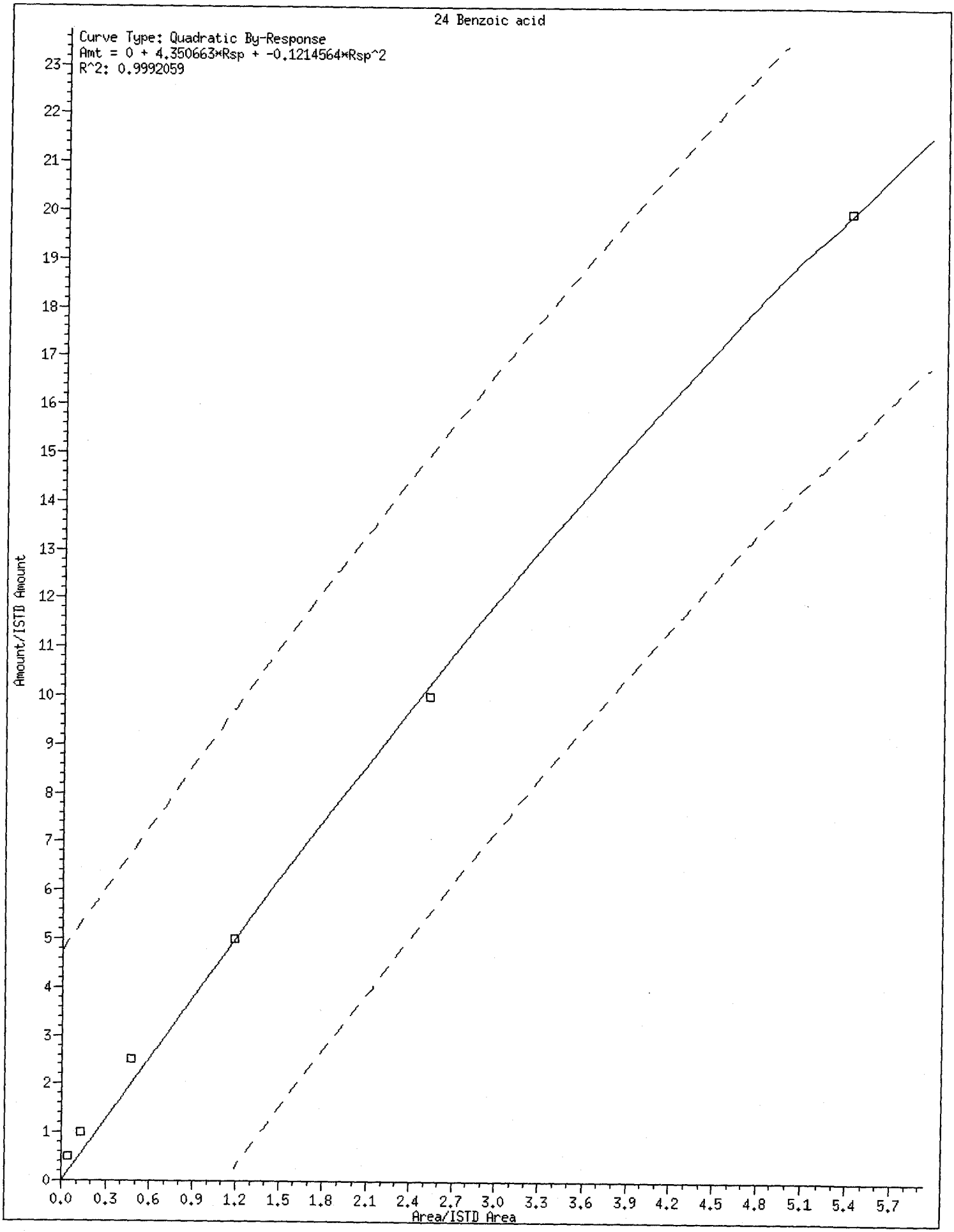
UU52:00429

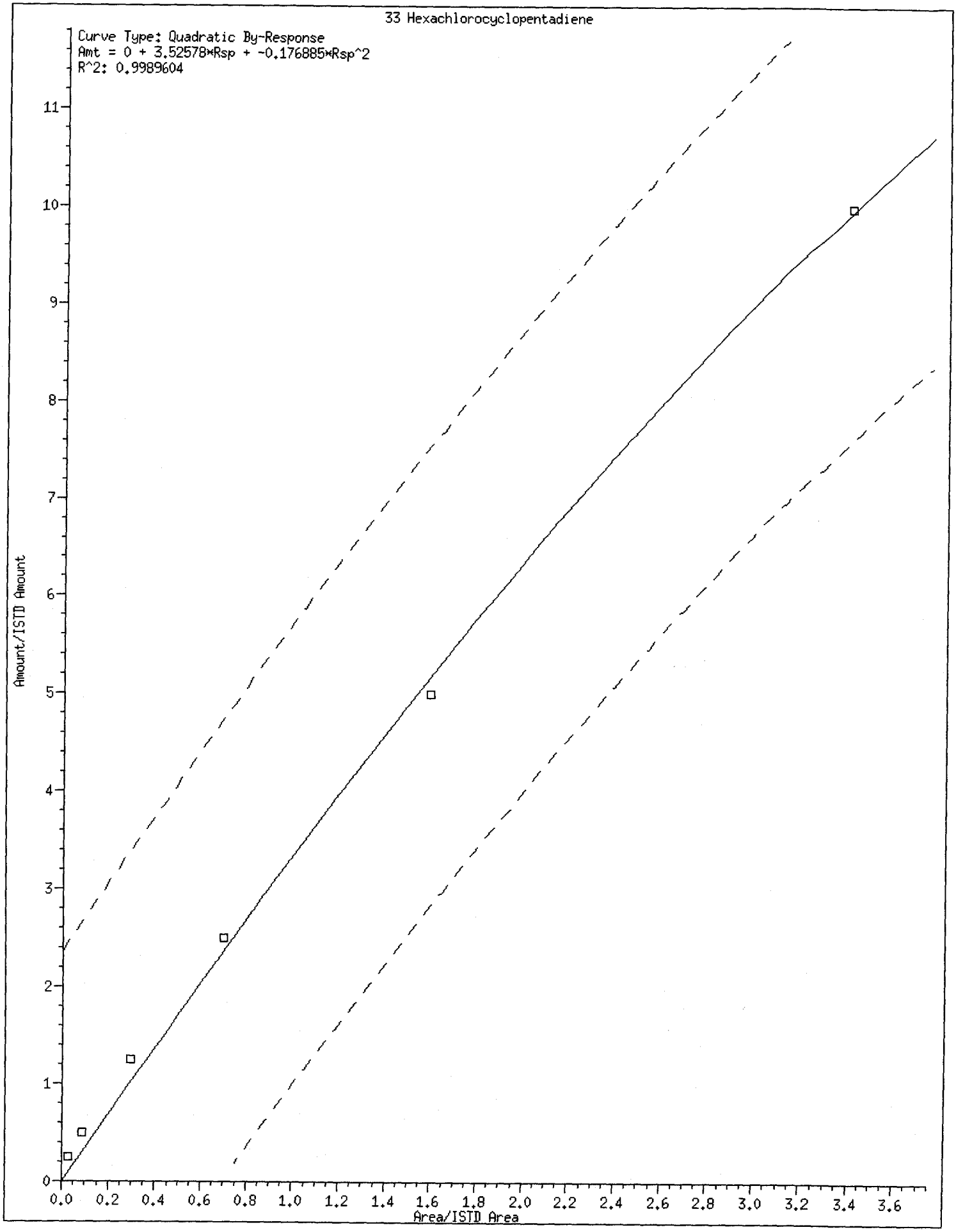
Analytical Resources, Inc.

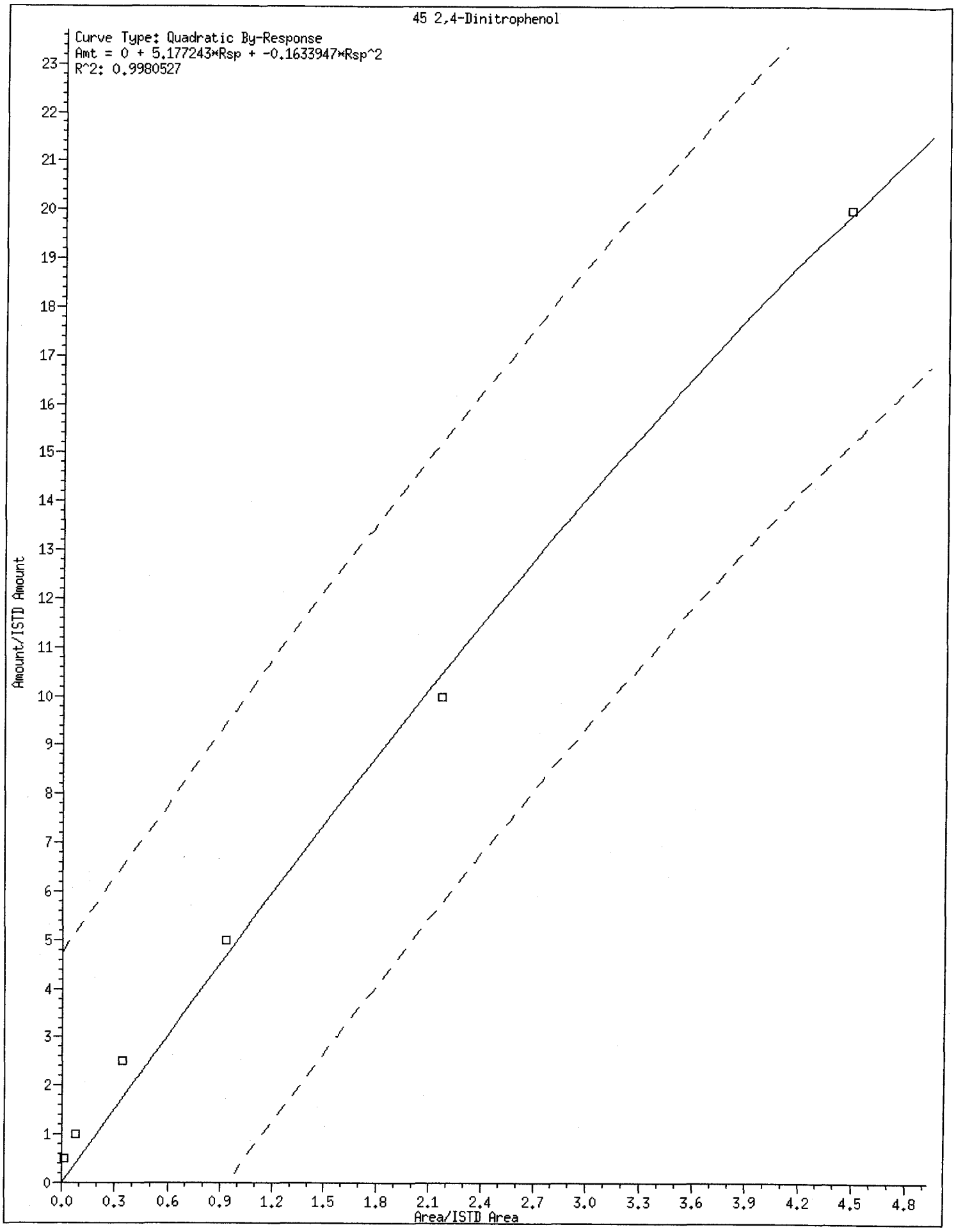
INITIAL CALIBRATION DATA

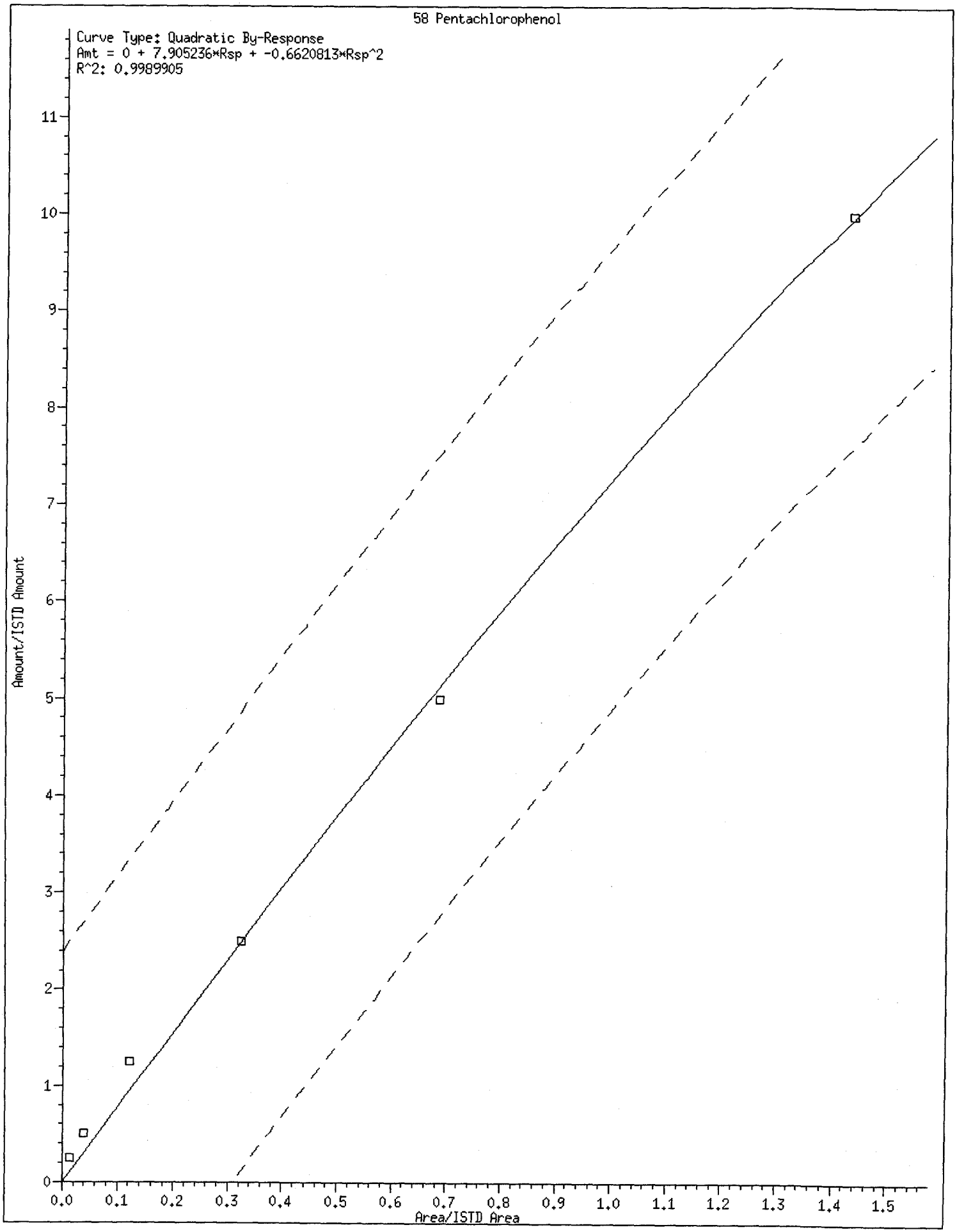
Start Cal Date : 26-MAY-2012 10:59
End Cal Date : 26-MAY-2012 14:42
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/nt10.i/20120526.b/ABN.m
Cal Date : 26-May-2012 15:47 van

| Curve | Formula | Units |
|---|---|---|
| Averaged | Amt = Rsp/m1 | Response |
| Quad | Amt = b + m1*Rsp + m2*Rsp^2 | Response |


24 Benzoic acid
Curve Type: Quadratic By-Response
Amt = 0 + 4.350663*Rsp + -0.1214564*Rsp^2
R^2: 0.9992059
Amount/ISTD Amount
Area/ISTD Area
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
0.0 0.3 0.6 0.9 1.2 1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1 5.4 5.7


33 Hexachlorocyclopentadiene
Curve Type: Quadratic By-Response
Amt = 0 + 3.52578*Rsp + -0.176885*Rsp^2
R^2: 0.9989604
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2
3.4
3.6


45 2,4-Dinitrophenol
Curve Type: Quadratic By-Response
Amt = 0 + 5.177243*Rsp + -0.1633947*Rsp^2
R^2: 0.9980527
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
0.0
0.3
0.6
0.9
1.2
1.5
1.8
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2
4.5
4.8


58 Pentachlorophenol
Curve Type: Quadratic By-Response
Amt = 0 + 7.905236*Rsp + -0.6620813*Rsp^2
R^2: 0.9989905
Amount/ISTD Amount
Area/ISTD Area
0
1
2
3
4
5
6
7
8
9
10
11
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5

Analytical Resources, Inc.

YZ 5/30/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/ic0526a.d
Lab Smp Id: ABN5
Inj Date : 26-MAY-2012 10:59
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : ABN5
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 30-May-2012 10:15 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 10:59 Cal File: ic0526a.d
Als bottle: 4 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| $ | 1 2-Fluorophenol | 112 | 6.537 | 6.537 | (0.738) | 335752 | 5.00000 | 5.000 |
| $ | 2 Phenol-d5 | 99 | 8.237 | 8.229 | (0.930) | 420818 | 5.00000 | 5.000 |
| | 3 Phenol | 94 | 8.260 | 8.252 | (0.933) | 460680 | 5.00000 | 5.000 |
| $ | 5 2-Chlorophenol-d4 | 132 | 8.476 | 8.476 | (0.957) | 360864 | 5.00000 | 5.000 |
| | 4 Bis(2-Chloroethyl)ether | 93 | 8.399 | 8.399 | (0.948) | 321908 | 5.00000 | 5.000 |
| | 6 2-Chlorophenol | 128 | 8.507 | 8.507 | (0.961) | 388656 | 5.00000 | 5.000 |
| | 7 1,3-Dichlorobenzene | 146 | 8.786 | 8.786 | (0.992) | 392615 | 5.00000 | 5.000 |
| * | 8 1,4-Dichlorobenzene-d4 | 152 | 8.855 | 8.856 | (1.000) | 189516 | 4.00000 | |
| | 9 1,4-Dichlorobenzene | 146 | 8.886 | 8.887 | (1.004) | 377080 | 5.00000 | 5.000 |
| $ | 10 1,2-Dichlorobenzene-d4 | 152 | 9.236 | 9.236 | (1.043) | 239905 | 5.00000 | 5.000 |
| | 12 1,2-Dichlorobenzene | 146 | 9.267 | 9.267 | (1.046) | 371864 | 5.00000 | 5.000 |
| | 11 Benzyl alcohol | 108 | 9.166 | 9.166 | (1.035) | 191171 | 5.00000 | 5.000 |
| | 14 2,2'-oxybis(1-Chloropropane) | 121 | 9.492 | 9.492 | (1.072) | 122034 | 5.00000 | 5.000 |
| | 13 2-Methylphenol | 108 | 9.430 | 9.430 | (1.065) | 347227 | 5.00000 | 5.000 |
| | 17 Hexachloroethane | 117 | 9.888 | 9.888 | (1.117) | 147829 | 5.00000 | 5.000 |
| | 16 N-Nitroso-di-n-propylamine | 70 | 9.764 | 9.756 | (1.103) | 202786 | 5.00000 | 5.000 |
| | 15 4-Methylphenol | 108 | 9.725 | 9.725 | (1.098) | 362939 | 5.00000 | 5.000 |
| $ | 18 Nitrobenzene-d5 | 82 | 10.027 | 10.020 | (0.872) | 334709 | 5.00000 | 5.000 |
| | 19 Nitrobenzene | 77 | 10.058 | 10.059 | (0.874) | 321756 | 5.00000 | 5.000 |
| | 20 Isophorone | 82 | 10.547 | 10.540 | (0.917) | 620384 | 5.00000 | 5.000 |
| | 21 2-Nitrophenol | 139 | 10.733 | 10.733 | (0.933) | 214097 | 5.00000 | 5.000 |
| | 22 2,4-Dimethylphenol | 107 | 10.833 | 10.833 | (0.942) | 665979 | 10.0000 | 10.00 |
| | 23 Bis(2-Chloroethoxy)methane | 93 | 11.033 | 11.034 | (0.959) | 363814 | 5.00000 | 5.000 |
| | 24 Benzoic acid | 105 | 11.087 | 10.995 | (0.964) | 862339 | 20.0000 | 20.00 |
| | 25 2,4-Dichlorophenol | 162 | 11.234 | 11.226 | (0.977) | 647444 | 10.0000 | 10.00 |
| | 26 1,2,4-Trichlorobenzene | 180 | 11.419 | 11.411 | (0.993) | 297260 | 5.00000 | 5.000 |
| * | 27 Naphthalene-d8 | 136 | 11.504 | 11.496 | (1.000) | 730932 | 4.00000 | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 28 Naphthalene | 128 | 11.542 | 11.543 | (1.003) | 934446 | 5.00000 | 5.000 |
| | 29 4-Chloroaniline | 127 | 11.705 | 11.705 | (1.017) | 828363 | 10.0000 | 10.00 |
| | 30 Hexachlorobutadiene | 225 | 11.952 | 11.944 | (1.039) | 165733 | 5.00000 | 5.000 |
| | 31 4-Chloro-3-methylphenol | 107 | 12.780 | 12.772 | (1.111) | 585802 | 10.0000 | 10.00 |
| | 32 2-Methylnaphthalene | 142 | 13.043 | 13.043 | (1.134) | 659745 | 5.00000 | 5.000 |
| | 33 Hexachlorocyclopentadiene | 237 | 13.554 | 13.554 | (0.882) | 293255 | 10.0000 | 10.00 |
| | 34 2,4,6-Trichlorophenol | 196 | 13.732 | 13.724 | (0.893) | 433637 | 10.0000 | 10.00 |
| | 35 2,4,5-Trichlorophenol | 196 | 13.809 | 13.809 | (0.898) | 481317 | 10.0000 | 10.00 |
| $ | 36 2-Fluorobiphenyl | 172 | 13.902 | 13.902 | (0.904) | 712799 | 5.00000 | 5.000 |
| | 37 2-Chloronaphthalene | 162 | 14.103 | 14.104 | (0.917) | 622202 | 5.00000 | 5.000 |
| | 38 2-Nitroaniline | 65 | 14.405 | 14.398 | (0.937) | 300000 | 10.0000 | 10.00 |
| | 39 Dimethylphthalate | 163 | 14.893 | 14.885 | (0.969) | 644991 | 5.00000 | 5.000 |
| | 40 Acenaphthylene | 152 | 15.032 | 15.032 | (0.978) | 937321 | 5.00000 | 5.000 |
| | 41 2,6-Dinitrotoluene | 165 | 15.032 | 15.025 | (0.978) | 321175 | 10.0000 | 10.00 |
| * | 42 Acenaphthene-d10 | 164 | 15.373 | 15.373 | (1.000) | 420698 | 4.00000 | |
| | 43 3-Nitroaniline | 138 | 15.326 | 15.319 | (0.997) | 353215 | 10.0000 | 10.00 |
| | 44 Acenaphthene | 153 | 15.442 | 15.442 | (1.005) | 573481 | 5.00000 | 5.000 |
| | 45 2,4-Dinitrophenol | 184 | 15.558 | 15.558 | (1.012) | 392895 | 20.0000 | 20.00 |
| | 46 Dibenzofuran | 168 | 15.798 | 15.798 | (1.028) | 828440 | 5.00000 | 5.000 |
| | 47 4-Nitrophenol | 109 | 15.728 | 15.736 | (1.023) | 149508 | 10.0000 | 10.00 |
| | 48 2,4-Dinitrotoluene | 165 | 15.898 | 15.891 | (1.034) | 431707 | 10.0000 | 10.00 |
| | 50 Diethylphthalate | 149 | 16.470 | 16.463 | (1.071) | 635932 | 5.00000 | 5.000 |
| | 49 Fluorene | 166 | 16.563 | 16.563 | (1.077) | 631894 | 5.00000 | 5.000 |
| | 51 4-Chlorophenyl-phenylether | 204 | 16.579 | 16.579 | (1.078) | 304176 | 5.00000 | 5.000 |
| | 52 4-Nitroaniline | 138 | 16.687 | 16.687 | (1.085) | 356961 | 10.0000 | 10.00 |
| | 53 4,6-Dinitro-2-methylphenol | 198 | 16.802 | 16.795 | (0.902) | 572088 | 20.0000 | 20.00 |
| | 54 N-Nitrosodiphenylamine | 169 | 16.856 | 16.857 | (0.905) | 428732 | 5.00000 | 5.000 |
| $ | 55 2,4,6-Tribromophenol | 330 | 17.142 | 17.142 | (1.115) | 90284 | 5.00000 | 5.000 |
| | 56 4-Bromophenyl-phenylether | 248 | 17.658 | 17.659 | (0.948) | 173197 | 5.00000 | 5.000 |
| | 57 Hexachlorobenzene | 284 | 17.975 | 17.976 | (0.965) | 193291 | 5.00000 | 5.000 |
| | 58 Pentachlorophenol | 266 | 18.378 | 18.386 | (0.986) | 206931 | 10.0000 | 10.00 |
| * | 59 Phenanthrene-d10 | 188 | 18.633 | 18.633 | (1.000) | 638950 | 4.00000 | |
| | 60 Phenanthrene | 178 | 18.687 | 18.680 | (1.003) | 817342 | 5.00000 | 5.000 |
| | 61 Anthracene | 178 | 18.780 | 18.780 | (1.008) | 889087 | 5.00000 | 5.000 |
| | 62 Carbazole | 167 | 19.144 | 19.144 | (1.027) | 757613 | 5.00000 | 5.000 |
| | 63 Di-n-butylphthalate | 149 | 20.010 | 20.003 | (1.074) | 1174853 | 5.00000 | 5.000 |
| | 64 Fluoranthene | 202 | 21.101 | 21.102 | (1.132) | 960108 | 5.00000 | 5.000 |
| | 65 Pyrene | 202 | 21.519 | 21.519 | (0.908) | 1003743 | 5.00000 | 5.000 |
| $ | 66 Terphenyl-d14 | 244 | 21.844 | 21.837 | (0.921) | 625901 | 5.00000 | 5.000 |
| | 67 Butylbenzylphthalate | 149 | 22.781 | 22.781 | (0.961) | 470820 | 5.00000 | 5.000 |
| | 68 Benzo(a)anthracene | 228 | 23.679 | 23.679 | (0.999) | 895593 | 5.00000 | 5.000 |
| * | 69 Chrysene-d12 | 240 | 23.710 | 23.703 | (1.000) | 645065 | 4.00000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | 23.656 | 23.656 | (0.998) | 944422 | 10.0000 | 10.00 |
| | 71 Chrysene | 228 | 23.749 | 23.749 | (1.002) | 810779 | 5.00000 | 5.000 |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 23.818 | 23.819 | (0.961) | 691334 | 5.00000 | 5.000 |
| * | 134 Di-n-octylphthalate-d4 | 153 | 24.794 | 24.794 | (1.000) | 1016118 | 4.00000 | |
| | 73 Di-n-octylphthalate | 149 | 24.802 | 24.802 | (1.000) | 1227950 | 5.00000 | 5.000 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|
| 74 Benzo(b)fluoranthene | 252 | 25.452 | 25.444 | (0.975) | 960134 | 5.00000 | 5.000 |
| 75 Benzo(k)fluoranthene | 252 | 25.483 | 25.483 | (0.976) | 968264 | 5.00000 | 5.000 |
| 76 Benzo(a)pyrene | 252 | 26.002 | 26.002 | (0.996) | 851161 | 5.00000 | 5.000 |
| * 77 Perylene-d12 | 264 | 26.102 | 26.103 | (1.000) | 650033 | 4.00000 | |
| 78 Indeno(1,2,3-cd)pyrene | 276 | 28.342 | 28.334 | (1.086) | 1014701 | 5.00000 | 5.000 |
| 79 Dibenzo(a,h)anthracene | 278 | 28.365 | 28.357 | (1.087) | 806147 | 5.00000 | 5.000 |
| 80 Benzo(g,h,i)perylene | 276 | 29.002 | 28.987 | (1.111) | 867892 | 5.00000 | 5.000 |
| 90 N-Nitrosodimethylamine | 74 | 4.266 | 4.266 | (0.482) | 400028 | 10.0000 | 10.00 |
| 91 Aniline | 93 | 8.291 | 8.291 | (0.936) | 944435 | 5.00000 | 5.000 |
| 93 Benzidine | 184 | 21.364 | 21.365 | (0.901) | 548000 | 10.0000 | 10.00 |
| 103 Pyridine | 79 | 4.282 | 4.290 | (0.484) | 329458 | 10.0000 | 10.00 |
| 105 1-methylnaphthalene | 142 | 13.275 | 13.275 | (1.154) | 676659 | 5.00000 | 5.000 |
| 111 Azobenzene (1,2-DP-Hydrazine) | 77 | 16.926 | 16.926 | (1.101) | 624121 | 5.00000 | 5.000 |
| 187 Total Benzofluoranthenes | 252 | 25.483 | 25.483 | (0.976) | 1817664 | 10.0000 | 10.00 |
| 99 Perylene | 252 | 26.149 | 26.149 | (1.002) | 848638 | 5.00000 | 5.000 |
| 98 Retene | 219 | 22.131 | 22.131 | (0.933) | 474577 | 5.00000 | 5.000 |

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0526a.d
Lab Smp Id: ABN5
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info:

Calibration Date: 26-MAY-2012
Calibration Time: 10:59

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 189516 | 0.00 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 730932 | 0.00 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 420698 | 0.00 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 638950 | 0.00 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 645065 | 0.00 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 1016118 | 0.00 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 650033 | 0.00 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.86 | 0.00 |
| 27 Naphthalene-d8 | 11.50 | 11.00 | 12.00 | 11.50 | 0.00 |
| 42 Acenaphthene-d10 | 15.37 | 14.87 | 15.87 | 15.37 | 0.00 |
| 59 Phenanthrene-d10 | 18.63 | 18.13 | 19.13 | 18.63 | 0.00 |
| 69 Chrysene-d12 | 23.71 | 23.21 | 24.21 | 23.71 | 0.00 |
| 134 Di-n-octylphthala | 24.79 | 24.29 | 25.29 | 24.79 | 0.00 |
| 77 Perylene-d12 | 26.10 | 25.60 | 26.60 | 26.10 | 0.00 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

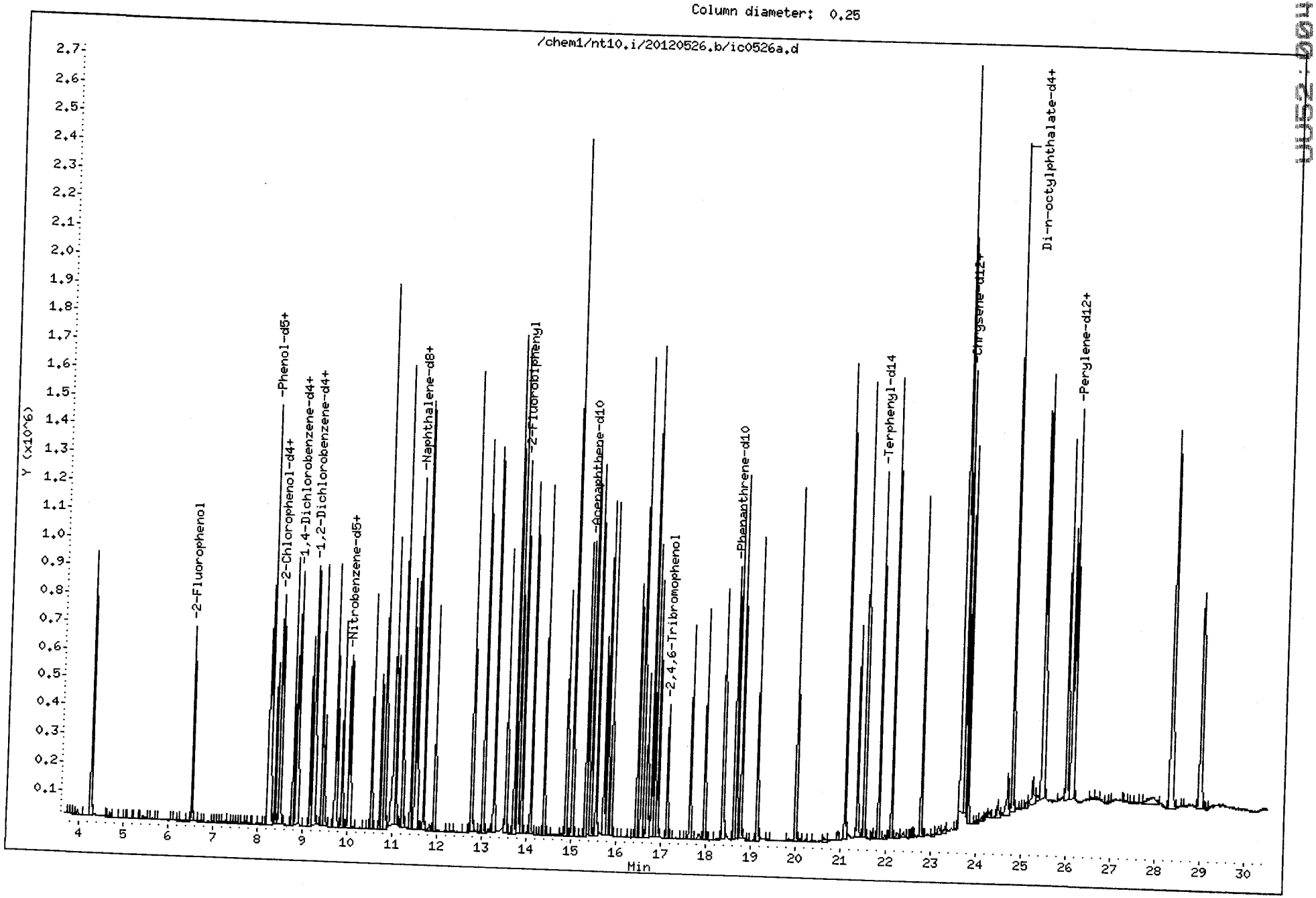
Data File: /chem1/nt10.i/20120526.b/ic0526a.d
Date : 26-MAY-2012 10:59
Client ID:
Sample Info: ABN5

Instrument: nt10.i

Column phase: ZB-5msi

Operator: VTS/YZ
Column diameter: 0.25





CO-ELUTION SUMMARY FOR FILE - ic0526a.d

Lab ID: ABN5, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|
| 15.032 | Acenaphthylene and 2,6-Dinitrotoluene |

Analytical Resources, Inc.

YZ 5/31/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/ic0526b.d
Lab Smp Id: ABN20
Inj Date : 26-MAY-2012 11:36
Operator : VTS/YZ
Smp Info : ABN20
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 30-May-2012 10:15 yev
Cal Date : 26-MAY-2012 11:36
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50

Inst ID: nt10.i

Quant Type: ISTD
Cal File: ic0526b.d
Calibration Sample, Level: 7

Compound Sublist: PSDDAICAL.sub

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| $ | 1 2-Fluorophenol | 112 | 6.544 | 6.537 | (0.738) | 1262839 | 20.0000 | 19.66 |
| $ | 2 Phenol-d5 | 99 | 8.244 | 8.229 | (0.930) | 1651383 | 20.0000 | 20.08 |
| | 3 Phenol | 94 | 8.268 | 8.252 | (0.933) | 1697721 | 20.0000 | 19.45 |
| $ | 5 2-Chlorophenol-d4 | 132 | 8.484 | 8.476 | (0.957) | 1405893 | 20.0000 | 20.01 |
| | 4 Bis(2-Chloroethyl)ether | 93 | 8.407 | 8.399 | (0.948) | 1224663 | 20.0000 | 19.77 |
| | 6 2-Chlorophenol | 128 | 8.515 | 8.507 | (0.961) | 1601054 | 20.0000 | 20.57 |
| | 7 1,3-Dichlorobenzene | 146 | 8.793 | 8.786 | (0.992) | 1427592 | 20.0000 | 19.32 |
| * | 8 1,4-Dichlorobenzene-d4 | 152 | 8.863 | 8.856 | (1.000) | 184424 | 4.00000 | |
| | 9 1,4-Dichlorobenzene | 146 | 8.894 | 8.887 | (1.004) | 1422168 | 20.0000 | 19.68 |
| $ | 10 1,2-Dichlorobenzene-d4 | 152 | 9.243 | 9.236 | (1.043) | 919210 | 20.0000 | 19.84 |
| | 12 1,2-Dichlorobenzene | 146 | 9.267 | 9.267 | (1.046) | 1388404 | 20.0000 | 19.58 |
| | 11 Benzyl alcohol | 108 | 9.181 | 9.166 | (1.036) | 767351 | 20.0000 | 20.31 |
| | 14 2,2'-oxybis(1-Chloropropane) | 121 | 9.500 | 9.492 | (1.072) | 452540 | 20.0000 | 19.52 |
| | 13 2-Methylphenol | 108 | 9.438 | 9.430 | (1.065) | 1346182 | 20.0000 | 19.96 |
| | 17 Hexachloroethane | 117 | 9.888 | 9.888 | (1.116) | 587548 | 20.0000 | 20.21 |
| | 16 N-Nitroso-di-n-propylamine | 70 | 9.779 | 9.756 | (1.103) | 764483 | 20.0000 | 19.68 |
| | 15 4-Methylphenol | 108 | 9.740 | 9.725 | (1.099) | 1391012 | 20.0000 | 19.84 |
| $ | 18 Nitrobenzene-d5 | 82 | 10.035 | 10.020 | (0.872) | 1301788 | 20.0000 | 19.70 |
| | 19 Nitrobenzene | 77 | 10.074 | 10.059 | (0.876) | 1257209 | 20.0000 | 19.75 |
| | 20 Isophorone | 82 | 10.563 | 10.540 | (0.918) | 2630962 | 20.0000 | 20.57 |
| | 21 2-Nitrophenol | 139 | 10.741 | 10.733 | (0.934) | 840731 | 20.0000 | 19.80 |
| | 22 2,4-Dimethylphenol | 107 | 10.849 | 10.833 | (0.943) | 2502613 | 40.0000 | 38.72 |
| | 23 Bis(2-Chloroethoxy)methane | 93 | 11.041 | 11.034 | (0.960) | 1405177 | 20.0000 | 19.63 |
| | 24 Benzoic acid | 105 | 11.249 | 10.995 | (0.978) | 3954019 | 80.0000 | 85.39 |
| | 25 2,4-Dichlorophenol | 162 | 11.242 | 11.226 | (0.977) | 2459708 | 40.0000 | 38.94 |
| | 26 1,2,4-Trichlorobenzene | 180 | 11.419 | 11.411 | (0.993) | 1108979 | 20.0000 | 19.29 |
| * | 27 Naphthalene-d8 | 136 | 11.504 | 11.496 | (1.000) | 732078 | 4.00000 | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 28 Naphthalene | 128 | 11.550 | 11.543 | (1.004) | 3652849 | 20.0000 | 19.75 |
| | 29 4-Chloroaniline | 127 | 11.720 | 11.705 | (1.019) | 3326411 | 40.0000 | 40.05 |
| | 30 Hexachlorobutadiene | 225 | 11.952 | 11.944 | (1.039) | 609557 | 20.0000 | 19.15 |
| | 31 4-Chloro-3-methylphenol | 107 | 12.788 | 12.772 | (1.112) | 2374372 | 40.0000 | 40.23 |
| | 32 2-Methylnaphthalene | 142 | 13.051 | 13.043 | (1.134) | 2614854 | 20.0000 | 19.89 |
| | 33 Hexachlorocyclopentadiene | 237 | 13.554 | 13.554 | (0.881) | 1418921 | 40.0000 | 44.01 |
| | 34 2,4,6-Trichlorophenol | 196 | 13.740 | 13.724 | (0.893) | 1701140 | 40.0000 | 39.83 |
| | 35 2,4,5-Trichlorophenol | 196 | 13.817 | 13.809 | (0.898) | 1860763 | 40.0000 | 39.54 |
| $ | 36 2-Fluorobiphenyl | 172 | 13.910 | 13.902 | (0.904) | 2804466 | 20.0000 | 19.95 |
| | 37 2-Chloronaphthalene | 162 | 14.111 | 14.104 | (0.917) | 2415928 | 20.0000 | 19.81 |
| | 38 2-Nitroaniline | 65 | 14.421 | 14.398 | (0.938) | 1197823 | 40.0000 | 40.19 |
| | 39 Dimethylphthalate | 163 | 14.908 | 14.885 | (0.969) | 2292323 | 20.0000 | 18.93 |
| | 40 Acenaphthylene | 152 | 15.040 | 15.032 | (0.978) | 3567122 | 20.0000 | 19.61 |
| | 41 2,6-Dinitrotoluene | 165 | 15.048 | 15.025 | (0.978) | 1210937 | 40.0000 | 39.04 |
| * | 42 Acenaphthene-d10 | 164 | 15.380 | 15.373 | (1.000) | 416049 | 4.00000 | |
| | 43 3-Nitroaniline | 138 | 15.342 | 15.319 | (0.997) | 1359172 | 40.0000 | 39.45 |
| | 44 Acenaphthene | 153 | 15.450 | 15.442 | (1.005) | 2222947 | 20.0000 | 19.80 |
| | 45 2,4-Dinitrophenol | 184 | 15.581 | 15.558 | (1.013) | 1863407 | 80.0000 | 80.66 |
| | 46 Dibenzofuran | 168 | 15.813 | 15.798 | (1.028) | 3266234 | 20.0000 | 19.97 |
| | 47 4-Nitrophenol | 109 | 15.751 | 15.736 | (1.024) | 577134 | 40.0000 | 39.51 |
| | 48 2,4-Dinitrotoluene | 165 | 15.914 | 15.891 | (1.035) | 1591873 | 40.0000 | 38.60 |
| | 50 Diethylphthalate | 149 | 16.494 | 16.463 | (1.072) | 2259396 | 20.0000 | 18.93 |
| | 49 Fluorene | 166 | 16.571 | 16.563 | (1.077) | 2467121 | 20.0000 | 19.87 |
| | 51 4-Chlorophenyl-phenylether | 204 | 16.586 | 16.579 | (1.078) | 1138615 | 20.0000 | 19.45 |
| | 52 4-Nitroaniline | 138 | 16.725 | 16.687 | (1.087) | 1455861 | 40.0000 | 40.61 |
| | 53 4,6-Dinitro-2-methylphenol | 198 | 16.826 | 16.795 | (0.903) | 2173122 | 80.0000 | 80.14 |
| | 54 N-Nitrosodiphenylamine | 169 | 16.872 | 16.857 | (0.905) | 1487492 | 20.0000 | 19.13 |
| $ | 55 2,4,6-Tribromophenol | 330 | 17.149 | 17.142 | (1.115) | 351267 | 20.0000 | 19.83 |
| | 56 4-Bromophenyl-phenylether | 248 | 17.666 | 17.659 | (0.948) | 641886 | 20.0000 | 19.79 |
| | 57 Hexachlorobenzene | 284 | 17.983 | 17.976 | (0.965) | 728562 | 20.0000 | 19.96 |
| | 58 Pentachlorophenol | 266 | 18.386 | 18.386 | (0.986) | 867054 | 40.0000 | 42.03 |
| * | 59 Phenanthrene-d10 | 188 | 18.641 | 18.633 | (1.000) | 604660 | 4.00000 | |
| | 60 Phenanthrene | 178 | 18.695 | 18.680 | (1.003) | 3251269 | 20.0000 | 20.50 |
| | 61 Anthracene | 178 | 18.788 | 18.780 | (1.008) | 3338115 | 20.0000 | 19.92 |
| | 62 Carbazole | 167 | 19.152 | 19.144 | (1.027) | 3061226 | 20.0000 | 20.65 |
| | 63 Di-n-butylphthalate | 149 | 20.011 | 20.003 | (1.073) | 4528763 | 20.0000 | 20.18 |
| | 64 Fluoranthene | 202 | 21.109 | 21.102 | (1.132) | 3756545 | 20.0000 | 20.33 |
| | 65 Pyrene | 202 | 21.527 | 21.519 | (0.908) | 3928999 | 20.0000 | 19.89 |
| $ | 66 Terphenyl-d14 | 244 | 21.844 | 21.837 | (0.921) | 2294042 | 20.0000 | 19.23 |
| | 67 Butylbenzylphthalate | 149 | 22.789 | 22.781 | (0.961) | 1750894 | 20.0000 | 19.38 |
| | 68 Benzo(a)anthracene | 228 | 23.687 | 23.679 | (0.999) | 3616838 | 20.0000 | 20.20 |
| * | 69 Chrysene-d12 | 240 | 23.710 | 23.703 | (1.000) | 638131 | 4.00000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | 23.671 | 23.656 | (0.998) | 4176265 | 40.0000 | 42.22 |
| | 71 Chrysene | 228 | 23.764 | 23.749 | (1.002) | 3220367 | 20.0000 | 20.04 |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 23.826 | 23.819 | (0.961) | 2719894 | 20.0000 | 19.54 |
| * | 134 Di-n-octylphthalate-d4 | 153 | 24.802 | 24.794 | (1.000) | 1045968 | 4.00000 | |
| | 73 Di-n-octylphthalate | 149 | 24.809 | 24.802 | (1.000) | 4939797 | 20.0000 | 19.77 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 74 Benzo(b)fluoranthene | 252 | 25.460 | 25.444 | (0.975) | 3988850 | 20.0000 | 20.50 |
| | 75 Benzo(k)fluoranthene | 252 | 25.498 | 25.483 | (0.977) | 3557823 | 20.0000 | 19.27 |
| | 76 Benzo(a)pyrene | 252 | 26.017 | 26.002 | (0.996) | 3334687 | 20.0000 | 19.92 |
| * | 77 Perylene-d12 | 264 | 26.110 | 26.103 | (1.000) | 642084 | 4.00000 | |
| | 78 Indeno(1,2,3-cd)pyrene | 276 | 28.373 | 28.334 | (1.087) | 3972006 | 20.0000 | 19.91 |
| | 79 Dibenzo(a,h)anthracene | 278 | 28.388 | 28.357 | (1.087) | 3176130 | 20.0000 | 19.97 |
| | 80 Benzo(g,h,i)perylene | 276 | 29.033 | 28.987 | (1.112) | 3402803 | 20.0000 | 19.92 |
| | 90 N-Nitrosodimethylamine | 74 | 4.282 | 4.266 | (0.483) | 1441278 | 40.0000 | 38.45 |
| | 91 Aniline | 93 | 8.306 | 8.291 | (0.937) | 3428272 | 20.0000 | 19.30 |
| | 93 Benzidine | 184 | 21.380 | 21.365 | (0.902) | 3696511 | 40.0000 | 40.59 |
| | 103 Pyridine | 79 | 4.274 | 4.290 | (0.482) | 1287473 | 40.0000 | 40.08 |
| | 105 1-methylnaphthalene | 142 | 13.283 | 13.275 | (1.155) | 2690522 | 20.0000 | 19.92 |
| | 111 Azobenzene (1,2-DP-Hydrazine) | 77 | 16.941 | 16.926 | (1.101) | 2302372 | 20.0000 | 19.30 |
| | 187 Total Benzofluoranthenes | 252 | 25.498 | 25.483 | (0.977) | 7088364 | 40.0000 | 39.74 |
| | 99 Perylene | 252 | 26.164 | 26.149 | (1.002) | 3382398 | 20.0000 | 20.09 |
| | 98 Retene | 219 | 22.138 | 22.131 | (0.934) | 1890598 | 20.0000 | 20.07 |

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0526b.d
Lab Smp Id: ABN20
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info:

Calibration Date: 26-MAY-2012
Calibration Time: 10:59

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 184424 | -2.69 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 732078 | 0.16 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 416049 | -1.11 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 604660 | -5.37 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 638131 | -1.07 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 1045968 | 2.94 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 642084 | -1.22 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.86 | 0.09 |
| 27 Naphthalene-d8 | 11.50 | 11.00 | 12.00 | 11.50 | 0.00 |
| 42 Acenaphthene-d10 | 15.37 | 14.87 | 15.87 | 15.38 | 0.05 |
| 59 Phenanthrene-d10 | 18.63 | 18.13 | 19.13 | 18.64 | 0.04 |
| 69 Chrysene-d12 | 23.71 | 23.21 | 24.21 | 23.71 | 0.00 |
| 134 Di-n-octylphthala | 24.79 | 24.29 | 25.29 | 24.80 | 0.03 |
| 77 Perylene-d12 | 26.10 | 25.60 | 26.60 | 26.11 | 0.03 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

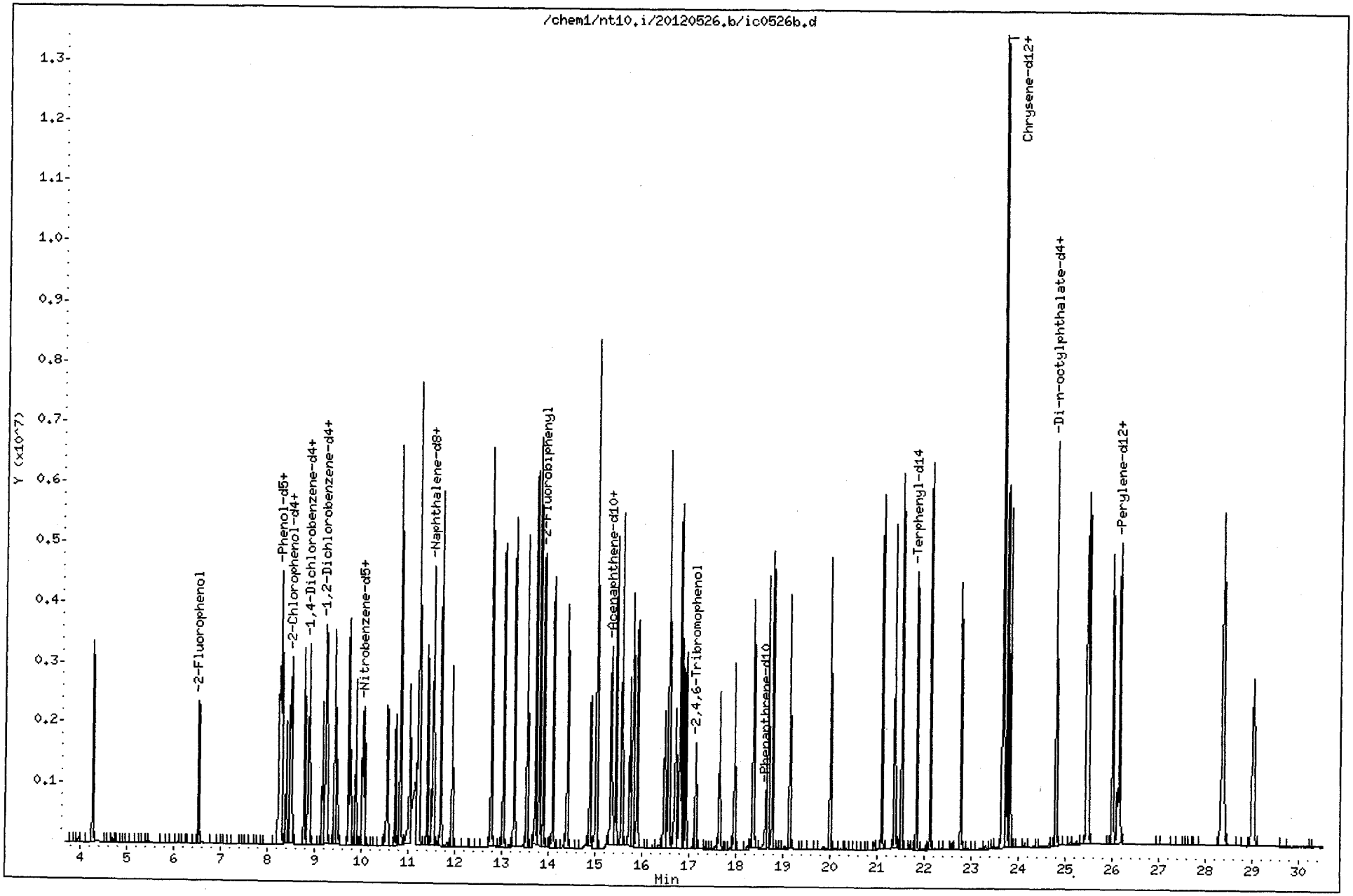
Data File: /chem1/nt10.i/20120526.b/ic0526b.d
Date : 26-MAY-2012 11:36
Client ID:
Sample Info: ABN20

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi





CO-ELUTION SUMMARY FOR FILE - ic0526b.d

Lab ID: ABN20, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Y2 5/30/12

Data file : /chem1/nt10.i/20120526.b/ic0526c.d
Lab Smp Id: ABN.2
Inj Date : 26-MAY-2012 12:13
Operator : VTS/YZ
Smp Info : ABN.2
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 30-May-2012 10:15 yev
Cal Date : 26-MAY-2012 12:13
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50

Inst ID: nt10.i

Quant Type: ISTD
Cal File: ic0526c.d
Calibration Sample, Level: 1

Compound Sublist: PSDDAICAL.sub

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| $ | 1 2-Fluorophenol | 112 | 6.537 | 6.537 | (0.738) | 13568 | 0.20000 | 0.1987 |
| $ | 2 Phenol-d5 | 99 | 8.237 | 8.229 | (0.930) | 16479 | 0.20000 | 0.1918 |
| | 3 Phenol | 94 | 8.260 | 8.252 | (0.933) | 19057 | 0.20000 | 0.2031 |
| $ | 5 2-Chlorophenol-d4 | 132 | 8.476 | 8.476 | (0.957) | 15312 | 0.20000 | 0.2029 |
| | 4 Bis(2-Chloroethyl)ether | 93 | 8.399 | 8.399 | (0.948) | 14363 | 0.20000 | 0.2113 |
| | 6 2-Chlorophenol | 128 | 8.507 | 8.507 | (0.961) | 15648 | 0.20000 | 0.1922 |
| | 7 1,3-Dichlorobenzene | 146 | 8.786 | 8.786 | (0.992) | 16913 | 0.20000 | 0.2095 |
| * | 8 1,4-Dichlorobenzene-d4 | 152 | 8.855 | 8.856 | (1.000) | 196685 | 4.00000 | |
| | 9 1,4-Dichlorobenzene | 146 | 8.886 | 8.887 | (1.004) | 16424 | 0.20000 | 0.2086 |
| $ | 10 1,2-Dichlorobenzene-d4 | 152 | 9.236 | 9.236 | (1.043) | 9895 | 0.20000 | 0.2002 |
| | 12 1,2-Dichlorobenzene | 146 | 9.259 | 9.267 | (1.046) | 15583 | 0.20000 | 0.2040 |
| | 11 Benzyl alcohol | 108 | 9.166 | 9.166 | (1.035) | 7775 | 0.20000 | 0.1952(M) |
| | 14 2,2'-oxybis(1-Chloropropane) | 121 | 9.492 | 9.492 | (1.072) | 5219 | 0.20000 | 0.2072 |
| | 13 2-Methylphenol | 108 | 9.430 | 9.430 | (1.065) | 15115 | 0.20000 | 0.2066 |
| | 17 Hexachloroethane | 117 | 9.888 | 9.888 | (1.117) | 6059 | 0.20000 | 0.1969 |
| | 16 N-Nitroso-di-n-propylamine | 70 | 9.764 | 9.756 | (1.103) | 8433 | 0.20000 | 0.2024 |
| | 15 4-Methylphenol | 108 | 9.725 | 9.725 | (1.098) | 14946 | 0.20000 | 0.2000 |
| $ | 18 Nitrobenzene-d5 | 82 | 10.020 | 10.020 | (0.872) | 13659 | 0.20000 | 0.1985 |
| | 19 Nitrobenzene | 77 | 10.059 | 10.059 | (0.875) | 14198 | 0.20000 | 0.2087 |
| | 20 Isophorone | 82 | 10.547 | 10.540 | (0.917) | 24784 | 0.20000 | 0.1899 |
| | 21 2-Nitrophenol | 139 | 10.733 | 10.733 | (0.934) | 8296 | 0.20000 | 0.1910 |
| | 22 2,4-Dimethylphenol | 107 | 10.833 | 10.833 | (0.942) | 26570 | 0.40000 | 0.3954 |
| | 23 Bis(2-Chloroethoxy)methane | 93 | 11.034 | 11.034 | (0.960) | 15823 | 0.20000 | 0.2075 |
| | 24 Benzoic acid | 105 | 10.972 | 10.995 | (0.954) | 12487 | 0.80000 | 0.3331(M) |
| | 25 2,4-Dichlorophenol | 162 | 11.234 | 11.226 | (0.977) | 22711 | 0.40000 | 0.3607 |
| | 26 1,2,4-Trichlorobenzene | 180 | 11.411 | 11.411 | (0.993) | 13024 | 0.20000 | 0.2108 |
| * | 27 Naphthalene-d8 | 136 | 11.496 | 11.496 | (1.000) | 765616 | 4.00000 | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| 28 | Naphthalene | 128 | 11.543 | 11.543 | (1.004) | 39005 | 0.20000 | 0.2011 |
| 29 | 4-Chloroaniline | 127 | 11.705 | 11.705 | (1.018) | 32402 | 0.40000 | 0.3816 |
| 30 | Hexachlorobutadiene | 225 | 11.944 | 11.944 | (1.039) | 6543 | 0.20000 | 0.1977 |
| 31 | 4-Chloro-3-methylphenol | 107 | 12.780 | 12.772 | (1.112) | 21284 | 0.40000 | 0.3615 |
| 32 | 2-Methylnaphthalene | 142 | 13.043 | 13.043 | (1.135) | 26386 | 0.20000 | 0.1946 |
| 33 | Hexachlorocyclopentadiene | 237 | 13.554 | 13.554 | (0.882) | 2706 | 0.40000 | 0.08451 |
| 34 | 2,4,6-Trichlorophenol | 196 | 13.732 | 13.724 | (0.893) | 15103 | 0.40000 | 0.3696 |
| 35 | 2,4,5-Trichlorophenol | 196 | 13.817 | 13.809 | (0.899) | 15402 | 0.40000 | 0.3501 |
| $ 36 | 2-Fluorobiphenyl | 172 | 13.895 | 13.902 | (0.904) | 29387 | 0.20000 | 0.2068 |
| 37 | 2-Chloronaphthalene | 162 | 14.104 | 14.104 | (0.917) | 24508 | 0.20000 | 0.2016 |
| 38 | 2-Nitroaniline | 65 | 14.398 | 14.398 | (0.937) | 11432 | 0.40000 | 0.3907 |
| 39 | Dimethylphthalate | 163 | 14.885 | 14.885 | (0.968) | 26608 | 0.20000 | 0.2137 |
| 40 | Acenaphthylene | 152 | 15.032 | 15.032 | (0.978) | 38244 | 0.20000 | 0.2077 |
| 41 | 2,6-Dinitrotoluene | 165 | 15.025 | 15.025 | (0.977) | 11764 | 0.40000 | 0.3877 |
| * 42 | Acenaphthene-d10 | 164 | 15.373 | 15.373 | (1.000) | 413229 | 4.00000 | |
| 43 | 3-Nitroaniline | 138 | 15.319 | 15.319 | (0.996) | 13646 | 0.40000 | 0.3992 |
| 44 | Acenaphthene | 153 | 15.442 | 15.442 | (1.005) | 22552 | 0.20000 | 0.2015 |
| 45 | 2,4-Dinitrophenol | 184 | 15.605 | 15.558 | (1.015) | 615 | 0.80000 | 0.02680 (M) |
| 46 | Dibenzofuran | 168 | 15.798 | 15.798 | (1.028) | 32252 | 0.20000 | 0.1990 |
| 47 | 4-Nitrophenol | 109 | 15.759 | 15.736 | (1.025) | 4402 | 0.40000 | 0.3300 (M) |
| 48 | 2,4-Dinitrotoluene | 165 | 15.891 | 15.891 | (1.034) | 14035 | 0.40000 | 0.3598 |
| 50 | Diethylphthalate | 149 | 16.463 | 16.463 | (1.071) | 25582 | 0.20000 | 0.2102 |
| 49 | Fluorene | 166 | 16.563 | 16.563 | (1.077) | 26426 | 0.20000 | 0.2093 |
| 51 | 4-Chlorophenyl-phenylether | 204 | 16.579 | 16.579 | (1.078) | 12377 | 0.20000 | 0.2084 |
| 52 | 4-Nitroaniline | 138 | 16.687 | 16.687 | (1.085) | 12447 | 0.40000 | 0.3649 |
| 53 | 4,6-Dinitro-2-methylphenol | 198 | 16.803 | 16.795 | (0.902) | 8258 | 0.80000 | 0.3628 |
| 54 | N-Nitrosodiphenylamine | 169 | 16.857 | 16.857 | (0.905) | 18217 | 0.20000 | 0.2124 |
| $ 55 | 2,4,6-Tribromophenol | 330 | 17.142 | 17.142 | (1.115) | 3185 | 0.20000 | 0.1870 |
| 56 | 4-Bromophenyl-phenylether | 248 | 17.651 | 17.659 | (0.947) | 7093 | 0.20000 | 0.2030 |
| 57 | Hexachlorobenzene | 284 | 17.975 | 17.976 | (0.965) | 7955 | 0.20000 | 0.2026 |
| 58 | Pentachlorophenol | 266 | 18.394 | 18.386 | (0.987) | 2577 | 0.40000 | 0.1530 |
| * 59 | Phenanthrene-d10 | 188 | 18.633 | 18.633 | (1.000) | 646258 | 4.00000 | |
| 60 | Phenanthrene | 178 | 18.680 | 18.680 | (1.002) | 34268 | 0.20000 | 0.2014 |
| 61 | Anthracene | 178 | 18.780 | 18.780 | (1.008) | 34562 | 0.20000 | 0.1952 |
| 62 | Carbazole | 167 | 19.144 | 19.144 | (1.027) | 33118 | 0.20000 | 0.2059 |
| 63 | Di-n-butylphthalate | 149 | 20.011 | 20.003 | (1.074) | 43110 | 0.20000 | 0.1860 |
| 64 | Fluoranthene | 202 | 21.101 | 21.102 | (1.132) | 37307 | 0.20000 | 0.1925 |
| 65 | Pyrene | 202 | 21.519 | 21.519 | (0.908) | 38832 | 0.20000 | 0.1965 |
| $ 66 | Terphenyl-d14 | 244 | 21.844 | 21.837 | (0.922) | 25498 | 0.20000 | 0.2077 |
| 67 | Butylbenzylphthalate | 149 | 22.781 | 22.781 | (0.961) | 18592 | 0.20000 | 0.2026 |
| 68 | Benzo(a)anthracene | 228 | 23.679 | 23.679 | (0.999) | 38870 | 0.20000 | 0.2098 |
| * 69 | Chrysene-d12 | 240 | 23.702 | 23.703 | (1.000) | 644080 | 4.00000 | |
| 70 | 3,3'-Dichlorobenzidine | 252 | 23.656 | 23.656 | (0.998) | 42897 | 0.40000 | 0.4297 |
| 71 | Chrysene | 228 | 23.749 | 23.749 | (1.002) | 31855 | 0.20000 | 0.1976 |
| 72 | bis(2-Ethylhexyl)phthalate | 149 | 23.819 | 23.819 | (0.961) | 28907 | 0.20000 | 0.2178 |
| * 134 | Di-n-octylphthalate-d4 | 153 | 24.794 | 24.794 | (1.000) | 952925 | 4.00000 | |
| 73 | Di-n-octylphthalate | 149 | 24.802 | 24.802 | (1.000) | 49350 | 0.20000 | 0.2109 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| 74 | Benzo(b)fluoranthene | 252 | 25.444 | 25.444 | (0.975) | 35453 | 0.20000 | 0.1872 |
| 75 | Benzo(k)fluoranthene | 252 | 25.483 | 25.483 | (0.976) | 41093 | 0.20000 | 0.2139 |
| 76 | Benzo(a)pyrene | 252 | 26.002 | 26.002 | (0.996) | 34367 | 0.20000 | 0.2028 |
| * 77 | Perylene-d12 | 264 | 26.102 | 26.103 | (1.000) | 645156 | 4.00000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | 28.342 | 28.334 | (1.086) | 36173 | 0.20000 | 0.1865 |
| 79 | Dibenzo(a,h)anthracene | 278 | 28.357 | 28.357 | (1.086) | 27417 | 0.20000 | 0.1801 |
| 80 | Benzo(g,h,i)perylene | 276 | 28.986 | 28.987 | (1.110) | 32336 | 0.20000 | 0.1921 |
| 90 | N-Nitrosodimethylamine | 74 | 4.274 | 4.266 | (0.483) | 16951 | 0.40000 | 0.4157 |
| 91 | Aniline | 93 | 8.291 | 8.291 | (0.936) | 40190 | 0.20000 | 0.2080 |
| 93 | Benzidine | 184 | 21.365 | 21.365 | (0.901) | 30282 | 0.40000 | 0.5898 |
| 103 | Pyridine | 79 | 4.305 | 4.290 | (0.486) | 14470 | 0.40000 | 0.4146 |
| 105 | 1-methylnaphthalene | 142 | 13.275 | 13.275 | (1.155) | 26434 | 0.20000 | 0.1913 |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | 16.926 | 16.926 | (1.101) | 26688 | 0.20000 | 0.2162 |
| 187 | Total Benzofluoranthenes | 252 | 25.483 | 25.483 | (0.976) | 72553 | 0.40000 | 0.4032 |
| 99 | Perylene | 252 | 26.141 | 26.149 | (1.001) | 34431 | 0.20000 | 0.2023 |
| 98 | Retene | 219 | 22.131 | 22.131 | (0.934) | 17757 | 0.20000 | 0.1910 |

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0526c.d
Lab Smp Id: ABN.2
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info:

Calibration Date: 26-MAY-2012
Calibration Time: 10:59

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 196685 | 3.78 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 765616 | 4.75 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 413229 | -1.78 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 646258 | 1.14 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 644080 | -0.15 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 952925 | -6.22 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 645156 | -0.75 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.86 | 0.00 |
| 27 Naphthalene-d8 | 11.50 | 11.00 | 12.00 | 11.50 | -0.07 |
| 42 Acenaphthene-d10 | 15.37 | 14.87 | 15.87 | 15.37 | 0.00 |
| 59 Phenanthrene-d10 | 18.63 | 18.13 | 19.13 | 18.63 | 0.00 |
| 69 Chrysene-d12 | 23.71 | 23.21 | 24.21 | 23.70 | -0.03 |
| 134 Di-n-octylphthala | 24.79 | 24.29 | 25.29 | 24.79 | 0.00 |
| 77 Perylene-d12 | 26.10 | 25.60 | 26.60 | 26.10 | 0.00 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

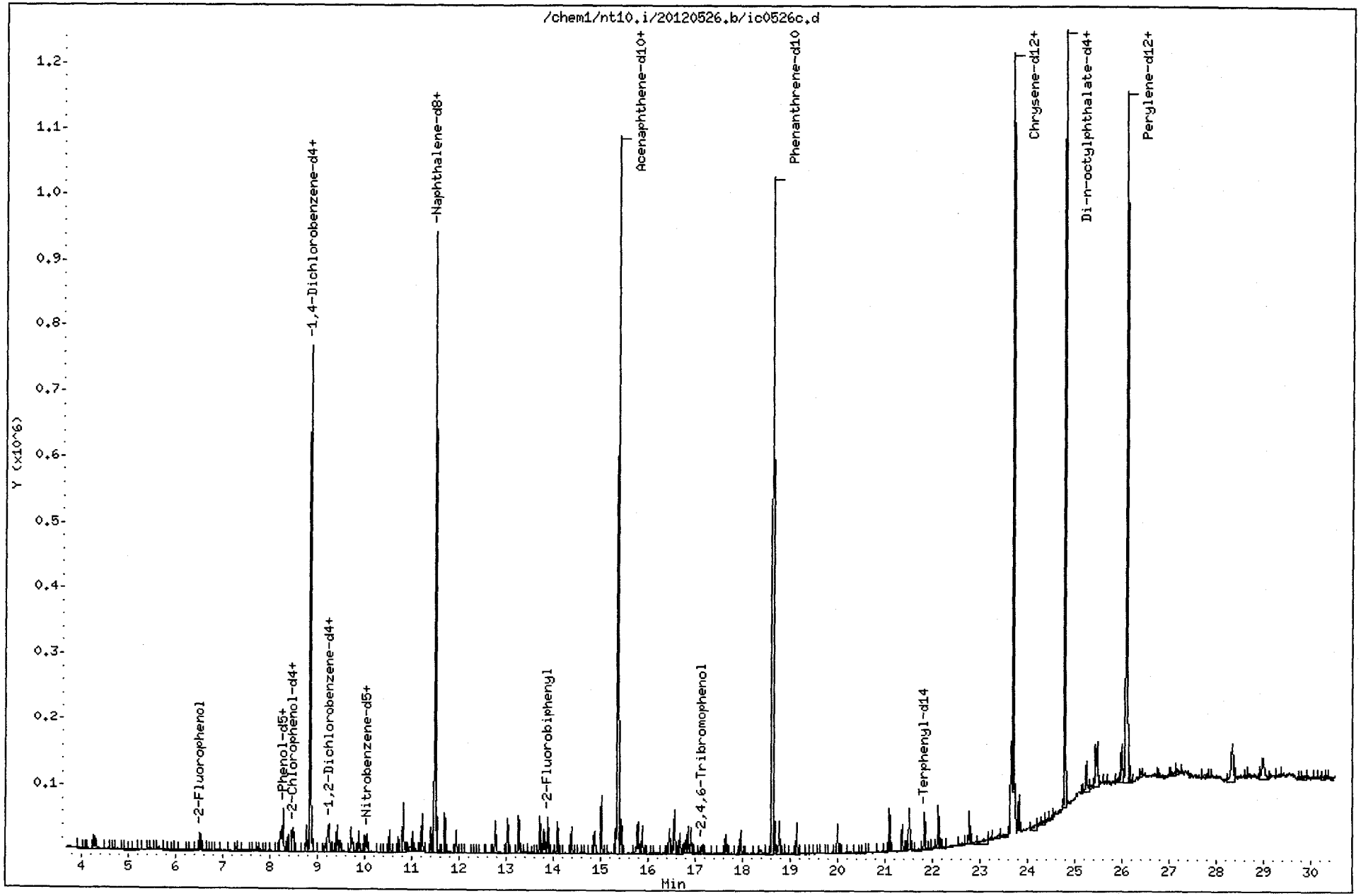
Data File: /chem1/nt10.i/20120526.b/ic0526c.d
Date : 26-MAY-2012 12:13
Client ID:
Sample Info: ABN.2

Column phase: ZB-5msi

Instrument: nt10.i

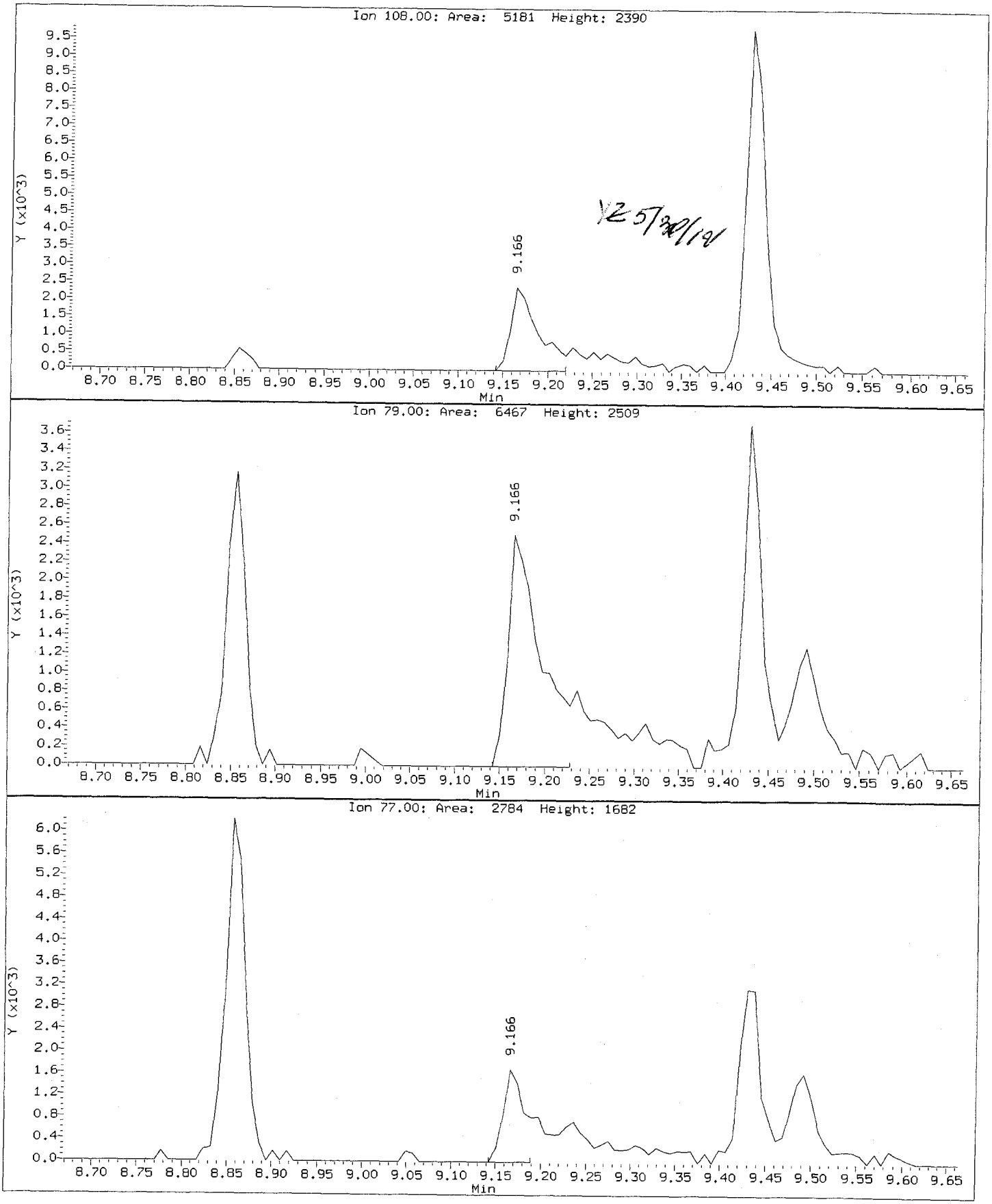
Operator: VTS/YZ
Column diameter: 0.25





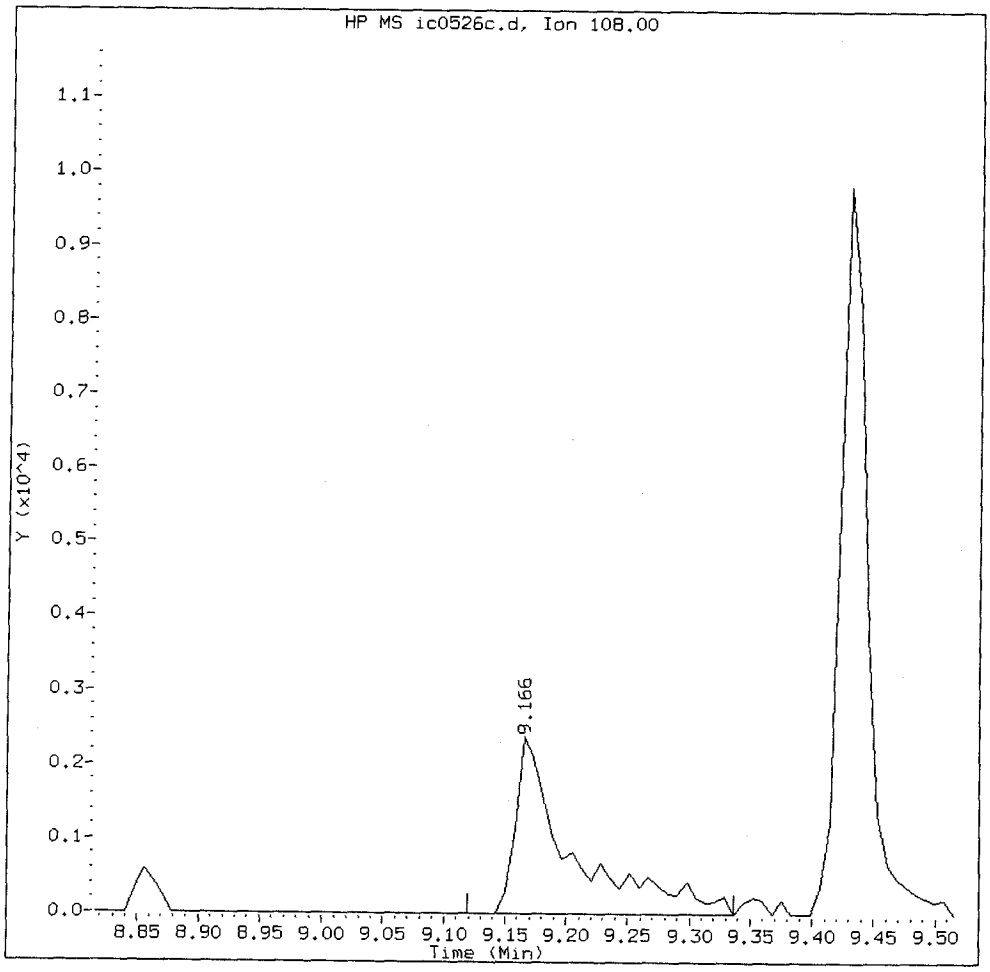
Data File: /chem1/nt10.i/20120526.b/ic0526c.d
Injection Date: 26-MAY-2012 12:13
Instrument: nt10.i
Client Sample ID:

Compound: Benzyl alcohol
CAS Number: 100-51-6



ABN.2, /chem1/nt10.i/20120526.b/ic0526c.d

Benzyl alcohol  Amount: 0.20  Area: 7775




MANUAL INTEGRATION for Benzyl alcohol

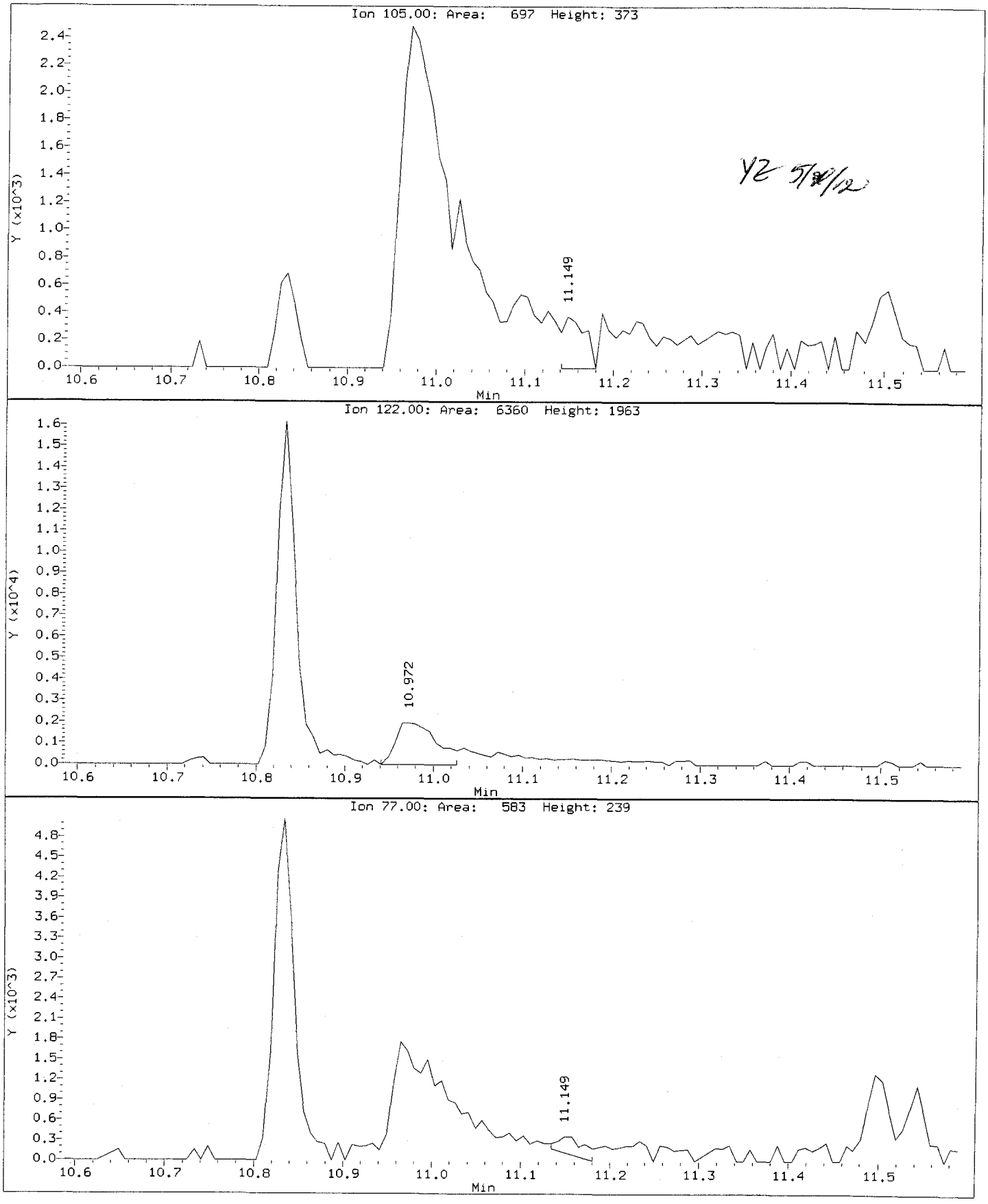
1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YB  Date: 5/30/12

Data File: /chem1/nt10.i/20120526.b/ic0526c.d
Injection Date: 26-MAY-2012 12:13
Instrument: nt10.i
Client Sample ID:

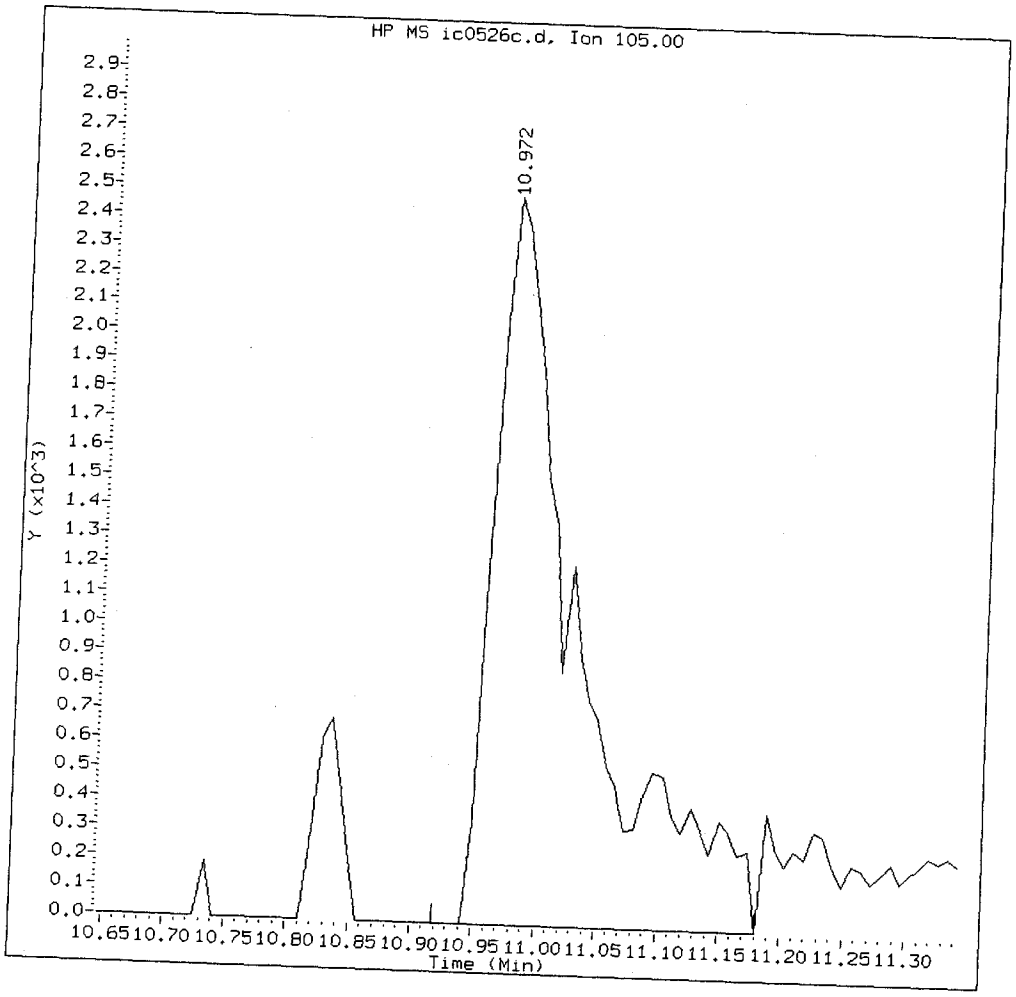
Compound: Benzoic acid
CAS Number: 65-85-0




YZ 5/31/12

ABN.2, /chem1/nt10.i/20120526.b/ic0526c.d

Benzoic acid  Amount: 0.33  Area: 12487




MANUAL INTEGRATION for Benzoic acid

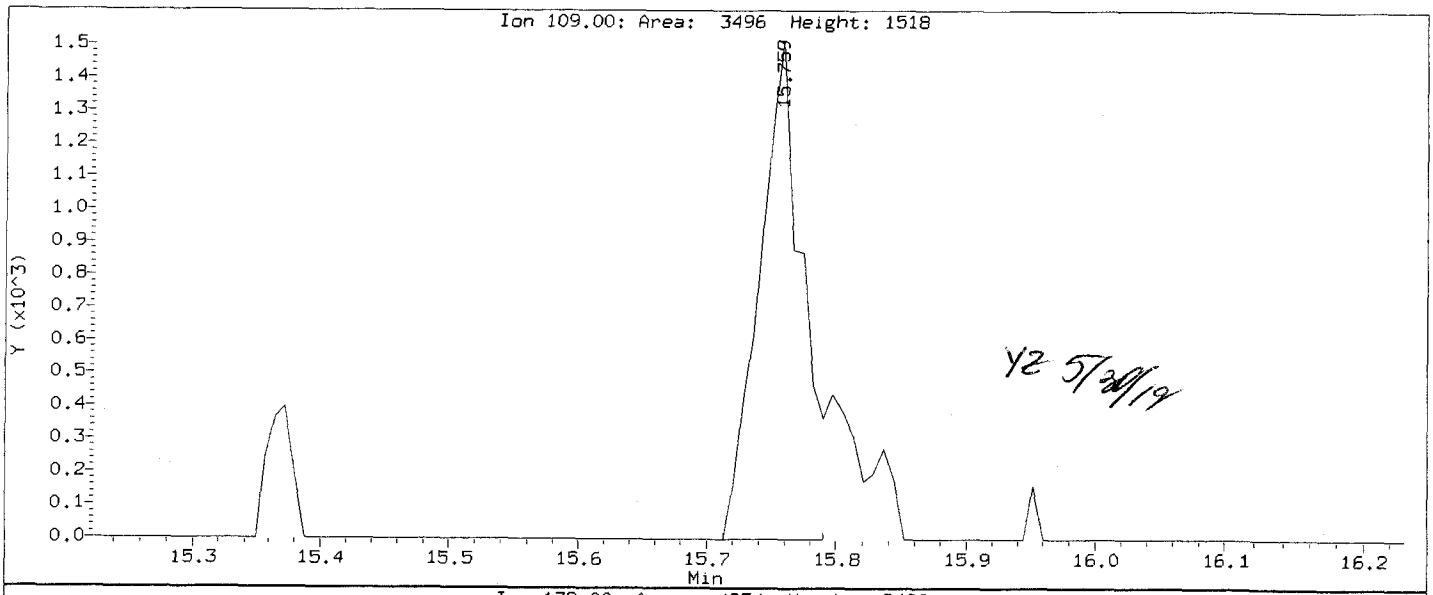
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

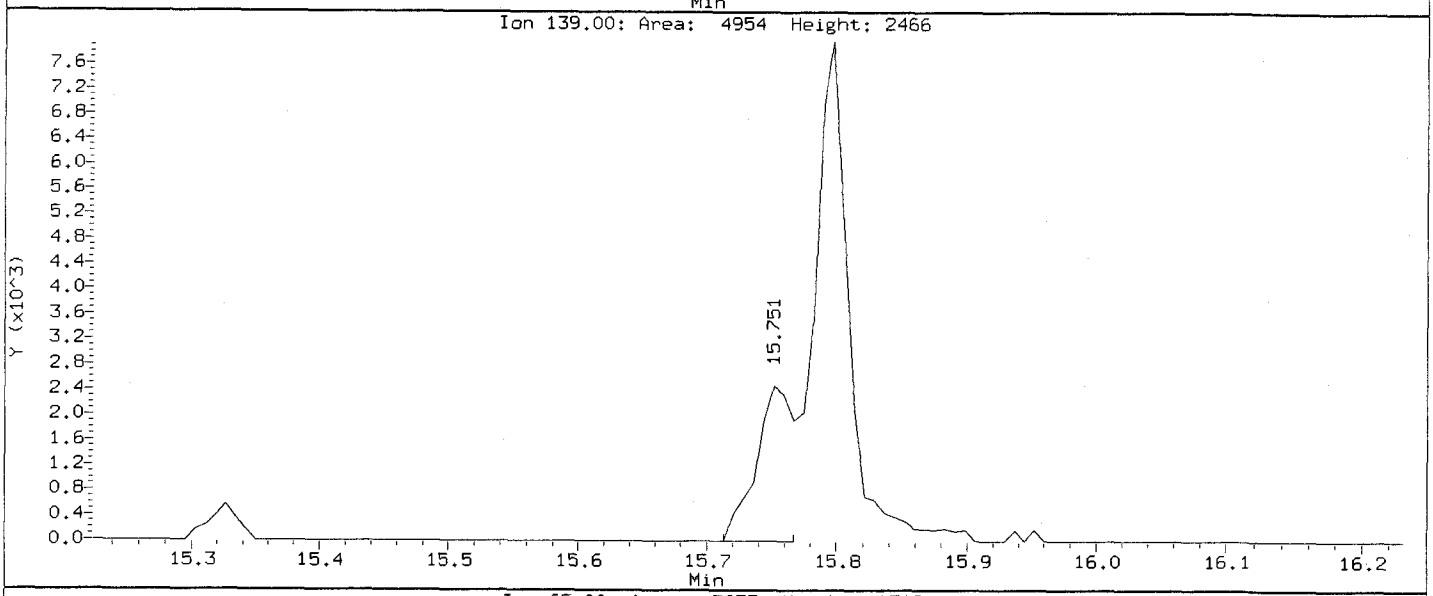
5. Other _____

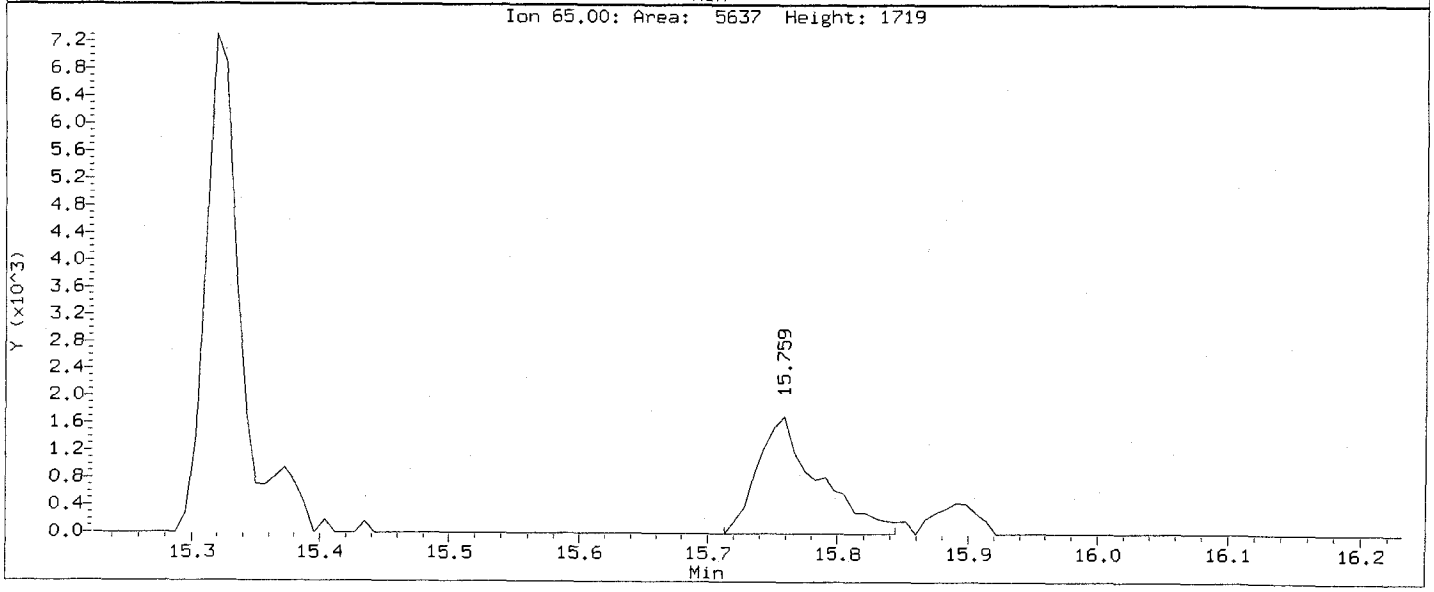
Analyst: _____  Date: _____

Data File: /chem1/nt10.i/20120526.b/ic0526c.d
Injection Date: 26-MAY-2012 12:13
Instrument: nt10.i
Client Sample ID:

Compound: 4-Nitrophenol
CAS Number: 100-02-7

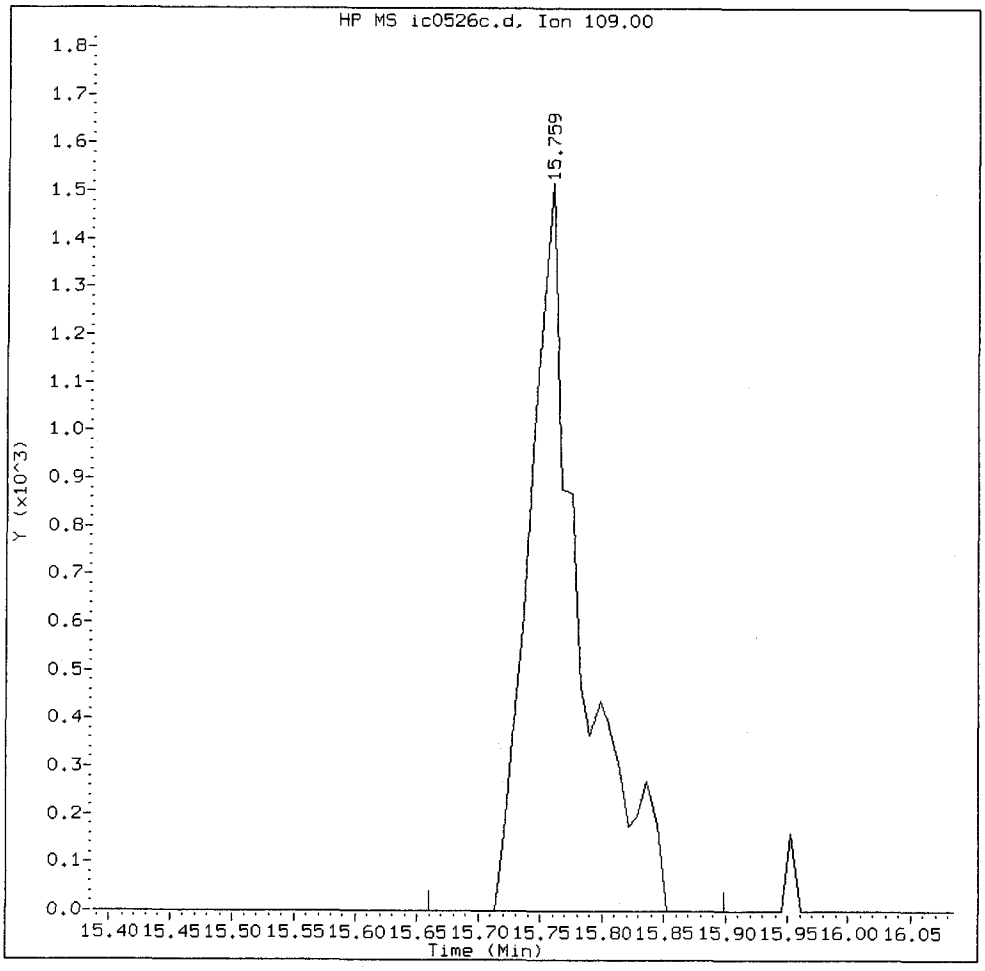


ABN.2, /chem1/nt10.i/20120526.b/ic0526c.d

4-Nitrophenol Amount: 0.33 Area: 4402




MANUAL INTEGRATION for 4-Nitrophenol

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 5/30/12

CO-ELUTION SUMMARY FOR FILE - ic0526c.d

Lab ID: ABN.2, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

YZ 5/30/12

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/ic0526d.d
Lab Smp Id: ABN10
Inj Date : 26-MAY-2012 12:50
Operator : VTS/YZ
Inst ID: nt10.i
Smp Info : ABN10
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 30-May-2012 10:15 yev
Quant Type: ISTD
Cal Date : 26-MAY-2012 12:50
Cal File: ic0526d.d
Als bottle: 7
Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE
Compound Sublist: PSDDAICAL.sub
Target Version: 3.50

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| $ | 1 2-Fluorophenol | 112 | 6.537 | 6.537 | (0.738) | 655505 | 10.0000 | 10.26 |
| $ | 2 Phenol-d5 | 99 | 8.237 | 8.229 | (0.930) | 824652 | 10.0000 | 10.26 |
| | 3 Phenol | 94 | 8.260 | 8.252 | (0.933) | 847599 | 10.0000 | 9.806 |
| $ | 5 2-Chlorophenol-d4 | 132 | 8.484 | 8.476 | (0.958) | 694525 | 10.0000 | 9.942 |
| | 4 Bis(2-Chloroethyl)ether | 93 | 8.407 | 8.399 | (0.949) | 618894 | 10.0000 | 9.862 |
| | 6 2-Chlorophenol | 128 | 8.515 | 8.507 | (0.962) | 797745 | 10.0000 | 10.42 |
| | 7 1,3-Dichlorobenzene | 146 | 8.786 | 8.786 | (0.992) | 732663 | 10.0000 | 9.839 |
| * | 8 1,4-Dichlorobenzene-d4 | 152 | 8.855 | 8.856 | (1.000) | 182402 | 4.00000 | |
| | 9 1,4-Dichlorobenzene | 146 | 8.894 | 8.887 | (1.004) | 722690 | 10.0000 | 9.922 |
| $ | 10 1,2-Dichlorobenzene-d4 | 152 | 9.236 | 9.236 | (1.043) | 459065 | 10.0000 | 10.01 |
| | 12 1,2-Dichlorobenzene | 146 | 9.267 | 9.267 | (1.046) | 703357 | 10.0000 | 9.947 |
| | 11 Benzyl alcohol | 108 | 9.174 | 9.166 | (1.036) | 380848 | 10.0000 | 10.23 |
| | 14 2,2'-oxybis(1-Chloropropane) | 121 | 9.492 | 9.492 | (1.072) | 226522 | 10.0000 | 9.772 |
| | 13 2-Methylphenol | 108 | 9.438 | 9.430 | (1.066) | 670901 | 10.0000 | 9.918 |
| | 17 Hexachloroethane | 117 | 9.888 | 9.888 | (1.117) | 287787 | 10.0000 | 10.06 |
| | 16 N-Nitroso-di-n-propylamine | 70 | 9.771 | 9.756 | (1.103) | 387935 | 10.0000 | 10.03 |
| | 15 4-Methylphenol | 108 | 9.733 | 9.725 | (1.099) | 702883 | 10.0000 | 10.10 |
| $ | 18 Nitrobenzene-d5 | 82 | 10.028 | 10.020 | (0.872) | 644910 | 10.0000 | 10.03 |
| | 19 Nitrobenzene | 77 | 10.066 | 10.059 | (0.875) | 627554 | 10.0000 | 9.907 |
| | 20 Isophorone | 82 | 10.555 | 10.540 | (0.918) | 1215421 | 10.0000 | 9.981 |
| | 21 2-Nitrophenol | 139 | 10.741 | 10.733 | (0.934) | 414864 | 10.0000 | 10.17 |
| | 22 2,4-Dimethylphenol | 107 | 10.841 | 10.833 | (0.942) | 1255466 | 20.0000 | 20.00 |
| | 23 Bis(2-Chloroethoxy)methane | 93 | 11.034 | 11.034 | (0.959) | 696518 | 10.0000 | 9.834 |
| | 24 Benzoic acid | 105 | 11.157 | 10.995 | (0.970) | 1808839 | 40.0000 | 48.16 |
| | 25 2,4-Dichlorophenol | 162 | 11.234 | 11.226 | (0.977) | 1296217 | 20.0000 | 21.49 |
| | 26 1,2,4-Trichlorobenzene | 180 | 11.419 | 11.411 | (0.993) | 562098 | 10.0000 | 9.804 |
| * | 27 Naphthalene-d8 | 136 | 11.504 | 11.496 | (1.000) | 714951 | 4.00000 | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 28 Naphthalene | 128 | 11.543 | 11.543 | (1.003) | 1826784 | 10.0000 | 10.07 |
| | 29 4-Chloroaniline | 127 | 11.712 | 11.705 | (1.018) | 1628277 | 20.0000 | 20.40 |
| | 30 Hexachlorobutadiene | 225 | 11.952 | 11.944 | (1.039) | 312917 | 10.0000 | 10.09 |
| | 31 4-Chloro-3-methylphenol | 107 | 12.780 | 12.772 | (1.111) | 1161378 | 20.0000 | 20.83 |
| | 32 2-Methylnaphthalene | 142 | 13.043 | 13.043 | (1.134) | 1288499 | 10.0000 | 10.13 |
| | 33 Hexachlorocyclopentadiene | 237 | 13.554 | 13.554 | (0.881) | 633343 | 20.0000 | 20.41 |
| | 34 2,4,6-Trichlorophenol | 196 | 13.732 | 13.724 | (0.893) | 833358 | 20.0000 | 20.93 |
| | 35 2,4,5-Trichlorophenol | 196 | 13.809 | 13.809 | (0.898) | 910701 | 20.0000 | 21.16 |
| $ | 36 2-Fluorobiphenyl | 172 | 13.902 | 13.902 | (0.904) | 1389295 | 10.0000 | 10.15 |
| | 37 2-Chloronaphthalene | 162 | 14.104 | 14.104 | (0.917) | 1195001 | 10.0000 | 10.18 |
| | 38 2-Nitroaniline | 65 | 14.413 | 14.398 | (0.937) | 585866 | 20.0000 | 20.65 |
| | 39 Dimethylphthalate | 163 | 14.893 | 14.885 | (0.968) | 1207636 | 10.0000 | 10.08 |
| | 40 Acenaphthylene | 152 | 15.032 | 15.032 | (0.977) | 1806327 | 10.0000 | 10.17 |
| | 41 2,6-Dinitrotoluene | 165 | 15.032 | 15.025 | (0.977) | 619587 | 20.0000 | 20.95 |
| * | 42 Acenaphthene-d10 | 164 | 15.380 | 15.373 | (1.000) | 396335 | 4.00000 | |
| | 43 3-Nitroaniline | 138 | 15.334 | 15.319 | (0.997) | 702183 | 20.0000 | 21.04 |
| | 44 Acenaphthene | 153 | 15.450 | 15.442 | (1.005) | 1092888 | 10.0000 | 10.13 |
| | 45 2,4-Dinitrophenol | 184 | 15.566 | 15.558 | (1.012) | 859509 | 40.0000 | 41.13 |
| | 46 Dibenzofuran | 168 | 15.806 | 15.798 | (1.028) | 1594733 | 10.0000 | 10.19 |
| | 47 4-Nitrophenol | 109 | 15.736 | 15.736 | (1.023) | 299258 | 20.0000 | 22.44 |
| | 48 2,4-Dinitrotoluene | 165 | 15.906 | 15.891 | (1.034) | 818828 | 20.0000 | 21.38 |
| | 50 Diethylphthalate | 149 | 16.478 | 16.463 | (1.071) | 1158937 | 10.0000 | 9.948 |
| | 49 Fluorene | 166 | 16.571 | 16.563 | (1.077) | 1194717 | 10.0000 | 9.899 |
| | 51 4-Chlorophenyl-phenylether | 204 | 16.587 | 16.579 | (1.078) | 575381 | 10.0000 | 10.08 |
| | 52 4-Nitroaniline | 138 | 16.702 | 16.687 | (1.086) | 669670 | 20.0000 | 20.35 |
| | 53 4,6-Dinitro-2-methylphenol | 198 | 16.810 | 16.795 | (0.902) | 1114006 | 40.0000 | 48.94 |
| | 54 N-Nitrosodiphenylamine | 169 | 16.864 | 16.857 | (0.905) | 787846 | 10.0000 | 9.944 |
| $ | 55 2,4,6-Tribromophenol | 330 | 17.150 | 17.142 | (1.115) | 172891 | 10.0000 | 10.43 |
| | 56 4-Bromophenyl-phenylether | 248 | 17.658 | 17.659 | (0.947) | 334345 | 10.0000 | 10.25 |
| | 57 Hexachlorobenzene | 284 | 17.975 | 17.976 | (0.964) | 366099 | 10.0000 | 10.06 |
| | 58 Pentachlorophenol | 266 | 18.378 | 18.386 | (0.986) | 411314 | 20.0000 | 24.43 |
| * | 59 Phenanthrene-d10 | 188 | 18.641 | 18.633 | (1.000) | 598080 | 4.00000 | |
| | 60 Phenanthrene | 178 | 18.688 | 18.680 | (1.002) | 1556366 | 10.0000 | 9.913 |
| | 61 Anthracene | 178 | 18.788 | 18.780 | (1.008) | 1648643 | 10.0000 | 10.05 |
| | 62 Carbazole | 167 | 19.144 | 19.144 | (1.027) | 1330828 | 10.0000 | 9.185 |
| | 63 Di-n-butylphthalate | 149 | 20.011 | 20.003 | (1.073) | 2222416 | 10.0000 | 10.27 |
| | 64 Fluoranthene | 202 | 21.109 | 21.102 | (1.132) | 1821789 | 10.0000 | 10.12 |
| | 65 Pyrene | 202 | 21.527 | 21.519 | (0.908) | 1912993 | 10.0000 | 10.04 |
| $ | 66 Terphenyl-d14 | 244 | 21.844 | 21.837 | (0.921) | 1152011 | 10.0000 | 9.806 |
| | 67 Butylbenzylphthalate | 149 | 22.789 | 22.781 | (0.961) | 858848 | 10.0000 | 9.784 |
| | 68 Benzo(a)anthracene | 228 | 23.679 | 23.679 | (0.999) | 1731963 | 10.0000 | 9.778 |
| * | 69 Chrysene-d12 | 240 | 23.710 | 23.703 | (1.000) | 620456 | 4.00000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | 23.664 | 23.656 | (0.998) | 1666326 | 20.0000 | 18.13 |
| | 71 Chrysene | 228 | 23.757 | 23.749 | (1.002) | 1566433 | 10.0000 | 10.06 |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 23.826 | 23.819 | (0.961) | 1335029 | 10.0000 | 9.852 |
| * | 134 Di-n-octylphthalate-d4 | 153 | 24.794 | 24.794 | (1.000) | 977954 | 4.00000 | |
| | 73 Di-n-octylphthalate | 149 | 24.802 | 24.802 | (1.000) | 2343993 | 10.0000 | 9.819 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 74 Benzo(b)fluoranthene | 252 | 25.452 | 25.444 | (0.975) | 1746381 | 10.0000 | 9.676 |
| | 75 Benzo(k)fluoranthene | 252 | 25.491 | 25.483 | (0.977) | 1965512 | 10.0000 | 10.46 |
| | 76 Benzo(a)pyrene | 252 | 26.002 | 26.002 | (0.996) | 1632289 | 10.0000 | 10.00 |
| * | 77 Perylene-d12 | 264 | 26.102 | 26.103 | (1.000) | 621376 | 4.00000 | |
| | 78 Indeno(1,2,3-cd)pyrene | 276 | 28.350 | 28.334 | (1.086) | 1955515 | 10.0000 | 10.35 |
| | 79 Dibenzo(a,h)anthracene | 278 | 28.365 | 28.357 | (1.087) | 1559638 | 10.0000 | 10.47 |
| | 80 Benzo(g,h,i)perylene | 276 | 29.010 | 28.987 | (1.111) | 1665774 | 10.0000 | 10.21 |
| | 90 N-Nitrosodimethylamine | 74 | 4.274 | 4.266 | (0.483) | 750621 | 20.0000 | 19.89 |
| | 91 Aniline | 93 | 8.299 | 8.291 | (0.937) | 1766633 | 10.0000 | 9.892 |
| | 93 Benzidine | 184 | 21.372 | 21.365 | (0.901) | 1368200 | 20.0000 | 20.66 |
| | 103 Pyridine | 79 | 4.274 | 4.290 | (0.483) | 648393 | 20.0000 | 20.03 |
| | 105 1-methylnaphthalene | 142 | 13.283 | 13.275 | (1.155) | 1319734 | 10.0000 | 10.17 |
| | 111 Azobenzene (1,2-DP-Hydrazine) | 77 | 16.934 | 16.926 | (1.101) | 1197352 | 10.0000 | 10.08 |
| | 187 Total Benzofluoranthenes | 252 | 25.491 | 25.483 | (0.977) | 3492403 | 20.0000 | 20.11 |
| | 99 Perylene | 252 | 26.157 | 26.149 | (1.002) | 1639350 | 10.0000 | 10.00 |
| | 98 Retene | 219 | 22.131 | 22.131 | (0.933) | 907426 | 10.0000 | 10.10 |

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0526d.d
Lab Smp Id: ABN10
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info:

Calibration Date: 26-MAY-2012
Calibration Time: 10:59

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 182402 | -3.75 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 714951 | -2.19 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 396335 | -5.79 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 598080 | -6.40 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 620456 | -3.81 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 977954 | -3.76 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 621376 | -4.41 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.86 | 0.00 |
| 27 Naphthalene-d8 | 11.50 | 11.00 | 12.00 | 11.50 | 0.00 |
| 42 Acenaphthene-d10 | 15.37 | 14.87 | 15.87 | 15.38 | 0.05 |
| 59 Phenanthrene-d10 | 18.63 | 18.13 | 19.13 | 18.64 | 0.04 |
| 69 Chrysene-d12 | 23.71 | 23.21 | 24.21 | 23.71 | 0.00 |
| 134 Di-n-octylphthala | 24.79 | 24.29 | 25.29 | 24.79 | 0.00 |
| 77 Perylene-d12 | 26.10 | 25.60 | 26.60 | 26.10 | 0.00 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

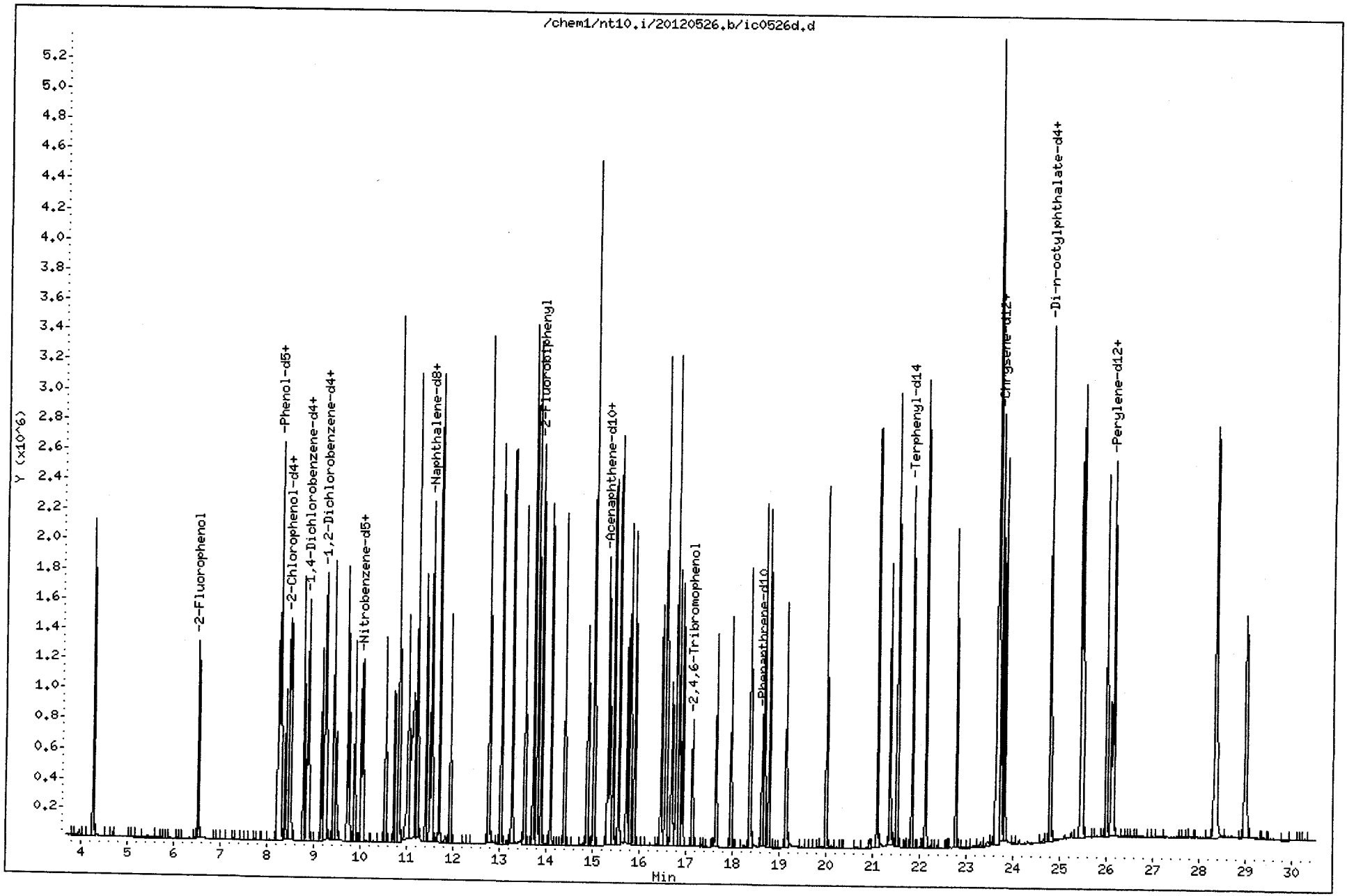
Data File: /chem1/nt10.i/20120526.b/ic0526d.d
Date : 26-MAY-2012 12:50
Client ID:
Sample Info: ABN10

Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25





CO-ELUTION SUMMARY FOR FILE - ic0526d.d

Lab ID: ABN10, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|
| 15.032 | Acenaphthylene and 2,6-Dinitrotoluene |

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/ic0526e.d
Lab Smp Id: ABN.5
Inj Date : 26-MAY-2012 13:27
Operator : VTS/YZ
Smp Info : ABN.5
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 30-May-2012 10:15 yev
Cal Date : 26-MAY-2012 13:27
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50

Inst ID: nt10.i

Quant Type: ISTD
Cal File: ic0526e.d
Calibration Sample, Level: 2

Compound Sublist: PSDDAICAL.sub

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| $ | 1 2-Fluorophenol | 112 | 6.537 | 6.537 | (0.738) | 33072 | 0.50000 | 0.4966 |
| $ | 2 Phenol-d5 | 99 | 8.237 | 8.229 | (0.930) | 40401 | 0.50000 | 0.4850 |
| | 3 Phenol | 94 | 8.252 | 8.252 | (0.932) | 42434 | 0.50000 | 0.4758 |
| $ | 5 2-Chlorophenol-d4 | 132 | 8.476 | 8.476 | (0.957) | 36271 | 0.50000 | 0.4978 |
| | 4 Bis(2-Chloroethyl)ether | 93 | 8.399 | 8.399 | (0.948) | 33015 | 0.50000 | 0.5031 |
| | 6 2-Chlorophenol | 128 | 8.507 | 8.507 | (0.961) | 37190 | 0.50000 | 0.4717 |
| | 7 1,3-Dichlorobenzene | 146 | 8.786 | 8.786 | (0.992) | 39229 | 0.50000 | 0.5036 |
| * | 8 1,4-Dichlorobenzene-d4 | 152 | 8.856 | 8.856 | (1.000) | 190457 | 4.00000 | |
| | 9 1,4-Dichlorobenzene | 146 | 8.887 | 8.887 | (1.004) | 38429 | 0.50000 | 0.5042 |
| $ | 10 1,2-Dichlorobenzene-d4 | 152 | 9.236 | 9.236 | (1.043) | 23171 | 0.50000 | 0.4871 |
| | 12 1,2-Dichlorobenzene | 146 | 9.267 | 9.267 | (1.046) | 37355 | 0.50000 | 0.5048 |
| | 11 Benzyl alcohol | 108 | 9.166 | 9.166 | (1.035) | 17957 | 0.50000 | 0.4692(M) |
| | 14 2,2'-oxybis(1-Chloropropane) | 121 | 9.492 | 9.492 | (1.072) | 12420 | 0.50000 | 0.5105 |
| | 13 2-Methylphenol | 108 | 9.430 | 9.430 | (1.065) | 33661 | 0.50000 | 0.4811 |
| | 17 Hexachloroethane | 117 | 9.888 | 9.888 | (1.117) | 14685 | 0.50000 | 0.4934 |
| | 16 N-Nitroso-di-n-propylamine | 70 | 9.764 | 9.756 | (1.103) | 21002 | 0.50000 | 0.5158 |
| | 15 4-Methylphenol | 108 | 9.725 | 9.725 | (1.098) | 36146 | 0.50000 | 0.4981 |
| $ | 18 Nitrobenzene-d5 | 82 | 10.020 | 10.020 | (0.872) | 32267 | 0.50000 | 0.4856 |
| | 19 Nitrobenzene | 77 | 10.059 | 10.059 | (0.875) | 32553 | 0.50000 | 0.4952 |
| | 20 Isophorone | 82 | 10.540 | 10.540 | (0.917) | 57171 | 0.50000 | 0.4602 |
| | 21 2-Nitrophenol | 139 | 10.733 | 10.733 | (0.934) | 19163 | 0.50000 | 0.4605 |
| | 22 2,4-Dimethylphenol | 107 | 10.833 | 10.833 | (0.942) | 63271 | 1.00000 | 0.9751 |
| | 23 Bis(2-Chloroethoxy)methane | 93 | 11.034 | 11.034 | (0.960) | 36342 | 0.50000 | 0.4945 |
| | 24 Benzoic acid | 105 | 10.972 | 10.995 | (0.954) | 34874 | 2.00000 | 1.004 |
| | 25 2,4-Dichlorophenol | 162 | 11.226 | 11.226 | (0.976) | 62547 | 1.00000 | 0.9976 |
| | 26 1,2,4-Trichlorobenzene | 180 | 11.411 | 11.411 | (0.993) | 30848 | 0.50000 | 0.5137 |
| * | 27 Naphthalene-d8 | 136 | 11.496 | 11.496 | (1.000) | 743799 | 4.00000 | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 28 Naphthalene | 128 | 11.543 | 11.543 | (1.004) | 92023 | 0.50000 | 0.4898 |
| | 29 4-Chloroaniline | 127 | 11.705 | 11.705 | (1.018) | 75074 | 1.00000 | 0.9217 |
| | 30 Hexachlorobutadiene | 225 | 11.952 | 11.944 | (1.040) | 16167 | 0.50000 | 0.5009 |
| | 31 4-Chloro-3-methylphenol | 107 | 12.780 | 12.772 | (1.112) | 51481 | 1.00000 | 0.9079 |
| | 32 2-Methylnaphthalene | 142 | 13.043 | 13.043 | (1.135) | 62715 | 0.50000 | 0.4789 |
| | 33 Hexachlorocyclopentadiene | 237 | 13.546 | 13.554 | (0.881) | 11564 | 1.00000 | 0.4342 |
| | 34 2,4,6-Trichlorophenol | 196 | 13.724 | 13.724 | (0.893) | 36559 | 1.00000 | 0.9184 |
| | 35 2,4,5-Trichlorophenol | 196 | 13.809 | 13.809 | (0.898) | 37583 | 1.00000 | 0.8814 |
| $ | 36 2-Fluorobiphenyl | 172 | 13.902 | 13.902 | (0.904) | 70164 | 0.50000 | 0.5017 |
| | 37 2-Chloronaphthalene | 162 | 14.104 | 14.104 | (0.917) | 58403 | 0.50000 | 0.4902 |
| | 38 2-Nitroaniline | 65 | 14.398 | 14.398 | (0.937) | 27357 | 1.00000 | 0.9555 |
| | 39 Dimethylphthalate | 163 | 14.885 | 14.885 | (0.968) | 62531 | 0.50000 | 0.5093 |
| | 40 Acenaphthylene | 152 | 15.032 | 15.032 | (0.978) | 90527 | 0.50000 | 0.4996 |
| | 41 2,6-Dinitrotoluene | 165 | 15.025 | 15.025 | (0.977) | 29070 | 1.00000 | 0.9706 |
| * | 42 Acenaphthene-d10 | 164 | 15.373 | 15.373 | (1.000) | 404393 | 4.00000 | |
| | 43 3-Nitroaniline | 138 | 15.319 | 15.319 | (0.996) | 33417 | 1.00000 | 0.9851 |
| | 44 Acenaphthene | 153 | 15.442 | 15.442 | (1.005) | 53337 | 0.50000 | 0.4877 |
| | 45 2,4-Dinitrophenol | 184 | 15.566 | 15.558 | (1.013) | 6885 | 2.00000 | 0.3414 (M) |
| | 46 Dibenzofuran | 168 | 15.798 | 15.798 | (1.028) | 78730 | 0.50000 | 0.4945 |
| | 47 4-Nitrophenol | 109 | 15.752 | 15.736 | (1.025) | 11307 | 1.00000 | 0.8600 |
| | 48 2,4-Dinitrotoluene | 165 | 15.891 | 15.891 | (1.034) | 36832 | 1.00000 | 0.9536 |
| | 50 Diethylphthalate | 149 | 16.463 | 16.463 | (1.071) | 62167 | 0.50000 | 0.5182 |
| | 49 Fluorene | 166 | 16.563 | 16.563 | (1.077) | 61043 | 0.50000 | 0.4965 |
| | 51 4-Chlorophenyl-phenylether | 204 | 16.579 | 16.579 | (1.078) | 28825 | 0.50000 | 0.4957 |
| | 52 4-Nitroaniline | 138 | 16.687 | 16.687 | (1.085) | 36218 | 1.00000 | 1.062 |
| | 53 4,6-Dinitro-2-methylphenol | 198 | 16.795 | 16.795 | (0.901) | 33741 | 2.00000 | 1.491 |
| | 54 N-Nitrosodiphenylamine | 169 | 16.857 | 16.857 | (0.905) | 43484 | 0.50000 | 0.5152 |
| $ | 55 2,4,6-Tribromophenol | 330 | 17.142 | 17.142 | (1.115) | 7941 | 0.50000 | 0.4753 |
| | 56 4-Bromophenyl-phenylether | 248 | 17.659 | 17.659 | (0.948) | 15870 | 0.50000 | 0.4678 |
| | 57 Hexachlorobenzene | 284 | 17.976 | 17.976 | (0.965) | 20014 | 0.50000 | 0.5159 |
| | 58 Pentachlorophenol | 266 | 18.386 | 18.386 | (0.987) | 8182 | 1.00000 | 0.5155 |
| * | 59 Phenanthrene-d10 | 188 | 18.633 | 18.633 | (1.000) | 632241 | 4.00000 | |
| | 60 Phenanthrene | 178 | 18.680 | 18.680 | (1.002) | 77109 | 0.50000 | 0.4713 |
| | 61 Anthracene | 178 | 18.780 | 18.780 | (1.008) | 81440 | 0.50000 | 0.4753 |
| | 62 Carbazole | 167 | 19.144 | 19.144 | (1.027) | 82015 | 0.50000 | 0.5280 |
| | 63 Di-n-butylphthalate | 149 | 20.011 | 20.003 | (1.074) | 100979 | 0.50000 | 0.4520 |
| | 64 Fluoranthene | 202 | 21.102 | 21.102 | (1.132) | 87728 | 0.50000 | 0.4682 |
| | 65 Pyrene | 202 | 21.519 | 21.519 | (0.908) | 91993 | 0.50000 | 0.4771 |
| $ | 66 Terphenyl-d14 | 244 | 21.837 | 21.837 | (0.921) | 59941 | 0.50000 | 0.4990 |
| | 67 Butylbenzylphthalate | 149 | 22.781 | 22.781 | (0.961) | 44063 | 0.50000 | 0.4925 |
| | 68 Benzo(a)anthracene | 228 | 23.679 | 23.679 | (0.999) | 86535 | 0.50000 | 0.4819 |
| * | 69 Chrysene-d12 | 240 | 23.703 | 23.703 | (1.000) | 634764 | 4.00000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | 23.656 | 23.656 | (0.998) | 100566 | 1.00000 | 1.051 |
| | 71 Chrysene | 228 | 23.749 | 23.749 | (1.002) | 75560 | 0.50000 | 0.4794 |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 23.819 | 23.819 | (0.961) | 64302 | 0.50000 | 0.4973 |
| * | 134 Di-n-octylphthalate-d4 | 153 | 24.794 | 24.794 | (1.000) | 934301 | 4.00000 | |
| | 73 Di-n-octylphthalate | 149 | 24.802 | 24.802 | (1.000) | 112510 | 0.50000 | 0.4946 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 74 Benzo(b)fluoranthene | 252 | 25.444 | 25.444 | (0.975) | 82471 | 0.50000 | 0.4628 |
| | 75 Benzo(k)fluoranthene | 252 | 25.483 | 25.483 | (0.976) | 100390 | 0.50000 | 0.5246 |
| * | 77 Perylene-d12 | 252 | 26.002 | 26.002 | (0.996) | 76879 | 0.50000 | 0.4744 |
| | 78 Indeno(1,2,3-cd)pyrene | 264 | 26.103 | 26.103 | (1.000) | 624951 | 4.00000 | |
| | 79 Dibenzo(a,h)anthracene | 276 | 28.342 | 28.334 | (1.086) | 87409 | 0.50000 | 0.4674 |
| | 80 Benzo(g,h,i)perylene | 278 | 28.357 | 28.357 | (1.086) | 67688 | 0.50000 | 0.4607 |
| | 90 N-Nitrosodimethylamine | 276 | 28.987 | 28.987 | (1.110) | 74485 | 0.50000 | 0.4623 |
| | 91 Aniline | 74 | 4.266 | 4.266 | (0.482) | 39674 | 1.00000 | 1.005 |
| | 93 Benzidine | 93 | 8.291 | 8.291 | (0.936) | 94480 | 0.50000 | 0.5053 |
| | 103 Pyridine | 184 | 21.365 | 21.365 | (0.901) | 74104 | 1.00000 | 1.260 |
| | 105 1-methylnaphthalene | 79 | 4.290 | 4.290 | (0.484) | 33098 | 1.00000 | 0.9831 |
| | 111 Azobenzene (1,2-DP-Hydrazine) | 142 | 13.275 | 13.275 | (1.155) | 64158 | 0.50000 | 0.4799 |
| | 187 Total Benzofluoranthenes | 77 | 16.926 | 16.926 | (1.101) | 61411 | 0.50000 | 0.5055 |
| | 99 Perylene | 252 | 25.483 | 25.483 | (0.976) | 170479 | 1.00000 | 0.9808 |
| | 98 Retene | 252 | 26.149 | 26.149 | (1.002) | 78454 | 0.50000 | 0.4805 |
| | | 219 | 22.131 | 22.131 | (0.934) | 42668 | 0.50000 | 0.4708 |

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0526e.d
Lab Smp Id: ABN.5
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info:

Calibration Date: 26-MAY-2012
Calibration Time: 10:59

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 190457 | 0.50 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 743799 | 1.76 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 404393 | -3.88 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 632241 | -1.05 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 634764 | -1.60 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 934301 | -8.05 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 624951 | -3.86 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.86 | 0.00 |
| 27 Naphthalene-d8 | 11.50 | 11.00 | 12.00 | 11.50 | -0.07 |
| 42 Acenaphthene-d10 | 15.37 | 14.87 | 15.87 | 15.37 | 0.00 |
| 59 Phenanthrene-d10 | 18.63 | 18.13 | 19.13 | 18.63 | 0.00 |
| 69 Chrysene-d12 | 23.71 | 23.21 | 24.21 | 23.70 | -0.03 |
| 134 Di-n-octylphthala | 24.79 | 24.29 | 25.29 | 24.79 | 0.00 |
| 77 Perylene-d12 | 26.10 | 25.60 | 26.60 | 26.10 | 0.00 |

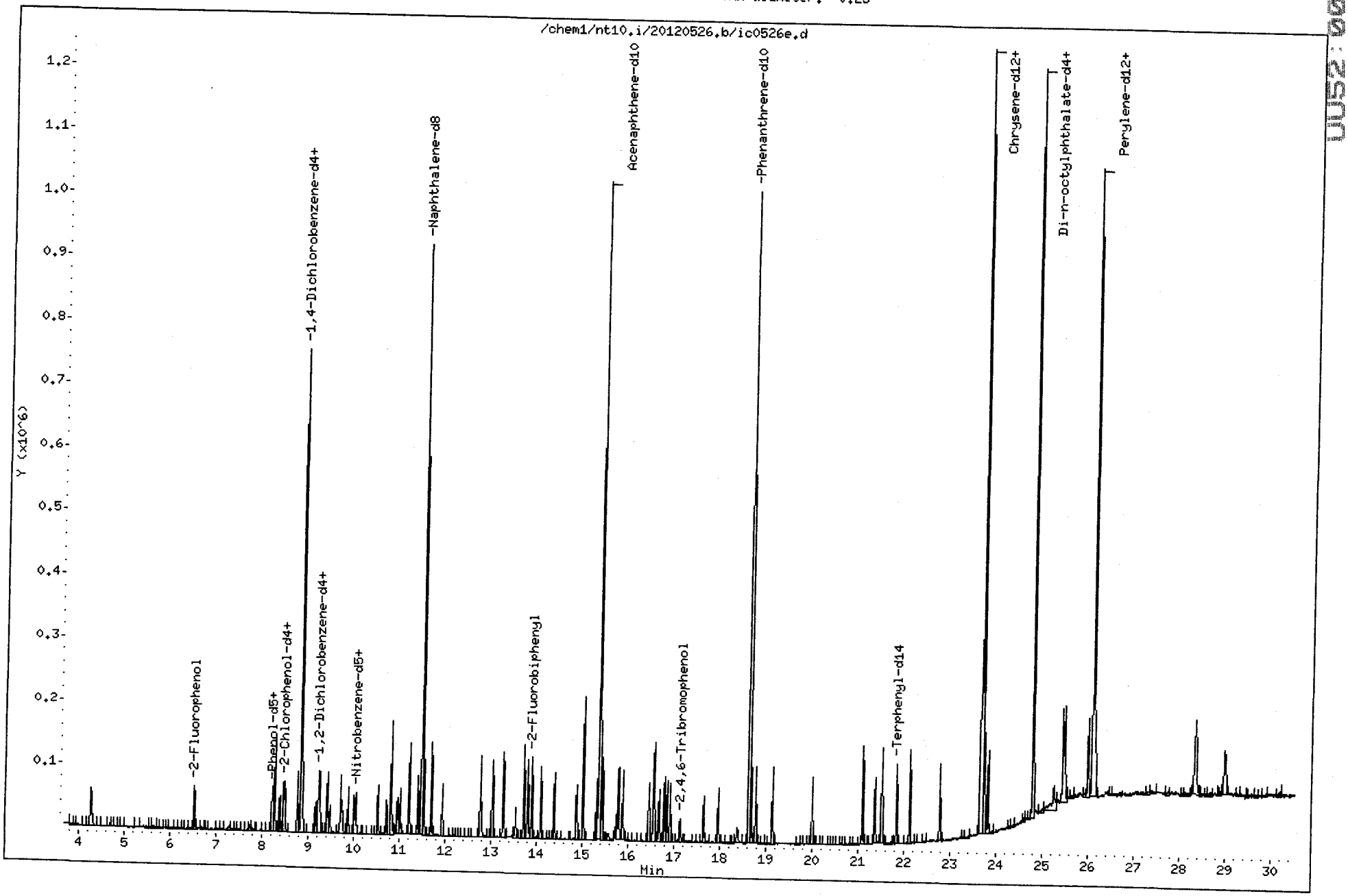
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20120526.b/ic0526e.d
Date : 26-MAY-2012 13:27
Client ID:
Sample Info: ABN.5

Instrument: nt10.i

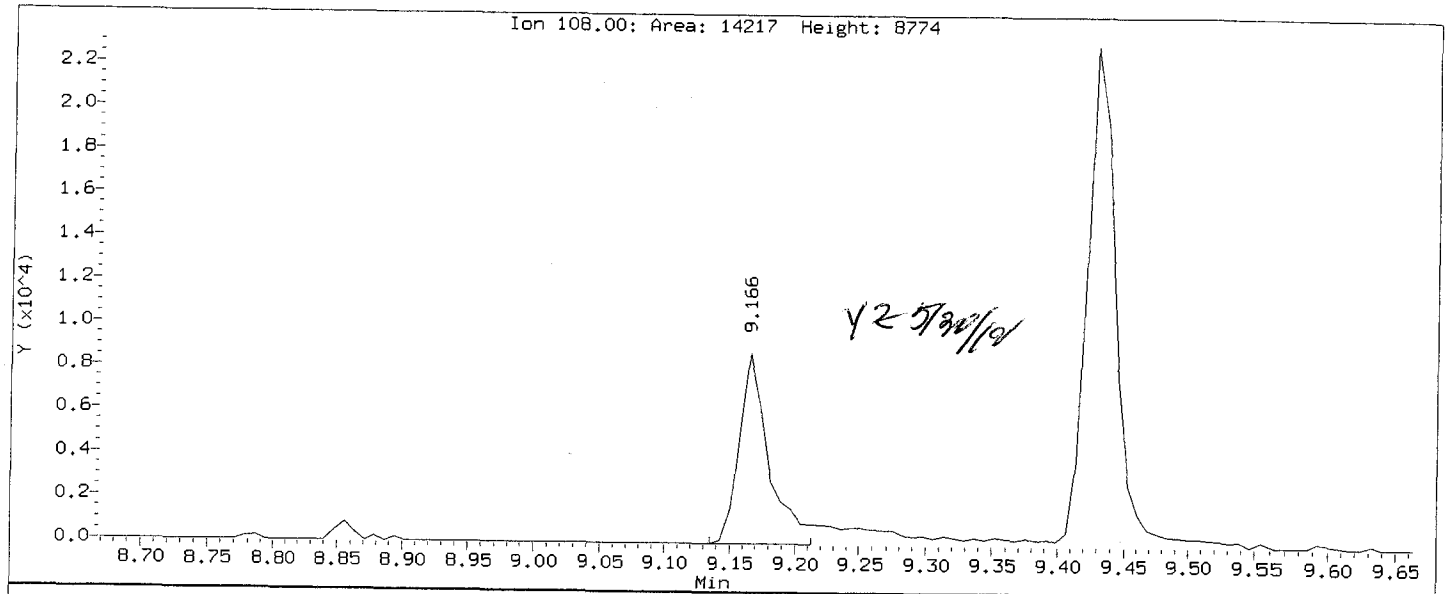
Operator: VTS/YZ
Column phase: ZB-5msi
Column diameter: 0.25

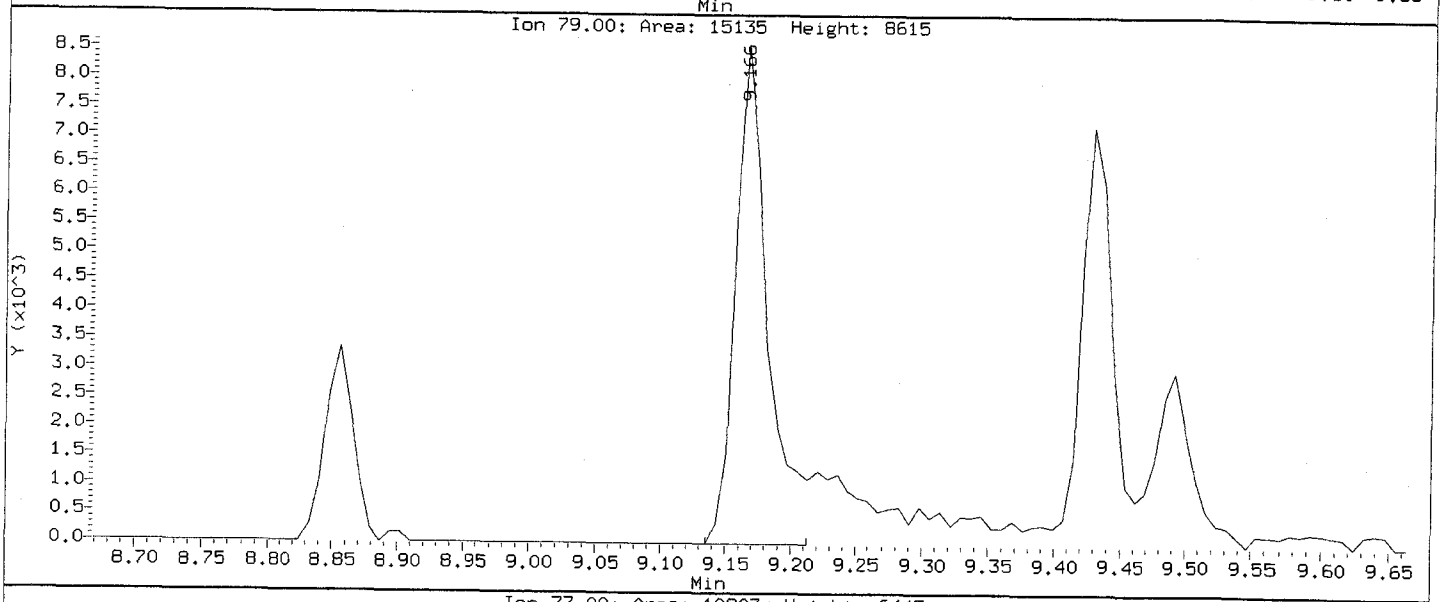


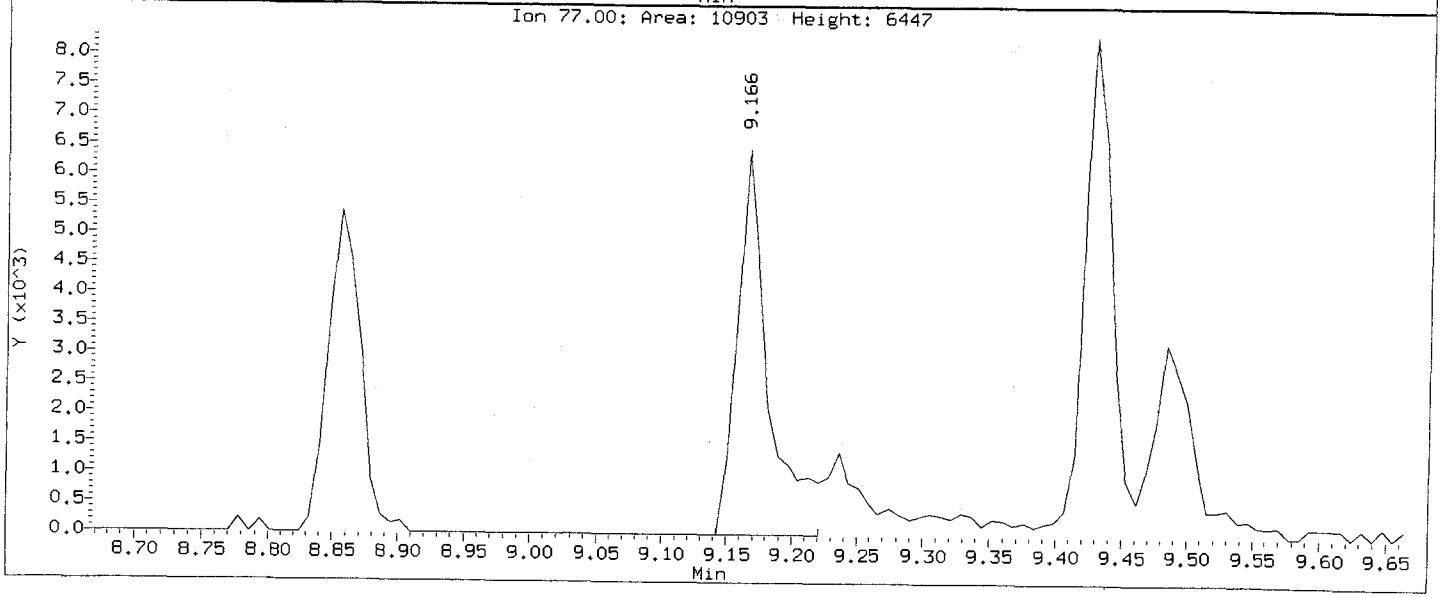


Data File: /chem1/nt10.i/20120526.b/ic0526e.d
Injection Date: 26-MAY-2012 13:27
Instrument: nt10.i
Client Sample ID:

Compound: Benzyl alcohol
CAS Number: 100-51-6

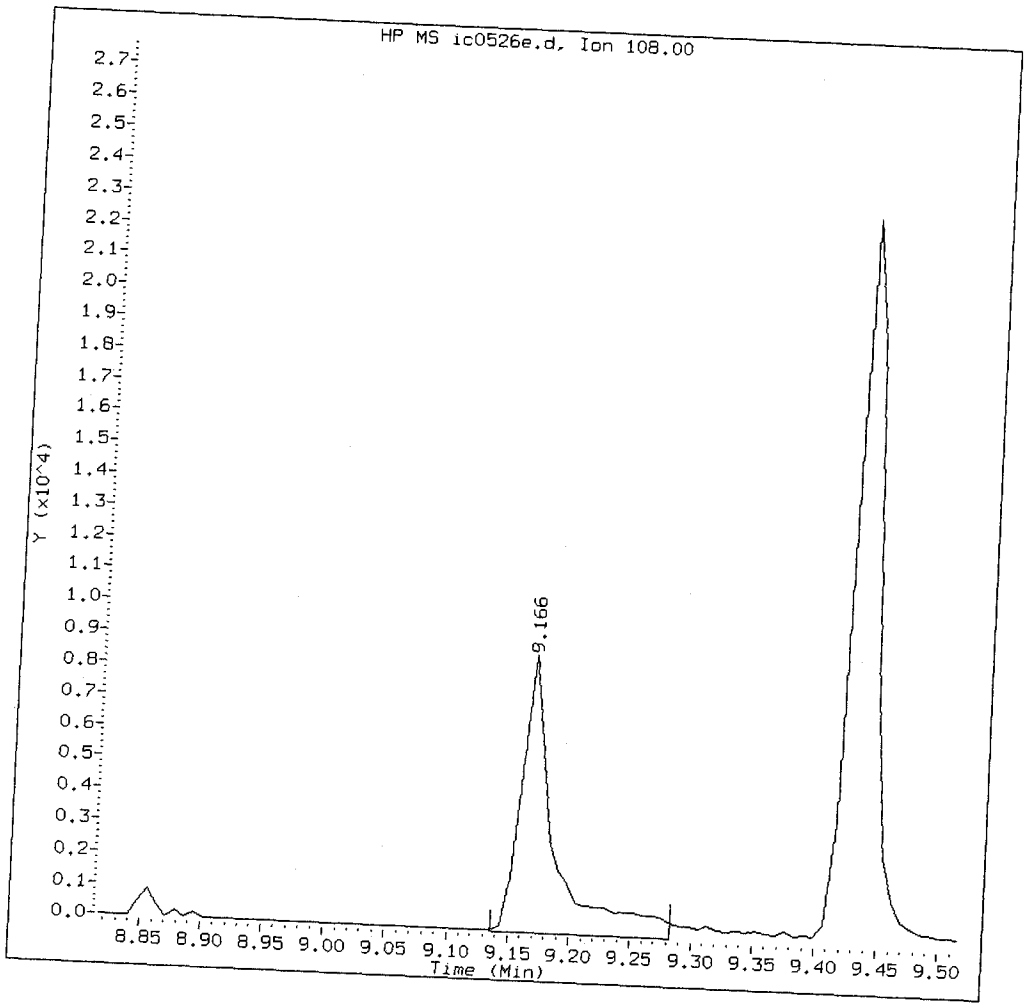


ABN.5, /chem1/nt10.i/20120526.b/ic0526e.d

Benzyl alcohol  Amount: 0.47  Area: 17957




MANUAL INTEGRATION for Benzyl alcohol

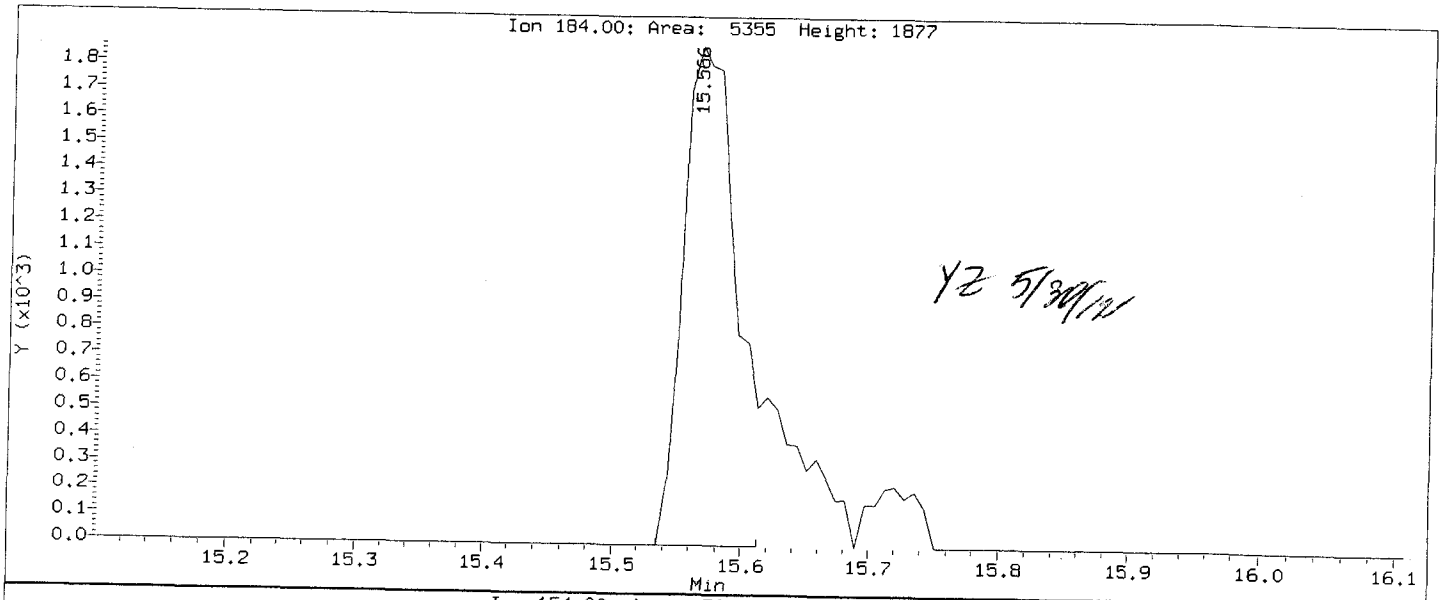
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

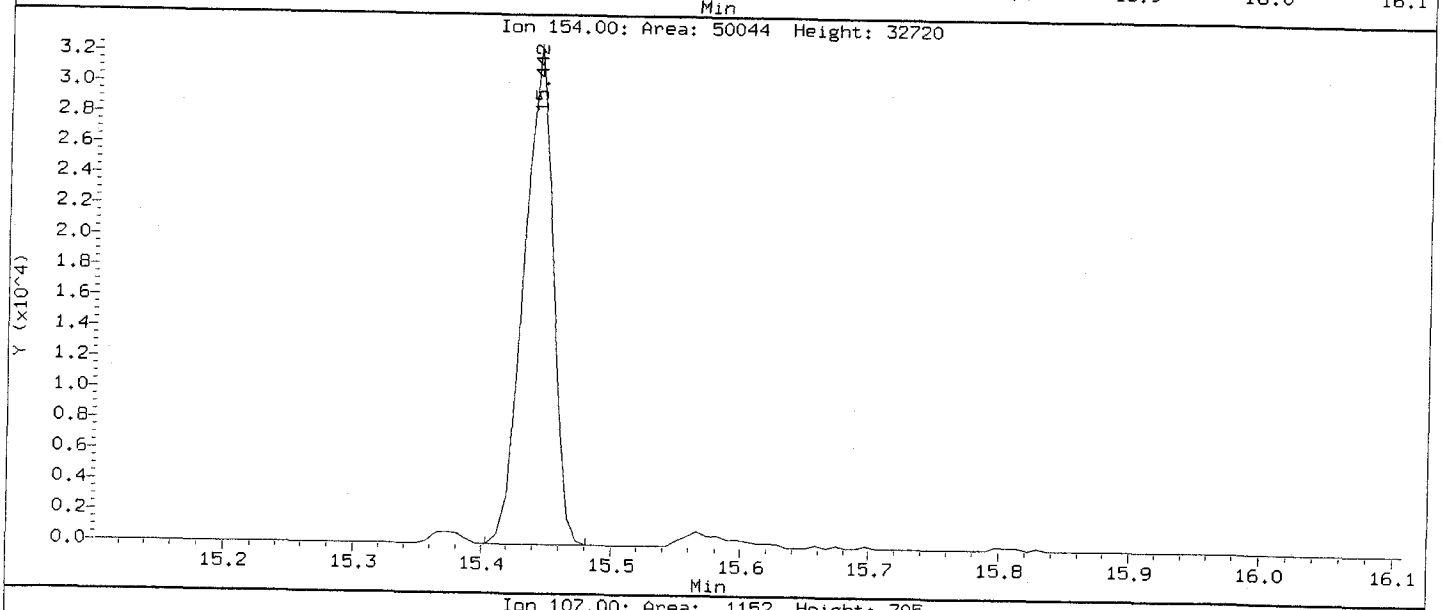
5. Other _____

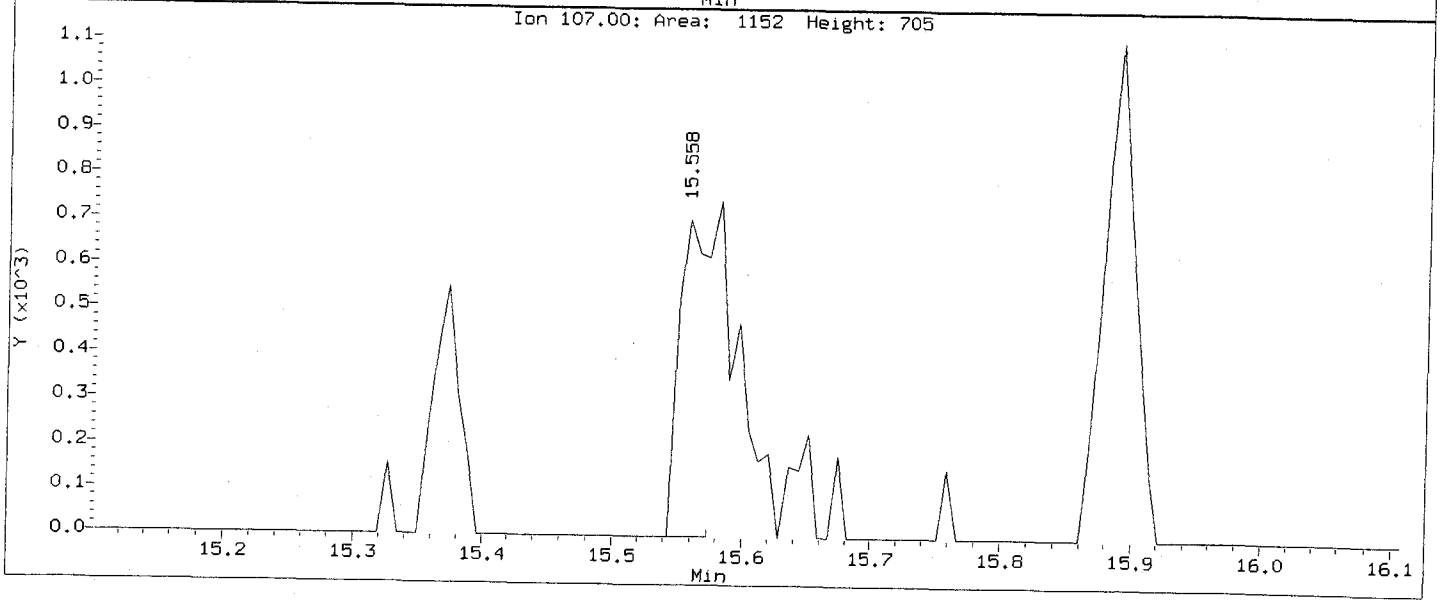
Analyst: YZ  Date: 5/22/12

Data File: /chem1/nt10.i/20120526.b/ic0526e.d
Injection Date: 26-MAY-2012 13:27
Instrument: nt10.i
Client Sample ID:

Compound: 2,4-Dinitrophenol
CAS Number: 51-28-5



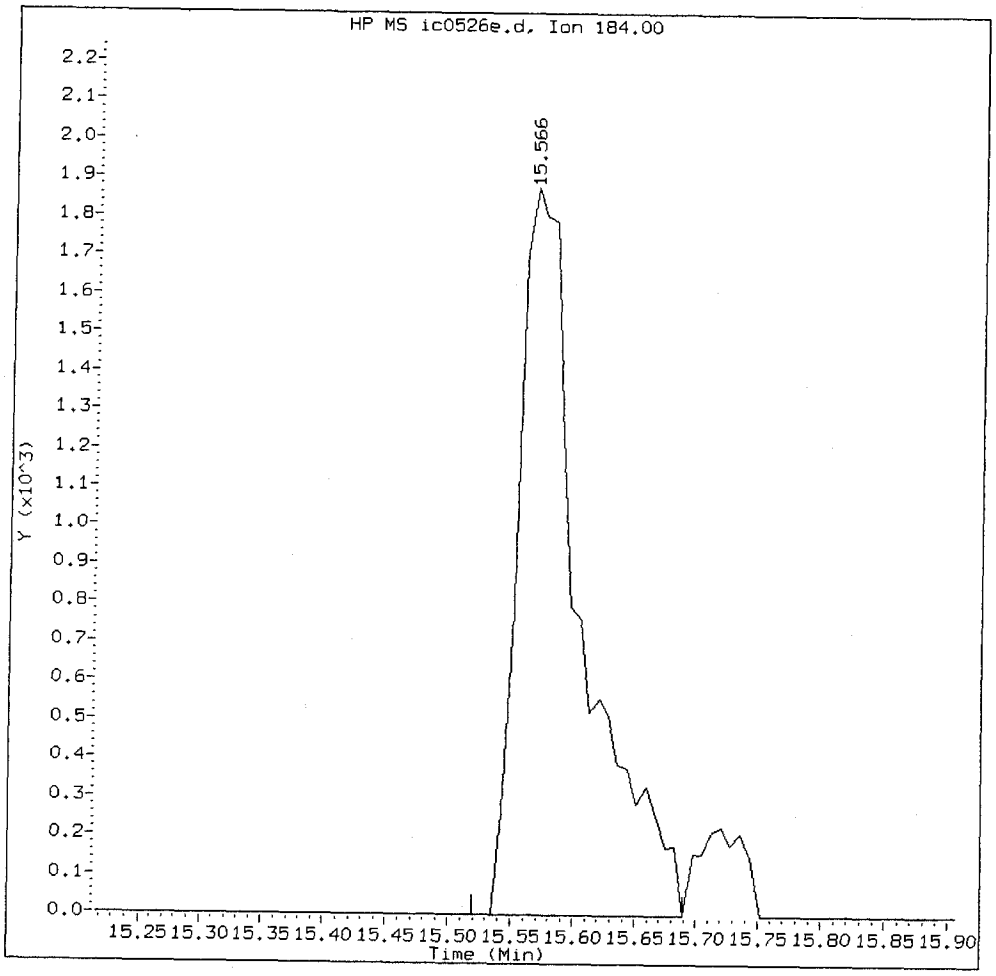




UU52 : 00471

ABN.5, /chem1/nt10.i/20120526.b/ic0526e.d

2,4-Dinitrophenol Amount: 0.34 Area: 6885




MANUAL INTEGRATION for 2,4-Dinitrophenol

1. Baseline correction ✓
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 5/8/12

CO-ELUTION SUMMARY FOR FILE - ic0526e.d

Lab ID: ABN.5, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/ic0526f.d
Lab Smp Id: ABN2.5
Inj Date : 26-MAY-2012 14:05
Operator : VTS/YZ
Smp Info : ABN2.5 Inst ID: nt10.i
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 30-May-2012 10:15 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:05 Cal File: ic0526f.d
Als bottle: 9 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50 Compound Sublist: PSDDAICAL.sub

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| $ | 1 2-Fluorophenol | 112 | 6.537 | 6.537 | (0.738) | 163966 | 2.50000 | 2.504 |
| $ | 2 Phenol-d5 | 99 | 8.237 | 8.229 | (0.930) | 203560 | 2.50000 | 2.488 |
| | 3 Phenol | 94 | 8.252 | 8.252 | (0.932) | 214943 | 2.50000 | 2.460 |
| $ | 5 2-Chlorophenol-d4 | 132 | 8.476 | 8.476 | (0.957) | 175190 | 2.50000 | 2.455 |
| | 4 Bis(2-Chloroethyl)ether | 93 | 8.399 | 8.399 | (0.948) | 161405 | 2.50000 | 2.502 |
| | 6 2-Chlorophenol | 128 | 8.507 | 8.507 | (0.961) | 187141 | 2.50000 | 2.428 |
| * | 8 1,4-Dichlorobenzene-d4 | 146 | 8.786 | 8.786 | (0.992) | 193358 | 2.50000 | 2.521 |
| | 9 1,4-Dichlorobenzene | 152 | 8.855 | 8.856 | (1.000) | 187226 | 4.00000 | |
| $ | 10 1,2-Dichlorobenzene-d4 | 146 | 8.886 | 8.887 | (1.004) | 188831 | 2.50000 | 2.517 |
| | 12 1,2-Dichlorobenzene | 152 | 9.236 | 9.236 | (1.043) | 116707 | 2.50000 | 2.496 |
| | 11 Benzyl alcohol | 146 | 9.267 | 9.267 | (1.046) | 182496 | 2.50000 | 2.507 |
| | 14 2,2'-oxybis(1-Chloropropane) | 108 | 9.166 | 9.166 | (1.035) | 88501 | 2.50000 | 2.376 |
| | 13 2-Methylphenol | 121 | 9.492 | 9.492 | (1.072) | 58372 | 2.50000 | 2.450 |
| | 17 Hexachloroethane | 108 | 9.430 | 9.430 | (1.065) | 169060 | 2.50000 | 2.465 |
| | 16 N-Nitroso-di-n-propylamine | 117 | 9.888 | 9.888 | (1.117) | 72338 | 2.50000 | 2.477 |
| | 15 4-Methylphenol | 70 | 9.764 | 9.756 | (1.103) | 103017 | 2.50000 | 2.561 |
| $ | 18 Nitrobenzene-d5 | 108 | 9.725 | 9.725 | (1.098) | 181313 | 2.50000 | 2.535 |
| | 19 Nitrobenzene | 82 | 10.027 | 10.020 | (0.872) | 165680 | 2.50000 | 2.515 |
| | 20 Isophorone | 77 | 10.059 | 10.059 | (0.875) | 159420 | 2.50000 | 2.457 |
| | 21 2-Nitrophenol | 82 | 10.547 | 10.540 | (0.917) | 300995 | 2.50000 | 2.456 |
| | 22 2,4-Dimethylphenol | 139 | 10.733 | 10.733 | (0.934) | 101431 | 2.50000 | 2.468 |
| | 23 Bis(2-Chloroethoxy)methane | 107 | 10.833 | 10.833 | (0.942) | 327809 | 5.00000 | 5.084 |
| | 24 Benzoic acid | 93 | 11.034 | 11.034 | (0.960) | 178112 | 2.50000 | 2.456 |
| | 25 2,4-Dichlorophenol | 105 | 11.041 | 10.995 | (0.960) | 346329 | 10.0000 | 10.05 |
| | 26 1,2,4-Trichlorobenzene | 162 | 11.234 | 11.226 | (0.977) | 318485 | 5.00000 | 5.108 |
| * | 27 Naphthalene-d8 | 180 | 11.419 | 11.411 | (0.993) | 144832 | 2.50000 | 2.446 |
| | | 136 | 11.496 | 11.496 | (1.000) | 736534 | 4.00000 | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 28 Naphthalene | 128 | 11.543 | 11.543 | (1.004) | 454524 | 2.50000 | 2.453 |
| | 29 4-Chloroaniline | 127 | 11.705 | 11.705 | (1.018) | 446445 | 5.00000 | 5.438 |
| | 30 Hexachlorobutadiene | 225 | 11.952 | 11.944 | (1.040) | 79815 | 2.50000 | 2.498 |
| | 31 4-Chloro-3-methylphenol | 107 | 12.772 | 12.772 | (1.111) | 277006 | 5.00000 | 4.944 |
| | 32 2-Methylnaphthalene | 142 | 13.043 | 13.043 | (1.135) | 319263 | 2.50000 | 2.468 |
| | 33 Hexachlorocyclopentadiene | 237 | 13.554 | 13.554 | (0.882) | 116347 | 5.00000 | 4.534 |
| | 34 2,4,6-Trichlorophenol | 196 | 13.724 | 13.724 | (0.893) | 202780 | 5.00000 | 5.139 |
| | 35 2,4,5-Trichlorophenol | 196 | 13.809 | 13.809 | (0.898) | 213973 | 5.00000 | 5.075 |
| $ | 36 2-Fluorobiphenyl | 172 | 13.902 | 13.902 | (0.904) | 350050 | 2.50000 | 2.533 |
| | 37 2-Chloronaphthalene | 162 | 14.103 | 14.104 | (0.917) | 296918 | 2.50000 | 2.524 |
| | 38 2-Nitroaniline | 65 | 14.398 | 14.398 | (0.937) | 143668 | 5.00000 | 5.075 |
| | 39 Dimethylphthalate | 163 | 14.893 | 14.885 | (0.969) | 312536 | 2.50000 | 2.568 |
| | 40 Acenaphthylene | 152 | 15.032 | 15.032 | (0.978) | 450800 | 2.50000 | 2.520 |
| | 41 2,6-Dinitrotoluene | 165 | 15.025 | 15.025 | (0.977) | 152535 | 5.00000 | 5.138 |
| * | 42 Acenaphthene-d10 | 164 | 15.373 | 15.373 | (1.000) | 398626 | 4.00000 | |
| | 43 3-Nitroaniline | 138 | 15.326 | 15.319 | (0.997) | 172207 | 5.00000 | 5.124 |
| | 44 Acenaphthene | 153 | 15.442 | 15.442 | (1.005) | 272450 | 2.50000 | 2.523 |
| | 45 2,4-Dinitrophenol | 184 | 15.550 | 15.558 | (1.012) | 137413 | 10.0000 | 8.623 |
| | 46 Dibenzofuran | 168 | 15.798 | 15.798 | (1.028) | 403546 | 2.50000 | 2.559 |
| | 47 4-Nitrophenol | 109 | 15.728 | 15.736 | (1.023) | 68140 | 5.00000 | 5.213 |
| | 48 2,4-Dinitrotoluene | 165 | 15.891 | 15.891 | (1.034) | 198671 | 5.00000 | 5.180 |
| | 50 Diethylphthalate | 149 | 16.470 | 16.463 | (1.071) | 307774 | 2.50000 | 2.585 |
| | 49 Fluorene | 166 | 16.563 | 16.563 | (1.077) | 301793 | 2.50000 | 2.492 |
| | 51 4-Chlorophenyl-phenylether | 204 | 16.579 | 16.579 | (1.078) | 144930 | 2.50000 | 2.524 |
| | 52 4-Nitroaniline | 138 | 16.687 | 16.687 | (1.085) | 176757 | 5.00000 | 5.213 |
| | 53 4,6-Dinitro-2-methylphenol | 198 | 16.795 | 16.795 | (0.901) | 252721 | 10.0000 | 9.942 |
| | 54 N-Nitrosodiphenylamine | 169 | 16.857 | 16.857 | (0.905) | 209250 | 2.50000 | 2.507 |
| $ | 55 2,4,6-Tribromophenol | 330 | 17.142 | 17.142 | (1.115) | 41145 | 2.50000 | 2.499 |
| | 56 4-Bromophenyl-phenylether | 248 | 17.658 | 17.659 | (0.948) | 82575 | 2.50000 | 2.469 |
| | 57 Hexachlorobenzene | 284 | 17.975 | 17.976 | (0.965) | 97159 | 2.50000 | 2.528 |
| | 58 Pentachlorophenol | 266 | 18.378 | 18.386 | (0.986) | 76549 | 5.00000 | 4.373 |
| * | 59 Phenanthrene-d10 | 188 | 18.633 | 18.633 | (1.000) | 624933 | 4.00000 | |
| | 60 Phenanthrene | 178 | 18.680 | 18.680 | (1.002) | 393807 | 2.50000 | 2.446 |
| | 61 Anthracene | 178 | 18.780 | 18.780 | (1.008) | 411608 | 2.50000 | 2.442 |
| | 62 Carbazole | 167 | 19.144 | 19.144 | (1.027) | 388580 | 2.50000 | 2.526 |
| | 63 Di-n-butylphthalate | 149 | 20.011 | 20.003 | (1.074) | 535468 | 2.50000 | 2.437 |
| | 64 Fluoranthene | 202 | 21.101 | 21.102 | (1.132) | 444971 | 2.50000 | 2.418 |
| | 65 Pyrene | 202 | 21.519 | 21.519 | (0.908) | 467901 | 2.50000 | 2.490 |
| $ | 66 Terphenyl-d14 | 244 | 21.844 | 21.837 | (0.922) | 300747 | 2.50000 | 2.555 |
| | 67 Butylbenzylphthalate | 149 | 22.781 | 22.781 | (0.961) | 217413 | 2.50000 | 2.493 |
| | 68 Benzo(a)anthracene | 228 | 23.679 | 23.679 | (0.999) | 425208 | 2.50000 | 2.439 |
| * | 69 Chrysene-d12 | 240 | 23.702 | 23.703 | (1.000) | 619154 | 4.00000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | 23.656 | 23.656 | (0.998) | 494771 | 5.00000 | 5.240 |
| | 71 Chrysene | 228 | 23.749 | 23.749 | (1.002) | 373335 | 2.50000 | 2.440 |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 23.819 | 23.819 | (0.961) | 311745 | 2.50000 | 2.441 |
| * | 134 Di-n-octylphthalate-d4 | 153 | 24.794 | 24.794 | (1.000) | 927369 | 4.00000 | |
| | 73 Di-n-octylphthalate | 149 | 24.802 | 24.802 | (1.000) | 554323 | 2.50000 | 2.463 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 74 Benzo(b)fluoranthene | 252 | 25.444 | 25.444 | (0.975) | 415398 | 2.50000 | 2.355 |
| | 75 Benzo(k)fluoranthene | 252 | 25.483 | 25.483 | (0.976) | 489418 | 2.50000 | 2.545 |
| | 76 Benzo(a)pyrene | 252 | 26.002 | 26.002 | (0.996) | 396982 | 2.50000 | 2.455 |
| * | 77 Perylene-d12 | 264 | 26.102 | 26.103 | (1.000) | 625787 | 4.00000 | |
| | 78 Indeno(1,2,3-cd)pyrene | 276 | 28.334 | 28.334 | (1.085) | 474062 | 2.50000 | 2.526 |
| | 79 Dibenzo(a,h)anthracene | 278 | 28.357 | 28.357 | (1.086) | 374919 | 2.50000 | 2.540 |
| | 80 Benzo(g,h,i)perylene | 276 | 28.986 | 28.987 | (1.110) | 400932 | 2.50000 | 2.488 |
| | 90 N-Nitrosodimethylamine | 74 | 4.266 | 4.266 | (0.482) | 197905 | 5.00000 | 5.084 |
| | 91 Aniline | 93 | 8.291 | 8.291 | (0.936) | 467689 | 2.50000 | 2.537 |
| | 93 Benzidine | 184 | 21.364 | 21.365 | (0.901) | 329105 | 5.00000 | 4.686 |
| | 103 Pyridine | 79 | 4.282 | 4.290 | (0.484) | 173343 | 5.00000 | 5.197 |
| | 105 1-methylnaphthalene | 142 | 13.275 | 13.275 | (1.155) | 326983 | 2.50000 | 2.475 |
| | 111 Azobenzene (1,2-DP-Hydrazine) | 77 | 16.926 | 16.926 | (1.101) | 310185 | 2.50000 | 2.575 |
| | 187 Total Benzofluoranthenes | 252 | 25.483 | 25.483 | (0.976) | 847269 | 5.00000 | 4.890 |
| | 99 Perylene | 252 | 26.149 | 26.149 | (1.002) | 392397 | 2.50000 | 2.416 |
| | 98 Retene | 219 | 22.131 | 22.131 | (0.934) | 216647 | 2.50000 | 2.459 |

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0526f.d
Lab Smp Id: ABN2.5
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info:

Calibration Date: 26-MAY-2012
Calibration Time: 10:59

Level:
Sample Type:

Test Mode:

Use Initial Calibration Level 5.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 187226 | -1.21 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 736534 | 0.77 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 398626 | -5.25 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 624933 | -2.19 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 619154 | -4.02 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 927369 | -8.73 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 625787 | -3.73 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.86 | 0.00 |
| 27 Naphthalene-d8 | 11.50 | 11.00 | 12.00 | 11.50 | -0.07 |
| 42 Acenaphthene-d10 | 15.37 | 14.87 | 15.87 | 15.37 | 0.00 |
| 59 Phenanthrene-d10 | 18.63 | 18.13 | 19.13 | 18.63 | 0.00 |
| 69 Chrysene-d12 | 23.71 | 23.21 | 24.21 | 23.70 | -0.03 |
| 134 Di-n-octylphthala | 24.79 | 24.29 | 25.29 | 24.79 | 0.00 |
| 77 Perylene-d12 | 26.10 | 25.60 | 26.60 | 26.10 | 0.00 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

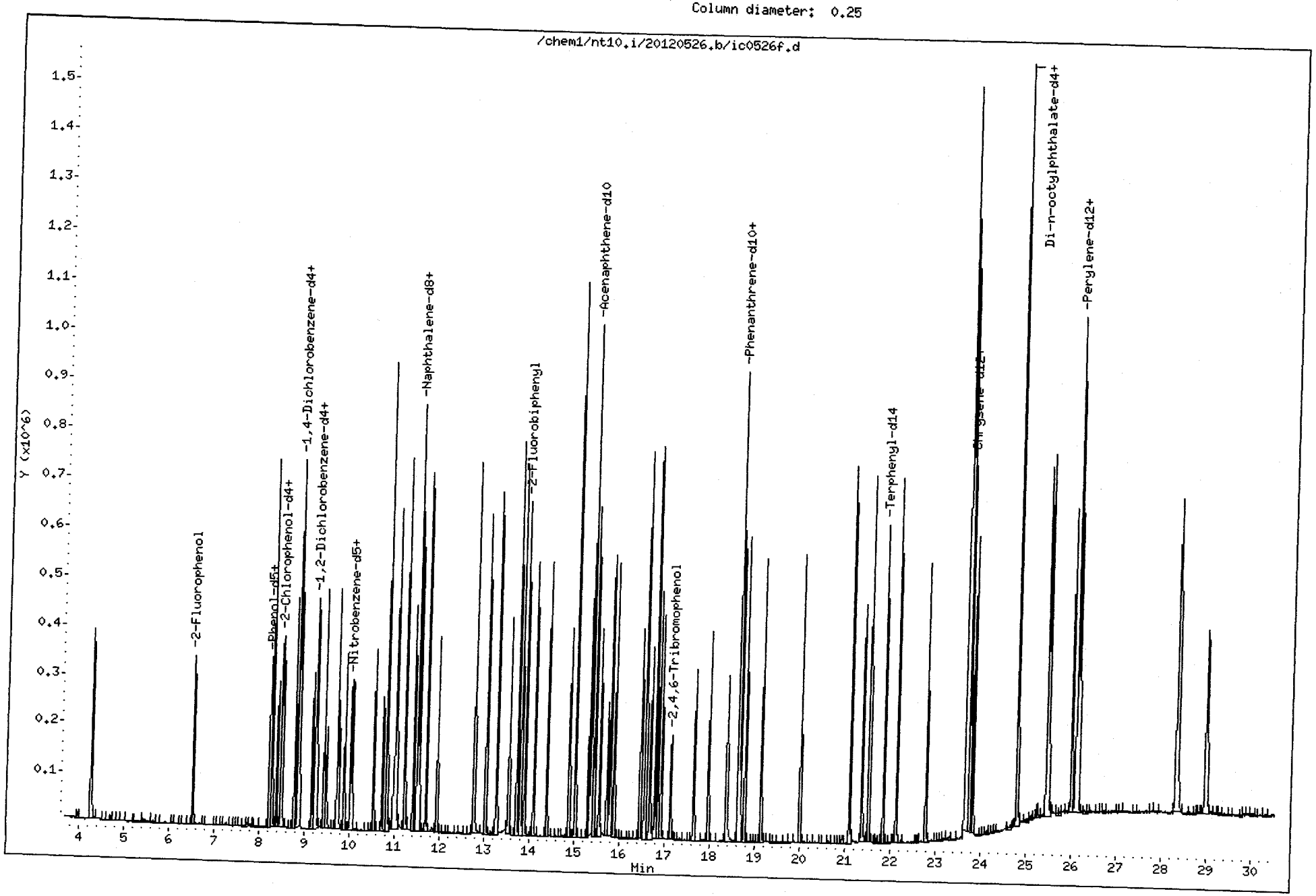
Data File: /chem1/nt10.i/20120526.b/ic0526f.d
Date : 26-MAY-2012 14:05
Client ID:
Sample Info: ABN2.5

Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25





CO-ELUTION SUMMARY FOR FILE - ic0526f.d

Lab ID: ABN2.5, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/ic0526g.d
Lab Smp Id: ABN1.0
Inj Date : 26-MAY-2012 14:42
Operator : VTS/YZ
Smp Info : ABN1.0
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 30-May-2012 10:15 yev
Cal Date : 26-MAY-2012 14:42
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50

Inst ID: nt10.i

Quant Type: ISTD
Cal File: ic0526g.d
Calibration Sample, Level: 3

Compound Sublist: PSDDAICAL.sub

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| $ | 1 2-Fluorophenol | 112 | 6.537 | 6.537 | (0.738) | 67712 | 1.00000 | 0.9987 |
| $ | 2 Phenol-d5 | 99 | 8.229 | 8.229 | (0.929) | 82827 | 1.00000 | 0.9807 |
| | 3 Phenol | 94 | 8.252 | 8.252 | (0.932) | 87196 | 1.00000 | 0.9686 |
| $ | 5 2-Chlorophenol-d4 | 132 | 8.476 | 8.476 | (0.957) | 74501 | 1.00000 | 1.007 |
| | 4 Bis(2-Chloroethyl)ether | 93 | 8.399 | 8.399 | (0.948) | 68297 | 1.00000 | 1.019 |
| | 6 2-Chlorophenol | 128 | 8.507 | 8.507 | (0.961) | 77627 | 1.00000 | 0.9765 |
| | 7 1,3-Dichlorobenzene | 146 | 8.786 | 8.786 | (0.992) | 80562 | 1.00000 | 1.012 |
| * | 8 1,4-Dichlorobenzene-d4 | 152 | 8.856 | 8.856 | (1.000) | 193887 | 4.00000 | |
| | 9 1,4-Dichlorobenzene | 146 | 8.887 | 8.887 | (1.004) | 77656 | 1.00000 | 0.9996 |
| $ | 10 1,2-Dichlorobenzene-d4 | 152 | 9.236 | 9.236 | (1.043) | 49288 | 1.00000 | 1.015 |
| | 12 1,2-Dichlorobenzene | 146 | 9.267 | 9.267 | (1.046) | 78319 | 1.00000 | 1.033 |
| | 11 Benzyl alcohol | 108 | 9.166 | 9.166 | (1.035) | 33270 | 1.00000 | 0.8797 |
| | 14 2,2'-oxybis(1-Chloropropane) | 121 | 9.492 | 9.492 | (1.072) | 24706 | 1.00000 | 1.001 |
| | 13 2-Methylphenol | 108 | 9.430 | 9.430 | (1.065) | 70476 | 1.00000 | 0.9933 |
| | 17 Hexachloroethane | 117 | 9.888 | 9.888 | (1.117) | 29826 | 1.00000 | 0.9882 |
| | 16 N-Nitroso-di-n-propylamine | 70 | 9.756 | 9.756 | (1.102) | 42756 | 1.00000 | 1.023 |
| | 15 4-Methylphenol | 108 | 9.725 | 9.725 | (1.098) | 73702 | 1.00000 | 0.9957 |
| $ | 18 Nitrobenzene-d5 | 82 | 10.020 | 10.020 | (0.872) | 67950 | 1.00000 | 1.011 |
| | 19 Nitrobenzene | 77 | 10.059 | 10.059 | (0.875) | 66607 | 1.00000 | 1.007 |
| | 20 Isophorone | 82 | 10.540 | 10.540 | (0.917) | 123948 | 1.00000 | 0.9936 |
| | 21 2-Nitrophenol | 139 | 10.733 | 10.733 | (0.934) | 40831 | 1.00000 | 0.9786 |
| | 22 2,4-Dimethylphenol | 107 | 10.833 | 10.833 | (0.942) | 137179 | 2.00000 | 2.075 |
| | 23 Bis(2-Chloroethoxy)methane | 93 | 11.034 | 11.034 | (0.960) | 76763 | 1.00000 | 1.033 |
| | 24 Benzoic acid | 105 | 10.995 | 10.995 | (0.956) | 97576 | 4.00000 | 2.907 |
| | 25 2,4-Dichlorophenol | 162 | 11.226 | 11.226 | (0.976) | 127789 | 2.00000 | 2.010 |
| | 26 1,2,4-Trichlorobenzene | 180 | 11.411 | 11.411 | (0.993) | 61741 | 1.00000 | 1.020 |
| * | 27 Naphthalene-d8 | 136 | 11.496 | 11.496 | (1.000) | 750391 | 4.00000 | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 28 Naphthalene | 128 | 11.543 | 11.543 | (1.004) | 191351 | 1.00000 | 1.012 |
| | 29 4-Chloroaniline | 127 | 11.705 | 11.705 | (1.018) | 176284 | 2.00000 | 2.092 |
| | 30 Hexachlorobutadiene | 225 | 11.944 | 11.944 | (1.039) | 32510 | 1.00000 | 0.9988 |
| | 31 4-Chloro-3-methylphenol | 107 | 12.772 | 12.772 | (1.111) | 113753 | 2.00000 | 1.994 |
| | 32 2-Methylnaphthalene | 142 | 13.043 | 13.043 | (1.135) | 129910 | 1.00000 | 0.9878 |
| | 33 Hexachlorocyclopentadiene | 237 | 13.554 | 13.554 | (0.882) | 35252 | 2.00000 | 1.409 |
| | 34 2,4,6-Trichlorophenol | 196 | 13.724 | 13.724 | (0.893) | 78941 | 2.00000 | 1.946 |
| | 35 2,4,5-Trichlorophenol | 196 | 13.809 | 13.809 | (0.898) | 85517 | 2.00000 | 1.969 |
| $ | 36 2-Fluorobiphenyl | 172 | 13.902 | 13.902 | (0.904) | 142575 | 1.00000 | 0.9990 |
| | 37 2-Chloronaphthalene | 162 | 14.104 | 14.104 | (0.917) | 124911 | 1.00000 | 1.024 |
| | 38 2-Nitroaniline | 65 | 14.398 | 14.398 | (0.937) | 57672 | 2.00000 | 1.976 |
| | 39 Dimethylphthalate | 163 | 14.885 | 14.885 | (0.968) | 131397 | 1.00000 | 1.039 |
| | 40 Acenaphthylene | 152 | 15.032 | 15.032 | (0.978) | 185662 | 1.00000 | 1.004 |
| | 41 2,6-Dinitrotoluene | 165 | 15.025 | 15.025 | (0.977) | 63520 | 2.00000 | 2.061 |
| * | 42 Acenaphthene-d10 | 164 | 15.373 | 15.373 | (1.000) | 411692 | 4.00000 | |
| | 43 3-Nitroaniline | 138 | 15.319 | 15.319 | (0.996) | 70660 | 2.00000 | 2.031 |
| | 44 Acenaphthene | 153 | 15.442 | 15.442 | (1.005) | 111440 | 1.00000 | 0.9992 |
| | 45 2,4-Dinitrophenol | 184 | 15.558 | 15.558 | (1.012) | 31710 | 4.00000 | 2.109 |
| | 46 Dibenzofuran | 168 | 15.798 | 15.798 | (1.028) | 166661 | 1.00000 | 1.020 |
| | 47 4-Nitrophenol | 109 | 15.736 | 15.736 | (1.024) | 25473 | 2.00000 | 1.902 |
| | 48 2,4-Dinitrotoluene | 165 | 15.891 | 15.891 | (1.034) | 81362 | 2.00000 | 2.046 |
| | 50 Diethylphthalate | 149 | 16.463 | 16.463 | (1.071) | 125440 | 1.00000 | 1.017 |
| | 49 Fluorene | 166 | 16.563 | 16.563 | (1.077) | 125909 | 1.00000 | 1.006 |
| | 51 4-Chlorophenyl-phenylether | 204 | 16.579 | 16.579 | (1.078) | 60269 | 1.00000 | 1.014 |
| | 52 4-Nitroaniline | 138 | 16.687 | 16.687 | (1.085) | 77522 | 2.00000 | 2.180 |
| | 53 4,6-Dinitro-2-methylphenol | 198 | 16.795 | 16.795 | (0.901) | 88128 | 4.00000 | 3.497 |
| | 54 N-Nitrosodiphenylamine | 169 | 16.857 | 16.857 | (0.905) | 89101 | 1.00000 | 1.043 |
| $ | 55 2,4,6-Tribromophenol | 330 | 17.142 | 17.142 | (1.115) | 16908 | 1.00000 | 0.9950 |
| | 56 4-Bromophenyl-phenylether | 248 | 17.659 | 17.659 | (0.948) | 34045 | 1.00000 | 1.001 |
| | 57 Hexachlorobenzene | 284 | 17.976 | 17.976 | (0.965) | 40047 | 1.00000 | 1.022 |
| | 58 Pentachlorophenol | 266 | 18.386 | 18.386 | (0.987) | 24770 | 2.00000 | 1.467 |
| * | 59 Phenanthrene-d10 | 188 | 18.633 | 18.633 | (1.000) | 635080 | 4.00000 | |
| | 60 Phenanthrene | 178 | 18.680 | 18.680 | (1.002) | 164484 | 1.00000 | 1.004 |
| | 61 Anthracene | 178 | 18.780 | 18.780 | (1.008) | 169650 | 1.00000 | 0.9917 |
| | 62 Carbazole | 167 | 19.144 | 19.144 | (1.027) | 169887 | 1.00000 | 1.073 |
| | 63 Di-n-butylphthalate | 149 | 20.003 | 20.003 | (1.073) | 219684 | 1.00000 | 0.9861 |
| | 64 Fluoranthene | 202 | 21.102 | 21.102 | (1.132) | 179541 | 1.00000 | 0.9656 |
| | 65 Pyrene | 202 | 21.519 | 21.519 | (0.908) | 197362 | 1.00000 | 1.015 |
| $ | 66 Terphenyl-d14 | 244 | 21.837 | 21.837 | (0.921) | 123736 | 1.00000 | 1.016 |
| | 67 Butylbenzylphthalate | 149 | 22.781 | 22.781 | (0.961) | 91227 | 1.00000 | 1.012 |
| | 68 Benzo(a)anthracene | 228 | 23.679 | 23.679 | (0.999) | 178718 | 1.00000 | 0.9944 |
| * | 69 Chrysene-d12 | 240 | 23.703 | 23.703 | (1.000) | 638910 | 4.00000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | 23.656 | 23.656 | (0.998) | 206440 | 2.00000 | 2.098 |
| | 71 Chrysene | 228 | 23.749 | 23.749 | (1.002) | 159367 | 1.00000 | 1.008 |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 23.819 | 23.819 | (0.961) | 126524 | 1.00000 | 0.9823 |
| * | 134 Di-n-octylphthalate-d4 | 153 | 24.794 | 24.794 | (1.000) | 937949 | 4.00000 | |
| | 73 Di-n-octylphthalate | 149 | 24.802 | 24.802 | (1.000) | 231357 | 1.00000 | 1.014 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| 74 | Benzo(b)fluoranthene | 252 | 25.444 | 25.444 | (0.975) | 172850 | 1.00000 | 0.9793 |
| 75 | Benzo(k)fluoranthene | 252 | 25.483 | 25.483 | (0.976) | 201900 | 1.00000 | 1.039 |
| 76 | Benzo(a)pyrene | 252 | 26.002 | 26.002 | (0.996) | 163104 | 1.00000 | 1.004 |
| * 77 | Perylene-d12 | 264 | 26.103 | 26.103 | (1.000) | 628310 | 4.00000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | 28.334 | 28.334 | (1.085) | 184943 | 1.00000 | 0.9841 |
| 79 | Dibenzo(a,h)anthracene | 278 | 28.357 | 28.357 | (1.086) | 147098 | 1.00000 | 0.9937 |
| 80 | Benzo(g,h,i)perylene | 276 | 28.987 | 28.987 | (1.110) | 157075 | 1.00000 | 0.9747 |
| 90 | N-Nitrosodimethylamine | 74 | 4.266 | 4.266 | (0.482) | 80663 | 2.00000 | 2.001 |
| 91 | Aniline | 93 | 8.291 | 8.291 | (0.936) | 196937 | 1.00000 | 1.027 |
| 93 | Benzidine | 184 | 21.365 | 21.365 | (0.901) | 151908 | 2.00000 | 2.082 |
| 103 | Pyridine | 79 | 4.290 | 4.290 | (0.484) | 72771 | 2.00000 | 2.091 |
| 105 | 1-methylnaphthalene | 142 | 13.275 | 13.275 | (1.155) | 131250 | 1.00000 | 0.9786 |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | 16.926 | 16.926 | (1.101) | 128094 | 1.00000 | 1.025 |
| 187 | Total Benzofluoranthenes | 252 | 25.483 | 25.483 | (0.976) | 353049 | 2.00000 | 2.025 |
| 99 | Perylene | 252 | 26.149 | 26.149 | (1.002) | 164917 | 1.00000 | 1.010 |
| 98 | Retene | 219 | 22.131 | 22.131 | (0.934) | 88185 | 1.00000 | 0.9742 |

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0526g.d
Lab Smp Id: ABN1.0
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info:

Calibration Date: 26-MAY-2012
Calibration Time: 10:59

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 193887 | 2.31 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 750391 | 2.66 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 411692 | -2.14 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 635080 | -0.61 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 638910 | -0.95 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 937949 | -7.69 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 628310 | -3.34 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.86 | 0.00 |
| 27 Naphthalene-d8 | 11.50 | 11.00 | 12.00 | 11.50 | -0.07 |
| 42 Acenaphthene-d10 | 15.37 | 14.87 | 15.87 | 15.37 | 0.00 |
| 59 Phenanthrene-d10 | 18.63 | 18.13 | 19.13 | 18.63 | 0.00 |
| 69 Chrysene-d12 | 23.71 | 23.21 | 24.21 | 23.70 | -0.03 |
| 134 Di-n-octylphthala | 24.79 | 24.29 | 25.29 | 24.79 | 0.00 |
| 77 Perylene-d12 | 26.10 | 25.60 | 26.60 | 26.10 | 0.00 |

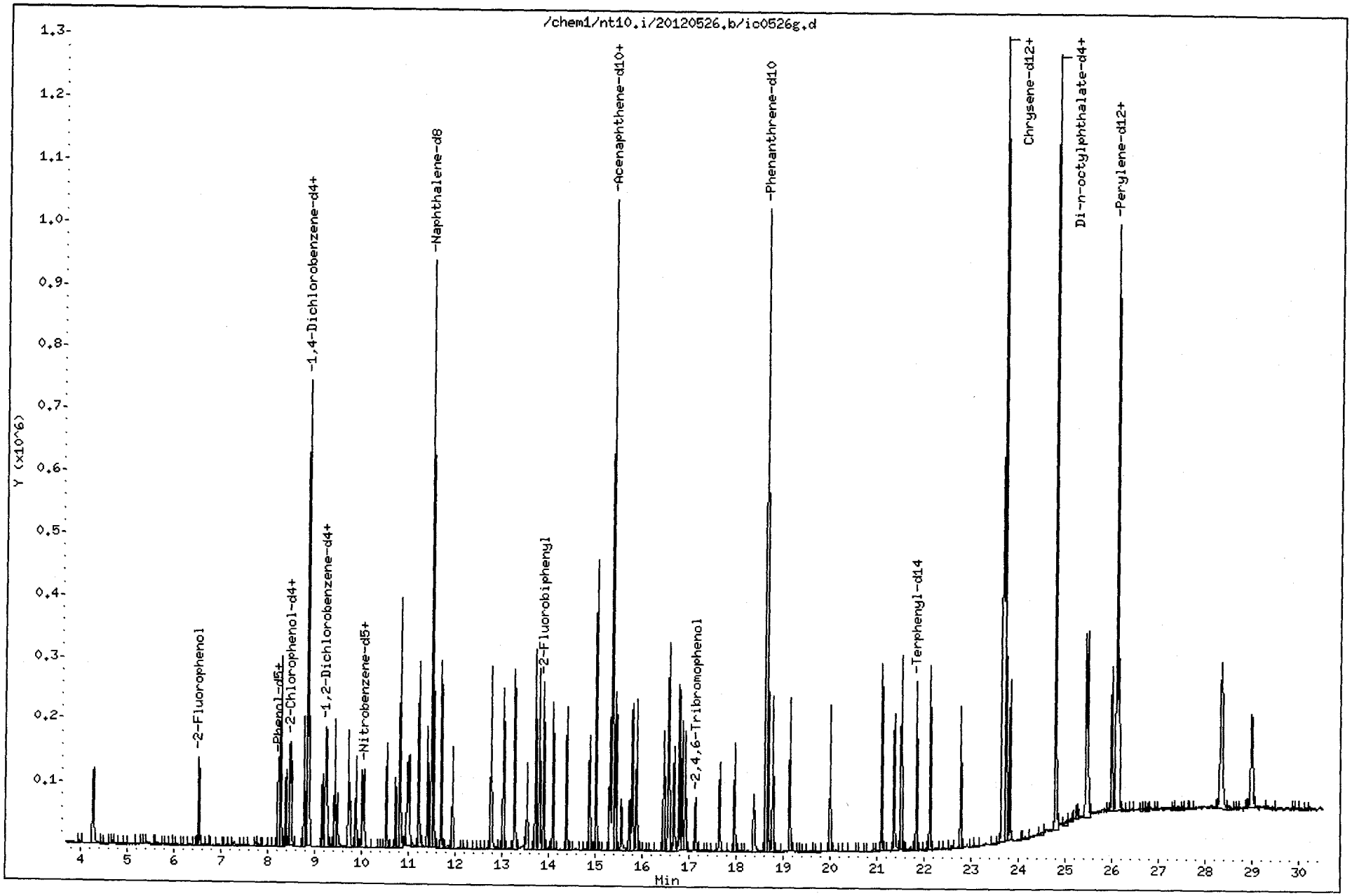
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20120526.b/ic0526g.d
Date : 26-MAY-2012 14:42
Client ID:
Sample Info: ABN1.0

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - ic0526g.d

Lab ID: ABN1.0, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Data File: /chem1/nt10.i/20120526.b/icv0526.d
Report Date: 30-May-2012 11:39



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/icv0526.d
Lab Smp Id: ICV-5
Inj Date : 26-MAY-2012 15:19
Operator : VTS/YZ
Smp Info : ICV-5
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 30-May-2012 11:37 yev
Cal Date : 26-MAY-2012 14:42
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.50

Inst ID: nt10.i
Quant Type: ISTD
Cal File: ic0526g.d
QC Sample: LCS
Compound Sublist: PSDDAICAL.sub

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| $ | 1 2-Fluorophenol | 112 | Compound Not Detected. | | | | | |
| $ | 2 Phenol-d5 | 99 | 8.507 | 8.229 | (0.961) | 24638 | 0.22682 | 0.2268(R) |
| | 3 Phenol | 94 | 8.260 | 8.252 | (0.933) | 612543 | 5.29055 | 5.291 |
| $ | 5 2-Chlorophenol-d4 | 132 | Compound Not Detected. | | | | | |
| | 4 Bis(2-Chloroethyl)ether | 93 | 8.399 | 8.399 | (0.948) | 440342 | 5.10797 | 5.108 |
| | 6 2-Chlorophenol | 128 | 8.507 | 8.507 | (0.961) | 524588 | 5.13081 | 5.131 |
| * | 7 1,3-Dichlorobenzene | 146 | 8.786 | 8.786 | (0.992) | 519359 | 5.07355 | 5.074 |
| | 8 1,4-Dichlorobenzene-d4 | 152 | 8.855 | 8.856 | (1.000) | 249364 | 4.00000 | |
| | 9 1,4-Dichlorobenzene | 146 | 8.886 | 8.887 | (1.004) | 494897 | 4.95322 | 4.953 |
| $ | 10 1,2-Dichlorobenzene-d4 | 152 | Compound Not Detected. | | | | | |
| | 12 1,2-Dichlorobenzene | 146 | 9.267 | 9.267 | (1.046) | 486192 | 4.98706 | 4.987 |
| | 11 Benzyl alcohol | 108 | 9.166 | 9.166 | (1.035) | 318906 | 6.55607 | 6.556(R) |
| | 14 2,2'-oxybis(1-Chloropropane) | 121 | 9.492 | 9.492 | (1.072) | 158721 | 5.00118 | 5.001 |
| | 13 2-Methylphenol | 108 | 9.438 | 9.430 | (1.066) | 446731 | 4.89549 | 4.895 |
| | 17 Hexachloroethane | 117 | 9.888 | 9.888 | (1.117) | 199927 | 5.15030 | 5.150 |
| | 16 N-Nitroso-di-n-propylamine | 70 | 9.764 | 9.756 | (1.103) | 284120 | 5.28370 | 5.284 |
| | 15 4-Methylphenol | 108 | 9.725 | 9.725 | (1.098) | 469429 | 4.93078 | 4.931 |
| $ | 18 Nitrobenzene-d5 | 82 | Compound Not Detected. | | | | | |
| | 19 Nitrobenzene | 77 | 10.066 | 10.059 | (0.875) | 449174 | 5.14613 | 5.146 |
| | 20 Isophorone | 82 | 10.547 | 10.540 | (0.917) | 833349 | 5.06458 | 5.065 |
| | 21 2-Nitrophenol | 139 | 10.733 | 10.733 | (0.933) | 296118 | 5.38022 | 5.380 |
| | 22 2,4-Dimethylphenol | 107 | 10.833 | 10.833 | (0.942) | 431706 | 4.95126 | 4.951 |
| | 23 Bis(2-Chloroethoxy)methane | 93 | 11.034 | 11.034 | (0.959) | 521674 | 5.32350 | 5.324 |
| | 24 Benzoic acid | 105 | 11.057 | 10.995 | (0.961) | 487276 | 8.44945 | 8.449 |
| | 25 2,4-Dichlorophenol | 162 | 11.234 | 11.226 | (0.977) | 459357 | 5.47726 | 5.477 |
| | 26 1,2,4-Trichlorobenzene | 180 | 11.419 | 11.411 | (0.993) | 399924 | 5.00904 | 5.009 |
| * | 27 Naphthalene-d8 | 136 | 11.504 | 11.496 | (1.000) | 989810 | 4.00000 | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 28 Naphthalene | 128 | 11.543 | 11.543 | (1.003) | 1452947 | 5.82271 | 5.823 |
| | 29 4-Chloroaniline | 127 | 11.705 | 11.705 | (1.017) | 715126 | 6.43253 | 6.433 |
| | 30 Hexachlorobutadiene | 225 | 11.952 | 11.944 | (1.039) | 220886 | 5.14498 | 5.145 |
| | 31 4-Chloro-3-methylphenol | 107 | 12.772 | 12.772 | (1.110) | 406012 | 5.39547 | 5.395 |
| | 32 2-Methylnaphthalene | 142 | 13.043 | 13.043 | (1.134) | 1037080 | 5.97841 | 5.978 |
| | 33 Hexachlorocyclopentadiene | 237 | 13.554 | 13.554 | (0.882) | 183705 | 4.67068 | 4.671 |
| | 34 2,4,6-Trichlorophenol | 196 | 13.732 | 13.724 | (0.893) | 285210 | 5.30731 | 5.307 |
| | 35 2,4,5-Trichlorophenol | 196 | 13.809 | 13.809 | (0.898) | 299729 | 5.21021 | 5.210 |
| $ | 36 2-Fluorobiphenyl | 172 | 13.802 | 13.902 | (0.898) | 489 | 0.00259 | 0.002587 (R) |
| | 37 2-Chloronaphthalene | 162 | 14.103 | 14.104 | (0.917) | 860466 | 5.32462 | 5.325 |
| | 38 2-Nitroaniline | 65 | 14.405 | 14.398 | (0.937) | 240031 | 6.21031 | 6.210 |
| | 39 Dimethylphthalate | 163 | 14.893 | 14.885 | (0.969) | 869716 | 5.19064 | 5.191 |
| | 40 Acenaphthylene | 152 | 15.032 | 15.032 | (0.978) | 1464431 | 5.97933 | 5.979 |
| | 41 2,6-Dinitrotoluene | 165 | 15.032 | 15.025 | (0.978) | 211930 | 5.19161 | 5.192 |
| * | 42 Acenaphthene-d10 | 164 | 15.373 | 15.373 | (1.000) | 545323 | 4.00000 | |
| | 43 3-Nitroaniline | 138 | 15.326 | 15.319 | (0.997) | 271136 | 5.88282 | 5.883 |
| | 44 Acenaphthene | 153 | 15.442 | 15.442 | (1.005) | 894186 | 6.05301 | 6.053 |
| | 45 2,4-Dinitrophenol | 184 | 15.558 | 15.558 | (1.012) | 218245 | 8.18330 | 8.183 (R) |
| | 46 Dibenzofuran | 168 | 15.798 | 15.798 | (1.028) | 1286067 | 5.94234 | 5.942 |
| | 47 4-Nitrophenol | 109 | 15.728 | 15.736 | (1.023) | 99971 | 5.63611 | 5.636 |
| | 48 2,4-Dinitrotoluene | 165 | 15.891 | 15.891 | (1.034) | 280475 | 5.32546 | 5.325 |
| | 50 Diethylphthalate | 149 | 16.470 | 16.463 | (1.071) | 847615 | 5.18905 | 5.189 |
| | 49 Fluorene | 166 | 16.563 | 16.563 | (1.077) | 996290 | 6.00793 | 6.008 |
| | 51 4-Chlorophenyl-phenylether | 204 | 16.579 | 16.579 | (1.078) | 420476 | 5.33996 | 5.340 |
| | 52 4-Nitroaniline | 138 | 16.687 | 16.687 | (1.085) | 246381 | 5.23174 | 5.232 |
| | 53 4,6-Dinitro-2-methylphenol | 198 | 16.795 | 16.795 | (0.901) | 354119 | 10.6158 | 10.62 |
| | 54 N-Nitrosodiphenylamine | 169 | 16.857 | 16.857 | (0.905) | 589653 | 5.21389 | 5.214 |
| $ | 55 2,4,6-Tribromophenol | 330 | Compound Not Detected. | | | | | |
| | 56 4-Bromophenyl-phenylether | 248 | 17.658 | 17.659 | (0.948) | 236862 | 5.26296 | 5.263 |
| | 57 Hexachlorobenzene | 284 | 17.975 | 17.976 | (0.965) | 262810 | 5.06468 | 5.065 |
| | 58 Pentachlorophenol | 266 | 18.378 | 18.386 | (0.986) | 122932 | 4.56720 | 4.567 |
| * | 59 Phenanthrene-d10 | 188 | 18.633 | 18.633 | (1.000) | 840695 | 4.00000 | |
| | 60 Phenanthrene | 178 | 18.688 | 18.680 | (1.003) | 1321406 | 6.09554 | 6.096 |
| | 61 Anthracene | 178 | 18.780 | 18.780 | (1.008) | 1383648 | 6.10993 | 6.110 |
| | 62 Carbazole | 167 | 19.144 | 19.144 | (1.027) | 1030370 | 4.91739 | 4.917 |
| | 63 Di-n-butylphthalate | 149 | 20.011 | 20.003 | (1.074) | 1644680 | 5.57713 | 5.577 |
| | 64 Fluoranthene | 202 | 21.101 | 21.102 | (1.132) | 1505236 | 6.11547 | 6.115 |
| | 65 Pyrene | 202 | 21.519 | 21.519 | (0.908) | 1556744 | 5.86121 | 5.861 |
| $ | 66 Terphenyl-d14 | 244 | Compound Not Detected. | | | | | |
| | 67 Butylbenzylphthalate | 149 | 22.781 | 22.781 | (0.961) | 642627 | 5.21589 | 5.216 |
| | 68 Benzo(a)anthracene | 228 | 23.679 | 23.679 | (0.999) | 1435464 | 5.84603 | 5.846 |
| * | 69 Chrysene-d12 | 240 | 23.710 | 23.703 | (1.000) | 872921 | 4.00000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | 23.656 | 23.656 | (0.998) | 418178 | 3.11038 | 3.110 (R) |
| | 71 Chrysene | 228 | 23.749 | 23.749 | (1.002) | 1272933 | 5.89305 | 5.893 |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 23.819 | 23.819 | (0.961) | 941422 | 5.06177 | 5.062 |
| * | 134 Di-n-octylphthalate-d4 | 153 | 24.794 | 24.794 | (1.000) | 1354341 | 4.00000 | |
| | 73 Di-n-octylphthalate | 149 | 24.802 | 24.802 | (1.000) | 1768809 | 5.36813 | 5.368 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 74 Benzo(b)fluoranthene | 252 | 25.452 | 25.444 | (0.975) | 1497096 | 6.20177 | 6.202 |
| | 75 Benzo(k)fluoranthene | 252 | 25.491 | 25.483 | (0.977) | 1570470 | 5.90838 | 5.908 |
| | 76 Benzo(a)pyrene | 252 | 26.002 | 26.002 | (0.996) | 1323802 | 5.95784 | 5.958 |
| * | 77 Perylene-d12 | 264 | 26.102 | 26.103 | (1.000) | 859333 | 4.00000 | |
| | 78 Indeno(1,2,3-cd)pyrene | 276 | 28.350 | 28.334 | (1.086) | 1603345 | 6.23819 | 6.238 |
| | 79 Dibenzo(a,h)anthracene | 278 | 28.365 | 28.357 | (1.087) | 1278734 | 6.31592 | 6.316 |
| | 80 Benzo(g,h,i)perylene | 276 | 29.002 | 28.987 | (1.111) | 1376066 | 6.24353 | 6.244 |
| | 90 N-Nitrosodimethylamine | 74 | 4.266 | 4.266 | (0.482) | 270769 | 5.22251 | 5.223 |
| | 91 Aniline | 93 | 8.291 | 8.291 | (0.936) | 665451 | 2.69811 | 2.698(R) |
| | 93 Benzidine | 184 | 21.364 | 21.365 | (0.901) | 129616 | 1.30006 | 1.300(R) |
| | 103 Pyridine | 79 | 4.274 | 4.290 | (0.483) | 431672 | 9.64286 | 9.643 |
| | 105 1-methylnaphthalene | 142 | 13.275 | 13.275 | (1.154) | 765476 | 4.32687 | 4.327 |
| | 111 Azobenzene (1,2-DP-Hydrazine) | 77 | 16.926 | 16.926 | (1.101) | 848874 | 5.12887 | 5.129 |
| | 187 Total Benzofluoranthenes | 252 | 25.491 | 25.483 | (0.977) | 2896118 | 12.1460 | 12.15 |
| | ~~99 Perylene~~ | ~~252~~ | ~~26.002~~ | ~~26.149~~ | ~~(0.996)~~ | ~~1323802~~ | ~~5.92651~~ | ~~5.927~~ |
| | 98 Retene | 219 | Compound Not Detected. | | | | | |

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: icv0526.d
Lab Smp Id: ICV-5
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info:

Calibration Date: 26-MAY-2012
Calibration Time: 10:59

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 249364 | 31.58 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 989810 | 35.42 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 545323 | 29.62 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 840695 | 31.57 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 872921 | 35.32 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 1354341 | 33.29 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 859333 | 32.20 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.86 | 0.00 |
| 27 Naphthalene-d8 | 11.50 | 11.00 | 12.00 | 11.50 | 0.00 |
| 42 Acenaphthene-d10 | 15.37 | 14.87 | 15.87 | 15.37 | 0.00 |
| 59 Phenanthrene-d10 | 18.63 | 18.13 | 19.13 | 18.63 | 0.00 |
| 69 Chrysene-d12 | 23.71 | 23.21 | 24.21 | 23.71 | 0.00 |
| 134 Di-n-octylphthala | 24.79 | 24.29 | 25.29 | 24.79 | 0.00 |
| 77 Perylene-d12 | 26.10 | 25.60 | 26.60 | 26.10 | 0.00 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name:
Client SDG:
Sample Matrix: NONE
Fraction: SV
Lab Smp Id: ICV-5
Level:
Operator: VTS/YZ
Data Type: MS DATA
SampleType: LCS
SpikeList File: ICV.spk
Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info:

| SPIKE COMPOUND | AMOUNT ADDED ug/mL | AMOUNT RECOVERED ug/mL | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 3 Phenol | 5.000 | 5.291 | 105.81 | |
| 4 Bis(2-Chloroethyl) | 5.000 | 5.108 | 102.16 | |
| 6 2-Chlorophenol | 5.000 | 5.131 | 102.62 | |
| 7 1,3-Dichlorobenzen | 5.000 | 5.074 | 101.47 | |
| 9 1,4-Dichlorobenzen | 5.000 | 4.953 | 99.06 | |
| 11 Benzyl alcohol | 5.000 | 6.556 | 131.12* | |
| 12 1,2-Dichlorobenzen | 5.000 | 4.987 | 99.74 | |
| 13 2-Methylphenol | 5.000 | 4.895 | 97.91 | |
| 14 2,2'-oxybis(1-Chlo | 5.000 | 5.001 | 100.02 | |
| 15 4-Methylphenol | 5.000 | 4.931 | 98.62 | |
| 16 N-Nitroso-di-n-pro | 5.000 | 5.284 | 105.67 | |
| 17 Hexachloroethane | 5.000 | 5.150 | 103.01 | |
| 19 Nitrobenzene | 5.000 | 5.146 | 102.92 | |
| 20 Isophorone | 5.000 | 5.065 | 101.29 | |
| 21 2-Nitrophenol | 5.000 | 5.380 | 107.60 | |
| 22 2,4-Dimethylphenol | 5.000 | 4.951 | 99.03 | |
| 23 Bis(2-Chloroethoxy | 5.000 | 5.324 | 106.47 | |
| 24 Benzoic acid | 10.00 | 8.449 | 84.49 | |
| 25 2,4-Dichlorophenol | 5.000 | 5.477 | 109.55 | |
| 26 1,2,4-Trichloroben | 5.000 | 5.009 | 100.18 | |
| 28 Naphthalene | 5.000 | 5.823 | 116.45 | |
| 29 4-Chloroaniline | 5.000 | 6.433 | 128.65 | |
| 30 Hexachlorobutadien | 5.000 | 5.145 | 102.90 | |
| 31 4-Chloro-3-methylp | 5.000 | 5.395 | 107.91 | |
| 32 2-Methylnaphthalen | 5.000 | 5.978 | 119.57 | |
| 33 Hexachlorocyclopen | 5.000 | 4.671 | 93.41 | |
| 34 2,4,6-Trichlorophe | 5.000 | 5.307 | 106.15 | |
| 35 2,4,5-Trichlorophe | 5.000 | 5.210 | 104.20 | |
| 37 2-Chloronaphthalen | 5.000 | 5.325 | 106.49 | |
| 38 2-Nitroaniline | 5.000 | 6.210 | 124.21 | |
| 39 Dimethylphthalate | 5.000 | 5.191 | 103.81 | |
| 40 Acenaphthylene | 5.000 | 5.979 | 119.59 | |
| 41 2,6-Dinitrotoluene | 5.000 | 5.192 | 103.83 | |

| SPIKE | COMPOUND | AMOUNT ADDED ug/mL | AMOUNT RECOVERED ug/mL | % RECOVERED | LIMITS |
|---|---|---|---|---|---|
| 43 | 3-Nitroaniline | 5.000 | 5.883 | 117.66 | |
| 44 | Acenaphthene | 5.000 | 6.053 | 121.06 | |
| 45 | 2,4-Dinitrophenol | 5.000 | 8.183 | 163.67* | |
| 46 | Dibenzofuran | 5.000 | 5.942 | 118.85 | |
| 47 | 4-Nitrophenol | 5.000 | 5.636 | 112.72 | |
| 48 | 2,4-Dinitrotoluene | 5.000 | 5.325 | 106.51 | |
| 49 | Fluorene | 5.000 | 6.008 | 120.16 | |
| 50 | Diethylphthalate | 5.000 | 5.189 | 103.78 | |
| 51 | 4-Chlorophenyl-phe | 5.000 | 5.340 | 106.80 | |
| 52 | 4-Nitroaniline | 5.000 | 5.232 | 104.63 | |
| 53 | 4,6-Dinitro-2-meth | 10.00 | 10.62 | 106.16 | |
| 54 | N-Nitrosodiphenyla | 5.000 | 5.214 | 104.28 | |
| 56 | 4-Bromophenyl-phen | 5.000 | 5.263 | 105.26 | |
| 57 | Hexachlorobenzene | 5.000 | 5.065 | 101.29 | |
| 58 | Pentachlorophenol | 5.000 | 4.567 | 91.34 | |
| 60 | Phenanthrene | 5.000 | 6.096 | 121.91 | |
| 61 | Anthracene | 5.000 | 6.110 | 122.20 | |
| 62 | Carbazole | 5.000 | 4.917 | 98.35 | |
| 63 | Di-n-butylphthalat | 5.000 | 5.577 | 111.54 | |
| 64 | Fluoranthene | 5.000 | 6.115 | 122.31 | |
| 65 | Pyrene | 5.000 | 5.861 | 117.22 | |
| 67 | Butylbenzylphthala | 5.000 | 5.216 | 104.32 | |
| 68 | Benzo(a)anthracene | 5.000 | 5.846 | 116.92 | |
| 70 | 3,3'-Dichlorobenzi | 5.000 | 3.110 | 62.21* | |
| 71 | Chrysene | 5.000 | 5.893 | 117.86 | |
| 72 | bis(2-Ethylhexyl)p | 5.000 | 5.062 | 101.24 | |
| 73 | Di-n-octylphthalat | 5.000 | 5.368 | 107.36 | |
| 74 | Benzo(b)fluoranthe | 5.000 | 6.202 | 124.04 | |
| 75 | Benzo(k)fluoranthe | 5.000 | 5.908 | 118.17 | |
| 187 | Total Benzofluoran | 10.00 | 12.15 | 121.46 | |
| 76 | Benzo(a)pyrene | 5.000 | 5.958 | 119.16 | |
| 78 | Indeno(1,2,3-cd)py | 5.000 | 6.238 | 124.76 | |
| 79 | Dibenzo(a,h)anthra | 5.000 | 6.316 | 126.32 | |
| 80 | Benzo(g,h,i)peryle | 5.000 | 6.244 | 124.87 | |
| 90 | N-Nitrosodimethyla | 5.000 | 5.223 | 104.45 | |
| 103 | Pyridine | 10.00 | 9.643 | 96.43 | |
| 91 | Aniline | 5.000 | 2.698 | 53.96* | |
| 105 | 1-methylnaphthalen | 5.000 | 4.327 | 86.54 | |
| 93 | Benzidine | 5.000 | 1.300 | 26.00* | |
| 111 | Azobenzene (1,2-DP | 5.000 | 5.129 | 102.58 | |
| 143 | 1,4-Dioxane | 5.000 | 0.000 | * | |
| 144 | alpha-Terpineol | 5.000 | 0.000 | * | |
| 177 | p-Benzoquinone | 5.000 | 0.000 | * | |
| 98 | Retene | 5.000 | 0.000 | * | |
| 133 | Butylatedhydroxyt | 5.000 | 0.000 | * | |
| 115 | Tributyl Phosphate | 5.000 | 0.000 | * | |
| 116 | Dibutyl Phenyl Ph | 5.000 | 0.000 | * | |

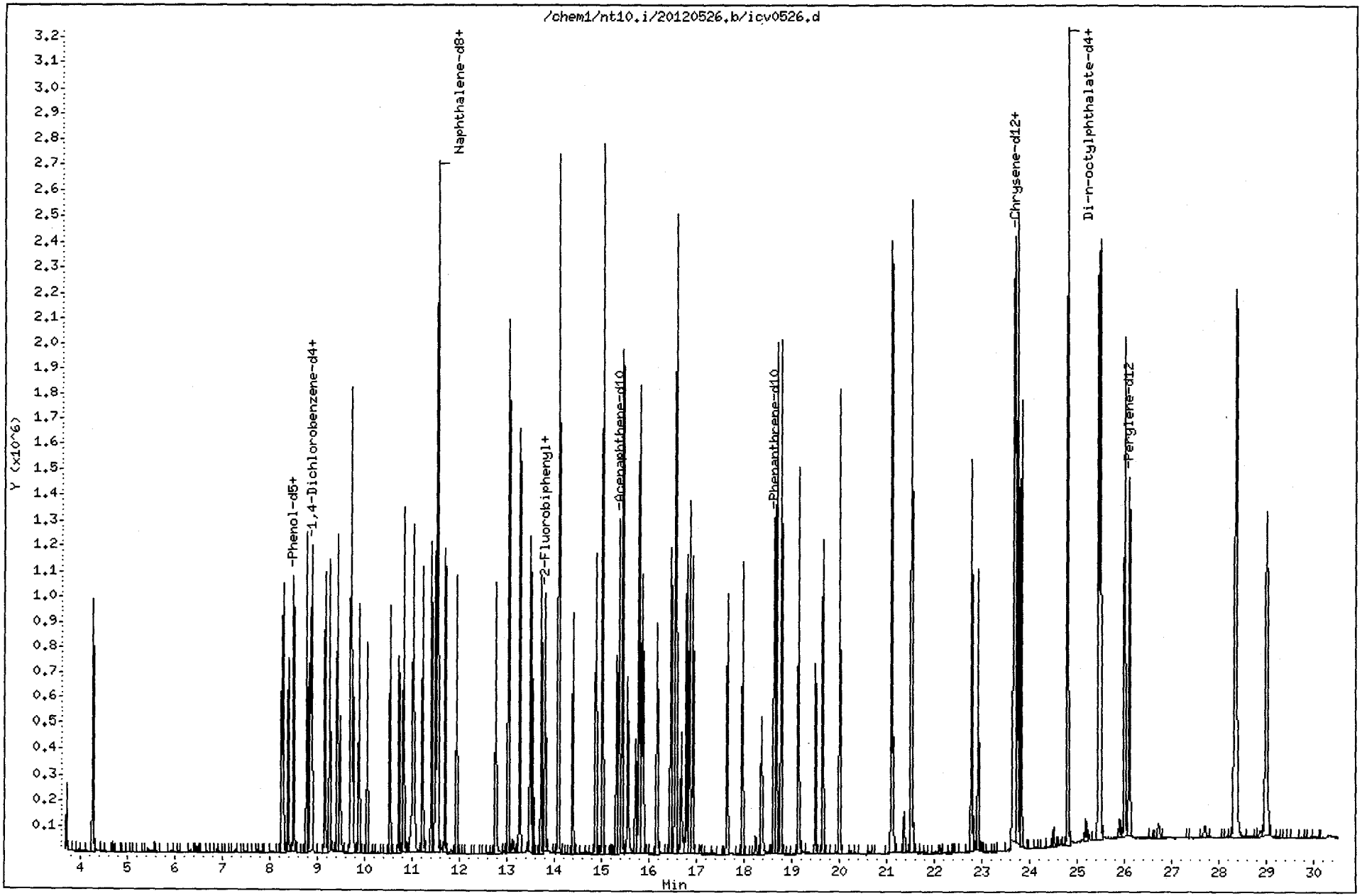
Data File: /chem1/nt10.i/20120526.b/icv0526.d
Date : 26-MAY-2012 15:19
Client ID:
Sample Info: ICV-5

Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25





CO-ELUTION SUMMARY FOR FILE - icv0526.d

Lab ID: ICV-5, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|
| 15.032 | Acenaphthylene and 2,6-Dinitrotoluene |
| 26.002 | ~~Perylene~~ and Benzo(a)pyrene |

Data File: /chem1/nt10.i/20120526.b/df0526.d

Date : 26-MAY-2012 10:44

Client ID: DFTPP

Sample Info: DFTPP

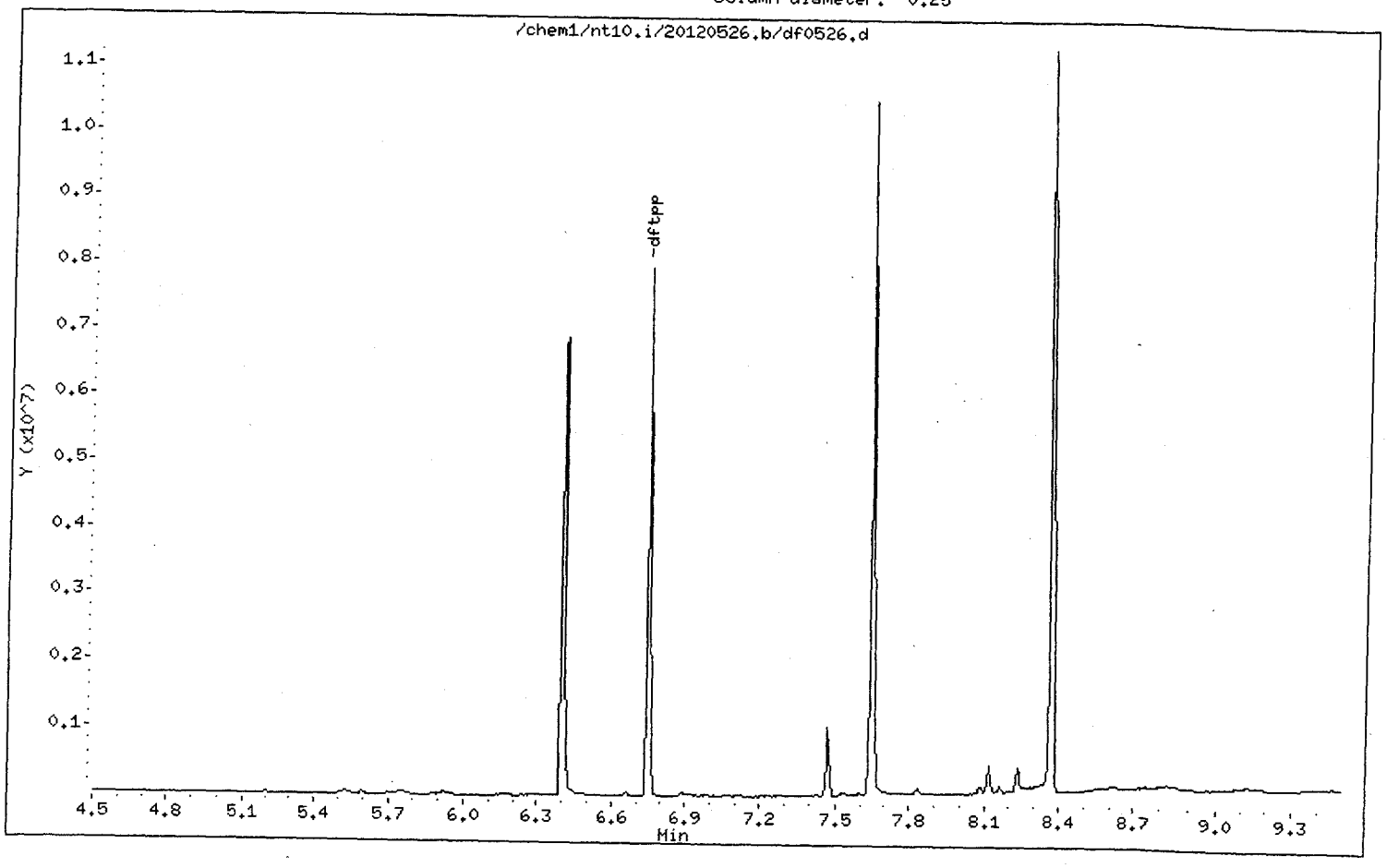
Instrument: nt10.i

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25





Data File: /chem1/nt10.i/20120526.b/df0526.d

Date : 26-MAY-2012 10:44

Client ID: DFTPP

Instrument: nt10.i

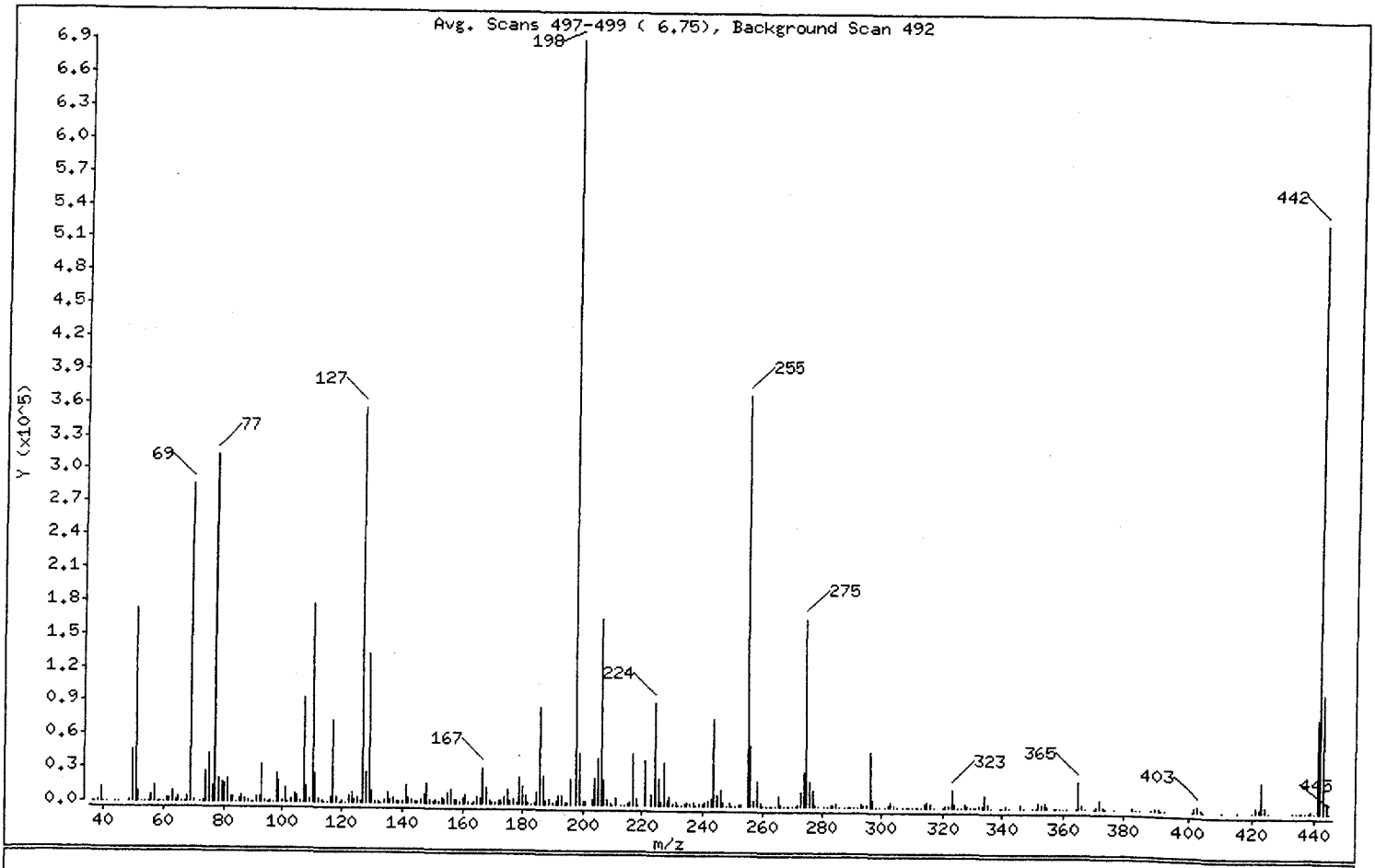
Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 198 | Base Peak, 100% relative abundance | 100.00 |
| 51 | 10.00 - 80.00% of mass 198 | 25.07 |
| 68 | Less than 2.00% of mass 69 | 0.60 ( 1.45) |
| 69 | Mass 69 relative abundance | 41.32 |
| 70 | Less than 2.00% of mass 69 | 0.16 ( 0.40) |
| 127 | 10.00 - 80.00% of mass 198 | 51.51 |
| 197 | Less than 2.00% of mass 198 | 0.00 |
| 199 | 5.00 - 9.00% of mass 198 | 6.70 |
| 275 | 10.00 - 60.00% of mass 198 | 24.35 |
| 365 | Greater than 1.00% of mass 198 | 3.46 |
| 441 | 0.01 - 24.00% of mass 442 | 12.16 ( 15.78) |
| 442 | 50.00 - 200.00% of mass 198 | 77.09 |
| 443 | 15.00 - 24.00% of mass 442 | 15.36 ( 19.93) |

Data File: /chem1/nt10.i/20120526.b/df0526.d

Date : 26-MAY-2012 10:44

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0526.d

Spectrum: Avg. Scans 497-499 ( 6.75), Background Scan 492

Location of Maximum: 198.00

Number of points: 344

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 26 | 129.00 | 133888 | 219.00 | 609 | 313.00 | 521 |
| 37.00 | 738 | 130.00 | 10870 | 221.00 | 40088 | 314.00 | 2625 |
| 38.00 | 2259 | 131.00 | 2053 | 223.00 | 10237 | 315.00 | 5121 |
| 39.00 | 13341 | 132.00 | 1262 | 224.00 | 92880 | 316.00 | 2893 |
| 40.00 | 569 | 133.00 | 466 | 225.00 | 23296 | 317.00 | 637 |
| 41.00 | 216 | 134.00 | 3414 | 226.00 | 2573 | 320.00 | 235 |
| 44.00 | 149 | 135.00 | 9909 | 227.00 | 38288 | 321.00 | 1663 |
| 45.00 | 367 | 136.00 | 3935 | 228.00 | 5304 | 322.00 | 1109 |
| 49.00 | 1189 | 137.00 | 4873 | 229.00 | 7998 | 323.00 | 15465 |
| 50.00 | 46176 | 138.00 | 1128 | 230.00 | 1358 | 324.00 | 2751 |
| 51.00 | 173504 | 139.00 | 805 | 231.00 | 3474 | 325.00 | 323 |
| 52.00 | 9398 | 140.00 | 1603 | 232.00 | 716 | 326.00 | 455 |
| 53.00 | 300 | 141.00 | 15489 | 233.00 | 661 | 327.00 | 3101 |
| 54.00 | 229 | 142.00 | 5414 | 234.00 | 2342 | 328.00 | 1494 |
| 55.00 | 448 | 143.00 | 3720 | 235.00 | 2777 | 329.00 | 370 |
| 56.00 | 6014 | 144.00 | 1136 | 236.00 | 2141 | 330.00 | 56 |
| 57.00 | 13761 | 145.00 | 942 | 237.00 | 3010 | 331.00 | 197 |
| 58.00 | 408 | 146.00 | 2786 | 238.00 | 564 | 332.00 | 1250 |
| 59.00 | 179 | 147.00 | 8163 | 239.00 | 1494 | 333.00 | 1705 |
| 60.00 | 272 | 148.00 | 18016 | 240.00 | 1176 | 334.00 | 10488 |
| 61.00 | 2630 | 149.00 | 3469 | 241.00 | 2531 | 335.00 | 2517 |
| 62.00 | 3433 | 150.00 | 842 | 242.00 | 5295 | 336.00 | 303 |
| 63.00 | 9251 | 151.00 | 2529 | 243.00 | 6077 | 339.00 | 186 |
| 64.00 | 1297 | 152.00 | 1040 | 244.00 | 78016 | 340.00 | 284 |
| 65.00 | 4742 | 153.00 | 4885 | 245.00 | 9692 | 341.00 | 2021 |
| 66.00 | 167 | 154.00 | 3744 | 246.00 | 14024 | 342.00 | 519 |
| 67.00 | 487 | 155.00 | 9049 | 247.00 | 2921 | 346.00 | 3558 |
| 68.00 | 4159 | 156.00 | 13247 | 248.00 | 765 | 347.00 | 600 |
| 69.00 | 285952 | 157.00 | 2827 | 249.00 | 2660 | 350.00 | 271 |
| 70.00 | 1139 | 158.00 | 2845 | 250.00 | 607 | 351.00 | 343 |
| 72.00 | 190 | 159.00 | 2353 | 251.00 | 678 | 352.00 | 4486 |
| 73.00 | 1995 | 160.00 | 5145 | 252.00 | 867 | 353.00 | 3227 |
| 74.00 | 27632 | 161.00 | 7274 | 253.00 | 1909 | 354.00 | 4155 |
| 75.00 | 43448 | 162.00 | 2140 | 255.00 | 370304 | 355.00 | 808 |
| 76.00 | 14823 | 163.00 | 679 | 256.00 | 54880 | 357.00 | 121 |

Data File: /chem1/nt10.i/20120526.b/df0526.d

Date : 26-MAY-2012 10:44

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0526.d

Spectrum: Avg. Scans 497-499 ( 6.75), Background Scan 492

Location of Maximum: 198.00

Number of points: 344

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 77.00 | 313792 | 164.00 | 1059 | 257.00 | 4329 | 358.00 | 52 |
| 78.00 | 20888 | 165.00 | 5892 | 258.00 | 21480 | 359.00 | 426 |
| 79.00 | 18144 | 166.00 | 5005 | 259.00 | 3568 | 360.00 | 59 |
| 80.00 | 15251 | 167.00 | 32544 | 260.00 | 602 | 361.00 | 119 |
| 81.00 | 20912 | 168.00 | 13737 | 261.00 | 620 | 364.00 | 104 |
| 82.00 | 5239 | 169.00 | 2539 | 262.00 | 127 | 365.00 | 23944 |
| 83.00 | 4808 | 170.00 | 1075 | 263.00 | 188 | 366.00 | 3294 |
| 84.00 | 129 | 171.00 | 1308 | 264.00 | 584 | 367.00 | 152 |
| 85.00 | 3163 | 172.00 | 2874 | 265.00 | 8905 | 370.00 | 494 |
| 86.00 | 5793 | 173.00 | 3665 | 266.00 | 1076 | 371.00 | 1374 |
| 87.00 | 2776 | 174.00 | 6643 | 267.00 | 74 | 372.00 | 7891 |
| 88.00 | 1151 | 175.00 | 12622 | 268.00 | 51 | 373.00 | 1946 |
| 89.00 | 520 | 176.00 | 3756 | 269.00 | 229 | 374.00 | 236 |
| 90.00 | 65 | 177.00 | 5429 | 270.00 | 372 | 377.00 | 229 |
| 91.00 | 4623 | 178.00 | 1805 | 271.00 | 793 | 383.00 | 2132 |
| 92.00 | 5132 | 179.00 | 23488 | 272.00 | 1269 | 384.00 | 670 |
| 93.00 | 33360 | 180.00 | 15572 | 273.00 | 12611 | 385.00 | 117 |
| 94.00 | 2216 | 181.00 | 7701 | 274.00 | 29880 | 389.00 | 52 |
| 95.00 | 380 | 182.00 | 1110 | 275.00 | 168512 | 390.00 | 1125 |
| 96.00 | 1107 | 183.00 | 491 | 276.00 | 22000 | 391.00 | 839 |
| 97.00 | 21 | 184.00 | 1883 | 277.00 | 13717 | 392.00 | 587 |
| 98.00 | 25000 | 185.00 | 11629 | 278.00 | 2058 | 393.00 | 55 |
| 99.00 | 19064 | 186.00 | 88272 | 279.00 | 511 | 401.00 | 443 |
| 100.00 | 1716 | 187.00 | 24768 | 281.00 | 116 | 402.00 | 2867 |
| 101.00 | 12840 | 188.00 | 2490 | 282.00 | 481 | 403.00 | 4359 |
| 102.00 | 537 | 189.00 | 5139 | 283.00 | 1659 | 404.00 | 1567 |
| 103.00 | 3931 | 190.00 | 951 | 284.00 | 1165 | 405.00 | 170 |
| 104.00 | 7795 | 191.00 | 2619 | 285.00 | 2561 | 410.00 | 58 |
| 105.00 | 6943 | 192.00 | 7480 | 286.00 | 616 | 415.00 | 299 |
| 106.00 | 2109 | 193.00 | 8529 | 288.00 | 167 | 420.00 | 73 |
| 107.00 | 94312 | 194.00 | 1572 | 289.00 | 565 | 421.00 | 4081 |
| 108.00 | 14776 | 195.00 | 1022 | 290.00 | 563 | 422.00 | 3772 |
| 109.00 | 2699 | 196.00 | 22624 | 291.00 | 337 | 423.00 | 27824 |
| 110.00 | 178432 | 198.00 | 692096 | 292.00 | 692 | 424.00 | 5405 |
| 111.00 | 26104 | 199.00 | 46376 | 293.00 | 3255 | 425.00 | 517 |

Data File: /chem1/nt10.i/20120526.b/df0526.d

Date : 26-MAY-2012 10:44

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0526.d

Spectrum: Avg. Scans 497-499 ( 6.75), Background Scan 492

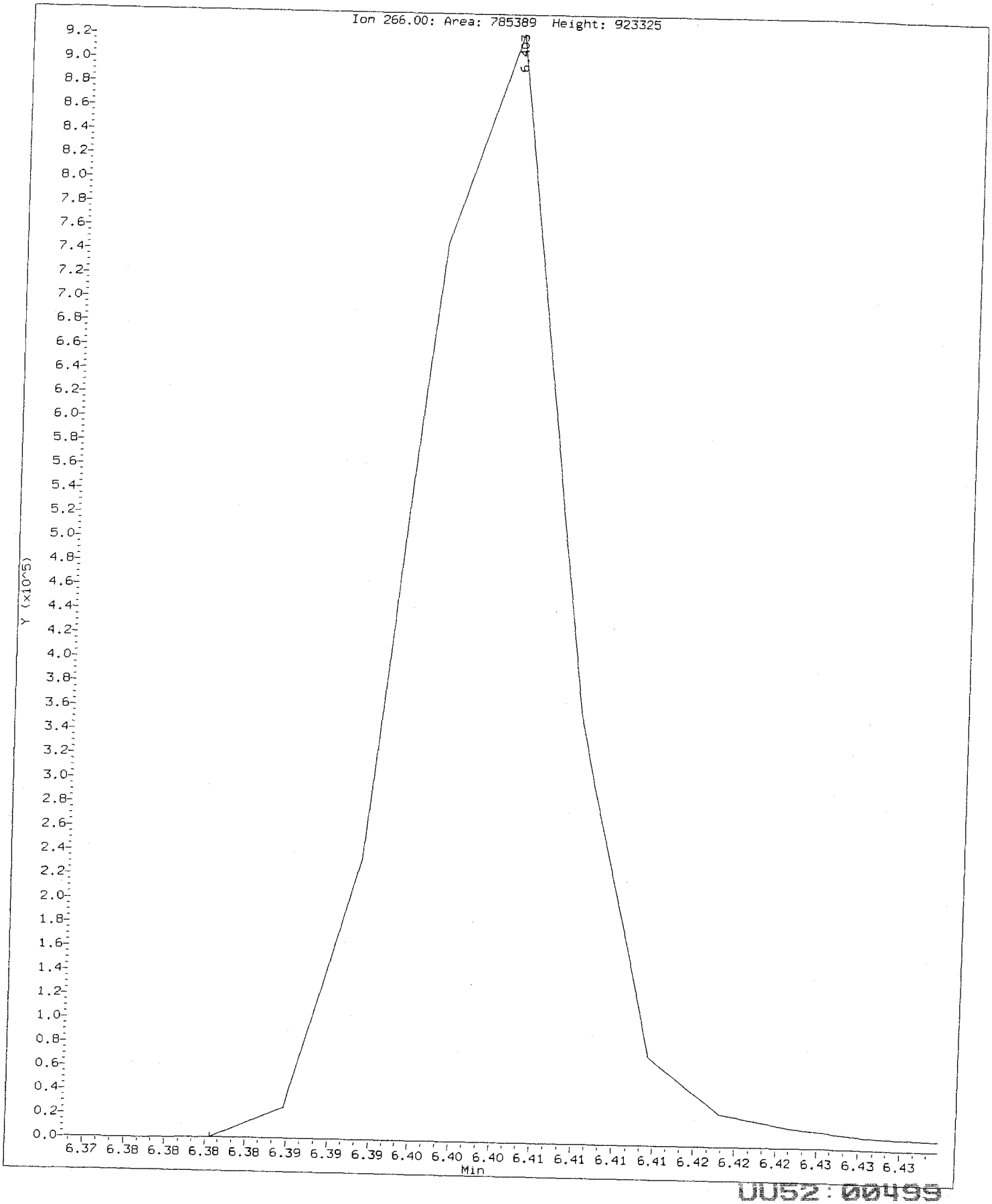
Location of Maximum: 198.00

Number of points: 344

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 112.00 | 2941 | 200.00 | 3155 | 294.00 | 851 | 433.00 | 182 |
| 113.00 | 925 | 201.00 | 3528 | 295.00 | 1364 | 434.00 | 330 |
| 114.00 | 293 | 203.00 | 4862 | 296.00 | 49064 | 435.00 | 384 |
| 115.00 | 582 | 204.00 | 24424 | 297.00 | 6873 | 436.00 | 524 |
| 116.00 | 4751 | 205.00 | 40776 | 298.00 | 480 | 437.00 | 742 |
| 117.00 | 73120 | 206.00 | 166848 | 299.00 | 121 | 438.00 | 378 |
| 118.00 | 5224 | 207.00 | 21712 | 301.00 | 760 | 439.00 | 1052 |
| 119.00 | 711 | 208.00 | 5262 | 302.00 | 851 | 440.00 | 757 |
| 120.00 | 1191 | 209.00 | 1631 | 303.00 | 5451 | 441.00 | 84168 |
| 121.00 | 537 | 210.00 | 634 | 304.00 | 1399 | 442.00 | 533504 |
| 122.00 | 5952 | 211.00 | 6697 | 305.00 | 61 | 443.00 | 106320 |
| 123.00 | 9239 | 213.00 | 451 | 307.00 | 73 | 444.00 | 9542 |
| 124.00 | 3620 | 214.00 | 166 | 308.00 | 672 | 445.00 | 638 |
| 125.00 | 4068 | 215.00 | 1855 | 309.00 | 579 | | |
| 126.00 | 1464 | 216.00 | 3870 | 310.00 | 726 | | |
| 127.00 | 356480 | 217.00 | 45744 | 311.00 | 93 | | |
| 128.00 | 26776 | 218.00 | 5952 | 312.00 | 210 | | |

Data File: /chem1/nt10.i/20120526.b/ddt.b/df0526.d
Injection Date: 26-MAY-2012 10:44
Instrument: nt10.i
Client Sample ID: DFTPP

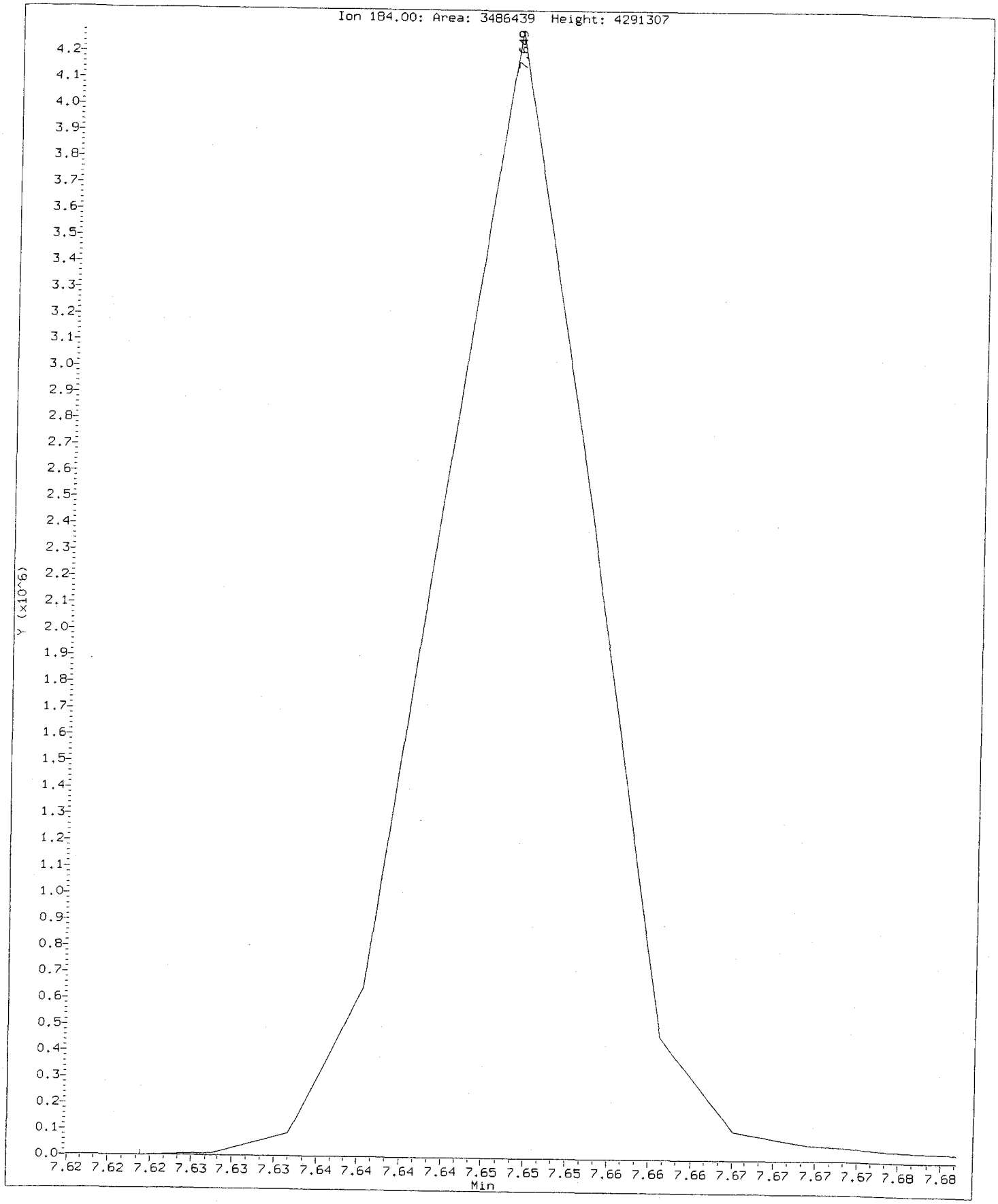
Compound: Pentachlorophenol
CAS Number: 87-86-5




0052:00499

Data File: /chem1/nt10.i/20120526.b/ddt.b/df0526.d
Injection Date: 26-MAY-2012 10:44
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20120526.b/ddt.b/df0526.d
Method: /chem1/nt10.i/20120526.b/ddt.b/sw846ddt.m
Analysis Date: 26-MAY-2012 10:44

ARI ID: DFTPP
Misc: 11-
Instrument: nt10.i

| COMPOUND | RT | AREA |
|---|---|---|
| Pentachlorophenol | 6.403 | 785389 |
| Benzidine | 7.649 | 3486439 |
| 4,4'-DDE | 7.831 | 8080 |
| 4,4'-DDD | 8.120 | 77952 |
| 4,4'-DDT | 8.371 | 1823281 |

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(\ 8080 + 77952) * 100}{(\ 8080 + 77952 + 1823281)}$$

DDT Percent Breakdown = 4.5 %

**Analytical Resources, Incorporated**
Analytical Chemists and Consultants

# GC/MS,SVOA Initial Calibration Notes

ARI SOP: **801S**(SIM-PNA) **802S**(Butyl Tins) **804S**(SVOA-8270D) **805S**(op-Pest)

Instrument: NT-4 (NT-6) NT-8 NT-10 NT11 NT12

Curve Date(s): 5/23/12 Internal Standard ID 1874-1 Expiration 7/16/12

| | | | |
|---|---|---|---|
| DFTPP Tune Meets Criteria? | (YES) / NO | Minimum Response Factors Met/ | (YES) / NO |
| DDT Breakdown <20%? | (YES) / NO | ICV Exceeding ±20%? | YES / (NO) |
| Peak Tailing Factor ≤2? | (YES) / NO | ICV Exceeding ±30%? | (YES) / NO |
| ICal Meets %RSD & $r^2$ Criteria? | (YES) / NO | Linear Fits Used? | (YES) / NO |
| Q flag applied? | YES / (NO) (NA) | Quadratic Fits Used? | (YES) / NO |
| Manual Integrations for ICal? | (YES) / NO | Calibration Points Dropped? | (YES) / NO |
| Spectral Library Updated? | (YES) / NO | | |

| Primary Source | Standard # | Expiration | Secondary Source | Standard # | Expiration |
|---|---|---|---|---|---|
| Ultra | 1932-2 | 7/6/12 | ReTek | 1972-2 | 11/7/12 |
| ↓ | 1940-1 | 7/27/12 | ↓ | 1973-2 | ↓ |
| ↓ | 1941-1 | 7/27/12 | ↓ | 1974-1 | ↓ |
| in house stock | 1947-1 | 7/27/12 | in house stock | 1947-1 | 7/27/12 |
| Cambridge | 1644 | 12/7/12 | Cambridge | 1644 | 12/12/12 |
| in house stock | 1934-1 | 7/5/12 | in house stock | 1934-1 | 7/5/12 |
| in house stock | 1939-3 | 7/4/12 | in house stock | 1939-3 | 7/4/12 |
| | | | | | |

**Detail problems, corrective actions and/or other pertinent information below:**

1) first point dropped: P-Benzoquinone, Benzoic Acid, Hexachlorocyclopentadiene, 2,4-Dinitrophenol, 4-Nitrophenol, 4,6-Dinitro-2-methylphenol Pentachlorophenol. Benzidine. (< RL)
2) highest point dropped. Acenaphthene
3) linear fit used: Benzoic Acid. 4-Nitrophenol
4) Quadratic fit used: 2,4-Dinitrophenol, Pentachlorophenol
5) out of QC: Benzidine ICV: Pentachlorophenol recovery @ 62.4%

**Analyst:** _____ **Date:** 05/24/12

**Reviewer:** BB **Date:** 5/24/12

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 13:34
End Cal Date : 23-MAY-2012 18:46
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing
Curve Type : Average

Calibration File Names:
Level 1: /chem2/nt6.i/20120523.b/05231208.D
Level 2: /chem2/nt6.i/20120523.b/05231203.D
Level 3: /chem2/nt6.i/20120523.b/05231204.D
Level 4: /chem2/nt6.i/20120523.b/05231201.D
Level 5: /chem2/nt6.i/20120523.b/05231205.D
Level 6: /chem2/nt6.i/20120523.b/05231206.D
Level 7: /chem2/nt6.i/20120523.b/05231207.D

05/24/12

| Compound | 1.000 Level 1 | 5.000 Level 2 | 10.000 Level 3 | 25.000 Level 4 | 40.000 Level 5 | 60.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 80.000 Level 7 | | | | | | | |
| 186 Carbaryl | 0.46950 | 0.42243 | 0.46109 | 0.49745 | 0.53299 | 0.53003 | | |
| | 0.47576 | | | | | | 0.48418 | 8.128 |
| 179 n-Decane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 180 n-Octadecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 169 4-tert-Butylphenol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 170 N,N-Dimethylaniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 171 2,3-Dimethylaniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |

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|---|---|---|---|---|---|---|---|---|
| | 80.000 Level 7 | | | | | | | |
| 172 2,4-Dimethylaniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 173 2,5-Dimethylaniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 174 2,6-Dimethylaniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 175 3,4-Dimethylaniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 176 3,5-Dimethylaniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 177 p-Benzoquinone | +++++ | 0.04373 | 0.05055 | 0.05531 | 0.06435 | 0.06137 | | |
| | 0.05395 | | | | | | 0.05488 | 13.536 |
| 168 Pentachlorobenzene | 0.52732 | 0.54115 | 0.53345 | 0.47304 | 0.54899 | 0.52254 | | |
| | 0.48440 | | | | | | 0.51870 | 5.560 |
| 145 4,4'-DDE | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 146 4,4'-DDD | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |

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|---|---|---|---|---|---|---|---|---|---|
| 135 2,3,5,6-Tetrachlorophenol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 136 2,3,4,5-tetrachlorophenol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 133 Butylatedhydroxytoluene | 0.86563 | 0.81023 | 0.78080 | 0.73108 | 0.79563 | 0.78377 | 0.69753 | 0.78067 | 6.957 |
| 132 3,6-Dimethylphenanthrene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 131 1-Methylphenanthrene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 130 Dibenzothiophene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 129 1-Methylfluorene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 128 N-Hexadecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 127 2-Isopropylnaphthalene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

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|---|---|---|---|---|---|---|---|---|---|
| 126 N-Tetradecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 144 alpha-Terpineol | 0.19827 | 0.20423 | 0.19388 | 0.17728 | 0.20427 | 0.18970 | 0.17712 | 0.19211 | 5.959 |
| 125 Safrole | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 124 3,4-Dimethylphenol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 123 Acetophenone | 1.54576 | 1.59930 | 1.59162 | 1.48273 | 1.69950 | 1.57969 | 1.46424 | 1.56612 | 5.046 |
| 122 Furfuraldehyde | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 143 1,4-Dioxane | 0.40017 | 0.43500 | 0.42326 | 0.39836 | 0.43319 | 0.44257 | 0.40323 | 0.41940 | 4.418 |
| 121 Quinoline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 120 2,3,4,6-Tetrachlorophenol | 0.22434 | 0.24497 | 0.27459 | 0.28797 | 0.31371 | 0.32787 | 0.30877 | 0.28317 | 13.373 |

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|---|---|---|---|---|---|---|---|---|---|
| 178 2-Benzyl-4-Chlorophenol | 0.16663 | 0.20991 | 0.21213 | 0.20331 | 0.23946 | 0.24309 | 0.22648 | 0.21443 | 12.082 |
| 119 7,12-Dimethylbenz(a)anthracen | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 118 Triphenyl Phosphate | 0.22170 | 0.23708 | 0.22956 | 0.21333 | 0.25414 | 0.24165 | 0.22320 | 0.23152 | 5.968 |
| 117 Butyl Diphenyl Phosphate | 0.10893 | 0.12584 | 0.12096 | 0.11110 | 0.13284 | 0.12550 | 0.11660 | 0.12025 | 7.145 |
| 116 Dibutyl Phenyl Phosphate | 0.45619 | 0.49578 | 0.48610 | 0.44083 | 0.51396 | 0.50070 | 0.46004 | 0.47909 | 5.628 |
| 115 Tributyl Phosphate | 0.59163 | 0.65651 | 0.62577 | 0.55218 | 0.62792 | 0.58310 | 0.51320 | 0.59290 | 8.280 |
| 114 Beta-Pinene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 113 Diphenyl Oxide | 0.74844 | 0.80615 | 0.73863 | 0.65689 | 0.76636 | 0.72227 | 0.68305 | 0.73168 | 6.862 |
| 112 Biphenyl | 1.21605 | 1.28175 | 1.19808 | 1.02414 | 1.13029 | 1.02190 | 0.94279 | 1.11643 | 11.074 |

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|---|---|---|---|---|---|---|---|---|---|
| 111 Azobenzene (1,2-DP-Hydrazine) | 0.94504 | 0.99949 | 0.98658 | 0.88434 | 0.96467 | 0.93596 | 0.83714 | 0.93617 | 6.157 |
| 110 Tetrachloroguaiacol | 0.09149 | 0.13114 | 0.13285 | 0.12932 | 0.15348 | 0.14814 | 0.14001 | 0.13235 | 15.222 |
| 109 3,4,5-Trichloroguaiacol | 0.11113 | 0.14446 | 0.13562 | 0.12207 | 0.14057 | 0.13717 | 0.13010 | 0.13159 | 8.803 |
| 181 3,4,6-Trichloroguaiacol | 0.48187 | 0.60208 | 0.57213 | 0.53194 | 0.64447 | 0.58383 | 0.59579 | 0.57316 | 9.172 |
| 108 4,5,6-Trichloroguaiacol | 0.19402 | 0.23701 | 0.22039 | 0.19065 | 0.22179 | 0.23854 | 0.22476 | 0.21817 | 8.720 |
| 184 3,4-Dichloroguaiacol | 0.43499 | 0.54329 | 0.51665 | 0.49002 | 0.56601 | 0.51020 | 0.50225 | 0.50906 | 8.166 |
| 107 4,5-Dichloroguaiacol | 0.25984 | 0.31329 | 0.29351 | 0.25553 | 0.28797 | 0.28676 | 0.26791 | 0.28069 | 7.341 |
| 182 4,6-Dichloroguaiacol | 0.59178 | 0.69377 | 0.65539 | 0.59720 | 0.70601 | 0.61673 | 0.59733 | 0.63689 | 7.567 |
| 185 4-Chloroguaiacol | 0.43952 | 0.51354 | 0.49135 | 0.46976 | 0.55788 | 0.48049 | 0.49993 | 0.49321 | 7.513 |

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|---|---|---|---|---|---|---|---|---|---|
| 106 Guaiacol | 0.98433 | 1.03539 | 0.99268 | 0.94677 | 1.09868 | 1.04134 | 0.97686 | 1.01087 | 5.035 |
| 105 1-methylnaphthalene | 0.53141 | 0.53308 | 0.49711 | 0.44508 | 0.50623 | 0.46253 | 0.42367 | 0.48559 | 8.786 |
| 151 1,2,4,5-Tetrachlorobenzene | 0.55383 | 0.56438 | 0.55319 | 0.49278 | 0.55838 | 0.56850 | 0.51039 | 0.54306 | 5.395 |
| 152 Benzo(e)pyrene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 153 Chlorpyrifos | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 154 Diazinon | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 155 Kelthane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 156 Methyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 157 Ethyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

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|---|---|---|---|---|---|---|---|---|---|
| 167 2,2',4,4',5-Pentabromobipheny | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 3 Phenol | 1.92993 | 1.62487 | 1.58215 | 1.65615 | 1.72984 | 1.59809 | 1.46984 | 1.65584 | 8.714 |
| 4 Bis(2-Chloroethyl)ether | 1.13762 | 1.12021 | 1.16884 | 1.10675 | 1.25030 | 1.17611 | 1.08900 | 1.14983 | 4.727 |
| 6 2-Chlorophenol | 1.79852 | 1.49416 | 1.43286 | 1.49085 | 1.55701 | 1.46464 | 1.34280 | 1.51155 | 9.434 |
| 7 1,3-Dichlorobenzene | 1.59595 | 1.58123 | 1.58596 | 1.46286 | 1.64635 | 1.55763 | 1.41736 | 1.54962 | 5.197 |
| 9 1,4-Dichlorobenzene | 1.59602 | 1.62198 | 1.57342 | 1.47047 | 1.63146 | 1.54728 | 1.40058 | 1.54874 | 5.474 |
| 11 Benzyl alcohol | 0.59418 | 0.88976 | 0.87732 | 0.83934 | 1.00640 | 0.94399 | 0.90161 | 0.86466 | 15.104 |
| 12 1,2-Dichlorobenzene | 1.51205 | 1.51784 | 1.50187 | 1.41416 | 1.58130 | 1.49221 | 1.35855 | 1.48257 | 4.956 |
| 13 2-Methylphenol | 1.45829 | 1.21832 | 1.19364 | 1.24491 | 1.33301 | 1.23914 | 1.15706 | 1.26348 | 8.043 |

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|---|---|---|---|---|---|---|---|---|---|
| 14 2,2'-oxybis(1-Chloropropane) | 1.33225 | 1.34383 | 1.30332 | 1.21652 | 1.37390 | 1.27718 | 1.18052 | 1.28965 | 5.432 |
| 15 4-Methylphenol | 1.39090 | 1.27057 | 1.25476 | 1.31867 | 1.40141 | 1.29508 | 1.20142 | 1.30469 | 5.544 |
| 16 N-Nitroso-di-n-propylamine | 0.76694 | 0.78778 | 0.77892 | 0.72821 | 0.85350 | 0.78416 | 0.73578 | 0.77647 | 5.311 |
| 17 Hexachloroethane | 0.53543 | 0.54778 | 0.54927 | 0.52465 | 0.59688 | 0.58356 | 0.54507 | 0.55466 | 4.688 |
| 19 Nitrobenzene | 0.32645 | 0.34107 | 0.33464 | 0.31609 | 0.35100 | 0.33242 | 0.30517 | 0.32955 | 4.655 |
| 20 Isophorone | 0.48783 | 0.50562 | 0.49353 | 0.45825 | 0.51596 | 0.48331 | 0.44881 | 0.48476 | 4.977 |
| 21 2-Nitrophenol | 0.25611 | 0.22424 | 0.21701 | 0.23307 | 0.24206 | 0.23259 | 0.21855 | 0.23195 | 5.968 |
| 22 2,4-Dimethylphenol | 0.38221 | 0.34106 | 0.33424 | 0.35265 | 0.36378 | 0.34161 | 0.31403 | 0.34708 | 6.298 |
| 23 Bis(2-Chloroethoxy)methane | 0.36192 | 0.37782 | 0.37158 | 0.34727 | 0.38734 | 0.36293 | 0.33583 | 0.36353 | 4.857 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 24 Benzoic acid | +++++ | 0.12242 | 0.14609 | 0.19379 | 0.22838 | 0.21826 | 0.21184 | 0.18679 | 22.959 | <- |
| 25 2,4-Dichlorophenol | 0.34552 | 0.33495 | 0.33539 | 0.35612 | 0.36847 | 0.34630 | 0.31905 | 0.34369 | 4.648 | |
| 26 1,2,4-Trichlorobenzene | 0.37969 | 0.37905 | 0.37271 | 0.34903 | 0.39234 | 0.37083 | 0.34005 | 0.36910 | 4.964 | |
| 28 Naphthalene | 1.16662 | 1.18044 | 1.13660 | 0.98989 | 1.00922 | 0.88046 | 0.75453 | 1.01682 | 15.639 | |
| 29 4-Chloroaniline | 0.47200 | 0.51712 | 0.49305 | 0.46256 | 0.49132 | 0.44412 | 0.40674 | 0.46956 | 7.745 | |
| 30 Hexachlorobutadiene | 0.23182 | 0.22869 | 0.22528 | 0.21331 | 0.23839 | 0.22744 | 0.21270 | 0.22538 | 4.181 | |
| 31 4-Chloro-3-methylphenol | 0.27431 | 0.25607 | 0.27013 | 0.29350 | 0.30742 | 0.26749 | 0.25492 | 0.27483 | 7.023 | |
| 32 2-Methylnaphthalene | 0.68207 | 0.70914 | 0.66671 | 0.59638 | 0.65732 | 0.58857 | 0.52444 | 0.63209 | 10.218 | |
| 33 Hexachlorocyclopentadiene | +++++ | 0.21941 | 0.28311 | 0.30684 | 0.37121 | 0.37521 | 0.33512 | 0.31515 | 18.724 | |

UU52:00513

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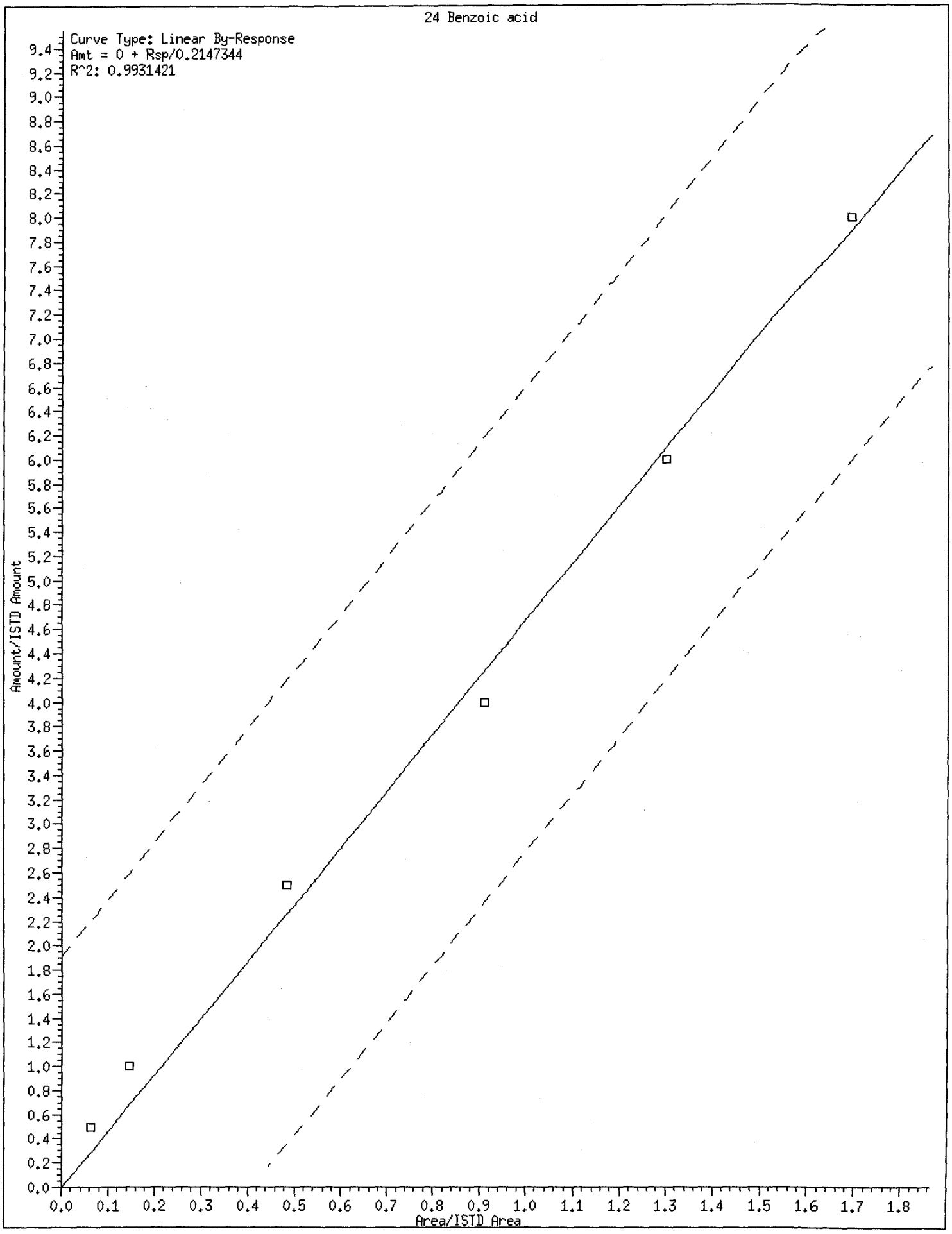
05/24/12

| Compound | 1 Level 1 / 80 Level 7 | 5 Level 2 | 10 Level 3 | 25 Level 4 | 40 Level 5 | 60 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 23 Bis(2-Chloroethoxy)methane | 0.36192 | 0.37782 | 0.37158 | 0.34727 | 0.38734 | 0.36293 | | | | | |
| | 0.33583 | | | | | | AVRG | | 0.36353 | | 4.85707 |
| 24 Benzoic acid | +++++ | 180212 | 446422 | 1661998 | 2853914 | 3886060 | | | | | |
| | 5209192 | | | | | | LINR | 0.000e+00 | 0.21473 | | 0.99314 |
| 25 2,4-Dichlorophenol | 0.34552 | 0.33495 | 0.33539 | 0.35612 | 0.36847 | 0.34630 | | | | | |
| | 0.31905 | | | | | | AVRG | | 0.34369 | | 4.64801 |
| 26 1,2,4-Trichlorobenzene | 0.37969 | 0.37905 | 0.37271 | 0.34903 | 0.39234 | 0.37083 | | | | | |
| | 0.34005 | | | | | | AVRG | | 0.36910 | | 4.96380 |
| 28 Naphthalene | 1.16662 | 1.18044 | 1.13660 | 0.98989 | 1.00922 | 0.88046 | | | | | |
| | 0.75453 | | | | | | AVRG | | 1.01682 | | 15.63932 |
| 29 4-Chloroaniline | 0.47200 | 0.51712 | 0.49305 | 0.46256 | 0.49132 | 0.44412 | | | | | |
| | 0.40674 | | | | | | AVRG | | 0.46956 | | 7.74533 |
| 30 Hexachlorobutadiene | 0.23182 | 0.22869 | 0.22528 | 0.21331 | 0.23839 | 0.22744 | | | | | |
| | 0.21270 | | | | | | AVRG | | 0.22538 | | 4.18053 |


24 Benzoic acid
Curve Type: Linear By-Response
Amt = 0 + Rsp/0.2147344
R^2: 0.9931421
Amount/ISTD Amount
Area/ISTD Area

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 13:34
End Cal Date : 23-MAY-2012 18:46
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing
Curve Type : Average

| Compound | 1.000 Level 1 | 5.000 Level 2 | 10.000 Level 3 | 25.000 Level 4 | 40.000 Level 5 | 60.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 80.000 Level 7 | | | | | | | |
| 34 2,4,6-Trichlorophenol | 0.40976 | 0.37616 | 0.37678 | 0.40467 | 0.43617 | 0.44071 | | |
| | 0.42589 | | | | | | 0.41002 | 6.421 |
| 35 2,4,5-Trichlorophenol | 0.32989 | 0.37587 | 0.37262 | 0.42219 | 0.44166 | 0.43089 | | |
| | 0.39957 | | | | | | 0.39610 | 9.952 |
| 37 2-Chloronaphthalene | 1.07746 | 1.10551 | 1.09648 | 0.97141 | 1.07501 | 1.06718 | | |
| | 0.91502 | | | | | | 1.04401 | 6.892 |
| 38 2-Nitroaniline | 0.17914 | 0.28077 | 0.28056 | 0.24170 | 0.27939 | 0.27473 | | |
| | 0.25786 | | | | | | 0.25631 | 14.450 |
| 39 Dimethylphthalate | 1.12332 | 1.18336 | 1.14162 | 0.95371 | 1.06114 | 1.03279 | | |
| | 0.92331 | | | | | | 1.05989 | 9.165 |
| 40 Acenaphthylene | 1.80859 | 1.90384 | 1.84837 | 1.51741 | 1.63487 | 1.43335 | | |
| | 1.28874 | | | | | | 1.63360 | 14.188 |
| 41 2,6-Dinitrotoluene | 0.23083 | 0.27405 | 0.27496 | 0.24089 | 0.27628 | 0.27802 | | |
| | 0.26043 | | | | | | 0.26221 | 7.291 |
| 43 3-Nitroaniline | 0.26276 | 0.34815 | 0.34126 | 0.29322 | 0.30796 | 0.29118 | | |
| | 0.25516 | | | | | | 0.29996 | 11.869 |
| 44 Acenaphthene | 1.15555 | 1.19475 | 1.16257 | 0.97821 | 1.06233 | 1.02276 | | |
| | +++++ | | | | | | 1.09603 | 7.965 |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 13:34
End Cal Date : 23-MAY-2012 18:46
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing
Curve Type : Average

| Compound | 1.000 Level 1 | 5.000 Level 2 | 10.000 Level 3 | 25.000 Level 4 | 40.000 Level 5 | 60.000 Level 6 | 80.000 Level 7 | RRF | % RSD | |
|---|---|---|---|---|---|---|---|---|---|---|
| 45 2,4-Dinitrophenol | +++++ | 0.03261 | 0.07992 | 0.14373 | 0.17354 | 0.19720 | 0.19187 | 0.13648 | 48.791 | <- |
| 46 Dibenzofuran | 1.74589 | 1.84329 | 1.71964 | 1.38960 | 1.48096 | 1.37073 | 1.19695 | 1.53529 | 15.481 | |
| 47 4-Nitrophenol | +++++ | 0.06240 | 0.07800 | 0.09051 | 0.10226 | 0.11191 | 0.10426 | 0.09156 | 20.289 | <- |
| 48 2,4-Dinitrotoluene | 0.26774 | 0.34924 | 0.35502 | 0.31303 | 0.35994 | 0.37177 | 0.34861 | 0.33791 | 10.608 | |
| 49 Fluorene | 1.29581 | 1.40825 | 1.36934 | 1.15829 | 1.25583 | 1.18902 | 1.03386 | 1.24434 | 10.377 | |
| 50 Diethylphthalate | 1.08145 | 1.11962 | 1.08409 | 0.89709 | 1.00368 | 0.99525 | 0.88702 | 1.00974 | 9.107 | |
| 51 4-Chlorophenyl-phenylether | 0.62864 | 0.64262 | 0.63267 | 0.54965 | 0.62993 | 0.61708 | 0.57151 | 0.61030 | 5.792 | |
| 52 4-Nitroaniline | 0.23247 | 0.31063 | 0.28777 | 0.25425 | 0.29211 | 0.30866 | 0.28988 | 0.28225 | 10.177 | |
| 53 4,6-Dinitro-2-methylphenol | +++++ | 0.11147 | 0.13071 | 0.15115 | 0.16092 | 0.15996 | 0.15087 | 0.14418 | 13.426 | |

UJ52:59517

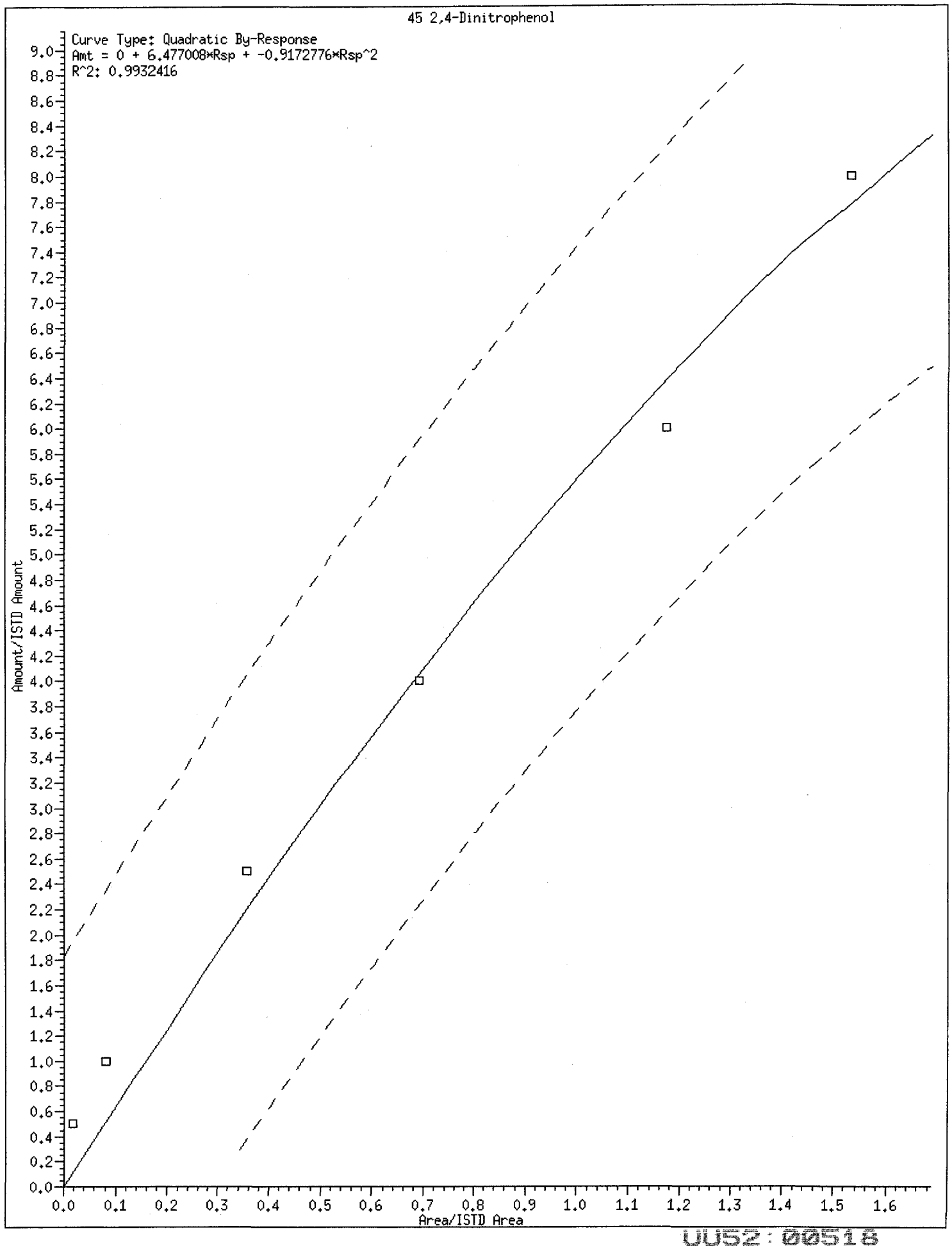
Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 13:34
End Cal Date : 23-MAY-2012 18:46
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing

D 05/24/12

| Compound | 1 Level 1 | 5 Level 2 | 10 Level 3 | 25 Level 4 | 40 Level 5 | 60 Level 6 | 80 Level 7 | Curve | Coefficients b | Coefficients m1 | Coefficients m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 39 Dimethylphthalate | 1.12332 | 1.18336 | 1.14162 | 0.95371 | 1.06114 | 1.03279 | 0.92331 | AVRG | | 1.05989 | | 9.16459 |
| 40 Acenaphthylene | 1.80859 | 1.90384 | 1.84837 | 1.51741 | 1.63487 | 1.43335 | 1.28874 | AVRG | | 1.63360 | | 14.18782 |
| 41 2,6-Dinitrotoluene | 0.23083 | 0.27405 | 0.27496 | 0.24089 | 0.27628 | 0.27802 | 0.26043 | AVRG | | 0.26221 | | 7.29085 |
| 43 3-Nitroaniline | 0.26276 | 0.34815 | 0.34126 | 0.29322 | 0.30796 | 0.29118 | 0.25516 | AVRG | | 0.29996 | | 11.86906 |
| 44 Acenaphthene | 1.15555 | 1.19475 | 1.16257 | 0.97821 | 1.06233 | 1.02276 | +++++ | AVRG | | 1.09603 | | 7.96460 |
| 45 2,4-Dinitrophenol | +++++ | 30032 | 153493 | 811764 | 1428791 | 2115908 | 2924612 | QUAD | 0.000e+00 | 6.47701 | -0.91728 | 0.99324 |
| 46 Dibenzofuran | 1.74589 | 1.84329 | 1.71964 | 1.38960 | 1.48096 | 1.37073 | 1.19695 | AVRG | | 1.53529 | | 15.48073 |


45 2,4-Dinitrophenol
Curve Type: Quadratic By-Response
Amt = 0 + 6.477008*Rsp + -0.9172776*Rsp^2
R^2: 0.9932416
Amount/ISTD Amount
Area/ISTD Area
0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 3.6 3.8 4.0 4.2 4.4 4.6 4.8 5.0 5.2 5.4 5.6 5.8 6.0 6.2 6.4 6.6 6.8 7.0 7.2 7.4 7.6 7.8 8.0 8.2 8.4 8.6 8.8 9.0
0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6

UU52:00518

UU52:00519

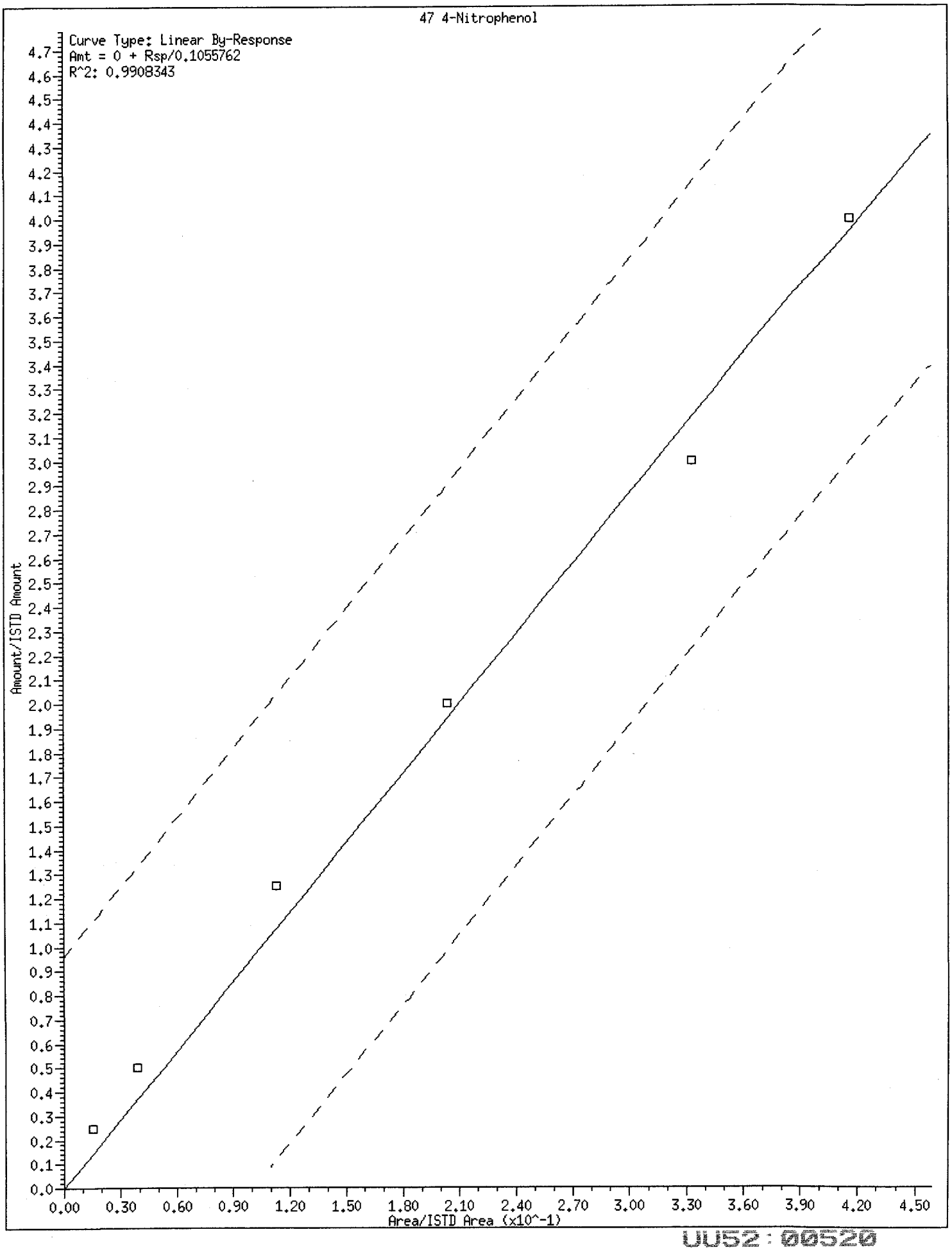
Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 13:34
End Cal Date : 23-MAY-2012 18:46
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing

05/24/12

| Compound | 1 Level 1 / 80 Level 7 | 5 Level 2 | 10 Level 3 | 25 Level 4 | 40 Level 5 | 60 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 4-Nitrophenol | +++++ / 794628 | 28736 | 74902 | 255596 | 420980 | 600385 | LINR | 0.000e+00 | 0.10558 | | 0.99083 |
| 48 2,4-Dinitrotoluene | 0.26774 / 0.34861 | 0.34924 | 0.35502 | 0.31303 | 0.35994 | 0.37177 | AVRG | | 0.33791 | | 10.60842 |
| 49 Fluorene | 1.29581 / 1.03386 | 1.40825 | 1.36934 | 1.15829 | 1.25583 | 1.18902 | AVRG | | 1.24434 | | 10.37706 |
| 50 Diethylphthalate | 1.08145 / 0.88702 | 1.11962 | 1.08409 | 0.89709 | 1.00368 | 0.99525 | AVRG | | 1.00974 | | 9.10745 |
| 51 4-Chlorophenyl-phenylether | 0.62864 / 0.57151 | 0.64262 | 0.63267 | 0.54965 | 0.62993 | 0.61708 | AVRG | | 0.61030 | | 5.79156 |
| 52 4-Nitroaniline | 0.23247 / 0.28988 | 0.31063 | 0.28777 | 0.25425 | 0.29211 | 0.30866 | AVRG | | 0.28225 | | 10.17657 |
| 53 4,6-Dinitro-2-methylphenol | +++++ / 0.15087 | 0.11147 | 0.13071 | 0.15115 | 0.16092 | 0.15996 | AVRG | | 0.14418 | | 13.42599 |


47 4-Nitrophenol
Curve Type: Linear By-Response
Amt = 0 + Rsp/0.1055762
R^2: 0.9908343
Amount/ISTD Amount
Area/ISTD Area (x10^-1)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
2.2
2.3
2.4
2.5
2.6
2.7
2.8
2.9
3.0
3.1
3.2
3.3
3.4
3.5
3.6
3.7
3.8
3.9
4.0
4.1
4.2
4.3
4.4
4.5
4.6
4.7
0.00
0.30
0.60
0.90
1.20
1.50
1.80
2.10
2.40
2.70
3.00
3.30
3.60
3.90
4.20
4.50

UU52:00520

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 13:34
End Cal Date : 23-MAY-2012 18:46
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing
Curve Type : Average

| Compound | 1.000 Level 1 | 5.000 Level 2 | 10.000 Level 3 | 25.000 Level 4 | 40.000 Level 5 | 60.000 Level 6 | RRF | % RSD | |
|---|---|---|---|---|---|---|---|---|---|
| | 80.000 Level 7 | | | | | | | | |
| 54 N-Nitrosodiphenylamine | 0.50603 | 0.54286 | 0.54955 | 0.47562 | 0.53754 | 0.48438 | | | |
| | 0.43226 | | | | | | 0.50404 | 8.515 | |
| 56 4-Bromophenyl-phenylether | 0.25794 | 0.26608 | 0.26115 | 0.23208 | 0.27112 | 0.24654 | | | |
| | 0.23046 | | | | | | 0.25220 | 6.421 | |
| 57 Hexachlorobenzene | 0.32744 | 0.33011 | 0.32784 | 0.29142 | 0.33623 | 0.30836 | | | |
| | 0.28419 | | | | | | 0.31508 | 6.540 | |
| 58 Pentachlorophenol | +++++ | 0.04738 | 0.06649 | 0.12319 | 0.14221 | 0.15459 | | | |
| | 0.14719 | | | | | | 0.11351 | 40.030 | <- |
| 60 Phenanthrene | 1.16316 | 1.22001 | 1.17881 | 0.99031 | 1.03862 | 0.90708 | | | |
| | 0.78046 | | | | | | 1.03978 | 15.425 | |
| 61 Anthracene | 1.15161 | 1.24102 | 1.20802 | 1.02069 | 1.06373 | 0.90965 | | | |
| | 0.75966 | | | | | | 1.05063 | 16.340 | |
| 62 Carbazole | 0.88223 | 0.93238 | 0.89150 | 0.76375 | 0.82373 | 0.76217 | | | |
| | 0.65329 | | | | | | 0.81558 | 11.823 | |
| 63 Di-n-butylphthalate | 1.03028 | 1.08687 | 1.08393 | 0.94874 | 0.99493 | 0.87853 | | | |
| | 0.72791 | | | | | | 0.96446 | 13.258 | |
| 64 Fluoranthene | 1.24687 | 1.27986 | 1.26062 | 1.08631 | 1.10729 | 0.98994 | | | |
| | 0.81640 | | | | | | 1.11247 | 15.194 | |

UU52:00522

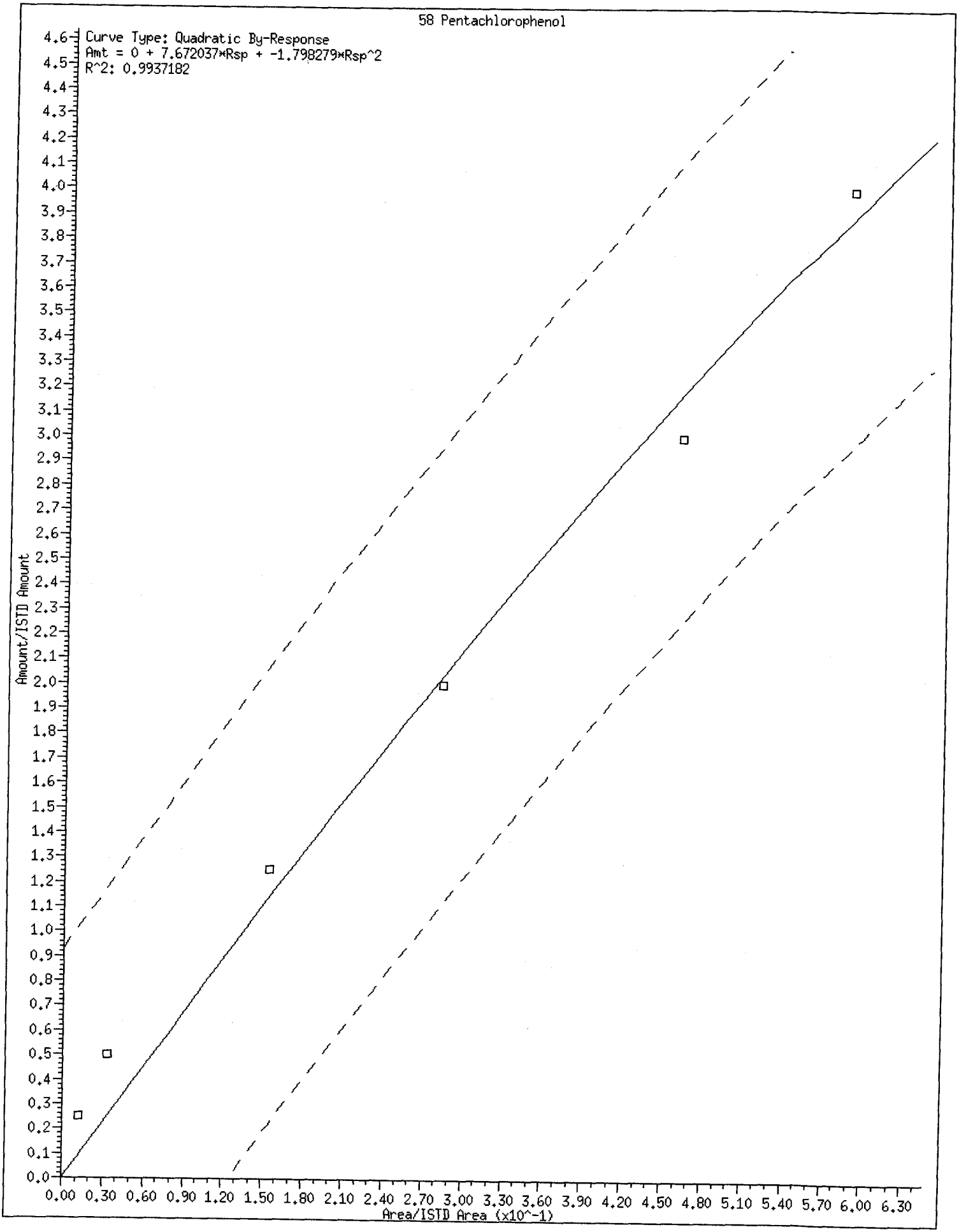
Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 13:34
End Cal Date : 23-MAY-2012 18:46
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing

D 05/24/12

| Compound | 1<br>Level 1<br>80<br>Level 7 | 5<br>Level 2 | 10<br>Level 3 | 25<br>Level 4 | 40<br>Level 5 | 60<br>Level 6 | Curve | Coefficients<br>b | m1 | m2 | %RSD<br>or R^2 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 54 N-Nitrosodiphenylamine | 0.50603<br>0.43226 | 0.54286 | 0.54955 | 0.47562 | 0.53754 | 0.48438 | AVRG | | 0.50404 | | 8.51499 | |
| 56 4-Bromophenyl-phenylether | 0.25794<br>0.23046 | 0.26608 | 0.26115 | 0.23208 | 0.27112 | 0.24654 | AVRG | | 0.25220 | | 6.42112 | |
| 57 Hexachlorobenzene | 0.32744<br>0.28419 | 0.33011 | 0.32784 | 0.29142 | 0.33623 | 0.30836 | AVRG | | 0.31508 | | 6.54035 | |
| 58 Pentachlorophenol | +++++<br>1862334 | 34405 | 100161 | 530749 | 885434 | 1388607 | QUAD | 0.000e+00 | 7.67204 | -1.79828 | 0.99372 | <- |
| 60 Phenanthrene | 1.16316<br>0.78046 | 1.22001 | 1.17881 | 0.99031 | 1.03862 | 0.90708 | AVRG | | 1.03978 | | 15.42489 | |
| 61 Anthracene | 1.15161<br>0.75966 | 1.24102 | 1.20802 | 1.02069 | 1.06373 | 0.90965 | AVRG | | 1.05063 | | 16.33985 | |
| 62 Carbazole | 0.88223<br>0.65329 | 0.93238 | 0.89150 | 0.76375 | 0.82373 | 0.76217 | AVRG | | 0.81558 | | 11.82318 | |


58 Pentachlorophenol
Curve Type: Quadratic By-Response
Amt = 0 + 7.672037*Rsp + -1.798279*Rsp^2
R^2: 0.9937182
Amount/ISTD Amount
Area/ISTD Area (x10^-1)
0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 3.0 3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 4.0 4.1 4.2 4.3 4.4 4.5 4.6
0.00 0.30 0.60 0.90 1.20 1.50 1.80 2.10 2.40 2.70 3.00 3.30 3.60 3.90 4.20 4.50 4.80 5.10 5.40 5.70 6.00 6.30

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 13:34
End Cal Date : 23-MAY-2012 18:46
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing
Curve Type : Average

| Compound | 1.000 Level 1 | 5.000 Level 2 | 10.000 Level 3 | 25.000 Level 4 | 40.000 Level 5 | 60.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 80.000 Level 7 | | | | | | | |
| 65 Pyrene | 1.17667 | 1.23169 | 1.20166 | 0.99269 | 1.04852 | 0.84932 | | |
| | 0.72904 | | | | | | 1.03280 | 18.395 |
| 67 Butylbenzylphthalate | 0.36258 | 0.40812 | 0.41200 | 0.37216 | 0.43191 | 0.39789 | | |
| | 0.36149 | | | | | | 0.39231 | 6.963 |
| 68 Benzo(a)anthracene | 1.10422 | 1.14968 | 1.12090 | 0.96113 | 1.03514 | 0.89686 | | |
| | +++++ | | | | | | 1.04465 | 9.506 |
| 70 3,3'-Dichlorobenzidine | 0.40249 | 0.45417 | 0.41779 | 0.37377 | 0.41274 | 0.36975 | | |
| | 0.33271 | | | | | | 0.39477 | 10.005 |
| 71 Chrysene | 1.06232 | 1.11471 | 1.08286 | 0.92490 | 0.99307 | 0.83467 | | |
| | 0.70611 | | | | | | 0.95981 | 15.453 |
| 72 bis(2-Ethylhexyl)phthalate | 0.58869 | 0.58965 | 0.58841 | 0.51977 | 0.60221 | 0.55320 | | |
| | 0.49404 | | | | | | 0.56228 | 7.358 |
| 73 Di-n-octylphthalate | 1.04858 | 1.05429 | 1.03506 | 0.88423 | 0.96236 | 0.83818 | | |
| | 0.72017 | | | | | | 0.93469 | 13.532 |
| 74 Benzo(b)fluoranthene | 1.11738 | 1.25875 | 1.19686 | 1.06195 | 1.08053 | 0.99731 | | |
| | 0.83887 | | | | | | 1.07881 | 12.682 |
| 75 Benzo(k)fluoranthene | 1.09148 | 1.17579 | 1.19529 | 0.96313 | 1.11004 | 0.80866 | | |
| | 0.83887 | | | | | | 1.02618 | 15.339 |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 13:34
End Cal Date : 23-MAY-2012 18:46
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing
Curve Type : Average

| Compound | 1.000 Level 1 | 5.000 Level 2 | 10.000 Level 3 | 25.000 Level 4 | 40.000 Level 5 | 60.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 80.000 Level 7 | | | | | | | |
| $ 137 d8-1,4-Dioxane | 0.47115 | 0.45377 | 0.44709 | 0.41964 | 0.45744 | 0.46134 | | |
| | 0.42188 | | | | | | 0.44747 | 4.396 |
| $ 2 Phenol-d5 | 1.29233 | 1.40720 | 1.41014 | 1.30752 | 1.51690 | 1.38348 | | |
| | +++++ | | | | | | 1.38626 | 5.870 |
| $ 5 2-Chlorophenol-d4 | 1.26430 | 1.38386 | 1.37219 | 1.25712 | 1.45000 | 1.33366 | | |
| | +++++ | | | | | | 1.34352 | 5.532 |
| $ 10 1,2-Dichlorobenzene-d4 | 1.01613 | 0.99725 | 0.98074 | 0.89391 | 1.03429 | 0.95666 | | |
| | +++++ | | | | | | 0.97983 | 5.104 |
| $ 18 Nitrobenzene-d5 | 0.30652 | 0.33165 | 0.33015 | 0.30227 | 0.34083 | 0.31181 | | |
| | +++++ | | | | | | 0.32054 | 4.901 |
| $ 36 2-Fluorobiphenyl | 1.32265 | 1.30199 | 1.27097 | 1.07338 | 1.18593 | 1.13421 | | |
| | +++++ | | | | | | 1.21486 | 8.208 |
| $ 55 2,4,6-Tribromophenol | 0.23768 | 0.26284 | 0.26853 | 0.23197 | 0.27698 | 0.27944 | | |
| | +++++ | | | | | | 0.25957 | 7.762 |
| $ 66 Terphenyl-d14 | 0.70363 | 0.75269 | 0.74977 | 0.62587 | 0.71361 | 0.60811 | | |
| | +++++ | | | | | | 0.69228 | 8.912 |
| $ 85 p-Cresol-d4 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |

92599 2501

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 13:34
End Cal Date : 23-MAY-2012 18:46
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP RTE
Method file : /chem2/nt6.i/20120523.b/SW846052312.m
Cal Date : 24-May-2012 12:53 jianqing

| Curve | Formula | Units |
|---|---|---|
| Averaged | Amt = Rsp/m1 | Response |
| Linear | Amt = b + Rsp/m1 | Response |
| Quad | Amt = b + m1*Rsp + m2*Rsp^2 | Response |

Report Date : 24-May-2012 12:57



# Analytical Resources, Inc.
## RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Batch File: /chem2/nt6.i/20120523.b
Inst ID: nt6.i

| ID: | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 |
|---|---|---|---|---|---|---|---|
| FILENAME: | 05231201 | 05231203 | 05231204 | 05231205 | 05231206 | 05231207 | 05231208 |
| INJ.DATE: | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 |
| INJ.TIME: | 13:34 | 14:41 | 15:15 | 15:48 | 16:22 | 16:56 | 18:46 |

05/24/12

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $ 1 2-Fluorophenol | 5.187 | 5.194 | 5.190 | 5.189 | 5.194 | 0.000 | 5.205 | 5.187 | 2.187-8.187 | 4.451 | 1.963 |
| 186 Carbaryl | 15.300 | 15.291 | 15.292 | 15.307 | 15.312 | 15.324 | 15.291 | 15.300 | 12.300-18.300 | 15.302 | 0.013 |
| 179 n-Decane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.061 | 5.061-11.061 | +++++ | +++++ |
| 180 n-Octadecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 14.369 | 11.369-17.369 | +++++ | +++++ |
| 169 4-tert-Butylphenol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 18.531 | 15.531-21.531 | +++++ | +++++ |
| 170 N,N-Dimethylaniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 16.634 | 13.634-19.634 | +++++ | +++++ |
| 171 2,3-Dimethylaniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 17.609 | 14.609-20.609 | +++++ | +++++ |
| 172 2,4-Dimethylaniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 16.863 | 13.863-19.863 | +++++ | +++++ |
| 173 2,5-Dimethylaniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 20.605 | 17.605-23.605 | +++++ | +++++ |
| 174 2,6-Dimethylaniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 17.015 | 14.015-20.015 | +++++ | +++++ |
| 175 3,4-Dimethylaniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 17.609 | 14.609-20.609 | +++++ | +++++ |
| 176 3,5-Dimethylaniline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 17.562 | 14.562-20.562 | +++++ | +++++ |
| 177 p-Benzoquinone | 5.834 | 5.836 | 5.831 | 5.835 | 5.841 | 5.836 | +++++ | 5.834 | 2.834-8.834 | 5.835 | 0.003 |
| 168 Pentachlorobenzene | 12.463 | 12.454 | 12.460 | 12.465 | 12.465 | 12.471 | 12.454 | 12.463 | 9.463-15.463 | 12.462 | 0.006 |
| 145 4,4'-DDE | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 47.212 | 44.212-50.212 | +++++ | +++++ |
| 146 4,4'-DDD | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 47.746 | 44.746-50.746 | +++++ | +++++ |
| 147 4,4'-DDT | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 48.216 | 45.216-51.216 | +++++ | +++++ |

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: 5/24/12

UU52:00527

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Batch File: /chem2/nt6.i/20120523.b
Inst ID: nt6.i

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 148 Dieldrin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 47.281 | 44.281-50.281 | +++++ | +++++ |
| 149 TCMX | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 43.387 | 40.387-46.387 | +++++ | +++++ |
| 150 DCBP | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 50.989 | 47.989-53.989 | +++++ | +++++ |
| 138 Chlorobenzilate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 67.733 | 64.733-70.733 | +++++ | +++++ |
| 139 Isodrin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 65.067 | 62.067-68.067 | +++++ | +++++ |
| 140 Diallate A | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 65.487 | 62.487-68.487 | +++++ | +++++ |
| 141 Diallate B | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 65.487 | 62.487-68.487 | +++++ | +++++ |
| 142 1,2-Dibromo-3-Chloropr | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 49.917 | 46.917-52.917 | +++++ | +++++ |
| 135 2,3,5,6-Tetrachlorophe | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 13.677 | 10.677-16.677 | +++++ | +++++ |
| 136 2,3,4,5-tetrachlorophe | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 39.317 | 36.317-42.317 | +++++ | +++++ |
| $ 137 d8-1,4-Dioxane | 1.774 | 1.770 | 1.771 | 1.775 | 1.781 | 1.781 | 1.781 | 1.774 | 0.000-4.774 | 1.776 | 0.005 |
| * 134 Di-n-octylphthalate-d4 | 19.964 | 19.960 | 19.961 | 19.965 | 19.971 | 19.971 | 19.960 | 19.964 | 16.964-22.964 | 19.964 | 0.005 |
| 133 Butylatedhydroxytoluen | 12.330 | 12.326 | 12.327 | 12.331 | 12.331 | 12.337 | 12.326 | 12.330 | 9.330-15.330 | 12.330 | 0.004 |
| 132 3,6-Dimethylphenanthre | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 65.450 | 62.450-68.450 | +++++ | +++++ |
| 131 1-Methylphenanthrene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 64.400 | 61.400-67.400 | +++++ | +++++ |
| 130 Dibenzothiophene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 62.100 | 59.100-65.100 | +++++ | +++++ |
| 129 1-Methylfluorene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 54.912 | 51.912-57.912 | +++++ | +++++ |
| 128 N-Hexadecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 54.212 | 51.212-57.212 | +++++ | +++++ |
| 127 2-Isopropylnaphthalene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 57.650 | 54.650-60.650 | +++++ | +++++ |
| 126 N-Tetradecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 56.750 | 53.750-59.750 | +++++ | +++++ |
| 144 alpha-Terpineol | 9.354 | 9.345 | 9.346 | 9.356 | 9.361 | 9.362 | 9.345 | 9.354 | 6.354-12.354 | 9.353 | 0.007 |
| 125 Safrole | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 52.166 | 49.166-55.166 | +++++ | +++++ |

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Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Batch File: /chem2/nt6.i/20120523.b
Inst ID: nt6.i

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 124 3,4-Dimethylphenol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 50.617 | 47.617-53.617 | +++++ | +++++ |
| 123 Acetophenone | 7.922 | 7.919 | 7.919 | 7.929 | 7.930 | 7.935 | 7.924 | 7.922 | 4.922-10.922 | 7.926 | 0.006 |
| 122 Furfuraldehyde | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 43.467 | 40.467-46.467 | +++++ | +++++ |
| 143 1,4-Dioxane | 1.806 | 1.802 | 1.803 | 1.807 | 1.813 | 1.819 | 1.818 | 1.806 | 0.000-4.806 | 1.810 | 0.007 |
| 121 Quinoline | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 54.500 | 51.500-57.500 | +++++ | +++++ |
| 120 2,3,4,6-Tetrachlorophe | 12.725 | 12.722 | 12.727 | 12.727 | 12.732 | 12.733 | 12.727 | 12.725 | 9.725-15.725 | 12.727 | 0.004 |
| 178 2-Benzyl-4-Chloropheno | 15.273 | 15.270 | 15.265 | 15.280 | 15.286 | 15.297 | 15.270 | 15.273 | 12.273-18.273 | 15.277 | 0.011 |
| 119 7,12-Dimethylbenz(a)an | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 47.069 | 44.069-50.069 | +++++ | +++++ |
| 118 Triphenyl Phosphate | 18.318 | 18.315 | 18.315 | 18.320 | 18.325 | 18.326 | 18.315 | 18.318 | 15.318-21.318 | 18.319 | 0.005 |
| 117 Butyl Diphenyl Phospha | 16.737 | 16.733 | 16.734 | 16.739 | 16.744 | 16.745 | 16.733 | 16.737 | 13.737-19.737 | 16.738 | 0.005 |
| 116 Dibutyl Phenyl Phospha | 15.086 | 15.072 | 15.078 | 15.088 | 15.093 | 15.105 | 15.072 | 15.086 | 12.086-18.086 | 15.085 | 0.012 |
| 115 Tributyl Phosphate | 13.382 | 13.368 | 13.374 | 13.389 | 13.400 | 13.411 | 13.368 | 13.382 | 10.382-16.382 | 13.385 | 0.017 |
| 114 Beta-Pinene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 48.950 | 45.950-51.950 | +++++ | +++++ |
| 113 Diphenyl Oxide | 11.395 | 11.391 | 11.392 | 11.402 | 11.402 | 11.403 | 11.396 | 11.395 | 8.395-14.395 | 11.397 | 0.005 |
| 112 Biphenyl | 11.197 | 11.199 | 11.199 | 11.199 | 11.204 | 11.205 | 11.199 | 11.197 | 8.197-14.197 | 11.200 | 0.003 |
| 111 Azobenzene (1,2-DP-Hyd | 13.265 | 13.256 | 13.262 | 13.272 | 13.272 | 13.278 | 13.256 | 13.265 | 10.265-16.265 | 13.265 | 0.008 |
| 110 Tetrachloroguaiacol | 14.440 | 14.431 | 14.431 | 14.441 | 14.447 | 14.453 | 14.436 | 14.440 | 11.440-17.440 | 14.440 | 0.008 |
| 109 3,4,5-Trichloroguaiaco | 12.832 | 12.823 | 12.823 | 12.833 | 12.834 | 12.840 | 12.828 | 12.832 | 9.832-15.832 | 12.830 | 0.006 |
| 181 3,4,6-Trichloroguaiaco | 12.944 | 12.941 | 12.941 | 12.946 | 12.951 | 12.952 | 12.946 | 12.944 | 9.944-15.944 | 12.946 | 0.004 |
| 108 4,5,6-Trichloroguaiaco | 13.858 | 13.854 | 13.855 | 13.859 | 13.865 | 13.871 | 13.854 | 13.858 | 10.858-16.858 | 13.859 | 0.006 |
| 184 3,4-Dichloroguaiacol | 11.299 | 11.295 | 11.296 | 11.300 | 11.300 | 11.306 | 11.300 | 11.299 | 8.299-14.299 | 11.300 | 0.004 |
| 107 4,5-Dichloroguaiacol | 12.095 | 12.091 | 12.092 | 12.102 | 12.102 | 12.108 | 12.096 | 12.095 | 9.095-15.095 | 12.098 | 0.006 |
| 182 4,6-Dichloroguaiacol | 12.095 | 12.091 | 12.092 | 12.102 | 12.102 | 12.108 | 12.096 | 12.095 | 9.095-15.095 | 12.098 | 0.006 |
| 185 4-Chloroguaiacol | 10.225 | 10.221 | 10.227 | 10.227 | 10.232 | 10.233 | 10.232 | 10.225 | 7.225-13.225 | 10.228 | 0.004 |

SW8260C_SV_052312

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Batch File: /chem2/nt6.i/20120523.b
Inst ID: nt6.i

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 106 Guaiacol | 8.206 | 8.202 | 8.203 | 8.207 | 8.213 | 8.213 | 8.207 | 8.206 | 5.206-11.206 | 8.207 | 0.004 |
| 105 1-methylnaphthalene | 10.583 | 10.579 | 10.580 | 10.584 | 10.585 | 10.585 | 10.579 | 10.583 | 7.583-13.583 | 10.582 | 0.003 |
| 151 1,2,4,5-Tetrachloroben | 10.754 | 10.750 | 10.751 | 10.755 | 10.755 | 10.756 | 10.755 | 10.754 | 7.754-13.754 | 10.754 | 0.002 |
| 152 Benzo(e)pyrene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 30.943 | 27.943-33.943 | +++++ | +++++ |
| 153 Chlorpyrifos | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 23.442 | 20.442-26.442 | +++++ | +++++ |
| 154 Diazinon | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 21.968 | 18.968-24.968 | +++++ | +++++ |
| 155 Kelthane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 23.466 | 20.466-26.466 | +++++ | +++++ |
| 156 Methyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 22.866 | 19.866-25.866 | +++++ | +++++ |
| 157 Ethyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 23.413 | 20.413-26.413 | +++++ | +++++ |
| 158 Ethion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 24.952 | 21.952-27.952 | +++++ | +++++ |
| 159 4-Nonylphenol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 21.721 | 18.721-24.721 | +++++ | +++++ |
| 160 Tetraethyl Tin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 18.159 | 15.159-21.159 | +++++ | +++++ |
| 161 1,2,3-Trichloronaphtha | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 36.246 | 33.246-39.246 | +++++ | +++++ |
| 162 1,2,3,4-Tetrachloronap | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 37.506 | 34.506-40.506 | +++++ | +++++ |
| 163 1,2,3,5,8-Pentachloron | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 38.893 | 35.893-41.893 | +++++ | +++++ |
| 164 1,2,3,4,6,7-Hexachloro | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 39.681 | 36.681-42.681 | +++++ | +++++ |
| 165 1,2,3,4,5,6,7-Heptachl | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 41.123 | 38.123-44.123 | +++++ | +++++ |
| 166 Octachloronaphthalene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 42.253 | 39.253-45.253 | +++++ | +++++ |
| 167 2,2',4,4',5-Pentabromo | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 42.033 | 39.033-45.033 | +++++ | +++++ |
| $ 2 Phenol-d5 | 6.870 | 6.867 | 6.862 | 6.872 | 6.877 | 0.000 | 6.872 | 6.870 | 3.870-9.870 | 5.888 | 2.597 |
| 3 Phenol | 6.886 | 6.883 | 6.883 | 6.888 | 6.893 | 6.894 | 6.888 | 6.886 | 3.886-9.886 | 6.888 | 0.004 |
| 4 Bis(2-Chloroethyl)ethe | 6.897 | 6.888 | 6.894 | 6.898 | 6.904 | 6.899 | 6.898 | 6.897 | 3.897-9.897 | 6.897 | 0.005 |
| 5 2-Chlorophenol-d4 | 6.907 | 6.904 | 6.904 | 6.909 | 6.909 | 0.000 | 6.914 | 6.907 | 3.907-9.907 | 5.921 | 2.611 |

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Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Batch File: /chem2/nt6.i/20120523.b
Inst ID: nt6.i

| | Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6 2-Chlorophenol | 6.934 | 6.931 | 6.931 | 6.936 | 6.936 | 6.936 | 6.936 | 6.934 | 3.934-9.934 | 6.934 | 0.002 |
| | 7 1,3-Dichlorobenzene | 7.121 | 7.123 | 7.123 | 7.128 | 7.128 | 7.129 | 7.128 | 7.121 | 4.121-10.121 | 7.126 | 0.003 |
| * | 8 1,4-Dichlorobenzene-d4 | 7.191 | 7.187 | 7.193 | 7.192 | 7.198 | 7.193 | 7.192 | 7.191 | 4.191-10.191 | 7.192 | 0.003 |
| | 9 1,4-Dichlorobenzene | 7.217 | 7.214 | 7.214 | 7.219 | 7.219 | 7.220 | 7.219 | 7.217 | 4.217-10.217 | 7.217 | 0.002 |
| $ | 10 1,2-Dichlorobenzene-d4 | 7.495 | 7.492 | 7.492 | 7.497 | 7.497 | 0.000 | 7.497 | 7.495 | 4.495-10.495 | 6.424 | 2.833 |
| | 11 Benzyl alcohol | 7.532 | 7.529 | 7.524 | 7.534 | 7.540 | 7.545 | 7.534 | 7.532 | 4.532-10.532 | 7.534 | 0.007 |
| | 12 1,2-Dichlorobenzene | 7.516 | 7.513 | 7.513 | 7.518 | 7.518 | 7.519 | 7.518 | 7.516 | 4.516-10.516 | 7.517 | 0.002 |
| | 13 2-Methylphenol | 7.816 | 7.812 | 7.813 | 7.817 | 7.823 | 7.823 | 7.817 | 7.816 | 4.816-10.816 | 7.817 | 0.004 |
| | 14 2,2'-oxybis(1-Chloropr | 7.784 | 7.785 | 7.786 | 7.785 | 7.785 | 7.791 | 7.785 | 7.784 | 4.784-10.784 | 7.786 | 0.002 |
| | 15 4-Methylphenol | 8.056 | 8.053 | 8.053 | 8.063 | 8.068 | 8.069 | 8.058 | 8.056 | 5.056-11.056 | 8.060 | 0.007 |
| | 16 N-Nitroso-di-n-propyla | 8.008 | 7.999 | 8.000 | 8.015 | 8.026 | 8.026 | 7.999 | 8.008 | 5.008-11.008 | 8.010 | 0.012 |
| | 17 Hexachloroethane | 8.003 | 7.999 | 8.000 | 8.004 | 8.004 | 8.005 | 8.004 | 8.003 | 5.003-11.003 | 8.003 | 0.002 |
| $ | 18 Nitrobenzene-d5 | 8.152 | 8.143 | 8.149 | 8.154 | 8.159 | 0.000 | 8.148 | 8.152 | 5.152-11.152 | 6.987 | 3.081 |
| | 19 Nitrobenzene | 8.179 | 8.170 | 8.176 | 8.186 | 8.186 | 8.187 | 8.181 | 8.179 | 5.179-11.179 | 8.181 | 0.006 |
| | 20 Isophorone | 8.574 | 8.565 | 8.566 | 8.581 | 8.587 | 8.593 | 8.570 | 8.574 | 5.574-11.574 | 8.577 | 0.010 |
| | 21 2-Nitrophenol | 8.702 | 8.699 | 8.699 | 8.704 | 8.704 | 8.710 | 8.704 | 8.702 | 5.702-11.702 | 8.703 | 0.004 |
| | 22 2,4-Dimethylphenol | 8.879 | 8.875 | 8.876 | 8.886 | 8.886 | 8.892 | 8.880 | 8.879 | 5.879-11.879 | 8.882 | 0.006 |
| | 23 Bis(2-Chloroethoxy)met | 9.002 | 8.993 | 8.999 | 9.003 | 9.009 | 9.009 | 8.998 | 9.002 | 6.002-12.002 | 9.002 | 0.006 |
| | 24 Benzoic acid | 9.188 | 9.084 | 9.116 | 9.233 | 9.265 | 9.303 | 9.067 | 9.188 | 6.189-12.188 | 9.179 | 0.093 |
| | 25 2,4-Dichlorophenol | 9.114 | 9.110 | 9.111 | 9.115 | 9.121 | 9.121 | 9.121 | 9.114 | 6.114-12.114 | 9.116 | 0.005 |
| | 26 1,2,4-Trichlorobenzene | 9.210 | 9.206 | 9.207 | 9.212 | 9.212 | 9.218 | 9.206 | 9.210 | 6.210-12.210 | 9.210 | 0.004 |
| * | 27 Naphthalene-d8 | 9.258 | 9.255 | 9.255 | 9.260 | 9.260 | 9.266 | 9.254 | 9.258 | 6.258-12.258 | 9.258 | 0.004 |
| | 28 Naphthalene | 9.290 | 9.281 | 9.287 | 9.292 | 9.292 | 9.298 | 9.286 | 9.290 | 6.290-12.290 | 9.289 | 0.005 |
| | 29 4-Chloroaniline | 9.466 | 9.463 | 9.463 | 9.468 | 9.473 | 9.479 | 9.468 | 9.466 | 6.466-12.466 | 9.469 | 0.006 |

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Batch File: /chem2/nt6.i/20120523.b
Inst ID: nt6.i

| | Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 30 Hexachlorobutadiene | 9.627 | 9.623 | 9.624 | 9.628 | 9.628 | 9.629 | 9.628 | 9.627 | 6.627-12.627 | 9.627 | 0.002 |
| | 31 4-Chloro-3-methylpheno | 10.337 | 10.339 | 10.339 | 10.339 | 10.344 | 10.345 | 10.344 | 10.337 | 7.337-13.337 | 10.341 | 0.003 |
| | 32 2-Methylnaphthalene | 10.412 | 10.408 | 10.414 | 10.419 | 10.419 | 10.420 | 10.414 | 10.412 | 7.412-13.412 | 10.415 | 0.004 |
| | 33 Hexachlorocyclopentadi | 10.796 | 10.798 | 10.799 | 10.798 | 10.798 | 10.799 | 10.803 | 10.796 | 7.796-13.796 | 10.799 | 0.002 |
| | 34 2,4,6-Trichlorophenol | 10.957 | 10.953 | 10.954 | 10.958 | 10.964 | 10.964 | 10.958 | 10.957 | 7.957-13.957 | 10.958 | 0.004 |
| | 35 2,4,5-Trichlorophenol | 11.026 | 11.023 | 11.023 | 11.023 | 11.028 | 11.029 | 11.028 | 11.026 | 8.026-14.026 | 11.026 | 0.003 |
| $ | 36 2-Fluorobiphenyl | 11.074 | 11.071 | 11.071 | 11.076 | 11.076 | 0.000 | 11.071 | 11.074 | 8.074-14.074 | 9.491 | 4.185 |
| | 37 2-Chloronaphthalene | 11.186 | 11.178 | 11.183 | 11.188 | 11.188 | 11.189 | 11.183 | 11.186 | 8.186-14.186 | 11.185 | 0.004 |
| | 38 2-Nitroaniline | 11.448 | 11.439 | 11.445 | 11.455 | 11.455 | 11.461 | 11.445 | 11.448 | 8.448-14.448 | 11.450 | 0.008 |
| | 39 Dimethylphthalate | 11.838 | 11.829 | 11.830 | 11.845 | 11.845 | 11.857 | 11.829 | 11.838 | 8.838-14.838 | 11.839 | 0.010 |
| | 40 Acenaphthylene | 11.854 | 11.845 | 11.851 | 11.856 | 11.856 | 11.862 | 11.851 | 11.854 | 8.854-14.854 | 11.854 | 0.005 |
| | 41 2,6-Dinitrotoluene | 11.918 | 11.910 | 11.915 | 11.925 | 11.931 | 11.937 | 11.915 | 11.918 | 8.918-14.918 | 11.922 | 0.010 |
| * | 42 Acenaphthene-d10 | 12.105 | 12.102 | 12.102 | 12.107 | 12.107 | 12.108 | 12.102 | 12.105 | 9.105-15.105 | 12.105 | 0.003 |
| | 43 3-Nitroaniline | 12.127 | 12.118 | 12.118 | 12.134 | 12.144 | 12.150 | 12.123 | 12.127 | 9.127-15.127 | 12.131 | 0.013 |
| | 44 Acenaphthene | 12.153 | 12.150 | 12.150 | 12.160 | 12.160 | 12.166 | 12.150 | 12.153 | 9.153-15.153 | 12.156 | 0.007 |
| | 45 2,4-Dinitrophenol | 12.298 | 12.294 | 12.289 | 12.299 | 12.310 | 12.316 | 0.000 | 12.298 | 9.298-15.298 | 10.544 | 4.649 |
| | 46 Dibenzofuran | 12.420 | 12.412 | 12.418 | 12.422 | 12.428 | 12.434 | 12.411 | 12.420 | 9.420-15.420 | 12.421 | 0.008 |
| | 47 4-Nitrophenol | 12.517 | 12.524 | 12.519 | 12.524 | 12.524 | 12.530 | 0.000 | 12.517 | 9.517-15.517 | 10.734 | 4.733 |
| | 48 2,4-Dinitrotoluene | 12.538 | 12.535 | 12.535 | 12.545 | 12.550 | 12.556 | 12.534 | 12.538 | 9.538-15.538 | 12.542 | 0.009 |
| | 49 Fluorene | 12.971 | 12.962 | 12.962 | 12.978 | 12.978 | 12.984 | 12.967 | 12.971 | 9.971-15.971 | 12.972 | 0.008 |
| | 50 Diethylphthalate | 12.992 | 12.978 | 12.984 | 12.994 | 12.999 | 13.000 | 12.978 | 12.992 | 9.992-15.992 | 12.989 | 0.009 |
| | 51 4-Chlorophenyl-phenyle | 13.019 | 13.015 | 13.016 | 13.020 | 13.021 | 13.027 | 13.015 | 13.019 | 10.019-16.019 | 13.019 | 0.004 |
| | 52 4-Nitroaniline | 13.120 | 13.101 | 13.107 | 13.127 | 13.138 | 13.149 | 13.111 | 13.120 | 10.120-16.120 | 13.122 | 0.018 |
| | 53 4,6-Dinitro-2-methylph | 13.190 | 13.176 | 13.181 | 13.197 | 13.208 | 13.214 | 13.181 | 13.190 | 10.190-16.190 | 13.192 | 0.014 |

ANALYTICAL RESOURCES, INC.

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Batch File: /chem2/nt6.i/20120523.b
Inst ID: nt6.i

| | Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 54 N-Nitrosodiphenylamine | 13.232 | 13.224 | 13.229 | 13.239 | 13.245 | 13.251 | 13.223 | 13.232 | 10.232-16.233 | 13.235 | 0.011 |
| $ | 55 2,4,6-Tribromophenol | 13.398 | 13.389 | 13.395 | 13.400 | 13.405 | 0.000 | 13.394 | 13.398 | 10.398-16.398 | 11.483 | 5.064 |
| | 56 4-Bromophenyl-phenylet | 13.788 | 13.785 | 13.785 | 13.790 | 13.790 | 13.790 | 13.784 | 13.788 | 10.788-16.788 | 13.787 | 0.003 |
| | 57 Hexachlorobenzene | 13.986 | 13.982 | 13.983 | 13.987 | 13.993 | 13.993 | 13.982 | 13.986 | 10.986-16.986 | 13.987 | 0.005 |
| | 58 Pentachlorophenol | 14.306 | 14.303 | 14.303 | 14.308 | 14.313 | 14.319 | 0.000 | 14.306 | 11.306-17.306 | 12.265 | 5.408 |
| * | 59 Phenanthrene-d10 | 14.456 | 14.452 | 14.453 | 14.457 | 14.463 | 14.464 | 14.452 | 14.456 | 11.456-17.456 | 14.457 | 0.005 |
| | 60 Phenanthrene | 14.493 | 14.484 | 14.485 | 14.495 | 14.500 | 14.506 | 14.484 | 14.493 | 11.493-17.493 | 14.493 | 0.009 |
| | 61 Anthracene | 14.563 | 14.559 | 14.560 | 14.570 | 14.575 | 14.581 | 14.559 | 14.563 | 11.563-17.563 | 14.567 | 0.009 |
| | 62 Carbazole | 14.873 | 14.869 | 14.870 | 14.874 | 14.880 | 14.886 | 14.869 | 14.873 | 11.873-17.873 | 14.874 | 0.006 |
| | 63 Di-n-butylphthalate | 15.626 | 15.622 | 15.623 | 15.627 | 15.633 | 15.633 | 15.622 | 15.626 | 12.626-18.626 | 15.627 | 0.005 |
| | 64 Fluoranthene | 16.411 | 16.402 | 16.408 | 16.413 | 16.418 | 16.419 | 16.407 | 16.411 | 13.411-19.411 | 16.411 | 0.006 |
| | 65 Pyrene | 16.753 | 16.750 | 16.750 | 16.755 | 16.760 | 16.766 | 16.749 | 16.753 | 13.753-19.753 | 16.755 | 0.006 |
| $ | 66 Terphenyl-d14 | 17.106 | 17.102 | 17.103 | 17.113 | 17.113 | 0.000 | 17.107 | 17.106 | 14.106-20.106 | 14.663 | 6.466 |
| | 67 Butylbenzylphthalate | 18.019 | 18.010 | 18.016 | 18.021 | 18.021 | 18.027 | 18.015 | 18.019 | 15.019-21.019 | 18.018 | 0.005 |
| | 68 Benzo(a)anthracene | 18.708 | 18.705 | 18.705 | 18.715 | 18.715 | 18.721 | 18.704 | 18.708 | 15.708-21.708 | 18.711 | 0.007 |
| * | 69 Chrysene-d12 | 18.735 | 18.726 | 18.727 | 18.737 | 18.742 | 18.743 | 18.731 | 18.735 | 15.735-21.735 | 18.734 | 0.007 |
| | 70 3,3'-Dichlorobenzidine | 18.751 | 18.747 | 18.748 | 18.753 | 18.758 | 18.759 | 18.753 | 18.751 | 15.751-21.751 | 18.753 | 0.004 |
| | 71 Chrysene | 18.772 | 18.763 | 18.764 | 18.779 | 18.785 | 18.791 | 18.763 | 18.772 | 15.772-21.772 | 18.774 | 0.011 |
| | 72 bis(2-Ethylhexyl)phtha | 19.034 | 19.031 | 19.031 | 19.036 | 19.036 | 19.036 | 19.036 | 19.034 | 16.034-22.034 | 19.034 | 0.002 |
| | 73 Di-n-octylphthalate | 19.974 | 19.965 | 19.971 | 19.976 | 19.976 | 19.982 | 19.971 | 19.974 | 16.974-22.974 | 19.974 | 0.005 |
| | 74 Benzo(b)fluoranthene | 20.354 | 20.339 | 20.340 | 20.355 | 20.366 | 20.377 | 20.345 | 20.354 | 17.354-23.354 | 20.354 | 0.014 |
| | 75 Benzo(k)fluoranthene | 20.386 | 20.371 | 20.377 | 20.393 | 20.398 | 20.377 | 20.377 | 20.386 | 17.386-23.386 | 20.383 | 0.010 |
| | 76 Benzo(a)pyrene | 20.786 | 20.783 | 20.783 | 20.793 | 20.804 | 20.810 | 20.783 | 20.786 | 17.786-23.786 | 20.792 | 0.011 |
| | 77 Perylene-d12 | 20.872 | 20.863 | 20.869 | 20.868 | 20.879 | 20.879 | 20.868 | 20.872 | 17.872-23.872 | 20.871 | 0.006 |

CCSD 25569

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Batch File: /chem2/nt6.i/20120523.b
Inst ID: nt6.i

| | Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 78 Indeno(1,2,3-cd)pyrene | 22.218 | 22.209 | 22.210 | 22.225 | 22.236 | 22.242 | 22.209 | 22.218 | 19.218-25.218 | 22.221 | 0.013 |
| | 79 Dibenzo(a,h)anthracene | 22.245 | 22.236 | 22.236 | 22.252 | 22.262 | 22.274 | 22.241 | 22.245 | 19.245-25.245 | 22.249 | 0.014 |
| | 80 Benzo(g,h,i)perylene | 22.528 | 22.514 | 22.514 | 22.540 | 22.551 | 22.562 | 22.513 | 22.528 | 19.528-25.528 | 22.532 | 0.020 |
| $ | 85 p-Cresol-d4 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 51.633 | 48.633-54.633 | +++++ | +++++ |
| $ | 86 Anthracene-d10 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 63.533 | 60.533-66.533 | +++++ | +++++ |
| $ | 87 Fluoranthene-d10 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 60.273 | 57.273-63.273 | +++++ | +++++ |
| $ | 88 Dibenz(a,h)anthracene- | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 78.600 | 75.600-81.600 | +++++ | +++++ |
| $ | 89 Diphenyl-d10 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 50.841 | 47.841-53.841 | +++++ | +++++ |
| | 90 N-Nitrosodimethylamine | 2.276 | 2.272 | 2.273 | 2.288 | 2.294 | 2.305 | 2.288 | 2.276 | 0.000-5.276 | 2.285 | 0.012 |
| | 91 Aniline | 6.758 | 6.754 | 6.755 | 6.759 | 6.765 | 6.760 | 6.760 | 6.758 | 3.758-9.758 | 6.759 | 0.004 |
| | 92 1,2-Diphenylhydrazine | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 56.160 | 53.160-59.160 | +++++ | +++++ |
| | 93 Benzidine | 16.700 | 16.696 | 16.697 | 16.701 | 16.701 | 16.702 | 16.707 | 16.700 | 13.700-19.700 | 16.700 | 0.004 |
| $ | 95 D10-1-methylnaphthalen | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 52.075 | 49.075-55.075 | +++++ | +++++ |
| | 96 p-Cymene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 49.250 | 46.250-52.250 | +++++ | +++++ |
| | 97 Caffeine | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 61.202 | 58.202-64.202 | +++++ | +++++ |
| | 98 Retene | 17.341 | 17.337 | 17.338 | 17.342 | 17.342 | 17.348 | 17.337 | 17.341 | 14.341-20.341 | 17.341 | 0.004 |
| | 99 Perylene | 20.904 | 20.895 | 20.895 | 20.911 | 20.922 | 20.928 | 20.900 | 20.904 | 17.904-23.904 | 20.908 | 0.013 |
| | 100 3-beta-Coprostanol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 22.074 | 19.074-25.074 | +++++ | +++++ |
| | 101 Cholesterol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 22.255 | 19.255-25.255 | +++++ | +++++ |
| | 102 beta-Sitosterol | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 21.369 | 18.369-24.369 | +++++ | +++++ |
| | 103 Pyridine | 2.254 | 2.256 | 2.251 | 2.256 | 2.261 | 2.267 | 2.277 | 2.254 | 0.000-5.254 | 2.261 | 0.009 |
| | 187 Total Benzofluoranthen | 20.386 | 20.339 | 20.377 | 20.393 | 20.398 | 20.409 | 20.377 | 20.386 | 17.386-23.386 | 20.383 | 0.022 |

ICSS 2012.05.25

# Analytical Resources Inc.: Organics Instrument Log

## NT-6 Serial No.:GC=US00036167, MS=US81221575

Date: 5/23/12 Analysis: 8270 Analyst: [illegible]

GC Program: [illegible] Column No: 208282 Column Type: 2B - 6MSi

Instrument Tune (.U or .CT.): 120106 EM Voltage: 1741

Calibration File: 05231201 Curve Date: 5/23/12 Injection Vol.: 1ml

| IS/SS | Ical/Ccal | LCS/ICV |
|---|---|---|
| 1875-1 | 1932-2, 1940-1 | 1972-2, 1973-2 |
| | 1941-1 1942-1 | 1974-1 1942-1 |
| | 1614-1, 1934-1 | 1614-1, 1934-1 |
| | 1939-3 | 1939-3 |

**Document All Maintenance Tasks In StarLIMS**

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem2/nt6.i/20120523.b

| | Time | Filename | LabID | ClientId | DF | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1334 | 05231201.D | IC250523 | IC250523 | 1 | 7.19 | 963757 | 9.26 | 3430476 | 12.11 | 2259168 | 14.46 | 3446677 | 18.73 | 3961525 | 20.87 | 4154109 | 19.96 | 3758743 | | | | | | | | | | |
| 2 | 1408 | 05231202.D | IC10523 | IC10523 | 1 | 7.19 | 947973 | 9.26 | 3384544 | 12.10 | 2179035 | 14.45 | 3573875 | 18.73 | 4171257 | 20.87 | 4420280 | 19.96 | 3899382 | | | | | | | | | | |
| 3 | 1441 | 05231203.D | IC50523 | IC50523 | 1 | 7.19 | 830650 | 9.25 | 2944206 | 12.10 | 1841983 | 14.45 | 2904487 | 18.73 | 3176606 | 20.86 | 3450025 | 19.96 | 2976173 | | | | | | | | | | |
| 4 | 1515 | 05231204.D | IC100523 | IC100523 | 1 | 7.19 | 859474 | 9.25 | 3055832 | 12.10 | 1920679 | 14.45 | 3012715 | 18.73 | 3283977 | 20.87 | 3490837 | 19.96 | 3087098 | | | | | | | | | | |
| 5 | 1548 | 05231205.D | IC400523 | IC400523 | 1 | 7.19 | 850778 | 9.26 | 3124146 | 12.11 | 2058292 | 14.46 | 3113173 | 18.74 | 3455807 | 20.87 | 3546130 | 19.97 | 3287975 | | | | | | | | | | |
| 6 | 1622 | 05231206.D | IC600523 | IC600523 | 1 | 7.20 | 819323 | 9.26 | 2967520 | 12.11 | 1788274 | 14.46 | 2994128 | 18.74 | 3573040 | 20.88 | 3676255 | 19.97 | 3341643 | | | | | | | | | | |
| 7 | 1656 | 05231207.D | IC800523 | IC800523 | 1 | 7.19 | 842934 | 9.27 | 3073829 | 12.11 | 1905330 | 14.46 | 3163164 | 18.74 | 3670223 | 20.88 | 3891837 | 19.97 | 3425170 | | | | | | | | | | |
| 8 | 1846 | 05231208.D | IC10523 | IC10523 | 1 | 7.19 | 963048 | 9.25 | 3427252 | 12.10 | 2193308 | 14.45 | 3489577 | 18.73 | 4014583 | 20.87 | 4374350 | 19.96 | 3756026 | | | | | | | | | | |
| 9 | 2029 | 05231209.D | ICV0523 | ICV0523 | 1 | 7.19 | 828280 | 9.26 | 3017500 | 12.11 | 1915567 | 14.46 | 3113458 | 18.73 | 3829511 | 20.87 | 3997364 | 19.96 | 3649186 | | | | | | | | | | |
| 10 | 2102 | 05231210.D | US34MBS1 | US34MBS1 | 1 | 7.18 | 866540 | 9.25 | 3111766 | 12.10 | 2004728 | 14.45 | 3197002 | 18.73 | 3774029 | 20.87 | 3971963 | 19.96 | 3527969 | | | | | | | | | | |
| 11 | 2135 | 05231211.D | US34LCSS1 | US34LCSS1 | 1 | 7.19 | 902732 | 9.26 | 3322440 | 12.11 | 2147384 | 14.45 | 3350241 | 18.73 | 4025667 | 20.87 | 4126364 | 19.96 | 3791957 | | | | | | | | | | |
| 12 | 2208 | 05231212.D | US34D | SPE003-40G | 1 | 7.19 | 900545 | 9.26 | 3307171 | 12.11 | 2101870 | 14.45 | 3172152 | 18.73 | 3804986 | 20.87 | 4196693 | 19.97 | 3821610 | | | | | | | | | | |
| 13 | 2241 | 05231213.D | US34MBS1 | US34MBS1 | 1 | 9.25 | 3298137 | 12.10 | 2159201 | 14.45 | 3465129 | 18.72 | 4029912 | 20.87 | 4294639 | | | | | | | | | | | | | | |
| 14 | 2314 | 05231214.D | US34LCSS1 | US34LCSS1 | 1 | 9.25 | 3302261 | 12.10 | 2145101 | 14.45 | 3510071 | 18.73 | 4040161 | 20.87 | 4247740 | | | | | | | | | | | | | | |
| 15 | 2347 | 05231215.D | US34O | SPE017-40G | 1 | 9.25 | 3402100 | 12.10 | 2160485 | 14.45 | 3494992 | 18.73 | 3855707 | 20.86 | 4134435 | | | | | | | | | | | | | | |

wrong ical IR

P/A

[illegible] 05/24/12

**Every line must contain information or be lined out. Make all entries legible.**
**Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS**

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/nt6.i/20120523.b

ARI Job No.: IC25 Method: SW846052312.m Instrument: nt6.i Date: 23-MAY-2012

JZ 05/24/12

| Time | Filename | LabID | ClientId | DF | Manually Integrated Compounds |
|---|---|---|---|---|---|
| 1334 | 05231201.D | IC250523 | IC250523 | 1 | NO MANUAL INTEGRATION |
| 1441 | 05231203.D | IC50523 | IC50523 | 1 | Benzoic acid, 4,6-Dinitro-2-methylphenol, Pentachlorophenol, Benzidine, Total Benzofluoranthenes, |
| 1515 | 05231204.D | IC100523 | IC100523 | 1 | Pentachlorophenol, Benzidine, |
| 1548 | 05231205.D | IC400523 | IC400523 | 1 | NO MANUAL INTEGRATION |
| 1622 | 05231206.D | IC600523 | IC600523 | 1 | Benzoic acid, |
| 1656 | 05231207.D | IC800523 | IC800523 | 1 | Benzoic acid, |
| 1846 | 05231208.D | IC10523 | IC10523 | 1 | Total Benzofluoranthenes, |

UU52:00536

Data File: /chem2/nt6.i/20120523.b/tune.b/05231201.D

Date : 23-MAY-2012 13:34

Client ID: DFTPP0523

Instrument: nt6.i

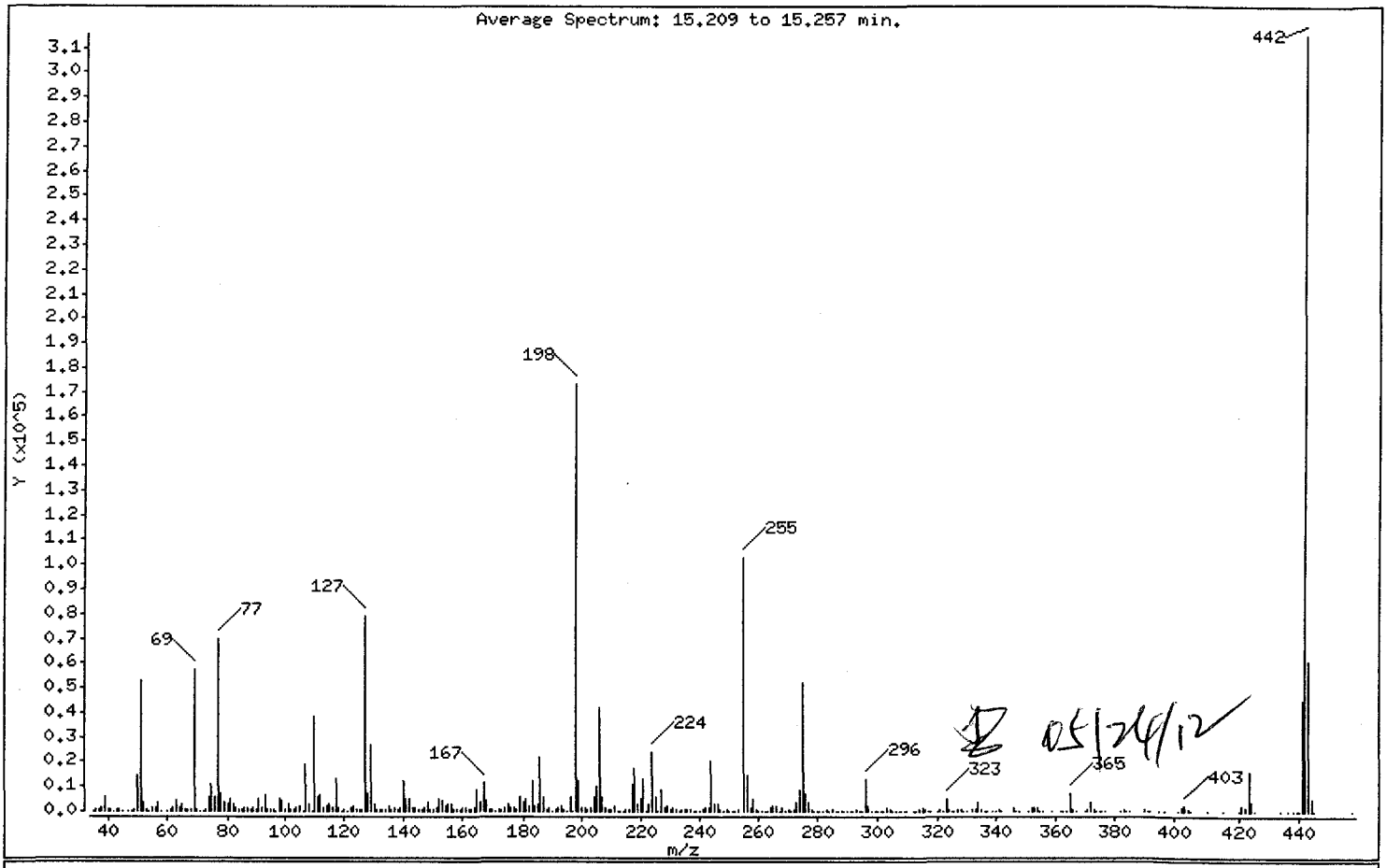
Sample Info: DFTPP0523

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

1 dftpp




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 198 | Base Peak, 100% relative abundance | 100.00 |
| 51 | 10.00 - 80.00% of mass 198 | 30.67 |
| 68 | Less than 2.00% of mass 69 | 0.31 ( 0.94) |
| 69 | Mass 69 relative abundance | 33.21 |
| 70 | Less than 2.00% of mass 69 | 0.27 ( 0.81) |
| 127 | 10.00 - 80.00% of mass 198 | 45.67 |
| 197 | Less than 2.00% of mass 198 | 0.03 |
| 199 | 5.00 - 9.00% of mass 198 | 6.95 |
| 275 | 10.00 - 60.00% of mass 198 | 29.99 |
| 365 | Greater than 1.00% of mass 198 | 4.02 |
| 441 | 0.01 - 24.00% of mass 442 | 26.04 ( 14.30) |
| 442 | 50.00 - 200.00% of mass 198 | 182.18 |
| 443 | 15.00 - 24.00% of mass 442 | 35.24 ( 19.34) |

Data File: /chem2/nt6.i/20120523.b/tune.b/05231201.D

Date : 23-MAY-2012 13:34

Client ID: DFTPP0523 Instrument: nt6.i

Sample Info: DFTPP0523

Operator: JZ

Column phase: ZB-5msi Column diameter: 0.32

Data File: 05231201.D
Spectrum: Average Spectrum: 15.209 to 15.257 min.
Location of Maximum: 442.00
Number of points: 358

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 35.00 | 77 | 127.00 | 79120 | 217.00 | 11231 | 308.00 | 230 |
| 36.00 | 650 | 128.00 | 6966 | 218.00 | 17304 | 309.00 | 63 |
| 37.00 | 452 | 129.00 | 27040 | 219.00 | 2806 | 310.00 | 146 |
| 38.00 | 1148 | 130.00 | 2598 | 220.00 | 5351 | 312.00 | 35 |
| 39.00 | 5460 | 131.00 | 873 | 221.00 | 12739 | 313.00 | 185 |
| 40.00 | 538 | 132.00 | 515 | 222.00 | 94 | 314.00 | 637 |
| 41.00 | 646 | 133.00 | 416 | 223.00 | 2797 | 315.00 | 1506 |
| 42.00 | 120 | 134.00 | 808 | 224.00 | 24168 | 316.00 | 971 |
| 43.00 | 374 | 135.00 | 2348 | 225.00 | 5734 | 317.00 | 153 |
| 44.00 | 480 | 136.00 | 964 | 226.00 | 333 | 318.00 | 36 |
| 45.00 | 215 | 137.00 | 1404 | 227.00 | 8589 | 320.00 | 49 |
| 47.00 | 140 | 138.00 | 608 | 228.00 | 1469 | 321.00 | 544 |
| 48.00 | 70 | 139.00 | 1445 | 229.00 | 1986 | 322.00 | 274 |
| 49.00 | 608 | 140.00 | 12523 | 230.00 | 584 | 323.00 | 4949 |
| 50.00 | 14187 | 141.00 | 5309 | 231.00 | 1135 | 324.00 | 938 |
| 51.00 | 53136 | 142.00 | 5078 | 232.00 | 407 | 325.00 | 57 |
| 52.00 | 3347 | 143.00 | 1579 | 233.00 | 232 | 326.00 | 144 |
| 53.00 | 800 | 144.00 | 1673 | 234.00 | 651 | 327.00 | 988 |
| 54.00 | 90 | 145.00 | 523 | 235.00 | 653 | 328.00 | 495 |
| 55.00 | 1153 | 146.00 | 684 | 236.00 | 478 | 329.00 | 102 |
| 56.00 | 1679 | 147.00 | 1769 | 237.00 | 929 | 330.00 | 34 |
| 57.00 | 3821 | 148.00 | 3565 | 238.00 | 153 | 332.00 | 412 |
| 58.00 | 299 | 149.00 | 1006 | 239.00 | 330 | 333.00 | 573 |
| 60.00 | 241 | 150.00 | 779 | 240.00 | 277 | 334.00 | 3369 |
| 61.00 | 1021 | 151.00 | 1792 | 241.00 | 753 | 335.00 | 824 |
| 62.00 | 1580 | 152.00 | 5150 | 242.00 | 1525 | 336.00 | 73 |
| 63.00 | 4254 | 153.00 | 4424 | 243.00 | 1444 | 337.00 | 20 |
| 64.00 | 1135 | 154.00 | 2251 | 244.00 | 20264 | 339.00 | 51 |
| 65.00 | 3175 | 155.00 | 2935 | 245.00 | 2840 | 340.00 | 91 |
| 66.00 | 408 | 156.00 | 3200 | 246.00 | 3211 | 341.00 | 609 |
| 67.00 | 380 | 157.00 | 900 | 247.00 | 981 | 342.00 | 163 |
| 68.00 | 538 | 158.00 | 757 | 248.00 | 249 | 346.00 | 1107 |
| 69.00 | 57528 | 159.00 | 766 | 249.00 | 916 | 347.00 | 181 |
| 70.00 | 464 | 160.00 | 1190 | 250.00 | 168 | 348.00 | 19 |
| 71.00 | 276 | 161.00 | 1614 | 251.00 | 202 | 351.00 | 69 |

UU52 : 00538

Data File: /chem2/nt6.i/20120523.b/tune.b/05231201.D

Date : 23-MAY-2012 13:34

Client ID: DFTPP0523 Instrument: nt6.i

Sample Info: DFTPP0523

Operator: JZ

Column phase: ZB-5msi Column diameter: 0.32

Data File: 05231201.D
Spectrum: Average Spectrum: 15.209 to 15.257 min.
Location of Maximum: 442.00
Number of points: 358

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 72.00 | 52 | 162.00 | 700 | 252.00 | 249 | 352.00 | 1772 |
| 73.00 | 1008 | 163.00 | 1062 | 253.00 | 471 | 353.00 | 1209 |
| 74.00 | 5976 | 164.00 | 1242 | 255.00 | 102888 | 354.00 | 1641 |
| 75.00 | 10841 | 165.00 | 8498 | 256.00 | 14849 | 355.00 | 317 |
| 76.00 | 6029 | 166.00 | 3524 | 257.00 | 1168 | 356.00 | 41 |
| 77.00 | 69696 | 167.00 | 11334 | 258.00 | 5127 | 359.00 | 154 |
| 78.00 | 7381 | 168.00 | 4195 | 259.00 | 869 | 362.00 | 22 |
| 79.00 | 3938 | 169.00 | 1022 | 260.00 | 257 | 363.00 | 26 |
| 80.00 | 3011 | 170.00 | 391 | 261.00 | 228 | 364.00 | 36 |
| 81.00 | 5035 | 171.00 | 262 | 262.00 | 117 | 365.00 | 6971 |
| 82.00 | 3043 | 172.00 | 740 | 263.00 | 77 | 366.00 | 1016 |
| 83.00 | 1353 | 173.00 | 867 | 264.00 | 1439 | 367.00 | 21 |
| 84.00 | 540 | 174.00 | 1525 | 265.00 | 2166 | 370.00 | 209 |
| 85.00 | 951 | 175.00 | 3096 | 266.00 | 2069 | 371.00 | 464 |
| 86.00 | 1578 | 176.00 | 1134 | 267.00 | 283 | 372.00 | 3298 |
| 87.00 | 1179 | 177.00 | 1291 | 268.00 | 1155 | 373.00 | 861 |
| 88.00 | 443 | 178.00 | 538 | 269.00 | 200 | 374.00 | 66 |
| 89.00 | 1598 | 179.00 | 5516 | 270.00 | 364 | 375.00 | 23 |
| 90.00 | 901 | 180.00 | 3937 | 271.00 | 304 | 376.00 | 16 |
| 91.00 | 5097 | 181.00 | 4793 | 272.00 | 428 | 377.00 | 32 |
| 92.00 | 1333 | 182.00 | 2174 | 273.00 | 3380 | 382.00 | 43 |
| 93.00 | 6660 | 183.00 | 12325 | 274.00 | 8757 | 383.00 | 951 |
| 94.00 | 643 | 184.00 | 2515 | 275.00 | 51952 | 384.00 | 281 |
| 95.00 | 557 | 185.00 | 2714 | 276.00 | 6931 | 385.00 | 72 |
| 96.00 | 632 | 186.00 | 22000 | 277.00 | 3421 | 390.00 | 390 |
| 97.00 | 358 | 187.00 | 5988 | 278.00 | 621 | 391.00 | 261 |
| 98.00 | 5018 | 188.00 | 764 | 279.00 | 87 | 392.00 | 325 |
| 99.00 | 4266 | 189.00 | 1264 | 280.00 | 16 | 395.00 | 20 |
| 100.00 | 715 | 190.00 | 337 | 281.00 | 136 | 397.00 | 32 |
| 101.00 | 3113 | 191.00 | 718 | 282.00 | 115 | 401.00 | 267 |
| 102.00 | 804 | 192.00 | 1736 | 283.00 | 534 | 402.00 | 1268 |
| 103.00 | 1005 | 193.00 | 1988 | 284.00 | 278 | 403.00 | 2265 |
| 104.00 | 1562 | 194.00 | 491 | 285.00 | 727 | 404.00 | 767 |
| 105.00 | 2002 | 195.00 | 288 | 286.00 | 104 | 405.00 | 149 |
| 106.00 | 317 | 196.00 | 5634 | 287.00 | 48 | 410.00 | 61 |

UU52:06539

Data File: /chem2/nt6.i/20120523.b/tune.b/05231201.D

Date : 23-MAY-2012 13:34

Client ID: DFTPP0523

Instrument: nt6.i

Sample Info: DFTPP0523

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

Data File: 05231201.D
Spectrum: Average Spectrum: 15.209 to 15.257 min.
Location of Maximum: 442.00
Number of points: 358

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 107.00 | 19008 | 197.00 | 60 | 288.00 | 88 | 415.00 | 119 |
| 108.00 | 3091 | 198.00 | 173248 | 289.00 | 168 | 420.00 | 19 |
| 109.00 | 240 | 199.00 | 12047 | 290.00 | 156 | 421.00 | 1920 |
| 110.00 | 38104 | 200.00 | 1289 | 291.00 | 39 | 422.00 | 1715 |
| 111.00 | 5768 | 201.00 | 1463 | 292.00 | 179 | 423.00 | 15703 |
| 112.00 | 6648 | 202.00 | 364 | 293.00 | 968 | 424.00 | 3274 |
| 113.00 | 1107 | 203.00 | 1401 | 294.00 | 325 | 425.00 | 296 |
| 114.00 | 2059 | 204.00 | 5798 | 295.00 | 62 | 434.00 | 18 |
| 115.00 | 2691 | 205.00 | 10059 | 296.00 | 12846 | 436.00 | 26 |
| 116.00 | 1682 | 206.00 | 41832 | 297.00 | 1820 | 438.00 | 56 |
| 117.00 | 12846 | 207.00 | 5486 | 298.00 | 93 | 439.00 | 75 |
| 118.00 | 1203 | 208.00 | 1228 | 299.00 | 16 | 440.00 | 110 |
| 119.00 | 248 | 209.00 | 498 | 300.00 | 24 | 441.00 | 45120 |
| 120.00 | 400 | 210.00 | 679 | 301.00 | 215 | 442.00 | 315584 |
| 121.00 | 273 | 211.00 | 2126 | 302.00 | 275 | 443.00 | 61048 |
| 122.00 | 1422 | 212.00 | 177 | 303.00 | 1718 | 444.00 | 5295 |
| 123.00 | 2017 | 213.00 | 296 | 304.00 | 418 | 445.00 | 301 |
| 124.00 | 967 | 214.00 | 52 | 305.00 | 65 | 458.00 | 19 |
| 125.00 | 980 | 215.00 | 889 | 306.00 | 16 | | |
| 126.00 | 400 | 216.00 | 782 | 307.00 | 17 | | |

Data File: /chem2/nt6.i/20120523.b/tune.b/05231201.D



Date : 23-MAY-2012 13:34

Client ID: DFTPP0523

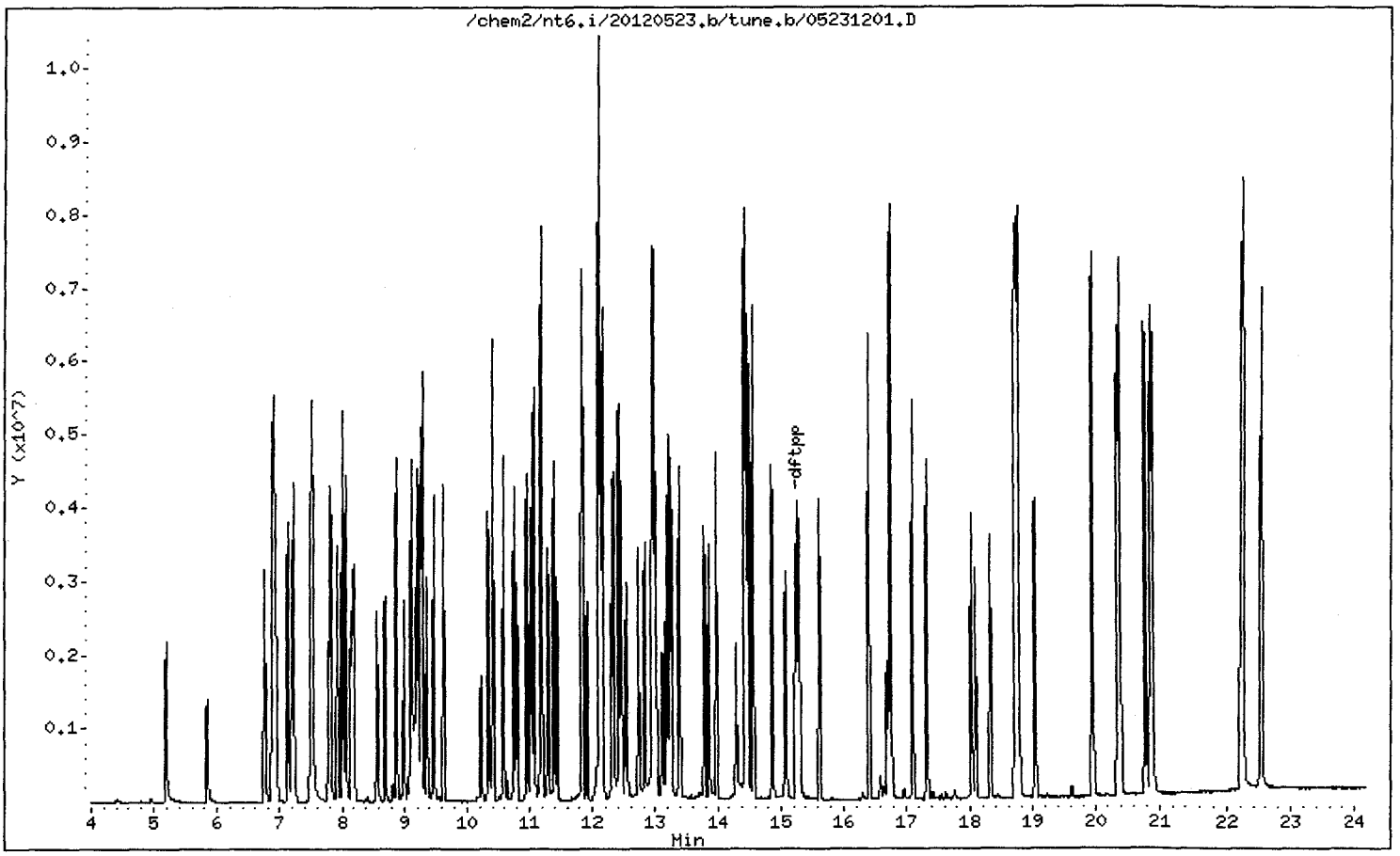
Instrument: nt6.i

Sample Info: DFTPP0523

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem2/nt6.i/20120523.b/ddt.b/05231201.D  ARI ID: DDT0523
Method: /chem2/nt6.i/20120523.b/ddt.b/sw846ddt.m  Misc: 12-
Analysis Date: 23-MAY-2012 13:34  Instrument: nt6.i

| COMPOUND | RT | AREA |
|---|---|---|
| Pentachlorophenol | 14.306 | 530749 |
| Benzidine | 16.700 | 1550104 |
| 4,4'-DDE | ---- | ---- |
| 4,4'-DDD | 17.618 | 31465 |
| 4,4'-DDT | 18.083 | 1147384 |

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

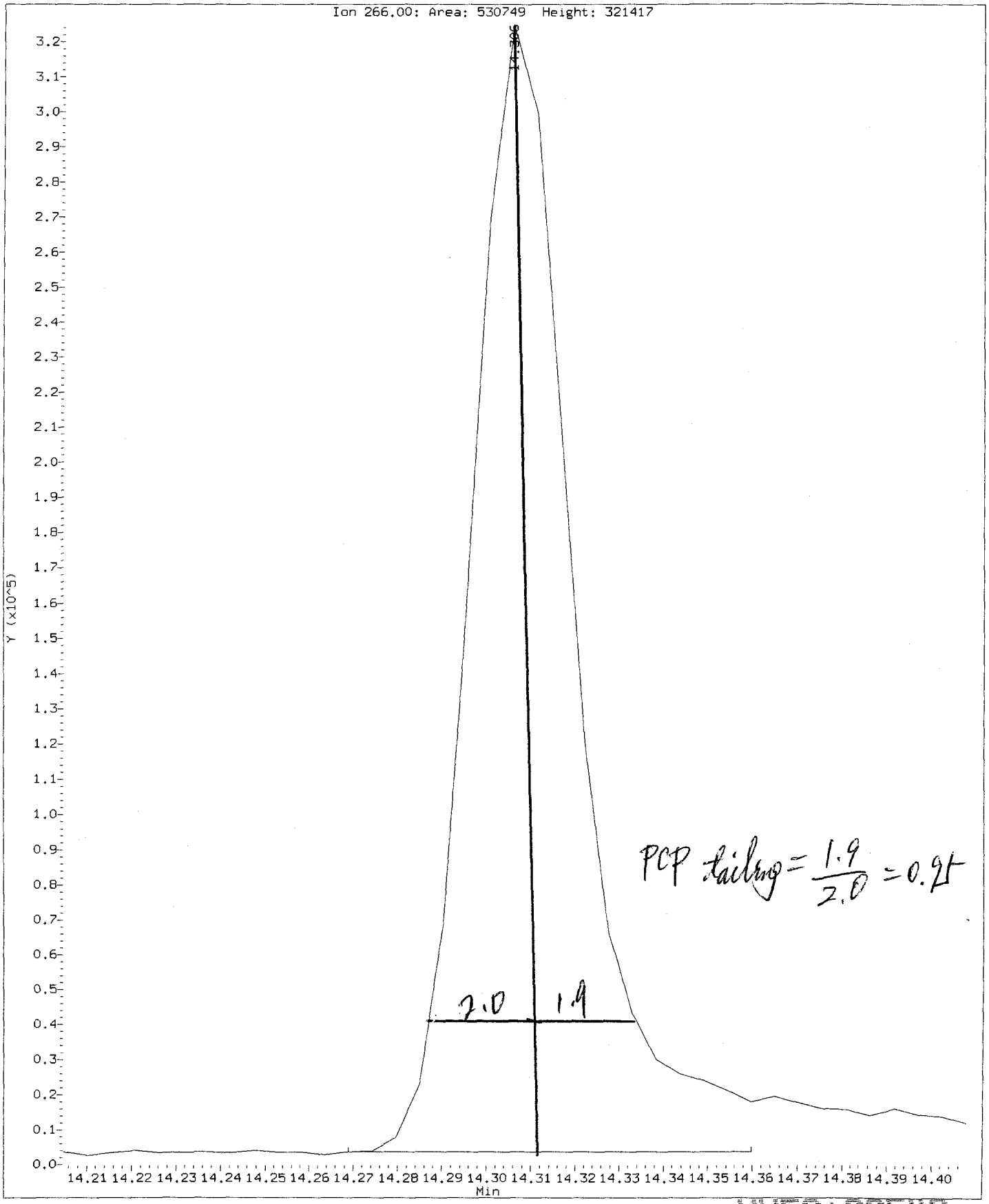
$$\text{DDT Percent Breakdown} = \frac{(\ 0 + 31465) * 100}{(\ 0 + 31465 + 1147384)}$$

DDT Percent Breakdown = 2.7 %

05/24/12

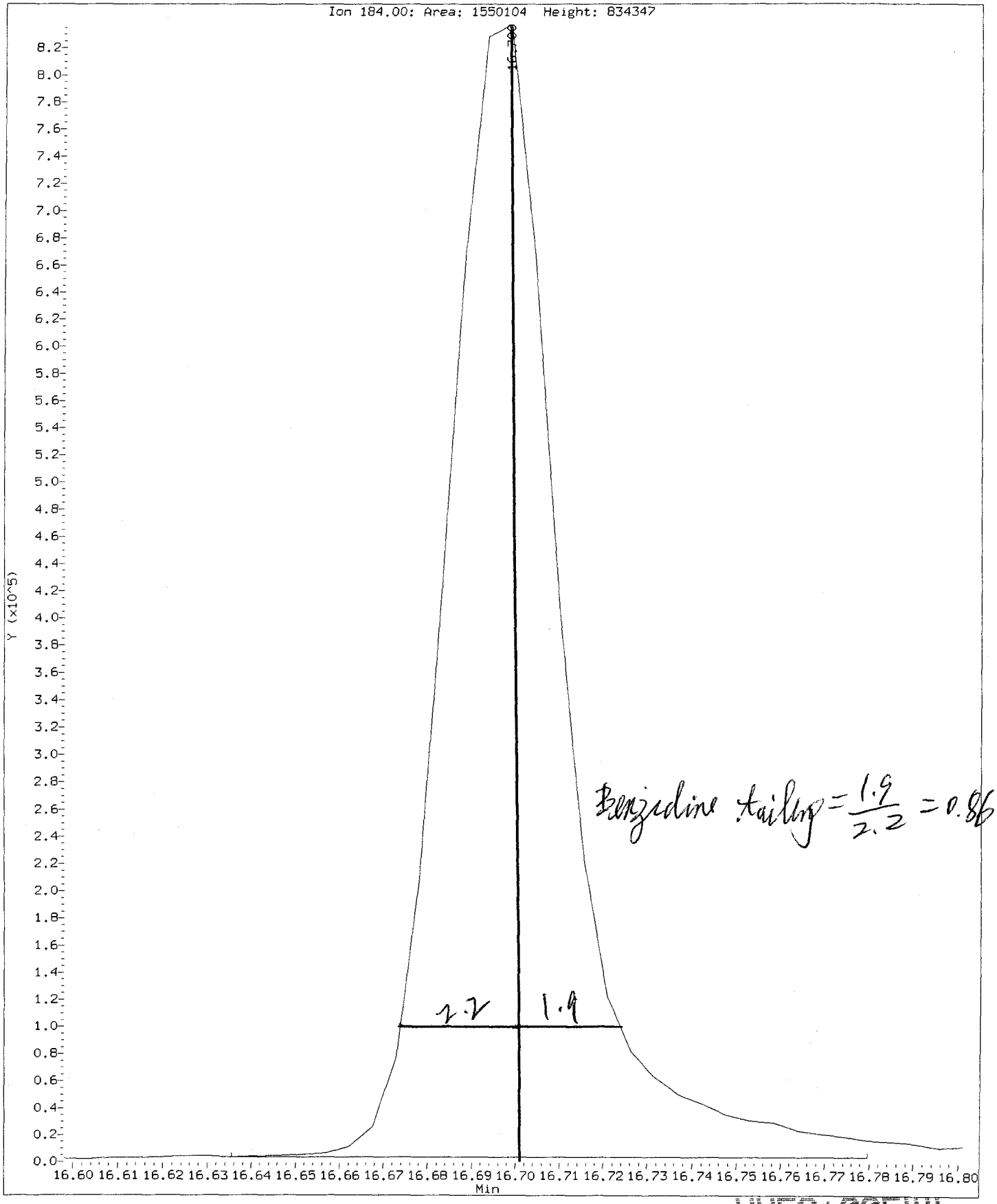
Data File: /chem2/nt6.i/20120523.b/ddt.b/05231201.D
Injection Date: 23-MAY-2012 13:34
Instrument: nt6.i
Client Sample ID: DDT0523

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem2/nt6.i/20120523.b/ddt.b/05231201.D
Injection Date: 23-MAY-2012 13:34
Instrument: nt6.i
Client Sample ID: DDT0523

Compound: Benzidine
CAS Number:



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120523.b/05231208.D
Lab Smp Id: IC10523
Inj Date : 23-MAY-2012 18:46
Operator : JZ Inst ID: nt6.i
Smp Info : IC10523
Misc Info : 12-
Comment : 1ul Injection
Method : /chem2/nt6.i/20120523.b/SW846052312.m
Meth Date : 24-May-2012 12:56 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 18:46 Cal File: 05231208.D
Als bottle: 9 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

05/24/12

AMOUNTS

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CAL-AMT (ug/mL) | ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| $ | 1 2-Fluorophenol | 112 | 5.205 | 5.194 | (0.724) | 49864 | 1.00000 | 1.000 |
| $ | 2 Phenol-d5 | 99 | 6.872 | 6.877 | (0.955) | 62229 | 1.00000 | 1.000 |
| | 3 Phenol | 94 | 6.888 | 6.894 | (0.958) | 92931 | 1.00000 | 1.000 |
| $ | 5 2-Chlorophenol-d4 | 132 | 6.914 | 6.909 | (0.961) | 60879 | 1.00000 | 1.000 |
| | 4 Bis(2-Chloroethyl)ether | 93 | 6.898 | 6.899 | (0.959) | 54779 | 1.00000 | 1.000 |
| | 6 2-Chlorophenol | 128 | 6.936 | 6.936 | (0.964) | 86603 | 1.00000 | 1.000 |
| | 7 1,3-Dichlorobenzene | 146 | 7.128 | 7.129 | (0.991) | 76849 | 1.00000 | 1.000 |
| * | 8 1,4-Dichlorobenzene-d4 | 152 | 7.192 | 7.193 | (1.000) | 963048 | 20.0000 | |
| | 9 1,4-Dichlorobenzene | 146 | 7.219 | 7.220 | (1.004) | 76852 | 1.00000 | 1.000 |
| $ | 10 1,2-Dichlorobenzene-d4 | 152 | 7.497 | 7.497 | (1.042) | 48929 | 1.00000 | 1.000 |
| | 12 1,2-Dichlorobenzene | 146 | 7.518 | 7.519 | (1.045) | 72809 | 1.00000 | 1.000 |
| | 11 Benzyl alcohol | 108 | 7.534 | 7.545 | (1.048) | 28611 | 1.00000 | 1.000 |
| | 14 2,2'-oxybis(1-Chloropropane) | 45 | 7.785 | 7.791 | (1.082) | 64151 | 1.00000 | 1.000 |
| | 13 2-Methylphenol | 108 | 7.817 | 7.823 | (1.087) | 70220 | 1.00000 | 1.000 |
| | 17 Hexachloroethane | 117 | 8.004 | 8.005 | (1.113) | 25782 | 1.00000 | 1.000 |
| | 16 N-Nitroso-di-n-propylamine | 70 | 7.999 | 8.026 | (1.112) | 36930 | 1.00000 | 1.000 |
| | 15 4-Methylphenol | 108 | 8.058 | 8.069 | (1.120) | 66975 | 1.00000 | 1.000 |
| $ | 18 Nitrobenzene-d5 | 82 | 8.148 | 8.159 | (0.880) | 52526 | 1.00000 | 1.000 |
| | 19 Nitrobenzene | 77 | 8.181 | 8.187 | (0.884) | 55941 | 1.00000 | 1.000 |
| | 20 Isophorone | 82 | 8.570 | 8.593 | (0.926) | 83595 | 1.00000 | 1.000 |
| | 21 2-Nitrophenol | 139 | 8.704 | 8.710 | (0.941) | 43888 | 1.00000 | 1.000 |
| | 22 2,4-Dimethylphenol | 107 | 8.880 | 8.892 | (0.960) | 65496 | 1.00000 | 1.000 |
| | 23 Bis(2-Chloroethoxy)methane | 93 | 8.998 | 9.009 | (0.972) | 62019 | 1.00000 | 1.000 |
| | 25 2,4-Dichlorophenol | 162 | 9.121 | 9.121 | (0.986) | 59209 | 1.00000 | 1.000 |
| | 26 1,2,4-Trichlorobenzene | 180 | 9.206 | 9.218 | (0.995) | 65064 | 1.00000 | 1.000 |
| * | 27 Naphthalene-d8 | 136 | 9.254 | 9.266 | (1.000) | 3427252 | 20.0000 | |
| | 28 Naphthalene | 128 | 9.286 | 9.298 | (1.003) | 199915 | 1.00000 | 1.000 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 29 4-Chloroaniline | 127 | 9.468 | 9.479 | (1.023) | 80884 | 1.00000 | 1.000 |
| | 30 Hexachlorobutadiene | 225 | 9.628 | 9.629 | (1.040) | 39726 | 1.00000 | 1.000 |
| | 31 4-Chloro-3-methylphenol | 107 | 10.344 | 10.345 | (1.118) | 47007 | 1.00000 | 1.000 |
| | 32 2-Methylnaphthalene | 141 | 10.414 | 10.420 | (1.125) | 116882 | 1.00000 | 1.000 |
| | 34 2,4,6-Trichlorophenol | 196 | 10.958 | 10.964 | (0.906) | 44936 | 1.00000 | 1.000 |
| | 35 2,4,5-Trichlorophenol | 196 | 11.028 | 11.029 | (0.911) | 36177 | 1.00000 | 1.000 |
| $ | 36 2-Fluorobiphenyl | 172 | 11.071 | 11.076 | (0.915) | 145049 | 1.00000 | 1.000 |
| | 37 2-Chloronaphthalene | 162 | 11.183 | 11.189 | (0.924) | 118160 | 1.00000 | 1.000 |
| | 38 2-Nitroaniline | 65 | 11.445 | 11.461 | (0.946) | 19645 | 1.00000 | 1.000 |
| | 39 Dimethylphthalate | 163 | 11.829 | 11.857 | (0.977) | 123189 | 1.00000 | 1.000 |
| | 40 Acenaphthylene | 152 | 11.851 | 11.862 | (0.979) | 198340 | 1.00000 | 1.000 |
| | 41 2,6-Dinitrotoluene | 165 | 11.915 | 11.937 | (0.985) | 25314 | 1.00000 | 1.000 |
| * | 42 Acenaphthene-d10 | 164 | 12.102 | 12.108 | (1.000) | 2193308 | 20.0000 | |
| | 43 3-Nitroaniline | 138 | 12.123 | 12.150 | (1.002) | 28816 | 1.00000 | 1.000 |
| | 44 Acenaphthene | 153 | 12.150 | 12.166 | (1.004) | 126724 | 1.00000 | 1.000 |
| | 45 2,4-Dinitrophenol | 184 | Compound Not Detected. | | | | | |
| | 46 Dibenzofuran | 168 | 12.411 | 12.434 | (1.026) | 191464 | 1.00000 | 1.000 |
| | 47 4-Nitrophenol | 109 | Compound Not Detected. | | | | | |
| | 48 2,4-Dinitrotoluene | 165 | 12.534 | 12.556 | (1.036) | 29362 | 1.00000 | 1.000 |
| | 50 Diethylphthalate | 149 | 12.978 | 13.000 | (1.072) | 118598 | 1.00000 | 1.000 |
| | 49 Fluorene | 166 | 12.967 | 12.984 | (1.071) | 142105 | 1.00000 | 1.000 |
| | 51 4-Chlorophenyl-phenylether | 204 | 13.015 | 13.027 | (1.075) | 68940 | 1.00000 | 1.000 |
| | 52 4-Nitroaniline | 138 | 13.111 | 13.149 | (1.083) | 25494 | 1.00000 | 1.000 |
| | 54 N-Nitrosodiphenylamine | 169 | 13.223 | 13.251 | (0.915) | 88292 | 1.00000 | 1.000 |
| $ | 55 2,4,6-Tribromophenol | 330 | 13.394 | 13.405 | (1.107) | 26065 | 1.00000 | 1.000 |
| | 56 4-Bromophenyl-phenylether | 248 | 13.784 | 13.790 | (0.954) | 45005 | 1.00000 | 1.000 |
| | 57 Hexachlorobenzene | 284 | 13.982 | 13.993 | (0.967) | 57132 | 1.00000 | 1.000 |
| | 58 Pentachlorophenol | 266 | Compound Not Detected. | | | | | |
| * | 59 Phenanthrene-d10 | 188 | 14.452 | 14.464 | (1.000) | 3489577 | 20.0000 | |
| | 60 Phenanthrene | 178 | 14.484 | 14.506 | (1.002) | 202947 | 1.00000 | 1.000 |
| | 61 Anthracene | 178 | 14.559 | 14.581 | (1.007) | 200932 | 1.00000 | 1.000 |
| | 62 Carbazole | 167 | 14.869 | 14.886 | (1.029) | 153930 | 1.00000 | 1.000 |
| | 63 Di-n-butylphthalate | 149 | 15.622 | 15.633 | (1.081) | 179762 | 1.00000 | 1.000 |
| | 64 Fluoranthene | 202 | 16.407 | 16.419 | (1.135) | 217553 | 1.00000 | 1.000 |
| | 65 Pyrene | 202 | 16.749 | 16.766 | (0.894) | 236191 | 1.00000 | 1.000 |
| $ | 66 Terphenyl-d14 | 244 | 17.107 | 17.113 | (0.913) | 141240 | 1.00000 | 1.000 |
| | 67 Butylbenzylphthalate | 149 | 18.015 | 18.027 | (0.962) | 72780 | 1.00000 | 1.000 |
| | 68 Benzo(a)anthracene | 228 | 18.704 | 18.721 | (0.999) | 221650 | 1.00000 | 1.000 |
| * | 69 Chrysene-d12 | 240 | 18.731 | 18.743 | (1.000) | 4014583 | 20.0000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | 18.753 | 18.759 | (1.001) | 80791 | 1.00000 | 1.000 |
| | 71 Chrysene | 228 | 18.763 | 18.791 | (1.002) | 213238 | 1.00000 | 1.000 |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 19.036 | 19.036 | (0.954) | 110556 | 1.00000 | 1.000 |
| * | 134 Di-n-octylphthalate-d4 | 153 | 19.960 | 19.971 | (1.000) | 3756026 | 20.0000 | |
| | 73 Di-n-octylphthalate | 149 | 19.971 | 19.982 | (1.001) | 196924 | 1.00000 | 1.000 |
| | 74 Benzo(b)fluoranthene | 252 | 20.345 | 20.377 | (0.975) | 244390 | 1.00000 | 1.000 |
| | 75 Benzo(k)fluoranthene | 252 | 20.377 | 20.377 | (0.976) | 238725 | 1.00000 | 1.000 |
| | 187 Total Benzofluoranthenes | 252 | 20.377 | 20.409 | (0.976) | 460318 | 2.00000 | 2.000 (M) |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| 76 | Benzo(a)pyrene | 252 | 20.783 | 20.810 | (0.996) | 213202 | 1.00000 | 1.000 |
| * 77 | Perylene-d12 | 264 | 20.868 | 20.879 | (1.000) | 4374350 | 20.0000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | 22.209 | 22.242 | (1.064) | 292755 | 1.00000 | 1.000 |
| 79 | Dibenzo(a,h)anthracene | 278 | 22.241 | 22.274 | (1.066) | 240155 | 1.00000 | 1.000 |
| 80 | Benzo(g,h,i)perylene | 276 | 22.513 | 22.562 | (1.079) | 250409 | 1.00000 | 1.000 |
| 90 | N-Nitrosodimethylamine | 74 | 2.288 | 2.305 | (0.318) | 33399 | 1.00000 | 1.000 |
| 103 | Pyridine | 79 | 2.277 | 2.267 | (0.317) | 47078 | 1.00000 | 1.000 |
| 91 | Aniline | 93 | 6.760 | 6.760 | (0.940) | 100185 | 1.00000 | 1.000 |
| 105 | 1-methylnaphthalene | 141 | 10.579 | 10.585 | (1.143) | 91064 | 1.00000 | 1.000 |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | 13.256 | 13.278 | (1.095) | 103638 | 1.00000 | 1.000 |
| 143 | 1,4-Dioxane | 88 | 1.818 | 1.819 | (0.253) | 19269 | 1.00000 | 1.000 |
| $ 137 | d8-1,4-Dioxane | 96 | 1.781 | 1.781 | (0.248) | 22687 | 1.00000 | 1.000 |
| 144 | alpha-Terpineol | 59 | 9.345 | 9.362 | (1.010) | 33976 | 1.00000 | 1.000 |
| 177 | p-Benzoquinone | 82 | Compound Not Detected. | | | | | |
| 98 | Retene | 219 | 17.337 | 17.348 | (0.926) | 72312 | 1.00000 | 1.000 |
| 99 | Perylene | 252 | 20.900 | 20.928 | (1.002) | 229077 | 1.00000 | 1.000 |
| 133 | Butylatedhydroxytoluene | 205 | 12.326 | 12.337 | (1.019) | 94930 | 1.00000 | 1.000 |
| 115 | Tributyl Phosphate | 99 | 13.368 | 13.411 | (0.925) | 103227 | 1.00000 | 1.000 |
| 116 | Dibutyl Phenyl Phosphate | 175 | 15.072 | 15.105 | (1.043) | 79595 | 1.00000 | 1.000 |
| 117 | Butyl Diphenyl Phosphate | 94 | 16.733 | 16.745 | (0.893) | 21866 | 1.00000 | 1.000 |
| 118 | Triphenyl Phosphate | 326 | 18.315 | 18.326 | (0.978) | 44502 | 1.00000 | 1.000 |
| 123 | Acetophenone | 105 | 7.924 | 7.935 | (1.102) | 74432 | 1.00000 | 1.000 |
| 168 | Pentachlorobenzene | 250 | 12.454 | 12.471 | (1.029) | 57829 | 1.00000 | 1.000 |
| 113 | Diphenyl Oxide | 170 | 11.396 | 11.403 | (0.942) | 82078 | 1.00000 | 1.000 |
| 112 | Biphenyl | 154 | 11.199 | 11.205 | (0.925) | 133359 | 1.00000 | 1.000 |
| 120 | 2,3,4,6-Tetrachlorophenol | 232 | 12.727 | 12.733 | (1.052) | 24602 | 1.00000 | 1.000 |
| 151 | 1,2,4,5-Tetrachlorobenzene | 216 | 10.755 | 10.756 | (0.889) | 60736 | 1.00000 | 1.000 |
| 110 | Tetrachloroguaiacol | 247 | 14.436 | 14.453 | (0.999) | 31926 | 2.00000 | 2.000 |
| 109 | 3,4,5-Trichloroguaiacol | 213 | 12.828 | 12.840 | (0.888) | 19390 | 1.00000 | 1.000 |
| 181 | 3,4,6-Trichloroguaiacol | 211 | 12.946 | 12.952 | (1.800) | 23203 | 1.00000 | 1.000 |
| 108 | 4,5,6-Trichloroguaiacol | 213 | 13.854 | 13.871 | (1.145) | 21277 | 1.00000 | 1.000 |
| 184 | 3,4-Dichloroguaiacol | 192 | 11.300 | 11.306 | (1.571) | 20946 | 1.00000 | 1.000 |
| 107 | 4,5-Dichloroguaiacol | 192 | 12.096 | 12.108 | (1.000) | 56991 | 2.00000 | 2.000 |
| 182 | 4,6-Dichloroguaiacol | 192 | 12.096 | 12.108 | (1.682) | 56991 | 2.00000 | 2.000 |
| 185 | 4-Chloroguaiacol | 115 | 10.232 | 10.233 | (1.423) | 10582 | 0.50000 | 0.5000 |
| 186 | Carbaryl | 144 | 15.291 | 15.324 | (1.058) | 81917 | 1.00000 | 1.000 |
| 178 | 2-Benzyl-4-Chlorophenol | 218 | 15.270 | 15.297 | (1.057) | 29074 | 1.00000 | 1.000 |
| 106 | Guaiacol | 124 | 8.207 | 8.213 | (1.141) | 47398 | 1.00000 | 1.000 |

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05231208.D
Lab Smp Id: IC10523
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Misc Info: 12-

Calibration Date: 23-MAY-2012
Calibration Time: 13:34
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 963757 | 481878 | 1927514 | 963048 | -0.07 |
| 27 Naphthalene-d8 | 3430476 | 1715238 | 6860952 | 3427252 | -0.09 |
| 42 Acenaphthene-d10 | 2259168 | 1129584 | 4518336 | 2193308 | -2.92 |
| 59 Phenanthrene-d10 | 3446677 | 1723338 | 6893354 | 3489577 | 1.24 |
| 69 Chrysene-d12 | 3961525 | 1980762 | 7923050 | 4014583 | 1.34 |
| 134 Di-n-octylphthala | 3758743 | 1879372 | 7517486 | 3756026 | -0.07 |
| 77 Perylene-d12 | 4154109 | 2077054 | 8308218 | 4374350 | 5.30 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 7.19 | 6.69 | 7.69 | 7.19 | 0.02 |
| 27 Naphthalene-d8 | 9.26 | 8.76 | 9.76 | 9.25 | -0.04 |
| 42 Acenaphthene-d10 | 12.11 | 11.61 | 12.61 | 12.10 | -0.03 |
| 59 Phenanthrene-d10 | 14.46 | 13.96 | 14.96 | 14.45 | -0.03 |
| 69 Chrysene-d12 | 18.73 | 18.23 | 19.23 | 18.73 | -0.02 |
| 134 Di-n-octylphthala | 19.96 | 19.46 | 20.46 | 19.96 | -0.02 |
| 77 Perylene-d12 | 20.87 | 20.37 | 21.37 | 20.87 | -0.02 |

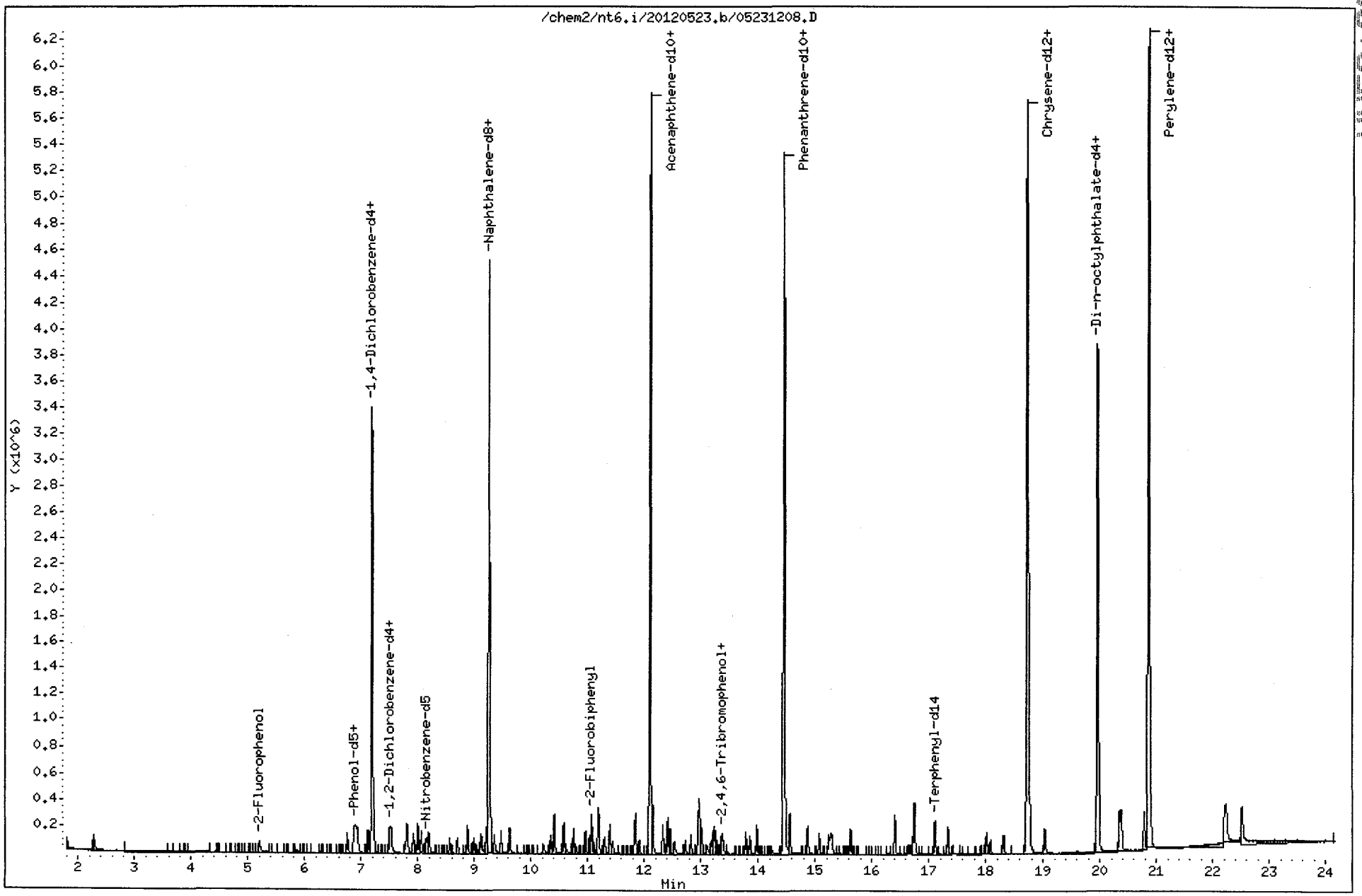
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20120523.b/05231208.D
Date : 23-MAY-2012 18:46
Client ID:
Sample Info: IC10523

Instrument: nt6.i

Operator: JZ
Column diameter: 0.32

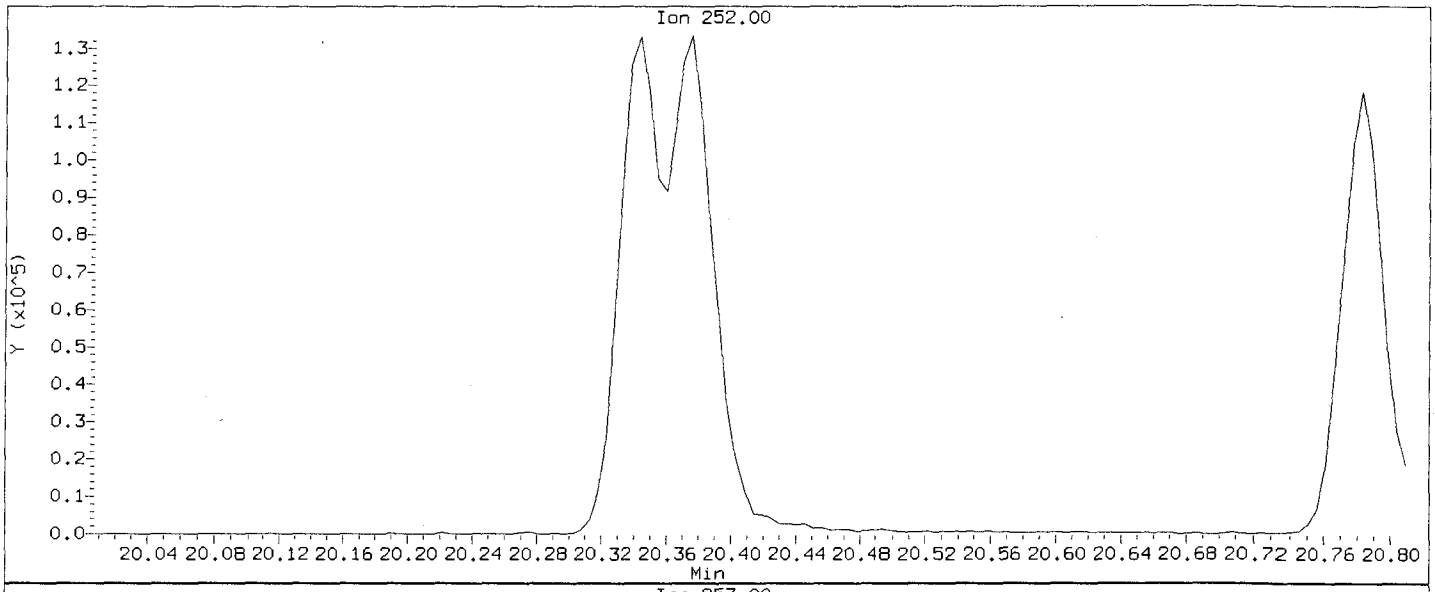
Column phase: ZB-5msi

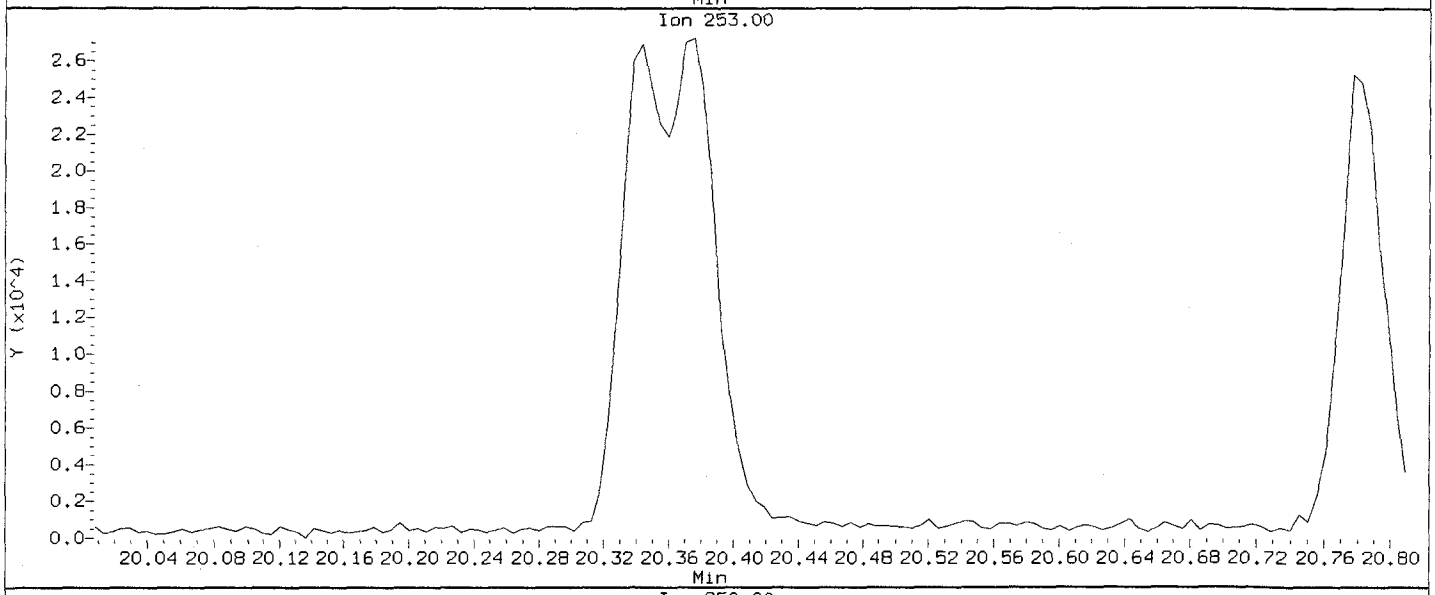


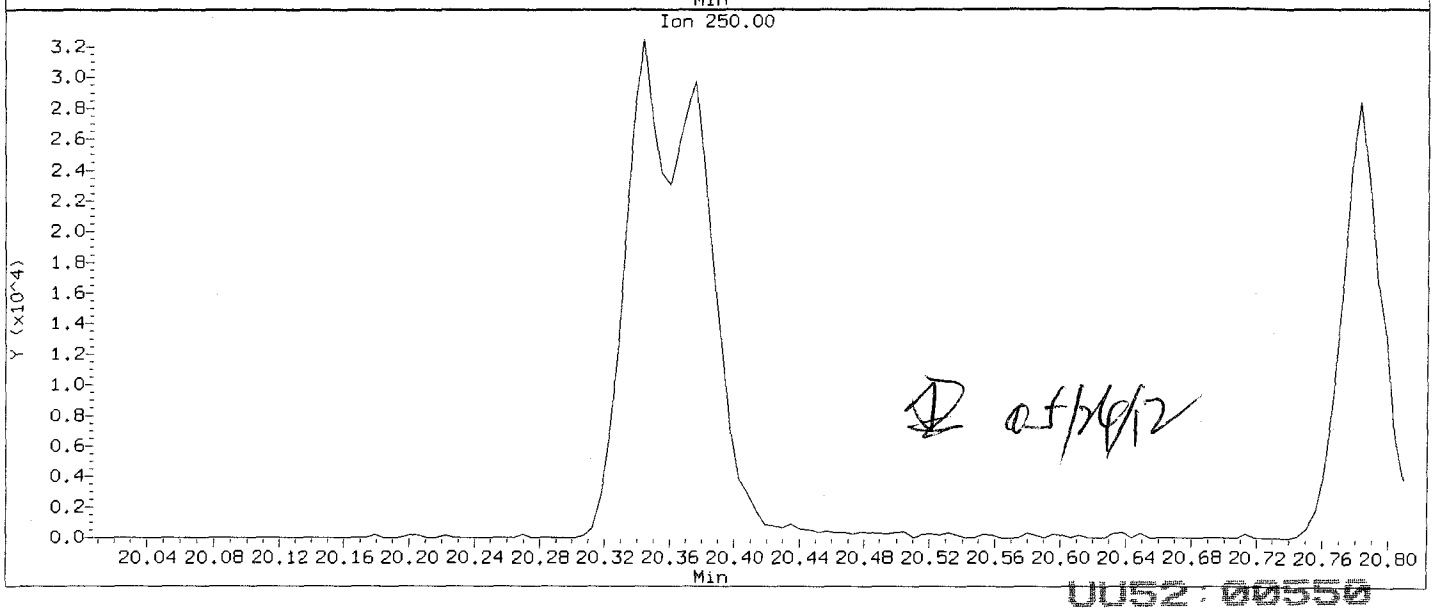

UU52:99519

Data File: /chem2/nt6.i/20120523.b/05231208.D
Injection Date: 23-MAY-2012 18:46
Instrument: nt6.i
Client Sample ID: IC10523

Compound: Total Benzofluoranthenes
CAS Number:



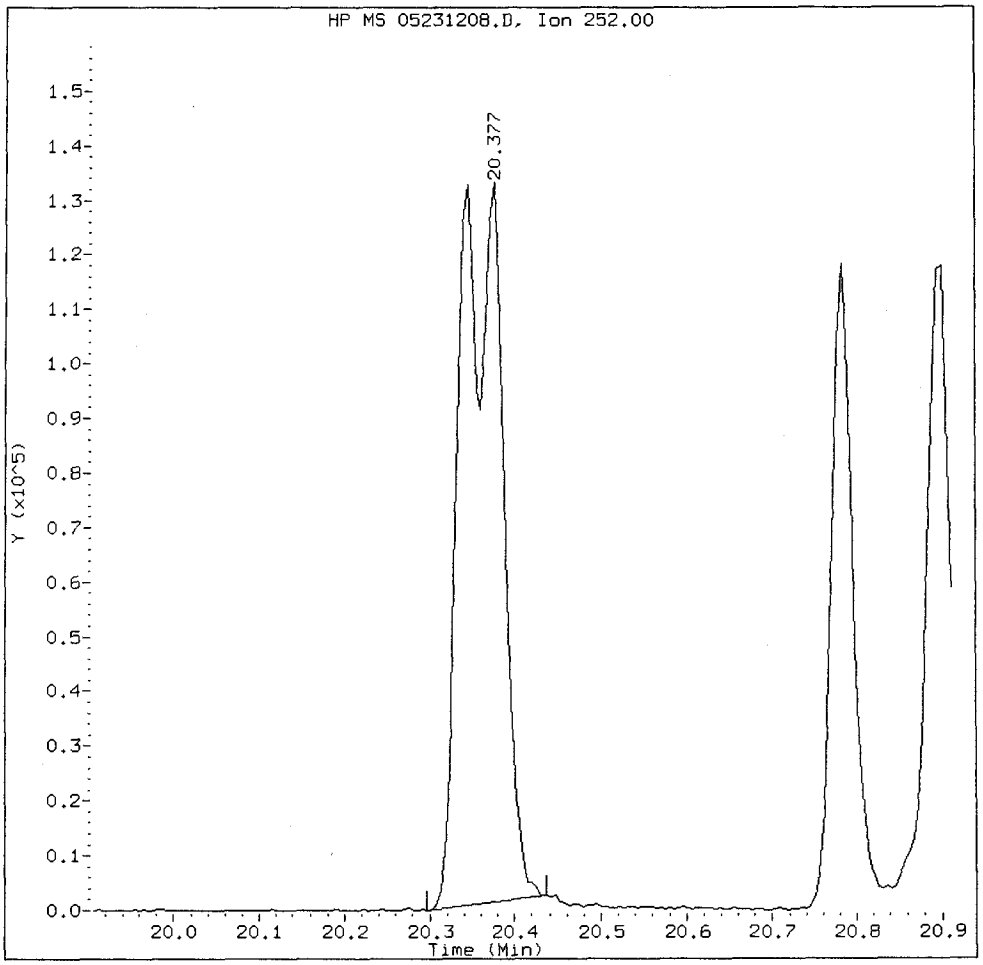




D 6/14/12

IC10523, /chem2/nt6.i/20120523.b/05231208.D

Total Benzofluoranthenes  Amount: 2.00  Area: 460318




MANUAL INTEGRATION for Total Benzofluoranthenes

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: [signature]  Date: 05/24/12

CO-ELUTION SUMMARY FOR FILE - 05231208.D

Lab ID: IC10523, Method: SW846052312.m, Instrument: nt6.i, Date: 23-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120523.b/05231203.D
Lab Smp Id: IC50523 Client Smp ID: IC50523
Inj Date : 23-MAY-2012 14:41
Operator : JZ Inst ID: nt6.i
Smp Info : IC50523,
Misc Info : 12-
Comment : 1ul Injection
Method : /chem2/nt6.i/20120523.b/SW846052312.m
Meth Date : 24-May-2012 12:56 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 14:41 Cal File: 05231203.D
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

JZ 05/24/12

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| $ | 1 2-Fluorophenol | 112 | 5.194 | 5.194 | (0.723) | 238869 | 5.00000 | 5.262 |
| $ | 2 Phenol-d5 | 99 | 6.867 | 6.877 | (0.955) | 292223 | 5.00000 | 5.213 |
| | 3 Phenol | 94 | 6.883 | 6.894 | (0.958) | 337424 | 5.00000 | 4.571 |
| $ | 5 2-Chlorophenol-d4 | 132 | 6.904 | 6.909 | (0.961) | 287376 | 5.00000 | 5.226 |
| | 4 Bis(2-Chloroethyl)ether | 93 | 6.888 | 6.899 | (0.958) | 232626 | 5.00000 | 4.961 |
| | 6 2-Chlorophenol | 128 | 6.931 | 6.936 | (0.964) | 310282 | 5.00000 | 4.538 |
| | 7 1,3-Dichlorobenzene | 146 | 7.123 | 7.129 | (0.991) | 328362 | 5.00000 | 4.977 |
| * | 8 1,4-Dichlorobenzene-d4 | 152 | 7.187 | 7.193 | (1.000) | 830650 | 20.0000 | |
| | 9 1,4-Dichlorobenzene | 146 | 7.214 | 7.220 | (1.004) | 336824 | 5.00000 | 5.040 |
| $ | 10 1,2-Dichlorobenzene-d4 | 152 | 7.492 | 7.497 | (1.042) | 207091 | 5.00000 | 4.953 |
| | 12 1,2-Dichlorobenzene | 146 | 7.513 | 7.519 | (1.045) | 315199 | 5.00000 | 5.010 |
| | 11 Benzyl alcohol | 108 | 7.529 | 7.545 | (1.048) | 184770 | 5.00000 | 5.996 |
| | 14 2,2'-oxybis(1-Chloropropane) | 45 | 7.785 | 7.791 | (1.083) | 279063 | 5.00000 | 5.022 |
| | 13 2-Methylphenol | 108 | 7.812 | 7.823 | (1.087) | 253000 | 5.00000 | 4.552 |
| | 17 Hexachloroethane | 117 | 7.999 | 8.005 | (1.113) | 113754 | 5.00000 | 5.057 |
| | 16 N-Nitroso-di-n-propylamine | 70 | 7.999 | 8.026 | (1.113) | 163593 | 5.00000 | 5.067 |
| | 15 4-Methylphenol | 108 | 8.053 | 8.069 | (1.120) | 263850 | 5.00000 | 4.774 |
| $ | 18 Nitrobenzene-d5 | 82 | 8.143 | 8.159 | (0.880) | 244111 | 5.00000 | 5.197 |
| | 19 Nitrobenzene | 77 | 8.170 | 8.187 | (0.883) | 251042 | 5.00000 | 5.109 |
| | 20 Isophorone | 82 | 8.565 | 8.593 | (0.926) | 372160 | 5.00000 | 5.090 |
| | 21 2-Nitrophenol | 139 | 8.699 | 8.710 | (0.940) | 165054 | 5.00000 | 4.668 |
| | 22 2,4-Dimethylphenol | 107 | 8.875 | 8.892 | (0.959) | 251036 | 5.00000 | 4.716 |
| | 23 Bis(2-Chloroethoxy)methane | 93 | 8.993 | 9.009 | (0.972) | 278092 | 5.00000 | 5.107 |
| | 24 Benzoic acid | 105 | 9.084 | 9.303 | (0.982) | 180212 | 10.0000 | 10.00(MH) |
| | 25 2,4-Dichlorophenol | 162 | 9.110 | 9.121 | (0.984) | 246540 | 5.00000 | 4.922 |
| | 26 1,2,4-Trichlorobenzene | 180 | 9.206 | 9.218 | (0.995) | 279004 | 5.00000 | 4.996 |
| * | 27 Naphthalene-d8 | 136 | 9.255 | 9.266 | (1.000) | 2944206 | 20.0000 | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 28 Naphthalene | 128 | 9.281 | 9.298 | (1.003) | 868861 | 5.00000 | 5.029 |
| | 29 4-Chloroaniline | 127 | 9.463 | 9.479 | (1.022) | 380630 | 5.00000 | 5.228 |
| | 30 Hexachlorobutadiene | 225 | 9.623 | 9.629 | (1.040) | 168330 | 5.00000 | 4.966 |
| | 31 4-Chloro-3-methylphenol | 107 | 10.339 | 10.345 | (1.117) | 188478 | 5.00000 | 4.828 |
| | 32 2-Methylnaphthalene | 141 | 10.408 | 10.420 | (1.125) | 521965 | 5.00000 | 5.097 |
| | 33 Hexachlorocyclopentadiene | 237 | 10.798 | 10.799 | (0.892) | 101037 | 5.00000 | 5.000 |
| | 34 2,4,6-Trichlorophenol | 196 | 10.953 | 10.964 | (0.905) | 173220 | 5.00000 | 4.786 |
| | 35 2,4,5-Trichlorophenol | 196 | 11.023 | 11.029 | (0.911) | 173087 | 5.00000 | 5.326 |
| $ | 36 2-Fluorobiphenyl | 172 | 11.071 | 11.076 | (0.915) | 599561 | 5.00000 | 4.961 |
| | 37 2-Chloronaphthalene | 162 | 11.178 | 11.189 | (0.924) | 509083 | 5.00000 | 5.064 |
| | 38 2-Nitroaniline | 65 | 11.439 | 11.461 | (0.945) | 129295 | 5.00000 | 6.105 |
| | 39 Dimethylphthalate | 163 | 11.829 | 11.857 | (0.977) | 544932 | 5.00000 | 5.130 |
| | 40 Acenaphthylene | 152 | 11.845 | 11.862 | (0.979) | 876710 | 5.00000 | 5.128 |
| | 41 2,6-Dinitrotoluene | 165 | 11.910 | 11.937 | (0.984) | 126200 | 5.00000 | 5.428 |
| * | 42 Acenaphthene-d10 | 164 | 12.102 | 12.108 | (1.000) | 1841983 | 20.0000 | |
| | 43 3-Nitroaniline | 138 | 12.118 | 12.150 | (1.001) | 160320 | 5.00000 | 5.699 |
| | 44 Acenaphthene | 153 | 12.150 | 12.166 | (1.004) | 550179 | 5.00000 | 5.083 |
| | 45 2,4-Dinitrophenol | 184 | 12.294 | 12.316 | (1.016) | 30032 | 10.0000 | 10.00 |
| | 46 Dibenzofuran | 168 | 12.412 | 12.434 | (1.026) | 848828 | 5.00000 | 5.136 |
| | 47 4-Nitrophenol | 109 | 12.524 | 12.530 | (1.035) | 28736 | 5.00000 | 5.000 |
| | 48 2,4-Dinitrotoluene | 165 | 12.535 | 12.556 | (1.036) | 160822 | 5.00000 | 5.660 |
| | 50 Diethylphthalate | 149 | 12.978 | 13.000 | (1.072) | 515579 | 5.00000 | 5.087 |
| | 49 Fluorene | 166 | 12.962 | 12.984 | (1.071) | 648494 | 5.00000 | 5.208 |
| | 51 4-Chlorophenyl-phenylether | 204 | 13.015 | 13.027 | (1.075) | 295925 | 5.00000 | 5.055 |
| | 52 4-Nitroaniline | 138 | 13.101 | 13.149 | (1.083) | 143042 | 5.00000 | 5.720 |
| | 53 4,6-Dinitro-2-methylphenol | 198 | 13.176 | 13.214 | (0.912) | 161884 | 10.0000 | 10.00 (M) |
| | 54 N-Nitrosodiphenylamine | 169 | 13.224 | 13.251 | (0.915) | 394186 | 5.00000 | 5.176 |
| $ | 55 2,4,6-Tribromophenol | 330 | 13.389 | 13.405 | (1.106) | 121035 | 5.00000 | 5.251 |
| | 56 4-Bromophenyl-phenylether | 248 | 13.785 | 13.790 | (0.954) | 193209 | 5.00000 | 5.078 |
| | 57 Hexachlorobenzene | 284 | 13.982 | 13.993 | (0.967) | 239701 | 5.00000 | 5.020 |
| | 58 Pentachlorophenol | 266 | 14.303 | 14.319 | (0.990) | 34405 | 5.00000 | 5.000 (M) |
| * | 59 Phenanthrene-d10 | 188 | 14.452 | 14.464 | (1.000) | 2904487 | 20.0000 | |
| | 60 Phenanthrene | 178 | 14.484 | 14.506 | (1.002) | 885877 | 5.00000 | 5.119 |
| | 61 Anthracene | 178 | 14.559 | 14.581 | (1.007) | 901129 | 5.00000 | 5.187 |
| | 62 Carbazole | 167 | 14.869 | 14.886 | (1.029) | 677020 | 5.00000 | 5.138 |
| | 63 Di-n-butylphthalate | 149 | 15.622 | 15.633 | (1.081) | 789203 | 5.00000 | 5.134 |
| | 64 Fluoranthene | 202 | 16.402 | 16.419 | (1.135) | 929333 | 5.00000 | 5.065 |
| | 65 Pyrene | 202 | 16.750 | 16.766 | (0.894) | 978152 | 5.00000 | 5.114 |
| $ | 66 Terphenyl-d14 | 244 | 17.102 | 17.113 | (0.913) | 597749 | 5.00000 | 5.168 |
| | 67 Butylbenzylphthalate | 149 | 18.010 | 18.027 | (0.962) | 324113 | 5.00000 | 5.295 |
| | 68 Benzo(a)anthracene | 228 | 18.705 | 18.721 | (0.999) | 913018 | 5.00000 | 5.101 |
| * | 69 Chrysene-d12 | 240 | 18.726 | 18.743 | (1.000) | 3176606 | 20.0000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | 18.747 | 18.759 | (1.001) | 360680 | 5.00000 | 5.302 |
| | 71 Chrysene | 228 | 18.763 | 18.791 | (1.002) | 885250 | 5.00000 | 5.120 |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 19.031 | 19.036 | (0.953) | 438725 | 5.00000 | 5.004 |
| * | 134 Di-n-octylphthalate-d4 | 153 | 19.960 | 19.971 | (1.000) | 2976173 | 20.0000 | |
| | 73 Di-n-octylphthalate | 149 | 19.965 | 19.982 | (1.000) | 784439 | 5.00000 | 5.014 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| 74 | Benzo(b)fluoranthene | 252 | 20.339 | 20.377 | (0.975) | 1085679 | 5.00000 | 5.297 |
| 75 | Benzo(k)fluoranthene | 252 | 20.371 | 20.377 | (0.976) | 1014130 | 5.00000 | 5.186 |
| 187 | Total Benzofluoranthenes | 252 | 20.339 | 20.409 | (0.975) | 1953479 | 10.0000 | 10.37(M) |
| 76 | Benzo(a)pyrene | 252 | 20.783 | 20.810 | (0.996) | 903560 | 5.00000 | 5.180 |
| * 77 | Perylene-d12 | 264 | 20.863 | 20.879 | (1.000) | 3450025 | 20.0000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | 22.209 | 22.242 | (1.065) | 1307169 | 5.00000 | 5.310 |
| 79 | Dibenzo(a,h)anthracene | 278 | 22.236 | 22.274 | (1.066) | 1095188 | 5.00000 | 5.363 |
| 80 | Benzo(g,h,i)perylene | 276 | 22.514 | 22.562 | (1.079) | 1126133 | 5.00000 | 5.328 |
| 90 | N-Nitrosodimethylamine | 74 | 2.272 | 2.305 | (0.316) | 143181 | 5.00000 | 4.985 |
| 103 | Pyridine | 79 | 2.256 | 2.267 | (0.314) | 238066 | 5.00000 | 5.397 |
| 91 | Aniline | 93 | 6.754 | 6.760 | (0.940) | 420699 | 5.00000 | 4.933 |
| 105 | 1-methylnaphthalene | 141 | 10.579 | 10.585 | (1.143) | 392376 | 5.00000 | 5.008 |
| 93 | Benzidine | 184 | 16.696 | 16.702 | (0.892) | 237549 | 5.00000 | 5.000(M) |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | 13.256 | 13.278 | (1.095) | 460259 | 5.00000 | 5.140 |
| 143 | 1,4-Dioxane | 88 | 1.802 | 1.819 | (0.251) | 90333 | 5.00000 | 5.209 |
| $ 137 | d8-1,4-Dioxane | 96 | 1.770 | 1.781 | (0.246) | 94230 | 5.00000 | 4.906 |
| 144 | alpha-Terpineol | 59 | 9.345 | 9.362 | (1.010) | 150325 | 5.00000 | 5.074 |
| 177 | p-Benzoquinone | 82 | 5.836 | 5.836 | (0.631) | 32189 | 5.00000 | 5.000 |
| 98 | Retene | 219 | 17.337 | 17.348 | (0.926) | 317055 | 5.00000 | 5.257 |
| 99 | Perylene | 252 | 20.895 | 20.928 | (1.002) | 915281 | 5.00000 | 5.033 |
| 133 | Butylatedhydroxytoluene | 205 | 12.326 | 12.337 | (1.019) | 373108 | 5.00000 | 4.835 |
| 115 | Tributyl Phosphate | 99 | 13.368 | 13.411 | (0.925) | 476707 | 5.00000 | 5.260 |
| 116 | Dibutyl Phenyl Phosphate | 175 | 15.072 | 15.105 | (1.043) | 359996 | 5.00000 | 5.208 |
| 117 | Butyl Diphenyl Phosphate | 94 | 16.733 | 16.745 | (0.894) | 99939 | 5.00000 | 5.360 |
| 118 | Triphenyl Phosphate | 326 | 18.315 | 18.326 | (0.978) | 188276 | 5.00000 | 5.168 |
| 123 | Acetophenone | 105 | 7.919 | 7.935 | (1.102) | 332114 | 5.00000 | 5.085 |
| 168 | Pentachlorobenzene | 250 | 12.454 | 12.471 | (1.029) | 249199 | 5.00000 | 5.065 |
| 113 | Diphenyl Oxide | 170 | 11.391 | 11.403 | (0.941) | 371227 | 5.00000 | 5.186 |
| 112 | Biphenyl | 154 | 11.199 | 11.205 | (0.925) | 590240 | 5.00000 | 5.132 |
| 120 | 2,3,4,6-Tetrachlorophenol | 232 | 12.722 | 12.733 | (1.051) | 112806 | 5.00000 | 5.220 |
| 151 | 1,2,4,5-Tetrachlorobenzene | 216 | 10.750 | 10.756 | (0.888) | 259895 | 5.00000 | 5.047 |
| 110 | Tetrachloroguaiacol | 247 | 14.431 | 14.453 | (0.999) | 190450 | 10.0000 | 11.78 |
| 109 | 3,4,5-Trichloroguaiacol | 213 | 12.823 | 12.840 | (0.887) | 104893 | 5.00000 | 5.652 |
| 181 | 3,4,6-Trichloroguaiacol | 211 | 12.941 | 12.952 | (1.801) | 125029 | 5.00000 | 5.555 |
| 108 | 4,5,6-Trichloroguaiacol | 213 | 13.854 | 13.871 | (1.145) | 109142 | 5.00000 | 5.499 |
| 184 | 3,4-Dichloroguaiacol | 192 | 11.295 | 11.306 | (1.572) | 112821 | 5.00000 | 5.554 |
| 107 | 4,5-Dichloroguaiacol | 192 | 12.091 | 12.108 | (0.999) | 288534 | 10.0000 | 10.93 |
| 182 | 4,6-Dichloroguaiacol | 192 | 12.091 | 12.108 | (1.682) | 288139 | 10.0000 | 10.79 |
| 185 | 4-Chloroguaiacol | 115 | 10.221 | 10.233 | (1.422) | 53321 | 2.50000 | 2.694 |
| 186 | Carbaryl | 144 | 15.291 | 15.324 | (1.058) | 306739 | 5.00000 | 4.736 |
| 178 | 2-Benzyl-4-Chlorophenol | 218 | 15.270 | 15.297 | (1.057) | 152417 | 5.00000 | 5.575 |
| 106 | Guaiacol | 124 | 8.202 | 8.213 | (1.141) | 215012 | 5.00000 | 5.126 |

## QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05231203.D
Lab Smp Id: IC50523
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Misc Info: 12-

Calibration Date: 23-MAY-2012
Calibration Time: 13:34
Client Smp ID: IC50523
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 963757 | 481878 | 1927514 | 830650 | -13.81 |
| 27 Naphthalene-d8 | 3430476 | 1715238 | 6860952 | 2944206 | -14.18 |
| 42 Acenaphthene-d10 | 2259168 | 1129584 | 4518336 | 1841983 | -18.47 |
| 59 Phenanthrene-d10 | 3446677 | 1723338 | 6893354 | 2904487 | -15.73 |
| 69 Chrysene-d12 | 3961525 | 1980762 | 7923050 | 3176606 | -19.81 |
| 134 Di-n-octylphthala | 3758743 | 1879372 | 7517486 | 2976173 | -20.82 |
| 77 Perylene-d12 | 4154109 | 2077054 | 8308218 | 3450025 | -16.95 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 7.19 | 6.69 | 7.69 | 7.19 | -0.05 |
| 27 Naphthalene-d8 | 9.26 | 8.76 | 9.76 | 9.25 | -0.04 |
| 42 Acenaphthene-d10 | 12.11 | 11.61 | 12.61 | 12.10 | -0.03 |
| 59 Phenanthrene-d10 | 14.46 | 13.96 | 14.96 | 14.45 | -0.02 |
| 69 Chrysene-d12 | 18.73 | 18.23 | 19.23 | 18.73 | -0.05 |
| 134 Di-n-octylphthala | 19.96 | 19.46 | 20.46 | 19.96 | -0.02 |
| 77 Perylene-d12 | 20.87 | 20.37 | 21.37 | 20.86 | -0.04 |

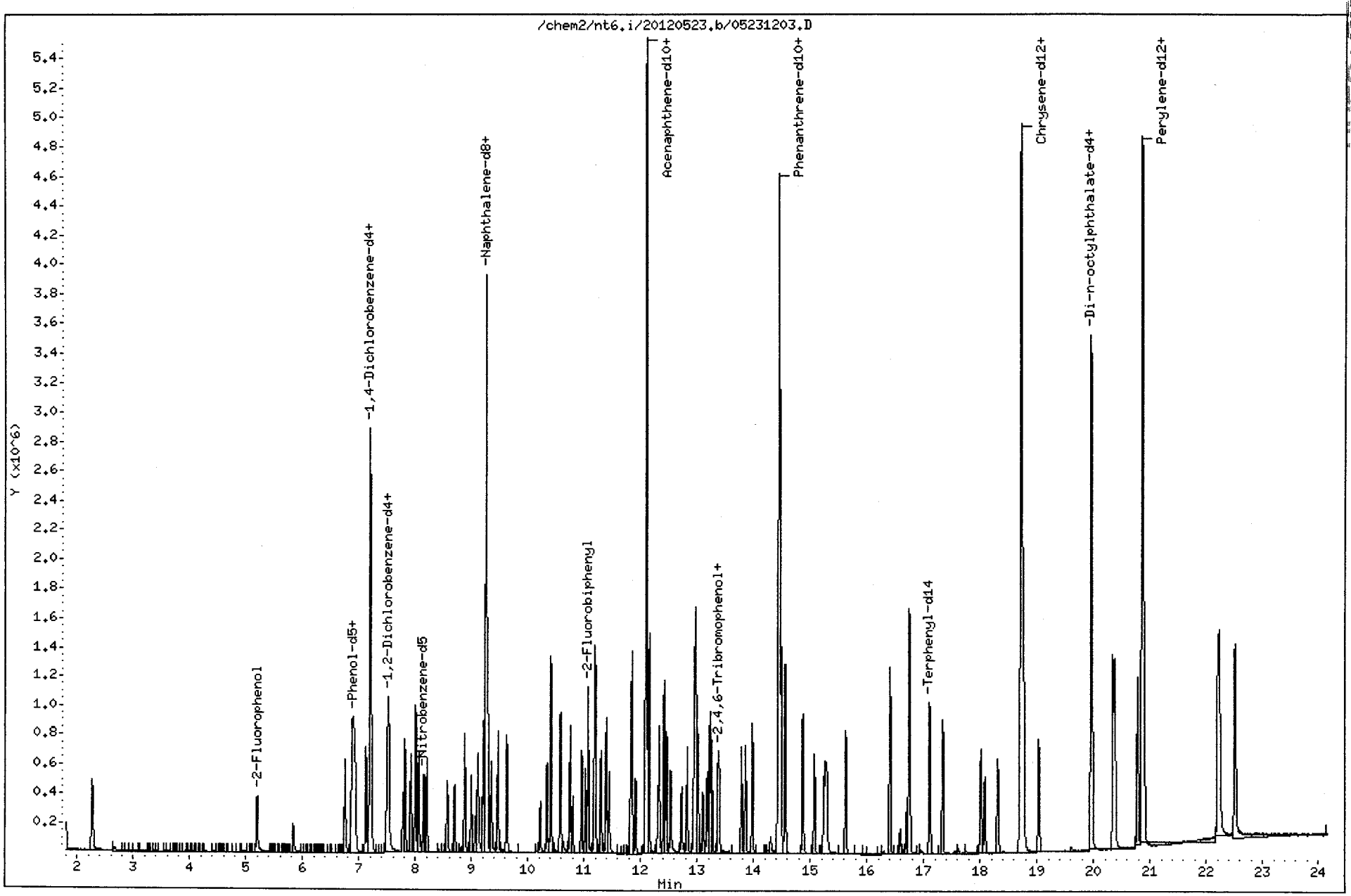
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20120523.b/05231203.D
Date : 23-MAY-2012 14:41
Client ID: IC50523
Sample Info: IC50523,

Instrument: nt6.i

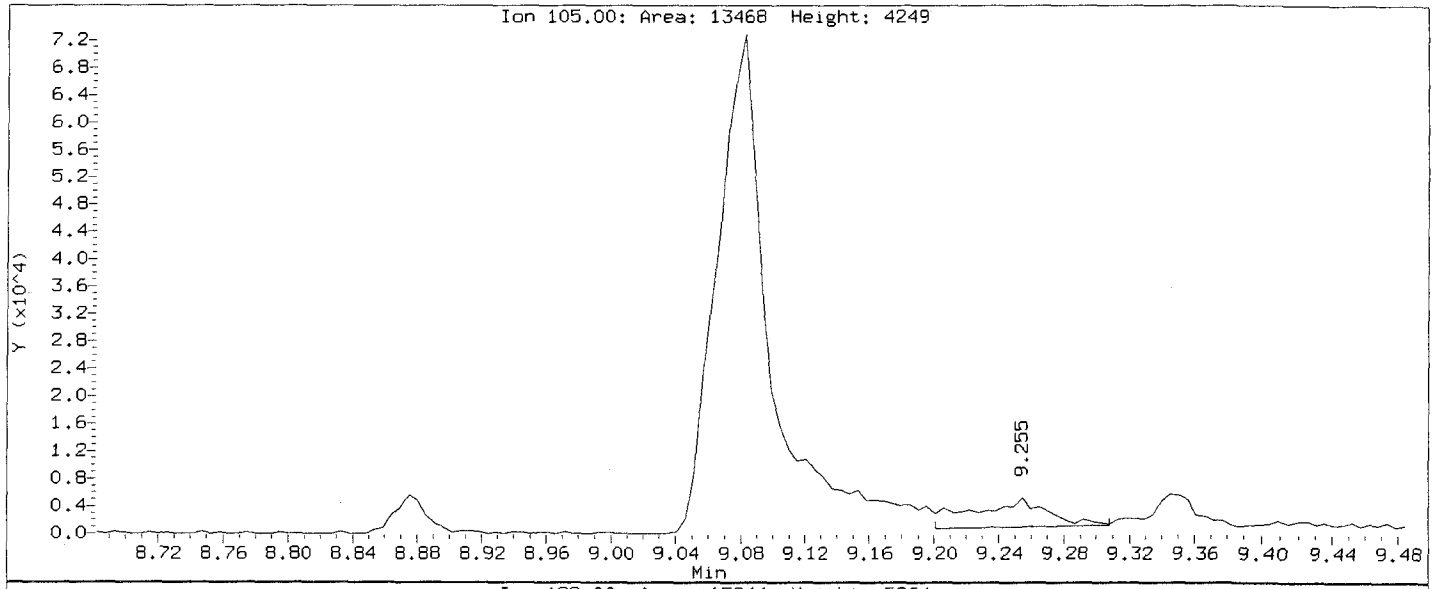
Operator: JZ
Column diameter: 0.32

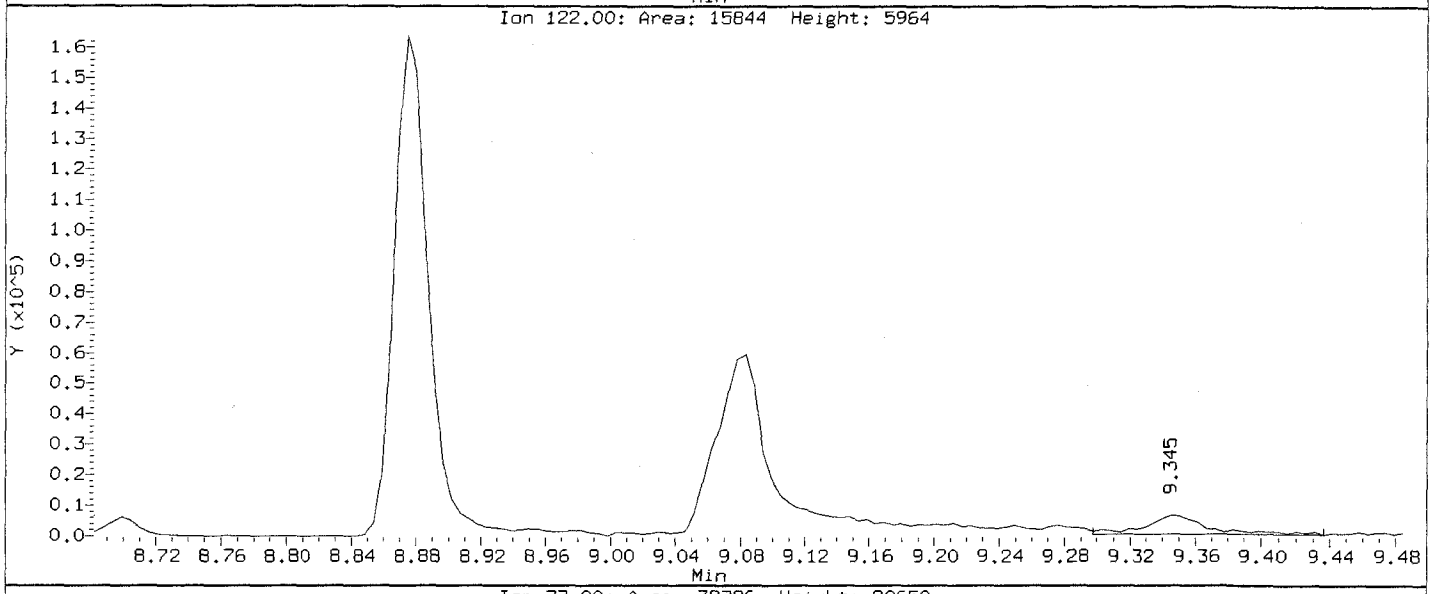
Column phase: ZB-5msi

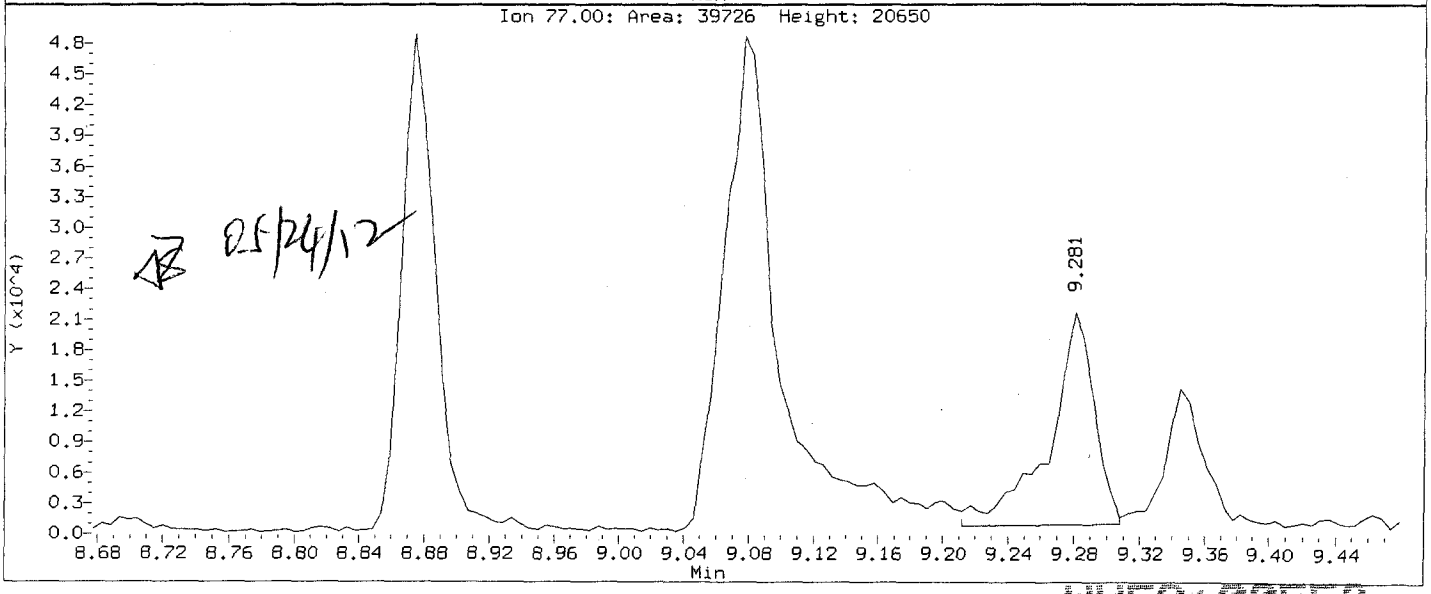


Data File: /chem2/nt6.i/20120523.b/05231203.D
Injection Date: 23-MAY-2012 14:41
Instrument: nt6.i
Client Sample ID: IC50523

Compound: Benzoic acid
CAS Number: 65-85-0



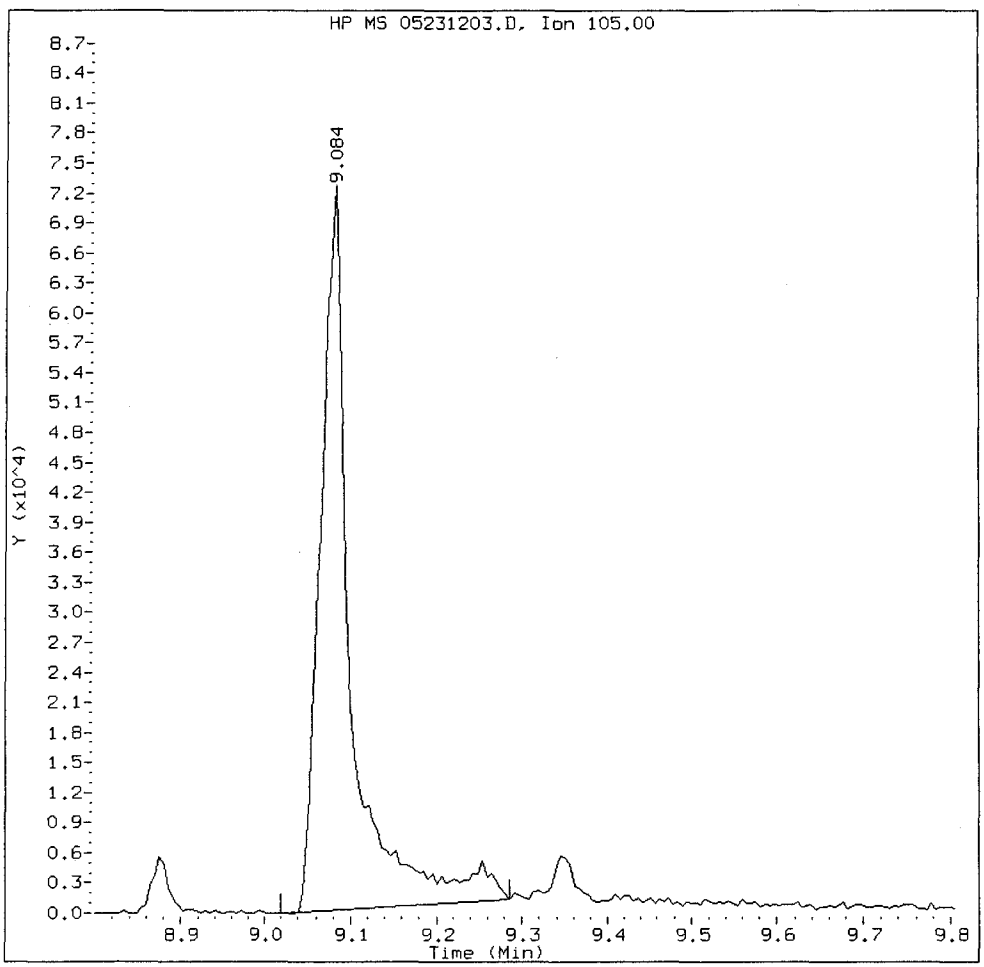




05/24/12

UU52 : 00558

IC50523, /chem2/nt6.i/20120523.b/05231203.D

Benzoic acid  Amount: 10.00  Area: 180212




MANUAL INTEGRATION for Benzoic acid

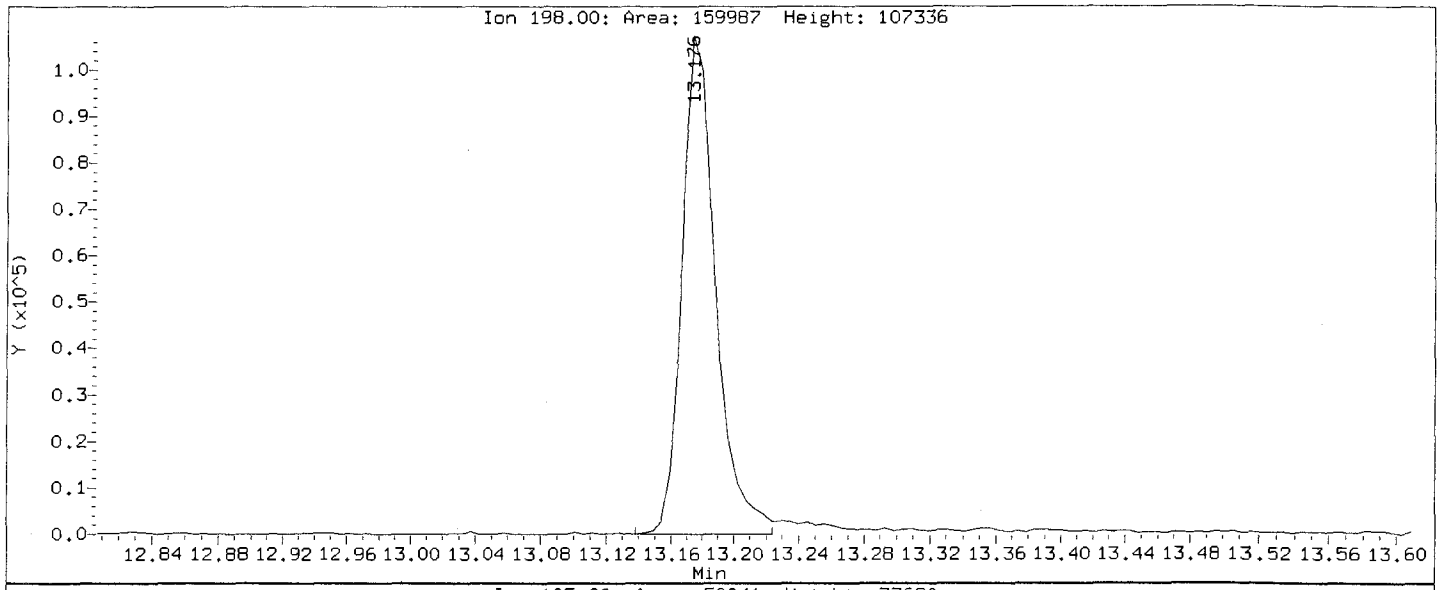
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

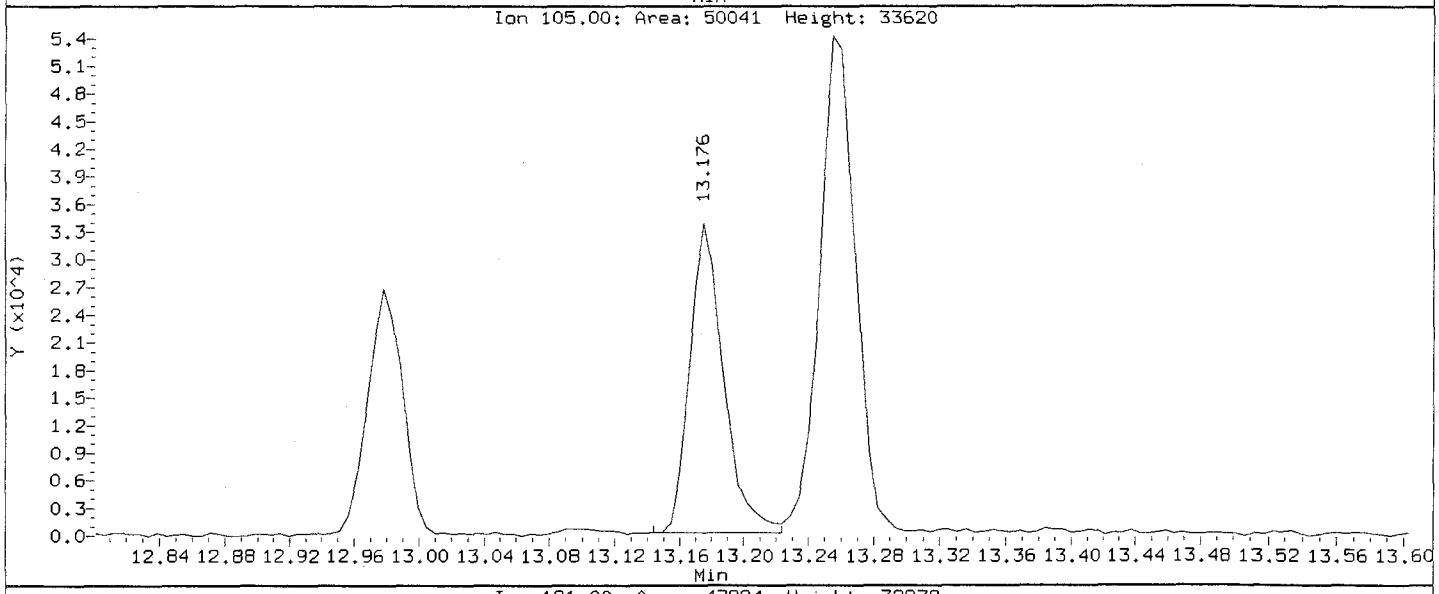
5. Other _____

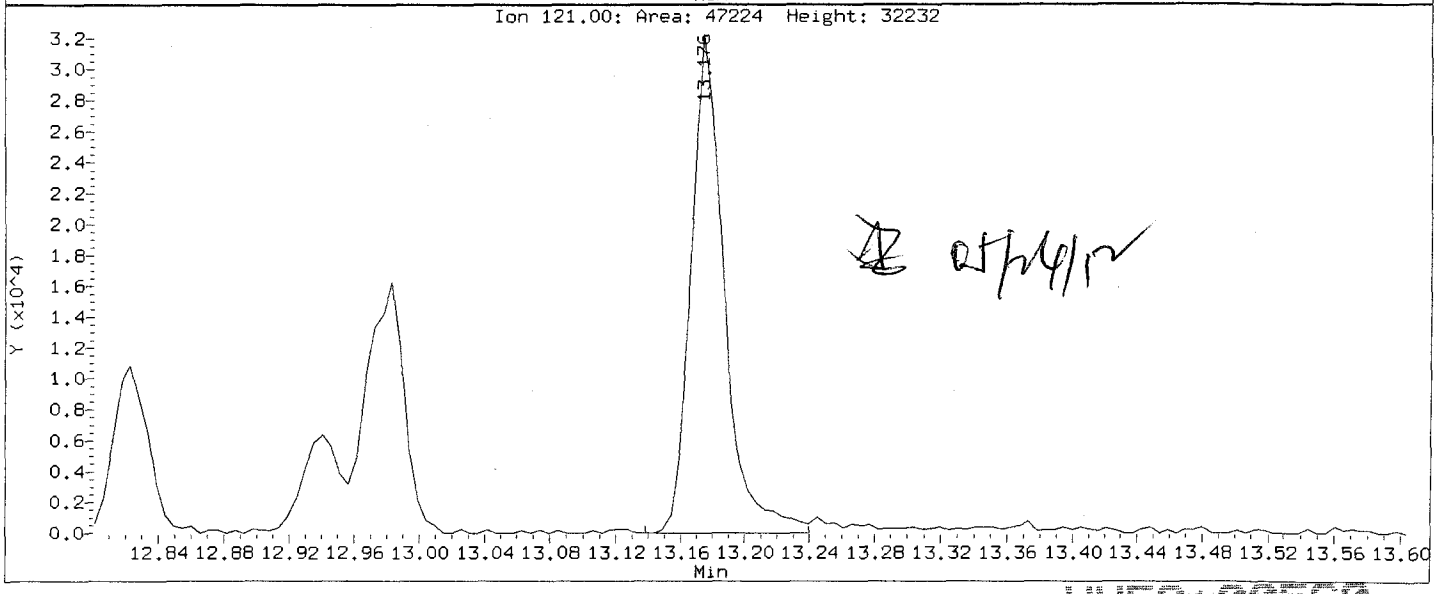
Analyst: _____  Date: 05/14/12

Data File: /chem2/nt6.i/20120523.b/05231203.D
Injection Date: 23-MAY-2012 14:41
Instrument: nt6.i
Client Sample ID: IC50523

Compound: 4,6-Dinitro-2-methylphenol
CAS Number: 534-52-1



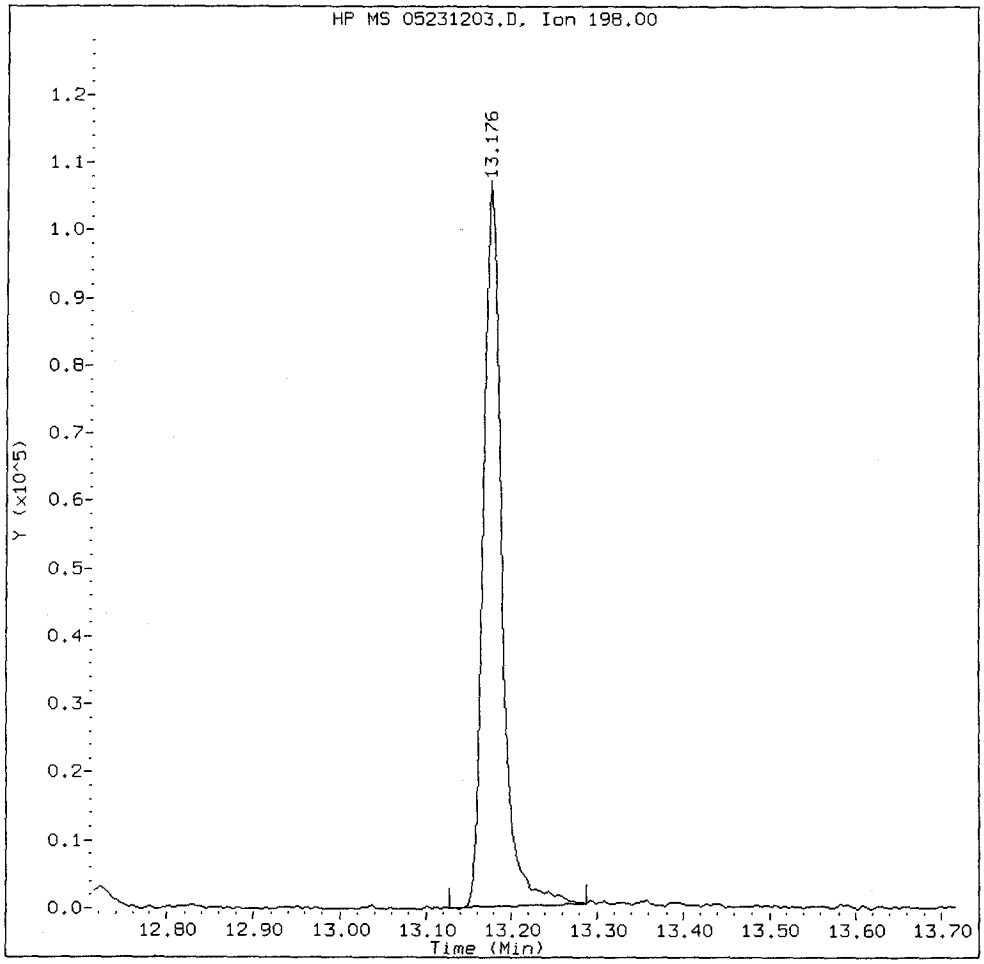




05/24/12

UU52 : 00560

IC50523, /chem2/nt6.i/20120523.b/05231203.D

4,6-Dinitro-2-methylphenol  Amount: 10.00  Area: 161884




MANUAL INTEGRATION for 4,6-Dinitro-2-methylphenol

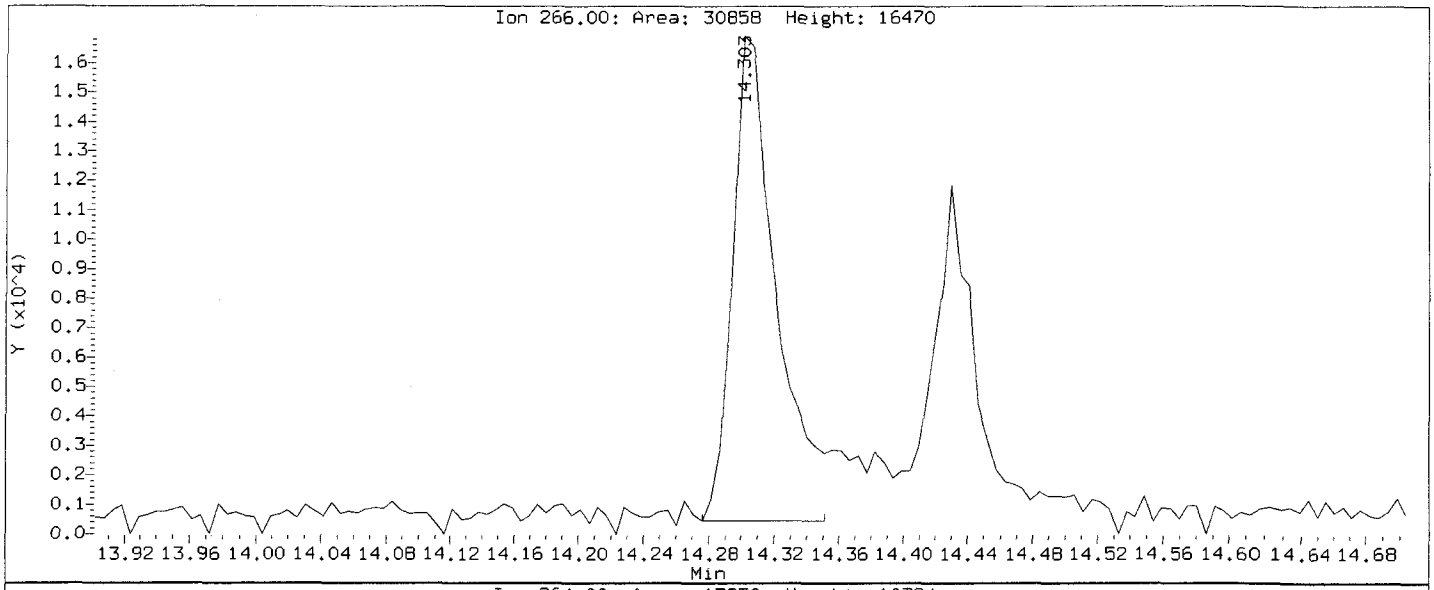
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

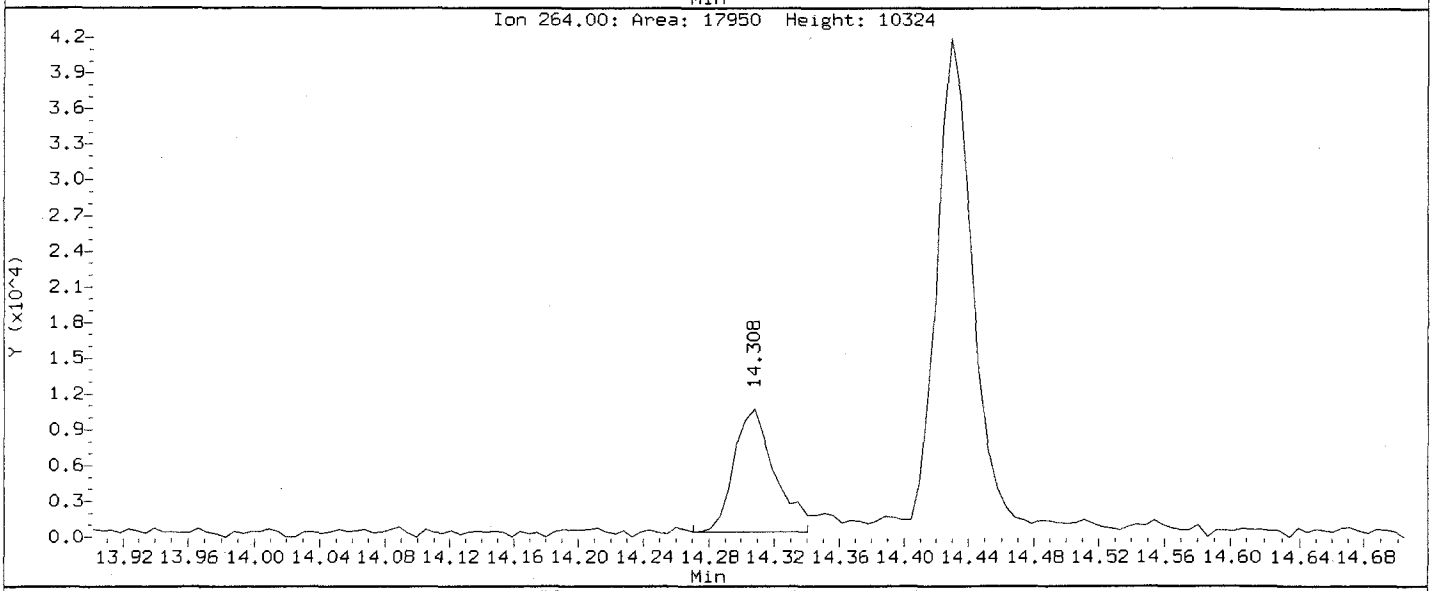
5. Other _____

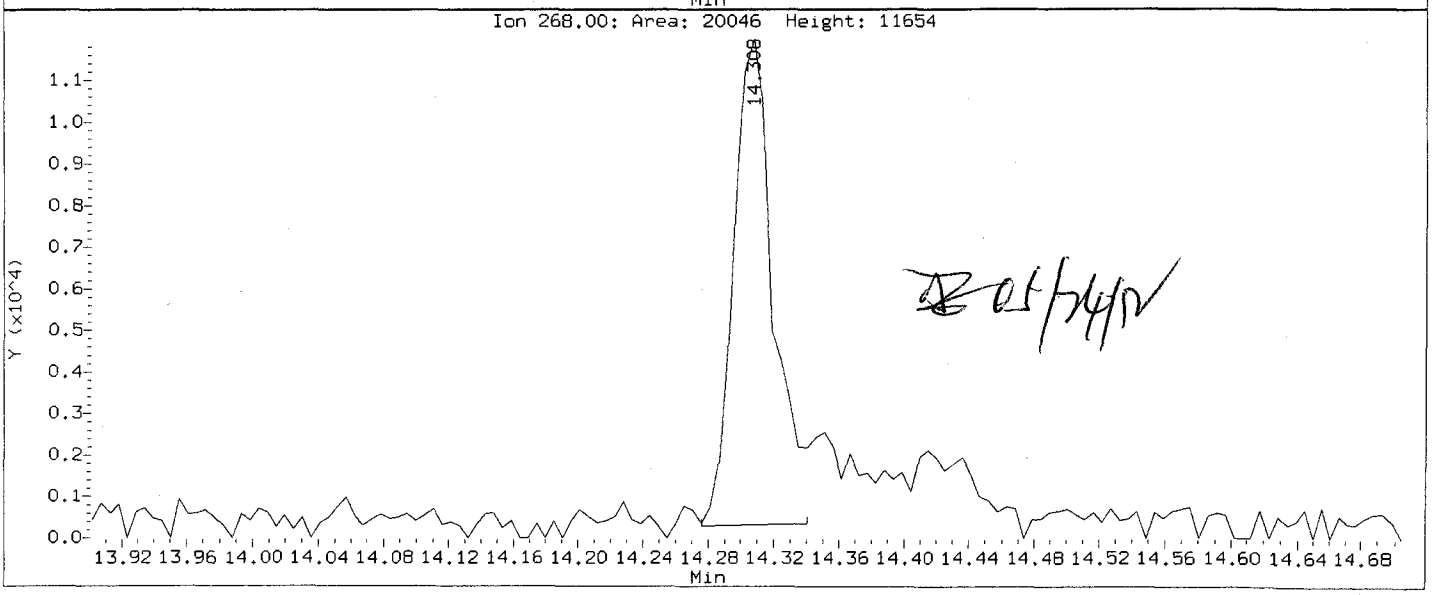
Analyst: _____  Date: 6/14/12

Data File: /chem2/nt6.i/20120523.b/05231203.D
Injection Date: 23-MAY-2012 14:41
Instrument: nt6.i
Client Sample ID: IC50523

Compound: Pentachlorophenol
CAS Number: 87-86-5

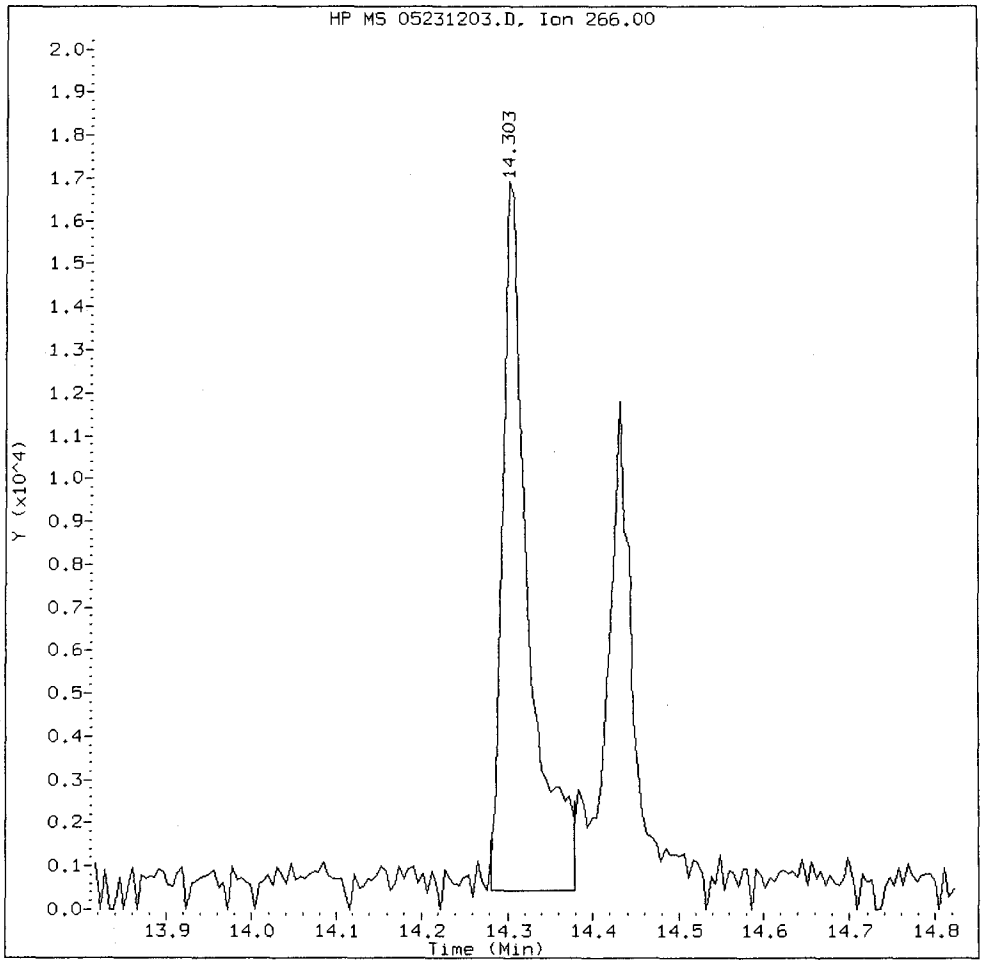


IC50523, /chem2/nt6.i/20120523.b/05231203.D

Pentachlorophenol  Amount: 5.00  Area: 34405




MANUAL INTEGRATION for Pentachlorophenol

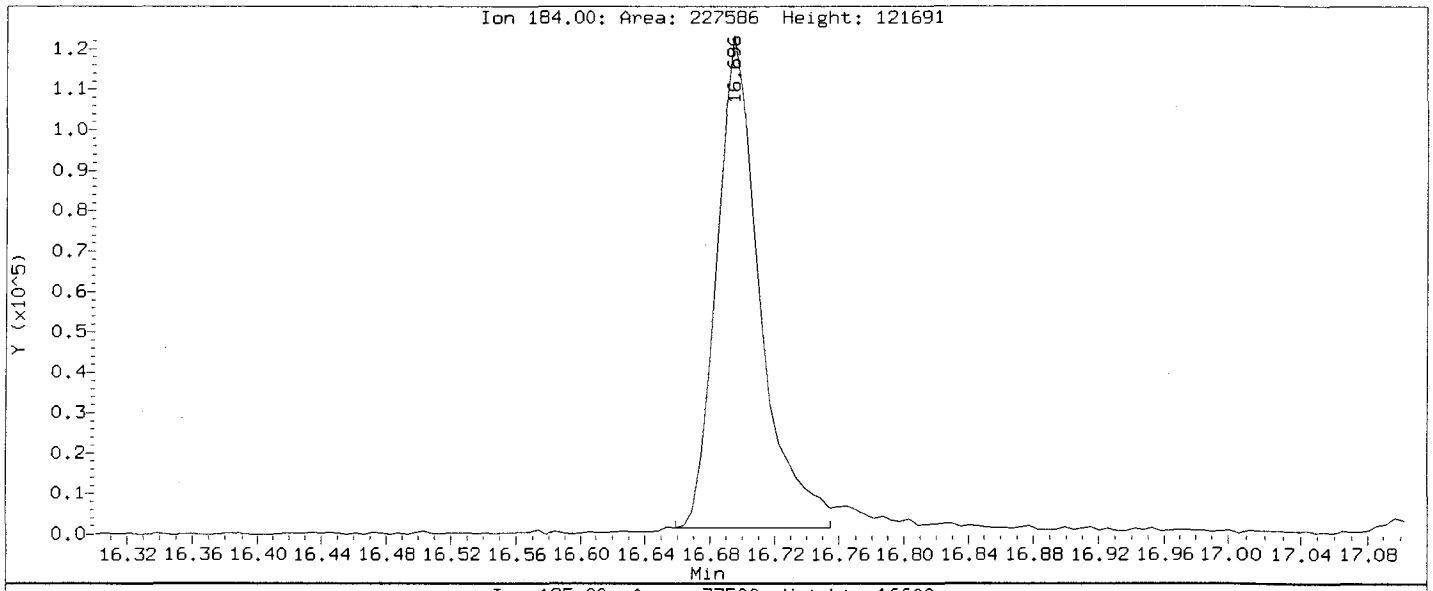
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

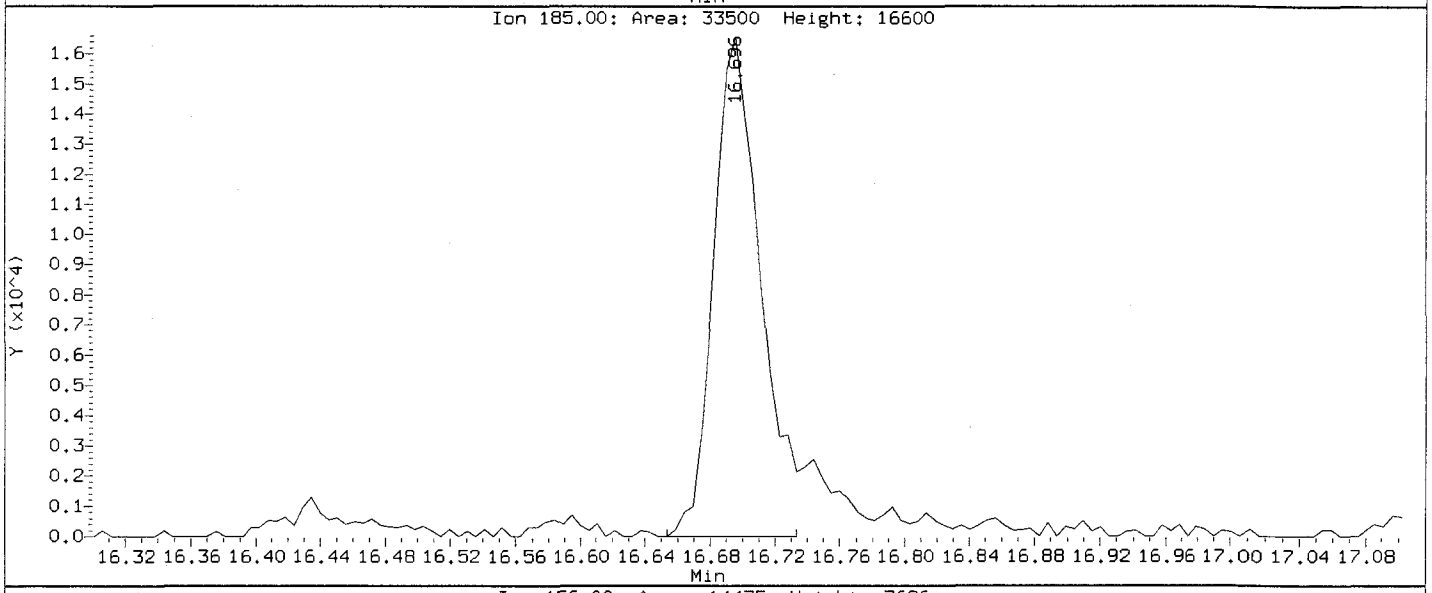
5. Other _____

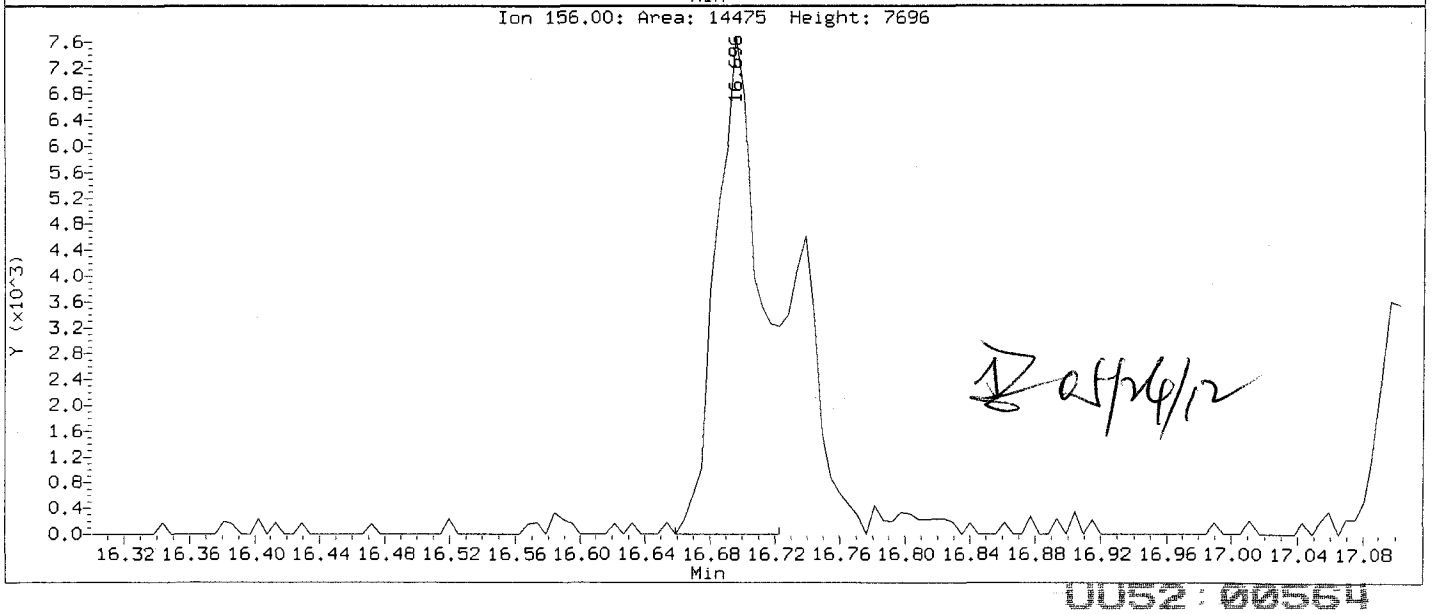
Analyst: _____  Date: 04/24/12

Data File: /chem2/nt6.i/20120523.b/05231203.D
Injection Date: 23-MAY-2012 14:41
Instrument: nt6.i
Client Sample ID: IC50523

Compound: Benzidine
CAS Number:



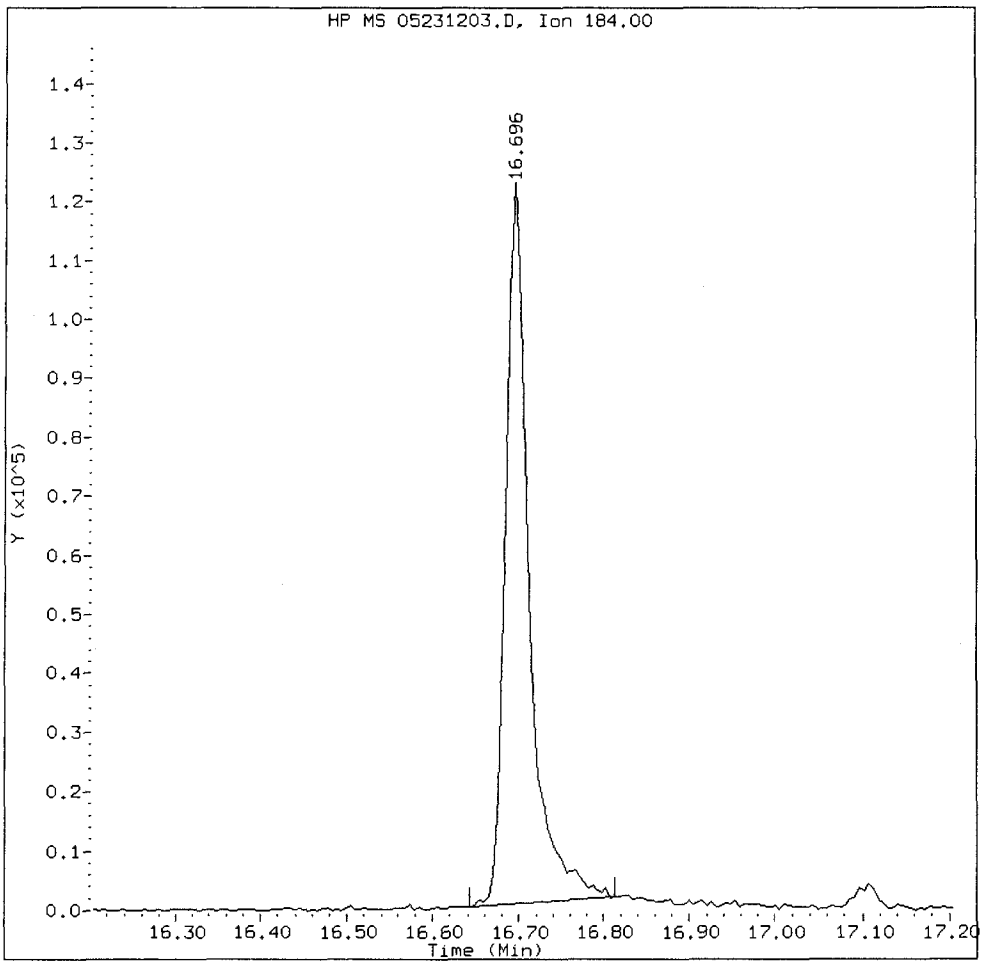




05/24/12

IC50523, /chem2/nt6.i/20120523.b/05231203.D

Benzidine Amount: 5.00 Area: 237549




MANUAL INTEGRATION for Benzidine

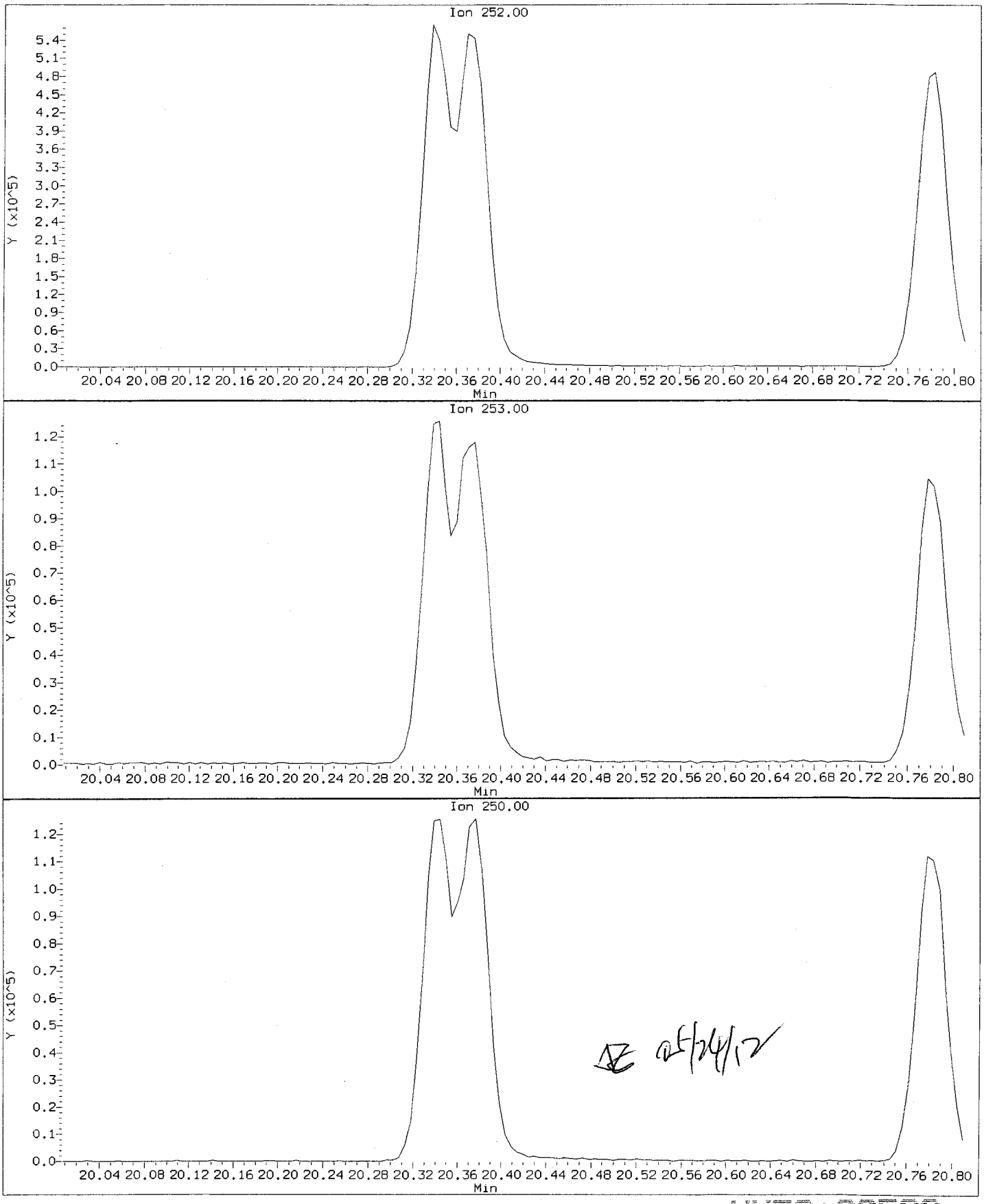
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 6/29/12

Data File: /chem2/nt6.i/20120523A.b/05231203.D
Injection Date: 23-MAY-2012 14:41
Instrument: nt6.i
Client Sample ID: IC50523

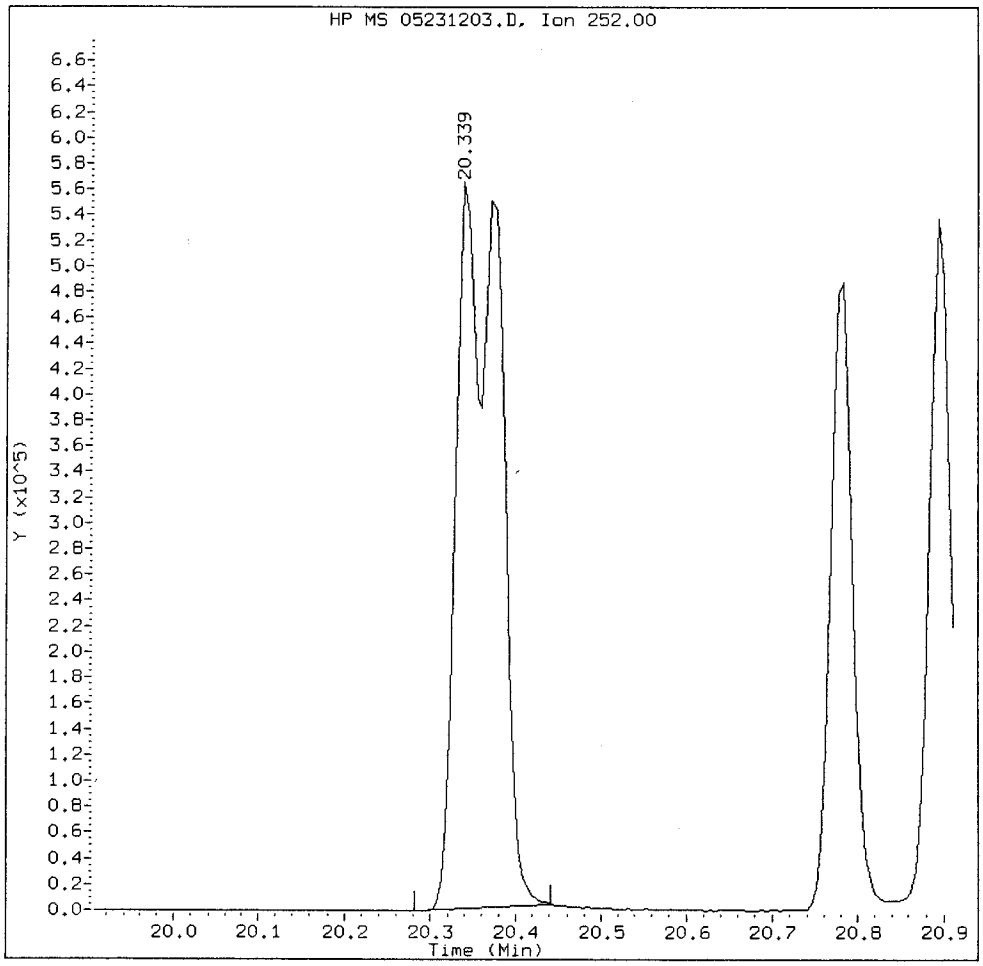
Compound: Total Benzofluoranthenes
CAS Number:




@ 6/24/12

IC50523, /chem2/nt6.i/20120523.b/05231203.D

Total Benzofluoranthenes  Amount: 10.37  Area: 1953479




MANUAL INTEGRATION for Total Benzofluoranthenes

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____  Date: 8/24/12

CO-ELUTION SUMMARY FOR FILE - 05231203.D

Lab ID: IC50523, Method: SW846052312.m, Instrument: nt6.i, Date: 23-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120523.b/05231204.D
Lab Smp Id: IC100523 Client Smp ID: IC100523
Inj Date : 23-MAY-2012 15:15
Operator : JZ Inst ID: nt6.i
Smp Info : IC100523,
Misc Info : 12-
Comment : 1ul Injection
Method : /chem2/nt6.i/20120523.b/SW846052312.m
Meth Date : 24-May-2012 12:56 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 15:15 Cal File: 05231204.D
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

JZ 05/24/12

AMOUNTS

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CAL-AMT (ug/mL) | ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| $ | 1 2-Fluorophenol | 112 | 5.190 | 5.194 | (0.721) | 518915 | 10.0000 | 10.68 |
| $ | 2 Phenol-d5 | 99 | 6.862 | 6.877 | (0.954) | 605991 | 10.0000 | 10.29 |
| | 3 Phenol | 94 | 6.883 | 6.894 | (0.957) | 679909 | 10.0000 | 9.240 |
| $ | 5 2-Chlorophenol-d4 | 132 | 6.904 | 6.909 | (0.960) | 589682 | 10.0000 | 10.24 |
| | 4 Bis(2-Chloroethyl)ether | 93 | 6.894 | 6.899 | (0.958) | 502292 | 10.0000 | 10.23 |
| | 6 2-Chlorophenol | 128 | 6.931 | 6.936 | (0.964) | 615752 | 10.0000 | 9.096 |
| | 7 1,3-Dichlorobenzene | 146 | 7.123 | 7.129 | (0.990) | 681545 | 10.0000 | 9.989 |
| * | 8 1,4-Dichlorobenzene-d4 | 152 | 7.193 | 7.193 | (1.000) | 859474 | 20.0000 | |
| | 9 1,4-Dichlorobenzene | 146 | 7.214 | 7.220 | (1.003) | 676158 | 10.0000 | 9.852 |
| $ | 10 1,2-Dichlorobenzene-d4 | 152 | 7.492 | 7.497 | (1.042) | 421461 | 10.0000 | 9.827 |
| | 12 1,2-Dichlorobenzene | 146 | 7.513 | 7.519 | (1.045) | 645408 | 10.0000 | 9.942 |
| | 11 Benzyl alcohol | 108 | 7.524 | 7.545 | (1.046) | 377017 | 10.0000 | 11.15 |
| | 14 2,2'-oxybis(1-Chloropropane) | 45 | 7.786 | 7.791 | (1.082) | 560085 | 10.0000 | 9.826 |
| | 13 2-Methylphenol | 108 | 7.813 | 7.823 | (1.086) | 512953 | 10.0000 | 9.252 |
| | 17 Hexachloroethane | 117 | 8.000 | 8.005 | (1.112) | 236040 | 10.0000 | 10.09 |
| | 16 N-Nitroso-di-n-propylamine | 70 | 8.000 | 8.026 | (1.112) | 334729 | 10.0000 | 10.01 |
| | 15 4-Methylphenol | 108 | 8.053 | 8.069 | (1.120) | 539215 | 10.0000 | 9.612 |
| $ | 18 Nitrobenzene-d5 | 82 | 8.149 | 8.159 | (0.880) | 504443 | 10.0000 | 10.23 |
| | 19 Nitrobenzene | 77 | 8.176 | 8.187 | (0.883) | 511298 | 10.0000 | 10.02 |
| | 20 Isophorone | 82 | 8.566 | 8.593 | (0.926) | 754071 | 10.0000 | 9.957 |
| | 21 2-Nitrophenol | 139 | 8.699 | 8.710 | (0.940) | 331572 | 10.0000 | 9.336 |
| | 22 2,4-Dimethylphenol | 107 | 8.876 | 8.892 | (0.959) | 510689 | 10.0000 | 9.482 |
| | 23 Bis(2-Chloroethoxy)methane | 93 | 8.999 | 9.009 | (0.972) | 567748 | 10.0000 | 10.03 |
| | 24 Benzoic acid | 105 | 9.116 | 9.303 | (0.985) | 446422 | 20.0000 | 21.76 |
| | 25 2,4-Dichlorophenol | 162 | 9.111 | 9.121 | (0.984) | 512453 | 10.0000 | 9.905 |
| | 26 1,2,4-Trichlorobenzene | 180 | 9.207 | 9.218 | (0.995) | 569462 | 10.0000 | 9.882 |
| * | 27 Naphthalene-d8 | 136 | 9.255 | 9.266 | (1.000) | 3055832 | 20.0000 | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 28 Naphthalene | 128 | 9.287 | 9.298 | (1.003) | 1736633 | 10.0000 | 9.788 |
| | 29 4-Chloroaniline | 127 | 9.463 | 9.479 | (1.022) | 753338 | 10.0000 | 9.980 |
| | 30 Hexachlorobutadiene | 225 | 9.624 | 9.629 | (1.040) | 344214 | 10.0000 | 9.855 |
| | 31 4-Chloro-3-methylphenol | 107 | 10.339 | 10.345 | (1.117) | 412736 | 10.0000 | 10.12 |
| | 32 2-Methylnaphthalene | 141 | 10.414 | 10.420 | (1.125) | 1018671 | 10.0000 | 9.719 |
| | 33 Hexachlorocyclopentadiene | 237 | 10.799 | 10.799 | (0.892) | 271883 | 10.0000 | 11.27 |
| | 34 2,4,6-Trichlorophenol | 196 | 10.954 | 10.964 | (0.905) | 361832 | 10.0000 | 9.722 |
| | 35 2,4,5-Trichlorophenol | 196 | 11.023 | 11.029 | (0.911) | 357845 | 10.0000 | 10.37 |
| $ | 36 2-Fluorobiphenyl | 172 | 11.071 | 11.076 | (0.915) | 1220560 | 10.0000 | 9.788 |
| | 37 2-Chloronaphthalene | 162 | 11.183 | 11.189 | (0.924) | 1052994 | 10.0000 | 10.03 |
| | 38 2-Nitroaniline | 65 | 11.445 | 11.461 | (0.946) | 269432 | 10.0000 | 11.37 |
| | 39 Dimethylphthalate | 163 | 11.830 | 11.857 | (0.977) | 1096347 | 10.0000 | 9.932 |
| | 40 Acenaphthylene | 152 | 11.851 | 11.862 | (0.979) | 1775062 | 10.0000 | 9.972 |
| | 41 2,6-Dinitrotoluene | 165 | 11.915 | 11.937 | (0.985) | 264053 | 10.0000 | 10.58 |
| * | 42 Acenaphthene-d10 | 164 | 12.102 | 12.108 | (1.000) | 1920679 | 20.0000 | |
| | 43 3-Nitroaniline | 138 | 12.118 | 12.150 | (1.001) | 327726 | 10.0000 | 10.75 |
| | 44 Acenaphthene | 153 | 12.150 | 12.166 | (1.004) | 1116465 | 10.0000 | 9.928 |
| | 45 2,4-Dinitrophenol | 184 | 12.289 | 12.316 | (1.015) | 153493 | 20.0000 | 28.41 |
| | 46 Dibenzofuran | 168 | 12.418 | 12.434 | (1.026) | 1651438 | 10.0000 | 9.718 |
| | 47 4-Nitrophenol | 109 | 12.519 | 12.530 | (1.034) | 74902 | 10.0000 | 11.11 |
| | 48 2,4-Dinitrotoluene | 165 | 12.535 | 12.556 | (1.036) | 340937 | 10.0000 | 10.96 |
| | 50 Diethylphthalate | 149 | 12.984 | 13.000 | (1.073) | 1041091 | 10.0000 | 9.900 |
| | 49 Fluorene | 166 | 12.962 | 12.984 | (1.071) | 1315035 | 10.0000 | 10.09 |
| | 51 4-Chlorophenyl-phenylether | 204 | 13.016 | 13.027 | (1.075) | 607582 | 10.0000 | 9.969 |
| | 52 4-Nitroaniline | 138 | 13.107 | 13.149 | (1.083) | 276359 | 10.0000 | 10.39 |
| | 53 4,6-Dinitro-2-methylphenol | 198 | 13.181 | 13.214 | (0.912) | 393806 | 20.0000 | 21.59 |
| | 54 N-Nitrosodiphenylamine | 169 | 13.229 | 13.251 | (0.915) | 827825 | 10.0000 | 10.31 |
| $ | 55 2,4,6-Tribromophenol | 330 | 13.395 | 13.405 | (1.107) | 257884 | 10.0000 | 10.48 |
| | 56 4-Bromophenyl-phenylether | 248 | 13.785 | 13.790 | (0.954) | 393391 | 10.0000 | 9.978 |
| | 57 Hexachlorobenzene | 284 | 13.983 | 13.993 | (0.967) | 493841 | 10.0000 | 9.981 |
| | 58 Pentachlorophenol | 266 | 14.303 | 14.319 | (0.990) | 100161 | 10.0000 | 11.68 (M) |
| * | 59 Phenanthrene-d10 | 188 | 14.453 | 14.464 | (1.000) | 3012715 | 20.0000 | |
| | 60 Phenanthrene | 178 | 14.485 | 14.506 | (1.002) | 1775716 | 10.0000 | 9.928 |
| | 61 Anthracene | 178 | 14.560 | 14.581 | (1.007) | 1819707 | 10.0000 | 10.07 |
| | 62 Carbazole | 167 | 14.870 | 14.886 | (1.029) | 1342911 | 10.0000 | 9.883 |
| | 63 Di-n-butylphthalate | 149 | 15.623 | 15.633 | (1.081) | 1632786 | 10.0000 | 10.16 |
| | 64 Fluoranthene | 202 | 16.408 | 16.419 | (1.135) | 1898951 | 10.0000 | 9.986 |
| | 65 Pyrene | 202 | 16.750 | 16.766 | (0.894) | 1973115 | 10.0000 | 9.986 |
| $ | 66 Terphenyl-d14 | 244 | 17.103 | 17.113 | (0.913) | 1231106 | 10.0000 | 10.20 |
| | 67 Butylbenzylphthalate | 149 | 18.016 | 18.027 | (0.962) | 676501 | 10.0000 | 10.45 |
| | 68 Benzo(a)anthracene | 228 | 18.705 | 18.721 | (0.999) | 1840502 | 10.0000 | 9.964 |
| * | 69 Chrysene-d12 | 240 | 18.727 | 18.743 | (1.000) | 3283977 | 20.0000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | 18.748 | 18.759 | (1.001) | 686007 | 10.0000 | 9.835 |
| | 71 Chrysene | 228 | 18.764 | 18.791 | (1.002) | 1778051 | 10.0000 | 9.965 |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 19.031 | 19.036 | (0.953) | 908243 | 10.0000 | 9.991 |
| * | 134 Di-n-octylphthalate-d4 | 153 | 19.961 | 19.971 | (1.000) | 3087098 | 20.0000 | |
| | 73 Di-n-octylphthalate | 149 | 19.971 | 19.982 | (1.001) | 1597660 | 10.0000 | 9.896 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| 74 | Benzo(b)fluoranthene | 252 | 20.340 | 20.377 | (0.975) | 2089028 | 10.0000 | 10.05 |
| 75 | Benzo(k)fluoranthene | 252 | 20.377 | 20.377 | (0.976) | 2086289 | 10.0000 | 10.36 |
| 187 | Total Benzofluoranthenes | 252 | 20.377 | 20.409 | (0.976) | 3940835 | 20.0000 | 20.44 |
| 76 | Benzo(a)pyrene | 252 | 20.783 | 20.810 | (0.996) | 1819152 | 10.0000 | 10.20 |
| * 77 | Perylene-d12 | 264 | 20.869 | 20.879 | (1.000) | 3490837 | 20.0000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | 22.210 | 22.242 | (1.064) | 2633850 | 10.0000 | 10.38 |
| 79 | Dibenzo(a,h)anthracene | 278 | 22.236 | 22.274 | (1.066) | 2201491 | 10.0000 | 10.43 |
| 80 | Benzo(g,h,i)perylene | 276 | 22.514 | 22.562 | (1.079) | 2251972 | 10.0000 | 10.35 |
| 90 | N-Nitrosodimethylamine | 74 | 2.273 | 2.305 | (0.316) | 295463 | 10.0000 | 9.961 |
| 103 | Pyridine | 79 | 2.251 | 2.267 | (0.313) | 526462 | 10.0000 | 10.97 |
| 91 | Aniline | 93 | 6.755 | 6.760 | (0.939) | 806868 | 10.0000 | 9.413 |
| 105 | 1-methylnaphthalene | 141 | 10.580 | 10.585 | (1.143) | 759545 | 10.0000 | 9.550 |
| 93 | Benzidine | 184 | 16.697 | 16.702 | (0.892) | 381998 | 10.0000 | 8.750(M) |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | 13.262 | 13.278 | (1.096) | 947447 | 10.0000 | 10.10 |
| 143 | 1,4-Dioxane | 88 | 1.803 | 1.819 | (0.251) | 181890 | 10.0000 | 10.09 |
| $ 137 | d8-1,4-Dioxane | 96 | 1.771 | 1.781 | (0.246) | 192132 | 10.0000 | 9.776 |
| 144 | alpha-Terpineol | 59 | 9.346 | 9.362 | (1.010) | 296230 | 10.0000 | 9.753 |
| 177 | p-Benzoquinone | 82 | 5.831 | 5.836 | (0.630) | 77236 | 10.0000 | 10.72 |
| 98 | Retene | 219 | 17.338 | 17.348 | (0.926) | 623659 | 10.0000 | 10.00 |
| 99 | Perylene | 252 | 20.895 | 20.928 | (1.001) | 1716344 | 10.0000 | 9.541 |
| 133 | Butylatedhydroxytoluene | 205 | 12.327 | 12.337 | (1.019) | 749829 | 10.0000 | 9.535 |
| 115 | Tributyl Phosphate | 99 | 13.374 | 13.411 | (0.925) | 942634 | 10.0000 | 10.02 |
| 116 | Dibutyl Phenyl Phosphate | 175 | 15.078 | 15.105 | (1.043) | 732243 | 10.0000 | 10.14 |
| 117 | Butyl Diphenyl Phosphate | 94 | 16.734 | 16.745 | (0.894) | 198609 | 10.0000 | 10.20 |
| 118 | Triphenyl Phosphate | 326 | 18.315 | 18.326 | (0.978) | 376942 | 10.0000 | 10.01 |
| 123 | Acetophenone | 105 | 7.919 | 7.935 | (1.101) | 683980 | 10.0000 | 10.08 |
| 168 | Pentachlorobenzene | 250 | 12.460 | 12.471 | (1.030) | 512290 | 10.0000 | 9.990 |
| 113 | Diphenyl Oxide | 170 | 11.392 | 11.403 | (0.941) | 709337 | 10.0000 | 9.663 |
| 112 | Biphenyl | 154 | 11.199 | 11.205 | (0.925) | 1150564 | 10.0000 | 9.725 |
| 120 | 2,3,4,6-Tetrachlorophenol | 232 | 12.727 | 12.733 | (1.052) | 263701 | 10.0000 | 11.07 |
| 151 | 1,2,4,5-Tetrachlorobenzene | 216 | 10.751 | 10.756 | (0.888) | 531246 | 10.0000 | 9.929 |
| 110 | Tetrachloroguaiacol | 247 | 14.431 | 14.453 | (0.999) | 400245 | 20.0000 | 22.42 |
| 109 | 3,4,5-Trichloroguaiacol | 213 | 12.823 | 12.840 | (0.887) | 204293 | 10.0000 | 10.40 |
| 181 | 3,4,6-Trichloroguaiacol | 211 | 12.941 | 12.952 | (1.799) | 245866 | 10.0000 | 10.36 |
| 108 | 4,5,6-Trichloroguaiacol | 213 | 13.855 | 13.871 | (1.145) | 211647 | 10.0000 | 10.15 |
| 184 | 3,4-Dichloroguaiacol | 192 | 11.296 | 11.306 | (1.570) | 222024 | 10.0000 | 10.37 |
| 107 | 4,5-Dichloroguaiacol | 192 | 12.092 | 12.108 | (0.999) | 563729 | 20.0000 | 20.32 |
| 182 | 4,6-Dichloroguaiacol | 192 | 12.092 | 12.108 | (1.681) | 563288 | 20.0000 | 20.26 |
| 185 | 4-Chloroguaiacol | 115 | 10.227 | 10.233 | (1.422) | 105575 | 5.00000 | 5.103 |
| 186 | Carbaryl | 144 | 15.292 | 15.324 | (1.058) | 694562 | 10.0000 | 10.22 |
| 178 | 2-Benzyl-4-Chlorophenol | 218 | 15.265 | 15.297 | (1.056) | 319540 | 10.0000 | 10.81 |
| 106 | Guaiacol | 124 | 8.203 | 8.213 | (1.140) | 426590 | 10.0000 | 9.886 |

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05231204.D
Lab Smp Id: IC100523
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Misc Info: 12-

Calibration Date: 23-MAY-2012
Calibration Time: 13:34
Client Smp ID: IC100523
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 963757 | 481878 | 1927514 | 859474 | -10.82 |
| 27 Naphthalene-d8 | 3430476 | 1715238 | 6860952 | 3055832 | -10.92 |
| 42 Acenaphthene-d10 | 2259168 | 1129584 | 4518336 | 1920679 | -14.98 |
| 59 Phenanthrene-d10 | 3446677 | 1723338 | 6893354 | 3012715 | -12.59 |
| 69 Chrysene-d12 | 3961525 | 1980762 | 7923050 | 3283977 | -17.10 |
| 134 Di-n-octylphthala | 3758743 | 1879372 | 7517486 | 3087098 | -17.87 |
| 77 Perylene-d12 | 4154109 | 2077054 | 8308218 | 3490837 | -15.97 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 7.19 | 6.69 | 7.69 | 7.19 | 0.03 |
| 27 Naphthalene-d8 | 9.26 | 8.76 | 9.76 | 9.25 | -0.03 |
| 42 Acenaphthene-d10 | 12.11 | 11.61 | 12.61 | 12.10 | -0.02 |
| 59 Phenanthrene-d10 | 14.46 | 13.96 | 14.96 | 14.45 | -0.02 |
| 69 Chrysene-d12 | 18.73 | 18.23 | 19.23 | 18.73 | -0.04 |
| 134 Di-n-octylphthala | 19.96 | 19.46 | 20.46 | 19.96 | -0.02 |
| 77 Perylene-d12 | 20.87 | 20.37 | 21.37 | 20.87 | -0.01 |

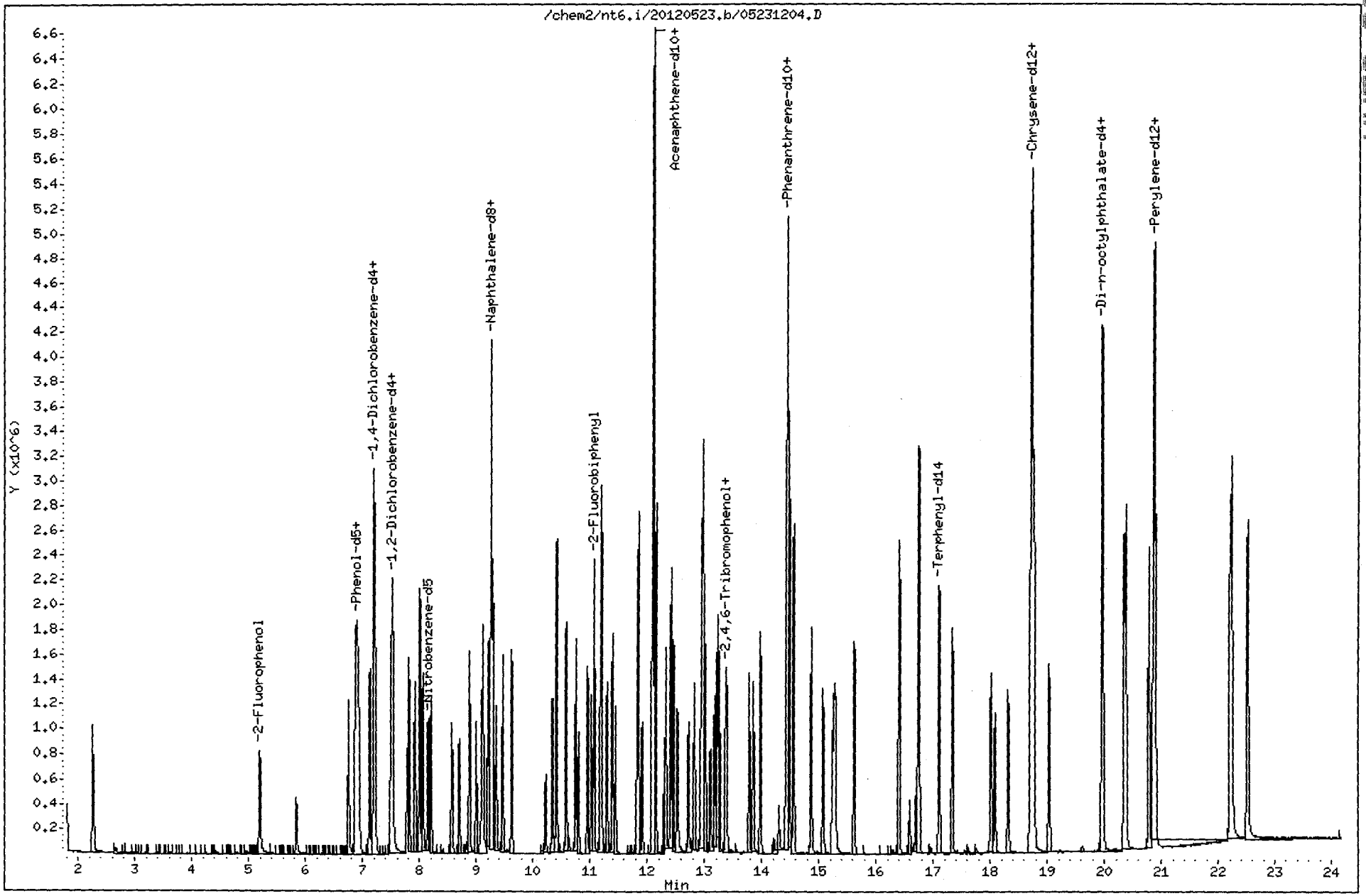
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20120523.b/05231204.D
Date : 23-MAY-2012 15:15
Client ID: IC100523
Sample Info: IC100523,

Instrument: nt6.i

Operator: JZ
Column diameter: 0.32

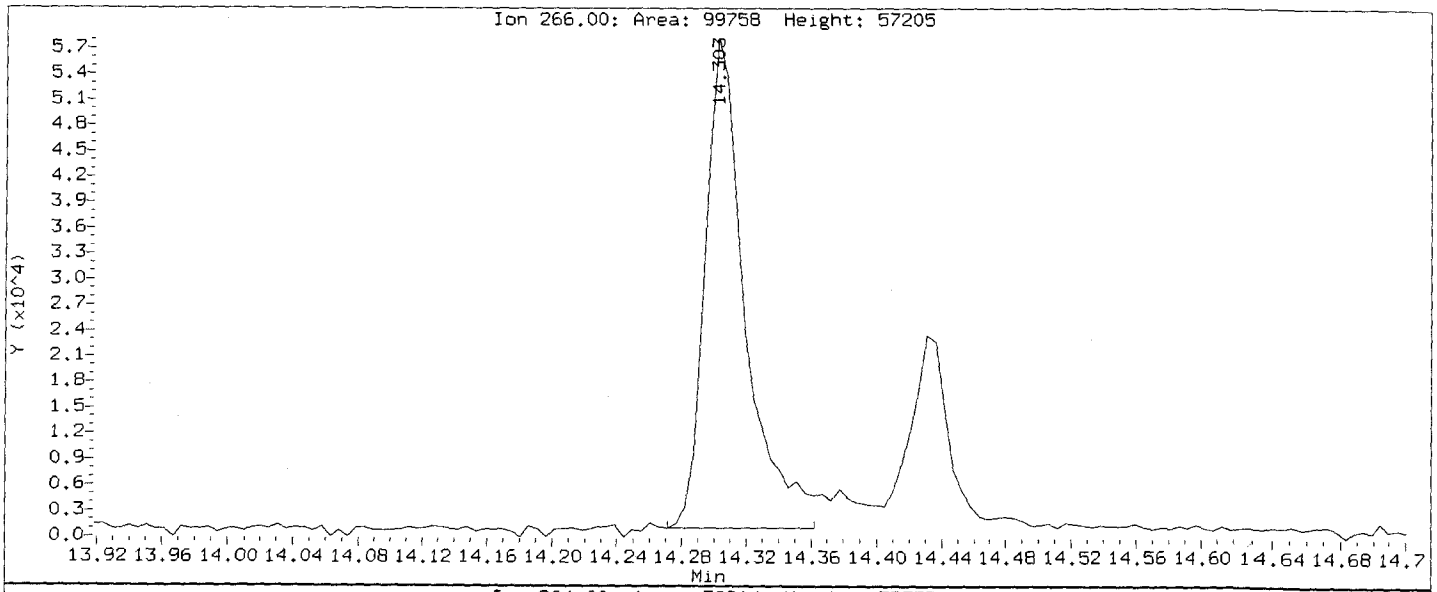
Column phase: ZB-5msi

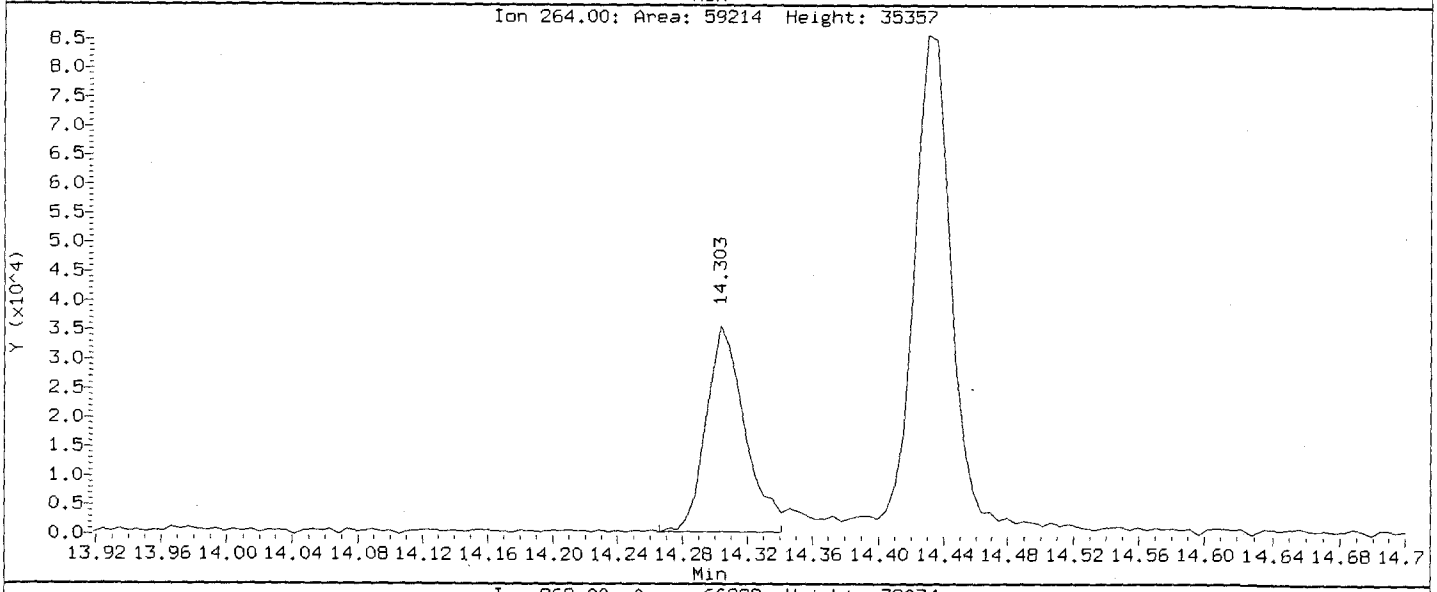


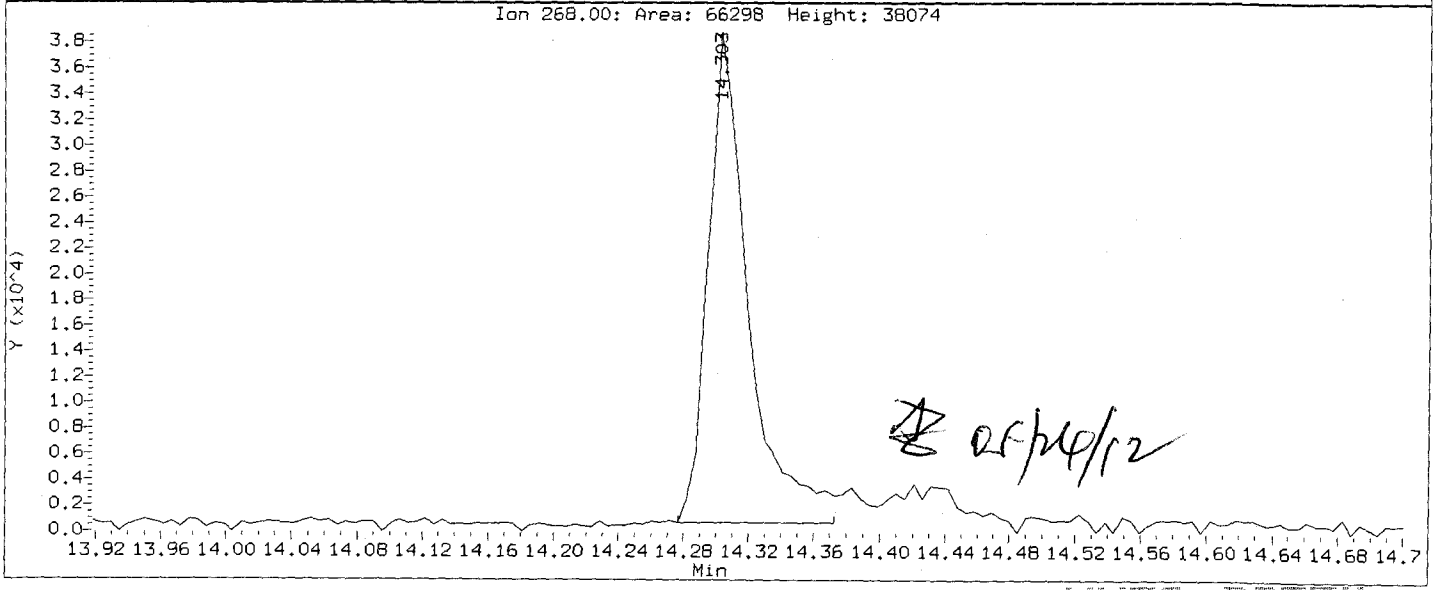

05523:05573

Data File: /chem2/nt6.i/20120523.b/05231204.D
Injection Date: 23-MAY-2012 15:15
Instrument: nt6.i
Client Sample ID: IC100523

Compound: Pentachlorophenol
CAS Number: 87-86-5



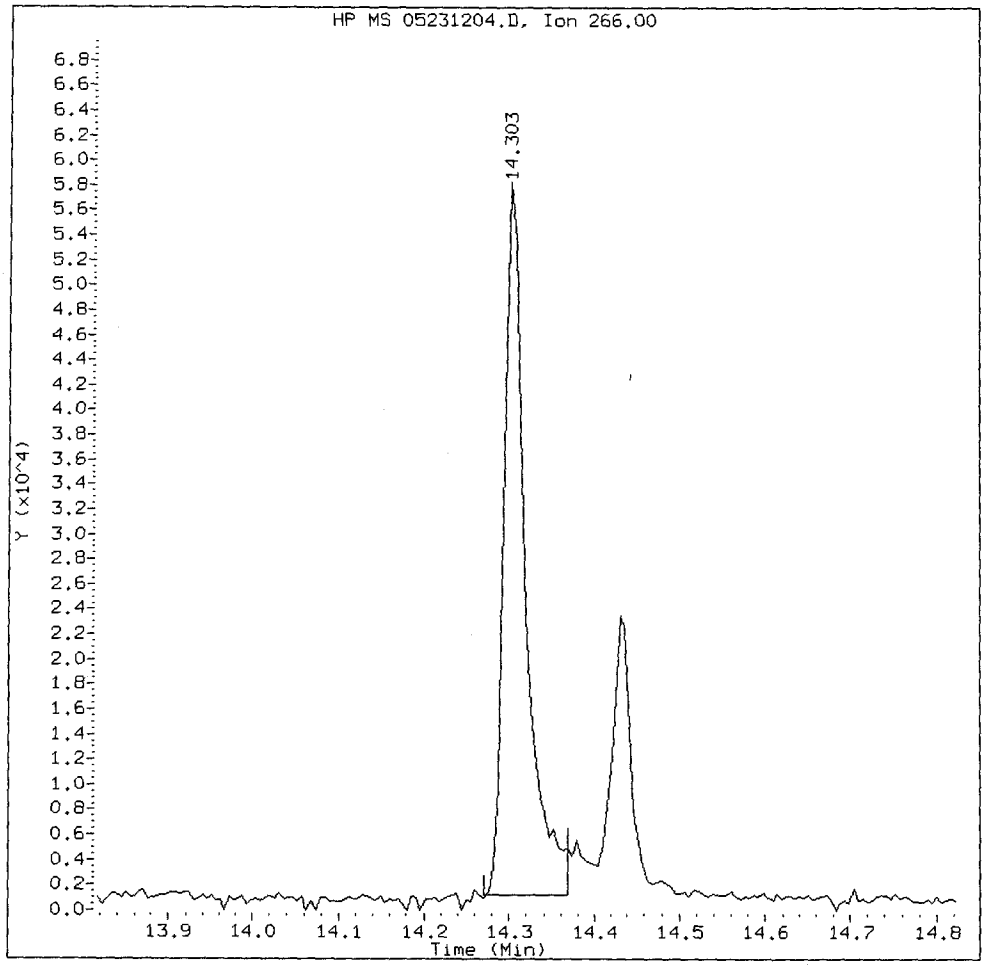




05/24/12

IC100523, /chem2/nt6.i/20120523.b/05231204.D

Pentachlorophenol Amount: 11.68 Area: 100161




MANUAL INTEGRATION for Pentachlorophenol

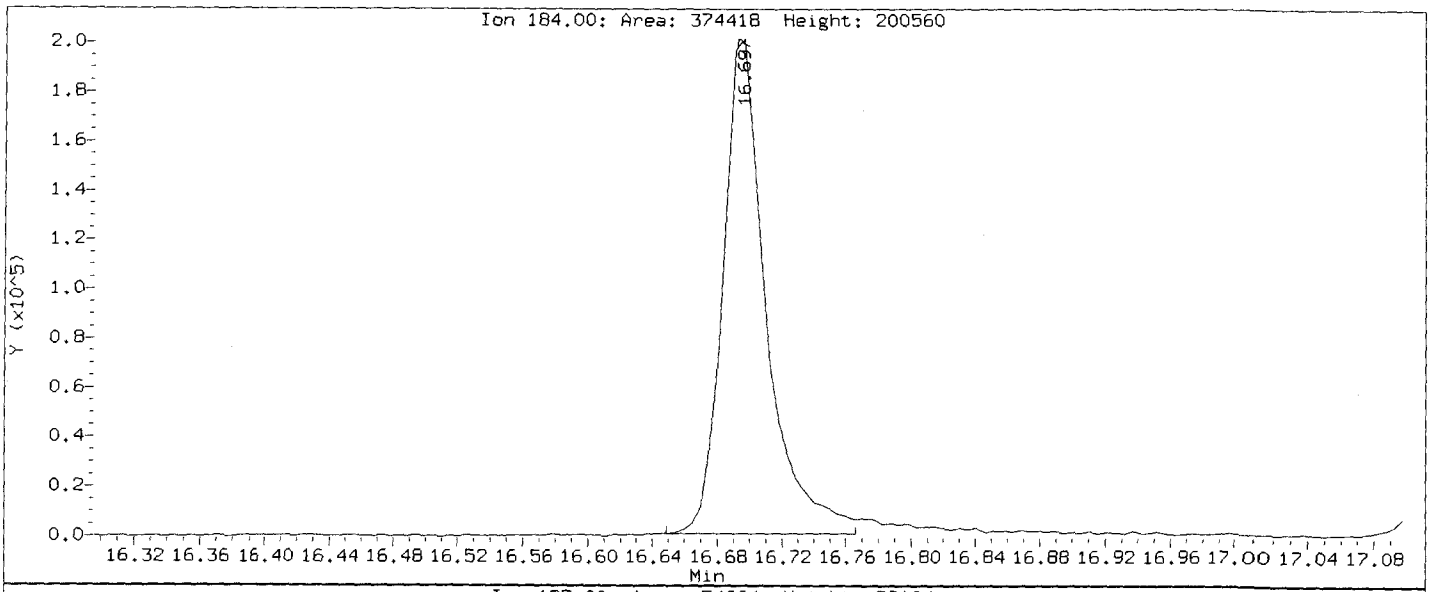
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

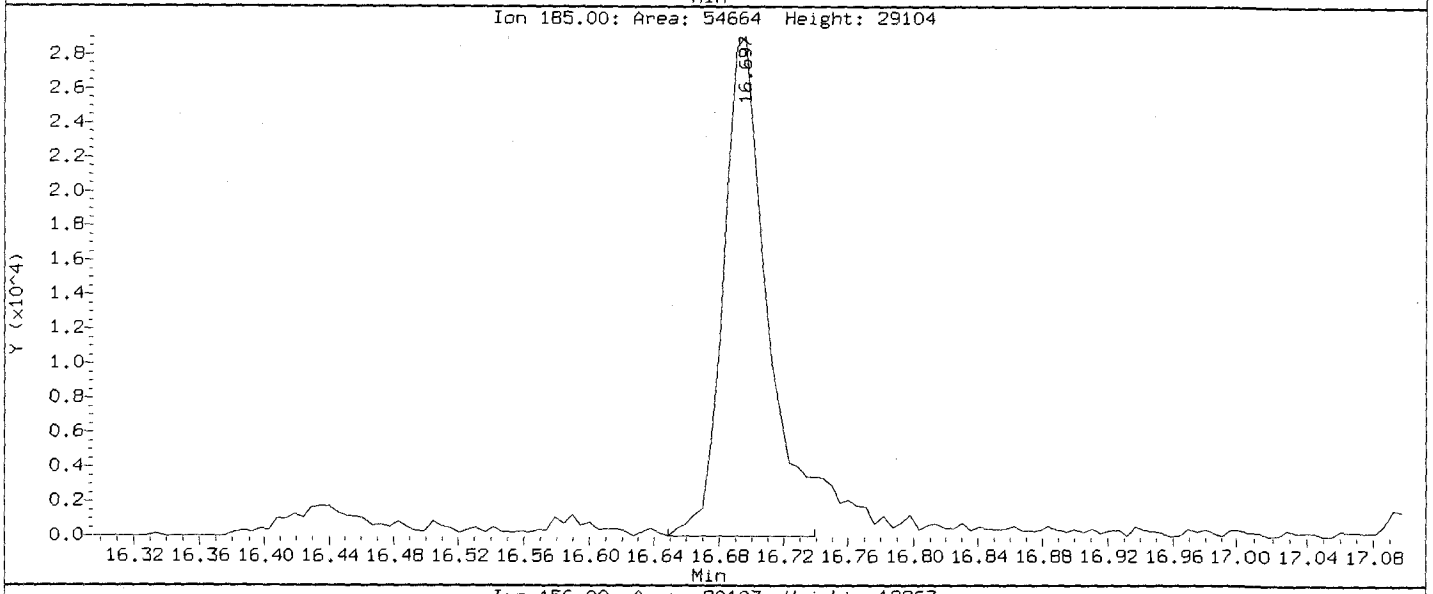
5. Other _____

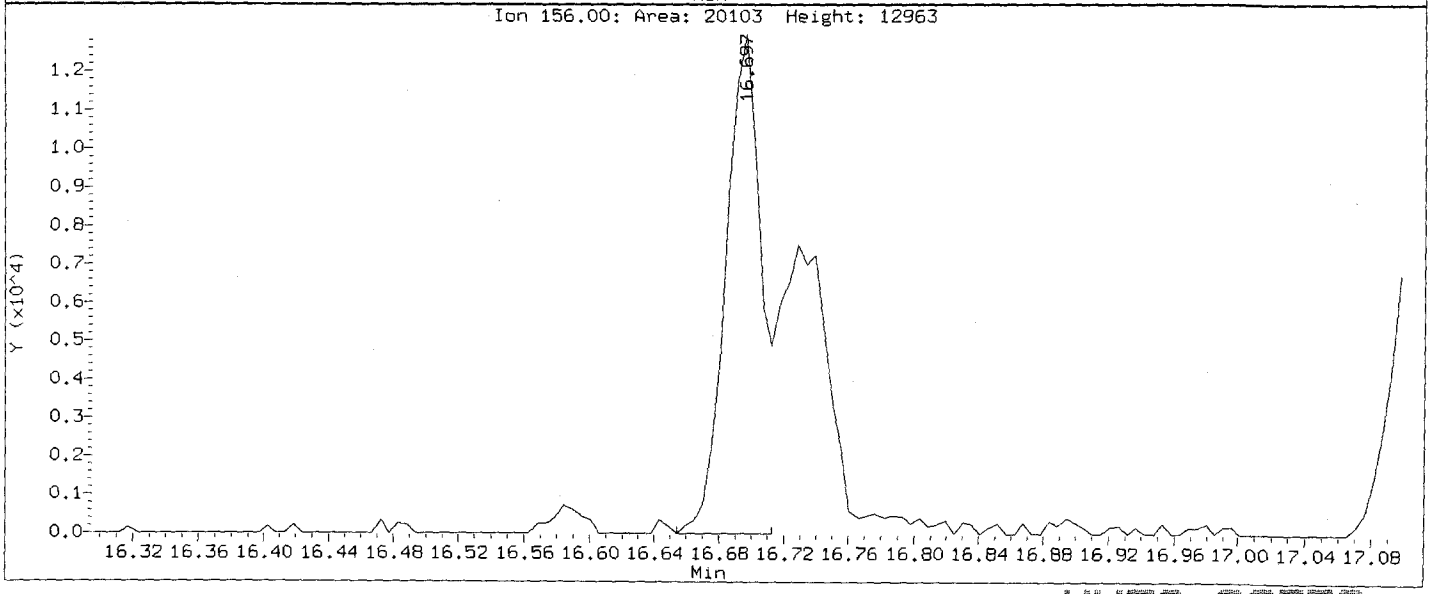
Analyst: _____ Date: 05/24/12

Data File: /chem2/nt6.i/20120523.b/05231204.D
Injection Date: 23-MAY-2012 15:15
Instrument: nt6.i
Client Sample ID: IC100523

Compound: Benzidine
CAS Number:

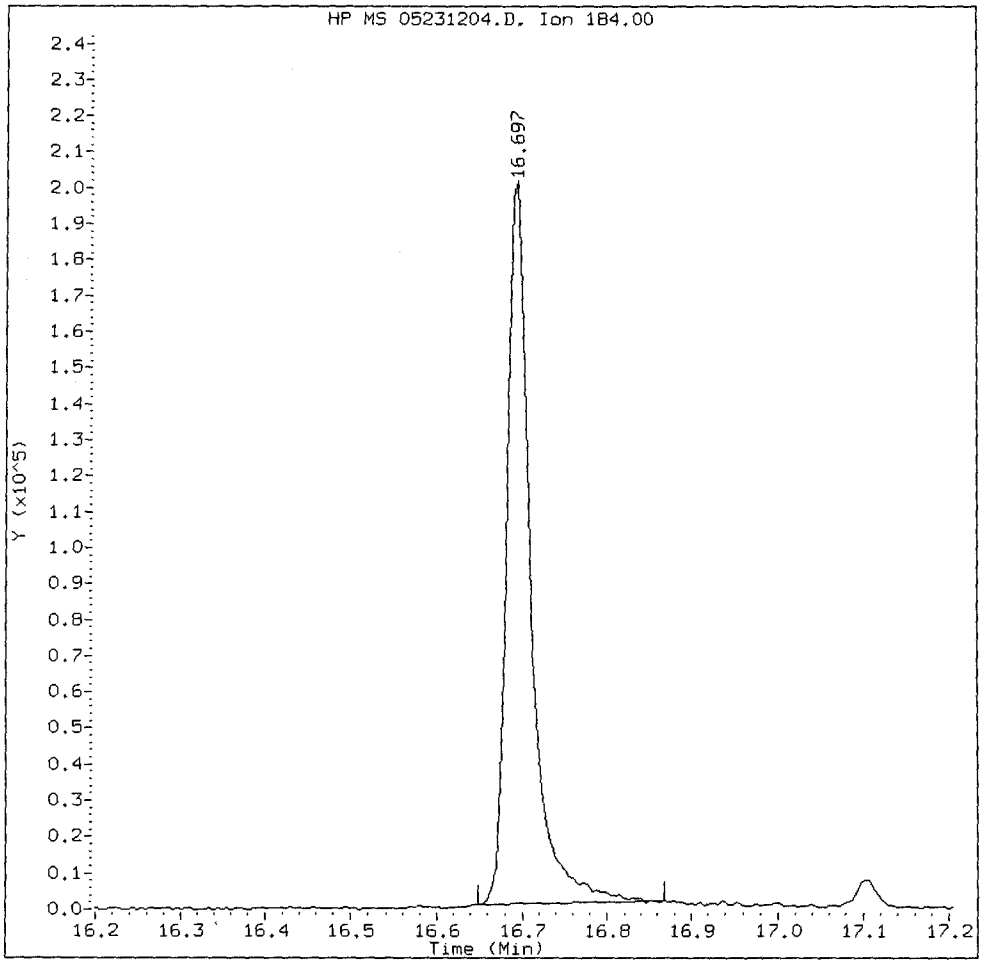


IC100523, /chem2/nt6.i/20120523.b/05231204.D

Benzidine Amount: 8.75 Area: 381998




MANUAL INTEGRATION for Benzidine

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

CO-ELUTION SUMMARY FOR FILE - 05231204.D

Lab ID: IC100523, Method: SW846052312.m, Instrument: nt6.i, Date: 23-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120523.b/05231201.D
Lab Smp Id: IC250523 Client Smp ID: IC250523
Inj Date : 23-MAY-2012 13:34
Operator : JZ Inst ID: nt6.i
Smp Info : IC250523,
Misc Info : 12-
Comment : 1ul Injection
Method : /chem2/nt6.i/20120523.b/SW846052312.m
Meth Date : 24-May-2012 12:56 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 13:34 Cal File: 05231201.D
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

05/23 24/12

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| $ | 1 2-Fluorophenol | 112 | 5.187 | 5.194 | (0.721) | 1315160 | 25.0000 | 24.34 |
| $ | 2 Phenol-d5 | 99 | 6.870 | 6.877 | (0.955) | 1575166 | 25.0000 | 24.14 |
| | 3 Phenol | 94 | 6.886 | 6.894 | (0.958) | 1995153 | 25.0000 | 24.38 |
| $ | 5 2-Chlorophenol-d4 | 132 | 6.907 | 6.909 | (0.961) | 1514451 | 25.0000 | 23.82 |
| | 4 Bis(2-Chloroethyl)ether | 93 | 6.897 | 6.899 | (0.959) | 1333301 | 25.0000 | 24.41 |
| | 6 2-Chlorophenol | 128 | 6.934 | 6.936 | (0.964) | 1796022 | 25.0000 | 23.98 |
| | 7 1,3-Dichlorobenzene | 146 | 7.121 | 7.129 | (0.990) | 1762297 | 25.0000 | 23.50 |
| * | 8 1,4-Dichlorobenzene-d4 | 152 | 7.191 | 7.193 | (1.000) | 963757 | 20.0000 | |
| | 9 1,4-Dichlorobenzene | 146 | 7.217 | 7.220 | (1.004) | 1771473 | 25.0000 | 23.48 |
| $ | 10 1,2-Dichlorobenzene-d4 | 152 | 7.495 | 7.497 | (1.042) | 1076886 | 25.0000 | 22.99 |
| | 12 1,2-Dichlorobenzene | 146 | 7.516 | 7.519 | (1.045) | 1703628 | 25.0000 | 23.78 |
| | 11 Benzyl alcohol | 108 | 7.532 | 7.545 | (1.048) | 1011150 | 25.0000 | 26.22 |
| | 14 2,2'-oxybis(1-Chloropropane) | 45 | 7.784 | 7.791 | (1.082) | 1465533 | 25.0000 | 23.41 |
| | 13 2-Methylphenol | 108 | 7.816 | 7.823 | (1.087) | 1499738 | 25.0000 | 24.34 |
| | 17 Hexachloroethane | 117 | 8.003 | 8.005 | (1.113) | 632038 | 25.0000 | 24.32 |
| | 16 N-Nitroso-di-n-propylamine | 70 | 8.008 | 8.026 | (1.114) | 877266 | 25.0000 | 23.78 |
| | 15 4-Methylphenol | 108 | 8.056 | 8.069 | (1.120) | 1588598 | 25.0000 | 25.19 |
| $ | 18 Nitrobenzene-d5 | 82 | 8.152 | 8.159 | (0.881) | 1296148 | 25.0000 | 23.79 |
| | 19 Nitrobenzene | 77 | 8.179 | 8.187 | (0.883) | 1355408 | 25.0000 | 23.98 |
| | 20 Isophorone | 82 | 8.574 | 8.593 | (0.926) | 1965007 | 25.0000 | 23.56 |
| | 21 2-Nitrophenol | 139 | 8.702 | 8.710 | (0.940) | 999440 | 25.0000 | 25.05 |
| | 22 2,4-Dimethylphenol | 107 | 8.879 | 8.892 | (0.959) | 1512176 | 25.0000 | 25.01 |
| | 23 Bis(2-Chloroethoxy)methane | 93 | 9.002 | 9.009 | (0.972) | 1489111 | 25.0000 | 23.81 |
| | 24 Benzoic acid | 105 | 9.188 | 9.303 | (0.992) | 1661998 | 50.0000 | 62.88 |
| | 25 2,4-Dichlorophenol | 162 | 9.114 | 9.121 | (0.984) | 1527091 | 25.0000 | 25.96 |
| | 26 1,2,4-Trichlorobenzene | 180 | 9.210 | 9.218 | (0.995) | 1496674 | 25.0000 | 23.58 |
| * | 27 Naphthalene-d8 | 136 | 9.258 | 9.266 | (1.000) | 3430476 | 20.0000 | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 28 Naphthalene | 128 | 9.290 | 9.298 | (1.003) | 4244756 | 25.0000 | 22.13 |
| | 29 4-Chloroaniline | 127 | 9.466 | 9.479 | (1.022) | 1983504 | 25.0000 | 23.79 |
| | 30 Hexachlorobutadiene | 225 | 9.627 | 9.629 | (1.040) | 914673 | 25.0000 | 23.72 |
| | 31 4-Chloro-3-methylphenol | 107 | 10.337 | 10.345 | (1.117) | 1258577 | 25.0000 | 26.83 |
| | 32 2-Methylnaphthalene | 141 | 10.412 | 10.420 | (1.125) | 2557354 | 25.0000 | 22.47 |
| | 33 Hexachlorocyclopentadiene | 237 | 10.796 | 10.799 | (0.892) | 866501 | 25.0000 | 28.43 |
| | 34 2,4,6-Trichlorophenol | 196 | 10.957 | 10.964 | (0.905) | 1142760 | 25.0000 | 25.82 |
| | 35 2,4,5-Trichlorophenol | 196 | 11.026 | 11.029 | (0.911) | 1192248 | 25.0000 | 28.14 |
| $ | 36 2-Fluorobiphenyl | 172 | 11.074 | 11.076 | (0.915) | 3031186 | 25.0000 | 21.60 |
| | 37 2-Chloronaphthalene | 162 | 11.186 | 11.189 | (0.924) | 2743232 | 25.0000 | 22.85 |
| | 38 2-Nitroaniline | 65 | 11.448 | 11.461 | (0.946) | 682563 | 25.0000 | 24.61 |
| | 39 Dimethylphthalate | 163 | 11.838 | 11.857 | (0.978) | 2693238 | 25.0000 | 21.67 |
| | 40 Acenaphthylene | 152 | 11.854 | 11.862 | (0.979) | 4285095 | 25.0000 | 21.44 |
| | 41 2,6-Dinitrotoluene | 165 | 11.918 | 11.937 | (0.985) | 680270 | 25.0000 | 23.60 |
| * | 42 Acenaphthene-d10 | 164 | 12.105 | 12.108 | (1.000) | 2259168 | 20.0000 | |
| | 43 3-Nitroaniline | 138 | 12.127 | 12.150 | (1.002) | 828045 | 25.0000 | 23.54 |
| | 44 Acenaphthene | 153 | 12.153 | 12.166 | (1.004) | 2762439 | 25.0000 | 21.78 |
| | 45 2,4-Dinitrophenol | 184 | 12.298 | 12.316 | (1.016) | 811764 | 50.0000 | 84.13 |
| | 46 Dibenzofuran | 168 | 12.420 | 12.434 | (1.026) | 3924162 | 25.0000 | 20.75 |
| | 47 4-Nitrophenol | 109 | 12.517 | 12.530 | (1.034) | 255596 | 25.0000 | 29.40 |
| | 48 2,4-Dinitrotoluene | 165 | 12.538 | 12.556 | (1.036) | 883997 | 25.0000 | 24.36 |
| | 50 Diethylphthalate | 149 | 12.992 | 13.000 | (1.073) | 2533333 | 25.0000 | 21.45 |
| | 49 Fluorene | 166 | 12.971 | 12.984 | (1.071) | 3270965 | 25.0000 | 22.14 |
| | 51 4-Chlorophenyl-phenylether | 204 | 13.019 | 13.027 | (1.075) | 1552188 | 25.0000 | 22.40 |
| | 52 4-Nitroaniline | 138 | 13.120 | 13.149 | (1.084) | 718003 | 25.0000 | 23.43 |
| | 53 4,6-Dinitro-2-methylphenol | 198 | 13.190 | 13.214 | (0.912) | 1302430 | 50.0000 | 57.64 |
| | 54 N-Nitrosodiphenylamine | 169 | 13.232 | 13.251 | (0.915) | 2049146 | 25.0000 | 22.93 |
| $ | 55 2,4,6-Tribromophenol | 330 | 13.398 | 13.405 | (1.107) | 655080 | 25.0000 | 23.17 |
| | 56 4-Bromophenyl-phenylether | 248 | 13.788 | 13.790 | (0.954) | 999870 | 25.0000 | 22.81 |
| | 57 Hexachlorobenzene | 284 | 13.986 | 13.993 | (0.967) | 1255518 | 25.0000 | 22.82 |
| | 58 Pentachlorophenol | 266 | 14.306 | 14.319 | (0.990) | 530749 | 25.0000 | 38.97 |
| * | 59 Phenanthrene-d10 | 188 | 14.456 | 14.464 | (1.000) | 3446677 | 20.0000 | |
| | 60 Phenanthrene | 178 | 14.493 | 14.506 | (1.003) | 4266599 | 25.0000 | 21.75 |
| | 61 Anthracene | 178 | 14.563 | 14.581 | (1.007) | 4397490 | 25.0000 | 22.09 |
| | 62 Carbazole | 167 | 14.873 | 14.886 | (1.029) | 3290501 | 25.0000 | 22.01 |
| | 63 Di-n-butylphthalate | 149 | 15.626 | 15.633 | (1.081) | 4087520 | 25.0000 | 22.86 |
| | 64 Fluoranthene | 202 | 16.411 | 16.419 | (1.135) | 4680185 | 25.0000 | 22.29 |
| | 65 Pyrene | 202 | 16.753 | 16.766 | (0.894) | 4915730 | 25.0000 | 21.57 |
| $ | 66 Terphenyl-d14 | 244 | 17.106 | 17.113 | (0.913) | 3099271 | 25.0000 | 22.10 |
| | 67 Butylbenzylphthalate | 149 | 18.019 | 18.027 | (0.962) | 1842894 | 25.0000 | 23.94 |
| | 68 Benzo(a)anthracene | 228 | 18.708 | 18.721 | (0.999) | 4759419 | 25.0000 | 22.17 |
| * | 69 Chrysene-d12 | 240 | 18.735 | 18.743 | (1.000) | 3961525 | 20.0000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | 18.751 | 18.759 | (1.001) | 1850856 | 25.0000 | 22.68 |
| | 71 Chrysene | 228 | 18.772 | 18.791 | (1.002) | 4580014 | 25.0000 | 22.10 |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 19.034 | 19.036 | (0.953) | 2442106 | 25.0000 | 22.73 |
| * | 134 Di-n-octylphthalate-d4 | 153 | 19.964 | 19.971 | (1.000) | 3758743 | 20.0000 | |
| | 73 Di-n-octylphthalate | 149 | 19.974 | 19.982 | (1.001) | 4154486 | 25.0000 | 21.98 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| 74 | Benzo(b)fluoranthene | 252 | 20.354 | 20.377 | (0.975) | 5514302 | 25.0000 | 22.91 |
| 75 | Benzo(k)fluoranthene | 252 | 20.386 | 20.377 | (0.977) | 5001160 | 25.0000 | 21.76 |
| 187 | Total Benzofluoranthenes | 252 | 20.386 | 20.409 | (0.977) | 9877514 | 50.0000 | 44.60 |
| 76 | Benzo(a)pyrene | 252 | 20.786 | 20.810 | (0.996) | 4679844 | 25.0000 | 22.73 |
| * 77 | Perylene-d12 | 264 | 20.872 | 20.879 | (1.000) | 4154109 | 20.0000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | 22.218 | 22.242 | (1.064) | 6847369 | 25.0000 | 23.21 |
| 79 | Dibenzo(a,h)anthracene | 278 | 22.245 | 22.274 | (1.066) | 5714466 | 25.0000 | 23.27 |
| 80 | Benzo(g,h,i)perylene | 276 | 22.528 | 22.562 | (1.079) | 5793700 | 25.0000 | 22.97 |
| 90 | N-Nitrosodimethylamine | 74 | 2.276 | 2.305 | (0.316) | 782520 | 25.0000 | 23.88 |
| 103 | Pyridine | 79 | 2.254 | 2.267 | (0.314) | 1384362 | 25.0000 | 25.55 |
| 91 | Aniline | 93 | 6.758 | 6.760 | (0.940) | 2166689 | 25.0000 | 23.11 |
| 105 | 1-methylnaphthalene | 141 | 10.583 | 10.585 | (1.143) | 1908529 | 25.0000 | 22.18 |
| 93 | Benzidine | 184 | 16.700 | 16.702 | (0.891) | 1559409 | 25.0000 | 27.90 |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | 13.265 | 13.278 | (1.096) | 2497336 | 25.0000 | 23.18 |
| 143 | 1,4-Dioxane | 88 | 1.806 | 1.819 | (0.251) | 479900 | 25.0000 | 24.04 |
| $ 137 | d8-1,4-Dioxane | 96 | 1.774 | 1.781 | (0.247) | 505541 | 25.0000 | 23.42 |
| 144 | alpha-Terpineol | 59 | 9.354 | 9.362 | (1.010) | 760206 | 25.0000 | 22.91 |
| 177 | p-Benzoquinone | 82 | 5.834 | 5.836 | (0.630) | 237191 | 25.0000 | 27.73 |
| 98 | Retene | 219 | 17.341 | 17.348 | (0.926) | 1690121 | 25.0000 | 23.05 |
| 99 | Perylene | 252 | 20.904 | 20.928 | (1.002) | 4343754 | 25.0000 | 21.29 |
| 133 | Butylatedhydroxytoluene | 205 | 12.330 | 12.337 | (1.019) | 2064529 | 25.0000 | 22.93 |
| 115 | Tributyl Phosphate | 99 | 13.382 | 13.411 | (0.926) | 2378963 | 25.0000 | 22.76 |
| 116 | Dibutyl Phenyl Phosphate | 175 | 15.086 | 15.105 | (1.044) | 1899261 | 25.0000 | 23.46 |
| 117 | Butyl Diphenyl Phosphate | 94 | 16.737 | 16.745 | (0.893) | 550165 | 25.0000 | 23.80 |
| 118 | Triphenyl Phosphate | 326 | 18.318 | 18.326 | (0.978) | 1056385 | 25.0000 | 23.66 |
| 123 | Acetophenone | 105 | 7.922 | 7.935 | (1.102) | 1786242 | 25.0000 | 23.84 |
| 168 | Pentachlorobenzene | 250 | 12.463 | 12.471 | (1.030) | 1335834 | 25.0000 | 22.80 |
| 113 | Diphenyl Oxide | 170 | 11.395 | 11.403 | (0.941) | 1855023 | 25.0000 | 22.27 |
| 112 | Biphenyl | 154 | 11.197 | 11.205 | (0.925) | 2892135 | 25.0000 | 21.70 |
| 120 | 2,3,4,6-Tetrachlorophenol | 232 | 12.725 | 12.733 | (1.051) | 813226 | 25.0000 | 27.91 |
| 151 | 1,2,4,5-Tetrachlorobenzene | 216 | 10.754 | 10.756 | (0.888) | 1391605 | 25.0000 | 22.77 |
| 110 | Tetrachloroguaiacol | 247 | 14.440 | 14.453 | (0.999) | 1114343 | 50.0000 | 53.35 |
| 109 | 3,4,5-Trichloroguaiacol | 213 | 12.832 | 12.840 | (0.888) | 525905 | 25.0000 | 23.78 |
| 181 | 3,4,6-Trichloroguaiacol | 211 | 12.944 | 12.952 | (1.800) | 640830 | 25.0000 | 24.31 |
| 108 | 4,5,6-Trichloroguaiacol | 213 | 13.858 | 13.871 | (1.145) | 538400 | 25.0000 | 22.64 |
| 184 | 3,4-Dichloroguaiacol | 192 | 11.299 | 11.306 | (1.571) | 590327 | 25.0000 | 24.69 |
| 107 | 4,5-Dichloroguaiacol | 192 | 12.095 | 12.108 | (0.999) | 1443225 | 50.0000 | 45.54 |
| 182 | 4,6-Dichloroguaiacol | 192 | 12.095 | 12.108 | (1.682) | 1438898 | 50.0000 | 47.06 |
| 185 | 4-Chloroguaiacol | 115 | 10.225 | 10.233 | (1.422) | 282957 | 12.5000 | 12.27 |
| 186 | Carbaryl | 144 | 15.300 | 15.324 | (1.058) | 2143169 | 25.0000 | 26.88 |
| 178 | 2-Benzyl-4-Chlorophenol | 218 | 15.273 | 15.297 | (1.057) | 875943 | 25.0000 | 25.67 |
| 106 | Guaiacol | 124 | 8.206 | 8.213 | (1.141) | 1140575 | 25.0000 | 23.91 |

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05231201.D
Lab Smp Id: IC250523
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Misc Info: 12-

Calibration Date: 23-MAY-2012
Calibration Time: 13:34
Client Smp ID: IC250523
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 963757 | 481878 | 1927514 | 963757 | 0.00 |
| 27 Naphthalene-d8 | 3430476 | 1715238 | 6860952 | 3430476 | 0.00 |
| 42 Acenaphthene-d10 | 2259168 | 1129584 | 4518336 | 2259168 | 0.00 |
| 59 Phenanthrene-d10 | 3446677 | 1723338 | 6893354 | 3446677 | 0.00 |
| 69 Chrysene-d12 | 3961525 | 1980762 | 7923050 | 3961525 | 0.00 |
| 134 Di-n-octylphthala | 3758743 | 1879372 | 7517486 | 3758743 | 0.00 |
| 77 Perylene-d12 | 4154109 | 2077054 | 8308218 | 4154109 | 0.00 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 7.19 | 6.69 | 7.69 | 7.19 | 0.00 |
| 27 Naphthalene-d8 | 9.26 | 8.76 | 9.76 | 9.26 | 0.00 |
| 42 Acenaphthene-d10 | 12.11 | 11.61 | 12.61 | 12.11 | 0.00 |
| 59 Phenanthrene-d10 | 14.46 | 13.96 | 14.96 | 14.46 | 0.00 |
| 69 Chrysene-d12 | 18.73 | 18.23 | 19.23 | 18.73 | 0.00 |
| 134 Di-n-octylphthala | 19.96 | 19.46 | 20.46 | 19.96 | 0.00 |
| 77 Perylene-d12 | 20.87 | 20.37 | 21.37 | 20.87 | 0.00 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

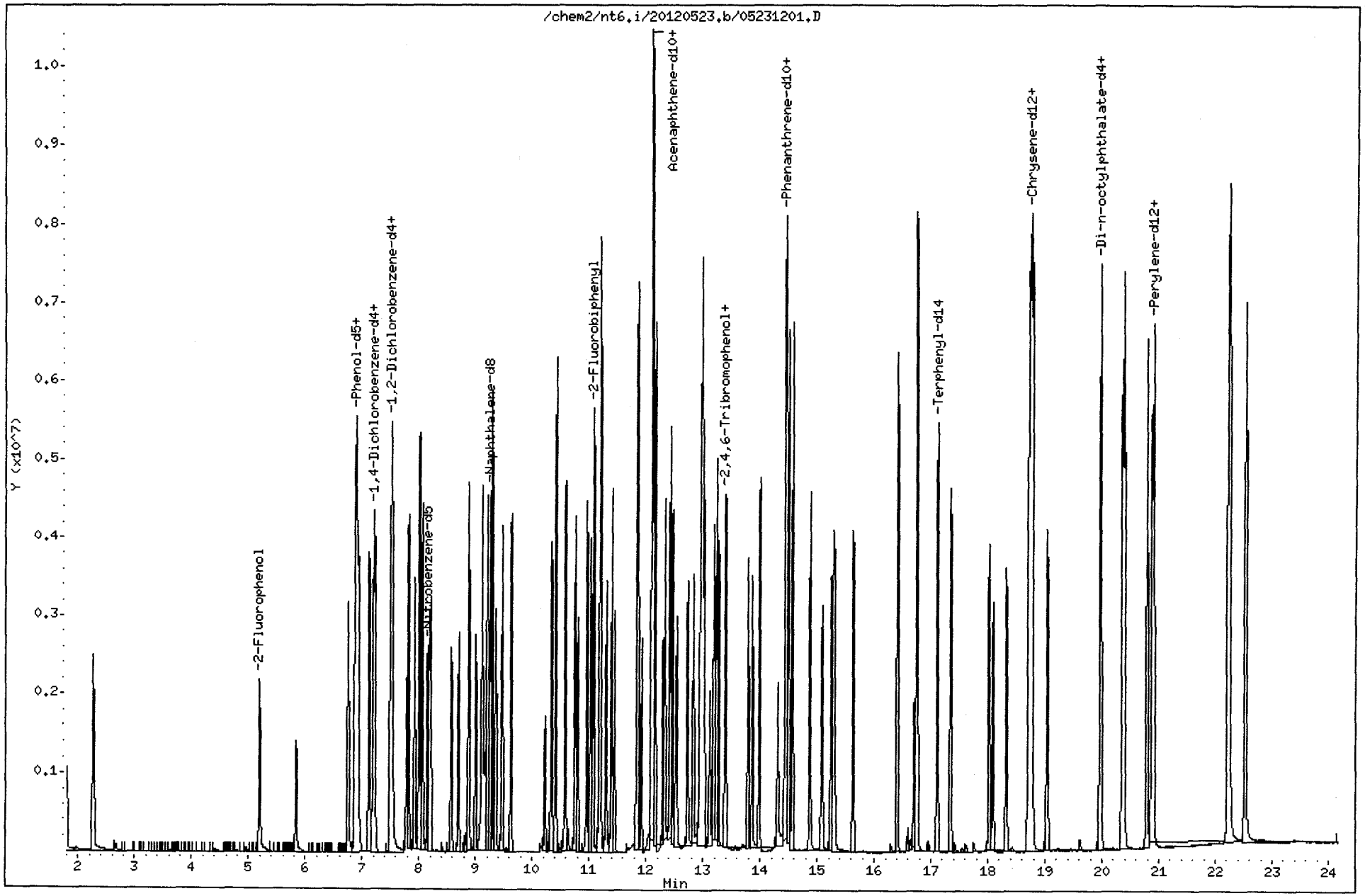
Data File: /chem2/nt6.i/20120523.b/05231201.D
Date : 23-MAY-2012 13:34
Client ID: IC250523
Sample Info: IC250523,

Column phase: ZB-5msi

Instrument: nt6.i

Operator: JZ
Column diameter: 0.32






UU52:00583

CO-ELUTION SUMMARY FOR FILE - 05231201.D

Lab ID: IC250523, Method: SW846052312.m, Instrument: nt6.i, Date: 23-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120523.b/05231205.D
Lab Smp Id: IC400523 Client Smp ID: IC400523
Inj Date : 23-MAY-2012 15:48
Operator : JZ Inst ID: nt6.i
Smp Info : IC400523,
Misc Info : 12-
Comment : 1ul Injection
Method : /chem2/nt6.i/20120523.b/SW846052312.m
Meth Date : 24-May-2012 12:56 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 15:48 Cal File: 05231205.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

AMOUNTS 05/24/12

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CAL-AMT (ug/mL) | ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| $ | 1 2-Fluorophenol | 112 | 5.189 | 5.194 | (0.721) | 2188127 | 40.0000 | 44.57 |
| $ | 2 Phenol-d5 | 99 | 6.872 | 6.877 | (0.955) | 2581093 | 40.0000 | 43.75 |
| | 3 Phenol | 94 | 6.888 | 6.894 | (0.958) | 2943416 | 40.0000 | 40.59 |
| $ | 5 2-Chlorophenol-d4 | 132 | 6.909 | 6.909 | (0.961) | 2467252 | 40.0000 | 43.11 |
| | 4 Bis(2-Chloroethyl)ether | 93 | 6.898 | 6.899 | (0.959) | 2127461 | 40.0000 | 43.24 |
| | 6 2-Chlorophenol | 128 | 6.936 | 6.936 | (0.964) | 2649332 | 40.0000 | 40.06 |
| | 7 1,3-Dichlorobenzene | 146 | 7.128 | 7.129 | (0.991) | 2801357 | 40.0000 | 41.83 |
| * | 8 1,4-Dichlorobenzene-d4 | 152 | 7.192 | 7.193 | (1.000) | 850778 | 20.0000 | |
| | 9 1,4-Dichlorobenzene | 146 | 7.219 | 7.220 | (1.004) | 2776027 | 40.0000 | 41.34 |
| $ | 10 1,2-Dichlorobenzene-d4 | 152 | 7.497 | 7.497 | (1.042) | 1759908 | 40.0000 | 42.02 |
| | 12 1,2-Dichlorobenzene | 146 | 7.518 | 7.519 | (1.045) | 2690679 | 40.0000 | 42.02 |
| | 11 Benzyl alcohol | 108 | 7.534 | 7.545 | (1.048) | 1712439 | 40.0000 | 47.84 |
| | 14 2,2'-oxybis(1-Chloropropane) | 45 | 7.785 | 7.791 | (1.082) | 2337774 | 40.0000 | 41.82 |
| | 13 2-Methylphenol | 108 | 7.817 | 7.823 | (1.087) | 2268186 | 40.0000 | 41.35 |
| | 17 Hexachloroethane | 117 | 8.004 | 8.005 | (1.113) | 1015633 | 40.0000 | 43.35 |
| | 16 N-Nitroso-di-n-propylamine | 70 | 8.015 | 8.026 | (1.114) | 1452272 | 40.0000 | 43.60 |
| | 15 4-Methylphenol | 108 | 8.063 | 8.069 | (1.121) | 2384576 | 40.0000 | 42.23 |
| $ | 18 Nitrobenzene-d5 | 82 | 8.154 | 8.159 | (0.881) | 2129580 | 40.0000 | 42.30 |
| | 19 Nitrobenzene | 77 | 8.186 | 8.187 | (0.884) | 2193129 | 40.0000 | 42.05 |
| | 20 Isophorone | 82 | 8.581 | 8.593 | (0.927) | 3223860 | 40.0000 | 41.93 |
| | 21 2-Nitrophenol | 139 | 8.704 | 8.710 | (0.940) | 1512491 | 40.0000 | 41.29 |
| | 22 2,4-Dimethylphenol | 107 | 8.886 | 8.892 | (0.960) | 2272983 | 40.0000 | 41.01 |
| | 23 Bis(2-Chloroethoxy)methane | 93 | 9.003 | 9.009 | (0.972) | 2420233 | 40.0000 | 41.97 |
| | 24 Benzoic acid | 105 | 9.233 | 9.303 | (0.997) | 2853914 | 80.0000 | 105.8 |
| | 25 2,4-Dichlorophenol | 162 | 9.115 | 9.121 | (0.984) | 2302289 | 40.0000 | 42.34 |
| | 26 1,2,4-Trichlorobenzene | 180 | 9.212 | 9.218 | (0.995) | 2451465 | 40.0000 | 41.90 |
| * | 27 Naphthalene-d8 | 136 | 9.260 | 9.266 | (1.000) | 3124146 | 20.0000 | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 28 Naphthalene | 128 | 9.292 | 9.298 | (1.003) | 6305923 | 40.0000 | 36.81 |
| | 29 4-Chloroaniline | 127 | 9.468 | 9.479 | (1.022) | 3069942 | 40.0000 | 40.34 |
| | 30 Hexachlorobutadiene | 225 | 9.628 | 9.629 | (1.040) | 1489519 | 40.0000 | 41.91 |
| | 31 4-Chloro-3-methylphenol | 107 | 10.339 | 10.345 | (1.117) | 1920850 | 40.0000 | 43.87 |
| | 32 2-Methylnaphthalene | 141 | 10.419 | 10.420 | (1.125) | 4107135 | 40.0000 | 39.70 |
| | 33 Hexachlorocyclopentadiene | 237 | 10.798 | 10.799 | (0.892) | 1528103 | 40.0000 | 50.31 |
| | 34 2,4,6-Trichlorophenol | 196 | 10.958 | 10.964 | (0.905) | 1795541 | 40.0000 | 43.54 |
| | 35 2,4,5-Trichlorophenol | 196 | 11.023 | 11.029 | (0.910) | 1818143 | 40.0000 | 45.48 |
| $ | 36 2-Fluorobiphenyl | 172 | 11.076 | 11.076 | (0.915) | 4881983 | 40.0000 | 38.54 |
| | 37 2-Chloronaphthalene | 162 | 11.188 | 11.189 | (0.924) | 4425373 | 40.0000 | 40.37 |
| | 38 2-Nitroaniline | 65 | 11.455 | 11.461 | (0.946) | 1150135 | 40.0000 | 44.29 |
| | 39 Dimethylphthalate | 163 | 11.845 | 11.857 | (0.978) | 4368279 | 40.0000 | 38.85 |
| | 40 Acenaphthylene | 152 | 11.856 | 11.862 | (0.979) | 6730090 | 40.0000 | 37.53 |
| | 41 2,6-Dinitrotoluene | 165 | 11.925 | 11.937 | (0.985) | 1137310 | 40.0000 | 42.60 |
| * | 42 Acenaphthene-d10 | 164 | 12.107 | 12.108 | (1.000) | 2058292 | 20.0000 | |
| | 43 3-Nitroaniline | 138 | 12.134 | 12.150 | (1.002) | 1267727 | 40.0000 | 39.65 |
| | 44 Acenaphthene | 153 | 12.160 | 12.166 | (1.004) | 4373179 | 40.0000 | 38.26 |
| | 45 2,4-Dinitrophenol | 184 | 12.299 | 12.316 | (1.016) | 1428791 | 80.0000 | 129.2 |
| | 46 Dibenzofuran | 168 | 12.422 | 12.434 | (1.026) | 6096491 | 40.0000 | 36.21 |
| | 47 4-Nitrophenol | 109 | 12.524 | 12.530 | (1.034) | 420980 | 40.0000 | 49.11 |
| | 48 2,4-Dinitrotoluene | 165 | 12.545 | 12.556 | (1.036) | 1481727 | 40.0000 | 43.76 |
| | 50 Diethylphthalate | 149 | 12.994 | 13.000 | (1.073) | 4131729 | 40.0000 | 38.71 |
| | 49 Fluorene | 166 | 12.978 | 12.984 | (1.072) | 5169716 | 40.0000 | 38.72 |
| | 51 4-Chlorophenyl-phenylether | 204 | 13.020 | 13.027 | (1.075) | 2593165 | 40.0000 | 40.86 |
| | 52 4-Nitroaniline | 138 | 13.127 | 13.149 | (1.084) | 1202499 | 40.0000 | 42.42 |
| | 53 4,6-Dinitro-2-methylphenol | 198 | 13.197 | 13.214 | (0.913) | 2003842 | 80.0000 | 92.91 |
| | 54 N-Nitrosodiphenylamine | 169 | 13.239 | 13.251 | (0.916) | 3346918 | 40.0000 | 41.17 |
| $ | 55 2,4,6-Tribromophenol | 330 | 13.400 | 13.405 | (1.107) | 1140194 | 40.0000 | 43.35 |
| | 56 4-Bromophenyl-phenylether | 248 | 13.790 | 13.790 | (0.954) | 1688097 | 40.0000 | 42.09 |
| | 57 Hexachlorobenzene | 284 | 13.987 | 13.993 | (0.967) | 2093454 | 40.0000 | 41.69 |
| | 58 Pentachlorophenol | 266 | 14.308 | 14.319 | (0.990) | 885434 | 40.0000 | 59.99 |
| * | 59 Phenanthrene-d10 | 188 | 14.457 | 14.464 | (1.000) | 3113173 | 20.0000 | |
| | 60 Phenanthrene | 178 | 14.495 | 14.506 | (1.003) | 6466785 | 40.0000 | 37.15 |
| | 61 Anthracene | 178 | 14.570 | 14.581 | (1.008) | 6623176 | 40.0000 | 37.42 |
| | 62 Carbazole | 167 | 14.874 | 14.886 | (1.029) | 5128809 | 40.0000 | 38.37 |
| | 63 Di-n-butylphthalate | 149 | 15.627 | 15.633 | (1.081) | 6194781 | 40.0000 | 38.68 |
| | 64 Fluoranthene | 202 | 16.413 | 16.419 | (1.135) | 6894359 | 40.0000 | 37.03 |
| | 65 Pyrene | 202 | 16.755 | 16.766 | (0.894) | 7246945 | 40.0000 | 37.11 |
| $ | 66 Terphenyl-d14 | 244 | 17.113 | 17.113 | (0.913) | 4932214 | 40.0000 | 40.25 |
| | 67 Butylbenzylphthalate | 149 | 18.021 | 18.027 | (0.962) | 2985193 | 40.0000 | 43.48 |
| | 68 Benzo(a)anthracene | 228 | 18.715 | 18.721 | (0.999) | 7154469 | 40.0000 | 38.54 |
| * | 69 Chrysene-d12 | 240 | 18.737 | 18.743 | (1.000) | 3455807 | 20.0000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | 18.753 | 18.759 | (1.001) | 2852694 | 40.0000 | 40.05 |
| | 71 Chrysene | 228 | 18.779 | 18.791 | (1.002) | 6863740 | 40.0000 | 38.36 |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 19.036 | 19.036 | (0.953) | 3960090 | 40.0000 | 41.69 |
| * | 134 Di-n-octylphthalate-d4 | 153 | 19.965 | 19.971 | (1.000) | 3287975 | 20.0000 | |
| | 73 Di-n-octylphthalate | 149 | 19.976 | 19.982 | (1.001) | 6328444 | 40.0000 | 38.61 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| 74 | Benzo(b)fluoranthene | 252 | 20.355 | 20.377 | (0.975) | 7663405 | 40.0000 | 37.81 |
| 75 | Benzo(k)fluoranthene | 252 | 20.393 | 20.377 | (0.977) | 7872720 | 40.0000 | 40.10 |
| 187 | Total Benzofluoranthenes | 252 | 20.393 | 20.409 | (0.977) | 14593835 | 80.0000 | 77.74 |
| 76 | Benzo(a)pyrene | 252 | 20.793 | 20.810 | (0.996) | 7080963 | 40.0000 | 40.22 |
| * 77 | Perylene-d12 | 264 | 20.868 | 20.879 | (1.000) | 3546130 | 20.0000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | 22.225 | 22.242 | (1.065) | 10576812 | 40.0000 | 41.58 |
| 79 | Dibenzo(a,h)anthracene | 278 | 22.252 | 22.274 | (1.066) | 8488262 | 40.0000 | 40.39 |
| 80 | Benzo(g,h,i)perylene | 276 | 22.540 | 22.562 | (1.080) | 8918214 | 40.0000 | 41.13 |
| 90 | N-Nitrosodimethylamine | 74 | 2.288 | 2.305 | (0.318) | 1268785 | 40.0000 | 43.03 |
| 103 | Pyridine | 79 | 2.256 | 2.267 | (0.314) | 2142520 | 40.0000 | 43.74 |
| 91 | Aniline | 93 | 6.759 | 6.760 | (0.940) | 3093567 | 40.0000 | 37.87 |
| 105 | 1-methylnaphthalene | 141 | 10.584 | 10.585 | (1.143) | 3163085 | 40.0000 | 40.29 |
| 93 | Benzidine | 184 | 16.701 | 16.702 | (0.891) | 1216358 | 40.0000 | 27.53 |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | 13.272 | 13.278 | (1.096) | 3971130 | 40.0000 | 40.36 |
| 143 | 1,4-Dioxane | 88 | 1.807 | 1.819 | (0.251) | 737099 | 40.0000 | 41.45 |
| $ 137 | d8-1,4-Dioxane | 96 | 1.775 | 1.781 | (0.247) | 778353 | 40.0000 | 40.68 |
| 144 | alpha-Terpineol | 59 | 9.356 | 9.362 | (1.010) | 1276367 | 40.0000 | 41.78 |
| 177 | p-Benzoquinone | 82 | 5.835 | 5.836 | (0.630) | 402056 | 40.0000 | 48.12 |
| 98 | Retene | 219 | 17.342 | 17.348 | (0.926) | 2794608 | 40.0000 | 42.90 |
| 99 | Perylene | 252 | 20.911 | 20.928 | (1.002) | 6582353 | 40.0000 | 38.22 |
| 133 | Butylatedhydroxytoluene | 205 | 12.331 | 12.337 | (1.019) | 3275268 | 40.0000 | 39.95 |
| 115 | Tributyl Phosphate | 99 | 13.389 | 13.411 | (0.926) | 3909671 | 40.0000 | 41.12 |
| 116 | Dibutyl Phenyl Phosphate | 175 | 15.088 | 15.105 | (1.044) | 3200108 | 40.0000 | 42.96 |
| 117 | Butyl Diphenyl Phosphate | 94 | 16.739 | 16.745 | (0.893) | 918123 | 40.0000 | 44.30 |
| 118 | Triphenyl Phosphate | 326 | 18.320 | 18.326 | (0.978) | 1756537 | 40.0000 | 43.98 |
| 123 | Acetophenone | 105 | 7.929 | 7.935 | (1.103) | 2891786 | 40.0000 | 42.92 |
| 168 | Pentachlorobenzene | 250 | 12.465 | 12.471 | (1.030) | 2259965 | 40.0000 | 41.84 |
| 113 | Diphenyl Oxide | 170 | 11.402 | 11.403 | (0.942) | 3154783 | 40.0000 | 41.24 |
| 112 | Biphenyl | 154 | 11.199 | 11.205 | (0.925) | 4652941 | 40.0000 | 38.64 |
| 120 | 2,3,4,6-Tetrachlorophenol | 232 | 12.727 | 12.733 | (1.051) | 1291429 | 40.0000 | 46.63 |
| 151 | 1,2,4,5-Tetrachlorobenzene | 216 | 10.755 | 10.756 | (0.888) | 2298609 | 40.0000 | 41.02 |
| 110 | Tetrachloroguaiacol | 247 | 14.441 | 14.453 | (0.999) | 1911259 | 80.0000 | 96.18 |
| 109 | 3,4,5-Trichloroguaiacol | 213 | 12.833 | 12.840 | (0.888) | 875247 | 40.0000 | 43.00 |
| 181 | 3,4,6-Trichloroguaiacol | 211 | 12.946 | 12.952 | (1.800) | 1096604 | 40.0000 | 45.51 |
| 108 | 4,5,6-Trichloroguaiacol | 213 | 13.859 | 13.871 | (1.145) | 913012 | 40.0000 | 41.70 |
| 184 | 3,4-Dichloroguaiacol | 192 | 11.300 | 11.306 | (1.571) | 963095 | 40.0000 | 44.38 |
| 107 | 4,5-Dichloroguaiacol | 192 | 12.102 | 12.108 | (1.000) | 2370865 | 80.0000 | 81.68 |
| 182 | 4,6-Dichloroguaiacol | 192 | 12.102 | 12.108 | (1.683) | 2402646 | 80.0000 | 87.05 |
| 185 | 4-Chloroguaiacol | 115 | 10.227 | 10.233 | (1.422) | 474629 | 20.0000 | 22.57 |
| 186 | Carbaryl | 144 | 15.307 | 15.324 | (1.059) | 3318595 | 40.0000 | 44.72 |
| 178 | 2-Benzyl-4-Chlorophenol | 218 | 15.280 | 15.297 | (1.057) | 1490973 | 40.0000 | 46.43 |
| 106 | Guaiacol | 124 | 8.207 | 8.213 | (1.141) | 1869465 | 40.0000 | 43.44 |

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05231205.D
Lab Smp Id: IC400523
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Misc Info: 12-

Calibration Date: 23-MAY-2012
Calibration Time: 13:34
Client Smp ID: IC400523
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 963757 | 481878 | 1927514 | 850778 | -11.72 |
| 27 Naphthalene-d8 | 3430476 | 1715238 | 6860952 | 3124146 | -8.93 |
| 42 Acenaphthene-d10 | 2259168 | 1129584 | 4518336 | 2058292 | -8.89 |
| 59 Phenanthrene-d10 | 3446677 | 1723338 | 6893354 | 3113173 | -9.68 |
| 69 Chrysene-d12 | 3961525 | 1980762 | 7923050 | 3455807 | -12.77 |
| 134 Di-n-octylphthala | 3758743 | 1879372 | 7517486 | 3287975 | -12.52 |
| 77 Perylene-d12 | 4154109 | 2077054 | 8308218 | 3546130 | -14.64 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 7.19 | 6.69 | 7.69 | 7.19 | 0.02 |
| 27 Naphthalene-d8 | 9.26 | 8.76 | 9.76 | 9.26 | 0.02 |
| 42 Acenaphthene-d10 | 12.11 | 11.61 | 12.61 | 12.11 | 0.01 |
| 59 Phenanthrene-d10 | 14.46 | 13.96 | 14.96 | 14.46 | 0.01 |
| 69 Chrysene-d12 | 18.73 | 18.23 | 19.23 | 18.74 | 0.01 |
| 134 Di-n-octylphthala | 19.96 | 19.46 | 20.46 | 19.97 | 0.01 |
| 77 Perylene-d12 | 20.87 | 20.37 | 21.37 | 20.87 | -0.02 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

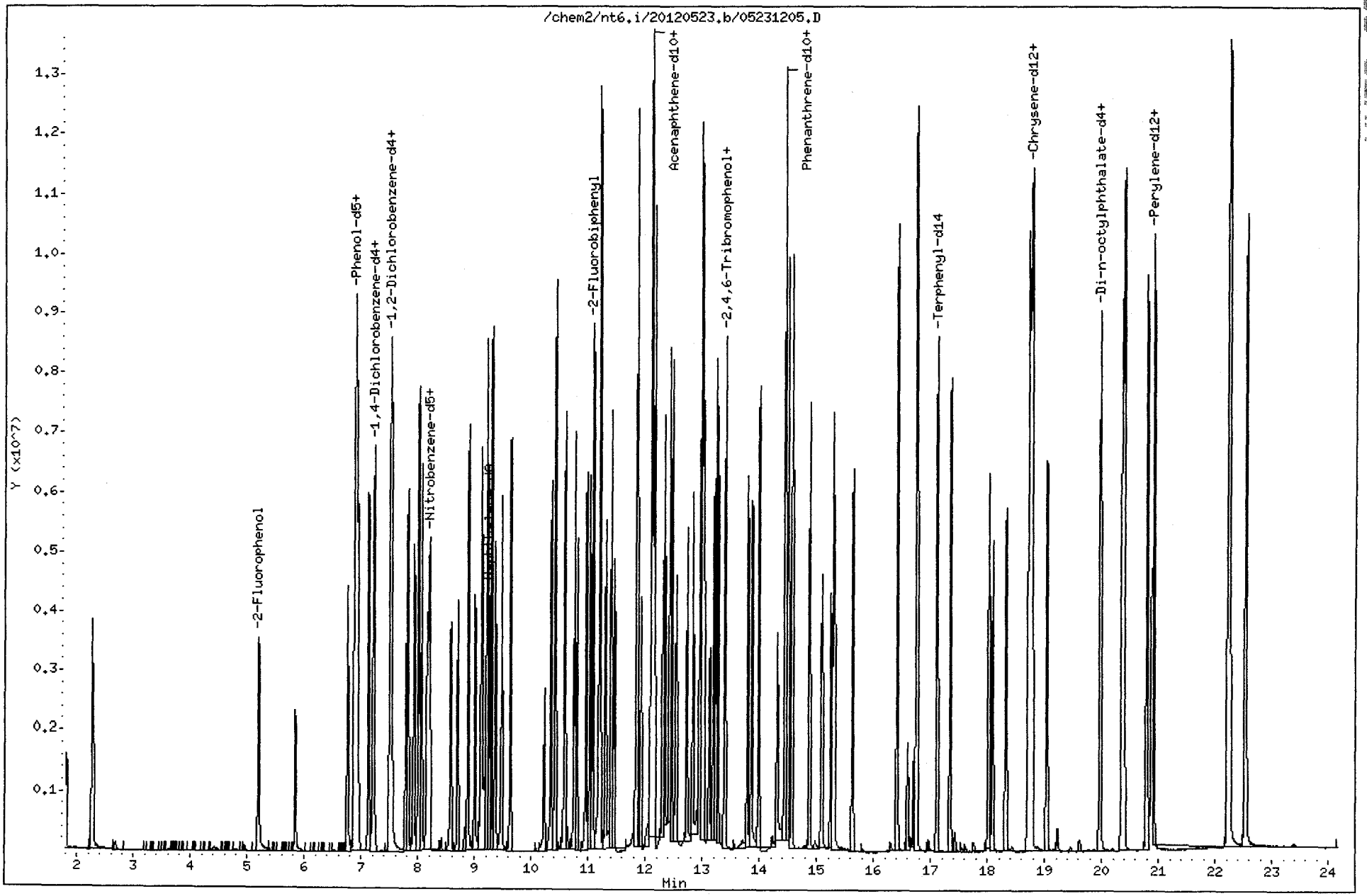
Data File: /chem2/nt6.i/20120523.b/05231205.D
Date : 23-MAY-2012 15:48
Client ID: IC400523
Sample Info: IC400523,

Column phase: ZB-5msi

Instrument: nt6.i

Operator: JZ
Column diameter: 0.32






UU52:00589

CO-ELUTION SUMMARY FOR FILE - 05231205.D

Lab ID: IC400523, Method: SW846052312.m, Instrument: nt6.i, Date: 23-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120523.b/05231206.D
Lab Smp Id: IC600523 Client Smp ID: IC600523
Inj Date : 23-MAY-2012 16:22
Operator : JZ Inst ID: nt6.i
Smp Info : IC600523
Misc Info : 12-
Comment : 1ul Injection
Method : /chem2/nt6.i/20120523.b/SW846052312.m
Meth Date : 24-May-2012 12:56 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 16:22 Cal File: 05231206.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

05/24/12

AMOUNTS

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CAL-AMT (ug/mL) | ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| $ | 1 2-Fluorophenol | 112 | 5.194 | 5.194 | (0.722) | 2956774 | 60.0000 | 62.10 |
| $ | 2 Phenol-d5 | 99 | 6.877 | 6.877 | (0.955) | 3400540 | 60.0000 | 59.88 |
| | 3 Phenol | 94 | 6.893 | 6.894 | (0.958) | 3928058 | 60.0000 | 56.84 |
| $ | 5 2-Chlorophenol-d4 | 132 | 6.909 | 6.909 | (0.960) | 3278102 | 60.0000 | 59.56 |
| | 4 Bis(2-Chloroethyl)ether | 93 | 6.904 | 6.899 | (0.959) | 2890831 | 60.0000 | 60.83 |
| | 6 2-Chlorophenol | 128 | 6.936 | 6.936 | (0.964) | 3600037 | 60.0000 | 57.08 |
| | 7 1,3-Dichlorobenzene | 146 | 7.128 | 7.129 | (0.990) | 3828610 | 60.0000 | 59.46 |
| * | 8 1,4-Dichlorobenzene-d4 | 152 | 7.198 | 7.193 | (1.000) | 819323 | 20.0000 | |
| | 9 1,4-Dichlorobenzene | 146 | 7.219 | 7.220 | (1.003) | 3803175 | 60.0000 | 59.00 |
| $ | 10 1,2-Dichlorobenzene-d4 | 152 | 7.497 | 7.497 | (1.042) | 2351450 | 60.0000 | 58.58 |
| | 12 1,2-Dichlorobenzene | 146 | 7.518 | 7.519 | (1.045) | 3667804 | 60.0000 | 59.56 |
| | 11 Benzyl alcohol | 108 | 7.540 | 7.545 | (1.048) | 2320303 | 60.0000 | 65.98 |
| | 14 2,2'-oxybis(1-Chloropropane) | 45 | 7.785 | 7.791 | (1.082) | 3139262 | 60.0000 | 58.59 |
| | 13 2-Methylphenol | 108 | 7.823 | 7.823 | (1.087) | 3045760 | 60.0000 | 58.03 |
| | 17 Hexachloroethane | 117 | 8.004 | 8.005 | (1.112) | 1434373 | 60.0000 | 62.94 |
| | 16 N-Nitroso-di-n-propylamine | 70 | 8.026 | 8.026 | (1.115) | 1927435 | 60.0000 | 60.07 |
| | 15 4-Methylphenol | 108 | 8.068 | 8.069 | (1.121) | 3183271 | 60.0000 | 58.78 |
| $ | 18 Nitrobenzene-d5 | 82 | 8.159 | 8.159 | (0.881) | 2775879 | 60.0000 | 58.37 |
| | 19 Nitrobenzene | 77 | 8.186 | 8.187 | (0.884) | 2959374 | 60.0000 | 59.79 |
| | 20 Isophorone | 82 | 8.587 | 8.593 | (0.927) | 4302671 | 60.0000 | 59.09 |
| | 21 2-Nitrophenol | 139 | 8.704 | 8.710 | (0.940) | 2070676 | 60.0000 | 59.59 |
| | 22 2,4-Dimethylphenol | 107 | 8.886 | 8.892 | (0.960) | 3041166 | 60.0000 | 58.13 |
| | 23 Bis(2-Chloroethoxy)methane | 93 | 9.009 | 9.009 | (0.973) | 3230992 | 60.0000 | 59.15 |
| | 24 Benzoic acid | 105 | 9.265 | 9.303 | (1.001) | 3886060 | 120.000 | 144.1(M) |
| | 25 2,4-Dichlorophenol | 162 | 9.121 | 9.121 | (0.985) | 3083001 | 60.0000 | 59.74 |
| | 26 1,2,4-Trichlorobenzene | 180 | 9.212 | 9.218 | (0.995) | 3301335 | 60.0000 | 59.50 |
| * | 27 Naphthalene-d8 | 136 | 9.260 | 9.266 | (1.000) | 2967520 | 20.0000 | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 28 Naphthalene | 128 | 9.292 | 9.298 | (1.003) | 7838365 | 60.0000 | 49.81 |
| | 29 4-Chloroaniline | 127 | 9.473 | 9.479 | (1.023) | 3953770 | 60.0000 | 55.51 |
| | 30 Hexachlorobutadiene | 225 | 9.628 | 9.629 | (1.040) | 2024817 | 60.0000 | 59.99 |
| | 31 4-Chloro-3-methylphenol | 107 | 10.344 | 10.345 | (1.117) | 2381359 | 60.0000 | 57.70 |
| | 32 2-Methylnaphthalene | 141 | 10.419 | 10.420 | (1.125) | 5239753 | 60.0000 | 54.33 |
| | 33 Hexachlorocyclopentadiene | 237 | 10.798 | 10.799 | (0.892) | 2012913 | 60.0000 | 72.35 |
| | 34 2,4,6-Trichlorophenol | 196 | 10.964 | 10.964 | (0.906) | 2364357 | 60.0000 | 64.91 |
| | 35 2,4,5-Trichlorophenol | 196 | 11.028 | 11.029 | (0.911) | 2311637 | 60.0000 | 65.37 |
| $ | 36 2-Fluorobiphenyl | 172 | 11.076 | 11.076 | (0.915) | 6084844 | 60.0000 | 56.02 |
| | 37 2-Chloronaphthalene | 162 | 11.188 | 11.189 | (0.924) | 5725242 | 60.0000 | 60.09 |
| | 38 2-Nitroaniline | 65 | 11.455 | 11.461 | (0.946) | 1473865 | 60.0000 | 64.38 |
| | 39 Dimethylphthalate | 163 | 11.845 | 11.857 | (0.978) | 5540741 | 60.0000 | 57.24 |
| | 40 Acenaphthylene | 152 | 11.856 | 11.862 | (0.979) | 7689688 | 60.0000 | 50.86 |
| | 41 2,6-Dinitrotoluene | 165 | 11.931 | 11.937 | (0.985) | 1491506 | 60.0000 | 63.55 |
| * | 42 Acenaphthene-d10 | 164 | 12.107 | 12.108 | (1.000) | 1788274 | 20.0000 | |
| | 43 3-Nitroaniline | 138 | 12.144 | 12.150 | (1.003) | 1562144 | 60.0000 | 56.83 |
| | 44 Acenaphthene | 153 | 12.160 | 12.166 | (1.004) | 5486926 | 60.0000 | 55.99 |
| | 45 2,4-Dinitrophenol | 184 | 12.310 | 12.316 | (1.017) | 2115908 | 120.000 | 188.7 |
| | 46 Dibenzofuran | 168 | 12.428 | 12.434 | (1.026) | 7353732 | 60.0000 | 51.67 |
| | 47 4-Nitrophenol | 109 | 12.524 | 12.530 | (1.034) | 600385 | 60.0000 | 75.43 |
| | 48 2,4-Dinitrotoluene | 165 | 12.550 | 12.556 | (1.037) | 1994502 | 60.0000 | 66.36 |
| | 50 Diethylphthalate | 149 | 12.999 | 13.000 | (1.074) | 5339356 | 60.0000 | 57.96 |
| | 49 Fluorene | 166 | 12.978 | 12.984 | (1.072) | 6378878 | 60.0000 | 55.76 |
| | 51 4-Chlorophenyl-phenylether | 204 | 13.021 | 13.027 | (1.075) | 3310547 | 60.0000 | 60.03 |
| | 52 4-Nitroaniline | 138 | 13.138 | 13.149 | (1.085) | 1655901 | 60.0000 | 65.91 |
| | 53 4,6-Dinitro-2-methylphenol | 198 | 13.208 | 13.214 | (0.913) | 2873604 | 120.000 | 134.4 |
| | 54 N-Nitrosodiphenylamine | 169 | 13.245 | 13.251 | (0.916) | 4350924 | 60.0000 | 56.32 |
| $ | 55 2,4,6-Tribromophenol | 330 | 13.405 | 13.405 | (1.107) | 1499138 | 60.0000 | 64.59 |
| | 56 4-Bromophenyl-phenylether | 248 | 13.790 | 13.790 | (0.953) | 2214504 | 60.0000 | 57.82 |
| | 57 Hexachlorobenzene | 284 | 13.993 | 13.993 | (0.967) | 2769824 | 60.0000 | 57.78 |
| | 58 Pentachlorophenol | 266 | 14.313 | 14.319 | (0.990) | 1388607 | 60.0000 | 86.87 |
| * | 59 Phenanthrene-d10 | 188 | 14.463 | 14.464 | (1.000) | 2994128 | 20.0000 | |
| | 60 Phenanthrene | 178 | 14.500 | 14.506 | (1.003) | 8147753 | 60.0000 | 50.25 |
| | 61 Anthracene | 178 | 14.575 | 14.581 | (1.008) | 8170789 | 60.0000 | 49.66 |
| | 62 Carbazole | 167 | 14.880 | 14.886 | (1.029) | 6846062 | 60.0000 | 54.27 |
| | 63 Di-n-butylphthalate | 149 | 15.633 | 15.633 | (1.081) | 7891320 | 60.0000 | 52.51 |
| | 64 Fluoranthene | 202 | 16.418 | 16.419 | (1.135) | 8892009 | 60.0000 | 51.12 |
| | 65 Pyrene | 202 | 16.760 | 16.766 | (0.894) | 9104006 | 60.0000 | 47.04 |
| $ | 66 Terphenyl-d14 | 244 | 17.113 | 17.113 | (0.913) | 6518441 | 60.0000 | 52.71 |
| | 67 Butylbenzylphthalate | 149 | 18.021 | 18.027 | (0.962) | 4264986 | 60.0000 | 60.07 |
| | 68 Benzo(a)anthracene | 228 | 18.715 | 18.721 | (0.999) | 9613519 | 60.0000 | 51.51 |
| * | 69 Chrysene-d12 | 240 | 18.742 | 18.743 | (1.000) | 3573040 | 20.0000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | 18.758 | 18.759 | (1.001) | 3963421 | 60.0000 | 54.76 |
| | 71 Chrysene | 228 | 18.785 | 18.791 | (1.002) | 8946913 | 60.0000 | 49.98 |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 19.036 | 19.036 | (0.953) | 5545804 | 60.0000 | 57.86 |
| * | 134 Di-n-octylphthalate-d4 | 153 | 19.971 | 19.971 | (1.000) | 3341643 | 20.0000 | |
| | 73 Di-n-octylphthalate | 149 | 19.976 | 19.982 | (1.000) | 8402660 | 60.0000 | 51.82 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| 74 | Benzo(b)fluoranthene | 252 | 20.366 | 20.377 | (0.975) | 10999133 | 60.0000 | 53.48 |
| 75 | Benzo(k)fluoranthene | 252 | 20.398 | 20.377 | (0.977) | 8918556 | 60.0000 | 45.89 |
| 187 | Total Benzofluoranthenes | 252 | 20.398 | 20.409 | (0.977) | 18765543 | 120.000 | 99.69 |
| 76 | Benzo(a)pyrene | 252 | 20.804 | 20.810 | (0.996) | 9473719 | 60.0000 | 53.10 |
| * 77 | Perylene-d12 | 264 | 20.879 | 20.879 | (1.000) | 3676255 | 20.0000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | 22.236 | 22.242 | (1.065) | 14535658 | 60.0000 | 55.88 |
| 79 | Dibenzo(a,h)anthracene | 278 | 22.262 | 22.274 | (1.066) | 11054120 | 60.0000 | 52.08 |
| 80 | Benzo(g,h,i)perylene | 276 | 22.551 | 22.562 | (1.080) | 12099742 | 60.0000 | 54.77 |
| 90 | N-Nitrosodimethylamine | 74 | 2.294 | 2.305 | (0.319) | 1747117 | 60.0000 | 61.27 |
| 103 | Pyridine | 79 | 2.261 | 2.267 | (0.314) | 2993308 | 60.0000 | 62.85 |
| 91 | Aniline | 93 | 6.765 | 6.760 | (0.940) | 4050777 | 60.0000 | 52.74 |
| 105 | 1-methylnaphthalene | 141 | 10.585 | 10.585 | (1.143) | 4117742 | 60.0000 | 55.96 |
| 93 | Benzidine | 184 | 16.701 | 16.702 | (0.891) | 1704469 | 60.0000 | 40.37 |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | 13.272 | 13.278 | (1.096) | 5021280 | 60.0000 | 58.95 |
| 143 | 1,4-Dioxane | 88 | 1.813 | 1.819 | (0.252) | 1087827 | 60.0000 | 62.91 |
| $ 137 | d8-1,4-Dioxane | 96 | 1.781 | 1.781 | (0.247) | 1133956 | 60.0000 | 61.28 |
| 144 | alpha-Terpineol | 59 | 9.361 | 9.362 | (1.011) | 1688773 | 60.0000 | 58.49 |
| 177 | p-Benzoquinone | 82 | 5.841 | 5.836 | (0.631) | 546381 | 60.0000 | 66.88 |
| 98 | Retene | 219 | 17.342 | 17.348 | (0.925) | 3990905 | 60.0000 | 59.38 |
| 99 | Perylene | 252 | 20.922 | 20.928 | (1.002) | 8832709 | 60.0000 | 50.96 |
| 133 | Butylatedhydroxytoluene | 205 | 12.331 | 12.337 | (1.019) | 4204761 | 60.0000 | 59.19 |
| 115 | Tributyl Phosphate | 99 | 13.400 | 13.411 | (0.926) | 5237624 | 60.0000 | 57.71 |
| 116 | Dibutyl Phenyl Phosphate | 175 | 15.093 | 15.105 | (1.044) | 4497490 | 60.0000 | 62.29 |
| 117 | Butyl Diphenyl Phosphate | 94 | 16.744 | 16.745 | (0.893) | 1345293 | 60.0000 | 62.30 |
| 118 | Triphenyl Phosphate | 326 | 18.325 | 18.326 | (0.978) | 2590268 | 60.0000 | 62.25 |
| 123 | Acetophenone | 105 | 7.930 | 7.935 | (1.102) | 3882826 | 60.0000 | 59.87 |
| 168 | Pentachlorobenzene | 250 | 12.465 | 12.471 | (1.030) | 2803334 | 60.0000 | 59.79 |
| 113 | Diphenyl Oxide | 170 | 11.402 | 11.403 | (0.942) | 3874868 | 60.0000 | 58.58 |
| 112 | Biphenyl | 154 | 11.204 | 11.205 | (0.925) | 5482305 | 60.0000 | 53.53 |
| 120 | 2,3,4,6-Tetrachlorophenol | 232 | 12.732 | 12.733 | (1.052) | 1758979 | 60.0000 | 70.53 |
| 151 | 1,2,4,5-Tetrachlorobenzene | 216 | 10.755 | 10.756 | (0.888) | 3049881 | 60.0000 | 62.19 |
| 110 | Tetrachloroguaiacol | 247 | 14.447 | 14.453 | (0.999) | 2661334 | 120.000 | 135.6 |
| 109 | 3,4,5-Trichloroguaiacol | 213 | 12.834 | 12.840 | (0.887) | 1232088 | 60.0000 | 62.43 |
| 181 | 3,4,6-Trichloroguaiacol | 211 | 12.951 | 12.952 | (1.799) | 1435026 | 60.0000 | 61.52 |
| 108 | 4,5,6-Trichloroguaiacol | 213 | 13.865 | 13.871 | (1.145) | 1279705 | 60.0000 | 65.93 |
| 184 | 3,4-Dichloroguaiacol | 192 | 11.300 | 11.306 | (1.570) | 1254053 | 60.0000 | 60.00 |
| 107 | 4,5-Dichloroguaiacol | 192 | 12.102 | 12.108 | (1.000) | 3076819 | 120.000 | 121.7 |
| 182 | 4,6-Dichloroguaiacol | 192 | 12.102 | 12.108 | (1.681) | 3031784 | 120.000 | 115.0 |
| 185 | 4-Chloroguaiacol | 115 | 10.232 | 10.233 | (1.422) | 590509 | 30.0000 | 29.29 |
| 186 | Carbaryl | 144 | 15.312 | 15.324 | (1.059) | 4760949 | 60.0000 | 65.49 |
| 178 | 2-Benzyl-4-Chlorophenol | 218 | 15.286 | 15.297 | (1.057) | 2183513 | 60.0000 | 68.66 |
| 106 | Guaiacol | 124 | 8.213 | 8.213 | (1.141) | 2559585 | 60.0000 | 61.46 |

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05231206.D
Lab Smp Id: IC600523
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Misc Info: 12-

Calibration Date: 23-MAY-2012
Calibration Time: 13:34
Client Smp ID: IC600523
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 963757 | 481878 | 1927514 | 819323 | -14.99 |
| 27 Naphthalene-d8 | 3430476 | 1715238 | 6860952 | 2967520 | -13.50 |
| 42 Acenaphthene-d10 | 2259168 | 1129584 | 4518336 | 1788274 | -20.84 |
| 59 Phenanthrene-d10 | 3446677 | 1723338 | 6893354 | 2994128 | -13.13 |
| 69 Chrysene-d12 | 3961525 | 1980762 | 7923050 | 3573040 | -9.81 |
| 134 Di-n-octylphthala | 3758743 | 1879372 | 7517486 | 3341643 | -11.10 |
| 77 Perylene-d12 | 4154109 | 2077054 | 8308218 | 3676255 | -11.50 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 7.19 | 6.69 | 7.69 | 7.20 | 0.10 |
| 27 Naphthalene-d8 | 9.26 | 8.76 | 9.76 | 9.26 | 0.02 |
| 42 Acenaphthene-d10 | 12.11 | 11.61 | 12.61 | 12.11 | 0.01 |
| 59 Phenanthrene-d10 | 14.46 | 13.96 | 14.96 | 14.46 | 0.05 |
| 69 Chrysene-d12 | 18.73 | 18.23 | 19.23 | 18.74 | 0.04 |
| 134 Di-n-octylphthala | 19.96 | 19.46 | 20.46 | 19.97 | 0.04 |
| 77 Perylene-d12 | 20.87 | 20.37 | 21.37 | 20.88 | 0.03 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

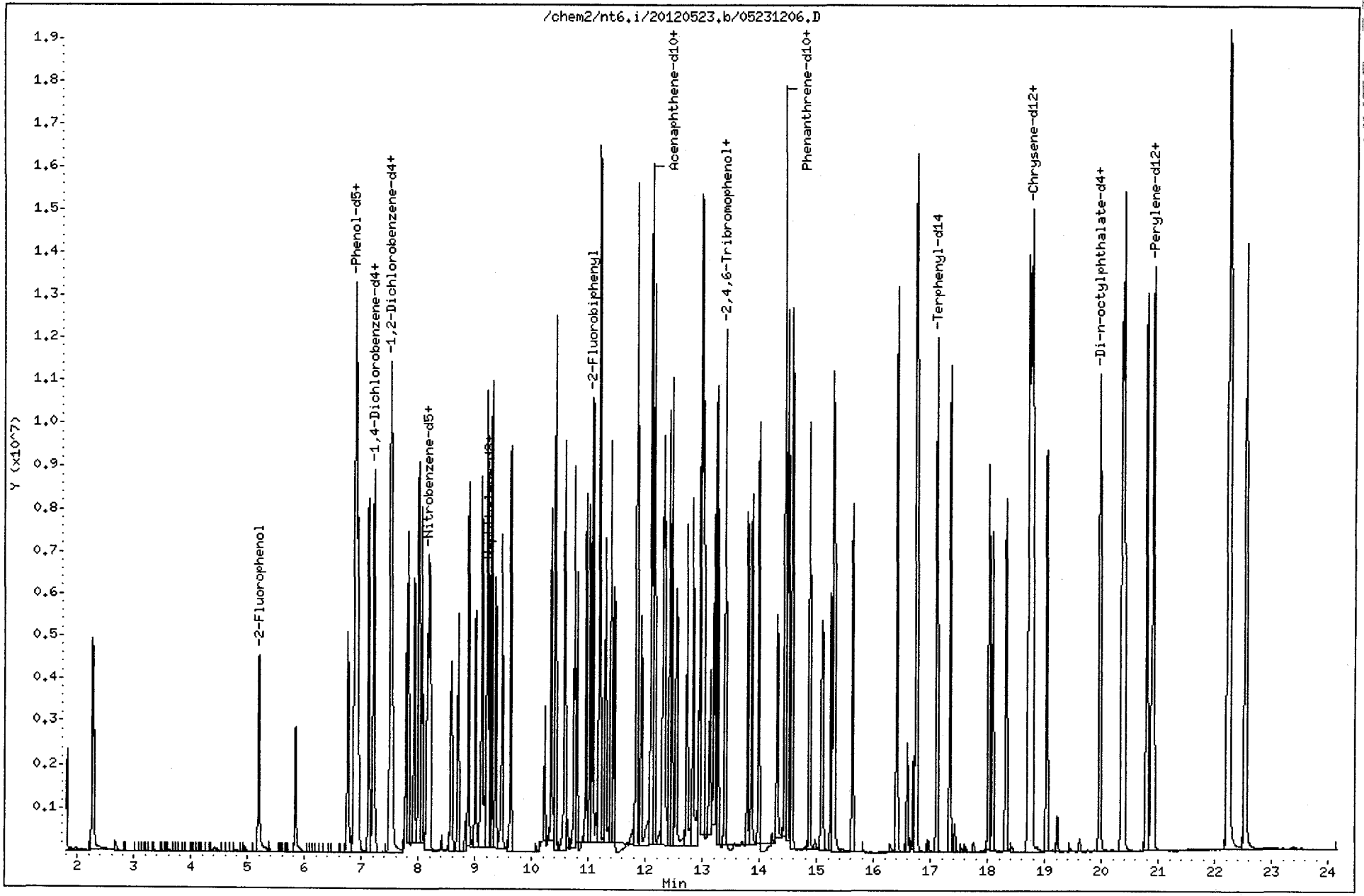
Data File: /chem2/nt6.i/20120523.b/05231206.D
Date : 23-MAY-2012 16:22
Client ID: IC600523
Sample Info: IC600523

Column phase: ZB-5msi

Instrument: nt6.i

Operator: JZ
Column diameter: 0.32

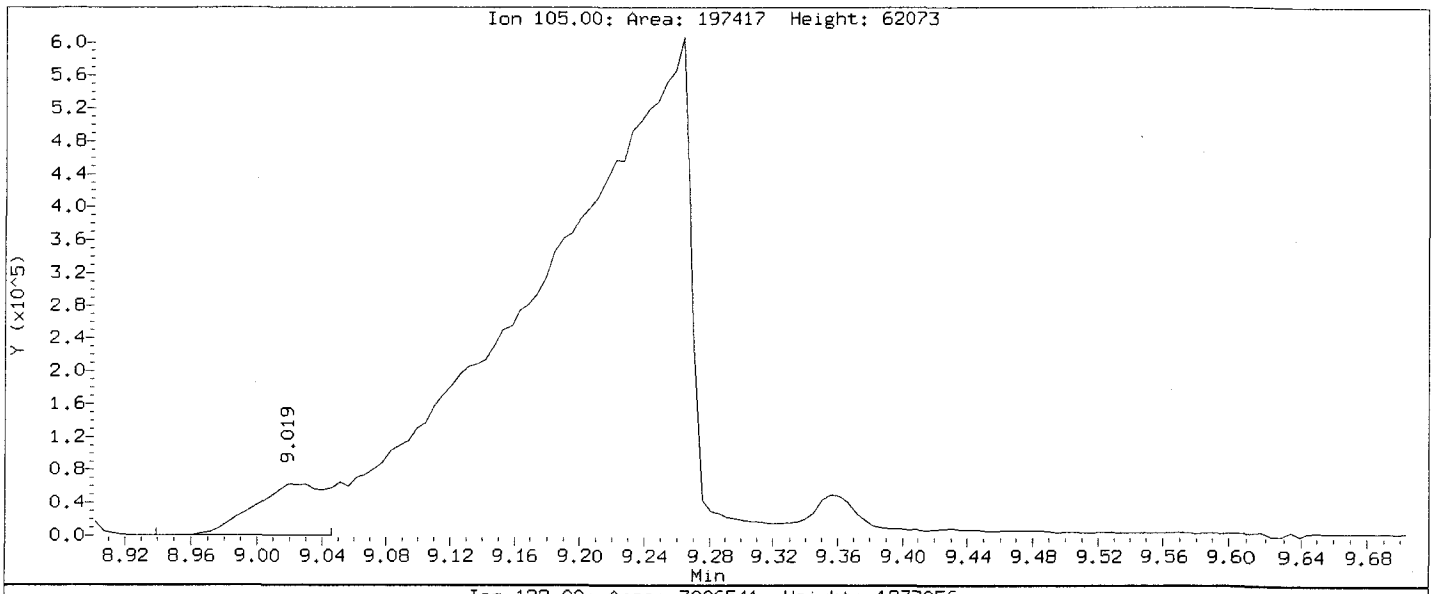


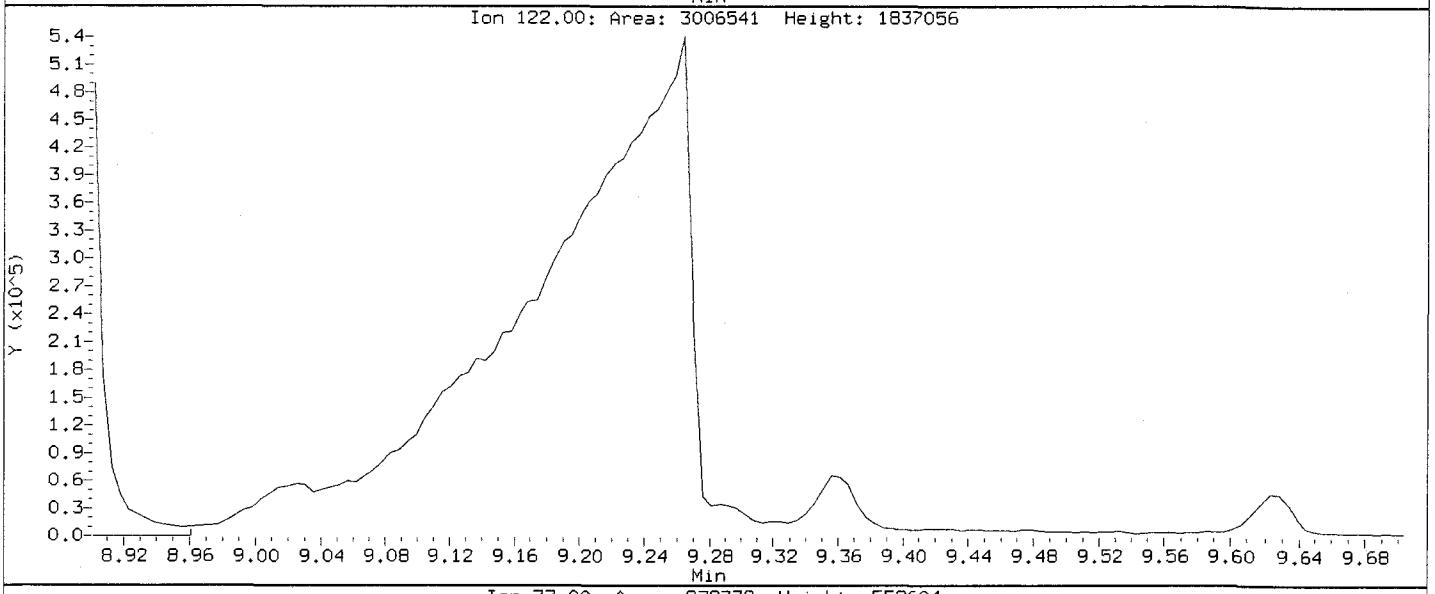


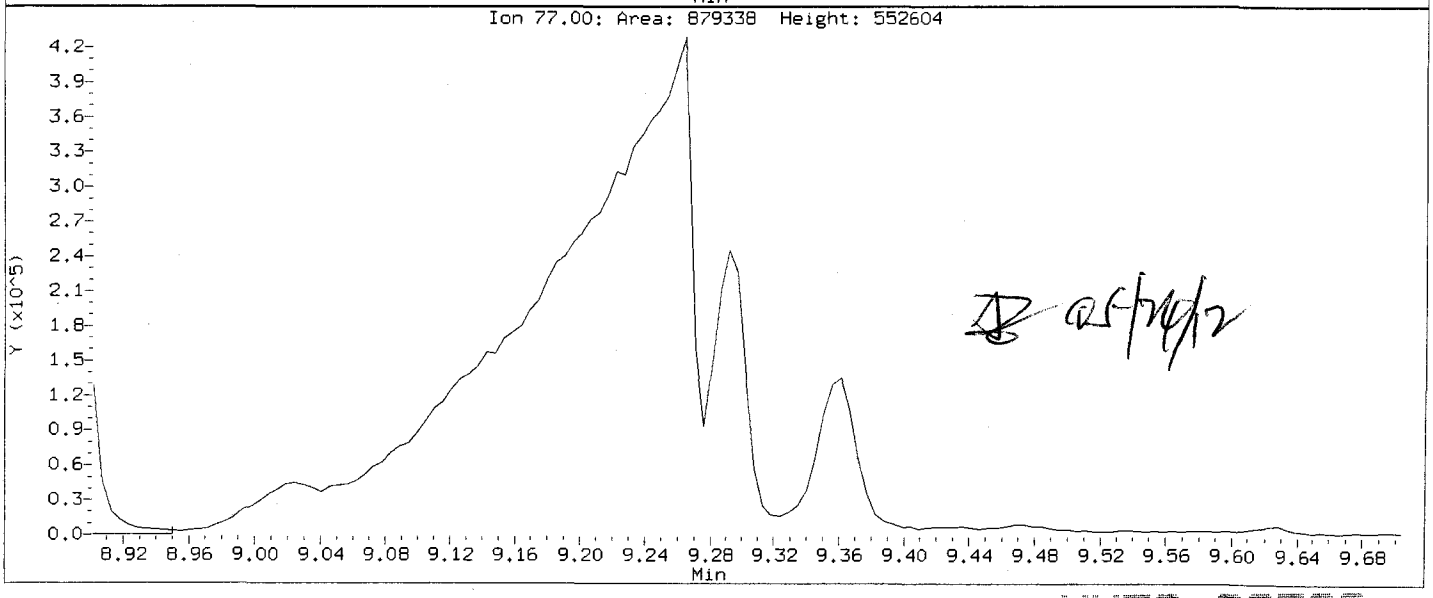

UU52:00595

Data File: /chem2/nt6.i/20120523.b/05231206.D
Injection Date: 23-MAY-2012 16:22
Instrument: nt6.i
Client Sample ID: IC600523

Compound: Benzoic acid
CAS Number: 65-85-0



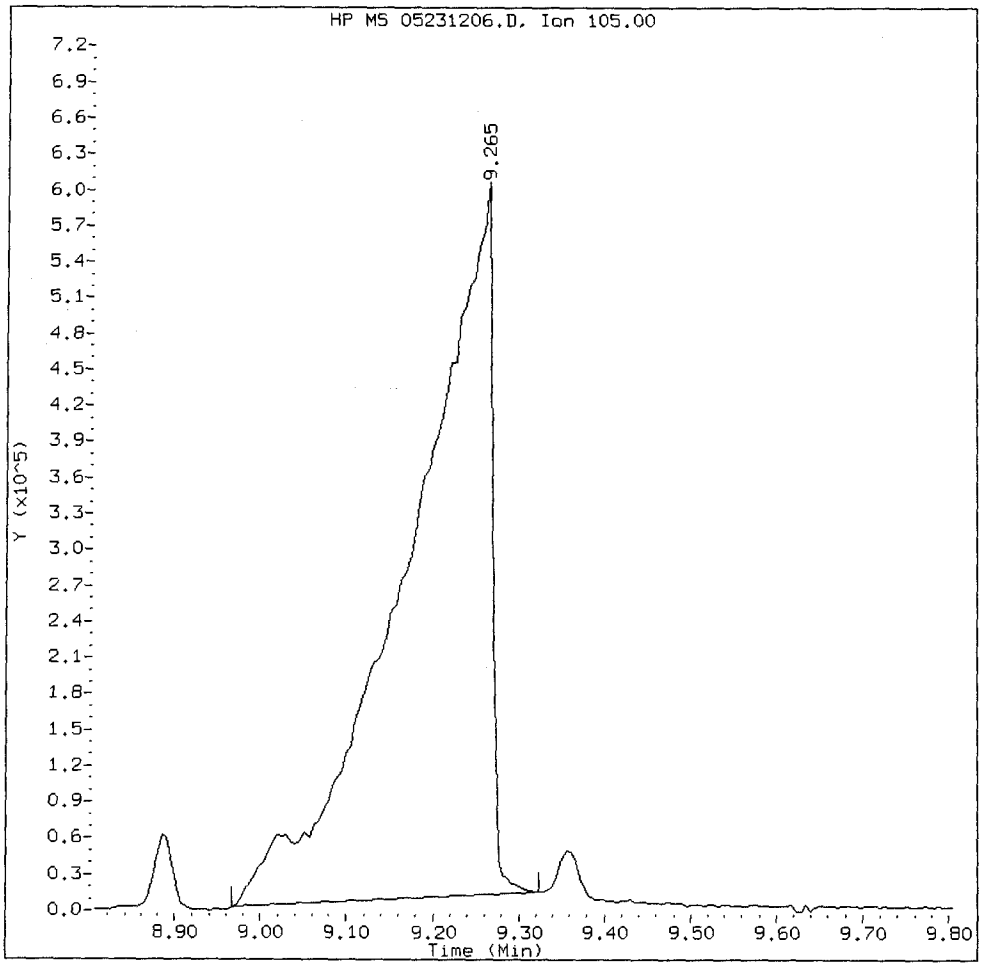




05/24/12

IC600523, /chem2/nt6.i/20120523.b/05231206.D

Benzoic acid  Amount: 144.07  Area: 3886060




MANUAL INTEGRATION for Benzoic acid

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____  Date: 05/24/12

CO-ELUTION SUMMARY FOR FILE - 05231206.D

Lab ID: IC600523, Method: SW846052312.m, Instrument: nt6.i, Date: 23-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120523.b/05231207.D
Lab Smp Id: IC800523 Client Smp ID: IC800523
Inj Date : 23-MAY-2012 16:56
Operator : JZ Inst ID: nt6.i
Smp Info : IC800523,
Misc Info : 12-
Comment : 1ul Injection
Method : /chem2/nt6.i/20120523.b/SW846052312.m
Meth Date : 24-May-2012 12:56 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 16:56 Cal File: 05231207.D
Als bottle: 7 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

05/24/12

AMOUNTS

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CAL-AMT (ug/mL) | ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|
| $ 1 2-Fluorophenol | 112 | Compound Not Detected. | | | | | |
| $ 2 Phenol-d5 | 99 | Compound Not Detected. | | | | | |
| 3 Phenol | 94 | 6.894 | 6.894 | (0.958) | 4955898 | 80.0000 | 71.01 |
| $ 5 2-Chlorophenol-d4 | 132 | Compound Not Detected. | | | | | |
| 4 Bis(2-Chloroethyl)ether | 93 | 6.899 | 6.899 | (0.959) | 3671832 | 80.0000 | 75.77 |
| 6 2-Chlorophenol | 128 | 6.936 | 6.936 | (0.964) | 4527563 | 80.0000 | 71.07 |
| 7 1,3-Dichlorobenzene | 146 | 7.129 | 7.129 | (0.991) | 4778971 | 80.0000 | 73.17 |
| * 8 1,4-Dichlorobenzene-d4 | 152 | 7.193 | 7.193 | (1.000) | 842934 | 20.0000 | |
| 9 1,4-Dichlorobenzene | 146 | 7.220 | 7.220 | (1.004) | 4722377 | 80.0000 | 72.35 |
| $ 10 1,2-Dichlorobenzene-d4 | 152 | Compound Not Detected. | | | | | |
| 12 1,2-Dichlorobenzene | 146 | 7.519 | 7.519 | (1.045) | 4580662 | 80.0000 | 73.31 |
| 11 Benzyl alcohol | 108 | 7.545 | 7.545 | (1.049) | 3039997 | 80.0000 | 83.42 |
| 14 2,2'-oxybis(1-Chloropropane) | 45 | 7.791 | 7.791 | (1.083) | 3980410 | 80.0000 | 73.23 |
| 13 2-Methylphenol | 108 | 7.823 | 7.823 | (1.088) | 3901294 | 80.0000 | 73.26 |
| 17 Hexachloroethane | 117 | 8.005 | 8.005 | (1.113) | 1837842 | 80.0000 | 78.62 |
| 16 N-Nitroso-di-n-propylamine | 70 | 8.026 | 8.026 | (1.116) | 2480871 | 80.0000 | 75.81 |
| 15 4-Methylphenol | 108 | 8.069 | 8.069 | (1.122) | 4050882 | 80.0000 | 73.67 |
| $ 18 Nitrobenzene-d5 | 82 | Compound Not Detected. | | | | | |
| 19 Nitrobenzene | 77 | 8.187 | 8.187 | (0.884) | 3752174 | 80.0000 | 74.08 |
| 20 Isophorone | 82 | 8.593 | 8.593 | (0.927) | 5518208 | 80.0000 | 74.07 |
| 21 2-Nitrophenol | 139 | 8.710 | 8.710 | (0.940) | 2687169 | 80.0000 | 75.38 |
| 22 2,4-Dimethylphenol | 107 | 8.892 | 8.892 | (0.960) | 3861146 | 80.0000 | 72.38 |
| 23 Bis(2-Chloroethoxy)methane | 93 | 9.009 | 9.009 | (0.972) | 4129182 | 80.0000 | 73.91 |
| 24 Benzoic acid | 105 | 9.303 | 9.303 | (1.004) | 5209192 | 160.000 | 181.5(M) |
| 25 2,4-Dichlorophenol | 162 | 9.121 | 9.121 | (0.984) | 3922797 | 80.0000 | 74.26 |
| 26 1,2,4-Trichlorobenzene | 180 | 9.218 | 9.218 | (0.995) | 4181022 | 80.0000 | 73.70 |
| * 27 Naphthalene-d8 | 136 | 9.266 | 9.266 | (1.000) | 3073829 | 20.0000 | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 28 Naphthalene | 128 | 9.298 | 9.298 | (1.003) | 9277135 | 80.0000 | 59.36 |
| | 29 4-Chloroaniline | 127 | 9.479 | 9.479 | (1.023) | 5001026 | 80.0000 | 69.30 |
| | 30 Hexachlorobutadiene | 225 | 9.629 | 9.629 | (1.039) | 2615179 | 80.0000 | 75.50 |
| | 31 4-Chloro-3-methylphenol | 107 | 10.345 | 10.345 | (1.116) | 3134300 | 80.0000 | 74.20 |
| | 32 2-Methylnaphthalene | 141 | 10.420 | 10.420 | (1.125) | 6448175 | 80.0000 | 66.38 |
| | 33 Hexachlorocyclopentadiene | 237 | 10.799 | 10.799 | (0.892) | 2554079 | 80.0000 | 85.07 |
| | 34 2,4,6-Trichlorophenol | 196 | 10.964 | 10.964 | (0.906) | 3245825 | 80.0000 | 83.10 |
| | 35 2,4,5-Trichlorophenol | 196 | 11.029 | 11.029 | (0.911) | 3045276 | 80.0000 | 80.70 |
| $ | 36 2-Fluorobiphenyl | 172 | Compound Not Detected. | | | | | |
| | 37 2-Chloronaphthalene | 162 | 11.189 | 11.189 | (0.924) | 6973674 | 80.0000 | 70.12 |
| | 38 2-Nitroaniline | 65 | 11.461 | 11.461 | (0.947) | 1965243 | 80.0000 | 80.48 |
| | 39 Dimethylphthalate | 163 | 11.857 | 11.857 | (0.979) | 7036877 | 80.0000 | 69.69 |
| | 40 Acenaphthylene | 152 | 11.862 | 11.862 | (0.980) | 9821885 | 80.0000 | 63.11 |
| | 41 2,6-Dinitrotoluene | 165 | 11.937 | 11.937 | (0.986) | 1984785 | 80.0000 | 79.46 |
| * | 42 Acenaphthene-d10 | 164 | 12.108 | 12.108 | (1.000) | 1905330 | 20.0000 | |
| | 43 3-Nitroaniline | 138 | 12.150 | 12.150 | (1.004) | 1944636 | 80.0000 | 68.05 |
| | 44 Acenaphthene | 153 | 12.166 | 12.166 | (1.005) | 6732525 | 80.0000 | 64.48 |
| | 45 2,4-Dinitrophenol | 184 | 12.316 | 12.316 | (1.017) | 2924612 | 160.000 | 224.9 |
| | 46 Dibenzofuran | 168 | 12.434 | 12.434 | (1.027) | 9122335 | 80.0000 | 62.37 |
| | 47 4-Nitrophenol | 109 | 12.530 | 12.530 | (1.035) | 794628 | 80.0000 | 91.10 |
| | 48 2,4-Dinitrotoluene | 165 | 12.556 | 12.556 | (1.037) | 2656847 | 80.0000 | 82.53 |
| | 50 Diethylphthalate | 149 | 13.000 | 13.000 | (1.074) | 6760243 | 80.0000 | 70.28 |
| | 49 Fluorene | 166 | 12.984 | 12.984 | (1.072) | 7879360 | 80.0000 | 66.47 |
| | 51 4-Chlorophenyl-phenylether | 204 | 13.027 | 13.027 | (1.076) | 4355683 | 80.0000 | 74.92 |
| | 52 4-Nitroaniline | 138 | 13.149 | 13.149 | (1.086) | 2209240 | 80.0000 | 82.16 |
| | 53 4,6-Dinitro-2-methylphenol | 198 | 13.214 | 13.214 | (0.914) | 3817906 | 160.000 | 167.4 |
| | 54 N-Nitrosodiphenylamine | 169 | 13.251 | 13.251 | (0.916) | 5469187 | 80.0000 | 68.61 |
| $ | 55 2,4,6-Tribromophenol | 330 | Compound Not Detected. | | | | | |
| | 56 4-Bromophenyl-phenylether | 248 | 13.790 | 13.790 | (0.953) | 2915944 | 80.0000 | 73.11 |
| | 57 Hexachlorobenzene | 284 | 13.993 | 13.993 | (0.967) | 3595757 | 80.0000 | 72.16 |
| | 58 Pentachlorophenol | 266 | 14.319 | 14.319 | (0.990) | 1862334 | 80.0000 | 103.7 |
| * | 59 Phenanthrene-d10 | 188 | 14.464 | 14.464 | (1.000) | 3163164 | 20.0000 | |
| | 60 Phenanthrene | 178 | 14.506 | 14.506 | (1.003) | 9874928 | 80.0000 | 60.05 |
| | 61 Anthracene | 178 | 14.581 | 14.581 | (1.008) | 9611692 | 80.0000 | 57.84 |
| | 62 Carbazole | 167 | 14.886 | 14.886 | (1.029) | 8265913 | 80.0000 | 64.08 |
| | 63 Di-n-butylphthalate | 149 | 15.633 | 15.633 | (1.081) | 9209998 | 80.0000 | 60.38 |
| | 64 Fluoranthene | 202 | 16.419 | 16.419 | (1.135) | 10329585 | 80.0000 | 58.71 |
| | 65 Pyrene | 202 | 16.766 | 16.766 | (0.895) | 10702900 | 80.0000 | 56.47 |
| $ | 66 Terphenyl-d14 | 244 | Compound Not Detected. | | | | | |
| | 67 Butylbenzylphthalate | 149 | 18.027 | 18.027 | (0.962) | 5307057 | 80.0000 | 73.72 |
| | 68 Benzo(a)anthracene | 228 | 18.721 | 18.721 | (0.999) | 11497534 | 80.0000 | 59.97 |
| * | 69 Chrysene-d12 | 240 | 18.743 | 18.743 | (1.000) | 3670223 | 20.0000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | 18.759 | 18.759 | (1.001) | 4884408 | 80.0000 | 67.42 |
| | 71 Chrysene | 228 | 18.791 | 18.791 | (1.003) | 10366319 | 80.0000 | 58.85 |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 19.036 | 19.036 | (0.953) | 6768668 | 80.0000 | 70.29 |
| * | 134 Di-n-octylphthalate-d4 | 153 | 19.971 | 19.971 | (1.000) | 3425170 | 20.0000 | |
| | 73 Di-n-octylphthalate | 149 | 19.982 | 19.982 | (1.001) | 9866823 | 80.0000 | 61.64 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| 74 | Benzo(b)fluoranthene | 252 | 20.377 | 20.377 | (0.976) | 13059010 | 80.0000 | 62.21 |
| 75 | Benzo(k)fluoranthene | 252 | 20.377 | 20.377 | (0.976) | 13059010 | 80.0000 | 65.40 |
| 187 | Total Benzofluoranthenes | 252 | 20.409 | 20.409 | (0.977) | 21895322 | 160.000 | 115.0 |
| 76 | Benzo(a)pyrene | 252 | 20.810 | 20.810 | (0.997) | 11418220 | 80.0000 | 62.64 |
| * 77 | Perylene-d12 | 264 | 20.879 | 20.879 | (1.000) | 3891837 | 20.0000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | 22.242 | 22.242 | (1.065) | 18145070 | 80.0000 | 67.59 |
| 79 | Dibenzo(a,h)anthracene | 278 | 22.274 | 22.274 | (1.067) | 13009482 | 80.0000 | 60.27 |
| 80 | Benzo(g,h,i)perylene | 276 | 22.562 | 22.562 | (1.081) | 14549710 | 80.0000 | 64.25 |
| 90 | N-Nitrosodimethylamine | 74 | 2.305 | 2.305 | (0.320) | 2245345 | 80.0000 | 77.01 |
| 103 | Pyridine | 79 | 2.267 | 2.267 | (0.315) | 3761264 | 80.0000 | 77.21 |
| 91 | Aniline | 93 | 6.760 | 6.760 | (0.940) | 5071601 | 80.0000 | 66.05 |
| 105 | 1-methylnaphthalene | 141 | 10.585 | 10.585 | (1.142) | 5209179 | 80.0000 | 69.80 |
| 93 | Benzidine | 184 | 16.702 | 16.702 | (0.891) | 2105024 | 80.0000 | 51.94 |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | 13.278 | 13.278 | (1.097) | 6380123 | 80.0000 | 71.54 |
| 143 | 1,4-Dioxane | 88 | 1.819 | 1.819 | (0.253) | 1359577 | 80.0000 | 76.92 |
| $ 137 | d8-1,4-Dioxane | 96 | 1.781 | 1.781 | (0.248) | 1422459 | 80.0000 | 75.42 |
| 144 | alpha-Terpineol | 59 | 9.362 | 9.362 | (1.010) | 2177756 | 80.0000 | 73.76 |
| 177 | p-Benzoquinone | 82 | 5.836 | 5.836 | (0.630) | 663286 | 80.0000 | 78.64 |
| 98 | Retene | 219 | 17.348 | 17.348 | (0.926) | 4977123 | 80.0000 | 73.12 |
| 99 | Perylene | 252 | 20.928 | 20.928 | (1.002) | 10630741 | 80.0000 | 60.32 |
| 133 | Butylatedhydroxytoluene | 205 | 12.337 | 12.337 | (1.019) | 5316083 | 80.0000 | 71.48 |
| 115 | Tributyl Phosphate | 99 | 13.411 | 13.411 | (0.927) | 6493373 | 80.0000 | 69.25 |
| 116 | Dibutyl Phenyl Phosphate | 175 | 15.105 | 15.105 | (1.044) | 5820694 | 80.0000 | 76.82 |
| 117 | Butyl Diphenyl Phosphate | 94 | 16.745 | 16.745 | (0.893) | 1711752 | 80.0000 | 77.57 |
| 118 | Triphenyl Phosphate | 326 | 18.326 | 18.326 | (0.978) | 3276771 | 80.0000 | 77.12 |
| 123 | Acetophenone | 105 | 7.935 | 7.935 | (1.103) | 4937041 | 80.0000 | 74.80 |
| 168 | Pentachlorobenzene | 250 | 12.471 | 12.471 | (1.030) | 3691750 | 80.0000 | 74.71 |
| 113 | Diphenyl Oxide | 170 | 11.403 | 11.403 | (0.942) | 5205718 | 80.0000 | 74.68 |
| 112 | Biphenyl | 154 | 11.205 | 11.205 | (0.925) | 7185318 | 80.0000 | 67.56 |
| 120 | 2,3,4,6-Tetrachlorophenol | 232 | 12.733 | 12.733 | (1.052) | 2353213 | 80.0000 | 87.23 |
| 151 | 1,2,4,5-Tetrachlorobenzene | 216 | 10.756 | 10.756 | (0.888) | 3889870 | 80.0000 | 75.19 |
| 110 | Tetrachloroguaiacol | 247 | 14.453 | 14.453 | (0.999) | 3543072 | 160.000 | 169.3 |
| 109 | 3,4,5-Trichloroguaiacol | 213 | 12.840 | 12.840 | (0.888) | 1646147 | 80.0000 | 79.10 |
| 181 | 3,4,6-Trichloroguaiacol | 211 | 12.952 | 12.952 | (1.801) | 2008845 | 80.0000 | 83.16 |
| 108 | 4,5,6-Trichloroguaiacol | 213 | 13.871 | 13.871 | (1.146) | 1712982 | 80.0000 | 82.42 |
| 184 | 3,4-Dichloroguaiacol | 192 | 11.306 | 11.306 | (1.572) | 1693440 | 80.0000 | 78.93 |
| 107 | 4,5-Dichloroguaiacol | 192 | 12.108 | 12.108 | (1.000) | 4083699 | 160.000 | 152.7 |
| 182 | 4,6-Dichloroguaiacol | 192 | 12.108 | 12.108 | (1.683) | 4028104 | 160.000 | 150.1 |
| 185 | 4-Chloroguaiacol | 115 | 10.233 | 10.233 | (1.423) | 842811 | 40.0000 | 40.55 |
| 186 | Carbaryl | 144 | 15.324 | 15.324 | (1.059) | 6019585 | 80.0000 | 78.61 |
| 178 | 2-Benzyl-4-Chlorophenol | 218 | 15.297 | 15.297 | (1.058) | 2865577 | 80.0000 | 84.50 |
| 106 | Guaiacol | 124 | 8.213 | 8.213 | (1.142) | 3293719 | 80.0000 | 77.31 |

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05231207.D
Lab Smp Id: IC800523
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Misc Info: 12-

Calibration Date: 23-MAY-2012
Calibration Time: 13:34
Client Smp ID: IC800523
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 963757 | 481878 | 1927514 | 842934 | -12.54 |
| 27 Naphthalene-d8 | 3430476 | 1715238 | 6860952 | 3073829 | -10.40 |
| 42 Acenaphthene-d10 | 2259168 | 1129584 | 4518336 | 1905330 | -15.66 |
| 59 Phenanthrene-d10 | 3446677 | 1723338 | 6893354 | 3163164 | -8.23 |
| 69 Chrysene-d12 | 3961525 | 1980762 | 7923050 | 3670223 | -7.35 |
| 134 Di-n-octylphthala | 3758743 | 1879372 | 7517486 | 3425170 | -8.87 |
| 77 Perylene-d12 | 4154109 | 2077054 | 8308218 | 3891837 | -6.31 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 7.19 | 6.69 | 7.69 | 7.19 | 0.03 |
| 27 Naphthalene-d8 | 9.26 | 8.76 | 9.76 | 9.27 | 0.08 |
| 42 Acenaphthene-d10 | 12.11 | 11.61 | 12.61 | 12.11 | 0.02 |
| 59 Phenanthrene-d10 | 14.46 | 13.96 | 14.96 | 14.46 | 0.05 |
| 69 Chrysene-d12 | 18.73 | 18.23 | 19.23 | 18.74 | 0.04 |
| 134 Di-n-octylphthala | 19.96 | 19.46 | 20.46 | 19.97 | 0.04 |
| 77 Perylene-d12 | 20.87 | 20.37 | 21.37 | 20.88 | 0.04 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

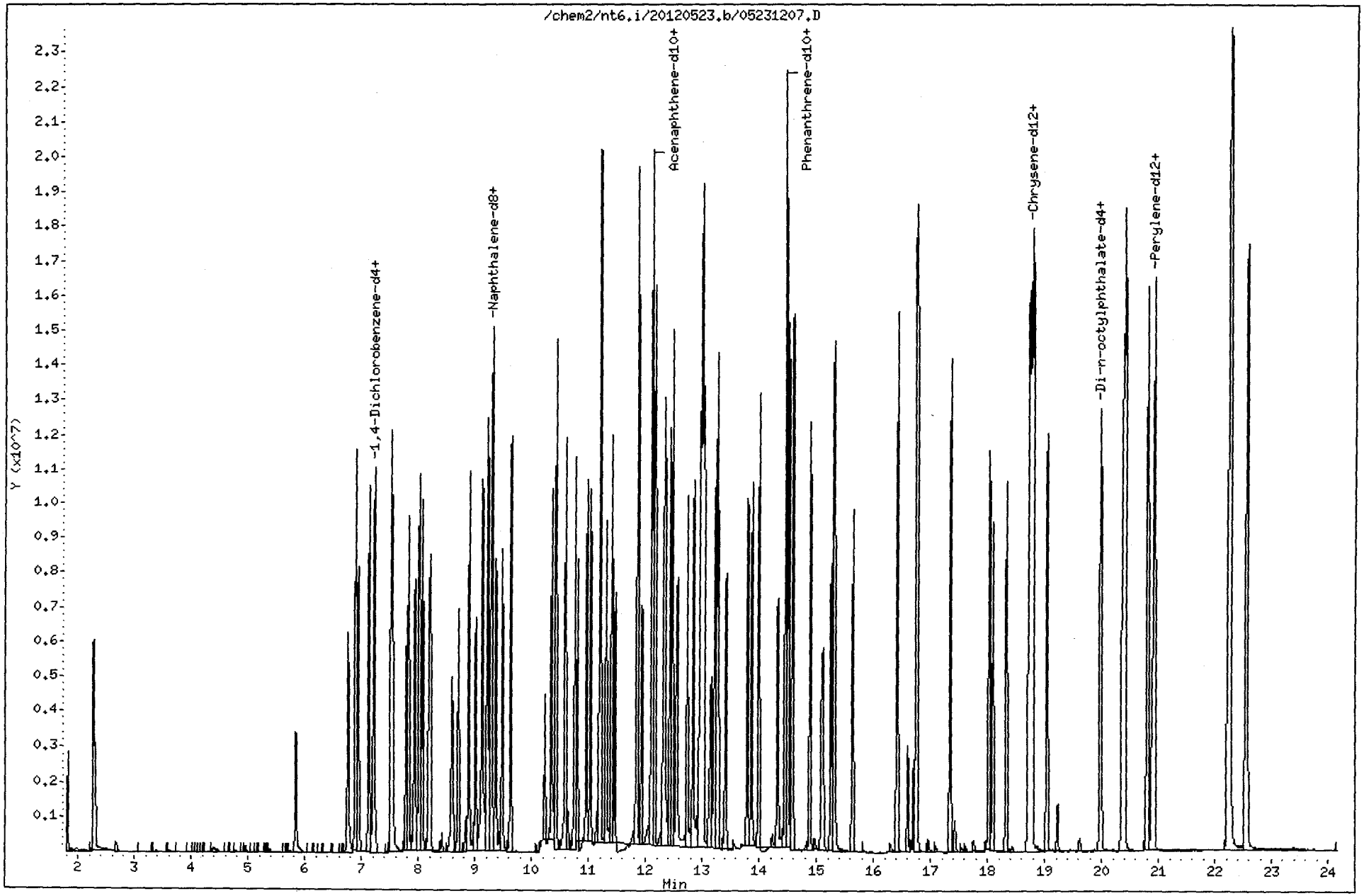
Data File: /chem2/nt6.i/20120523.b/05231207.D
Date : 23-MAY-2012 16:56
Client ID: IC800523
Sample Info: IC800523,

Column phase: ZB-5msi

Instrument: nt6.i

Operator: JZ
Column diameter: 0.32

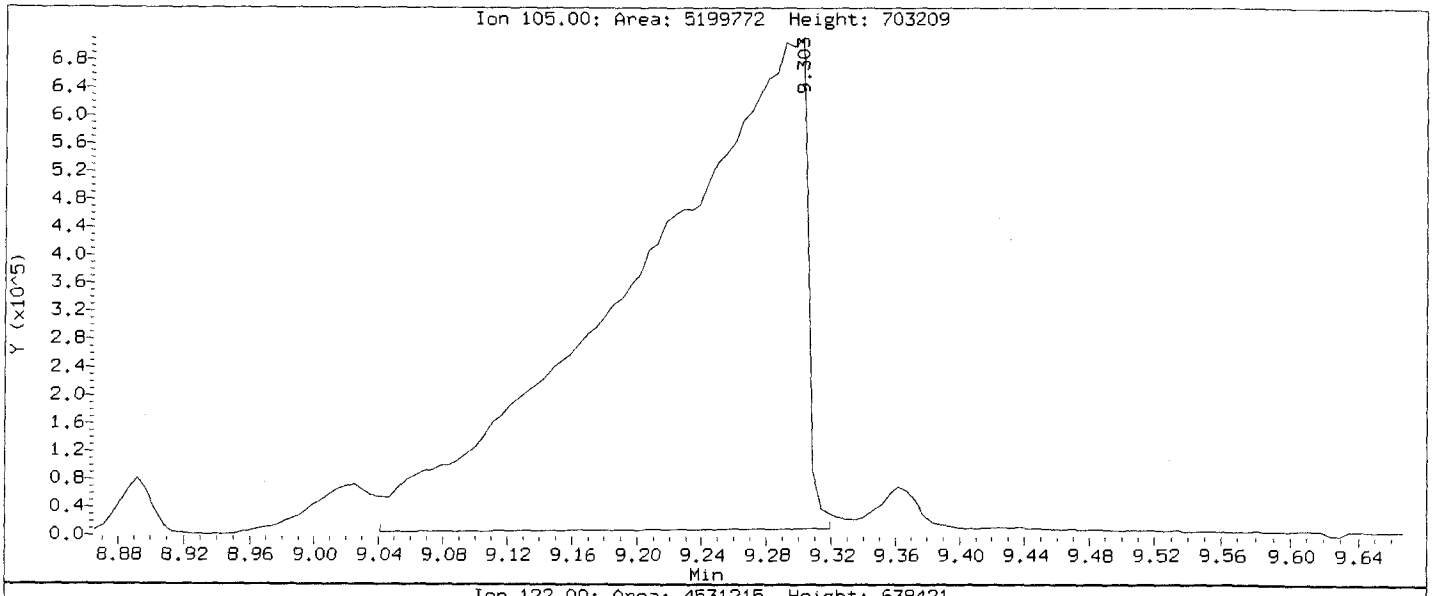


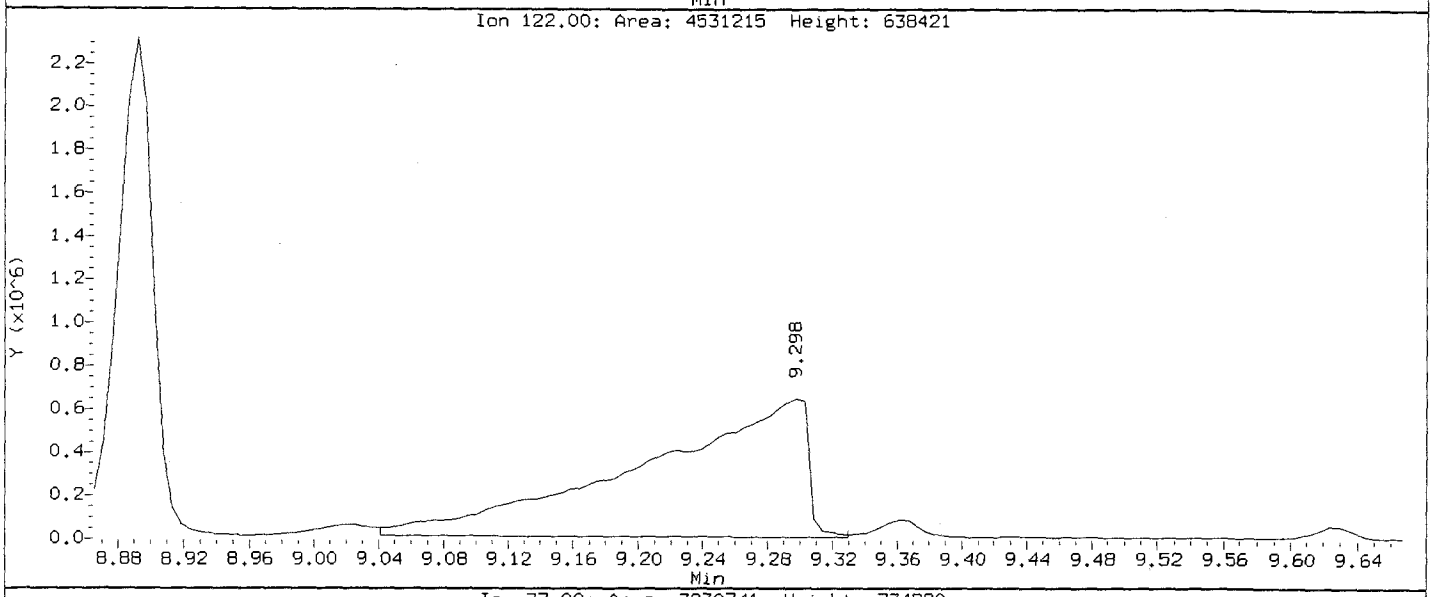


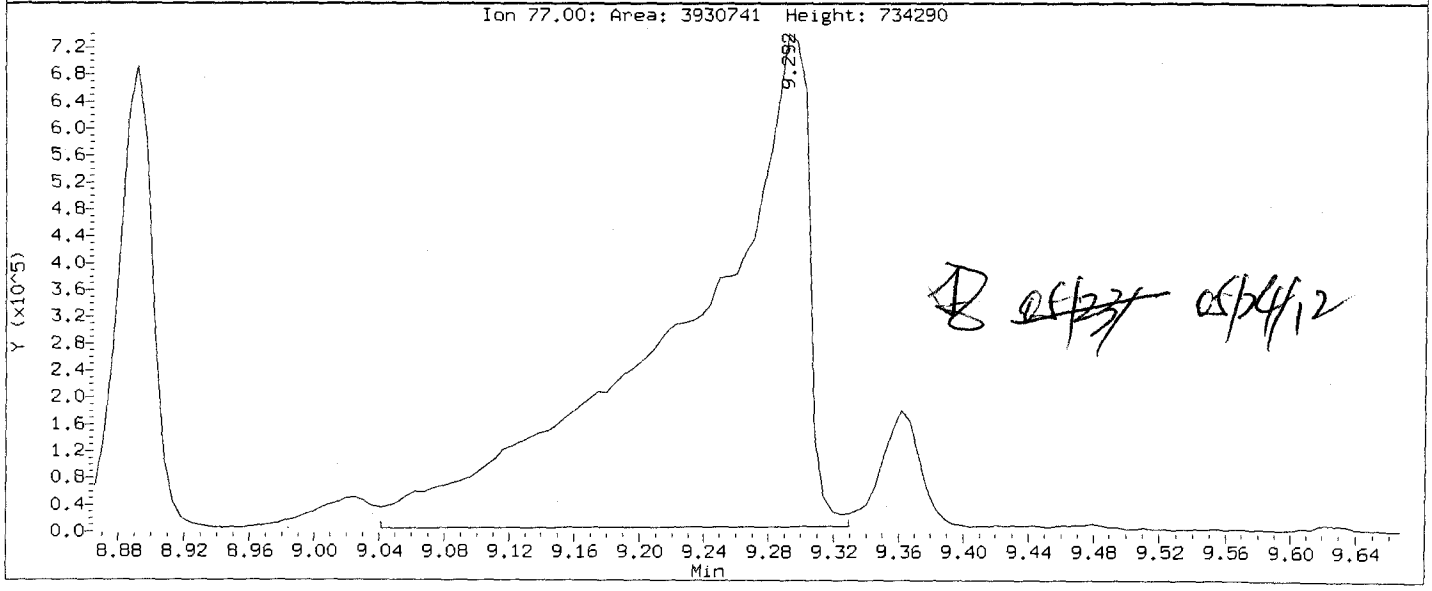

UU52:00603

Data File: /chem2/nt6.i/20120523.b/05231207.D
Injection Date: 23-MAY-2012 16:56
Instrument: nt6.i
Client Sample ID: IC800523

Compound: Benzoic acid
CAS Number: 65-85-0



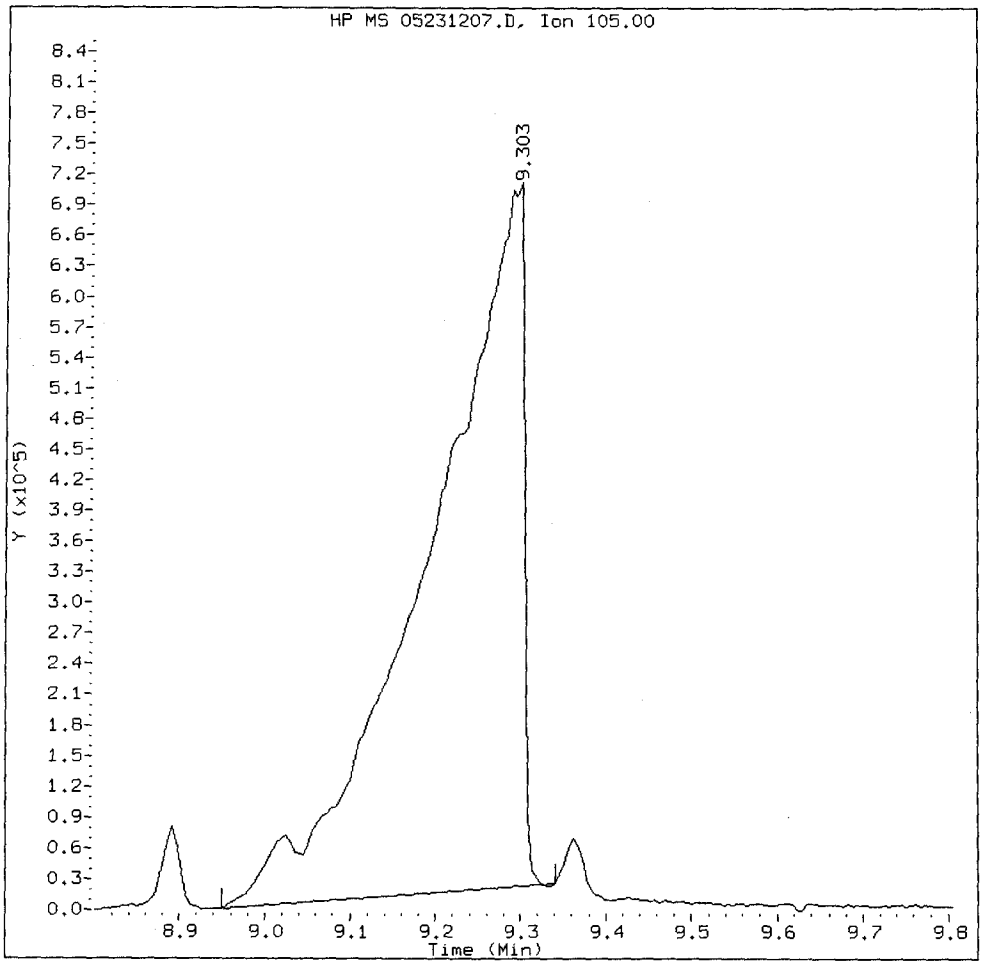




05/24/12

IC800523, /chem2/nt6.i/20120523.b/05231207.D

Benzoic acid  Amount: 181.45  Area: 5209192




MANUAL INTEGRATION for Benzoic acid

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____  Date: 05/24/12

CO-ELUTION SUMMARY FOR FILE - 05231207.D

Lab ID: IC800523, Method: SW846052312.m, Instrument: nt6.i, Date: 23-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120523.b/05231209.D
Lab Smp Id: ICV0523 Client Smp ID: ICV0523
Inj Date : 23-MAY-2012 20:29
Operator : JZ Inst ID: nt6.i
Smp Info : ICV0523
Misc Info : 12-
Comment : 1ul Injection
Method : /chem2/nt6.i/20120523.b/SW846052312.m
Meth Date : 24-May-2012 13:31 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 16:56 Cal File: 05231207.D
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Vt | 500.00000 | Volume of final extract (uL) |
| Vo | 500.00000 | Volume of sample extracted (mL) |

Cpnd Variable Local Compound Variable

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|---|
| $ 1 | 2-Fluorophenol | 112 | 5.187 | 5.187 | (0.721) | 1179238 | 24.4979 | 24.50 |
| $ 2 | Phenol-d5 | 99 | 6.865 | 6.870 | (0.955) | 1360701 | 23.7012 | 23.70 |
| 3 | Phenol | 94 | 6.886 | 6.886 | (0.958) | 1488556 | 21.7070 | 21.71 |
| $ 5 | 2-Chlorophenol-d4 | 132 | 6.907 | 6.907 | (0.961) | 1322938 | 23.7765 | 23.78 |
| 4 | Bis(2-Chloroethyl)ether | 93 | 6.897 | 6.897 | (0.959) | 1165628 | 24.4781 | 24.48 |
| 6 | 2-Chlorophenol | 128 | 6.934 | 6.934 | (0.964) | 1343142 | 21.4562 | 21.46 |
| 7 | 1,3-Dichlorobenzene | 146 | 7.126 | 7.121 | (0.991) | 1425025 | 22.2050 | 22.20 |
| * 8 | 1,4-Dichlorobenzene-d4 | 152 | 7.191 | 7.191 | (1.000) | 828280 | 20.0000 | |
| 9 | 1,4-Dichlorobenzene | 146 | 7.217 | 7.217 | (1.004) | 1446627 | 22.5543 | 22.55 |
| $ 10 | 1,2-Dichlorobenzene-d4 | 152 | 7.495 | 7.495 | (1.042) | 948325 | 23.3700 | 23.37 |
| 12 | 1,2-Dichlorobenzene | 146 | 7.516 | 7.516 | (1.045) | 1370178 | 22.3159 | 22.32 |
| 11 | Benzyl alcohol | 108 | 7.527 | 7.532 | (1.047) | 668735 | 18.6751 | 18.68 |
| 14 | 2,2'-oxybis(1-Chloropropane) | 45 | 7.784 | 7.784 | (1.082) | 1335478 | 25.0046 | 25.00 |
| 13 | 2-Methylphenol | 108 | 7.816 | 7.816 | (1.087) | 1172729 | 22.4121 | 22.41 |
| 17 | Hexachloroethane | 117 | 8.003 | 8.003 | (1.113) | 514726 | 22.4078 | 22.41 |
| 16 | N-Nitroso-di-n-propylamine | 70 | 8.008 | 8.008 | (1.114) | 758128 | 23.5761 | 23.58 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|---|
| | 15 4-Methylphenol | 108 | 8.056 | 8.056 | (1.120) | 1208409 | 22.3646 | 22.36 |
| $ | 18 Nitrobenzene-d5 | 82 | 8.152 | 8.152 | (0.881) | 1146008 | 23.6970 | 23.70 |
| | 19 Nitrobenzene | 77 | 8.179 | 8.179 | (0.883) | 1100099 | 22.1258 | 22.13 |
| | 20 Isophorone | 82 | 8.574 | 8.574 | (0.926) | 1864525 | 25.4934 | 25.49 |
| | 21 2-Nitrophenol | 139 | 8.702 | 8.702 | (0.940) | 728922 | 20.8291 | 20.83 |
| | 22 2,4-Dimethylphenol | 107 | 8.879 | 8.879 | (0.959) | 1126844 | 21.5187 | 21.52 |
| | 23 Bis(2-Chloroethoxy)methane | 93 | 9.002 | 9.002 | (0.972) | 1238273 | 22.5768 | 22.58 |
| | 24 Benzoic acid | 105 | 9.188 | 9.188 | (0.992) | 1468131 | 45.3154 | 45.32 |
| | 25 2,4-Dichlorophenol | 162 | 9.114 | 9.114 | (0.984) | 1104495 | 21.3002 | 21.30 |
| | 26 1,2,4-Trichlorobenzene | 180 | 9.210 | 9.210 | (0.995) | 1213981 | 21.7997 | 21.80 |
| * | 27 Naphthalene-d8 | 136 | 9.258 | 9.258 | (1.000) | 3017500 | 20.0000 | |
| | 28 Naphthalene | 128 | 9.290 | 9.290 | (1.003) | 3364324 | 21.9298 | 21.93 |
| | 29 4-Chloroaniline | 127 | 9.466 | 9.466 | (1.022) | 1302302 | 18.3824 | 18.38 |
| | 30 Hexachlorobutadiene | 225 | 9.627 | 9.627 | (1.040) | 739476 | 21.7470 | 21.75 |
| | 31 4-Chloro-3-methylphenol | 107 | 10.337 | 10.337 | (1.117) | 923488 | 22.2711 | 22.27 |
| | 32 2-Methylnaphthalene | 141 | 10.412 | 10.412 | (1.125) | 1719178 | 18.0270 | 18.03 |
| | 33 Hexachlorocyclopentadiene | 237 | 10.802 | 10.796 | (0.892) | 683120 | 22.6315 | 22.63 |
| | 34 2,4,6-Trichlorophenol | 196 | 10.957 | 10.957 | (0.905) | 853466 | 21.7328 | 21.73 |
| | 35 2,4,5-Trichlorophenol | 196 | 11.026 | 11.026 | (0.911) | 886322 | 23.3626 | 23.36 |
| $ | 36 2-Fluorobiphenyl | 172 | 11.074 | 11.074 | (0.915) | 2598626 | 22.3332 | 22.33 |
| | 37 2-Chloronaphthalene | 162 | 11.186 | 11.186 | (0.924) | 2272649 | 22.7279 | 22.73 |
| | 38 2-Nitroaniline | 65 | 11.448 | 11.448 | (0.946) | 434559 | 17.7019 | 17.70 |
| | 39 Dimethylphthalate | 163 | 11.838 | 11.838 | (0.978) | 2325101 | 22.9040 | 22.90 |
| | 40 Acenaphthylene | 152 | 11.854 | 11.854 | (0.979) | 3426390 | 21.8990 | 21.90 |
| | 41 2,6-Dinitrotoluene | 165 | 11.924 | 11.918 | (0.985) | 548493 | 21.8403 | 21.84 |
| * | 42 Acenaphthene-d10 | 164 | 12.105 | 12.105 | (1.000) | 1915567 | 20.0000 | |
| | 43 3-Nitroaniline | 138 | 12.127 | 12.127 | (1.002) | 536081 | 18.6598 | 18.66 |
| | 44 Acenaphthene | 153 | 12.159 | 12.153 | (1.004) | 2133377 | 20.3225 | 20.32 |
| | 45 2,4-Dinitrophenol | 184 | 12.298 | 12.298 | (1.016) | 879213 | 55.5920 | 55.59 |
| | 46 Dibenzofuran | 168 | 12.420 | 12.420 | (1.026) | 2694356 | 18.3230 | 18.32 |
| | 47 4-Nitrophenol | 109 | 12.522 | 12.517 | (1.034) | 194062 | 19.1914 | 19.19 |
| | 48 2,4-Dinitrotoluene | 165 | 12.538 | 12.538 | (1.036) | 734919 | 22.7078 | 22.71 |
| | 50 Diethylphthalate | 149 | 12.992 | 12.992 | (1.073) | 2244681 | 23.2101 | 23.21 |
| | 49 Fluorene | 166 | 12.971 | 12.971 | (1.071) | 2492228 | 20.9113 | 20.91 |
| | 51 4-Chlorophenyl-phenylether | 204 | 13.019 | 13.019 | (1.075) | 1309168 | 22.3967 | 22.40 |
| | 52 4-Nitroaniline | 138 | 13.115 | 13.120 | (1.083) | 500303 | 18.5066 | 18.51 |
| | 53 4,6-Dinitro-2-methylphenol | 198 | 13.190 | 13.190 | (0.912) | 1202815 | 53.5893 | 53.59 |
| | 54 N-Nitrosodiphenylamine | 169 | 13.232 | 13.232 | (0.915) | 1716280 | 21.8732 | 21.87 |
| $ | 55 2,4,6-Tribromophenol | 330 | 13.398 | 13.398 | (1.107) | 588951 | 23.6894 | 23.69 |
| | 56 4-Bromophenyl-phenylether | 248 | 13.788 | 13.788 | (0.954) | 847117 | 21.5770 | 21.58 |
| | 57 Hexachlorobenzene | 284 | 13.986 | 13.986 | (0.967) | 1062718 | 21.6660 | 21.67 |
| | 58 Pentachlorophenol | 266 | 14.306 | 14.306 | (0.990) | 340497 | 16.3506 | 16.35 (R) |
| * | 59 Phenanthrene-d10 | 188 | 14.456 | 14.456 | (1.000) | 3113458 | 20.0000 | |
| | 60 Phenanthrene | 178 | 14.493 | 14.493 | (1.003) | 3483949 | 21.5237 | 21.52 |
| | 61 Anthracene | 178 | 14.563 | 14.563 | (1.007) | 3482419 | 21.2922 | 21.29 |
| | 62 Carbazole | 167 | 14.873 | 14.873 | (1.029) | 2858501 | 22.5144 | 22.51 |
| | 63 Di-n-butylphthalate | 149 | 15.626 | 15.626 | (1.081) | 3684393 | 24.5397 | 24.54 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|---|
| | 64 Fluoranthene | 202 | 16.411 | 16.411 | (1.135) | 3980107 | 22.9823 | 22.98 |
| | 65 Pyrene | 202 | 16.753 | 16.753 | (0.894) | 4140140 | 20.9356 | 20.94 |
| $ | 66 Terphenyl-d14 | 244 | 17.111 | 17.106 | (0.913) | 2977583 | 22.4630 | 22.46 |
| | 67 Butylbenzylphthalate | 149 | 18.019 | 18.019 | (0.962) | 1703655 | 22.6799 | 22.68 |
| | 68 Benzo(a)anthracene | 228 | 18.714 | 18.708 | (0.999) | 3976821 | 19.8816 | 19.88 |
| * | 69 Chrysene-d12 | 240 | 18.735 | 18.735 | (1.000) | 3829511 | 20.0000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | 18.751 | 18.751 | (1.001) | 1532360 | 20.2722 | 20.27 |
| | 71 Chrysene | 228 | 18.772 | 18.772 | (1.002) | 3825046 | 20.8132 | 20.81 |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 19.034 | 19.034 | (0.953) | 2314041 | 22.5555 | 22.56 |
| * | 134 Di-n-octylphthalate-d4 | 153 | 19.964 | 19.964 | (1.000) | 3649186 | 20.0000 | |
| | 73 Di-n-octylphthalate | 149 | 19.974 | 19.974 | (1.001) | 3825331 | 22.4302 | 22.43 |
| | 74 Benzo(b)fluoranthene | 252 | 20.386 | 20.354 | (0.977) | 4364175 | 20.2402 | 20.24 |
| | 75 Benzo(k)fluoranthene | 252 | 20.386 | 20.386 | (0.977) | 4364175 | 21.2782 | 21.28 |
| | 187 Total Benzofluoranthenes | 252 | 20.386 | 20.386 | (0.977) | 8464608 | 43.2933 | 43.29 |
| | 76 Benzo(a)pyrene | 252 | 20.792 | 20.786 | (0.996) | 3802429 | 20.3108 | 20.31 |
| * | 77 Perylene-d12 | 264 | 20.872 | 20.872 | (1.000) | 3997364 | 20.0000 | |
| | 78 Indeno(1,2,3-cd)pyrene | 276 | 22.218 | 22.218 | (1.064) | 5743375 | 20.8304 | 20.83 |
| | 79 Dibenzo(a,h)anthracene | 278 | 22.245 | 22.245 | (1.066) | 4761189 | 21.4764 | 21.48 |
| | 80 Benzo(g,h,i)perylene | 276 | 22.528 | 22.528 | (1.079) | 4831616 | 20.7739 | 20.77 |
| | 90 N-Nitrosodimethylamine | 74 | 2.276 | 2.276 | (0.316) | 685926 | 23.9414 | 23.94 |
| | 103 Pyridine | 79 | 2.254 | 2.254 | (0.314) | 1026117 | 21.4366 | 21.44 |
| | 91 Aniline | 93 | 6.758 | 6.758 | (0.940) | 1578057 | 20.9154 | 20.92 |
| | 105 1-methylnaphthalene | 141 | 10.583 | 10.583 | (1.143) | 1518347 | 20.7246 | 20.72 |
| | 93 Benzidine | 184 | 16.700 | 16.700 | (0.891) | 1082004 | 25.5877 | 25.59 |
| | 111 Azobenzene (1,2-DP-Hydrazine) | 77 | 13.265 | 13.265 | (1.096) | 2053921 | 22.9066 | 22.91 |
| | 143 1,4-Dioxane | 88 | 1.806 | 1.806 | (0.251) | 480903 | 27.6876 | 27.69 |
| $ | 137 d8-1,4-Dioxane | 96 | 1.774 | 1.774 | (0.247) | 513598 | 27.7147 | 27.71 |
| | 144 alpha-Terpineol | 59 | 9.354 | 9.354 | (1.010) | 591512 | 20.4081 | 20.41 |
| | 177 p-Benzoquinone | 82 | 5.834 | 5.834 | (0.630) | 223746 | 27.0239 | 27.02 |
| | 98 Retene | 219 | 17.341 | 17.341 | (0.926) | 1662656 | 23.4118 | 23.41 |
| | 99 Perylene | 252 | 20.909 | 20.904 | (1.002) | 4281016 | 23.6479 | 23.65 |
| | 133 Butylatedhydroxytoluene | 205 | 12.330 | 12.330 | (1.019) | 1776388 | 23.7578 | 23.76 |
| | 115 Tributyl Phosphate | 99 | 13.382 | 13.382 | (0.926) | 2176274 | 23.5786 | 23.58 |
| | 116 Dibutyl Phenyl Phosphate | 175 | 15.086 | 15.086 | (1.044) | 1802155 | 24.1638 | 24.16 |
| | 117 Butyl Diphenyl Phosphate | 94 | 16.737 | 16.737 | (0.893) | 543323 | 23.5965 | 23.60 |
| | 118 Triphenyl Phosphate | 326 | 18.318 | 18.318 | (0.978) | 1046709 | 23.6112 | 23.61 |
| | 123 Acetophenone | 105 | 7.922 | 7.922 | (1.102) | 1598526 | 24.6461 | 24.65 |
| | 168 Pentachlorobenzene | 250 | 12.463 | 12.463 | (1.030) | 1100257 | 22.1469 | 22.15 |
| | 113 Diphenyl Oxide | 170 | 11.400 | 11.395 | (0.942) | 1622131 | 23.1470 | 23.15 |
| | 112 Biphenyl | 154 | 11.197 | 11.197 | (0.925) | 2169155 | 20.2858 | 20.29 |
| | 120 2,3,4,6-Tetrachlorophenol | 232 | 12.725 | 12.725 | (1.051) | 588586 | 21.7014 | 21.70 |
| | 151 1,2,4,5-Tetrachlorobenzene | 216 | 10.754 | 10.754 | (0.888) | 1258481 | 24.1951 | 24.20 |
| | 110 Tetrachloroguaiacol | 247 | 14.440 | 14.440 | (0.999) | 955075 | 46.3557 | 46.36 |
| | 109 3,4,5-Trichloroguaiacol | 213 | 12.826 | 12.832 | (0.887) | 464375 | 22.6694 | 22.67 |
| | 181 3,4,6-Trichloroguaiacol | 211 | 12.944 | 12.944 | (1.800) | 557261 | 23.4767 | 23.48 |
| | 108 4,5,6-Trichloroguaiacol | 213 | 13.858 | 13.858 | (1.145) | 468566 | 22.4243 | 22.42 |
| | 184 3,4-Dichloroguaiacol | 192 | 11.299 | 11.299 | (1.571) | 479688 | 22.7533 | 22.75 |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|
| 107 4,5-Dichloroguaiacol | 192 | 12.095 | 12.095 | (0.999) | 1209073 | 44.9743 | 44.97 |
| 182 4,6-Dichloroguaiacol | 192 | 12.095 | 12.095 | (1.682) | 1214000 | 46.0266 | 46.03 |
| 185 4-Chloroguaiacol | 115 | 10.225 | 10.225 | (1.422) | 231796 | 11.3483 | 11.35 |
| 186 Carbaryl | 144 | 15.300 | 15.300 | (1.058) | 1620317 | 21.4972 | 21.50 |
| 178 2-Benzyl-4-Chlorophenol | 218 | 15.279 | 15.273 | (1.057) | 810349 | 24.2758 | 24.28 |
| 106 Guaiacol | 124 | 8.206 | 8.206 | (1.141) | 1001993 | 23.9345 | 23.93 |

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05231209.D
Lab Smp Id: ICV0523
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Misc Info: 12-

Calibration Date: 23-MAY-2012
Calibration Time: 13:34
Client Smp ID: ICV0523
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 4.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 963757 | 481878 | 1927514 | 828280 | -14.06 |
| 27 Naphthalene-d8 | 3430476 | 1715238 | 6860952 | 3017500 | -12.04 |
| 42 Acenaphthene-d10 | 2259168 | 1129584 | 4518336 | 1915567 | -15.21 |
| 59 Phenanthrene-d10 | 3446677 | 1723338 | 6893354 | 3113458 | -9.67 |
| 69 Chrysene-d12 | 3961525 | 1980762 | 7923050 | 3829511 | -3.33 |
| 134 Di-n-octylphthala | 3758743 | 1879372 | 7517486 | 3649186 | -2.91 |
| 77 Perylene-d12 | 4154109 | 2077054 | 8308218 | 3997364 | -3.77 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 7.19 | 6.69 | 7.69 | 7.19 | 0.00 |
| 27 Naphthalene-d8 | 9.26 | 8.76 | 9.76 | 9.26 | 0.00 |
| 42 Acenaphthene-d10 | 12.11 | 11.61 | 12.61 | 12.11 | 0.00 |
| 59 Phenanthrene-d10 | 14.46 | 13.96 | 14.96 | 14.46 | 0.00 |
| 69 Chrysene-d12 | 18.73 | 18.23 | 19.23 | 18.73 | 0.00 |
| 134 Di-n-octylphthala | 19.96 | 19.46 | 20.46 | 19.96 | 0.00 |
| 77 Perylene-d12 | 20.87 | 20.37 | 21.37 | 20.87 | 0.00 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: ICV0523
Level: LOW
Data Type: MS DATA
SpikeList File: ICVS.spk
Sublist File: ICALS.sub
Method File: /chem2/nt6.i/20120523.b/SW846052312.m
Misc Info: 12-

Client SDG: 20120523
Fraction: SV
Client Smp ID: ICV0523
Operator: JZ
SampleType: LCS
Quant Type: ISTD

| SPIKE COMPOUND | CONC ADDED ug/L | CONC RECOVERED ug/L | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 3 Phenol | 25.00 | 21.71 | 86.83 | 70-130 |
| 4 Bis(2-Chloroethyl) | 25.00 | 24.48 | 97.91 | 70-130 |
| 6 2-Chlorophenol | 25.00 | 21.46 | 85.82 | 70-130 |
| 7 1,3-Dichlorobenzen | 25.00 | 22.20 | 88.82 | 70-130 |
| 9 1,4-Dichlorobenzen | 25.00 | 22.55 | 90.22 | 70-130 |
| 11 Benzyl alcohol | 25.00 | 18.68 | 74.70 | 70-130 |
| 12 1,2-Dichlorobenzen | 25.00 | 22.32 | 89.26 | 70-130 |
| 13 2-Methylphenol | 25.00 | 22.41 | 89.65 | 70-130 |
| 14 2,2'-oxybis(1-Chlo | 25.00 | 25.00 | 100.02 | 70-130 |
| 15 4-Methylphenol | 25.00 | 22.36 | 89.46 | 70-130 |
| 16 N-Nitroso-di-n-pro | 25.00 | 23.58 | 94.30 | 70-130 |
| 17 Hexachloroethane | 25.00 | 22.41 | 89.63 | 70-130 |
| 19 Nitrobenzene | 25.00 | 22.13 | 88.50 | 70-130 |
| 20 Isophorone | 25.00 | 25.49 | 101.97 | 70-130 |
| 21 2-Nitrophenol | 25.00 | 20.83 | 83.32 | 70-130 |
| 22 2,4-Dimethylphenol | 25.00 | 21.52 | 86.07 | 70-130 |
| 23 Bis(2-Chloroethoxy | 25.00 | 22.58 | 90.31 | 70-130 |
| 24 Benzoic acid | 50.00 | 45.32 | 90.63 | 70-130 |
| 25 2,4-Dichlorophenol | 25.00 | 21.30 | 85.20 | 70-130 |
| 26 1,2,4-Trichloroben | 25.00 | 21.80 | 87.20 | 70-130 |
| 28 Naphthalene | 25.00 | 21.93 | 87.72 | 70-130 |
| 29 4-Chloroaniline | 25.00 | 18.38 | 73.53 | 70-130 |
| 30 Hexachlorobutadien | 25.00 | 21.75 | 86.99 | 70-130 |
| 31 4-Chloro-3-methylp | 25.00 | 22.27 | 89.08 | 70-130 |
| 32 2-Methylnaphthalen | 25.00 | 18.03 | 72.11 | 70-130 |
| 33 Hexachlorocyclopen | 25.00 | 22.63 | 90.53 | 70-130 |
| 34 2,4,6-Trichlorophe | 25.00 | 21.73 | 86.93 | 70-130 |
| 35 2,4,5-Trichlorophe | 25.00 | 23.36 | 93.45 | 70-130 |
| 37 2-Chloronaphthalen | 25.00 | 22.73 | 90.91 | 70-130 |
| 38 2-Nitroaniline | 25.00 | 17.70 | 70.81 | 70-130 |
| 39 Dimethylphthalate | 25.00 | 22.90 | 91.62 | 70-130 |
| 40 Acenaphthylene | 25.00 | 21.90 | 87.60 | 70-130 |
| 41 2,6-Dinitrotoluene | 25.00 | 21.84 | 87.36 | 70-130 |

| SPIKE | COMPOUND | CONC ADDED ug/L | CONC RECOVERED ug/L | % RECOVERED | LIMITS |
|---|---|---|---|---|---|
| 43 | 3-Nitroaniline | 25.00 | 18.66 | 74.64 | 70-130 |
| 44 | Acenaphthene | 25.00 | 20.32 | 81.29 | 70-130 |
| 45 | 2,4-Dinitrophenol | 50.00 | 55.59 | 111.18 | 70-130 |
| 46 | Dibenzofuran | 25.00 | 18.32 | 73.29 | 70-130 |
| 47 | 4-Nitrophenol | 25.00 | 19.19 | 76.77 | 70-130 |
| 48 | 2,4-Dinitrotoluene | 25.00 | 22.71 | 90.83 | 70-130 |
| 49 | Fluorene | 25.00 | 20.91 | 83.65 | 70-130 |
| 50 | Diethylphthalate | 25.00 | 23.21 | 92.84 | 70-130 |
| 51 | 4-Chlorophenyl-phe | 25.00 | 22.40 | 89.59 | 70-130 |
| 52 | 4-Nitroaniline | 25.00 | 18.51 | 74.03 | 70-130 |
| 53 | 4,6-Dinitro-2-meth | 50.00 | 53.59 | 107.18 | 70-130 |
| 54 | N-Nitrosodiphenyla | 25.00 | 21.87 | 87.49 | 70-130 |
| 56 | 4-Bromophenyl-phen | 25.00 | 21.58 | 86.31 | 70-130 |
| 57 | Hexachlorobenzene | 25.00 | 21.67 | 86.66 | 70-130 |
| 58 | Pentachlorophenol | 25.00 | 16.35 | 65.40* | 70-130 |
| 60 | Phenanthrene | 25.00 | 21.52 | 86.09 | 70-130 |
| 61 | Anthracene | 25.00 | 21.29 | 85.17 | 70-130 |
| 62 | Carbazole | 25.00 | 22.51 | 90.06 | 70-130 |
| 63 | Di-n-butylphthalat | 25.00 | 24.54 | 98.16 | 70-130 |
| 64 | Fluoranthene | 25.00 | 22.98 | 91.93 | 70-130 |
| 65 | Pyrene | 25.00 | 20.94 | 83.74 | 70-130 |
| 67 | Butylbenzylphthala | 25.00 | 22.68 | 90.72 | 70-130 |
| 68 | Benzo(a)anthracene | 25.00 | 19.88 | 79.53 | 70-130 |
| 70 | 3,3'-Dichlorobenzi | 25.00 | 20.27 | 81.09 | 70-130 |
| 71 | Chrysene | 25.00 | 20.81 | 83.25 | 70-130 |
| 72 | bis(2-Ethylhexyl)p | 25.00 | 22.56 | 90.22 | 70-130 |
| 73 | Di-n-octylphthalat | 25.00 | 22.43 | 89.72 | 70-130 |
| 74 | Benzo(b)fluoranthe | 25.00 | 20.24 | 80.96 | 70-130 |
| 75 | Benzo(k)fluoranthe | 25.00 | 21.28 | 85.11 | 70-130 |
| 187 | Total Benzofluoran | 50.00 | 43.29 | 86.59 | 70-130 |
| 76 | Benzo(a)pyrene | 25.00 | 20.31 | 81.24 | 70-130 |
| 78 | Indeno(1,2,3-cd)py | 25.00 | 20.83 | 83.32 | 70-130 |
| 79 | Dibenzo(a,h)anthra | 25.00 | 21.48 | 85.91 | 70-130 |
| 80 | Benzo(g,h,i)peryle | 25.00 | 20.77 | 83.10 | 70-130 |
| 90 | N-Nitrosodimethyla | 25.00 | 23.94 | 95.77 | 70-130 |
| 103 | Pyridine | 25.00 | 21.44 | 85.75 | 70-130 |
| 91 | Aniline | 25.00 | 20.92 | 83.66 | 70-130 |
| 105 | 1-methylnaphthalen | 25.00 | 20.72 | 82.90 | 70-130 |
| 93 | Benzidine | 25.00 | 25.59 | 102.35 | 70-130 |
| 111 | Azobenzene (1,2-DP | 25.00 | 22.91 | 91.63 | 70-130 |
| 143 | 1,4-Dioxane | 25.00 | 27.69 | 110.75 | 70-130 |
| 144 | alpha-Terpineol | 25.00 | 20.41 | 81.63 | 70-130 |
| 177 | p-Benzoquinone | 25.00 | 27.02 | 108.10 | 70-130 |
| 98 | Retene | 25.00 | 23.41 | 93.65 | 70-130 |
| 133 | Butylatedhydroxyto | 25.00 | 23.76 | 95.03 | 70-130 |
| 115 | Tributyl Phosphate | 25.00 | 23.58 | 94.31 | 70-130 |
| 116 | Dibutyl Phenyl Pho | 25.00 | 24.16 | 96.66 | 70-130 |

| SPIKE COMPOUND | CONC ADDED ug/L | CONC RECOVERED ug/L | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 117 Butyl Diphenyl Pho | 25.00 | 23.60 | 94.39 | 70-130 |
| 118 Triphenyl Phosphat | 25.00 | 23.61 | 94.44 | 70-130 |
| 123 Acetophenone | 25.00 | 24.65 | 98.58 | 70-130 |
| 168 Pentachlorobenzene | 25.00 | 22.15 | 88.59 | 70-130 |
| 113 Diphenyl Oxide | 25.00 | 23.15 | 92.59 | 70-130 |
| 112 Biphenyl | 25.00 | 20.29 | 81.14 | 70-130 |
| 120 2,3,4,6-Tetrachlor | 25.00 | 21.70 | 86.81 | 70-130 |
| 151 1,2,4,5-Tetrachlor | 25.00 | 24.20 | 96.78 | 70-130 |
| 110 Tetrachloroguaiaco | 50.00 | 46.36 | 92.71 | 70-130 |
| 109 3,4,5-Trichlorogua | 25.00 | 22.67 | 90.68 | 70-130 |
| 181 3,4,6-Trichlorogua | 25.00 | 23.48 | 93.91 | 70-130 |
| 108 4,5,6-Trichlorogua | 25.00 | 22.42 | 89.70 | 70-130 |
| 184 3,4-Dichloroguaiac | 25.00 | 22.75 | 91.01 | 70-130 |
| 107 4,5-Dichloroguaiac | 50.00 | 44.97 | 89.95 | 70-130 |
| 182 4,6-Dichloroguaiac | 50.00 | 46.03 | 92.05 | 70-130 |
| 185 4-Chloroguaiacol | 12.50 | 11.35 | 90.79 | 70-130 |
| 106 Guaiacol | 25.00 | 23.93 | 95.74 | 70-130 |
| 186 Carbaryl | 25.00 | 21.50 | 85.99 | 70-130 |
| 178 2-Benzyl-4-Chlorop | 25.00 | 24.28 | 97.10 | 70-130 |

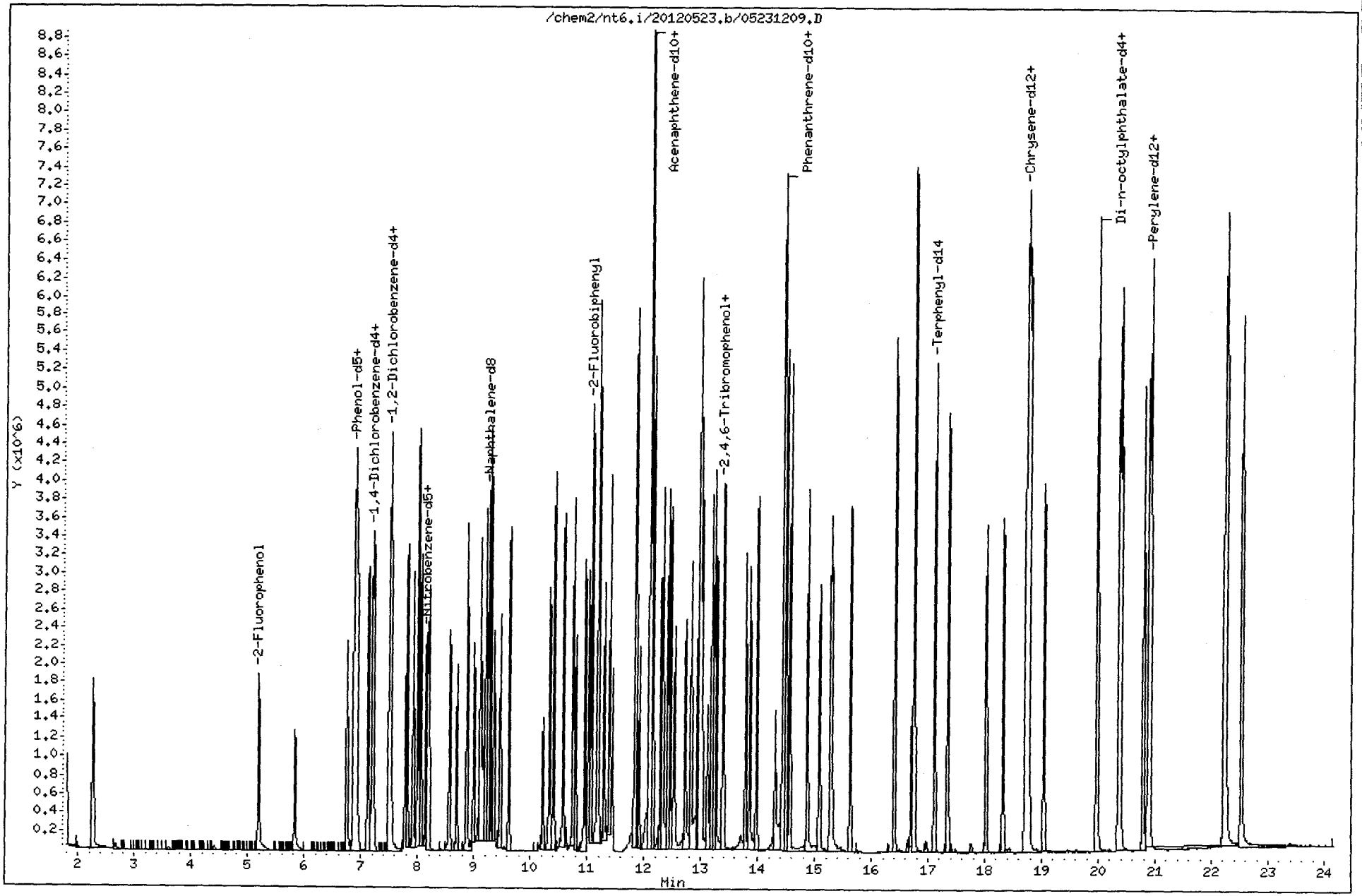
| SURROGATE COMPOUND | CONC ADDED ug/L | CONC RECOVERED ug/L | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 1 2-Fluorophenol | 25.00 | 24.50 | 97.99 | 75-125 |
| $ 2 Phenol-d5 | 25.00 | 23.70 | 94.80 | 75-125 |
| $ 5 2-Chlorophenol-d4 | 25.00 | 23.78 | 95.11 | 75-125 |
| $ 10 1,2-Dichlorobenzen | 25.00 | 23.37 | 93.48 | 75-125 |
| $ 18 Nitrobenzene-d5 | 25.00 | 23.70 | 94.79 | 75-125 |
| $ 36 2-Fluorobiphenyl | 25.00 | 22.33 | 89.33 | 75-125 |
| $ 55 2,4,6-Tribromophen | 25.00 | 23.69 | 94.76 | 75-125 |
| $ 66 Terphenyl-d14 | 25.00 | 22.46 | 89.85 | 75-125 |
| $ 137 d8-1,4-Dioxane | 25.00 | 27.71 | 110.86 | 75-125 |

Data File: /chem2/nt6.i/20120523.b/05231209.D
Date : 23-MAY-2012 20:29
Client ID: ICV0523
Sample Info: ICV0523
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt6.i

Operator: JZ
Column diameter: 0.32






UU52:00615

CO-ELUTION SUMMARY FOR FILE - 05231209.D

Lab ID: ICV0523, Method: SW846052312.m, Instrument: nt6.i, Date: 23-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Semivolatile Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: UU52, UU62

**Analytical Resources, Incorporated**
Analytical Chemists and Consultants

# GC/MS SVOA Analyst Notes / Corrective Action Log

ARI Project ID: UU52 Client ID: Anchor QEA, LLC

ARI SOP: **801S**(SIM-PNA) **802S**(Butyl Tins) **804S**(SVOA-8270D) **805S**(op-Pest)

Parameter(s): 8270

Instrument: NT-2 NT-4 NT-6 NT-8 NT11

Curve Date: 4/23/12 Analysis Start Date: 4/24/12

| | | | |
|---|---|---|---|
| DFTPP Tune Meets Criteria? | YES / NO | Internal Standard Meets Criteria? | YES / NO |
| DDT Breakdown <20%? | YES / NO / NA | Method Blank In Control? | YES / NO |
| Peak Tailing Factor ≤2? | YES / NO / NA | LCS / LCSD Recovery In Control? | YES / NO |
| ICal acceptable? | YES / NO | CCal acceptable? | YES / NO |
| Q flag applied? | YES / NO | Q flag applied? | YES / NO |
| Surrogate Recovery in Control? | YES / NO | Special Analysis Criteria Met? | YES / NO / NA |
| Manual Integrations for ICal? | YES / NO | Manual Integrations for Samples? | Yes / NO |

**Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):**

Samples 1-4 + MB/LCS/LCSD + RLS

Forms included.

LCS/LCSD: compound "Pentene" not added in.

**Additional Details on Reverse: Yes / No**

**Analyst:** _____ **Date:** 5/24/12, 5/30/12

**Reviewer:** MW **Date:** 5/30

# Analytical Resources Inc.: Organics Instrument Log
## NT-6 Serial No.:GC=US00036167, MS=US81221575

Date: 5/24/12 Analysis: 8270 Analyst: [illegible]
GC Program: [illegible] Column No: 208282 Column Type: ZB-5MSi
Instrument Tune (.U or .CT.): 120106 EM Voltage: 1741
Calibration File: 05241201 Curve Date: 5/23/12 Injection Vol.: [illegible]

| IS/SS | Ical/Ccal | LCS/ICV |
|---|---|---|
| 1875-1 | 1932-2, 1940-1 | |
| | 1941-1, 1942-1 | |
| | 1614, 1934-1 | |
| | 1939-3 | |

## Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem2/nt6.i/20120524.b

| | Time | Filename | LabID | ClientId | DF | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1050 | 05241201.D | CC0524 | CC0524 | 1 | 7.19 | 841610 | 9.26 | 3091072 | 12.11 | 1981765 | 14.46 | 3205322 | 18.73 | 3861093 | 20.87 | 4039539 | 19.96 | 3655319 |
| 2 | 1126 | 05241202.D | UU62MBW1 | UU62MBW1 | 1 | 7.19 | 971489 | 9.25 | 3374983 | 12.10 | 2127525 | 14.45 | 3333166 | 18.73 | 3717834 | 19.96 | 3450320 | 20.87 | 4238968 |
| 3 | 1159 | 05241203.D | UU62LCSW1 | UU62LCSW1 | 1 | 7.19 | 847652 | 9.26 | 3074341 | 12.11 | 1869892 | 14.45 | 3057363 | 18.73 | 3736704 | 19.96 | 3533231 | 20.87 | 3942542 |
| 4 | 1233 | 05241204.D | UU62LCSDW1 | UU62LCSDW1 | 1 | 7.19 | 912008 | 9.26 | 3381197 | 12.11 | 2121467 | 14.46 | 3414818 | 18.73 | 3963208 | 19.96 | 3774442 | 20.87 | 4232897 |
| 5 | 1307 | 05241205.D | UU62QLS | UU62QLS | 1 | 7.19 | 926851 | 9.25 | 3296251 | 12.10 | 2107365 | 14.45 | 3337981 | 18.73 | 3892343 | 19.96 | 3637574 | 20.87 | 4355088 |
| 6 | 1340 | 05241206.D | UU62J | MS-SSRB-1205 | 1 | 7.19 | 896401 | 9.25 | 3178107 | 12.10 | 2016726 | 14.45 | 3170811 | 18.73 | 3765318 | 19.96 | 3520284 | 20.86 | 4272719 |
| 7 | 1414 | 05241207.D | UU62K | MS-SSFB-1205 | 1 | 7.19 | 948003 | 9.26 | 3347510 | 12.10 | 2141551 | 14.45 | 3383727 | 18.73 | 3983969 | 19.96 | 3747644 | 20.86 | 4429070 |
| 8 | 1447 | 05241208.D | UU68A | MW2-W-9 | 1 | 7.19 | 964832 | 9.26 | 3438997 | 12.10 | 2237574 | 14.45 | 3576664 | 18.73 | 3864134 | 19.96 | 3924286 | 20.87 | 4454331 |
| 9 | 1521 | 05241209.D | US34D | SPE003-40G | 3 | 7.19 | 811378 | 9.25 | 2975429 | 12.10 | 1914303 | 14.45 | 3022789 | 18.73 | 3393496 | 19.97 | 3350409 | 20.87 | 3760179 |
| 10 | 1554 | 05241210.D | UU66A | MW1-W-8.5 | 1 | 7.19 | 816977 | 9.26 | 2969657 | 12.10 | 1796681 | 14.45 | 2930383 | 18.73 | 3718823 | 19.96 | 3702750 | 20.87 | 4405537 |
| 11 | 1627 | 05241211.D | UU66B | FIELD DUPLIC | 1 | 7.19 | 834157 | 9.26 | 3012475 | 12.10 | 1814922 | 14.45 | 2785390 | 18.73 | 3703728 | 19.97 | 3668012 | 20.87 | 4385818 |
| 12 | 1701 | 05241212.D | UU22A | GP5-S-2 | 1 | 7.19 | 745464 | 9.25 | 2665987 | 12.10 | 1656488 | 14.45 | 2670063 | 18.74 | 4436955 | 19.98 | 4248614 | 20.90 | 5061876 |

[illegible] 05/24/12

**Every line must contain information or be lined out. Make all entries legible.**
**Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS**

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/nt6.i/20120524.b

ARI Job No.: CC05 Method: SW846052312.m Instrument: nt6.i Date: 24-MAY-2012

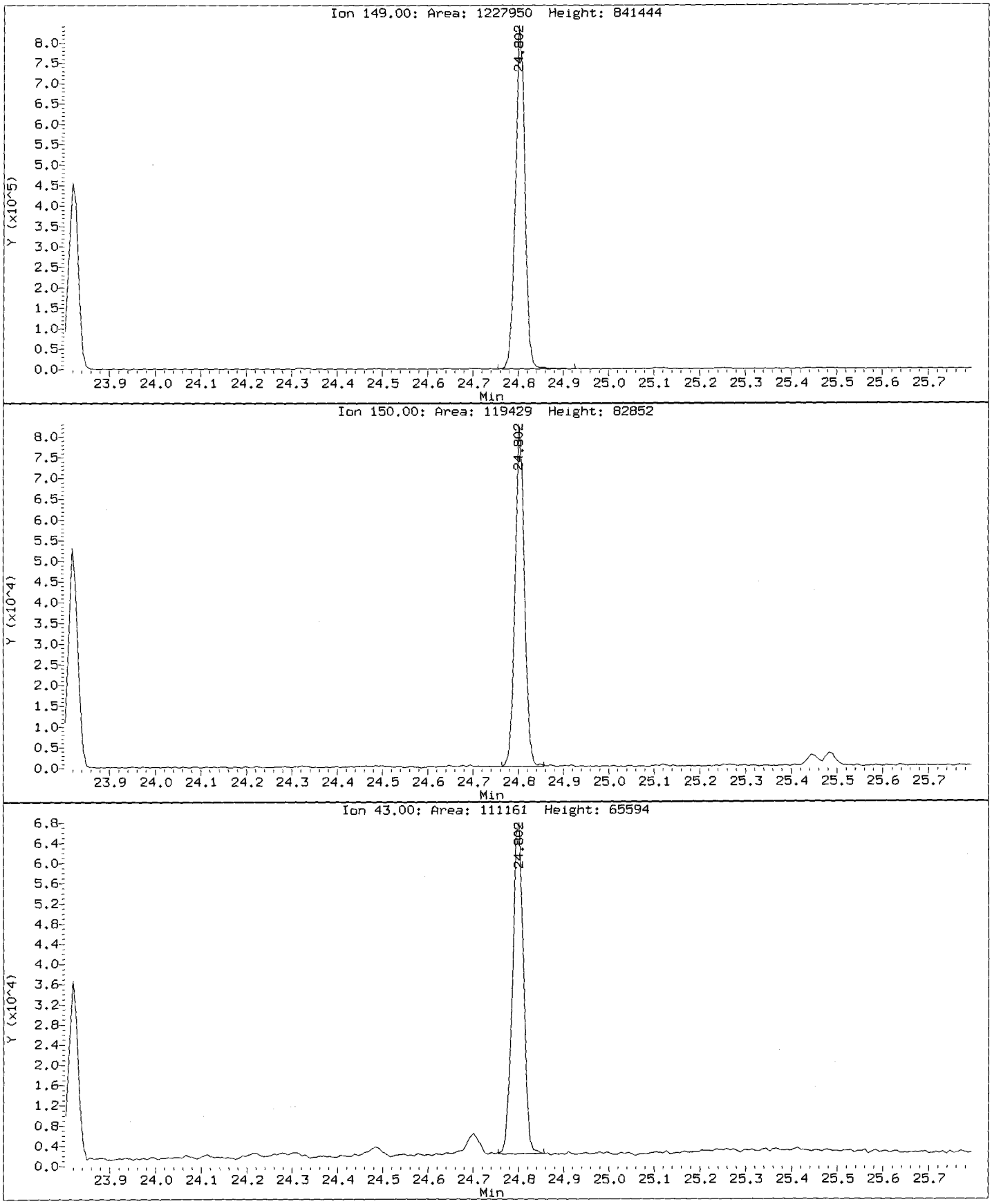
05/24/12

| Time | Filename | LabID | ClientId | DF | Manually Integrated Compounds |
|---|---|---|---|---|---|
| 1050 | 05241201.D | CC0524 | CC0524 | 1 | NO MANUAL INTEGRATION |
| 1126 | 05241202.D | UU62MBW1 | UU62MBW1 | 1 | NO MANUAL INTEGRATION |
| 1159 | 05241203.D | UU62LCSW1 | UU62LCSW1 | 1 | NO MANUAL INTEGRATION |
| 1233 | 05241204.D | UU62LCSDW1 | UU62LCSDW1 | 1 | NO MANUAL INTEGRATION |
| 1307 | 05241205.D | UU62QLS | UU62QLS | 1 | Isophorone, Benzoic acid, 4-Nitrophenol, Pentachlorophenol, Aniline, |
| 1340 | 05241206.D | UU62J | MS-SSRB-12 | 1 | NO MANUAL INTEGRATION |
| 1414 | 05241207.D | UU62K | MS-SSFB-12 | 1 | NO MANUAL INTEGRATION |

UU52:00620

Data File: /chem1/nt10.i/20120526.b/ic0526a.d
Injection Date: 26-MAY-2012 10:59
Instrument: nt10.i
Client Sample ID:

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



# Analytical Resources Inc.: Volatile Organics Instrument Log

## NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 5/29/12 Analysis: ABN Analyst: YZ

GC Program: ABN_2 Column No: 227815 Column Type: ZB5 ms

Instrument Tune (.U or .CT.): 11121641 EM Voltage: 1800

Calibration File: DF0529 Curve Date: 5/26/12 Injection Vol.: 1 uL

| IS/SS | Ical/Ccal | | LCS/ICV |
|---|---|---|---|
| 1875-1 | 1949-2 | 1891-2 | |
| | 1950-1 | 1892-1 | |

## Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20120529.b

| | Time | Filename | LabID | ClientId | DF | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1046 | df0529.d | DFTPP | DFTPP | 1 | NO ISTDS FOUND | | | | | | | | | | | |
| 2 | 1101 | cc0529.d | CC0529 | | 1 | 8.86 | 201464 | 11.51 | 781105 | 15.39 | 450943 | 18.65 | 697664 | 23.73 | 705871 | 24.80 | 1102875 | 26.13 | 704858 |
| 3 | 1141 | uu52hms.d | UU52HMS | MS007-SS-120 | 3 | 8.87 | 194036 | 11.51 | 746578 | 15.39 | 430169 | 18.66 | 648205 | 23.73 | 694641 | 24.81 | 1111139 | 26.13 | 687334 |
| 4 | 1219 | uu52hmsd.d | UU52HMSD | MS007-SS-120 | 3 | 8.87 | 198613 | 11.51 | 774430 | 15.39 | 446161 | 18.66 | 635278 | 23.73 | 714204 | 24.81 | 1120932 | 26.13 | 706143 |
| 5 | 1256 | uu52i.d | UU52I | MS008-SS-120 | 3 | 8.86 | 197513 | 11.51 | 791554 | 15.39 | 435113 | 18.66 | 618705 | 23.73 | 705752 | 24.81 | 1101771 | 26.13 | 690654 |
| 6 | 1333 | uu52j.d | UU52J | MS009-SS-120 | 3 | 8.87 | 192942 | 11.51 | 774858 | 15.39 | 438714 | 18.66 | 619554 | 23.73 | 704418 | 24.81 | 1108887 | 26.13 | 689542 |

YZ 5/31/12

**Every line must contain information or be lined out. Make all entries legible.**
**Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS**

Q-FLAG SUMMARY FOR DATABATCH - /chem1/nt10.i/20120529.b

Instrument: nt10.i  Date: 29-MAY-2012  Method: ABN.m

INITIAL CAL: 26-MAY-2012

| Compound | %RSD or R^2 |
|---|---|
| NO Q-FLAGS | |

CONTINUING CAL: 29-MAY-2012

| Compound | %D |
|---|---|
| NO Q-FLAGS | |

Data File: /chem1/nt10.i/20120529.b/df0529.d

Date : 29-MAY-2012 10:46

Client ID: DFTPP

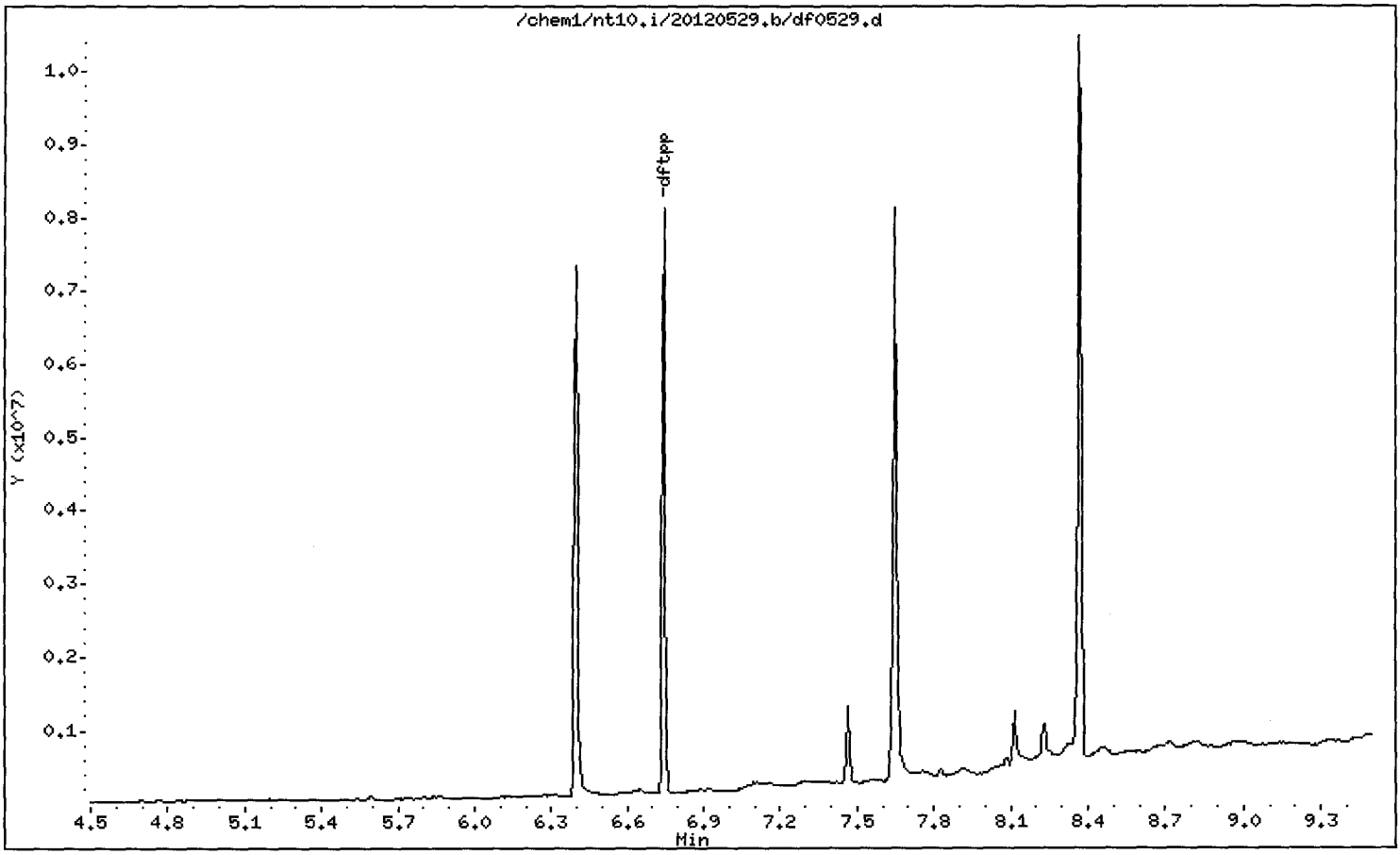
Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem1/nt10.i/20120529.b/df0529.d

Date : 29-MAY-2012 10:46

Client ID: DFTPP

Instrument: nt10.i

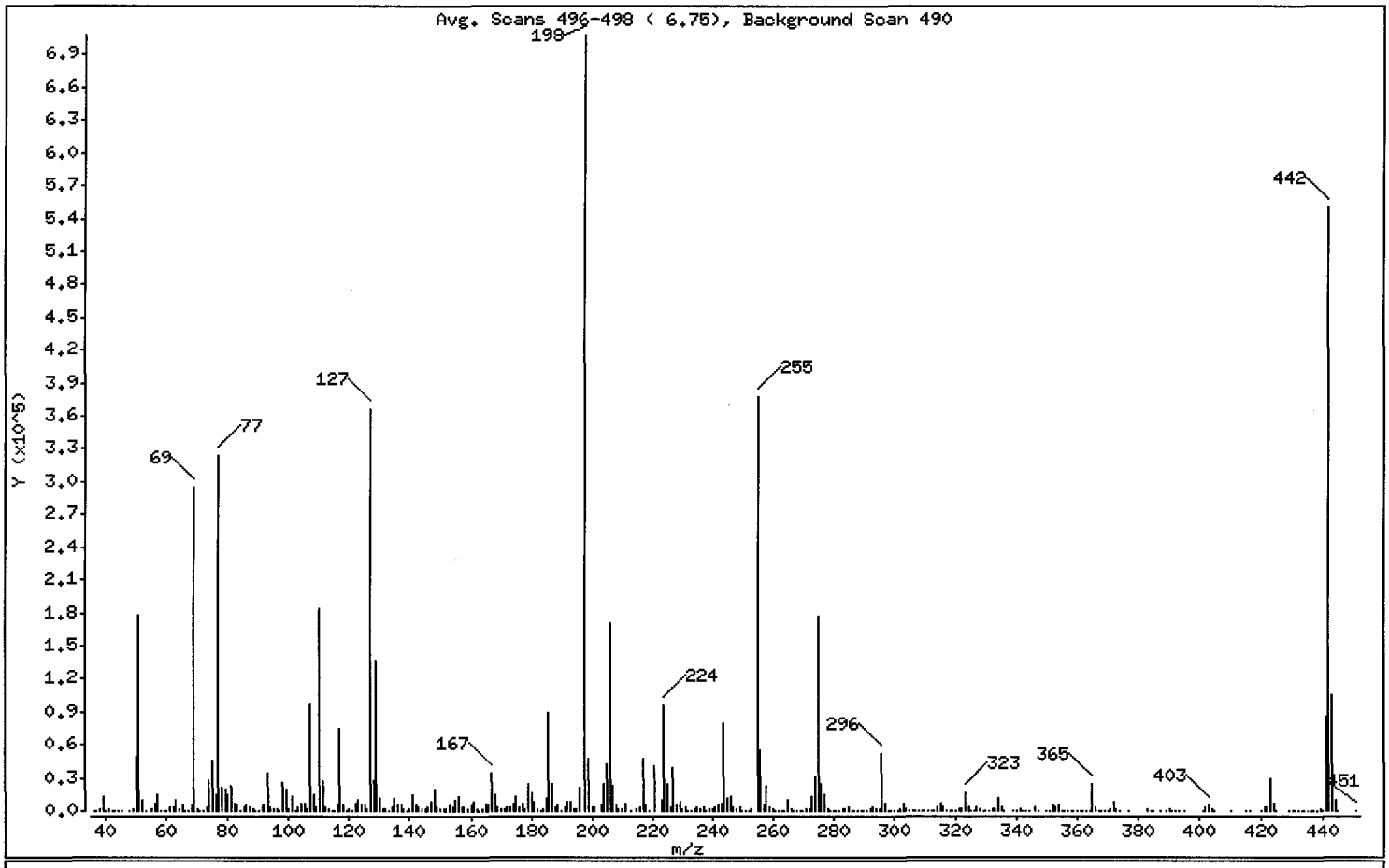
Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 198 | Base Peak, 100% relative abundance | 100.00 |
| 51 | 10.00 - 80.00% of mass 198 | 25.05 |
| 68 | Less than 2.00% of mass 69 | 0.60 ( 1.45) |
| 69 | Mass 69 relative abundance | 41.51 |
| 70 | Less than 2.00% of mass 69 | 0.17 ( 0.41) |
| 127 | 10.00 - 80.00% of mass 198 | 51.79 |
| 197 | Less than 2.00% of mass 198 | 0.00 |
| 199 | 5.00 - 9.00% of mass 198 | 6.59 |
| 275 | 10.00 - 60.00% of mass 198 | 24.97 |
| 365 | Greater than 1.00% of mass 198 | 3.38 |
| 441 | 0.01 - 24.00% of mass 442 | 12.07 ( 15.56) |
| 442 | 50.00 - 200.00% of mass 198 | 77.62 |
| 443 | 15.00 - 24.00% of mass 442 | 14.94 ( 19.25) |

Data File: /chem1/nt10.i/20120529.b/df0529.d

Date : 29-MAY-2012 10:46

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0529.d

Spectrum: Avg. Scans 496-498 ( 6.75), Background Scan 490

Location of Maximum: 198.00

Number of points: 367

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 135 | 131.00 | 2001 | 229.00 | 8295 | 322.00 | 1087 |
| 37.00 | 763 | 132.00 | 1043 | 230.00 | 1161 | 323.00 | 15621 |
| 38.00 | 2308 | 133.00 | 654 | 231.00 | 3379 | 324.00 | 2936 |
| 39.00 | 13696 | 134.00 | 3456 | 232.00 | 593 | 325.00 | 477 |
| 40.00 | 706 | 135.00 | 10868 | 233.00 | 703 | 326.00 | 390 |
| 41.00 | 1072 | 136.00 | 4233 | 234.00 | 2443 | 327.00 | 3157 |
| 42.00 | 62 | 137.00 | 5444 | 235.00 | 2893 | 328.00 | 1657 |
| 43.00 | 73 | 138.00 | 1103 | 236.00 | 2014 | 329.00 | 240 |
| 44.00 | 374 | 139.00 | 773 | 237.00 | 3084 | 330.00 | 220 |
| 45.00 | 476 | 140.00 | 1263 | 238.00 | 595 | 331.00 | 44 |
| 48.00 | 56 | 141.00 | 15462 | 239.00 | 1519 | 332.00 | 1391 |
| 49.00 | 1209 | 142.00 | 5314 | 240.00 | 1405 | 333.00 | 1663 |
| 50.00 | 48208 | 143.00 | 3912 | 241.00 | 2487 | 334.00 | 10870 |
| 51.00 | 177536 | 144.00 | 1004 | 242.00 | 5243 | 335.00 | 2621 |
| 52.00 | 9335 | 145.00 | 1113 | 243.00 | 6372 | 336.00 | 322 |
| 53.00 | 305 | 146.00 | 2785 | 244.00 | 79056 | 339.00 | 386 |
| 55.00 | 1069 | 147.00 | 8080 | 245.00 | 10729 | 340.00 | 279 |
| 56.00 | 5958 | 148.00 | 19000 | 246.00 | 13828 | 341.00 | 1858 |
| 57.00 | 14635 | 149.00 | 3727 | 247.00 | 2984 | 342.00 | 614 |
| 58.00 | 684 | 150.00 | 822 | 248.00 | 836 | 343.00 | 216 |
| 59.00 | 205 | 151.00 | 2297 | 249.00 | 2560 | 344.00 | 63 |
| 60.00 | 370 | 152.00 | 1226 | 250.00 | 721 | 346.00 | 3532 |
| 61.00 | 2704 | 153.00 | 5142 | 251.00 | 611 | 347.00 | 735 |
| 62.00 | 3331 | 154.00 | 3698 | 252.00 | 749 | 350.00 | 187 |
| 63.00 | 10025 | 155.00 | 9097 | 253.00 | 1886 | 351.00 | 403 |
| 64.00 | 1450 | 156.00 | 13308 | 255.00 | 377728 | 352.00 | 4829 |
| 65.00 | 5081 | 157.00 | 2817 | 256.00 | 55584 | 353.00 | 3536 |
| 66.00 | 300 | 158.00 | 2868 | 257.00 | 4383 | 354.00 | 4734 |
| 67.00 | 222 | 159.00 | 2221 | 258.00 | 22272 | 355.00 | 790 |
| 68.00 | 4257 | 160.00 | 5042 | 259.00 | 3440 | 356.00 | 264 |
| 69.00 | 294144 | 161.00 | 7363 | 260.00 | 834 | 357.00 | 174 |
| 70.00 | 1204 | 162.00 | 2381 | 261.00 | 776 | 358.00 | 108 |
| 71.00 | 265 | 163.00 | 567 | 262.00 | 70 | 359.00 | 458 |
| 72.00 | 90 | 164.00 | 956 | 263.00 | 392 | 360.00 | 65 |
| 73.00 | 2489 | 165.00 | 5752 | 264.00 | 578 | 361.00 | 116 |

Data File: /chem1/nt10.i/20120529.b/df0529.d

Date : 29-MAY-2012 10:46

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0529.d

Spectrum: Avg. Scans 496-498 ( 6.75), Background Scan 490

Location of Maximum: 198.00

Number of points: 367

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 74.00 | 28008 | 166.00 | 5228 | 265.00 | 9033 | 362.00 | 62 |
| 75.00 | 46120 | 167.00 | 33664 | 266.00 | 1234 | 363.00 | 85 |
| 76.00 | 14723 | 168.00 | 13974 | 267.00 | 122 | 364.00 | 96 |
| 77.00 | 324928 | 169.00 | 2657 | 268.00 | 248 | 365.00 | 23984 |
| 78.00 | 21960 | 170.00 | 1113 | 269.00 | 33 | 366.00 | 3617 |
| 79.00 | 19544 | 171.00 | 1748 | 270.00 | 487 | 367.00 | 242 |
| 80.00 | 15100 | 172.00 | 2589 | 271.00 | 1103 | 368.00 | 52 |
| 81.00 | 22696 | 173.00 | 3785 | 272.00 | 1387 | 369.00 | 112 |
| 82.00 | 5778 | 174.00 | 6633 | 273.00 | 12512 | 370.00 | 577 |
| 83.00 | 5690 | 175.00 | 13026 | 274.00 | 31608 | 371.00 | 1290 |
| 84.00 | 668 | 176.00 | 3865 | 275.00 | 176960 | 372.00 | 8424 |
| 85.00 | 3506 | 177.00 | 6004 | 276.00 | 23832 | 373.00 | 2188 |
| 86.00 | 5698 | 178.00 | 2071 | 277.00 | 14076 | 374.00 | 266 |
| 87.00 | 2873 | 179.00 | 23664 | 278.00 | 2319 | 377.00 | 299 |
| 88.00 | 1189 | 180.00 | 16215 | 279.00 | 674 | 383.00 | 2297 |
| 89.00 | 803 | 181.00 | 7800 | 280.00 | 147 | 384.00 | 663 |
| 90.00 | 202 | 182.00 | 1087 | 281.00 | 343 | 385.00 | 239 |
| 91.00 | 5112 | 183.00 | 656 | 282.00 | 577 | 387.00 | 60 |
| 92.00 | 4956 | 184.00 | 1964 | 283.00 | 1679 | 389.00 | 173 |
| 93.00 | 33968 | 185.00 | 11871 | 284.00 | 1329 | 390.00 | 1375 |
| 94.00 | 2449 | 186.00 | 89864 | 285.00 | 2516 | 391.00 | 638 |
| 95.00 | 1211 | 187.00 | 25008 | 286.00 | 605 | 392.00 | 565 |
| 96.00 | 1548 | 188.00 | 2649 | 287.00 | 199 | 393.00 | 58 |
| 97.00 | 645 | 189.00 | 5247 | 288.00 | 310 | 395.00 | 74 |
| 98.00 | 26264 | 190.00 | 682 | 289.00 | 728 | 401.00 | 569 |
| 99.00 | 20056 | 191.00 | 2457 | 290.00 | 506 | 402.00 | 3354 |
| 100.00 | 1762 | 192.00 | 7788 | 291.00 | 393 | 403.00 | 4350 |
| 101.00 | 12397 | 193.00 | 8088 | 292.00 | 818 | 404.00 | 1780 |
| 102.00 | 664 | 194.00 | 1741 | 293.00 | 3345 | 405.00 | 258 |
| 103.00 | 3928 | 195.00 | 858 | 294.00 | 1039 | 410.00 | 128 |
| 104.00 | 7300 | 196.00 | 21824 | 295.00 | 1352 | 415.00 | 314 |
| 105.00 | 7077 | 198.00 | 708608 | 296.00 | 52336 | 416.00 | 67 |
| 106.00 | 2310 | 199.00 | 46688 | 297.00 | 6813 | 420.00 | 76 |
| 107.00 | 97392 | 200.00 | 3818 | 298.00 | 580 | 421.00 | 4053 |
| 108.00 | 15246 | 201.00 | 3753 | 299.00 | 101 | 422.00 | 3709 |

Data File: /chem1/nt10.i/20120529.b/df0529.d

Date : 29-MAY-2012 10:46

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

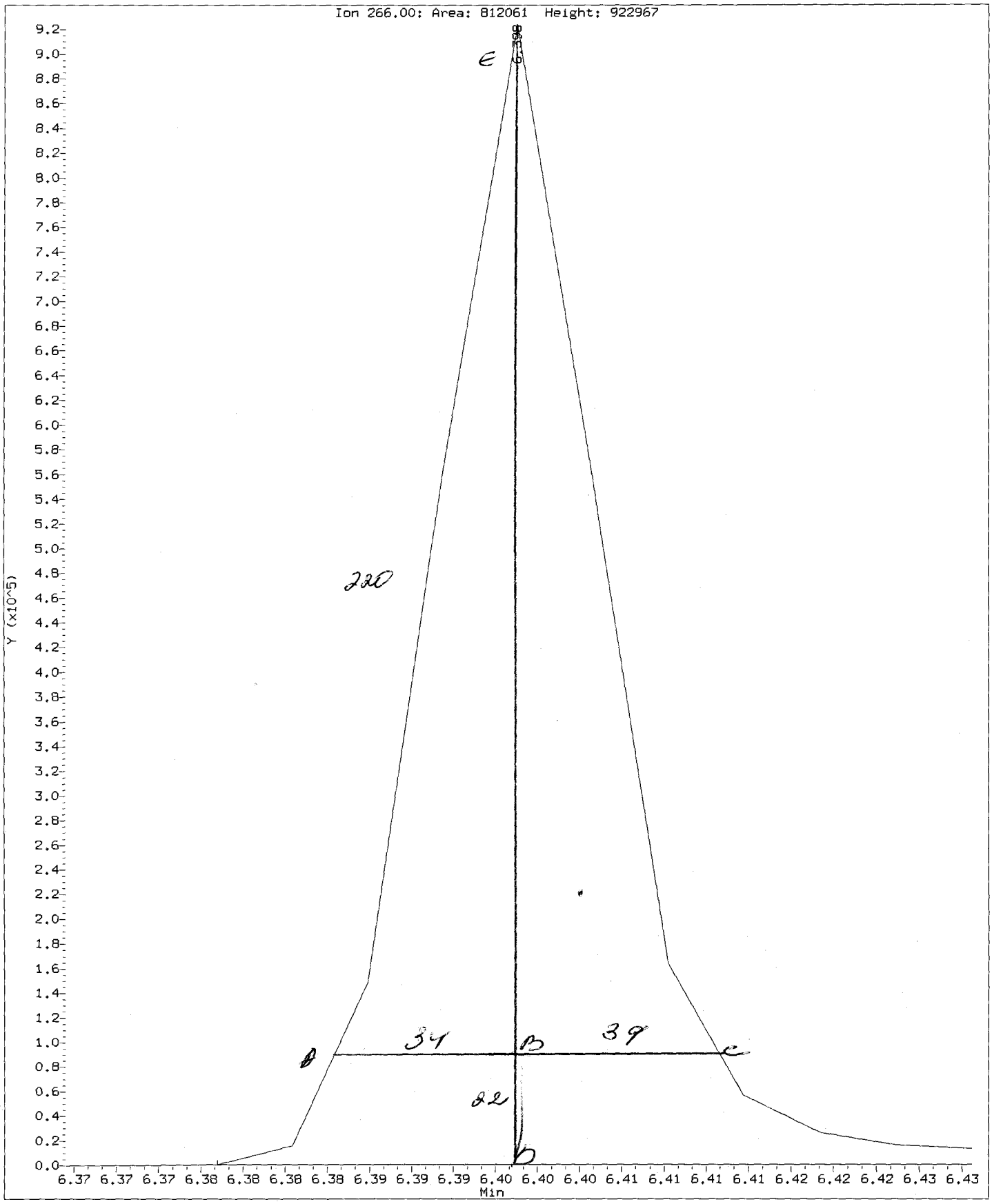
Data File: df0529.d
Spectrum: Avg. Scans 496-498 ( 6.75), Background Scan 490
Location of Maximum: 198.00
Number of points: 367

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 109.00 | 2641 | 203.00 | 4656 | 300.00 | 114 | 423.00 | 29192 |
| 110.00 | 183872 | 204.00 | 24168 | 301.00 | 764 | 424.00 | 6137 |
| 111.00 | 27760 | 205.00 | 41560 | 302.00 | 909 | 425.00 | 582 |
| 112.00 | 3134 | 206.00 | 170816 | 303.00 | 6129 | 429.00 | 105 |
| 113.00 | 1051 | 207.00 | 22000 | 304.00 | 1520 | 430.00 | 52 |
| 114.00 | 310 | 208.00 | 5414 | 305.00 | 277 | 431.00 | 82 |
| 115.00 | 656 | 209.00 | 1910 | 306.00 | 58 | 432.00 | 57 |
| 116.00 | 5448 | 210.00 | 1058 | 307.00 | 52 | 433.00 | 234 |
| 117.00 | 74712 | 211.00 | 6340 | 308.00 | 743 | 434.00 | 118 |
| 118.00 | 5073 | 213.00 | 388 | 309.00 | 582 | 435.00 | 518 |
| 119.00 | 520 | 215.00 | 1609 | 310.00 | 674 | 436.00 | 318 |
| 120.00 | 1101 | 216.00 | 4019 | 311.00 | 185 | 437.00 | 590 |
| 121.00 | 335 | 217.00 | 47600 | 312.00 | 293 | 438.00 | 731 |
| 122.00 | 5769 | 218.00 | 5509 | 313.00 | 599 | 439.00 | 1355 |
| 123.00 | 9487 | 219.00 | 721 | 314.00 | 2660 | 440.00 | 770 |
| 124.00 | 4236 | 221.00 | 40024 | 315.00 | 5826 | 441.00 | 85560 |
| 125.00 | 4260 | 223.00 | 10570 | 316.00 | 3053 | 442.00 | 550016 |
| 126.00 | 1748 | 224.00 | 96032 | 317.00 | 525 | 443.00 | 105888 |
| 127.00 | 366976 | 225.00 | 24312 | 318.00 | 119 | 444.00 | 9889 |
| 128.00 | 27392 | 226.00 | 2780 | 319.00 | 89 | 445.00 | 637 |
| 129.00 | 136320 | 227.00 | 38464 | 320.00 | 333 | 451.00 | 110 |
| 130.00 | 11276 | 228.00 | 5497 | 321.00 | 1755 | | |

UU52:00628

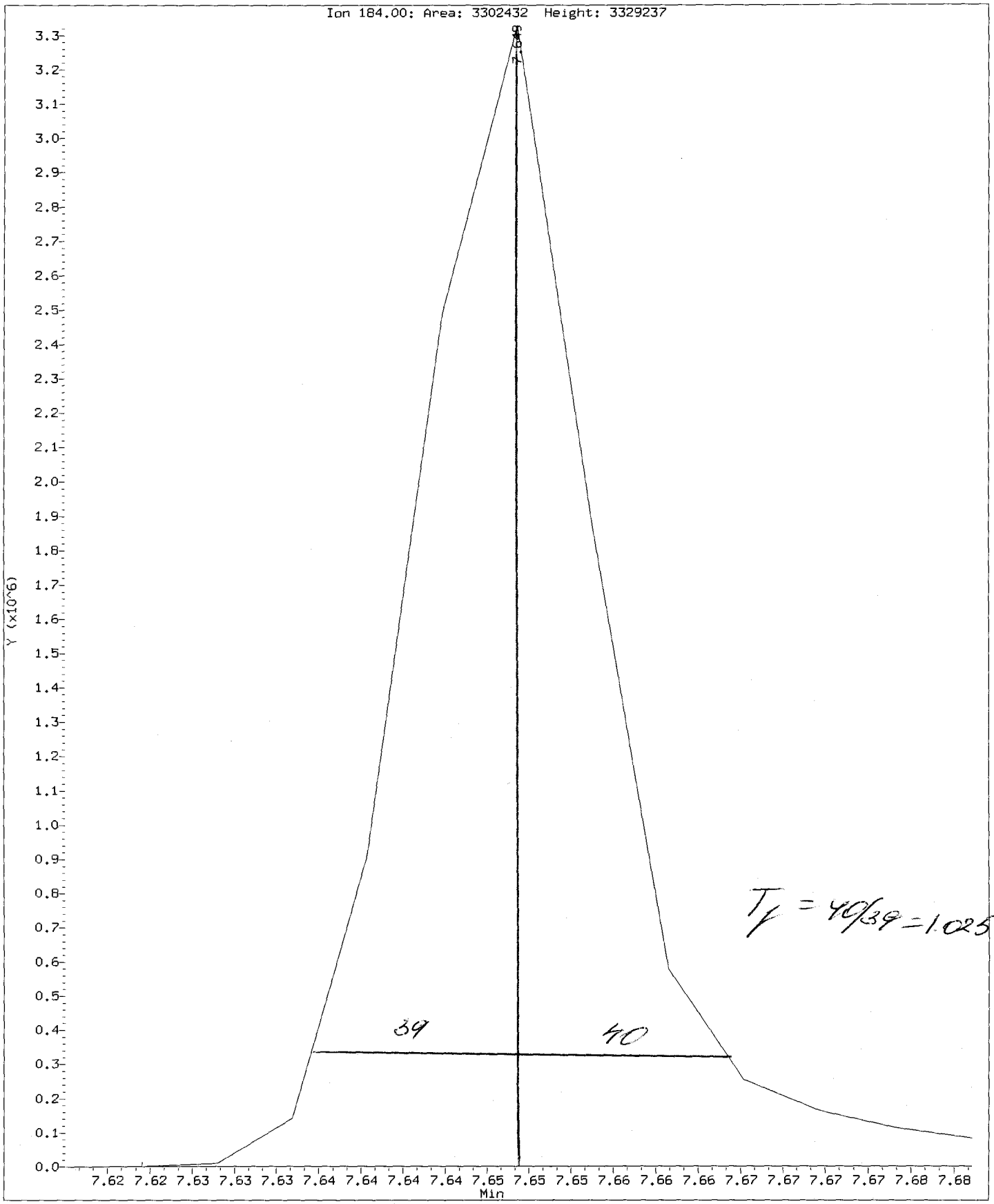
Data File: /chem1/nt10.i/20120529.b/ddt.b/df0529.d
Injection Date: 29-MAY-2012 10:46
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem1/nt10.i/20120529.b/ddt.b/df0529.d
Injection Date: 29-MAY-2012 10:46
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20120529.b/ddt.b/df0529.d  ARI ID: DFTPP
Method: /chem1/nt10.i/20120529.b/ddt.b/sw846ddt.m  Misc: 11-
Analysis Date: 29-MAY-2012 10:46  Instrument: nt10.i

| COMPOUND | RT | AREA |
|---|---|---|
| Pentachlorophenol | 6.398 | 812061 |
| Benzidine | 7.649 | 3302432 |
| 4,4'-DDE | 7.826 | 10563 |
| 4,4'-DDD | 8.114 | 151282 |
| 4,4'-DDT | 8.366 | 1717734 |

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(\ 10563 + 151282) * 100}{(\ 10563 + 151282 + 1717734)}$$

DDT Percent Breakdown = 8.6 %

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 29-MAY-2012 11:01
Lab File ID: cc0529.d Init. Cal. Date(s): 26-MAY-2012 26-MAY-2012
Analysis Type: Init. Cal. Times: 10:59 14:42
Lab Sample ID: CC0529 Quant Type: ISTD
Method: /chem1/nt10.i/20120529.b/ABN.m

| COMPOUND | RRF / AMOUNT | RF5 | CCAL RRF5 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE |
|---|---|---|---|---|---|---|---|
| $ 1 2-Fluorophenol | 1.39876 | 1.34119 | 1.34119 | 0.010 | -4.11528 | 20.00000 | Averaged |
| $ 2 Phenol-d5 | 1.74239 | 1.64523 | 1.64523 | 0.010 | -5.57603 | 20.00000 | Averaged |
| 3 Phenol | 1.85722 | 1.94971 | 1.94971 | 0.100 | 4.98041 | 20.00000 | Averaged |
| $ 5 2-Chlorophenol-d4 | 1.52653 | 1.48249 | 1.48249 | 0.010 | -2.88493 | 20.00000 | Averaged |
| 7 1,3-Dichlorobenzene | 1.64203 | 1.65084 | 1.65084 | 0.010 | 0.53618 | 20.00000 | Averaged |
| 9 1,4-Dichlorobenzene | 1.60271 | 1.58609 | 1.58609 | 0.010 | -1.03652 | 20.00000 | Averaged |
| $ 10 1,2-Dichlorobenzene-d4 | 1.00142 | 1.01504 | 1.01504 | 0.010 | 1.36073 | 20.00000 | Averaged |
| 12 1,2-Dichlorobenzene | 1.56383 | 1.58334 | 1.58334 | 0.010 | 1.24731 | 20.00000 | Averaged |
| 11 Benzyl alcohol | 0.78027 | 0.79374 | 0.79374 | 0.010 | 1.72588 | 20.00000 | Averaged |
| 13 2-Methylphenol | 1.46378 | 1.40738 | 1.40738 | 0.700 | -3.85319 | 20.00000 | Averaged |
| 17 Hexachloroethane | 0.62268 | 0.65102 | 0.65102 | 0.300 | 4.55136 | 20.00000 | Averaged |
| 15 4-Methylphenol | 1.52714 | 1.40714 | 1.40714 | 0.600 | -7.85829 | 20.00000 | Averaged |
| $ 18 Nitrobenzene-d5 | 0.35840 | 0.34441 | 0.34441 | 0.010 | -3.90172 | 20.00000 | Averaged |
| 22 2,4-Dimethylphenol | 0.35235 | 0.35032 | 0.35032 | 0.200 | -0.57861 | 20.00000 | Averaged |
| 24 Benzoic acid | 19.65044 | 20.00000 | 0.23344 | 0.010 | -1.74779 | 20.00000 | Quadratic |
| 26 1,2,4-Trichlorobenzene | 0.32265 | 0.32673 | 0.32673 | 0.010 | 1.26439 | 20.00000 | Averaged |
| 28 Naphthalene | 1.00840 | 1.01312 | 1.01312 | 0.100 | 0.46855 | 20.00000 | Averaged |
| 30 Hexachlorobutadiene | 0.17350 | 0.17945 | 0.17945 | 0.010 | 3.43063 | 20.00000 | Averaged |
| 32 2-Methylnaphthalene | 0.70103 | 0.72645 | 0.72645 | 0.300 | 3.62625 | 20.00000 | Averaged |
| $ 36 2-Fluorobiphenyl | 1.38663 | 1.37941 | 1.37941 | 0.010 | -0.52047 | 20.00000 | Averaged |
| 39 Dimethylphthalate | 1.22903 | 1.22162 | 1.22162 | 0.010 | -0.60274 | 20.00000 | Averaged |
| 40 Acenaphthylene | 1.79648 | 1.93961 | 1.93961 | 0.900 | 7.96742 | 20.00000 | Averaged |
| 44 Acenaphthene | 1.08358 | 1.07103 | 1.07103 | 0.100 | -1.15842 | 20.00000 | Averaged |
| 46 Dibenzofuran | 1.58749 | 1.59421 | 1.59421 | 0.800 | 0.42282 | 20.00000 | Averaged |
| 50 Diethylphthalate | 1.19817 | 1.21675 | 1.21675 | 0.010 | 1.55135 | 20.00000 | Averaged |
| 49 Fluorene | 1.21637 | 1.38809 | 1.38809 | 0.100 | 14.11698 | 20.00000 | Averaged |
| 54 N-Nitrosodiphenylamine | 0.53809 | 0.51981 | 0.51981 | 0.010 | -3.39835 | 20.00000 | Averaged |
| $ 55 2,4,6-Tribromophenol | 0.16510 | 0.17606 | 0.17606 | 0.010 | 6.63950 | 20.00000 | Averaged |
| 57 Hexachlorobenzene | 0.24689 | 0.24013 | 0.24013 | 0.100 | -2.74149 | 20.00000 | Averaged |
| 58 Pentachlorophenol | 9.60937 | 10.00000 | 0.12482 | 0.010 | -3.90626 | 20.00000 | Quadratic |
| 60 Phenanthrene | 1.03144 | 1.01670 | 1.01670 | 0.700 | -1.42934 | 20.00000 | Averaged |
| 61 Anthracene | 1.07748 | 1.09533 | 1.09533 | 0.700 | 1.65598 | 20.00000 | Averaged |
| 63 Di-n-butylphthalate | 1.40311 | 1.45985 | 1.45985 | 0.010 | 4.04394 | 20.00000 | Averaged |
| 64 Fluoranthene | 1.17111 | 1.18912 | 1.18912 | 0.600 | 1.53810 | 20.00000 | Averaged |
| 65 Pyrene | 1.21707 | 1.24402 | 1.24402 | 0.600 | 2.21454 | 20.00000 | Averaged |

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 29-MAY-2012 11:01
Lab File ID: cc0529.d Init. Cal. Date(s): 26-MAY-2012 26-MAY-2012
Analysis Type: Init. Cal. Times: 10:59 14:42
Lab Sample ID: CC0529 Quant Type: ISTD
Method: /chem1/nt10.i/20120529.b/ABN.m

| COMPOUND | RRF / AMOUNT | RF5 | CCAL RRF5 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE |
|---|---|---|---|---|---|---|---|
| $ 66 Terphenyl-d14 | 0.76242 | 0.74876 | 0.74876 | 0.010 | -1.79197 | 20.00000 | Averaged |
| 67 Butylbenzylphthalate | 0.56457 | 0.57293 | 0.57293 | 0.010 | 1.48103 | 20.00000 | Averaged |
| 68 Benzo(a)anthracene | 1.12516 | 1.11353 | 1.11353 | 0.700 | -1.03386 | 20.00000 | Averaged |
| 71 Chrysene | 0.98981 | 0.99224 | 0.99224 | 0.700 | 0.24562 | 20.00000 | Averaged |
| 72 bis(2-Ethylhexyl)phthalate | 0.54931 | 0.54741 | 0.54741 | 0.010 | -0.34451 | 20.00000 | Averaged |
| 73 Di-n-octylphthalate | 0.97317 | 0.96145 | 0.96145 | 0.010 | -1.20418 | 20.00000 | Averaged |
| 76 Benzo(a)pyrene | 1.03427 | 1.01636 | 1.01636 | 0.700 | -1.73162 | 20.00000 | Averaged |
| 78 Indeno(1,2,3-cd)pyrene | 1.19637 | 1.24552 | 1.24552 | 0.500 | 4.10749 | 20.00000 | Averaged |
| 79 Dibenzo(a,h)anthracene | 0.94241 | 0.99900 | 0.99900 | 0.400 | 6.00474 | 20.00000 | Averaged |
| 80 Benzo(g,h,i)perylene | 1.02591 | 1.06068 | 1.06068 | 0.500 | 3.38972 | 20.00000 | Averaged |
| 105 1-methylnaphthalene | 0.71493 | 0.74980 | 0.74980 | 0.010 | 4.87717 | 20.00000 | Averaged |
| 187 Total Benzofluoranthenes | 1.10989 | 1.08687 | 1.08687 | 0.010 | -2.07392 | 20.00000 | Averaged |
| 98 Retene | 0.56674 | 0.57909 | 0.57909 | 0.010 | 2.17888 | 20.00000 | Averaged |

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D YZ 5/30/12

Data file : /chem1/nt10.i/20120529.b/cc0529.d
Lab Smp Id: CC0529
Inj Date : 29-MAY-2012 11:01
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : CC0529
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20120529.b/ABN.m
Meth Date : 30-May-2012 12:34 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SHORTPSDDA.sub
Target Version: 3.50

| | | | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|---|---|
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CAL-AMT (ug/mL) | ON-COL (ug/mL) |
| $ | 1 2-Fluorophenol | 112 | 6.560 | 6.560 | (0.740) | 337752 | 5.00000 | 4.794 |
| $ | 2 Phenol-d5 | 99 | 8.260 | 8.260 | (0.932) | 414319 | 5.00000 | 4.721 |
| | 3 Phenol | 94 | 8.283 | 8.283 | (0.935) | 490996 | 5.00000 | 5.249 |
| $ | 5 2-Chlorophenol-d4 | 132 | 8.492 | 8.492 | (0.958) | 373335 | 5.00000 | 4.856 |
| | 7 1,3-Dichlorobenzene | 146 | 8.794 | 8.794 | (0.992) | 415730 | 5.00000 | 5.027 |
| * | 8 1,4-Dichlorobenzene-d4 | 152 | 8.863 | 8.863 | (1.000) | 201464 | 4.00000 | |
| | 9 1,4-Dichlorobenzene | 146 | 8.894 | 8.894 | (1.003) | 399426 | 5.00000 | 4.948 |
| $ | 10 1,2-Dichlorobenzene-d4 | 152 | 9.244 | 9.244 | (1.043) | 255618 | 5.00000 | 5.068 |
| | 12 1,2-Dichlorobenzene | 146 | 9.275 | 9.275 | (1.046) | 398732 | 5.00000 | 5.062 |
| | 11 Benzyl alcohol | 108 | 9.182 | 9.182 | (1.036) | 199887 | 5.00000 | 5.086 |
| | 13 2-Methylphenol | 108 | 9.453 | 9.453 | (1.067) | 354420 | 5.00000 | 4.807 |
| | 17 Hexachloroethane | 117 | 9.896 | 9.896 | (1.116) | 163946 | 5.00000 | 5.228 |
| | 15 4-Methylphenol | 108 | 9.748 | 9.748 | (1.100) | 354359 | 5.00000 | 4.607 |
| $ | 18 Nitrobenzene-d5 | 82 | 10.035 | 10.035 | (0.872) | 336278 | 5.00000 | 4.805 |
| | 22 2,4-Dimethylphenol | 107 | 10.857 | 10.857 | (0.943) | 684084 | 10.0000 | 9.942 |
| | 24 Benzoic acid | 105 | 11.126 | 11.126 | (0.966) | 911702 | 20.0000 | 19.65 |
| | 26 1,2,4-Trichlorobenzene | 180 | 11.427 | 11.427 | (0.993) | 319012 | 5.00000 | 5.063 |
| * | 27 Naphthalene-d8 | 136 | 11.512 | 11.512 | (1.000) | 781105 | 4.00000 | |
| | 28 Naphthalene | 128 | 11.550 | 11.550 | (1.003) | 989196 | 5.00000 | 5.023 |
| | 30 Hexachlorobutadiene | 225 | 11.952 | 11.952 | (1.038) | 175210 | 5.00000 | 5.172 |
| | 32 2-Methylnaphthalene | 142 | 13.051 | 13.051 | (1.134) | 709290 | 5.00000 | 5.181 |
| $ | 36 2-Fluorobiphenyl | 172 | 13.910 | 13.910 | (0.904) | 777543 | 5.00000 | 4.974 |
| | 39 Dimethylphthalate | 163 | 14.909 | 14.909 | (0.969) | 688603 | 5.00000 | 4.970 |
| | 40 Acenaphthylene | 152 | 15.048 | 15.048 | (0.978) | 1093320 | 5.00000 | 5.398 |
| * | 42 Acenaphthene-d10 | 164 | 15.388 | 15.388 | (1.000) | 450943 | 4.00000 | |
| | 44 Acenaphthene | 153 | 15.458 | 15.458 | (1.005) | 603718 | 5.00000 | 4.942 |
| | 46 Dibenzofuran | 168 | 15.813 | 15.813 | (1.028) | 898620 | 5.00000 | 5.021 |

| | | | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|---|---|
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CAL-AMT (ug/mL) | ON-COL (ug/mL) |
| | 50 Diethylphthalate | 149 | 16.478 | 16.478 | (1.071) | 685858 | 5.00000 | 5.078 |
| | 49 Fluorene | 166 | 16.579 | 16.579 | (1.077) | 782436 | 5.00000 | 5.706 |
| | 54 N-Nitrosodiphenylamine | 169 | 16.872 | 16.872 | (0.905) | 453312 | 5.00000 | 4.830 |
| $ | 55 2,4,6-Tribromophenol | 330 | 17.157 | 17.157 | (1.115) | 99242 | 5.00000 | 5.332 |
| | 57 Hexachlorobenzene | 284 | 17.991 | 17.991 | (0.965) | 209409 | 5.00000 | 4.863 |
| | 58 Pentachlorophenol | 266 | 18.394 | 18.394 | (0.986) | 217704 | 10.0000 | 9.609 |
| * | 59 Phenanthrene-d10 | 188 | 18.649 | 18.649 | (1.000) | 697664 | 4.00000 | |
| | 60 Phenanthrene | 178 | 18.703 | 18.703 | (1.003) | 886645 | 5.00000 | 4.929 |
| | 61 Anthracene | 178 | 18.796 | 18.796 | (1.008) | 955213 | 5.00000 | 5.083 |
| | 63 Di-n-butylphthalate | 149 | 20.018 | 20.018 | (1.073) | 1273108 | 5.00000 | 5.202 |
| | 64 Fluoranthene | 202 | 21.117 | 21.117 | (1.132) | 1037007 | 5.00000 | 5.077 |
| | 65 Pyrene | 202 | 21.535 | 21.535 | (0.908) | 1097648 | 5.00000 | 5.111 |
| $ | 66 Terphenyl-d14 | 244 | 21.852 | 21.852 | (0.921) | 660661 | 5.00000 | 4.910 |
| | 67 Butylbenzylphthalate | 149 | 22.797 | 22.797 | (0.961) | 505517 | 5.00000 | 5.074 |
| | 68 Benzo(a)anthracene | 228 | 23.695 | 23.695 | (0.999) | 982513 | 5.00000 | 4.948 |
| * | 69 Chrysene-d12 | 240 | 23.726 | 23.726 | (1.000) | 705871 | 4.00000 | |
| | 71 Chrysene | 228 | 23.765 | 23.765 | (1.002) | 875490 | 5.00000 | 5.012 |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 23.834 | 23.834 | (0.961) | 754661 | 5.00000 | 4.983 |
| * | 134 Di-n-octylphthalate-d4 | 153 | 24.802 | 24.802 | (1.000) | 1102875 | 4.00000 | |
| | 73 Di-n-octylphthalate | 149 | 24.817 | 24.817 | (1.001) | 1325456 | 5.00000 | 4.940 |
| | 76 Benzo(a)pyrene | 252 | 26.025 | 26.025 | (0.996) | 895485 | 5.00000 | 4.913 |
| * | 77 Perylene-d12 | 264 | 26.126 | 26.126 | (1.000) | 704858 | 4.00000 | |
| | 78 Indeno(1,2,3-cd)pyrene | 276 | 28.389 | 28.389 | (1.087) | 1097390 | 5.00000 | 5.205 |
| | 79 Dibenzo(a,h)anthracene | 278 | 28.396 | 28.396 | (1.087) | 880196 | 5.00000 | 5.300 |
| | 80 Benzo(g,h,i)perylene | 276 | 29.041 | 29.041 | (1.112) | 934538 | 5.00000 | 5.169 |
| | 105 1-methylnaphthalene | 142 | 13.291 | 13.291 | (1.155) | 732093 | 5.00000 | 5.244 |
| | 187 Total Benzofluoranthenes | 252 | 25.506 | 25.506 | (0.976) | 1915228 | 10.0000 | 9.793 |
| | 98 Retene | 219 | 22.146 | 22.146 | (0.933) | 510955 | 5.00000 | 5.109 |

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: cc0529.d
Lab Smp Id: CC0529
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120529.b/ABN.m
Misc Info:

Calibration Date: 29-MAY-2012
Calibration Time: 11:01

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

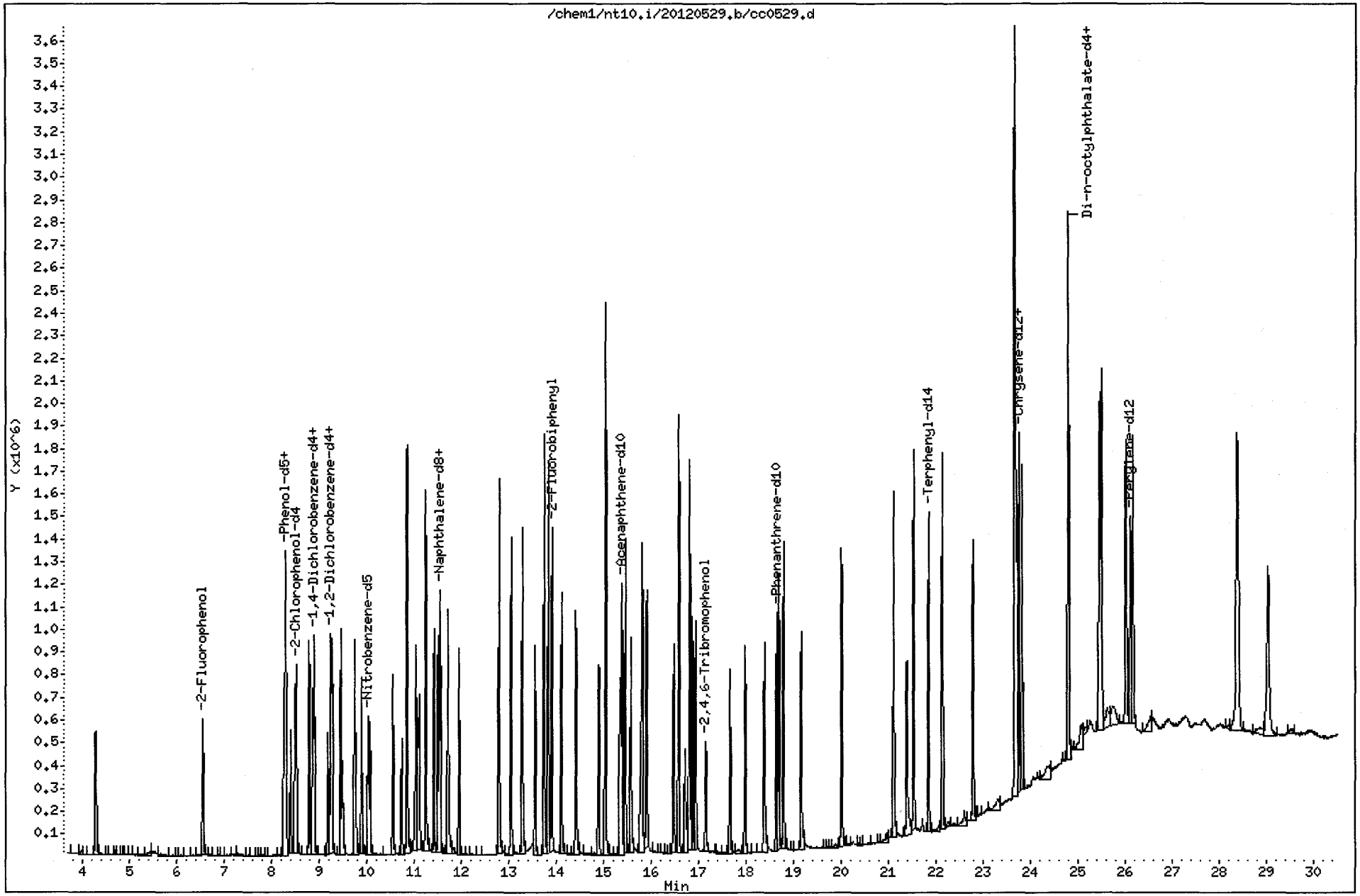
| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 201464 | 6.30 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 781105 | 6.86 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 450943 | 7.19 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 697664 | 9.19 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 705871 | 9.43 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 1102875 | 8.54 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 704858 | 8.43 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.86 | 0.00 |
| 27 Naphthalene-d8 | 11.51 | 11.01 | 12.01 | 11.51 | 0.00 |
| 42 Acenaphthene-d10 | 15.39 | 14.89 | 15.89 | 15.39 | 0.00 |
| 59 Phenanthrene-d10 | 18.65 | 18.15 | 19.15 | 18.65 | 0.00 |
| 69 Chrysene-d12 | 23.73 | 23.23 | 24.23 | 23.73 | 0.00 |
| 134 Di-n-octylphthala | 24.80 | 24.30 | 25.30 | 24.80 | 0.00 |
| 77 Perylene-d12 | 26.13 | 25.63 | 26.63 | 26.13 | 0.00 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20120529.b/cc0529.d
Date : 29-MAY-2012 11:01
Client ID:
Sample Info: CC0529

Instrument: nt10.i
Operator: VTS/YZ
Column phase: ZB-5msi
Column diameter: 0.25




UJ52:00637

CO-ELUTION SUMMARY FOR FILE - cc0529.d

Lab ID: CC0529, Method: ABN.m, Instrument: nt10.i, Date: 29-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# GC/MS SVOA Analyst Notes / Corrective Action Log

ARI Project ID: UU52 Client ID: Anchor QEA

ARI SOP: **801S**(SIM-PNA) **802S**(Butyl Tins) **804S**(SVOA-8270D) **805S**(op-Pest)

Parameter(s): SVOA Reddie

Instrument: NT-4 NT-6 NT-8 NT-10 NT11 NT12

Curve Date: 5/26/12 Analysis Start Date: 5/26/12

| | | | |
|---|---|---|---|
| DFTPP Tune Meets Criteria? | YES / NO | Internal Standard Meets Criteria? | YES / NO |
| DDT Breakdown <20%? | YES / NO / NA | Method Blank In Control? | YES / NO |
| Peak Tailing Factor ≤2? | YES / NO / NA | LCS / LCSD Recovery In Control? | YES / NO |
| ICal acceptable? | YES / NO | CCal acceptable? | YES / NO |
| Q flag applied? | YES / NO | Q flag applied? | YES / NO |
| Surrogate Recovery in Control? | YES / NO | Special Analysis Criteria Met? | YES / NO / NA |
| Manual Integrations for ICal? | YES / NO | Manual Integrations for Samples? | Yes / NO |

**Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):**

All samples were run @ 3x dilution due to dark color of the extracts. High Matrix BKG.

Sample 6 was re-run @ 6x dilution due to high concentration of Naphthalene.

Extremely Wet Sample (marsh) 90% ish wet

Di-n-Octyl phthalate UJ to MDL. No Sample Hits found

**Additional Details on Reverse: Yes / NO**

**Analyst:** YZ **Date:** 5/31/12.

**Reviewer:** [signature] **Date:** 6/4/12

# Analytical Resources Inc.: Volatile Organics Instrument Log

## NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 5/26/12 Analysis: ABN Analyst: VS / YZ

GC Program: ABN2 Column No: 227815 Column Type: ZB5 MSI

Instrument Tune (.U or .CT.): 112164 EM Voltage: 1800

Calibration File: DF0514 Curve Date: 5/26/12 Injection Vol.: 1.0 ul

| IS/SS | Ical/Ccal | | LCS/ICV |
|---|---|---|---|
| 1875-1 | 1949-2 | 1891-2 | 1941-1 |
| | 1950-1 | 1892-1 | 1940-1 |
| | | | 1932-2. |

## Document All Maintenance Tasks In StarLIMS

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20120526.b

| | Time | Filename | LabID | ClientId | DF | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1044 | df0526.d | DFTPP | DFTPP | 1 | NO ISTDS FOUND | | | | | | | | | | | |
| 2 | 1059 | ic0526a.d | ABN5 | | 1 | 8.86 | 189516 | 11.50 | 730932 | 15.37 | 420698 | 18.63 | 638950 | 23.71 | 645065 | 26.10 | 650033 | 24.79 | 1016118 |
| 3 | 1136 | ic0526b.d | ABN20 | | 1 | 8.86 | 184424 | 11.50 | 732078 | 15.38 | 416049 | 18.64 | 604660 | 23.71 | 638131 | 26.11 | 642084 | 24.80 | 1045968 |
| 4 | 1213 | ic0526c.d | ABN.2 | | 1 | 8.86 | 196685 | 11.50 | 765616 | 15.37 | 413229 | 18.63 | 646258 | 23.70 | 644080 | 26.10 | 645156 | 24.79 | 952925 |
| 5 | 1250 | ic0526d.d | ABN10 | | 1 | 8.86 | 182402 | 11.50 | 714951 | 15.38 | 396335 | 18.64 | 598080 | 23.71 | 620456 | 26.10 | 621376 | 24.79 | 977954 |
| 6 | 1327 | ic0526e.d | ABN.5 | | 1 | 8.86 | 190457 | 11.50 | 743799 | 15.37 | 404393 | 18.63 | 632241 | 23.70 | 634764 | 26.10 | 624951 | 24.79 | 934301 |
| 7 | 1405 | ic0526f.d | ABN2.5 | | 1 | 8.86 | 187226 | 11.50 | 736534 | 15.37 | 398626 | 18.63 | 624933 | 23.70 | 619154 | 26.10 | 625787 | 24.79 | 927369 |
| 8 | 1442 | ic0526g.d | ABN1.0 | | 1 | 8.86 | 193887 | 11.50 | 750391 | 15.37 | 411692 | 18.63 | 635080 | 23.70 | 638910 | 26.10 | 628310 | 24.79 | 937949 |
| 9 | 1519 | icv0526.d | ICV-5 | | 1 | 8.86 | 249364 | 11.50 | 989810 | 15.37 | 545323 | 18.63 | 840695 | 23.71 | 872921 | 26.10 | 859333 | 24.79 | 1354341 |
| 10 | 1556 | uu52mb.d | UU52MBS1 | UU52MBS1 | 1 | 8.86 | 192270 | 11.50 | 755212 | 15.36 | 409923 | 18.63 | 652568 | 23.70 | 628746 | 24.79 | 911710 | 26.10 | 575994 |
| 11 | 1634 | uu52sb.d | UU52LCSS1 | UU52LCSS1 | 1 | 8.86 | 180960 | 11.50 | 713226 | 15.37 | 402827 | 18.63 | 613172 | 23.70 | 610564 | 24.79 | 927500 | 26.10 | 601200 |
| 12 | 1711 | uu52a.d | UU52A | MS001-SS-120 | 3 | 8.86 | 192479 | 11.50 | 766868 | 15.37 | 424558 | 18.64 | 586032 | 23.71 | 664578 | 24.79 | 1081857 | 26.11 | 673821 |
| 13 | 1748 | uu52b.d | UU52B | MS101-SS-120 | 3 | 8.86 | 191331 | 11.50 | 774622 | 15.38 | 431955 | 18.64 | 601035 | 23.72 | 668327 | 24.80 | 1085453 | 26.12 | 667061 |
| 14 | 1825 | uu52c.d | UU52C | MS002-SS-120 | 3 | 8.86 | 189793 | 11.50 | 762840 | 15.38 | 421087 | 18.64 | 644641 | 23.72 | 673614 | 24.80 | 1081717 | 26.12 | 665077 |
| 15 | 1902 | uu52d.d | UU52D | MS003-SS-120 | 3 | 8.86 | 195684 | 11.50 | 781696 | 15.38 | 433584 | 18.64 | 608068 | 23.72 | 705866 | 24.80 | 1095300 | 26.12 | 688484 |
| 16 | 1939 | uu52e.d | UU52E | MS004-SS-120 | 3 | 8.86 | 197248 | 11.50 | 788940 | 15.38 | 430674 | 18.64 | 660353 | 23.72 | 700903 | 24.80 | 1104559 | 26.12 | 683374 |
| 17 | 2016 | uu52f.d | UU52F | MS005-SS-120 | 3 | 8.86 | 190373 | 11.51 | 742174 | 15.39 | 431594 | 18.66 | 643967 | 23.73 | 721119 | 24.81 | 1107167 | 26.14 | 669438 |
| 18 | 2054 | uu52g.d | UU52G | MS006-SS-120 | 3 | 8.86 | 189614 | 11.51 | 736251 | 15.38 | 426687 | 18.65 | 605251 | 23.72 | 696152 | 24.81 | 1081407 | 26.13 | 658886 |
| 19 | 2131 | uu52h.d | UU52H | MS007-SS-120 | 3 | 8.86 | 194227 | 11.51 | 756334 | 15.39 | 437900 | 18.66 | 626572 | 23.73 | 703620 | 24.81 | 1121633 | 26.13 | 665896 |
| 20 | 2208 | uu52hms.d | UU52HMS | MS007-SS-120 | 3 | 8.86 | 189708 | 11.51 | 749764 | 15.39 | 426739 | 18.66 | 614981 | 23.73 | 691706 | 24.81 | 1104162 | 26.13 | 671591 |
| 21 | 2245 | uu52hmsd.d | UU52HMSD | MS007-SS-120 | 3 | 8.86 | 190489 | 11.50 | 741504 | 15.39 | 417132 | 18.66 | 622626 | 23.73 | 711179 | 24.81 | 1127612 | 26.13 | 667595 |

**Every line must contain information or be lined out. Make all entries legible.**
**Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS**

YZ 5/31/12

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem1/nt10.i/20120526.b

ARI Job No.: UU52 Method: ABN.m Instrument: nt10.i Date: 26-MAY-2012

| Time | Filename | LabID | ClientId | DF | Manually Integrated Compounds |
|---|---|---|---|---|---|
| 1556 | uu52mb.d | UU52MBS1 | UU52MBS1 | 1 | NO MANUAL INTEGRATION |
| 1634 | uu52sb.d | UU52LCSS1 | UU52LCSS1 | 1 | NO MANUAL INTEGRATION |
| 1711 | uu52a.d | UU52A | MS001-SS-1 | 3 | NO MANUAL INTEGRATION |
| 1748 | uu52b.d | UU52B | MS101-SS-1 | 3 | NO MANUAL INTEGRATION |
| 1825 | uu52c.d | UU52C | MS002-SS-1 | 3 | NO MANUAL INTEGRATION |
| 1902 | uu52d.d | UU52D | MS003-SS-1 | 3 | NO MANUAL INTEGRATION |
| 1939 | uu52e.d | UU52E | MS004-SS-1 | 3 | NO MANUAL INTEGRATION |
| 2016 | uu52f.d | UU52F | MS005-SS-1 | 3 | 2-Methylphenol, Acenaphthylene, Dibenzo(a,h)anthracene, |
| 2054 | uu52g.d | UU52G | MS006-SS-1 | 3 | Acenaphthylene, Phenanthrene, Dibenzo(a,h)anthracene, |
| 2131 | uu52h.d | UU52H | MS007-SS-1 | 3 | Acenaphthylene, Dibenzo(a,h)anthracene, |
| 1141 | uu52hms.d | UU52HMS | MS007-SS-1 | 3 | NO MANUAL INTEGRATION |
| 1219 | uu52hmsd.d | UU52HMSD | MS007-SS-1 | 3 | NO MANUAL INTEGRATION |
| 1256 | uu52i.d | UU52I | MS008-SS-1 | 3 | Acenaphthylene, Dibenzo(a,h)anthracene, |
| 1333 | uu52j.d | UU52J | MS009-SS-1 | 3 | NO MANUAL INTEGRATION |
| 1304 | uu52g6.d | UU52G | MS006-SS-1 | 6 | Acenaphthylene, Dibenzo(a,h)anthracene, |

UU52:00641

Q-FLAG SUMMARY FOR DATABATCH - /chem1/nt10.i/20120526.b

Instrument: nt10.i  Date: 26-MAY-2012  Method: ABN.m

INITIAL CAL: 26-MAY-2012

| Compound | %RSD or R^2 |
|---|---|
| NO Q-FLAGS | |

CONTINUING CAL: 26-MAY-2012

| Compound | %D |
|---|---|
| NO Q-FLAGS | |

Data File: /chem1/nt10.i/20120526.b/df0526.d

Date : 26-MAY-2012 10:44

Client ID: DFTPP

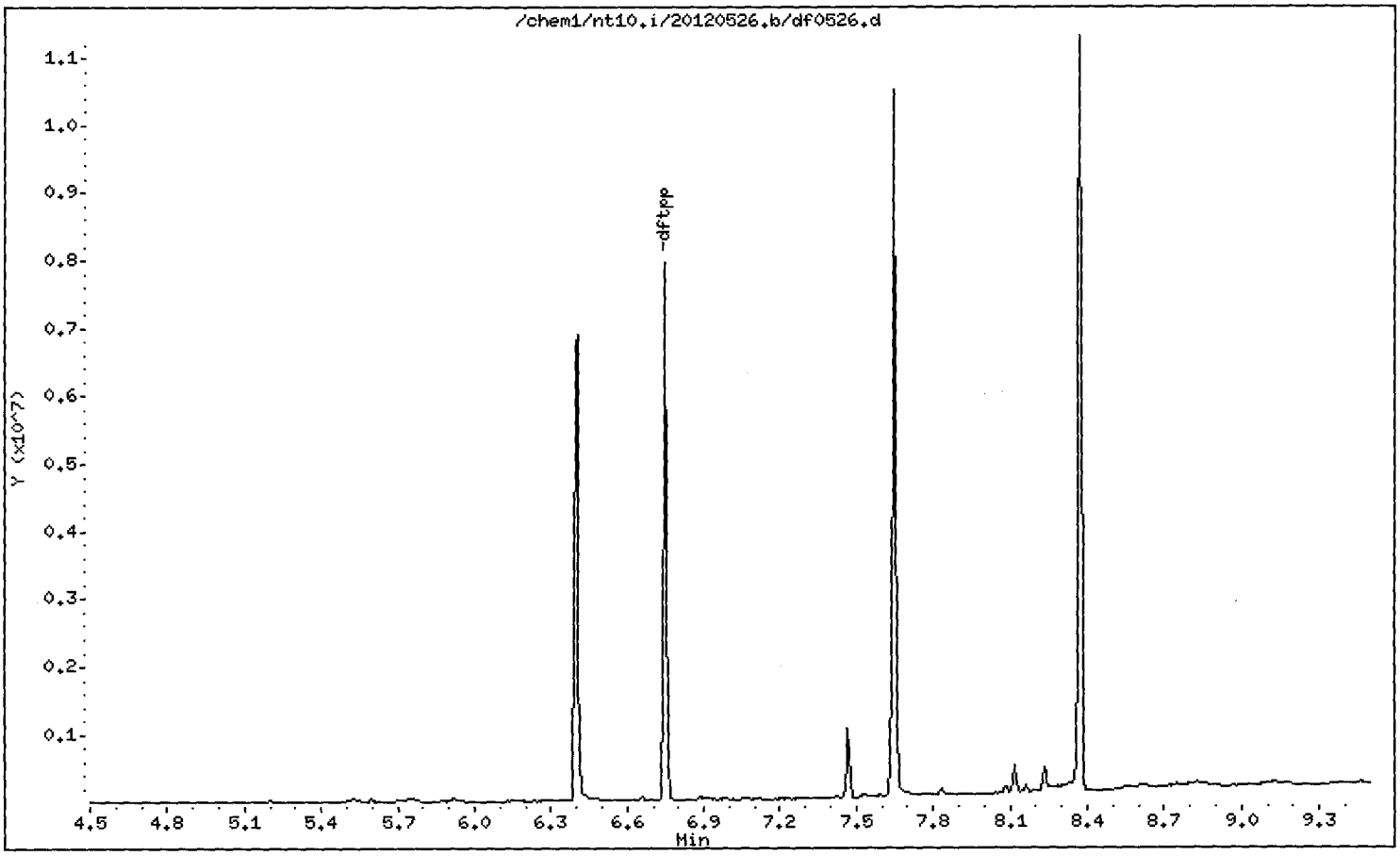
Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem1/nt10.i/20120526.b/df0526.d

Date : 26-MAY-2012 10:44

Client ID: DFTPP

Instrument: nt10.i

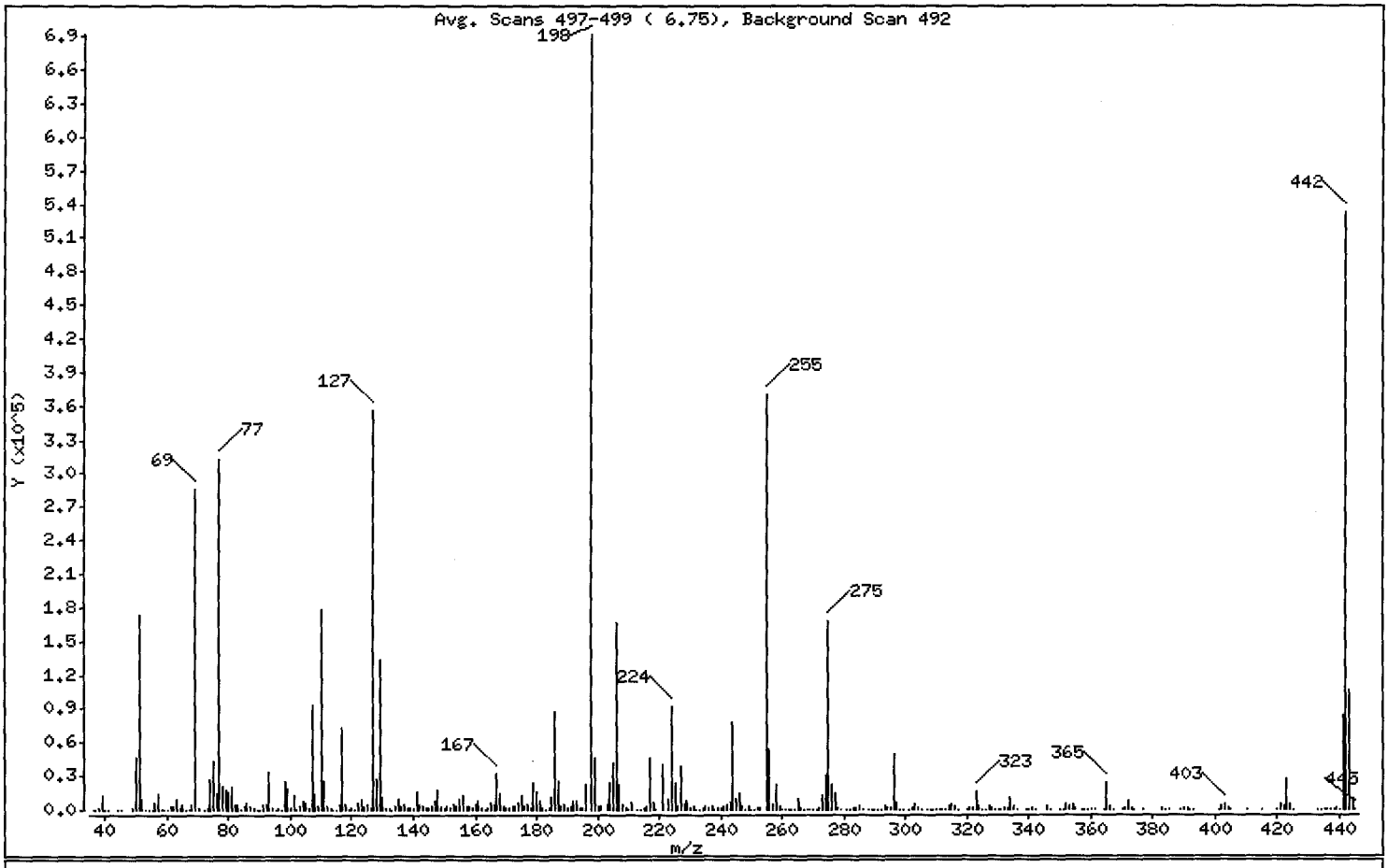
Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 198 | Base Peak, 100% relative abundance | 100.00 |
| 51 | 10.00 - 80.00% of mass 198 | 25.07 |
| 68 | Less than 2.00% of mass 69 | 0.60 ( 1.45) |
| 69 | Mass 69 relative abundance | 41.32 |
| 70 | Less than 2.00% of mass 69 | 0.16 ( 0.40) |
| 127 | 10.00 - 80.00% of mass 198 | 51.51 |
| 197 | Less than 2.00% of mass 198 | 0.00 |
| 199 | 5.00 - 9.00% of mass 198 | 6.70 |
| 275 | 10.00 - 60.00% of mass 198 | 24.35 |
| 365 | Greater than 1.00% of mass 198 | 3.46 |
| 441 | 0.01 - 24.00% of mass 442 | 12.16 ( 15.78) |
| 442 | 50.00 - 200.00% of mass 198 | 77.09 |
| 443 | 15.00 - 24.00% of mass 442 | 15.36 ( 19.93) |

Data File: /chem1/nt10.i/20120526.b/df0526.d

Date : 26-MAY-2012 10:44

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0526.d
Spectrum: Avg. Scans 497-499 ( 6.75), Background Scan 492
Location of Maximum: 198.00
Number of points: 344

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 26 | 129.00 | 133888 | 219.00 | 609 | 313.00 | 521 |
| 37.00 | 738 | 130.00 | 10870 | 221.00 | 40088 | 314.00 | 2625 |
| 38.00 | 2259 | 131.00 | 2053 | 223.00 | 10237 | 315.00 | 5121 |
| 39.00 | 13341 | 132.00 | 1262 | 224.00 | 92880 | 316.00 | 2893 |
| 40.00 | 569 | 133.00 | 466 | 225.00 | 23296 | 317.00 | 637 |
| 41.00 | 216 | 134.00 | 3414 | 226.00 | 2573 | 320.00 | 235 |
| 44.00 | 149 | 135.00 | 9909 | 227.00 | 38288 | 321.00 | 1663 |
| 45.00 | 367 | 136.00 | 3935 | 228.00 | 5304 | 322.00 | 1109 |
| 49.00 | 1189 | 137.00 | 4873 | 229.00 | 7998 | 323.00 | 15465 |
| 50.00 | 46176 | 138.00 | 1128 | 230.00 | 1358 | 324.00 | 2751 |
| 51.00 | 173504 | 139.00 | 805 | 231.00 | 3474 | 325.00 | 323 |
| 52.00 | 9398 | 140.00 | 1603 | 232.00 | 716 | 326.00 | 455 |
| 53.00 | 300 | 141.00 | 15489 | 233.00 | 661 | 327.00 | 3101 |
| 54.00 | 229 | 142.00 | 5414 | 234.00 | 2342 | 328.00 | 1494 |
| 55.00 | 448 | 143.00 | 3720 | 235.00 | 2777 | 329.00 | 370 |
| 56.00 | 6014 | 144.00 | 1136 | 236.00 | 2141 | 330.00 | 56 |
| 57.00 | 13761 | 145.00 | 942 | 237.00 | 3010 | 331.00 | 197 |
| 58.00 | 408 | 146.00 | 2786 | 238.00 | 564 | 332.00 | 1250 |
| 59.00 | 179 | 147.00 | 8163 | 239.00 | 1494 | 333.00 | 1705 |
| 60.00 | 272 | 148.00 | 18016 | 240.00 | 1176 | 334.00 | 10488 |
| 61.00 | 2630 | 149.00 | 3469 | 241.00 | 2531 | 335.00 | 2517 |
| 62.00 | 3433 | 150.00 | 842 | 242.00 | 5295 | 336.00 | 303 |
| 63.00 | 9251 | 151.00 | 2529 | 243.00 | 6077 | 339.00 | 186 |
| 64.00 | 1297 | 152.00 | 1040 | 244.00 | 78016 | 340.00 | 284 |
| 65.00 | 4742 | 153.00 | 4885 | 245.00 | 9692 | 341.00 | 2021 |
| 66.00 | 167 | 154.00 | 3744 | 246.00 | 14024 | 342.00 | 519 |
| 67.00 | 487 | 155.00 | 9049 | 247.00 | 2921 | 346.00 | 3558 |
| 68.00 | 4159 | 156.00 | 13247 | 248.00 | 765 | 347.00 | 600 |
| 69.00 | 285952 | 157.00 | 2827 | 249.00 | 2660 | 350.00 | 271 |
| 70.00 | 1139 | 158.00 | 2845 | 250.00 | 607 | 351.00 | 343 |
| 72.00 | 190 | 159.00 | 2353 | 251.00 | 678 | 352.00 | 4486 |
| 73.00 | 1995 | 160.00 | 5145 | 252.00 | 867 | 353.00 | 3227 |
| 74.00 | 27632 | 161.00 | 7274 | 253.00 | 1909 | 354.00 | 4155 |
| 75.00 | 43448 | 162.00 | 2140 | 255.00 | 370304 | 355.00 | 808 |
| 76.00 | 14823 | 163.00 | 679 | 256.00 | 54880 | 357.00 | 121 |

Data File: /chem1/nt10.i/20120526.b/df0526.d

Date : 26-MAY-2012 10:44

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0526.d

Spectrum: Avg. Scans 497-499 ( 6.75), Background Scan 492

Location of Maximum: 198.00

Number of points: 344

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 77.00 | 313792 | 164.00 | 1059 | 257.00 | 4329 | 358.00 | 52 |
| 78.00 | 20888 | 165.00 | 5892 | 258.00 | 21480 | 359.00 | 426 |
| 79.00 | 18144 | 166.00 | 5005 | 259.00 | 3568 | 360.00 | 59 |
| 80.00 | 15251 | 167.00 | 32544 | 260.00 | 602 | 361.00 | 119 |
| 81.00 | 20912 | 168.00 | 13737 | 261.00 | 620 | 364.00 | 104 |
| 82.00 | 5239 | 169.00 | 2539 | 262.00 | 127 | 365.00 | 23944 |
| 83.00 | 4808 | 170.00 | 1075 | 263.00 | 188 | 366.00 | 3294 |
| 84.00 | 129 | 171.00 | 1308 | 264.00 | 584 | 367.00 | 152 |
| 85.00 | 3163 | 172.00 | 2874 | 265.00 | 8905 | 370.00 | 494 |
| 86.00 | 5793 | 173.00 | 3665 | 266.00 | 1076 | 371.00 | 1374 |
| 87.00 | 2776 | 174.00 | 6643 | 267.00 | 74 | 372.00 | 7891 |
| 88.00 | 1151 | 175.00 | 12622 | 268.00 | 51 | 373.00 | 1946 |
| 89.00 | 520 | 176.00 | 3756 | 269.00 | 229 | 374.00 | 236 |
| 90.00 | 65 | 177.00 | 5429 | 270.00 | 372 | 377.00 | 229 |
| 91.00 | 4623 | 178.00 | 1805 | 271.00 | 793 | 383.00 | 2132 |
| 92.00 | 5132 | 179.00 | 23488 | 272.00 | 1269 | 384.00 | 670 |
| 93.00 | 33360 | 180.00 | 15572 | 273.00 | 12611 | 385.00 | 117 |
| 94.00 | 2216 | 181.00 | 7701 | 274.00 | 29880 | 389.00 | 52 |
| 95.00 | 380 | 182.00 | 1110 | 275.00 | 168512 | 390.00 | 1125 |
| 96.00 | 1107 | 183.00 | 491 | 276.00 | 22000 | 391.00 | 839 |
| 97.00 | 21 | 184.00 | 1883 | 277.00 | 13717 | 392.00 | 587 |
| 98.00 | 25000 | 185.00 | 11629 | 278.00 | 2058 | 393.00 | 55 |
| 99.00 | 19064 | 186.00 | 88272 | 279.00 | 511 | 401.00 | 443 |
| 100.00 | 1716 | 187.00 | 24768 | 281.00 | 116 | 402.00 | 2867 |
| 101.00 | 12840 | 188.00 | 2490 | 282.00 | 481 | 403.00 | 4359 |
| 102.00 | 537 | 189.00 | 5139 | 283.00 | 1659 | 404.00 | 1567 |
| 103.00 | 3931 | 190.00 | 951 | 284.00 | 1165 | 405.00 | 170 |
| 104.00 | 7795 | 191.00 | 2619 | 285.00 | 2561 | 410.00 | 58 |
| 105.00 | 6943 | 192.00 | 7480 | 286.00 | 616 | 415.00 | 299 |
| 106.00 | 2109 | 193.00 | 8529 | 288.00 | 167 | 420.00 | 73 |
| 107.00 | 94312 | 194.00 | 1572 | 289.00 | 565 | 421.00 | 4081 |
| 108.00 | 14776 | 195.00 | 1022 | 290.00 | 563 | 422.00 | 3772 |
| 109.00 | 2699 | 196.00 | 22624 | 291.00 | 337 | 423.00 | 27824 |
| 110.00 | 178432 | 198.00 | 692096 | 292.00 | 692 | 424.00 | 5405 |
| 111.00 | 26104 | 199.00 | 46376 | 293.00 | 3255 | 425.00 | 517 |

UU52:00546

Data File: /chem1/nt10.i/20120526.b/df0526.d

Date : 26-MAY-2012 10:44

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0526.d

Spectrum: Avg. Scans 497-499 ( 6.75), Background Scan 492

Location of Maximum: 198.00

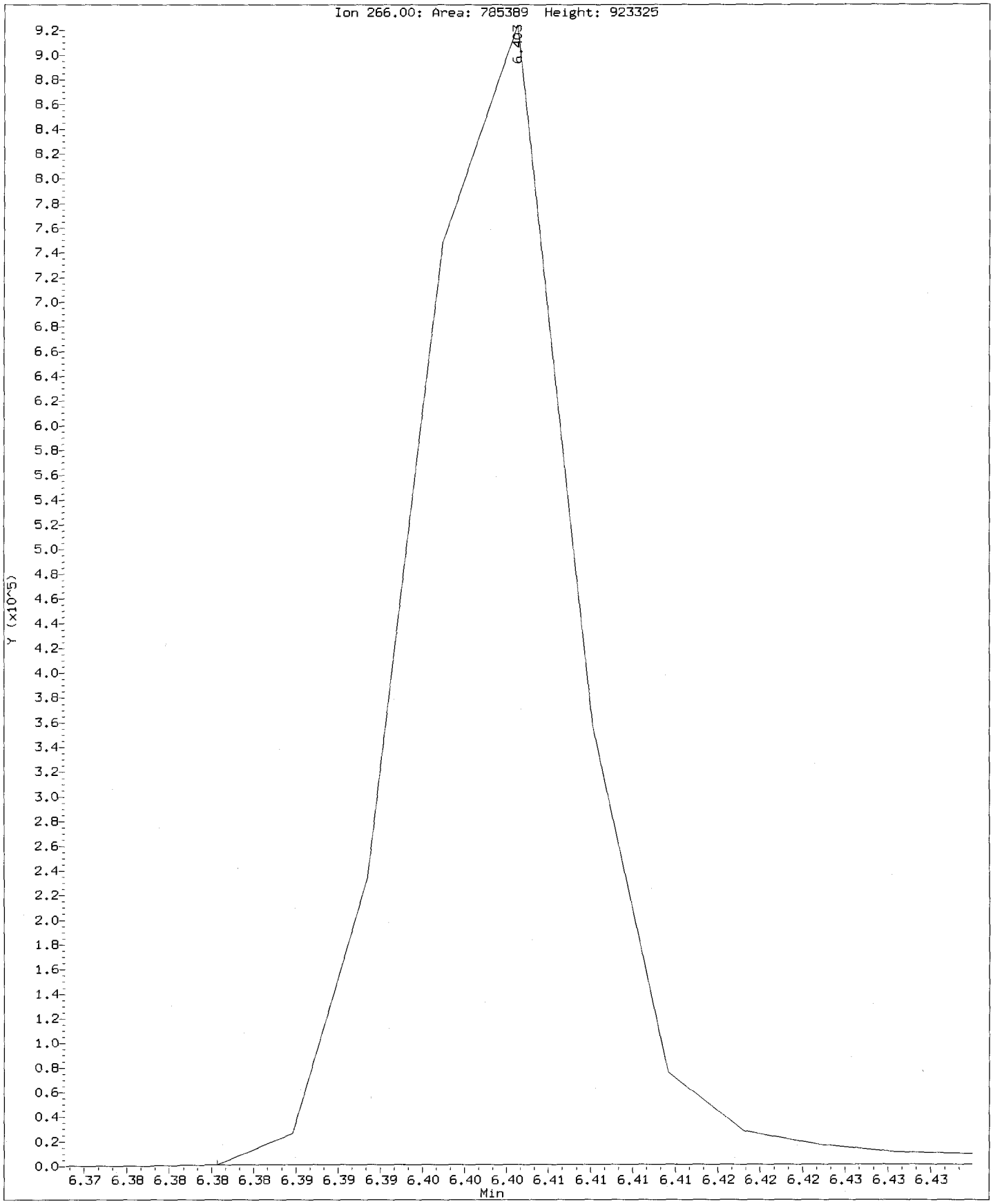
Number of points: 344

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 112.00 | 2941 | 200.00 | 3155 | 294.00 | 851 | 433.00 | 182 |
| 113.00 | 925 | 201.00 | 3528 | 295.00 | 1364 | 434.00 | 330 |
| 114.00 | 293 | 203.00 | 4862 | 296.00 | 49064 | 435.00 | 384 |
| 115.00 | 582 | 204.00 | 24424 | 297.00 | 6873 | 436.00 | 524 |
| 116.00 | 4751 | 205.00 | 40776 | 298.00 | 480 | 437.00 | 742 |
| 117.00 | 73120 | 206.00 | 166848 | 299.00 | 121 | 438.00 | 378 |
| 118.00 | 5224 | 207.00 | 21712 | 301.00 | 760 | 439.00 | 1052 |
| 119.00 | 711 | 208.00 | 5262 | 302.00 | 851 | 440.00 | 757 |
| 120.00 | 1191 | 209.00 | 1631 | 303.00 | 5451 | 441.00 | 84168 |
| 121.00 | 537 | 210.00 | 634 | 304.00 | 1399 | 442.00 | 533504 |
| 122.00 | 5952 | 211.00 | 6697 | 305.00 | 61 | 443.00 | 106320 |
| 123.00 | 9239 | 213.00 | 451 | 307.00 | 73 | 444.00 | 9542 |
| 124.00 | 3620 | 214.00 | 166 | 308.00 | 672 | 445.00 | 638 |
| 125.00 | 4068 | 215.00 | 1855 | 309.00 | 579 | | |
| 126.00 | 1464 | 216.00 | 3870 | 310.00 | 726 | | |
| 127.00 | 356480 | 217.00 | 45744 | 311.00 | 93 | | |
| 128.00 | 26776 | 218.00 | 5952 | 312.00 | 210 | | |

UU52:00647

Data File: /chem1/nt10.i/20120526.b/ddt.b/df0526.d
Injection Date: 26-MAY-2012 10:44
Instrument: nt10.i
Client Sample ID: DFTPP

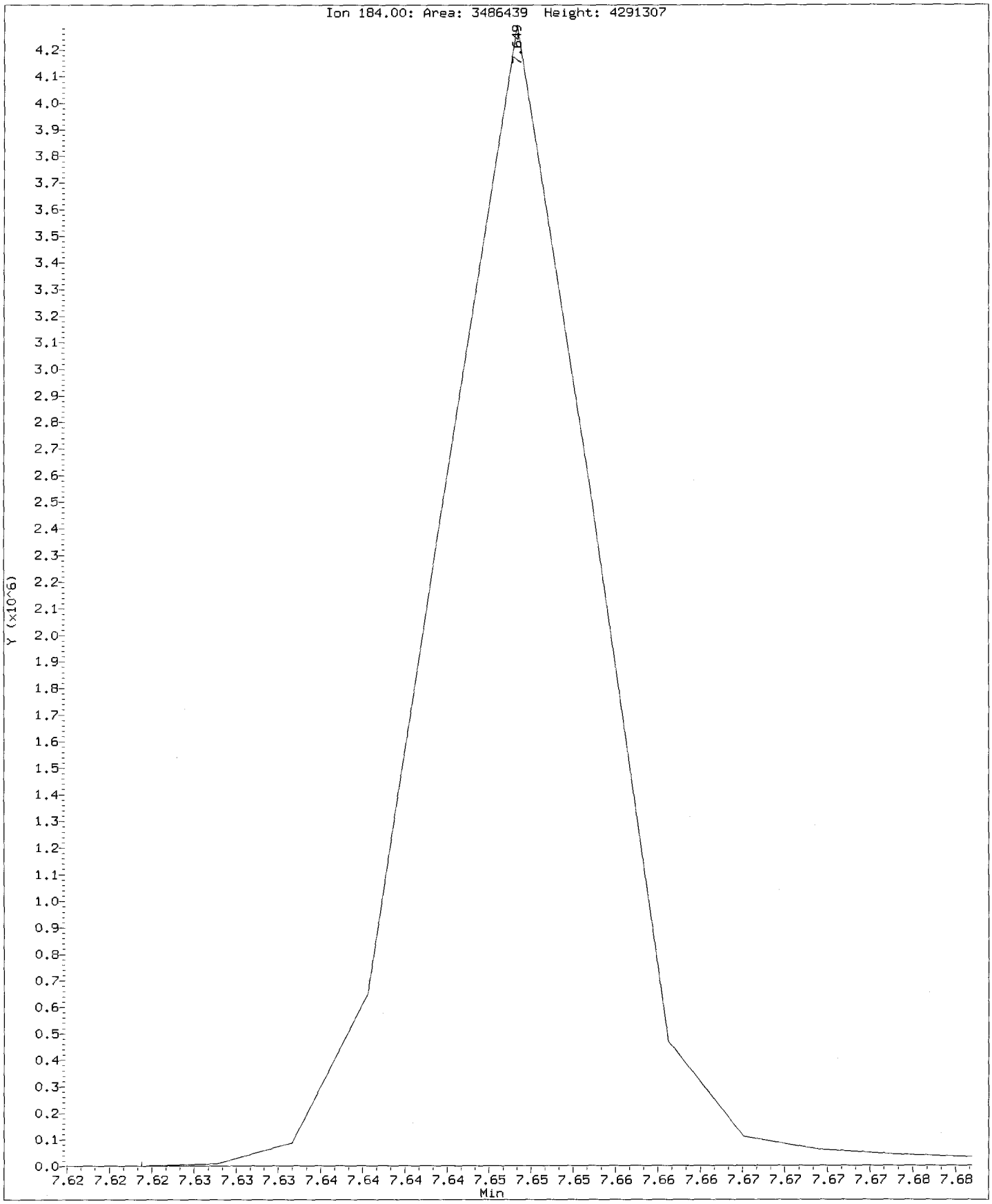
Compound: Pentachlorophenol
CAS Number: 87-86-5




UU52 : 00648

Data File: /chem1/nt10.i/20120526.b/ddt.b/df0526.d
Injection Date: 26-MAY-2012 10:44
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20120526.b/ddt.b/df0526.d  ARI ID: DFTPP
Method: /chem1/nt10.i/20120526.b/ddt.b/sw846ddt.m  Misc: 11-
Analysis Date: 26-MAY-2012 10:44  Instrument: nt10.i

| COMPOUND | RT | AREA |
|---|---|---|
| Pentachlorophenol | 6.403 | 785389 |
| Benzidine | 7.649 | 3486439 |
| 4,4'-DDE | 7.831 | 8080 |
| 4,4'-DDD | 8.120 | 77952 |
| 4,4'-DDT | 8.371 | 1823281 |

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(\ 8080 + 77952) * 100}{(\ 8080 + 77952 + 1823281)}$$

DDT Percent Breakdown = 4.5 %

UU52 : 00650

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i
Lab File ID: ic0526a.d
Analysis Type:
Lab Sample ID: ABN5
Method: /chem1/nt10.i/20120526.b/ABN.m

Injection Date: 26-MAY-2012 10:59
Init. Cal. Date(s): 26-MAY-2012 26-MAY-2012
Init. Cal. Times: 10:59 14:42
Quant Type: ISTD

| COMPOUND | RRF / AMOUNT | RF5 | CCAL RRF5 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE |
|---|---|---|---|---|---|---|---|
| $ 1 2-Fluorophenol | 1.39876 | 1.41730 | 1.41730 | 0.010 | 1.32602 | 20.00000 | Averaged |
| $ 2 Phenol-d5 | 1.74239 | 1.77639 | 1.77639 | 0.010 | 1.95148 | 20.00000 | Averaged |
| 3 Phenol | 1.85722 | 1.94466 | 1.94466 | 0.100 | 4.70830 | 20.00000 | Averaged |
| $ 5 2-Chlorophenol-d4 | 1.52653 | 1.52331 | 1.52331 | 0.010 | -0.21087 | 20.00000 | Averaged |
| 7 1,3-Dichlorobenzene | 1.64203 | 1.65734 | 1.65734 | 0.010 | 0.93204 | 20.00000 | Averaged |
| 9 1,4-Dichlorobenzene | 1.60271 | 1.59176 | 1.59176 | 0.010 | -0.68291 | 20.00000 | Averaged |
| $ 10 1,2-Dichlorobenzene-d4 | 1.00142 | 1.01271 | 1.01271 | 0.010 | 1.12736 | 20.00000 | Averaged |
| 12 1,2-Dichlorobenzene | 1.56383 | 1.56974 | 1.56974 | 0.010 | 0.37798 | 20.00000 | Averaged |
| 11 Benzyl alcohol | 0.78027 | 0.80699 | 0.80699 | 0.010 | 3.42384 | 20.00000 | Averaged |
| 13 2-Methylphenol | 1.46378 | 1.46574 | 1.46574 | 0.700 | 0.13391 | 20.00000 | Averaged |
| 17 Hexachloroethane | 0.62268 | 0.62403 | 0.62403 | 0.300 | 0.21635 | 20.00000 | Averaged |
| 15 4-Methylphenol | 1.52714 | 1.53207 | 1.53207 | 0.600 | 0.32232 | 20.00000 | Averaged |
| $ 18 Nitrobenzene-d5 | 0.35840 | 0.36634 | 0.36634 | 0.010 | 2.21539 | 20.00000 | Averaged |
| 22 2,4-Dimethylphenol | 0.35235 | 0.36445 | 0.36445 | 0.200 | 3.43400 | 20.00000 | Averaged |
| 24 Benzoic acid | 19.85509 | 20.00000 | 0.23596 | 0.010 | -0.72455 | 20.00000 | Quadratic |
| 26 1,2,4-Trichlorobenzene | 0.32265 | 0.32535 | 0.32535 | 0.010 | 0.83663 | 20.00000 | Averaged |
| 28 Naphthalene | 1.00840 | 1.02274 | 1.02274 | 0.100 | 1.42255 | 20.00000 | Averaged |
| 30 Hexachlorobutadiene | 0.17350 | 0.18139 | 0.18139 | 0.010 | 4.55134 | 20.00000 | Averaged |
| 32 2-Methylnaphthalene | 0.70103 | 0.72209 | 0.72209 | 0.300 | 3.00404 | 20.00000 | Averaged |
| $ 36 2-Fluorobiphenyl | 1.38663 | 1.35546 | 1.35546 | 0.010 | -2.24757 | 20.00000 | Averaged |
| 39 Dimethylphthalate | 1.22903 | 1.22652 | 1.22652 | 0.010 | -0.20464 | 20.00000 | Averaged |
| 40 Acenaphthylene | 1.79648 | 1.78241 | 1.78241 | 0.900 | -0.78317 | 20.00000 | Averaged |
| 44 Acenaphthene | 1.08358 | 1.09053 | 1.09053 | 0.100 | 0.64127 | 20.00000 | Averaged |
| 46 Dibenzofuran | 1.58749 | 1.57536 | 1.57536 | 0.800 | -0.76417 | 20.00000 | Averaged |
| 50 Diethylphthalate | 1.19817 | 1.20929 | 1.20929 | 0.010 | 0.92836 | 20.00000 | Averaged |
| 49 Fluorene | 1.21637 | 1.20161 | 1.20161 | 0.100 | -1.21368 | 20.00000 | Averaged |
| 54 N-Nitrosodiphenylamine | 0.53809 | 0.53680 | 0.53680 | 0.010 | -0.24091 | 20.00000 | Averaged |
| $ 55 2,4,6-Tribromophenol | 0.16510 | 0.17168 | 0.17168 | 0.010 | 3.98761 | 20.00000 | Averaged |
| 57 Hexachlorobenzene | 0.24689 | 0.24201 | 0.24201 | 0.100 | -1.97802 | 20.00000 | Averaged |
| 58 Pentachlorophenol | 9.96302 | 10.00000 | 0.12954 | 0.010 | -0.36980 | 20.00000 | Quadratic |
| 60 Phenanthrene | 1.03144 | 1.02336 | 1.02336 | 0.700 | -0.78411 | 20.00000 | Averaged |
| 61 Anthracene | 1.07748 | 1.11319 | 1.11319 | 0.700 | 3.31332 | 20.00000 | Averaged |
| 63 Di-n-butylphthalate | 1.40311 | 1.47098 | 1.47098 | 0.010 | 4.83701 | 20.00000 | Averaged |
| 64 Fluoranthene | 1.17111 | 1.20211 | 1.20211 | 0.600 | 2.64710 | 20.00000 | Averaged |
| 65 Pyrene | 1.21707 | 1.24483 | 1.24483 | 0.600 | 2.28075 | 20.00000 | Averaged |

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i Injection Date: 26-MAY-2012 10:59
Lab File ID: ic0526a.d Init. Cal. Date(s): 26-MAY-2012 26-MAY-2012
Analysis Type: Init. Cal. Times: 10:59 14:42
Lab Sample ID: ABN5 Quant Type: ISTD
Method: /chem1/nt10.i/20120526.b/ABN.m

| COMPOUND | RRF / AMOUNT | RF5 | CCAL RRF5 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE |
|---|---|---|---|---|---|---|---|
| $ 66 Terphenyl-d14 | 0.76242 | 0.77623 | 0.77623 | 0.010 | 1.81123 | 20.00000 | Averaged |
| 67 Butylbenzylphthalate | 0.56457 | 0.58390 | 0.58390 | 0.010 | 3.42498 | 20.00000 | Averaged |
| 68 Benzo(a)anthracene | 1.12516 | 1.11070 | 1.11070 | 0.700 | -1.28548 | 20.00000 | Averaged |
| 71 Chrysene | 0.98981 | 1.00552 | 1.00552 | 0.700 | 1.58713 | 20.00000 | Averaged |
| 72 bis(2-Ethylhexyl)phthalate | 0.54931 | 0.54429 | 0.54429 | 0.010 | -0.91233 | 20.00000 | Averaged |
| 73 Di-n-octylphthalate | 0.97317 | 0.96678 | 0.96678 | 0.010 | -0.65721 | 20.00000 | Averaged |
| 76 Benzo(a)pyrene | 1.03427 | 1.04753 | 1.04753 | 0.700 | 1.28229 | 20.00000 | Averaged |
| 78 Indeno(1,2,3-cd)pyrene | 1.19637 | 1.24880 | 1.24880 | 0.500 | 4.38201 | 20.00000 | Averaged |
| 79 Dibenzo(a,h)anthracene | 0.94241 | 0.99213 | 0.99213 | 0.400 | 5.27540 | 20.00000 | Averaged |
| 80 Benzo(g,h,i)perylene | 1.02591 | 1.06812 | 1.06812 | 0.500 | 4.11482 | 20.00000 | Averaged |
| 105 1-methylnaphthalene | 0.71493 | 0.74060 | 0.74060 | 0.010 | 3.58979 | 20.00000 | Averaged |
| 187 Total Benzofluoranthenes | 1.10989 | 1.11851 | 1.11851 | 0.010 | 0.77624 | 20.00000 | Averaged |
| 98 Retene | 0.56674 | 0.58856 | 0.58856 | 0.010 | 3.85011 | 20.00000 | Averaged |

Analytical Resources, Inc.

VZ 5/30/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/ic0526a.d
Lab Smp Id: ABN5
Inj Date : 26-MAY-2012 10:59
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : ABN5
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 30-May-2012 12:12 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SHORTPSDDA.sub
Target Version: 3.50
Processing Host: cserv3

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| $ 1 | 2-Fluorophenol | 112 | 6.537 | 6.537 | (0.738) | 335752 | 5.00000 | 5.066 |
| $ 2 | Phenol-d5 | 99 | 8.237 | 8.237 | (0.930) | 420818 | 5.00000 | 5.098 |
| 3 | Phenol | 94 | 8.260 | 8.260 | (0.933) | 460680 | 5.00000 | 5.235 |
| $ 5 | 2-Chlorophenol-d4 | 132 | 8.476 | 8.476 | (0.957) | 360864 | 5.00000 | 4.989 |
| 7 | 1,3-Dichlorobenzene | 146 | 8.786 | 8.786 | (0.992) | 392615 | 5.00000 | 5.047 |
| * 8 | 1,4-Dichlorobenzene-d4 | 152 | 8.855 | 8.855 | (1.000) | 189516 | 4.00000 | |
| 9 | 1,4-Dichlorobenzene | 146 | 8.886 | 8.886 | (1.004) | 377080 | 5.00000 | 4.966 |
| $ 10 | 1,2-Dichlorobenzene-d4 | 152 | 9.236 | 9.236 | (1.043) | 239905 | 5.00000 | 5.056 |
| 12 | 1,2-Dichlorobenzene | 146 | 9.267 | 9.267 | (1.046) | 371864 | 5.00000 | 5.019 |
| 11 | Benzyl alcohol | 108 | 9.166 | 9.166 | (1.035) | 191171 | 5.00000 | 5.171 |
| 13 | 2-Methylphenol | 108 | 9.430 | 9.430 | (1.065) | 347227 | 5.00000 | 5.007 |
| 17 | Hexachloroethane | 117 | 9.888 | 9.888 | (1.117) | 147829 | 5.00000 | 5.011 |
| 15 | 4-Methylphenol | 108 | 9.725 | 9.725 | (1.098) | 362939 | 5.00000 | 5.016 |
| $ 18 | Nitrobenzene-d5 | 82 | 10.027 | 10.027 | (0.872) | 334709 | 5.00000 | 5.111 |
| 22 | 2,4-Dimethylphenol | 107 | 10.833 | 10.833 | (0.942) | 665979 | 10.0000 | 10.34 |
| 24 | Benzoic acid | 105 | 11.087 | 11.087 | (0.964) | 862339 | 20.0000 | 19.86 |
| 26 | 1,2,4-Trichlorobenzene | 180 | 11.419 | 11.419 | (0.993) | 297260 | 5.00000 | 5.042 |
| * 27 | Naphthalene-d8 | 136 | 11.504 | 11.504 | (1.000) | 730932 | 4.00000 | |
| 28 | Naphthalene | 128 | 11.542 | 11.542 | (1.003) | 934446 | 5.00000 | 5.071 |
| 30 | Hexachlorobutadiene | 225 | 11.952 | 11.952 | (1.039) | 165733 | 5.00000 | 5.228 |
| 32 | 2-Methylnaphthalene | 142 | 13.043 | 13.043 | (1.134) | 659745 | 5.00000 | 5.150 |
| $ 36 | 2-Fluorobiphenyl | 172 | 13.902 | 13.902 | (0.904) | 712799 | 5.00000 | 4.888 |
| 39 | Dimethylphthalate | 163 | 14.893 | 14.893 | (0.969) | 644991 | 5.00000 | 4.990 |
| 40 | Acenaphthylene | 152 | 15.032 | 15.032 | (0.978) | 937321 | 5.00000 | 4.961 |
| * 42 | Acenaphthene-d10 | 164 | 15.373 | 15.373 | (1.000) | 420698 | 4.00000 | |
| 44 | Acenaphthene | 153 | 15.442 | 15.442 | (1.005) | 573481 | 5.00000 | 5.032 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 46 Dibenzofuran | 168 | 15.798 | 15.798 | (1.028) | 828440 | 5.00000 | 4.962 |
| | 50 Diethylphthalate | 149 | 16.470 | 16.470 | (1.071) | 635932 | 5.00000 | 5.046 |
| | 49 Fluorene | 166 | 16.563 | 16.563 | (1.077) | 631894 | 5.00000 | 4.939 |
| | 54 N-Nitrosodiphenylamine | 169 | 16.856 | 16.856 | (0.905) | 428732 | 5.00000 | 4.988 |
| $ | 55 2,4,6-Tribromophenol | 330 | 17.142 | 17.142 | (1.115) | 90284 | 5.00000 | 5.199 |
| | 57 Hexachlorobenzene | 284 | 17.975 | 17.975 | (0.965) | 193291 | 5.00000 | 4.901 |
| | 58 Pentachlorophenol | 266 | 18.378 | 18.378 | (0.986) | 206931 | 10.0000 | 9.963 |
| * | 59 Phenanthrene-d10 | 188 | 18.633 | 18.633 | (1.000) | 638950 | 4.00000 | |
| | 60 Phenanthrene | 178 | 18.687 | 18.687 | (1.003) | 817342 | 5.00000 | 4.961 |
| | 61 Anthracene | 178 | 18.780 | 18.780 | (1.008) | 889087 | 5.00000 | 5.166 |
| | 63 Di-n-butylphthalate | 149 | 20.010 | 20.010 | (1.074) | 1174853 | 5.00000 | 5.242 |
| | 64 Fluoranthene | 202 | 21.101 | 21.101 | (1.132) | 960108 | 5.00000 | 5.132 |
| | 65 Pyrene | 202 | 21.519 | 21.519 | (0.908) | 1003743 | 5.00000 | 5.114 |
| $ | 66 Terphenyl-d14 | 244 | 21.844 | 21.844 | (0.921) | 625901 | 5.00000 | 5.091 |
| | 67 Butylbenzylphthalate | 149 | 22.781 | 22.781 | (0.961) | 470820 | 5.00000 | 5.171 |
| | 68 Benzo(a)anthracene | 228 | 23.679 | 23.679 | (0.999) | 895593 | 5.00000 | 4.936 |
| * | 69 Chrysene-d12 | 240 | 23.710 | 23.710 | (1.000) | 645065 | 4.00000 | |
| | 71 Chrysene | 228 | 23.749 | 23.749 | (1.002) | 810779 | 5.00000 | 5.079 |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 23.818 | 23.818 | (0.961) | 691334 | 5.00000 | 4.954 |
| * | 134 Di-n-octylphthalate-d4 | 153 | 24.794 | 24.794 | (1.000) | 1016118 | 4.00000 | |
| | 73 Di-n-octylphthalate | 149 | 24.802 | 24.802 | (1.000) | 1227950 | 5.00000 | 4.967 |
| | 76 Benzo(a)pyrene | 252 | 26.002 | 26.002 | (0.996) | 851161 | 5.00000 | 5.064 |
| * | 77 Perylene-d12 | 264 | 26.102 | 26.102 | (1.000) | 650033 | 4.00000 | |
| | 78 Indeno(1,2,3-cd)pyrene | 276 | 28.342 | 28.342 | (1.086) | 1014701 | 5.00000 | 5.219 |
| | 79 Dibenzo(a,h)anthracene | 278 | 28.365 | 28.365 | (1.087) | 806147 | 5.00000 | 5.264 |
| | 80 Benzo(g,h,i)perylene | 276 | 29.002 | 29.002 | (1.111) | 867892 | 5.00000 | 5.206 |
| | 105 1-methylnaphthalene | 142 | 13.275 | 13.275 | (1.154) | 676659 | 5.00000 | 5.179 |
| | 187 Total Benzofluoranthenes | 252 | 25.483 | 25.483 | (0.976) | 1817664 | 10.0000 | 10.08 |
| | 98 Retene | 219 | 22.131 | 22.131 | (0.933) | 474577 | 5.00000 | 5.193 |

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: ic0526a.d
Lab Smp Id: ABN5
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info:

Calibration Date: 26-MAY-2012
Calibration Time: 10:59
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

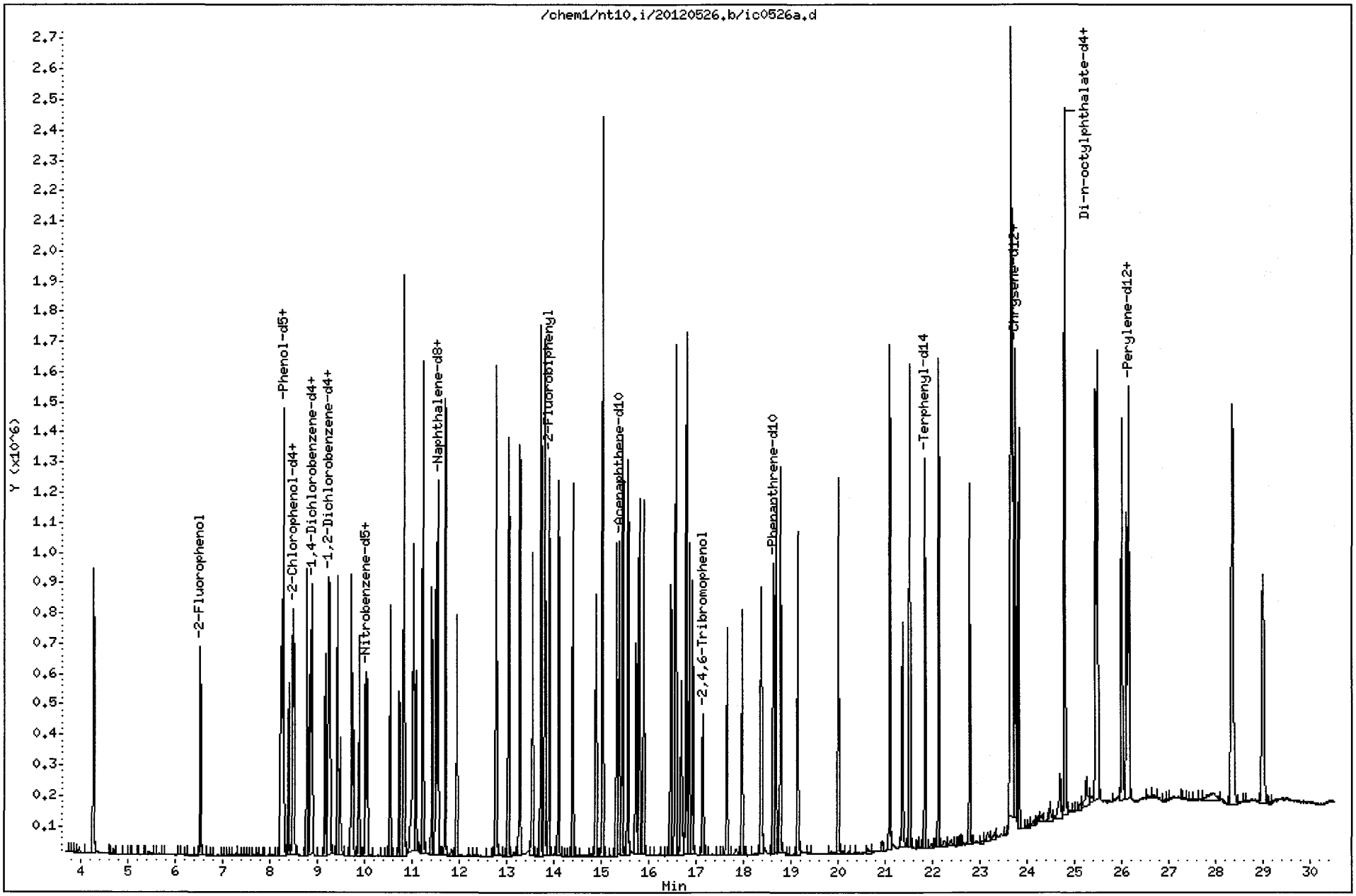
| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 189516 | 0.00 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 730932 | 0.00 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 420698 | 0.00 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 638950 | 0.00 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 645065 | 0.00 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 1016118 | 0.00 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 650033 | 0.00 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.86 | 0.00 |
| 27 Naphthalene-d8 | 11.50 | 11.00 | 12.00 | 11.50 | 0.00 |
| 42 Acenaphthene-d10 | 15.37 | 14.87 | 15.87 | 15.37 | 0.00 |
| 59 Phenanthrene-d10 | 18.63 | 18.13 | 19.13 | 18.63 | 0.00 |
| 69 Chrysene-d12 | 23.71 | 23.21 | 24.21 | 23.71 | 0.00 |
| 134 Di-n-octylphthala | 24.79 | 24.29 | 25.29 | 24.79 | 0.00 |
| 77 Perylene-d12 | 26.10 | 25.60 | 26.60 | 26.10 | 0.00 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20120526.b/ic0526a.d
Date : 26-MAY-2012 10:59
Client ID:
Sample Info: ABN5

Instrument: nt10.i
Operator: VTS/YZ
Column phase: ZB-5msi
Column diameter: 0.25




UL52:00656

CO-ELUTION SUMMARY FOR FILE - ic0526a.d

Lab ID: ABN5, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

# Analytical Resources Inc.: Volatile Organics Instrument Log

## NT-10 Serial No.:GC=CN10837018, MS= US83131105

Date: 5/30/12 Analysis: ABN Analyst: YZ

GC Program: ABN2 Column No: 227815 Column Type: ZB5 ms1

Instrument Tune (.U or .CT.): 11121604 EM Voltage: 1800

Calibration File: DF0530 Curve Date: 5/26/12 Injection Vol.: 1 ul

| IS/SS | Ical/Ccal | LCS/ICV |
|---|---|---|
| 1875-1 | 1949-2 1891-2 | |
| | 1950-1 1892-1. | |

**Document All Maintenance Tasks In StarLIMS**

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/nt10.i/20120530.b

| | Time | Filename | LabID | ClientId | DF | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1212 | df0530.d | DFTPP | DFTPP | 1 | NO ISTDS FOUND | | | | | | | | | | |
| 2 | 1227 | cc0530.d | CC0530 | | 1 | 8.86 | 191858 | 11.51 | 750130 | 15.39 | 423103 | 18.66 | 662850 | 23.73 | 713203 | 24.81 | 1121736 | 26.13 | 700277 |
| 3 | 1304 | uu52g6.d | UU52G | MS006-SS-120 | 6 | 8.87 | 186026 | 11.51 | 733531 | 15.39 | 426946 | 18.66 | 591988 | 23.73 | 709441 | 24.81 | 1089932 | 26.13 | 662093 |

YZ 5/31/12

**Every line must contain information or be lined out. Make all entries legible.**
**Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS**

Q-FLAG SUMMARY FOR DATABATCH - /chem1/nt10.i/20120530.b

Instrument: nt10.i  Date: 30-MAY-2012  Method: ABN.m

INITIAL CAL: 26-MAY-2012

| Compound | %RSD or R^2 |
|---|---|
| NO Q-FLAGS | |

CONTINUING CAL: 30-MAY-2012

| Compound | %D |
|---|---|
| Benzoic acid | -48.8 |
| ~~Hexachlorocyclopentadiene~~ | ~~-36.6~~ |
| ~~2,4-Dinitrophenol~~ | ~~-70.8~~ |
| ~~4,6-Dinitro-2-methylphenol~~ | ~~-27.0~~ |

UU52:00659

Data File: /chem1/nt10.i/20120530.b/df0530.d

Date : 30-MAY-2012 12:12

Client ID: DFTPP

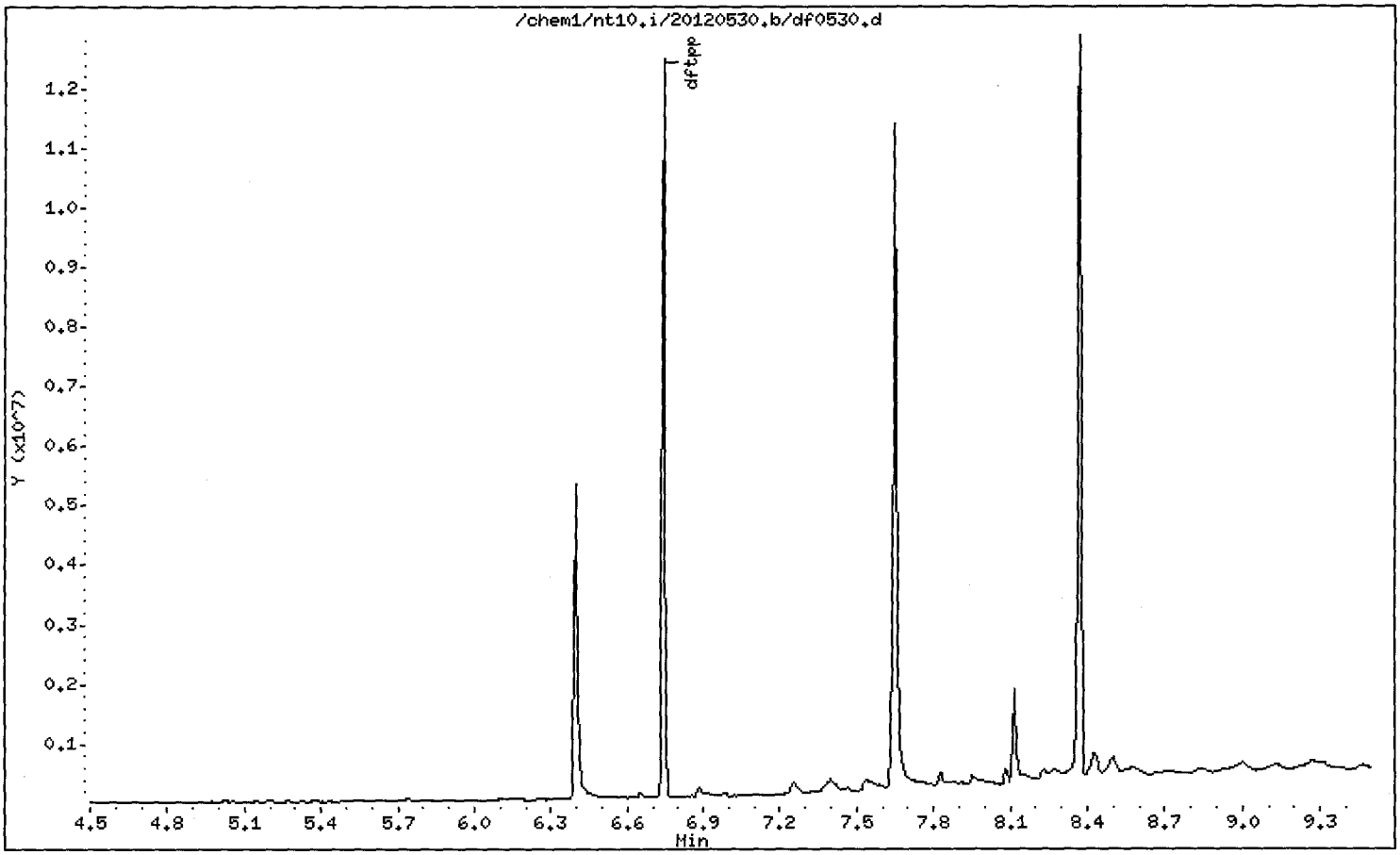
Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25




UU52:00660

Data File: /chem1/nt10.i/20120530.b/df0530.d

Date : 30-MAY-2012 12:12

Client ID: DFTPP

Instrument: nt10.i

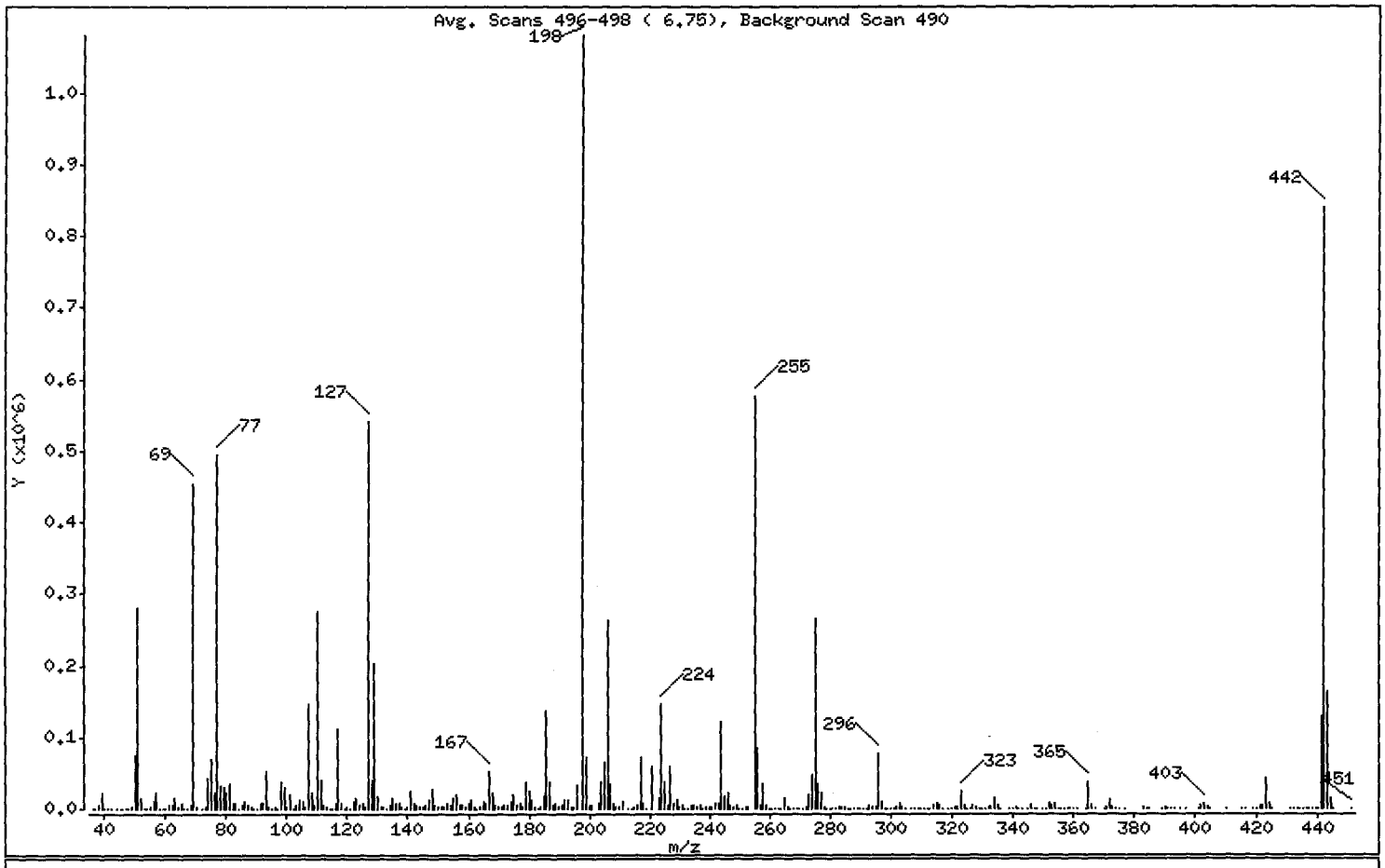
Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 198 | Base Peak, 100% relative abundance | 100.00 |
| 51 | 10.00 - 80.00% of mass 198 | 25.95 |
| 68 | Less than 2.00% of mass 69 | 0.56 ( 1.33) |
| 69 | Mass 69 relative abundance | 42.05 |
| 70 | Less than 2.00% of mass 69 | 0.16 ( 0.37) |
| 127 | 10.00 - 80.00% of mass 198 | 50.08 |
| 197 | Less than 2.00% of mass 198 | 0.00 |
| 199 | 5.00 - 9.00% of mass 198 | 6.63 |
| 275 | 10.00 - 60.00% of mass 198 | 24.62 |
| 365 | Greater than 1.00% of mass 198 | 3.34 |
| 441 | 0.01 - 24.00% of mass 442 | 11.95 ( 15.38) |
| 442 | 50.00 - 200.00% of mass 198 | 77.69 |
| 443 | 15.00 - 24.00% of mass 442 | 15.22 ( 19.59) |

UU52:00661

Data File: /chem1/nt10.i/20120530.b/df0530.d

Date : 30-MAY-2012 12:12

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0530.d

Spectrum: Avg. Scans 496-498 ( 6.75), Background Scan 490

Location of Maximum: 198.00

Number of points: 364

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 201 | 130.00 | 16976 | 227.00 | 59320 | 322.00 | 1375 |
| 37.00 | 977 | 131.00 | 3284 | 228.00 | 8477 | 323.00 | 23688 |
| 38.00 | 3764 | 132.00 | 1922 | 229.00 | 12041 | 324.00 | 4431 |
| 39.00 | 21560 | 133.00 | 628 | 230.00 | 1933 | 325.00 | 512 |
| 40.00 | 953 | 134.00 | 5518 | 231.00 | 5723 | 326.00 | 586 |
| 41.00 | 337 | 135.00 | 15853 | 232.00 | 1126 | 327.00 | 4785 |
| 42.00 | 45 | 136.00 | 6515 | 233.00 | 915 | 328.00 | 2421 |
| 44.00 | 362 | 137.00 | 7334 | 234.00 | 4032 | 329.00 | 426 |
| 45.00 | 593 | 138.00 | 1698 | 235.00 | 4582 | 330.00 | 190 |
| 46.00 | 53 | 139.00 | 936 | 236.00 | 3178 | 331.00 | 244 |
| 47.00 | 44 | 140.00 | 2345 | 237.00 | 4618 | 332.00 | 1912 |
| 48.00 | 143 | 141.00 | 23960 | 238.00 | 853 | 333.00 | 2518 |
| 49.00 | 1902 | 142.00 | 7944 | 239.00 | 2127 | 334.00 | 15785 |
| 50.00 | 74928 | 143.00 | 5527 | 240.00 | 1673 | 335.00 | 3853 |
| 51.00 | 280576 | 144.00 | 1434 | 241.00 | 3665 | 336.00 | 417 |
| 52.00 | 14314 | 145.00 | 1404 | 242.00 | 7846 | 339.00 | 437 |
| 53.00 | 855 | 146.00 | 4377 | 243.00 | 8579 | 340.00 | 301 |
| 54.00 | 126 | 147.00 | 12436 | 244.00 | 120672 | 341.00 | 2747 |
| 55.00 | 1768 | 148.00 | 27840 | 245.00 | 16186 | 342.00 | 736 |
| 56.00 | 9492 | 149.00 | 5304 | 246.00 | 21808 | 343.00 | 240 |
| 57.00 | 21992 | 150.00 | 1406 | 247.00 | 4387 | 345.00 | 74 |
| 58.00 | 571 | 151.00 | 3247 | 248.00 | 1255 | 346.00 | 5357 |
| 59.00 | 265 | 152.00 | 2102 | 249.00 | 4168 | 347.00 | 1020 |
| 60.00 | 392 | 153.00 | 7520 | 250.00 | 920 | 348.00 | 110 |
| 61.00 | 4118 | 154.00 | 5777 | 251.00 | 1154 | 350.00 | 266 |
| 62.00 | 5066 | 155.00 | 14324 | 252.00 | 1277 | 351.00 | 480 |
| 63.00 | 15059 | 156.00 | 20544 | 253.00 | 2659 | 352.00 | 7435 |
| 64.00 | 2275 | 157.00 | 4279 | 255.00 | 577792 | 353.00 | 4879 |
| 65.00 | 7719 | 158.00 | 4440 | 256.00 | 84696 | 354.00 | 6774 |
| 66.00 | 444 | 159.00 | 3346 | 257.00 | 6104 | 355.00 | 1198 |
| 67.00 | 369 | 160.00 | 7718 | 258.00 | 34336 | 356.00 | 206 |
| 68.00 | 6055 | 161.00 | 11326 | 259.00 | 5340 | 357.00 | 123 |
| 69.00 | 454656 | 162.00 | 3603 | 260.00 | 1038 | 358.00 | 205 |
| 70.00 | 1704 | 163.00 | 921 | 261.00 | 1053 | 359.00 | 547 |
| 72.00 | 77 | 164.00 | 1580 | 262.00 | 186 | 360.00 | 101 |

Data File: /chem1/nt10.i/20120530.b/df0530.d

Date : 30-MAY-2012 12:12

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0530.d

Spectrum: Avg. Scans 496-498 ( 6.75), Background Scan 490

Location of Maximum: 198.00

Number of points: 364

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 73.00 | 3492 | 165.00 | 9481 | 263.00 | 491 | 361.00 | 216 |
| 74.00 | 42512 | 166.00 | 7501 | 264.00 | 1114 | 364.00 | 180 |
| 75.00 | 69664 | 167.00 | 51144 | 265.00 | 14050 | 365.00 | 36112 |
| 76.00 | 22816 | 168.00 | 21464 | 266.00 | 1448 | 366.00 | 5112 |
| 77.00 | 495680 | 169.00 | 4055 | 267.00 | 228 | 367.00 | 350 |
| 78.00 | 33024 | 170.00 | 1765 | 268.00 | 207 | 370.00 | 904 |
| 79.00 | 29600 | 171.00 | 2195 | 269.00 | 193 | 371.00 | 1980 |
| 80.00 | 23440 | 172.00 | 4469 | 270.00 | 765 | 372.00 | 12747 |
| 81.00 | 34008 | 173.00 | 5433 | 271.00 | 1240 | 373.00 | 3266 |
| 82.00 | 8232 | 174.00 | 10723 | 272.00 | 1914 | 374.00 | 391 |
| 83.00 | 8030 | 175.00 | 19968 | 273.00 | 19184 | 375.00 | 114 |
| 84.00 | 506 | 176.00 | 6189 | 274.00 | 47464 | 377.00 | 432 |
| 85.00 | 5018 | 177.00 | 8556 | 275.00 | 266176 | 383.00 | 3308 |
| 86.00 | 8869 | 178.00 | 3155 | 276.00 | 35936 | 384.00 | 937 |
| 87.00 | 4166 | 179.00 | 37096 | 277.00 | 21928 | 385.00 | 376 |
| 88.00 | 1382 | 180.00 | 24512 | 278.00 | 3590 | 389.00 | 241 |
| 89.00 | 1021 | 181.00 | 11761 | 279.00 | 780 | 390.00 | 1670 |
| 90.00 | 292 | 182.00 | 1906 | 280.00 | 65 | 391.00 | 1217 |
| 91.00 | 7351 | 183.00 | 1175 | 281.00 | 236 | 392.00 | 817 |
| 92.00 | 7890 | 184.00 | 2748 | 282.00 | 668 | 393.00 | 143 |
| 93.00 | 51920 | 185.00 | 18168 | 283.00 | 2785 | 395.00 | 139 |
| 94.00 | 3571 | 186.00 | 137856 | 284.00 | 1596 | 397.00 | 82 |
| 95.00 | 417 | 187.00 | 38280 | 285.00 | 3704 | 401.00 | 773 |
| 96.00 | 2139 | 188.00 | 3994 | 286.00 | 812 | 402.00 | 4708 |
| 97.00 | 466 | 189.00 | 8026 | 287.00 | 153 | 403.00 | 7149 |
| 98.00 | 38416 | 190.00 | 1758 | 288.00 | 278 | 404.00 | 2514 |
| 99.00 | 30376 | 191.00 | 4007 | 289.00 | 1005 | 405.00 | 496 |
| 100.00 | 2545 | 192.00 | 12193 | 290.00 | 924 | 410.00 | 285 |
| 101.00 | 19728 | 193.00 | 12825 | 291.00 | 633 | 415.00 | 403 |
| 102.00 | 980 | 194.00 | 2641 | 292.00 | 1138 | 416.00 | 62 |
| 103.00 | 5920 | 195.00 | 2031 | 293.00 | 5029 | 419.00 | 65 |
| 104.00 | 11523 | 196.00 | 33240 | 294.00 | 1280 | 420.00 | 149 |
| 105.00 | 10957 | 198.00 | 1081344 | 295.00 | 2190 | 421.00 | 5994 |
| 106.00 | 3553 | 199.00 | 71664 | 296.00 | 77456 | 422.00 | 5784 |
| 107.00 | 146240 | 200.00 | 5725 | 297.00 | 10668 | 423.00 | 42824 |

UU52:00663

Data File: /chem1/nt10.i/20120530.b/df0530.d

Date : 30-MAY-2012 12:12

Client ID: DFTPP

Instrument: nt10.i

Sample Info: DFTPP

Operator: YZ

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0530.d

Spectrum: Avg. Scans 496-498 ( 6.75), Background Scan 490

Location of Maximum: 198.00

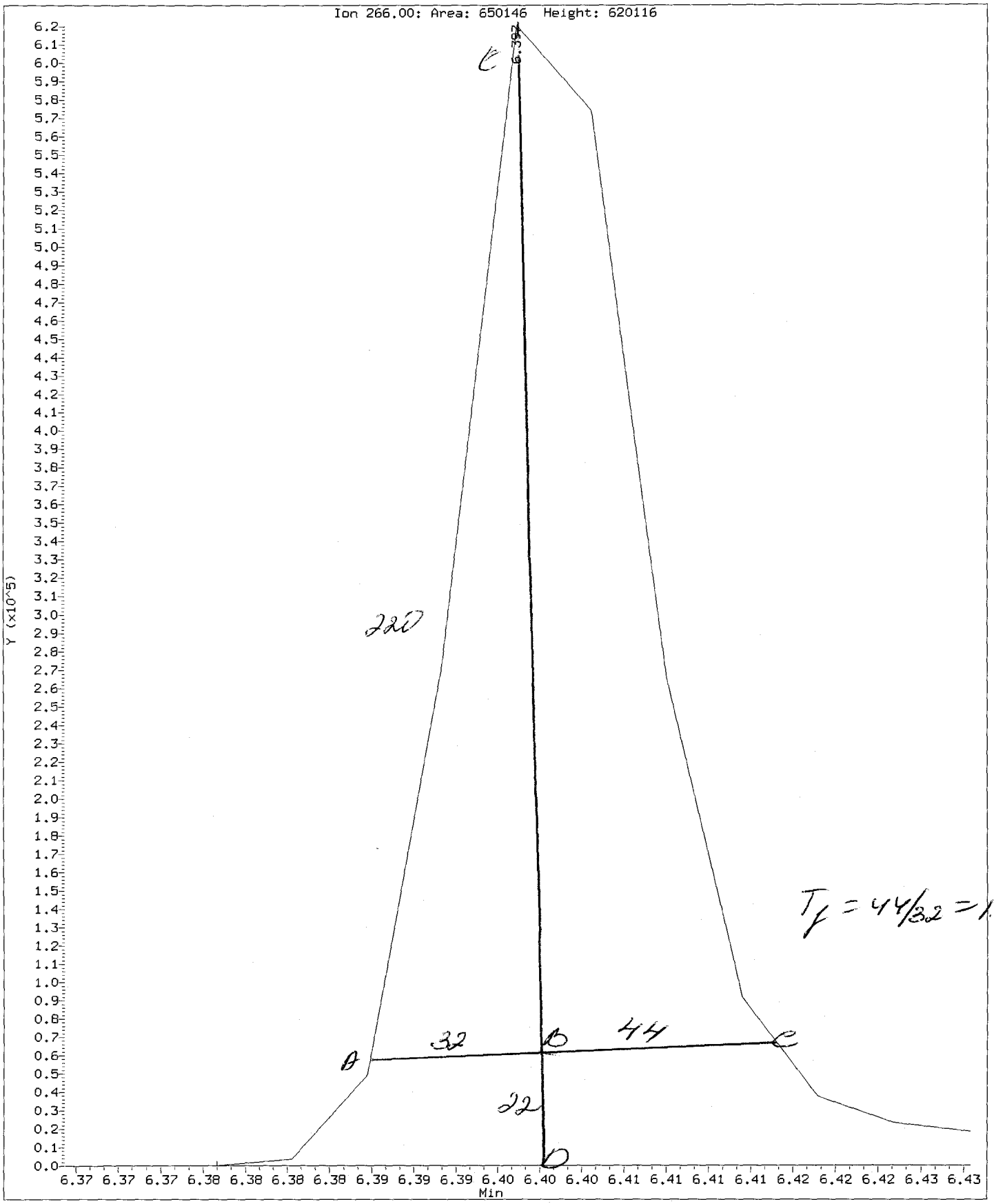
Number of points: 364

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 108.00 | 23112 | 201.00 | 5452 | 298.00 | 794 | 424.00 | 8479 |
| 109.00 | 3913 | 203.00 | 7293 | 299.00 | 342 | 425.00 | 849 |
| 110.00 | 275520 | 204.00 | 37040 | 300.00 | 75 | 431.00 | 59 |
| 111.00 | 40224 | 205.00 | 64480 | 301.00 | 1173 | 432.00 | 133 |
| 112.00 | 4767 | 206.00 | 262720 | 302.00 | 1489 | 433.00 | 113 |
| 113.00 | 1701 | 207.00 | 34088 | 303.00 | 8603 | 434.00 | 398 |
| 114.00 | 464 | 208.00 | 7838 | 304.00 | 2355 | 435.00 | 298 |
| 115.00 | 642 | 209.00 | 2586 | 305.00 | 275 | 436.00 | 486 |
| 116.00 | 7646 | 210.00 | 1961 | 307.00 | 115 | 437.00 | 598 |
| 117.00 | 111128 | 211.00 | 10539 | 308.00 | 1145 | 438.00 | 829 |
| 118.00 | 7964 | 213.00 | 525 | 309.00 | 810 | 439.00 | 344 |
| 119.00 | 1061 | 214.00 | 361 | 310.00 | 974 | 440.00 | 1193 |
| 120.00 | 1957 | 215.00 | 2806 | 311.00 | 314 | 441.00 | 129248 |
| 121.00 | 657 | 216.00 | 5582 | 312.00 | 338 | 442.00 | 840128 |
| 122.00 | 8973 | 217.00 | 71640 | 313.00 | 775 | 443.00 | 164544 |
| 123.00 | 14031 | 218.00 | 8575 | 314.00 | 3827 | 444.00 | 15508 |
| 124.00 | 5994 | 219.00 | 1105 | 315.00 | 8281 | 445.00 | 816 |
| 125.00 | 6435 | 221.00 | 59032 | 316.00 | 4645 | 451.00 | 51 |
| 126.00 | 2565 | 223.00 | 15531 | 317.00 | 883 | | |
| 127.00 | 541504 | 224.00 | 146112 | 319.00 | 125 | | |
| 128.00 | 40160 | 225.00 | 36104 | 320.00 | 363 | | |
| 129.00 | 204544 | 226.00 | 3979 | 321.00 | 2468 | | |

UU52:00664

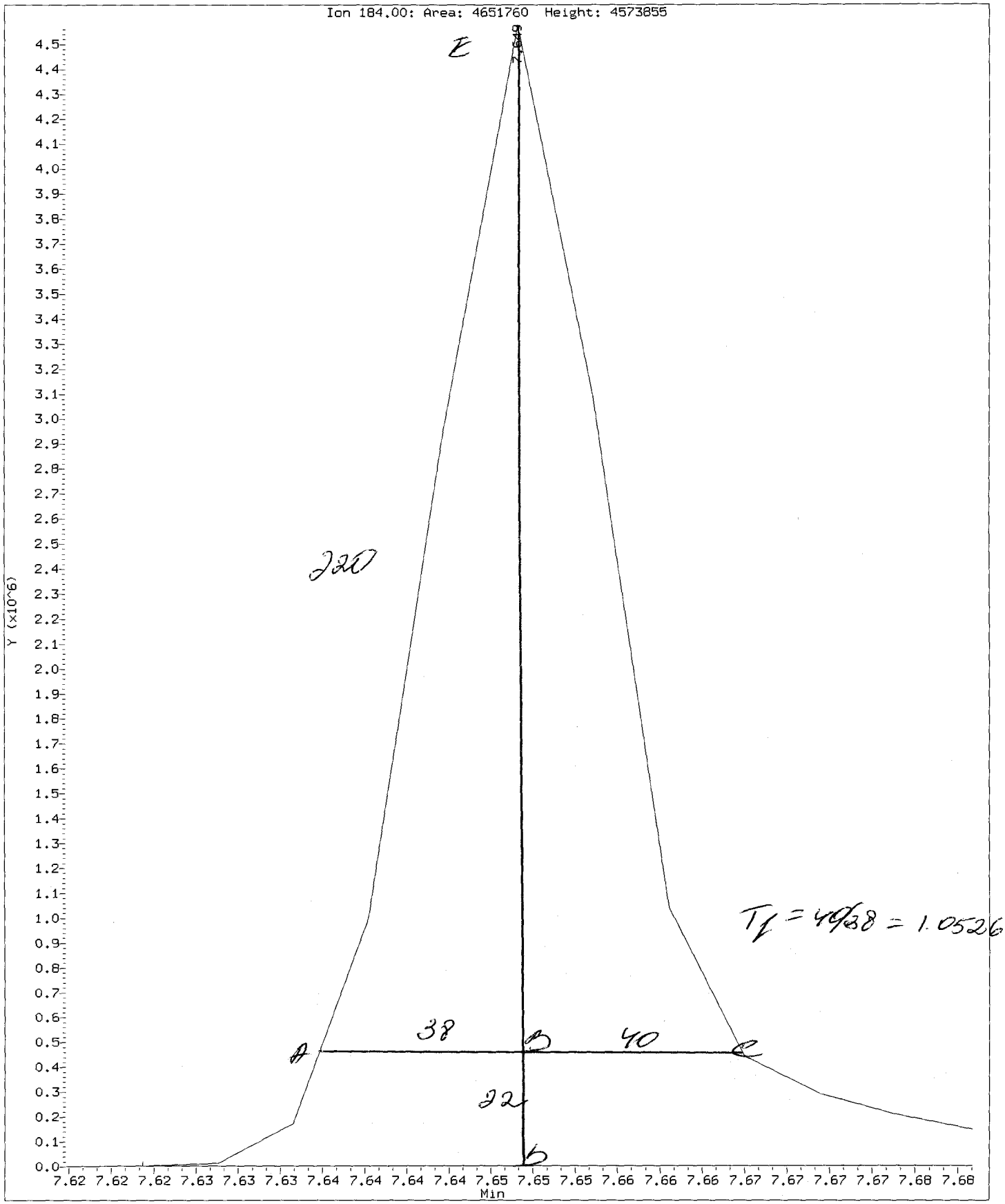
Data File: /chem1/nt10.i/20120530.b/ddt.b/df0530.d
Injection Date: 30-MAY-2012 12:12
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem1/nt10.i/20120530.b/ddt.b/df0530.d
Injection Date: 30-MAY-2012 12:12
Instrument: nt10.i
Client Sample ID: DFTPP

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem1/nt10.i/20120530.b/ddt.b/df0530.d  ARI ID: DFTPP
Method: /chem1/nt10.i/20120530.b/ddt.b/sw846ddt.m  Misc: 11-
Analysis Date: 30-MAY-2012 12:12  Instrument: nt10.i

| COMPOUND | RT | AREA |
|---|---|---|
| Pentachlorophenol | 6.397 | 650146 |
| Benzidine | 7.649 | 4651760 |
| 4,4'-DDE | 7.831 | 21114 |
| 4,4'-DDD | 8.114 | 308435 |
| 4,4'-DDT | 8.371 | 2080466 |

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(\ 21114 + 308435) * 100}{(\ 21114 + 308435 + 2080466)}$$

DDT Percent Breakdown = 13.7 %

Data File: /chem1/nt10.i/20120530.b/cc0530.d
Report Date: 04-Jun-2012 11:58

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i
Lab File ID: cc0530.d
Analysis Type:
Lab Sample ID: CC0530
Method: /chem1/nt10.i/20120530.b/ABN.m

Injection Date: 30-MAY-2012 12:27
Init. Cal. Date(s): 26-MAY-2012 26-MAY-2012
Init. Cal. Times: 10:59 14:42
Quant Type: ISTD

| COMPOUND | RRF / AMOUNT | RF5 | CCAL RRF5 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE | |
|---|---|---|---|---|---|---|---|---|
| $ 1 2-Fluorophenol | 1.39876 | 1.31614 | 1.31614 | 0.010 | -5.90664 | 20.00000 | Averaged | |
| $ 2 Phenol-d5 | 1.74239 | 1.59621 | 1.59621 | 0.010 | -8.38978 | 20.00000 | Averaged | |
| 3 Phenol | 1.85722 | 1.91241 | 1.91241 | 0.100 | 2.97190 | 20.00000 | Averaged | |
| $ 5 2-Chlorophenol-d4 | 1.52653 | 1.44424 | 1.44424 | 0.010 | -5.39025 | 20.00000 | Averaged | |
| 4 Bis(2-Chloroethyl)ether | 1.38283 | 1.31178 | 1.31178 | 0.700 | -5.13762 | 20.00000 | Averaged | |
| 6 2-Chlorophenol | 1.64006 | 1.55544 | 1.55544 | 0.800 | -5.15950 | 20.00000 | Averaged | |
| 7 1,3-Dichlorobenzene | 1.64203 | 1.62870 | 1.62870 | 0.010 | -0.81223 | 20.00000 | Averaged | |
| 9 1,4-Dichlorobenzene | 1.60271 | 1.58390 | 1.58390 | 0.010 | -1.17356 | 20.00000 | Averaged | |
| $ 10 1,2-Dichlorobenzene-d4 | 1.00142 | 1.02445 | 1.02445 | 0.010 | 2.30003 | 20.00000 | Averaged | |
| 12 1,2-Dichlorobenzene | 1.56383 | 1.55742 | 1.55742 | 0.010 | -0.40978 | 20.00000 | Averaged | |
| 11 Benzyl alcohol | 0.78027 | 0.79875 | 0.79875 | 0.010 | 2.36870 | 20.00000 | Averaged | |
| 14 2,2'-oxybis(1-Chloropropane | 0.50908 | 0.50578 | 0.50578 | 0.010 | -0.64907 | 20.00000 | Averaged | |
| 13 2-Methylphenol | 1.46378 | 1.37387 | 1.37387 | 0.700 | -6.14243 | 20.00000 | Averaged | |
| 17 Hexachloroethane | 0.62268 | 0.63844 | 0.63844 | 0.300 | 2.53142 | 20.00000 | Averaged | |
| 16 N-Nitroso-di-n-propylamine | 0.86256 | 0.80858 | 0.80858 | 0.500 | -6.25800 | 20.00000 | Averaged | |
| 15 4-Methylphenol | 1.52714 | 1.37577 | 1.37577 | 0.600 | -9.91243 | 20.00000 | Averaged | |
| $ 18 Nitrobenzene-d5 | 0.35840 | 0.34113 | 0.34113 | 0.010 | -4.81654 | 20.00000 | Averaged | |
| 19 Nitrobenzene | 0.35273 | 0.32576 | 0.32576 | 0.200 | -7.64696 | 20.00000 | Averaged | |
| 20 Isophorone | 0.66495 | 0.71492 | 0.71492 | 0.300 | 7.51351 | 20.00000 | Averaged | |
| 21 2-Nitrophenol | 0.22242 | 0.22061 | 0.22061 | 0.100 | -0.81440 | 20.00000 | Averaged | |
| 22 2,4-Dimethylphenol | 0.35235 | 0.34008 | 0.34008 | 0.200 | -3.48450 | 20.00000 | Averaged | |
| 23 Bis(2-Chloroethoxy)methane | 0.39601 | 0.37841 | 0.37841 | 0.050 | -4.44543 | 20.00000 | Averaged | |
| 24 Benzoic acid | 10.23171 | 20.00000 | 0.11958 | 0.010 | -48.84143 | 20.00000 | Quadratic | <- |
| 25 2,4-Dichlorophenol | 0.33892 | 0.32850 | 0.32850 | 0.100 | -3.07528 | 20.00000 | Averaged | |
| 26 1,2,4-Trichlorobenzene | 0.32265 | 0.31778 | 0.31778 | 0.010 | -1.50840 | 20.00000 | Averaged | |
| 28 Naphthalene | 1.00840 | 1.00895 | 1.00895 | 0.100 | 0.05430 | 20.00000 | Averaged | |
| 29 4-Chloroaniline | 0.44927 | 0.43481 | 0.43481 | 0.010 | -3.21932 | 20.00000 | Averaged | |
| 30 Hexachlorobutadiene | 0.17350 | 0.17922 | 0.17922 | 0.010 | 3.29859 | 20.00000 | Averaged | |
| 31 4-Chloro-3-methylphenol | 0.30410 | 0.31245 | 0.31245 | 0.200 | 2.74390 | 20.00000 | Averaged | |
| 32 2-Methylnaphthalene | 0.70103 | 0.71430 | 0.71430 | 0.300 | 1.89268 | 20.00000 | Averaged | |
| 33 Hexachlorocyclopentadiene | 6.33640 | 10.00000 | 0.18396 | 0.001 | -36.63596 | 20.00000 | Quadratic | <- |
| 34 2,4,6-Trichlorophenol | 0.39418 | 0.41460 | 0.41460 | 0.200 | 5.17908 | 20.00000 | Averaged | |
| 35 2,4,5-Trichlorophenol | 0.42197 | 0.45922 | 0.45922 | 0.200 | 8.82848 | 20.00000 | Averaged | |
| $ 36 2-Fluorobiphenyl | 1.38663 | 1.39990 | 1.39990 | 0.010 | 0.95703 | 20.00000 | Averaged | |
| 37 2-Chloronaphthalene | 1.18536 | 1.20990 | 1.20990 | 0.700 | 2.06993 | 20.00000 | Averaged | |

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i
Lab File ID: cc0530.d
Analysis Type:
Lab Sample ID: CC0530
Method: /chem1/nt10.i/20120530.b/ABN.m

Injection Date: 30-MAY-2012 12:27
Init. Cal. Date(s): 26-MAY-2012 26-MAY-2012
Init. Cal. Times: 10:59 14:42
Quant Type: ISTD

| COMPOUND | RRF / AMOUNT | RF5 | CCAL RRF5 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE | |
|---|---|---|---|---|---|---|---|---|
| 38 2-Nitroaniline | 0.28350 | 0.28300 | 0.28300 | 0.010 | -0.17677 | 20.00000 | Averaged | |
| 39 Dimethylphthalate | 1.22903 | 1.24685 | 1.24685 | 0.010 | 1.44992 | 20.00000 | Averaged | |
| 40 Acenaphthylene | 1.79648 | 1.95252 | 1.95252 | 0.900 | 8.68569 | 20.00000 | Averaged | |
| 41 2,6-Dinitrotoluene | 0.29943 | 0.31167 | 0.31167 | 0.100 | 4.08704 | 20.00000 | Averaged | |
| 43 3-Nitroaniline | 0.33807 | 0.32934 | 0.32934 | 0.010 | -2.58254 | 20.00000 | Averaged | |
| 44 Acenaphthene | 1.08358 | 1.10560 | 1.10560 | 0.100 | 2.03174 | 20.00000 | Averaged | |
| 45 2,4-Dinitrophenol | 5.84174 | 20.00000 | 0.05693 | 0.030 | -70.79128 | 20.00000 | Quadratic | <- |
| 46 Dibenzofuran | 1.58749 | 1.62405 | 1.62405 | 0.800 | 2.30268 | 20.00000 | Averaged | |
| 47 4-Nitrophenol | 0.13011 | 0.14268 | 0.14268 | 0.010 | 9.66153 | 20.00000 | Averaged | |
| 48 2,4-Dinitrotoluene | 0.38632 | 0.41561 | 0.41561 | 0.200 | 7.58369 | 20.00000 | Averaged | |
| 50 Diethylphthalate | 1.19817 | 1.24075 | 1.24075 | 0.010 | 3.55404 | 20.00000 | Averaged | |
| 49 Fluorene | 1.21637 | 1.36102 | 1.36102 | 0.100 | 11.89200 | 20.00000 | Averaged | |
| 51 4-Chlorophenyl-phenylether | 0.57758 | 0.69277 | 0.69277 | 0.100 | 19.94445 | 20.00000 | Averaged | |
| 52 4-Nitroaniline | 0.34544 | 0.33890 | 0.33890 | 0.010 | -1.89169 | 20.00000 | Averaged | |
| 53 4,6-Dinitro-2-methylphenol | 0.15872 | 0.11578 | 0.11578 | 0.001 | -27.04880 | 20.00000 | Averaged | <- |
| 54 N-Nitrosodiphenylamine | 0.53809 | 0.52907 | 0.52907 | 0.010 | -1.67589 | 20.00000 | Averaged | |
| $ 55 2,4,6-Tribromophenol | 0.16510 | 0.17606 | 0.17606 | 0.010 | 6.63640 | 20.00000 | Averaged | |
| 56 4-Bromophenyl-phenylether | 0.21413 | 0.21509 | 0.21509 | 0.100 | 0.44709 | 20.00000 | Averaged | |
| 57 Hexachlorobenzene | 0.24689 | 0.24040 | 0.24040 | 0.100 | -2.63016 | 20.00000 | Averaged | |
| 58 Pentachlorophenol | 9.75376 | 10.00000 | 0.12675 | 0.010 | -2.46238 | 20.00000 | Quadratic | |
| 60 Phenanthrene | 1.03144 | 1.02793 | 1.02793 | 0.700 | -0.34060 | 20.00000 | Averaged | |
| 61 Anthracene | 1.07748 | 1.13468 | 1.13468 | 0.700 | 5.30821 | 20.00000 | Averaged | |
| 62 Carbazole | 0.99697 | 1.08341 | 1.08341 | 0.010 | 8.67040 | 20.00000 | Averaged | |
| 63 Di-n-butylphthalate | 1.40311 | 1.49220 | 1.49220 | 0.010 | 6.34956 | 20.00000 | Averaged | |
| 64 Fluoranthene | 1.17111 | 1.25507 | 1.25507 | 0.600 | 7.16987 | 20.00000 | Averaged | |
| 65 Pyrene | 1.21707 | 1.22037 | 1.22037 | 0.600 | 0.27120 | 20.00000 | Averaged | |
| $ 66 Terphenyl-d14 | 0.76242 | 0.74551 | 0.74551 | 0.010 | -2.21783 | 20.00000 | Averaged | |
| 67 Butylbenzylphthalate | 0.56457 | 0.58243 | 0.58243 | 0.010 | 3.16360 | 20.00000 | Averaged | |
| 68 Benzo(a)anthracene | 1.12516 | 1.09265 | 1.09265 | 0.700 | -2.88934 | 20.00000 | Averaged | |
| 70 3,3'-Dichlorobenzidine | 0.61607 | 0.66378 | 0.66378 | 0.010 | 7.74417 | 20.00000 | Averaged | |
| 71 Chrysene | 0.98981 | 0.98250 | 0.98250 | 0.700 | -0.73834 | 20.00000 | Averaged | |
| 72 bis(2-Ethylhexyl)phthalate | 0.54931 | 0.53298 | 0.53298 | 0.010 | -2.97123 | 20.00000 | Averaged | |
| 73 Di-n-octylphthalate | 0.97317 | 0.95800 | 0.95800 | 0.010 | -1.55885 | 20.00000 | Averaged | |
| 74 Benzo(b)fluoranthene | 1.12365 | 1.17964 | 1.17964 | 0.700 | 4.98292 | 20.00000 | Averaged | |
| 75 Benzo(k)fluoranthene | 1.23726 | 1.20722 | 1.20722 | 0.700 | -2.42746 | 20.00000 | Averaged | |

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt10.i
Lab File ID: cc0530.d
Analysis Type:
Lab Sample ID: CC0530
Method: /chem1/nt10.i/20120530.b/ABN.m

Injection Date: 30-MAY-2012 12:27
Init. Cal. Date(s): 26-MAY-2012 26-MAY-2012
Init. Cal. Times: 10:59 14:42
Quant Type: ISTD

| COMPOUND | RRF / AMOUNT | RF5 | CCAL RRF5 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE |
|---|---|---|---|---|---|---|---|
| 76 Benzo(a)pyrene | 1.03427 | 1.04143 | 1.04143 | 0.700 | 0.69245 | 20.00000 | Averaged |
| 78 Indeno(1,2,3-cd)pyrene | 1.19637 | 1.21690 | 1.21690 | 0.500 | 1.71540 | 20.00000 | Averaged |
| 79 Dibenzo(a,h)anthracene | 0.94241 | 0.98502 | 0.98502 | 0.400 | 4.52058 | 20.00000 | Averaged |
| 80 Benzo(g,h,i)perylene | 1.02591 | 1.02921 | 1.02921 | 0.500 | 0.32168 | 20.00000 | Averaged |
| 90 N-Nitrosodimethylamine | 0.83166 | 0.81490 | 0.81490 | 0.010 | -2.01522 | 20.00000 | Averaged |
| 91 Aniline | 3.95624 | 3.51758 | 3.51758 | 0.010 | -11.08795 | 20.00000 | Averaged |
| 93 Benzidine | 0.45686 | 0.45161 | 0.45161 | 0.010 | -1.14756 | 20.00000 | Averaged |
| 103 Pyridine | 0.71808 | 0.67369 | 0.67369 | 0.010 | -6.18266 | 20.00000 | Averaged |
| 105 1-methylnaphthalene | 0.71493 | 0.74652 | 0.74652 | 0.010 | 4.41747 | 20.00000 | Averaged |
| 111 Azobenzene (1,2-DP-Hydrazin | 1.21402 | 1.21740 | 1.21740 | 0.010 | 0.27776 | 20.00000 | Averaged |
| 187 Total Benzofluoranthenes | 1.10989 | 1.12476 | 1.12476 | 0.010 | 1.33934 | 20.00000 | Averaged |
| 99 Perylene | 1.03973 | 1.04286 | 1.04286 | 0.010 | 0.30049 | 20.00000 | Averaged |
| 98 Retene | 0.56674 | 0.56307 | 0.56307 | 0.010 | -0.64850 | 20.00000 | Averaged |

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 6/4/12

Data file : /chem1/nt10.i/20120530.b/cc0530.d
Lab Smp Id: CC0530
Inj Date : 30-MAY-2012 12:27
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : CC0530
Misc Info :
Comment : 1ul Injection
Method : /chem1/nt10.i/20120530.b/ABN.m
Meth Date : 04-Jun-2012 11:58 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50

| | | | | | | | AMOUNTS | |
|---|---|---|---|---|---|---|---|---|
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CAL-AMT (ug/mL) | ON-COL (ug/mL) |
| $ | 1 2-Fluorophenol | 112 | 6.560 | 6.560 | (0.740) | 315639 | 5.00000 | 4.705 |
| $ | 2 Phenol-d5 | 99 | 8.260 | 8.260 | (0.932) | 382806 | 5.00000 | 4.581 |
| | 3 Phenol | 94 | 8.283 | 8.283 | (0.935) | 458639 | 5.00000 | 5.149 |
| $ | 5 2-Chlorophenol-d4 | 132 | 8.499 | 8.499 | (0.959) | 346362 | 5.00000 | 4.730 |
| | 4 Bis(2-Chloroethyl)ether | 93 | 8.407 | 8.407 | (0.948) | 314595 | 5.00000 | 4.743 |
| | 6 2-Chlorophenol | 128 | 8.522 | 8.522 | (0.962) | 373029 | 5.00000 | 4.742 |
| | 7 1,3-Dichlorobenzene | 146 | 8.793 | 8.793 | (0.992) | 390598 | 5.00000 | 4.959 |
| * | 8 1,4-Dichlorobenzene-d4 | 152 | 8.863 | 8.863 | (1.000) | 191858 | 4.00000 | |
| | 9 1,4-Dichlorobenzene | 146 | 8.902 | 8.902 | (1.004) | 379854 | 5.00000 | 4.941 |
| $ | 10 1,2-Dichlorobenzene-d4 | 152 | 9.243 | 9.243 | (1.043) | 245686 | 5.00000 | 5.115 |
| | 12 1,2-Dichlorobenzene | 146 | 9.274 | 9.274 | (1.046) | 373505 | 5.00000 | 4.980 |
| | 11 Benzyl alcohol | 108 | 9.181 | 9.181 | (1.036) | 191559 | 5.00000 | 5.118 |
| | 14 2,2'-oxybis(1-Chloropropane) | 121 | 9.500 | 9.500 | (1.072) | 121297 | 5.00000 | 4.968 |
| | 13 2-Methylphenol | 108 | 9.453 | 9.453 | (1.067) | 329485 | 5.00000 | 4.693 |
| | 17 Hexachloroethane | 117 | 9.895 | 9.895 | (1.116) | 153113 | 5.00000 | 5.127 |
| | 16 N-Nitroso-di-n-propylamine | 70 | 9.771 | 9.771 | (1.102) | 193916 | 5.00000 | 4.687 |
| | 15 4-Methylphenol | 108 | 9.748 | 9.748 | (1.100) | 329940 | 5.00000 | 4.504 |
| $ | 18 Nitrobenzene-d5 | 82 | 10.035 | 10.035 | (0.872) | 319869 | 5.00000 | 4.759 |
| | 19 Nitrobenzene | 77 | 10.074 | 10.074 | (0.875) | 305450 | 5.00000 | 4.618 |
| | 20 Isophorone | 82 | 10.563 | 10.563 | (0.918) | 670350 | 5.00000 | 5.376 |
| | 21 2-Nitrophenol | 139 | 10.748 | 10.748 | (0.934) | 206856 | 5.00000 | 4.959 |
| | 22 2,4-Dimethylphenol | 107 | 10.856 | 10.856 | (0.943) | 637755 | 10.0000 | 9.652 |
| | 23 Bis(2-Chloroethoxy)methane | 93 | 11.041 | 11.041 | (0.959) | 354820 | 5.00000 | 4.778 |
| | 24 Benzoic acid | 105 | 11.080 | 11.080 | (0.962) | 448518 | 20.0000 | 10.23 |
| | 25 2,4-Dichlorophenol | 162 | 11.257 | 11.257 | (0.978) | 616036 | 10.0000 | 9.692 |
| | 26 1,2,4-Trichlorobenzene | 180 | 11.427 | 11.427 | (0.993) | 297973 | 5.00000 | 4.925 |
| * | 27 Naphthalene-d8 | 136 | 11.512 | 11.512 | (1.000) | 750130 | 4.00000 | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 28 Naphthalene | 128 | 11.558 | 11.558 | (1.004) | 946052 | 5.00000 | 5.003 |
| | 29 4-Chloroaniline | 127 | 11.728 | 11.728 | (1.019) | 815406 | 10.0000 | 9.678 |
| | 30 Hexachlorobutadiene | 225 | 11.960 | 11.960 | (1.039) | 168048 | 5.00000 | 5.165 |
| | 31 4-Chloro-3-methylphenol | 107 | 12.803 | 12.803 | (1.112) | 585936 | 10.0000 | 10.27 |
| | 32 2-Methylnaphthalene | 142 | 13.059 | 13.059 | (1.134) | 669768 | 5.00000 | 5.095 |
| | 33 Hexachlorocyclopentadiene | 237 | 13.562 | 13.562 | (0.881) | 194586 | 10.0000 | 6.336 |
| | 34 2,4,6-Trichlorophenol | 196 | 13.747 | 13.747 | (0.893) | 438543 | 10.0000 | 10.52 |
| | 35 2,4,5-Trichlorophenol | 196 | 13.840 | 13.840 | (0.899) | 485745 | 10.0000 | 10.88 |
| $ | 36 2-Fluorobiphenyl | 172 | 13.910 | 13.910 | (0.904) | 740375 | 5.00000 | 5.048 |
| | 37 2-Chloronaphthalene | 162 | 14.119 | 14.119 | (0.918) | 639890 | 5.00000 | 5.103 |
| | 38 2-Nitroaniline | 65 | 14.421 | 14.421 | (0.937) | 299349 | 10.0000 | 9.982 |
| | 39 Dimethylphthalate | 163 | 14.908 | 14.908 | (0.969) | 659433 | 5.00000 | 5.072 |
| | 40 Acenaphthylene | 152 | 15.048 | 15.048 | (0.978) | 1032645 | 5.00000 | 5.434 |
| | 41 2,6-Dinitrotoluene | 165 | 15.048 | 15.048 | (0.978) | 329670 | 10.0000 | 10.41 |
| * | 42 Acenaphthene-d10 | 164 | 15.388 | 15.388 | (1.000) | 423103 | 4.00000 | |
| | 43 3-Nitroaniline | 138 | 15.349 | 15.349 | (0.997) | 348362 | 10.0000 | 9.742 |
| | 44 Acenaphthene | 153 | 15.458 | 15.458 | (1.005) | 584728 | 5.00000 | 5.102 |
| | 45 2,4-Dinitrophenol | 184 | 15.581 | 15.581 | (1.013) | 120434 | 20.0000 | 5.842 |
| | 46 Dibenzofuran | 168 | 15.813 | 15.813 | (1.028) | 858925 | 5.00000 | 5.115 |
| | 47 4-Nitrophenol | 109 | 15.782 | 15.782 | (1.026) | 150918 | 10.0000 | 10.97(M) |
| | 48 2,4-Dinitrotoluene | 165 | 15.914 | 15.914 | (1.034) | 439618 | 10.0000 | 10.76 |
| | 50 Diethylphthalate | 149 | 16.478 | 16.478 | (1.071) | 656206 | 5.00000 | 5.178 |
| | 49 Fluorene | 166 | 16.579 | 16.579 | (1.077) | 719817 | 5.00000 | 5.595 |
| | 51 4-Chlorophenyl-phenylether | 204 | 16.594 | 16.594 | (1.078) | 366392 | 5.00000 | 5.997 |
| | 52 4-Nitroaniline | 138 | 16.718 | 16.718 | (1.086) | 358475 | 10.0000 | 9.811 |
| | 53 4,6-Dinitro-2-methylphenol | 198 | 16.818 | 16.818 | (0.901) | 383740 | 20.0000 | 14.59 |
| | 54 N-Nitrosodiphenylamine | 169 | 16.872 | 16.872 | (0.904) | 438371 | 5.00000 | 4.916 |
| $ | 55 2,4,6-Tribromophenol | 330 | 17.165 | 17.165 | (1.115) | 93113 | 5.00000 | 5.332 |
| | 56 4-Bromophenyl-phenylether | 248 | 17.674 | 17.674 | (0.947) | 178217 | 5.00000 | 5.022 |
| | 57 Hexachlorobenzene | 284 | 17.991 | 17.991 | (0.964) | 199187 | 5.00000 | 4.868 |
| | 58 Pentachlorophenol | 266 | 18.401 | 18.401 | (0.986) | 210036 | 10.0000 | 9.754 |
| * | 59 Phenanthrene-d10 | 188 | 18.657 | 18.657 | (1.000) | 662850 | 4.00000 | |
| | 60 Phenanthrene | 178 | 18.703 | 18.703 | (1.002) | 851705 | 5.00000 | 4.983 |
| | 61 Anthracene | 178 | 18.803 | 18.803 | (1.008) | 940153 | 5.00000 | 5.265 |
| | 62 Carbazole | 167 | 19.167 | 19.167 | (1.027) | 897670 | 5.00000 | 5.434 |
| | 63 Di-n-butylphthalate | 149 | 20.018 | 20.018 | (1.073) | 1236383 | 5.00000 | 5.317 |
| | 64 Fluoranthene | 202 | 21.125 | 21.125 | (1.132) | 1039907 | 5.00000 | 5.358 |
| | 65 Pyrene | 202 | 21.542 | 21.542 | (0.908) | 1087964 | 5.00000 | 5.014 |
| $ | 66 Terphenyl-d14 | 244 | 21.860 | 21.860 | (0.921) | 664629 | 5.00000 | 4.889 |
| | 67 Butylbenzylphthalate | 149 | 22.796 | 22.796 | (0.961) | 519237 | 5.00000 | 5.158 |
| | 68 Benzo(a)anthracene | 228 | 23.695 | 23.695 | (0.999) | 974106 | 5.00000 | 4.856 |
| * | 69 Chrysene-d12 | 240 | 23.726 | 23.726 | (1.000) | 713203 | 4.00000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | 23.679 | 23.679 | (0.998) | 1183532 | 10.0000 | 10.77 |
| | 71 Chrysene | 228 | 23.772 | 23.772 | (1.002) | 875901 | 5.00000 | 4.963 |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 23.834 | 23.834 | (0.961) | 747335 | 5.00000 | 4.851 |
| * | 134 Di-n-octylphthalate-d4 | 153 | 24.809 | 24.809 | (1.000) | 1121736 | 4.00000 | |
| | 73 Di-n-octylphthalate | 149 | 24.817 | 24.817 | (1.000) | 1343283 | 5.00000 | 4.922 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| 74 | Benzo(b)fluoranthene | 252 | 25.467 | 25.467 | (0.975) | 1032597 | 5.00000 | 5.249 |
| 75 | Benzo(k)fluoranthene | 252 | 25.506 | 25.506 | (0.976) | 1056738 | 5.00000 | 4.879(H) |
| 76 | Benzo(a)pyrene | 252 | 26.033 | 26.033 | (0.996) | 911611 | 5.00000 | 5.035 |
| * 77 | Perylene-d12 | 264 | 26.133 | 26.133 | (1.000) | 700277 | 4.00000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | 28.388 | 28.388 | (1.086) | 1065206 | 5.00000 | 5.086 |
| 79 | Dibenzo(a,h)anthracene | 278 | 28.404 | 28.404 | (1.087) | 862231 | 5.00000 | 5.226 |
| 80 | Benzo(g,h,i)perylene | 276 | 29.049 | 29.049 | (1.112) | 900912 | 5.00000 | 5.016 |
| 90 | N-Nitrosodimethylamine | 74 | 4.282 | 4.282 | (0.483) | 390863 | 10.0000 | 9.798 |
| 91 | Aniline | 93 | 8.306 | 8.306 | (0.937) | 843594 | 5.00000 | 4.446 |
| 93 | Benzidine | 184 | 21.388 | 21.388 | (0.901) | 805231 | 10.0000 | 9.885 |
| 103 | Pyridine | 79 | 4.297 | 4.297 | (0.485) | 323130 | 10.0000 | 9.382 |
| 105 | 1-methylnaphthalene | 142 | 13.291 | 13.291 | (1.155) | 699980 | 5.00000 | 5.221 |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | 16.941 | 16.941 | (1.101) | 643855 | 5.00000 | 5.014 |
| 187 | Total Benzofluoranthenes | 252 | 25.506 | 25.506 | (0.976) | 1969101 | 10.0000 | 10.13 |
| 99 | Perylene | 252 | 26.180 | 26.180 | (1.002) | 912862 | 5.00000 | 5.015 |
| 98 | Retene | 219 | 22.146 | 22.146 | (0.933) | 501977 | 5.00000 | 4.968 |

## QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: cc0530.d
Lab Smp Id: CC0530
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120530.b/ABN.m
Misc Info:

Calibration Date: 30-MAY-2012
Calibration Time: 12:27
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 5.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 191858 | 1.24 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 750130 | 2.63 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 423103 | 0.57 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 662850 | 3.74 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 713203 | 10.56 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 1121736 | 10.39 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 700277 | 7.73 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.86 | 0.00 |
| 27 Naphthalene-d8 | 11.51 | 11.01 | 12.01 | 11.51 | 0.00 |
| 42 Acenaphthene-d10 | 15.39 | 14.89 | 15.89 | 15.39 | 0.00 |
| 59 Phenanthrene-d10 | 18.66 | 18.16 | 19.16 | 18.66 | 0.00 |
| 69 Chrysene-d12 | 23.73 | 23.23 | 24.23 | 23.73 | 0.00 |
| 134 Di-n-octylphthala | 24.81 | 24.31 | 25.31 | 24.81 | 0.00 |
| 77 Perylene-d12 | 26.13 | 25.63 | 26.63 | 26.13 | 0.00 |

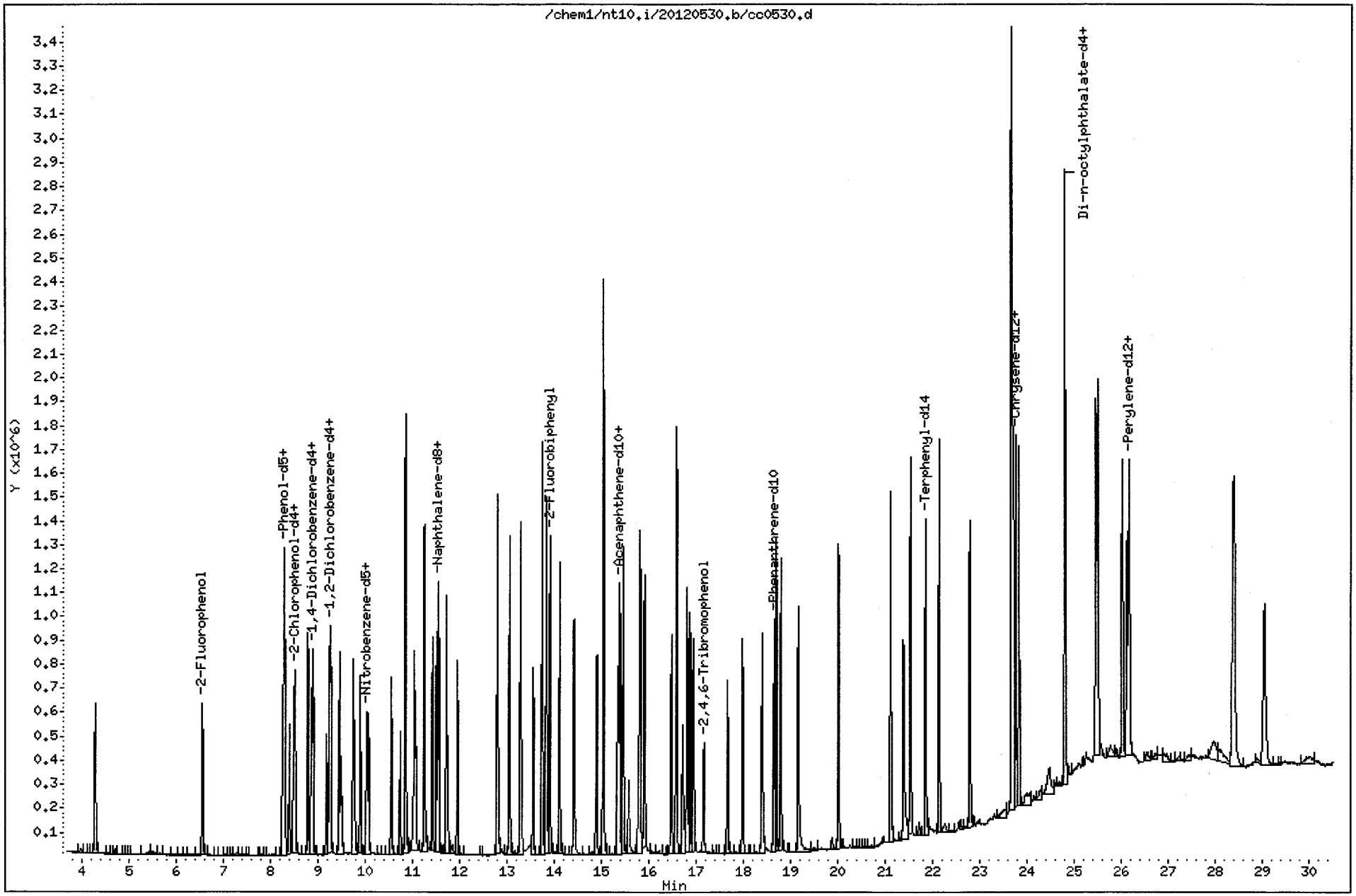
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/nt10.i/20120530.b/cc0530.d
Date : 30-MAY-2012 12:27
Client ID:
Sample Info: CC0530

Instrument: nt10.i

Operator: VTS/YZ
Column diameter: 0.25

Column phase: ZB-5msi




UJ52:00675

CO-ELUTION SUMMARY FOR FILE - cc0530.d

Lab ID: CC0530, Method: ABN.m, Instrument: nt10.i, Date: 30-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|
| 15.048 | Acenaphthylene and 2,6-Dinitrotoluene |

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

6/4/12

Data file : /chem1/nt10.i/20120526.b/uu52mb.d
Lab Smp Id: UU52MBS1 Client Smp ID: UU52MBS1
Inj Date : 26-MAY-2012 15:56
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52MBS1
Misc Info : 12-8900
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 04-Jun-2012 11:32 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Vt | 1000.00000 | Volume of final extract (uL) |
| Ws | 10.00000 | Weight of sample extracted (g) |
| M | 0.00000 | % Moisture |

Cpnd Variable Local Compound Variable

| | | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|
| $ | 1 | 2-Fluorophenol | 112 | 6.552 | 6.537 | (0.740) | 269199 | 4.00387 | 400.4 |
| $ | 2 | Phenol-d5 | 99 | 8.229 | 8.237 | (0.929) | 345487 | 4.12511 | 412.5 |
| | 3 | Phenol | 94 | Compound Not Detected. | | | | | |
| $ | 5 | 2-Chlorophenol-d4 | 132 | 8.476 | 8.476 | (0.957) | 308315 | 4.20183 | 420.2 |
| | 4 | Bis(2-Chloroethyl)ether | 93 | Compound Not Detected. | | | | | |
| | 6 | 2-Chlorophenol | 128 | Compound Not Detected. | | | | | |
| | 7 | 1,3-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| * | 8 | 1,4-Dichlorobenzene-d4 | 152 | 8.855 | 8.855 | (1.000) | 192270 | 4.00000 | |
| | 9 | 1,4-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| $ | 10 | 1,2-Dichlorobenzene-d4 | 152 | 9.236 | 9.236 | (1.043) | 133251 | 2.76824 | 276.8 |
| | 12 | 1,2-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| | 11 | Benzyl alcohol | 108 | Compound Not Detected. | | | | | |
| | 14 | 2,2'-oxybis(1-Chloropropane) | 121 | Compound Not Detected. | | | | | |
| | 13 | 2-Methylphenol | 108 | Compound Not Detected. | | | | | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| | 17 Hexachloroethane | 117 | Compound Not Detected. | | | | | |
| | 16 N-Nitroso-di-n-propylamine | 70 | Compound Not Detected. | | | | | |
| | 15 4-Methylphenol | 108 | Compound Not Detected. | | | | | |
| $ | 18 Nitrobenzene-d5 | 82 | 10.020 | 10.027 | (0.872) | 190061 | 2.80879 | 280.9 |
| | 19 Nitrobenzene | 77 | Compound Not Detected. | | | | | |
| | 20 Isophorone | 82 | Compound Not Detected. | | | | | |
| | 21 2-Nitrophenol | 139 | Compound Not Detected. | | | | | |
| | 22 2,4-Dimethylphenol | 107 | Compound Not Detected. | | | | | |
| | 23 Bis(2-Chloroethoxy)methane | 93 | Compound Not Detected. | | | | | |
| | 24 Benzoic acid | 105 | Compound Not Detected. | | | | | |
| | 25 2,4-Dichlorophenol | 162 | Compound Not Detected. | | | | | |
| | 26 1,2,4-Trichlorobenzene | 180 | Compound Not Detected. | | | | | |
| * | 27 Naphthalene-d8 | 136 | 11.496 | 11.504 | (1.000) | 755212 | 4.00000 | |
| | 28 Naphthalene | 128 | Compound Not Detected. | | | | | |
| | 29 4-Chloroaniline | 127 | Compound Not Detected. | | | | | |
| | 30 Hexachlorobutadiene | 225 | Compound Not Detected. | | | | | |
| | 31 4-Chloro-3-methylphenol | 107 | Compound Not Detected. | | | | | |
| | 32 2-Methylnaphthalene | 142 | Compound Not Detected. | | | | | |
| | 33 Hexachlorocyclopentadiene | 237 | Compound Not Detected. | | | | | |
| | 34 2,4,6-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| | 35 2,4,5-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| $ | 36 2-Fluorobiphenyl | 172 | 13.894 | 13.902 | (0.904) | 396112 | 2.78751 | 278.8 |
| | 37 2-Chloronaphthalene | 162 | Compound Not Detected. | | | | | |
| | 38 2-Nitroaniline | 65 | Compound Not Detected. | | | | | |
| | 39 Dimethylphthalate | 163 | Compound Not Detected. | | | | | |
| | 40 Acenaphthylene | 152 | Compound Not Detected. | | | | | |
| | 41 2,6-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| * | 42 Acenaphthene-d10 | 164 | 15.365 | 15.373 | (1.000) | 409923 | 4.00000 | |
| | 43 3-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 44 Acenaphthene | 153 | Compound Not Detected. | | | | | |
| | 45 2,4-Dinitrophenol | 184 | Compound Not Detected. | | | | | |
| | 46 Dibenzofuran | 168 | Compound Not Detected. | | | | | |
| | 47 4-Nitrophenol | 109 | Compound Not Detected. | | | | | |
| | 48 2,4-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| | 50 Diethylphthalate | 149 | Compound Not Detected. | | | | | |
| | 49 Fluorene | 166 | Compound Not Detected. | | | | | |
| | 51 4-Chlorophenyl-phenylether | 204 | Compound Not Detected. | | | | | |
| | 52 4-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 53 4,6-Dinitro-2-methylphenol | 198 | Compound Not Detected. | | | | | |
| | 54 N-Nitrosodiphenylamine | 169 | Compound Not Detected. | | | | | |
| $ | 55 2,4,6-Tribromophenol | 330 | 17.142 | 17.142 | (1.116) | 69910 | 4.13189 | 413.2 |
| | 56 4-Bromophenyl-phenylether | 248 | Compound Not Detected. | | | | | |
| | 57 Hexachlorobenzene | 284 | Compound Not Detected. | | | | | |
| | 58 Pentachlorophenol | 266 | Compound Not Detected. | | | | | |
| * | 59 Phenanthrene-d10 | 188 | 18.633 | 18.633 | (1.000) | 652568 | 4.00000 | |
| | 60 Phenanthrene | 178 | Compound Not Detected. | | | | | |
| | 61 Anthracene | 178 | Compound Not Detected. | | | | | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| | 62 Carbazole | 167 | Compound Not Detected. | | | | | |
| | 63 Di-n-butylphthalate | 149 | Compound Not Detected. | | | | | |
| | 64 Fluoranthene | 202 | Compound Not Detected. | | | | | |
| | 65 Pyrene | 202 | Compound Not Detected. | | | | | |
| $ | 66 Terphenyl-d14 | 244 | 21.836 | 21.844 | (0.921) | 398113 | 3.32196 | 332.2 |
| | 67 Butylbenzylphthalate | 149 | Compound Not Detected. | | | | | |
| | 68 Benzo(a)anthracene | 228 | Compound Not Detected. | | | | | |
| * | 69 Chrysene-d12 | 240 | 23.702 | 23.710 | (1.000) | 628746 | 4.00000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | Compound Not Detected. | | | | | |
| | 71 Chrysene | 228 | Compound Not Detected. | | | | | |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 23.818 | 23.818 | (0.961) | 17222 | 0.13755 | 13.76(R) |
| * | 134 Di-n-octylphthalate-d4 | 153 | 24.794 | 24.794 | (1.000) | 911710 | 4.00000 | |
| | 73 Di-n-octylphthalate | 149 | Compound Not Detected. | | | | | |
| | 74 Benzo(b)fluoranthene | 252 | Compound Not Detected. | | | | | |
| | 75 Benzo(k)fluoranthene | 252 | Compound Not Detected. | | | | | |
| | 76 Benzo(a)pyrene | 252 | Compound Not Detected. | | | | | |
| * | 77 Perylene-d12 | 264 | 26.102 | 26.102 | (1.000) | 575994 | 4.00000 | |
| | 78 Indeno(1,2,3-cd)pyrene | 276 | Compound Not Detected. | | | | | |
| | 79 Dibenzo(a,h)anthracene | 278 | Compound Not Detected. | | | | | |
| | 80 Benzo(g,h,i)perylene | 276 | Compound Not Detected. | | | | | |
| | 90 N-Nitrosodimethylamine | 74 | Compound Not Detected. | | | | | |
| | 91 Aniline | 93 | Compound Not Detected. | | | | | |
| | 93 Benzidine | 184 | Compound Not Detected. | | | | | |
| | 103 Pyridine | 79 | Compound Not Detected. | | | | | |
| | 105 1-methylnaphthalene | 142 | Compound Not Detected. | | | | | |
| | 111 Azobenzene (1,2-DP-Hydrazine) | 77 | Compound Not Detected. | | | | | |
| | 187 Total Benzofluoranthenes | 252 | Compound Not Detected. | | | | | |
| | 99 Perylene | 252 | Compound Not Detected. | | | | | |
| | 98 Retene | 219 | Compound Not Detected. | | | | | |

## QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52mb.d
Lab Smp Id: UU52MBS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8900

Calibration Date: 26-MAY-2012
Calibration Time: 10:59
Client Smp ID: UU52MBS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 5.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 192270 | 1.45 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 755212 | 3.32 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 409923 | -2.56 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 652568 | 2.13 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 628746 | -2.53 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 911710 | -10.28 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 575994 | -11.39 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.86 | 0.00 |
| 27 Naphthalene-d8 | 11.50 | 11.00 | 12.00 | 11.50 | -0.07 |
| 42 Acenaphthene-d10 | 15.37 | 14.87 | 15.87 | 15.36 | -0.05 |
| 59 Phenanthrene-d10 | 18.63 | 18.13 | 19.13 | 18.63 | 0.00 |
| 69 Chrysene-d12 | 23.71 | 23.21 | 24.21 | 23.70 | -0.03 |
| 134 Di-n-octylphthala | 24.79 | 24.29 | 25.29 | 24.79 | 0.00 |
| 77 Perylene-d12 | 26.10 | 25.60 | 26.60 | 26.10 | 0.00 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

| SPIKE COMPOUND | CONC ADDED ug/kg | CONC RECOVERED ug/kg | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 76 Benzo(a)pyrene | 500.0 | 0.000 | * | 30-160 |
| 78 Indeno(1,2,3-cd)p | 500.0 | 0.000 | * | 30-160 |
| 79 Dibenzo(a,h)anthr | 500.0 | 0.000 | * | 30-160 |
| 80 Benzo(g,h,i)peryl | 500.0 | 0.000 | * | 30-160 |
| 105 1-methylnaphthale | 500.0 | 0.000 | * | 30-160 |
| 187 Total Benzofluora | 1000 | 0.000 | * | 30-160 |

| SURROGATE COMPOUND | CONC ADDED ug/kg | CONC RECOVERED ug/kg | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 1 2-Fluorophenol | 750.0 | 400.4 | 53.38 | 30-160 |
| $ 2 Phenol-d5 | 750.0 | 412.5 | 55.00 | 30-160 |
| $ 5 2-Chlorophenol-d4 | 750.0 | 420.2 | 56.02 | 30-160 |
| $ 10 1,2-Dichlorobenzen | 500.0 | 276.8 | 55.36 | 30-160 |
| $ 18 Nitrobenzene-d5 | 500.0 | 280.9 | 56.18 | 30-160 |
| $ 36 2-Fluorobiphenyl | 500.0 | 278.8 | 55.75 | 30-160 |
| $ 55 2,4,6-Tribromophen | 750.0 | 413.2 | 55.09 | 30-160 |
| $ 66 Terphenyl-d14 | 500.0 | 332.2 | 66.44 | 30-160 |

Data File: /chem1/nt10.i/20120526.b/uu52mb.d

Date : 26-MAY-2012 15:56

Client ID: UU52MBS1

Sample Info: UU52MBS1

Volume Injected (uL): 1.0

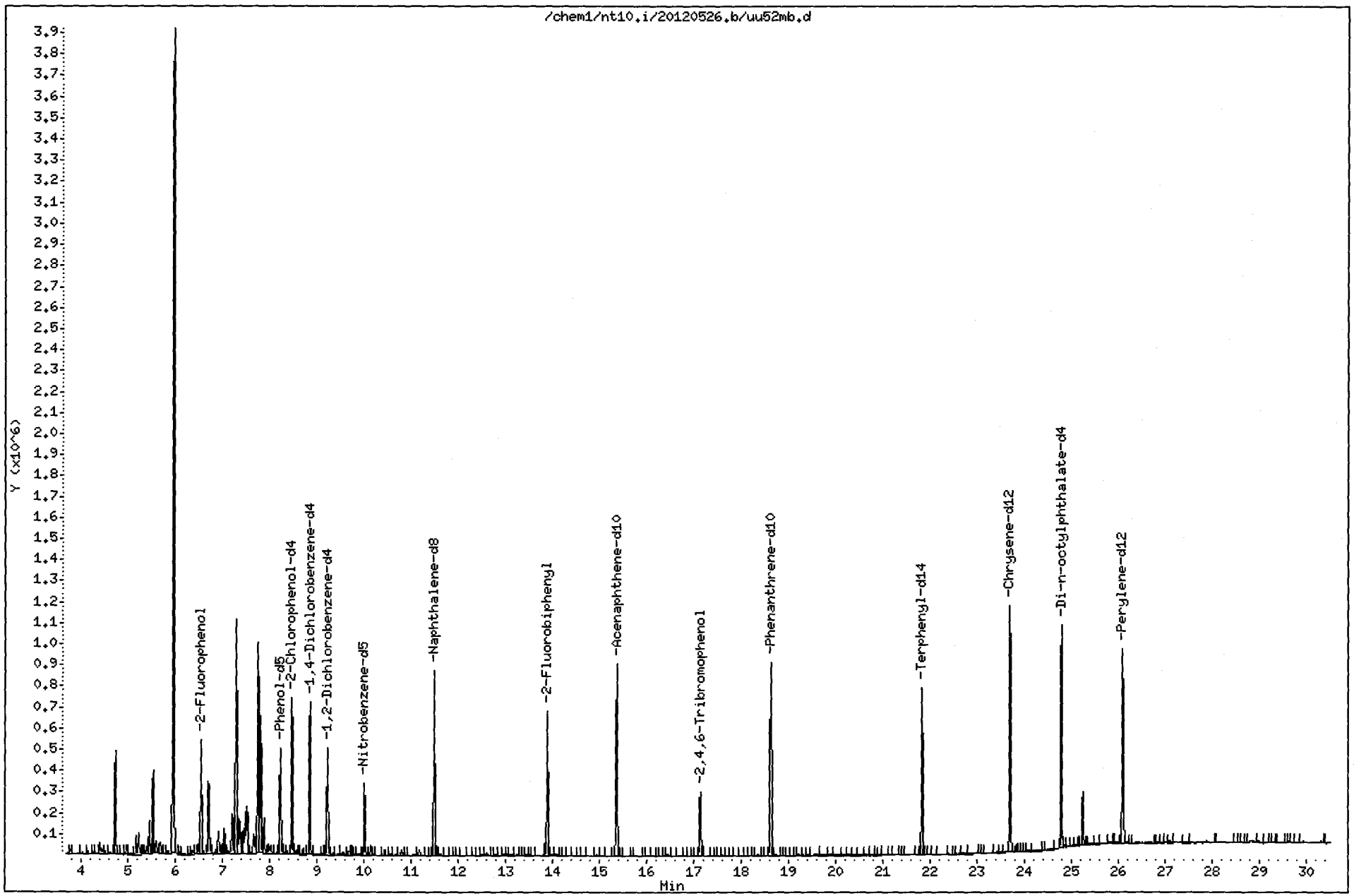
Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ

Column diameter: 0.25






UU52:00682

CO-ELUTION SUMMARY FOR FILE - uu52mb.d

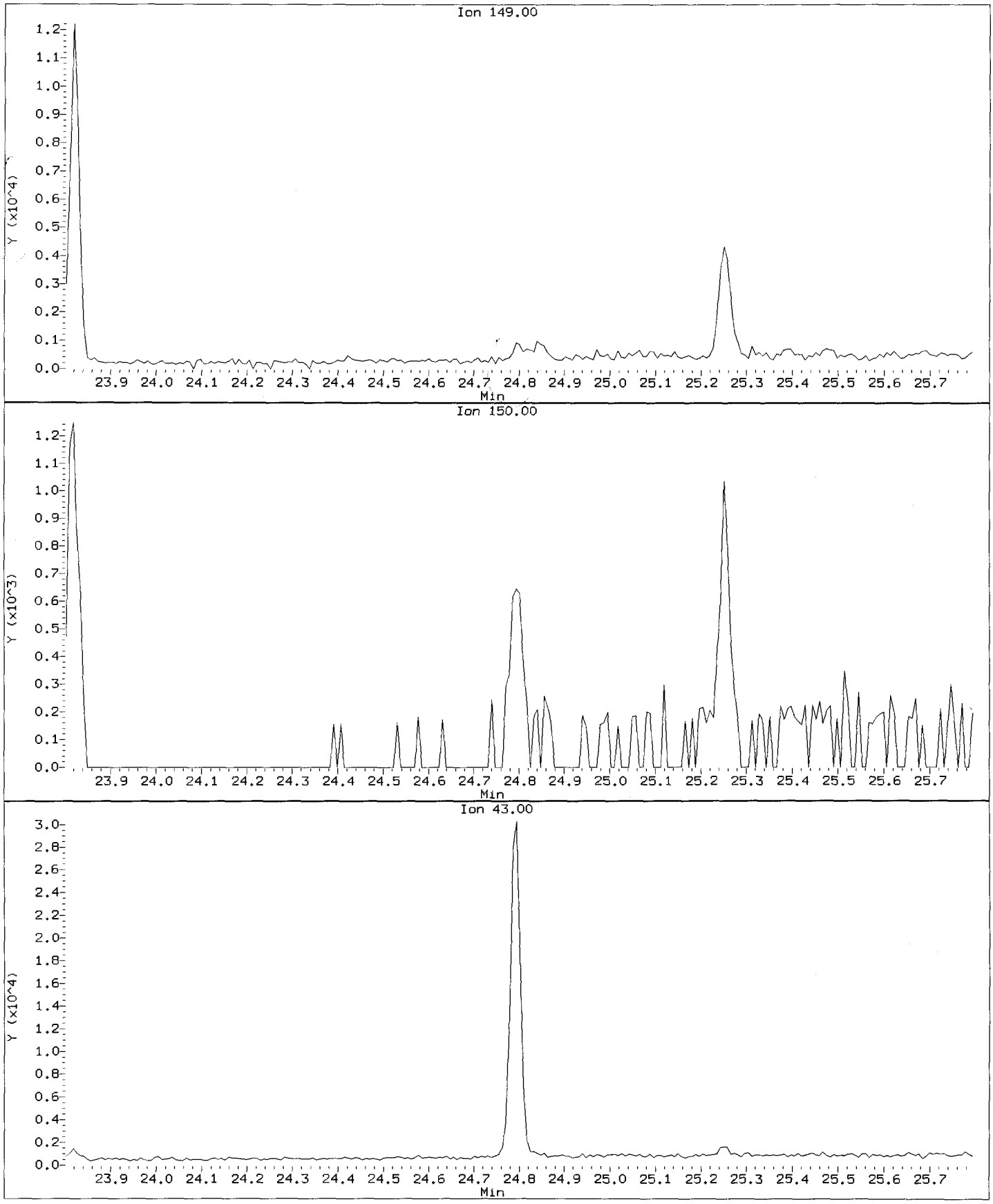
Lab ID: UU52MBS1, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Data File: /chem1/nt10.i/20120526.b/uu52mb.d
Injection Date: 26-MAY-2012 15:56
Instrument: nt10.i
Client Sample ID: UU52MBS1

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



Analytical Resources, Inc.

YZ 6/4/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/uu52sb.d
Lab Smp Id: UU52LCSS1 Client Smp ID: UU52LCSS1
Inj Date : 26-MAY-2012 16:34
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52LCSS1
Misc Info : 12-8900
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 04-Jun-2012 11:32 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 2 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Vt | 1000.00000 | Volume of final extract (uL) |
| Ws | 10.00000 | Weight of sample extracted (g) |
| M | 0.00000 | % Moisture |

Cpnd Variable Local Compound Variable

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| $ 1 | 2-Fluorophenol | 112 | 6.552 | 6.537 | (0.740) | 351853 | 5.56028 | 556.0 |
| $ 2 | Phenol-d5 | 99 | 8.237 | 8.237 | (0.930) | 454063 | 5.76035 | 576.0 |
| 3 | Phenol | 94 | 8.260 | 8.260 | (0.933) | 351312 | 4.18127 | 418.1 |
| $ 5 | 2-Chlorophenol-d4 | 132 | 8.476 | 8.476 | (0.957) | 391851 | 5.67406 | 567.4 |
| 4 | Bis(2-Chloroethyl)ether | 93 | 8.399 | 8.399 | (0.948) | 241368 | 3.85824 | 385.8 |
| 6 | 2-Chlorophenol | 128 | 8.507 | 8.507 | (0.961) | 261774 | 3.52813 | 352.8 |
| 7 | 1,3-Dichlorobenzene | 146 | 8.786 | 8.786 | (0.992) | 267027 | 3.59460 | 359.5 |
| * 8 | 1,4-Dichlorobenzene-d4 | 152 | 8.855 | 8.855 | (1.000) | 180960 | 4.00000 | |
| 9 | 1,4-Dichlorobenzene | 146 | 8.886 | 8.886 | (1.004) | 259775 | 3.58279 | 358.3 |
| $ 10 | 1,2-Dichlorobenzene-d4 | 152 | 9.236 | 9.236 | (1.043) | 163328 | 3.60515 | 360.5 |
| 12 | 1,2-Dichlorobenzene | 146 | 9.259 | 9.267 | (1.046) | 257060 | 3.63347 | 363.3 |
| 11 | Benzyl alcohol | 108 | 9.166 | 9.166 | (1.035) | 143480 | 4.06465 | 406.5 |
| 14 | 2,2'-oxybis(1-Chloropropane) | 121 | 9.492 | 9.492 | (1.072) | 84639 | 3.67502 | 367.5 |
| 13 | 2-Methylphenol | 108 | 9.430 | 9.430 | (1.065) | 210118 | 3.17296 | 317.3 |

| | | | QUANT SIG | | | | | CONCENTRATIONS ON-COLUMN | FINAL |
|---|---|---|---|---|---|---|---|---|---|
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | (ug/mL) | (ug/kg) |
| | 17 | Hexachloroethane | 117 | 9.888 | 9.888 | (1.117) | 101404 | 3.59971 | 360.0 |
| | 16 | N-Nitroso-di-n-propylamine | 70 | 9.764 | 9.764 | (1.103) | 143731 | 3.68331 | 368.3 |
| | 15 | 4-Methylphenol | 108 | 9.733 | 9.725 | (1.099) | 453028 | 6.55726 | 655.7 |
| $ | 18 | Nitrobenzene-d5 | 82 | 10.020 | 10.027 | (0.872) | 232022 | 3.63076 | 363.1 |
| | 19 | Nitrobenzene | 77 | 10.058 | 10.058 | (0.875) | 235293 | 3.74110 | 374.1 |
| | 20 | Isophorone | 82 | 10.540 | 10.547 | (0.917) | 463703 | 3.91094 | 391.1 |
| | 21 | 2-Nitrophenol | 139 | 10.733 | 10.733 | (0.934) | 144195 | 3.63588 | 363.6 |
| | 22 | 2,4-Dimethylphenol | 107 | 10.833 | 10.833 | (0.942) | 586325 | 9.33235 | 933.2 |
| | 23 | Bis(2-Chloroethoxy)methane | 93 | 11.034 | 11.033 | (0.960) | 275135 | 3.89645 | 389.6 |
| | 24 | Benzoic acid | 105 | 11.057 | 11.087 | (0.962) | 556369 | 13.2797 | 1328 |
| | 25 | 2,4-Dichlorophenol | 162 | 11.234 | 11.234 | (0.977) | 664257 | 10.9919 | 1099 |
| | 26 | 1,2,4-Trichlorobenzene | 180 | 11.411 | 11.419 | (0.993) | 208928 | 3.63160 | 363.2 |
| * | 27 | Naphthalene-d8 | 136 | 11.496 | 11.504 | (1.000) | 713226 | 4.00000 | |
| | 28 | Naphthalene | 128 | 11.542 | 11.542 | (1.004) | 717706 | 3.99160 | 399.2 |
| | 29 | 4-Chloroaniline | 127 | 11.705 | 11.705 | (1.018) | 691348 | 8.63020 | 863.0 |
| | 30 | Hexachlorobutadiene | 225 | 11.944 | 11.952 | (1.039) | 115797 | 3.74315 | 374.3 |
| | 31 | 4-Chloro-3-methylphenol | 107 | 12.780 | 12.780 | (1.112) | 648715 | 11.9638 | 1196 |
| | 32 | 2-Methylnaphthalene | 142 | 13.035 | 13.043 | (1.134) | 480451 | 3.84368 | 384.4 |
| | 33 | Hexachlorocyclopentadiene | 237 | 13.546 | 13.554 | (0.881) | 280755 | 9.48564 | 948.6 |
| | 34 | 2,4,6-Trichlorophenol | 196 | 13.724 | 13.732 | (0.893) | 450023 | 11.3365 | 1134 |
| | 35 | 2,4,5-Trichlorophenol | 196 | 13.809 | 13.809 | (0.898) | 480362 | 11.3040 | 1130 |
| $ | 36 | 2-Fluorobiphenyl | 172 | 13.902 | 13.902 | (0.904) | 509056 | 3.64542 | 364.5 |
| | 37 | 2-Chloronaphthalene | 162 | 14.103 | 14.103 | (0.917) | 448978 | 3.76110 | 376.1 |
| | 38 | 2-Nitroaniline | 65 | 14.405 | 14.405 | (0.937) | 366504 | 12.8369 | 1284 |
| | 39 | Dimethylphthalate | 163 | 14.893 | 14.893 | (0.969) | 523986 | 4.23349 | 423.3 |
| | 40 | Acenaphthylene | 152 | 15.032 | 15.032 | (0.978) | 714247 | 3.94791 | 394.8 |
| | 41 | 2,6-Dinitrotoluene | 165 | 15.024 | 15.032 | (0.977) | 377144 | 12.5070 | 1251 |
| * | 42 | Acenaphthene-d10 | 164 | 15.373 | 15.373 | (1.000) | 402827 | 4.00000 | |
| | 43 | 3-Nitroaniline | 138 | 15.326 | 15.326 | (0.997) | 356497 | 10.4710 | 1047 |
| | 44 | Acenaphthene | 153 | 15.442 | 15.442 | (1.005) | 444597 | 4.07423 | 407.4 |
| | 45 | 2,4-Dinitrophenol | 184 | 15.558 | 15.558 | (1.012) | 358932 | 17.9335 | 1793 |
| | 46 | Dibenzofuran | 168 | 15.798 | 15.798 | (1.028) | 629715 | 3.93889 | 393.9 |
| | 47 | 4-Nitrophenol | 109 | 15.728 | 15.728 | (1.023) | 181639 | 13.8628 | 1386 |
| | 48 | 2,4-Dinitrotoluene | 165 | 15.898 | 15.898 | (1.034) | 508723 | 13.0761 | 1308 |
| | 50 | Diethylphthalate | 149 | 16.470 | 16.470 | (1.071) | 536826 | 4.44895 | 444.9 |
| | 49 | Fluorene | 166 | 16.563 | 16.563 | (1.077) | 504171 | 4.11578 | 411.6 |
| | 51 | 4-Chlorophenyl-phenylether | 204 | 16.579 | 16.579 | (1.078) | 234854 | 4.03766 | 403.8 |
| | 52 | 4-Nitroaniline | 138 | 16.687 | 16.687 | (1.085) | 415166 | 11.9343 | 1193 |
| | 53 | 4,6-Dinitro-2-methylphenol | 198 | 16.795 | 16.802 | (0.901) | 552498 | 22.7085 | 2271 |
| | 54 | N-Nitrosodiphenylamine | 169 | 16.856 | 16.856 | (0.905) | 337666 | 4.09363 | 409.4 |
| $ | 55 | 2,4,6-Tribromophenol | 330 | 17.142 | 17.142 | (1.115) | 103270 | 6.21108 | 621.1 |
| | 56 | 4-Bromophenyl-phenylether | 248 | 17.658 | 17.658 | (0.948) | 138020 | 4.20468 | 420.5 |
| | 57 | Hexachlorobenzene | 284 | 17.975 | 17.975 | (0.965) | 153096 | 4.04511 | 404.5 |
| | 58 | Pentachlorophenol | 266 | 18.378 | 18.378 | (0.986) | 232414 | 11.6050 | 1160 |
| * | 59 | Phenanthrene-d10 | 188 | 18.633 | 18.633 | (1.000) | 613172 | 4.00000 | |
| | 60 | Phenanthrene | 178 | 18.680 | 18.687 | (1.002) | 700154 | 4.42818 | 442.8 |
| | 61 | Anthracene | 178 | 18.780 | 18.780 | (1.008) | 682167 | 4.13007 | 413.0 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| 62 | Carbazole | 167 | 19.144 | 19.144 | (1.027) | 704781 | 4.61160 | 461.2 |
| 63 | Di-n-butylphthalate | 149 | 20.011 | 20.010 | (1.074) | 976462 | 4.53984 | 454.0 |
| 64 | Fluoranthene | 202 | 21.101 | 21.101 | (1.132) | 833125 | 4.64078 | 464.1 |
| 65 | Pyrene | 202 | 21.519 | 21.519 | (0.908) | 835877 | 4.49942 | 449.9 |
| $ 66 | Terphenyl-d14 | 244 | 21.844 | 21.844 | (0.922) | 483974 | 4.15867 | 415.9 |
| 67 | Butylbenzylphthalate | 149 | 22.781 | 22.781 | (0.961) | 396379 | 4.59964 | 460.0 |
| 68 | Benzo(a)anthracene | 228 | 23.679 | 23.679 | (0.999) | 740526 | 4.31174 | 431.2 |
| * 69 | Chrysene-d12 | 240 | 23.702 | 23.710 | (1.000) | 610564 | 4.00000 | |
| 70 | 3,3'-Dichlorobenzidine | 252 | 23.656 | 23.656 | (0.998) | 417995 | 4.44495 | 444.5 |
| 71 | Chrysene | 228 | 23.749 | 23.749 | (1.002) | 665513 | 4.40489 | 440.5 |
| 72 | bis(2-Ethylhexyl)phthalate | 149 | 23.819 | 23.818 | (0.961) | 594305 | 4.66596 | 466.6 |
| * 134 | Di-n-octylphthalate-d4 | 153 | 24.794 | 24.794 | (1.000) | 927500 | 4.00000 | |
| 73 | Di-n-octylphthalate | 149 | 24.802 | 24.802 | (1.000) | 1036214 | 4.59204 | 459.2 |
| 74 | Benzo(b)fluoranthene | 252 | 25.444 | 25.452 | (0.975) | 801643 | 4.74668 | 474.7 |
| 75 | Benzo(k)fluoranthene | 252 | 25.483 | 25.483 | (0.976) | 765650 | 4.11729 | 411.7 |
| 76 | Benzo(a)pyrene | 252 | 26.002 | 26.002 | (0.996) | 624438 | 4.01696 | 401.7 |
| * 77 | Perylene-d12 | 264 | 26.102 | 26.102 | (1.000) | 601200 | 4.00000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | 28.342 | 28.342 | (1.086) | 800878 | 4.45390 | 445.4 |
| 79 | Dibenzo(a,h)anthracene | 278 | 28.357 | 28.365 | (1.086) | 635951 | 4.48976 | 449.0 |
| 80 | Benzo(g,h,i)perylene | 276 | 28.994 | 29.002 | (1.111) | 697341 | 4.52250 | 452.2 |
| 90 | N-Nitrosodimethylamine | 74 | 4.313 | 4.266 | (0.487) | 391174 | 10.3968 | 1040 |
| 91 | Aniline | 93 | 8.291 | 8.291 | (0.936) | 584871 | 3.26779 | 326.8 |
| 93 | Benzidine | 184 | Compound Not Detected. | | | | | |
| 103 | Pyridine | 79 | 4.320 | 4.282 | (0.488) | 560842 | 17.2641 | 1726 |
| 105 | 1-methylnaphthalene | 142 | 13.275 | 13.275 | (1.155) | 478242 | 3.75158 | 375.2 |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | 16.926 | 16.926 | (1.101) | 485420 | 3.97038 | 397.0 |
| 187 | Total Benzofluoranthenes | 252 | 25.483 | 25.483 | (0.976) | 1481220 | 8.87934 | 887.9 |
| 99 | Perylene | 252 | 26.149 | 26.149 | (1.002) | 486464 | 3.11293 | 311.3 |
| 98 | Retene | 219 | Compound Not Detected. | | | | | |

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52sb.d
Lab Smp Id: UU52LCSS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8900

Calibration Date: 26-MAY-2012
Calibration Time: 10:59
Client Smp ID: UU52LCSS1
Level: LOW
Sample Type: Solid

Test Mode:
Use Initial Calibration Level 5.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 180960 | -4.51 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 713226 | -2.42 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 402827 | -4.25 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 613172 | -4.03 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 610564 | -5.35 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 927500 | -8.72 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 601200 | -7.51 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.86 | 0.00 |
| 27 Naphthalene-d8 | 11.50 | 11.00 | 12.00 | 11.50 | -0.07 |
| 42 Acenaphthene-d10 | 15.37 | 14.87 | 15.87 | 15.37 | 0.00 |
| 59 Phenanthrene-d10 | 18.63 | 18.13 | 19.13 | 18.63 | 0.00 |
| 69 Chrysene-d12 | 23.71 | 23.21 | 24.21 | 23.70 | -0.03 |
| 134 Di-n-octylphthala | 24.79 | 24.29 | 25.29 | 24.79 | 0.00 |
| 77 Perylene-d12 | 26.10 | 25.60 | 26.60 | 26.10 | 0.00 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52LCSS1 Client Smp ID: UU52LCSS1
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: LCS
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8900

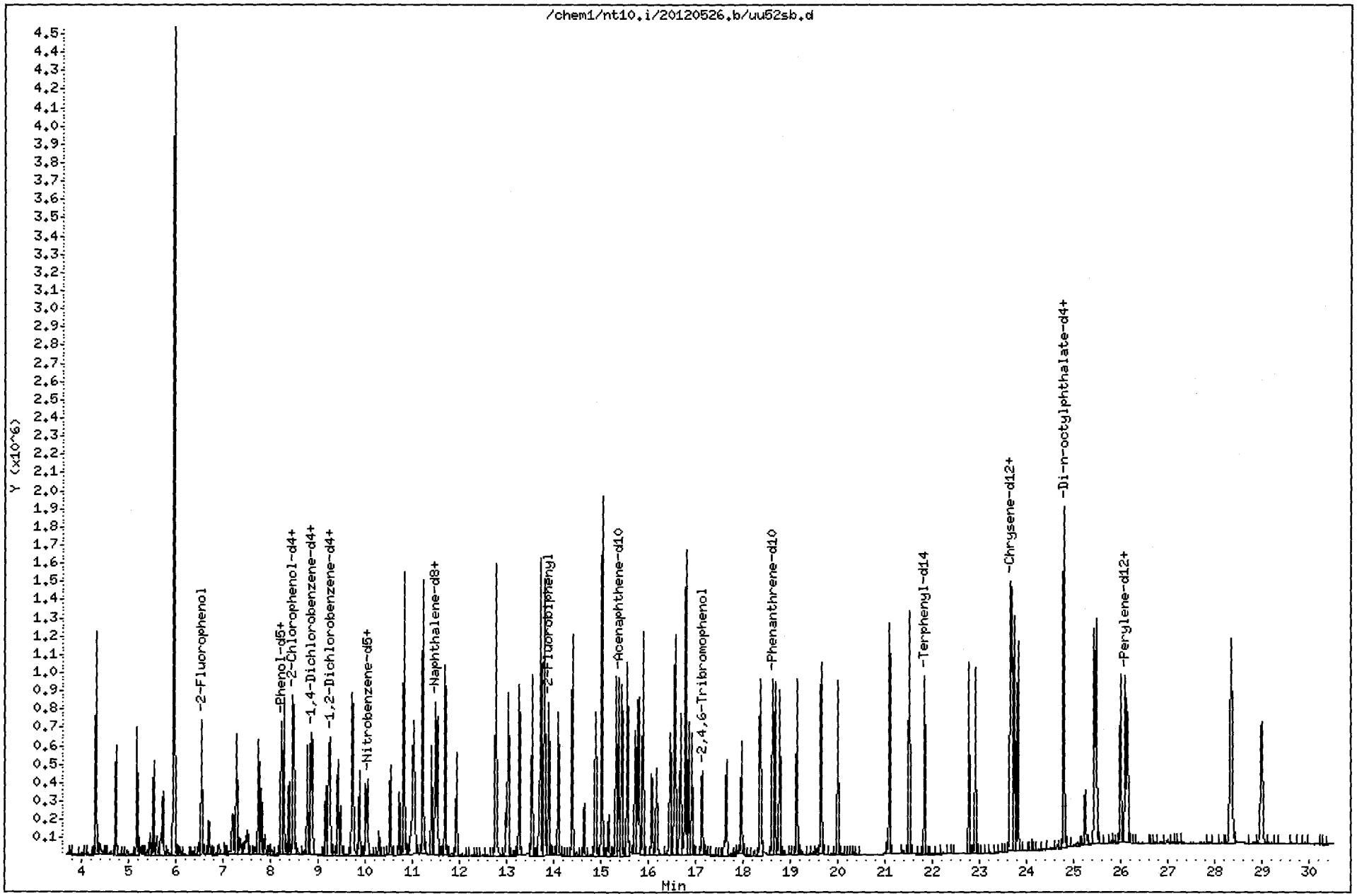
| SPIKE | COMPOUND | CONC ADDED ug/kg | CONC RECOVERED ug/kg | % RECOVERED | LIMITS |
|---|---|---|---|---|---|
| 3 | Phenol | 500.0 | 418.1 | 83.63 | 30-160 |
| 7 | 1,3-Dichlorobenzen | 500.0 | 359.5 | 71.89 | 30-160 |
| 9 | 1,4-Dichlorobenzen | 500.0 | 358.3 | 71.66 | 30-160 |
| 11 | Benzyl alcohol | 500.0 | 406.5 | 81.29 | 30-160 |
| 12 | 1,2-Dichlorobenzen | 500.0 | 363.3 | 72.67 | 30-160 |
| 13 | 2-Methylphenol | 500.0 | 317.3 | 63.46 | 30-160 |
| 15 | 4-Methylphenol | 1000 | 655.7 | 65.57 | 30-160 |
| 17 | Hexachloroethane | 500.0 | 360.0 | 71.99 | 30-160 |
| 22 | 2,4-Dimethylphenol | 1500 | 933.2 | 62.22 | 30-160 |
| 24 | Benzoic acid | 2750 | 1328 | 48.29 | 30-160 |
| 26 | 1,2,4-Trichloroben | 500.0 | 363.2 | 72.63 | 30-160 |
| 28 | Naphthalene | 500.0 | 399.2 | 79.83 | 30-160 |
| 30 | Hexachlorobutadien | 500.0 | 374.3 | 74.86 | 30-160 |
| 32 | 2-Methylnaphthalen | 500.0 | 384.4 | 76.87 | 30-160 |
| 39 | Dimethylphthalate | 500.0 | 423.3 | 84.67 | 30-160 |
| 40 | Acenaphthylene | 500.0 | 394.8 | 78.96 | 30-160 |
| 44 | Acenaphthene | 500.0 | 407.4 | 81.48 | 30-160 |
| 46 | Dibenzofuran | 500.0 | 393.9 | 78.78 | 30-160 |
| 49 | Fluorene | 500.0 | 411.6 | 82.32 | 30-160 |
| 50 | Diethylphthalate | 500.0 | 444.9 | 88.98 | 30-160 |
| 54 | N-Nitrosodiphenyla | 500.0 | 409.4 | 81.87 | 30-160 |
| 57 | Hexachlorobenzene | 500.0 | 404.5 | 80.90 | 30-160 |
| 58 | Pentachlorophenol | 1500 | 1160 | 77.37 | 30-160 |
| 60 | Phenanthrene | 500.0 | 442.8 | 88.56 | 30-160 |
| 61 | Anthracene | 500.0 | 413.0 | 82.60 | 30-160 |
| 63 | Di-n-butylphthalat | 500.0 | 454.0 | 90.80 | 30-160 |
| 64 | Fluoranthene | 500.0 | 464.1 | 92.82 | 30-160 |
| 65 | Pyrene | 500.0 | 449.9 | 89.99 | 30-160 |
| 67 | Butylbenzylphthala | 500.0 | 460.0 | 91.99 | 30-160 |
| 68 | Benzo(a)anthracene | 500.0 | 431.2 | 86.23 | 30-160 |
| 71 | Chrysene | 500.0 | 440.5 | 88.10 | 30-160 |
| 72 | bis(2-Ethylhexyl)p | 500.0 | 466.6 | 93.32 | 30-160 |
| 73 | Di-n-octylphthalat | 500.0 | 459.2 | 91.84 | 30-160 |

| SPIKE COMPOUND | CONC ADDED ug/kg | CONC RECOVERED ug/kg | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 76 Benzo(a)pyrene | 500.0 | 401.7 | 80.34 | 30-160 |
| 78 Indeno(1,2,3-cd)py | 500.0 | 445.4 | 89.08 | 30-160 |
| 79 Dibenzo(a,h)anthra | 500.0 | 449.0 | 89.80 | 30-160 |
| 80 Benzo(g,h,i)peryle | 500.0 | 452.2 | 90.45 | 30-160 |
| 105 1-methylnaphthalen | 500.0 | 375.2 | 75.03 | 30-160 |
| 187 Total Benzofluoran | 1000 | 887.9 | 88.79 | 30-160 |

| SURROGATE COMPOUND | CONC ADDED ug/kg | CONC RECOVERED ug/kg | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 1 2-Fluorophenol | 750.0 | 556.0 | 74.14 | 30-160 |
| $ 2 Phenol-d5 | 750.0 | 576.0 | 76.80 | 30-160 |
| $ 5 2-Chlorophenol-d4 | 750.0 | 567.4 | 75.65 | 30-160 |
| $ 10 1,2-Dichlorobenzen | 500.0 | 360.5 | 72.10 | 30-160 |
| $ 18 Nitrobenzene-d5 | 500.0 | 363.1 | 72.62 | 30-160 |
| $ 36 2-Fluorobiphenyl | 500.0 | 364.5 | 72.91 | 30-160 |
| $ 55 2,4,6-Tribromophen | 750.0 | 621.1 | 82.81 | 30-160 |
| $ 66 Terphenyl-d14 | 500.0 | 415.9 | 83.17 | 30-160 |

Data File: /chem1/nt10.i/20120526.b/uu52sb.d
Date : 26-MAY-2012 16:34
Client ID: UU52LCSS1
Instrument: nt10.i
Sample Info: UU52LCSS1
Volume Injected (uL): 1.0
Operator: VTS/YZ
Column phase: ZB-5msi
Column diameter: 0.25

UU52:00691



CO-ELUTION SUMMARY FOR FILE - uu52sb.d

Lab ID: UU52LCSS1, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Analytical Resources, Inc.

YZ 6/4/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/uu52a.d
Lab Smp Id: UU52A Client Smp ID: MS001-SS-120515
Inj Date : 26-MAY-2012 17:11
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52A,3
Misc Info : 12-8893
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 04-Jun-2012 10:50 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 3
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 3.00000 | Dilution Factor |
| Vt | 1000.00000 | Volume of final extract (uL) |
| Ws | 104.00000 | Weight of sample extracted (g) |
| M | 90.30000 | % Moisture |

Cpnd Variable Local Compound Variable

| | | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|
| $ | 1 | 2-Fluorophenol | 112 | 6.552 | 6.537 | (0.740) | 110825 | 1.64654 | 489.7 |
| $ | 2 | Phenol-d5 | 99 | 8.237 | 8.237 | (0.930) | 143040 | 1.70604 | 507.3 |
| | 3 | Phenol | 94 | 8.268 | 8.260 | (0.934) | 90446 | 1.01205 | 301.0 |
| $ | 5 | 2-Chlorophenol-d4 | 132 | 8.484 | 8.476 | (0.958) | 123999 | 1.68807 | 502.0 |
| | 4 | Bis(2-Chloroethyl)ether | 93 | Compound Not Detected. | | | | | |
| | 6 | 2-Chlorophenol | 128 | Compound Not Detected. | | | | | |
| | 7 | 1,3-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| * | 8 | 1,4-Dichlorobenzene-d4 | 152 | 8.856 | 8.855 | (1.000) | 192479 | 4.00000 | |
| | 9 | 1,4-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| $ | 10 | 1,2-Dichlorobenzene-d4 | 152 | 9.236 | 9.236 | (1.043) | 49316 | 1.02341 | 304.3 |
| | 12 | 1,2-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| | 11 | Benzyl alcohol | 108 | Compound Not Detected. | | | | | |
| | 14 | 2,2'-oxybis(1-Chloropropane) | 121 | Compound Not Detected. | | | | | |
| | 13 | 2-Methylphenol | 108 | Compound Not Detected. | | | | | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| | 17 Hexachloroethane | 117 | Compound Not Detected. | | | | | |
| | 16 N-Nitroso-di-n-propylamine | 70 | Compound Not Detected. | | | | | |
| | 15 4-Methylphenol | 108 | 9.733 | 9.725 | (1.099) | 282761 | 3.84783 | 1144 |
| $ | 18 Nitrobenzene-d5 | 82 | 10.028 | 10.027 | (0.872) | 72049 | 1.04858 | 311.8 |
| | 19 Nitrobenzene | 77 | Compound Not Detected. | | | | | |
| | 20 Isophorone | 82 | Compound Not Detected. | | | | | |
| | 21 2-Nitrophenol | 139 | Compound Not Detected. | | | | | |
| | 22 2,4-Dimethylphenol | 107 | Compound Not Detected. | | | | | |
| | 23 Bis(2-Chloroethoxy)methane | 93 | Compound Not Detected. | | | | | |
| | 24 Benzoic acid | 105 | 11.003 | 11.087 | (0.957) | 57862 | 1.31031 | 389.7 |
| | 25 2,4-Dichlorophenol | 162 | Compound Not Detected. | | | | | |
| | 26 1,2,4-Trichlorobenzene | 180 | Compound Not Detected. | | | | | |
| * | 27 Naphthalene-d8 | 136 | 11.496 | 11.504 | (1.000) | 766868 | 4.00000 | |
| | 28 Naphthalene | 128 | 11.543 | 11.542 | (1.004) | 710552 | 3.67538 | 1093 |
| | 29 4-Chloroaniline | 127 | Compound Not Detected. | | | | | |
| | 30 Hexachlorobutadiene | 225 | Compound Not Detected. | | | | | |
| | 31 4-Chloro-3-methylphenol | 107 | Compound Not Detected. | | | | | |
| | 32 2-Methylnaphthalene | 142 | 13.043 | 13.043 | (1.135) | 77549 | 0.57701 | 171.6 |
| | 33 Hexachlorocyclopentadiene | 237 | Compound Not Detected. | | | | | |
| | 34 2,4,6-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| | 35 2,4,5-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| $ | 36 2-Fluorobiphenyl | 172 | 13.895 | 13.902 | (0.904) | 170901 | 1.16120 | 345.3 |
| | 37 2-Chloronaphthalene | 162 | Compound Not Detected. | | | | | |
| | 38 2-Nitroaniline | 65 | Compound Not Detected. | | | | | |
| | 39 Dimethylphthalate | 163 | Compound Not Detected. | | | | | |
| | 40 Acenaphthylene | 152 | 15.032 | 15.032 | (0.978) | 48420 | 0.25394 | 75.52 |
| | 41 2,6-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| * | 42 Acenaphthene-d10 | 164 | 15.373 | 15.373 | (1.000) | 424558 | 4.00000 | |
| | 43 3-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 44 Acenaphthene | 153 | 15.442 | 15.442 | (1.005) | 43181 | 0.37545 | 111.7 |
| | 45 2,4-Dinitrophenol | 184 | Compound Not Detected. | | | | | |
| | 46 Dibenzofuran | 168 | 15.798 | 15.798 | (1.028) | 101884 | 0.60467 | 179.8 |
| | 47 4-Nitrophenol | 109 | Compound Not Detected. | | | | | |
| | 48 2,4-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| | 50 Diethylphthalate | 149 | Compound Not Detected. | | | | | |
| | 49 Fluorene | 166 | 16.563 | 16.563 | (1.077) | 52239 | 0.40462 | 120.3 |
| | 51 4-Chlorophenyl-phenylether | 204 | Compound Not Detected. | | | | | |
| | 52 4-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 53 4,6-Dinitro-2-methylphenol | 198 | Compound Not Detected. | | | | | |
| | 54 N-Nitrosodiphenylamine | 169 | Compound Not Detected. | | | | | |
| $ | 55 2,4,6-Tribromophenol | 330 | 17.150 | 17.142 | (1.116) | 32386 | 1.84813 | 549.6 |
| | 56 4-Bromophenyl-phenylether | 248 | Compound Not Detected. | | | | | |
| | 57 Hexachlorobenzene | 284 | Compound Not Detected. | | | | | |
| | 58 Pentachlorophenol | 266 | Compound Not Detected. | | | | | |
| * | 59 Phenanthrene-d10 | 188 | 18.641 | 18.633 | (1.000) | 586032 | 4.00000 | |
| | 60 Phenanthrene | 178 | 18.688 | 18.687 | (1.002) | 349480 | 2.31268 | 687.8 |
| | 61 Anthracene | 178 | 18.780 | 18.780 | (1.007) | 72099 | 0.45673 | 135.8 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| 62 | Carbazole | 167 | 19.152 | 19.144 | (1.027) | 20102 | 0.13763 | J 40.93 (M) |
| 63 | Di-n-butylphthalate | 149 | Compound Not Detected. | | | | | |
| 64 | Fluoranthene | 202 | 21.125 | 21.101 | (1.133) | 377509 | 2.20024 | 654.3 |
| 65 | Pyrene | 202 | 21.527 | 21.519 | (0.908) | 394416 | 1.95053 | 580.1 |
| $ 66 | Terphenyl-d14 | 244 | 21.844 | 21.844 | (0.921) | 156401 | 1.23469 | 367.2 |
| 67 | Butylbenzylphthalate | 149 | Compound Not Detected. | | | | | |
| 68 | Benzo(a)anthracene | 228 | 23.679 | 23.679 | (0.999) | 99573 | 0.53265 | 158.4 |
| * 69 | Chrysene-d12 | 240 | 23.710 | 23.710 | (1.000) | 664578 | 4.00000 | |
| 70 | 3,3'-Dichlorobenzidine | 252 | Compound Not Detected. | | | | | |
| 71 | Chrysene | 228 | 23.757 | 23.749 | (1.002) | 234729 | 1.42735 | 424.5 |
| 72 | bis(2-Ethylhexyl)phthalate | 149 | 23.826 | 23.818 | (0.961) | 70591 | 0.47514 | 141.3 |
| * 134 | Di-n-octylphthalate-d4 | 153 | 24.794 | 24.794 | (1.000) | 1081857 | 4.00000 | |
| 73 | Di-n-octylphthalate | 149 | Compound Not Detected. | | | | | |
| 74 | Benzo(b)fluoranthene | 252 | Compound Not Detected. | | | | | |
| 75 | Benzo(k)fluoranthene | 252 | Compound Not Detected. | | | | | |
| 76 | Benzo(a)pyrene | 252 | 26.010 | 26.002 | (0.996) | 150542 | 0.86405 | 257.0 |
| * 77 | Perylene-d12 | 264 | 26.110 | 26.102 | (1.000) | 673821 | 4.00000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | 28.357 | 28.342 | (1.086) | 136614 | 0.67787 | 201.6 |
| 79 | Dibenzo(a,h)anthracene | 278 | 28.365 | 28.365 | (1.086) | 29913 | 0.18842 | 56.03 |
| 80 | Benzo(g,h,i)perylene | 276 | 29.018 | 29.002 | (1.111) | 158572 | 0.91756 | 272.9 |
| 90 | N-Nitrosodimethylamine | 74 | Compound Not Detected. | | | | | |
| 91 | Aniline | 93 | Compound Not Detected. | | | | | |
| 93 | Benzidine | 184 | Compound Not Detected. | | | | | |
| 103 | Pyridine | 79 | Compound Not Detected. | | | | | |
| 105 | 1-methylnaphthalene | 142 | 13.275 | 13.275 | (1.155) | 48825 | 0.35622 | 105.9 |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | Compound Not Detected. | | | | | |
| 187 | Total Benzofluoranthenes | 252 | 25.452 | 25.483 | (0.975) | 358743 | 1.91875 | 570.6 |
| 99 | Perylene | 252 | Compound Not Detected. | | | | | |
| 98 | Retene | 219 | 22.131 | 22.131 | (0.933) | 23982 | 0.25469 | 75.74 |

## QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52a.d
Lab Smp Id: UU52A
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8893

Calibration Date: 26-MAY-2012
Calibration Time: 10:59
Client Smp ID: MS001-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 192479 | 1.56 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 766868 | 4.92 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 424558 | 0.92 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 586032 | -8.28 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 664578 | 3.02 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 1081857 | 6.47 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 673821 | 3.66 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.86 | 0.00 |
| 27 Naphthalene-d8 | 11.50 | 11.00 | 12.00 | 11.50 | -0.07 |
| 42 Acenaphthene-d10 | 15.37 | 14.87 | 15.87 | 15.37 | 0.00 |
| 59 Phenanthrene-d10 | 18.63 | 18.13 | 19.13 | 18.64 | 0.04 |
| 69 Chrysene-d12 | 23.71 | 23.21 | 24.21 | 23.71 | 0.00 |
| 134 Di-n-octylphthala | 24.79 | 24.29 | 25.29 | 24.79 | 0.00 |
| 77 Perylene-d12 | 26.10 | 25.60 | 26.60 | 26.11 | 0.03 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52A Client Smp ID: MS001-SS-120515
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8893

| SURROGATE COMPOUND | CONC ADDED ug/kg | CONC RECOVERED ug/kg | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 1 2-Fluorophenol | 743.5 | 489.7 | 65.86 | 30-160 |
| $ 2 Phenol-d5 | 743.5 | 507.3 | 68.24 | 30-160 |
| $ 5 2-Chlorophenol-d4 | 743.5 | 502.0 | 67.52 | 30-160 |
| $ 10 1,2-Dichlorobenzen | 495.6 | 304.3 | 61.40 | 30-160 |
| $ 18 Nitrobenzene-d5 | 495.6 | 311.8 | 62.92 | 30-160 |
| $ 36 2-Fluorobiphenyl | 495.6 | 345.3 | 69.67 | 30-160 |
| $ 55 2,4,6-Tribromophen | 743.5 | 549.6 | 73.93 | 30-160 |
| $ 66 Terphenyl-d14 | 495.6 | 367.2 | 74.08 | 30-160 |

Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Sample Info: UU52A,3

Volume Injected (uL): 1.0

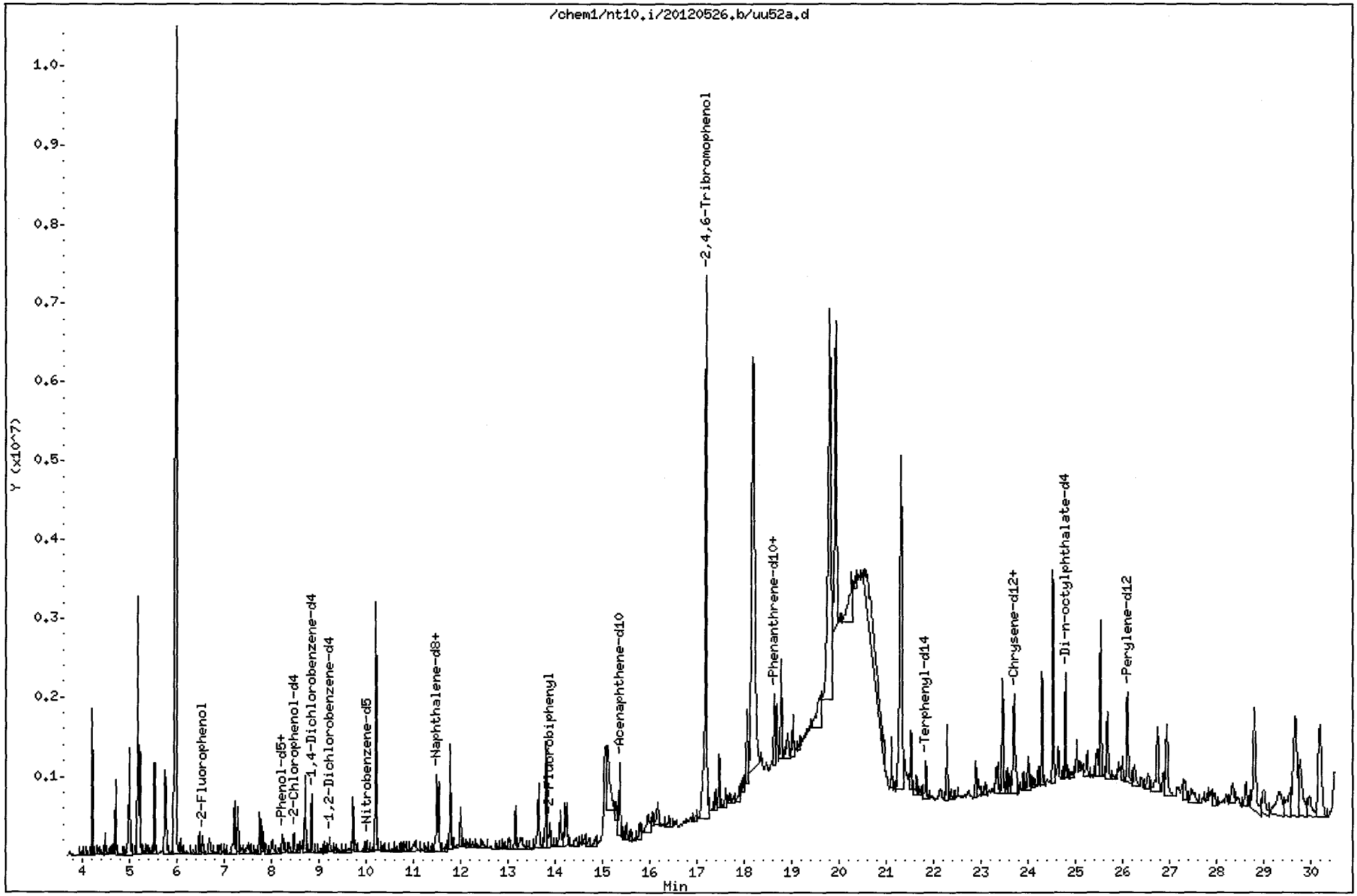
Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ

Column diameter: 0.25






UU52:00698

Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

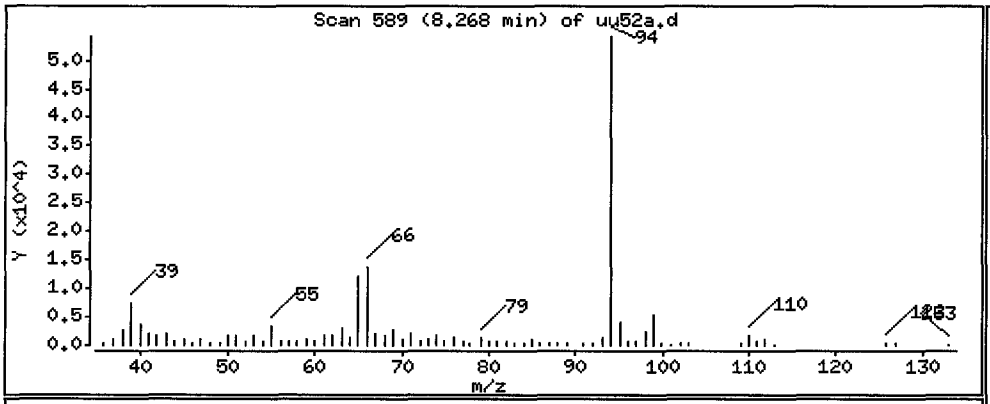
Operator: VTS/YZ

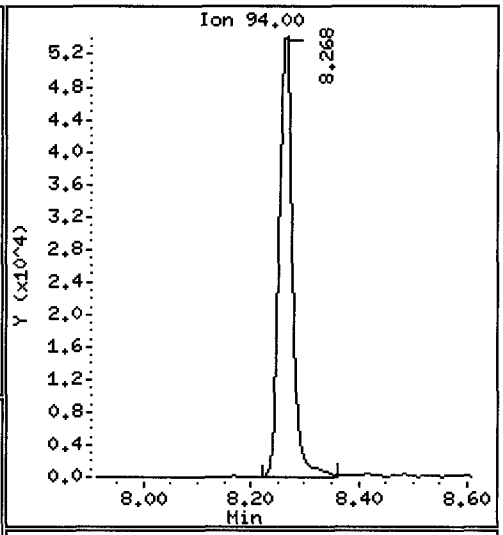
Column phase: ZB-5msi

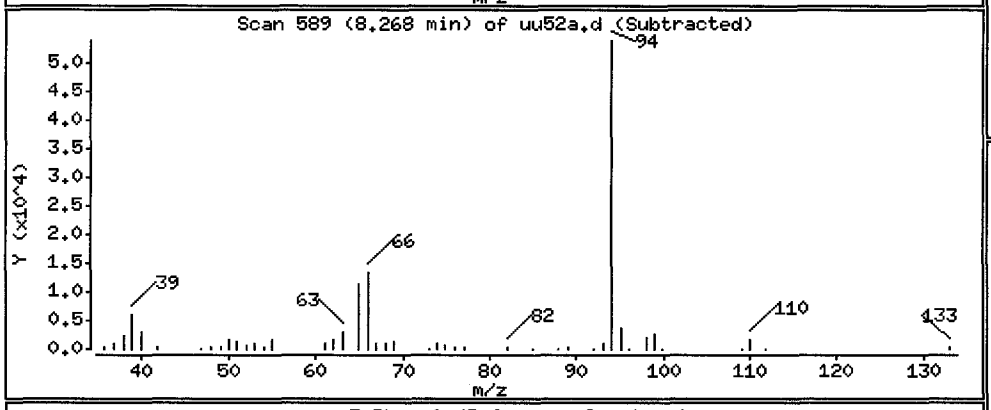
Column diameter: 0.25

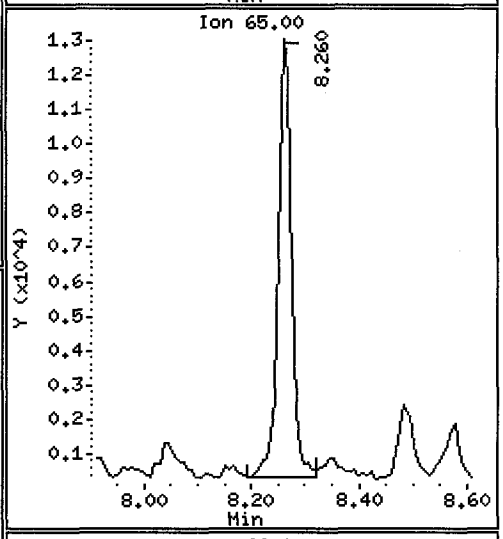
3 Phenol

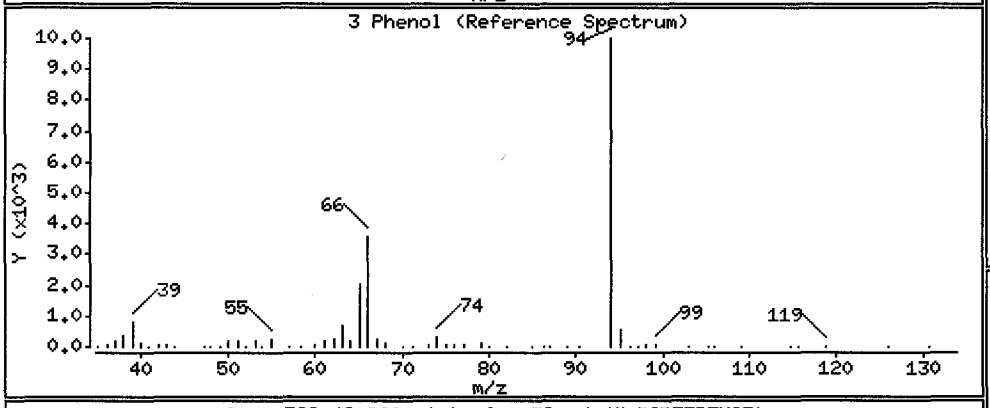
Concentration: 301.0 ug/kg

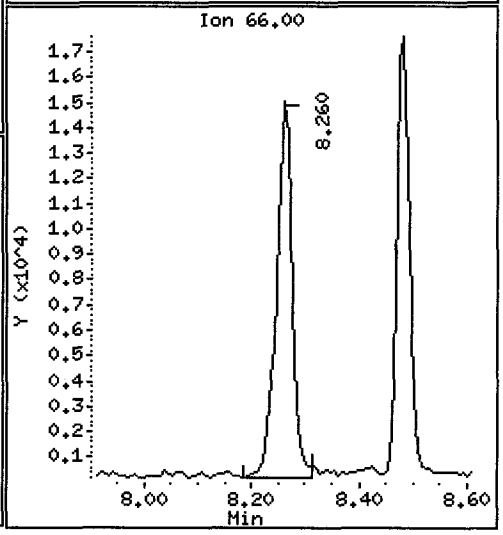


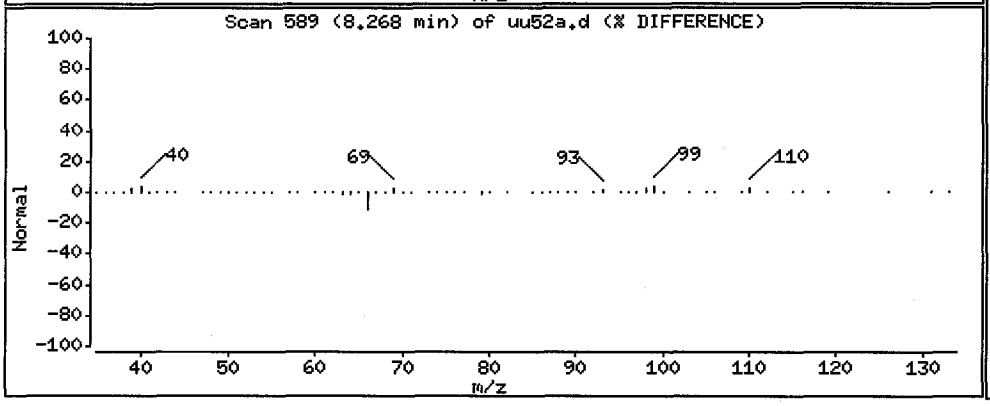



Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

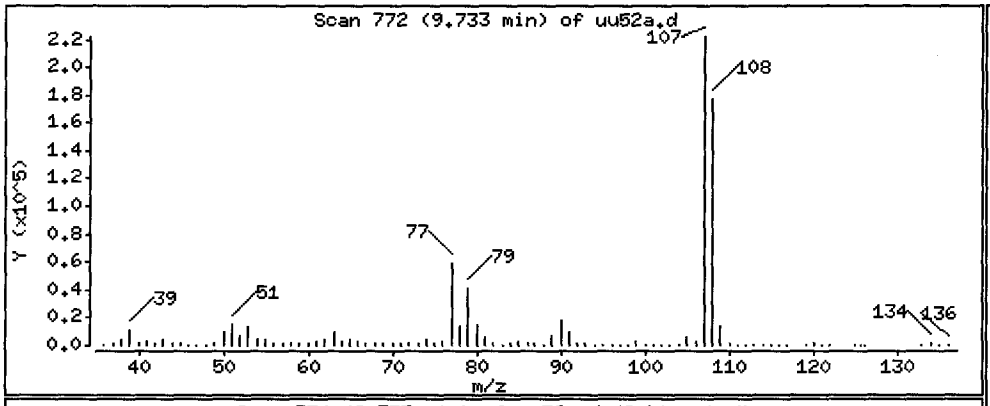
Client ID: MS001-SS-120515 Instrument: nt10.i

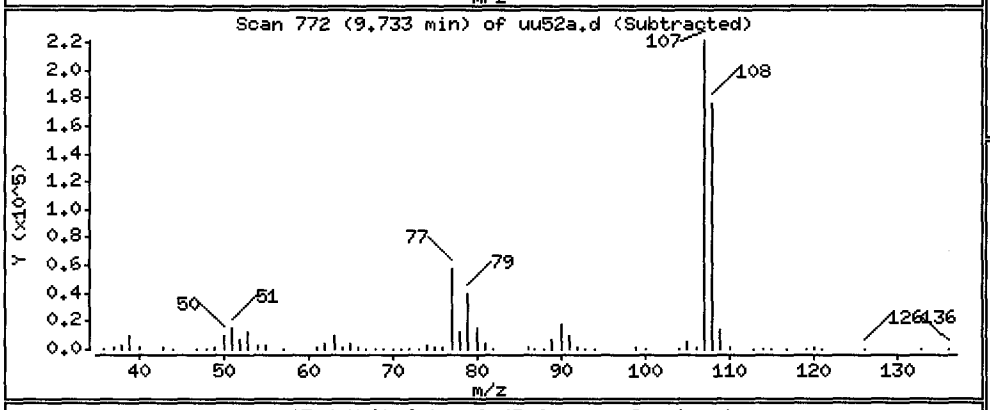
Sample Info: UU52A,3

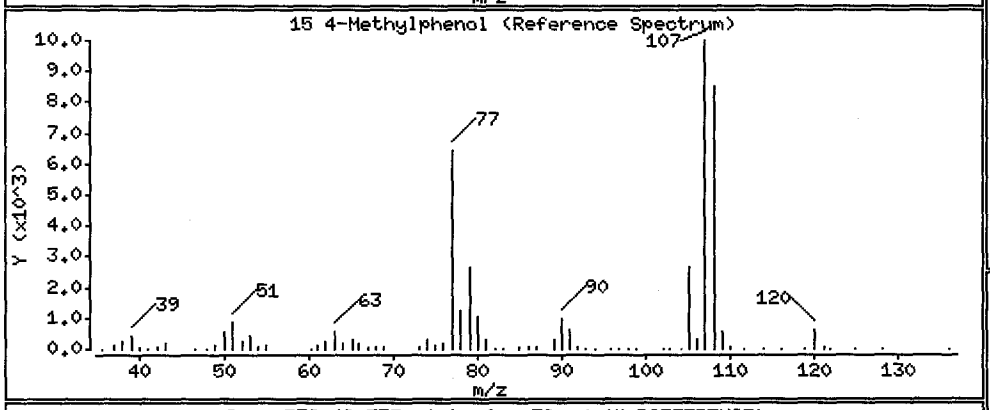
Volume Injected (uL): 1.0 Operator: VTS/YZ

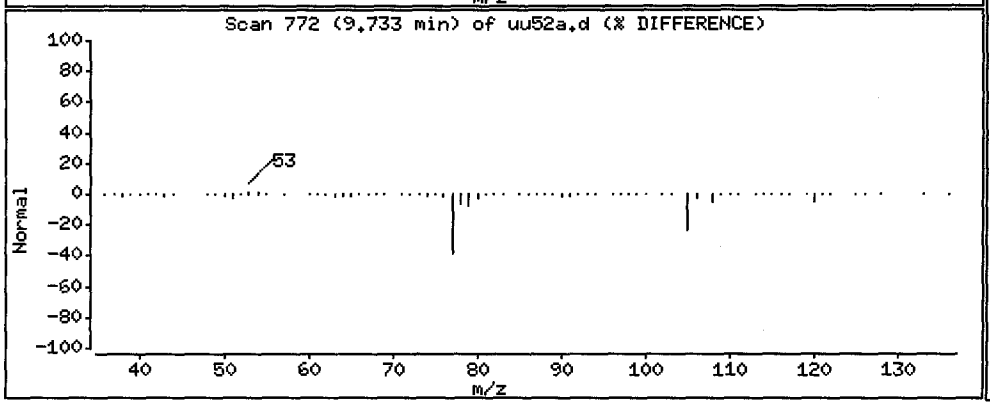
Column phase: ZB-5msi Column diameter: 0.25

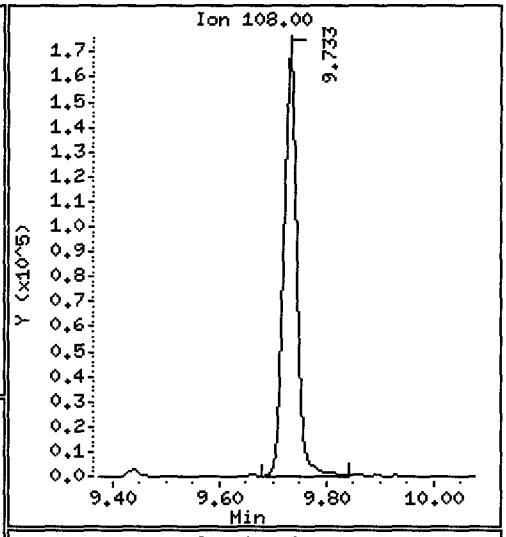
15 4-Methylphenol Concentration: 1144 ug/kg

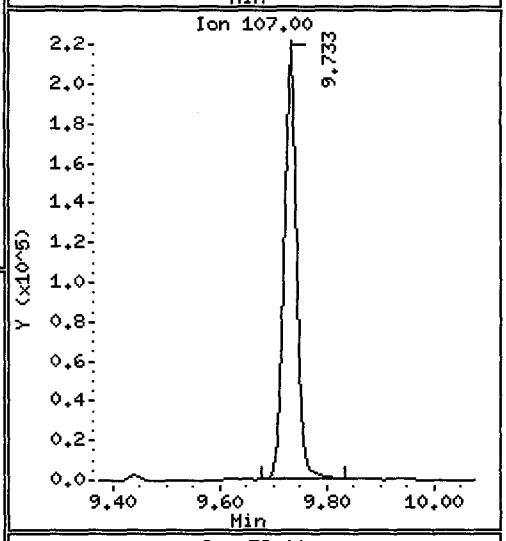


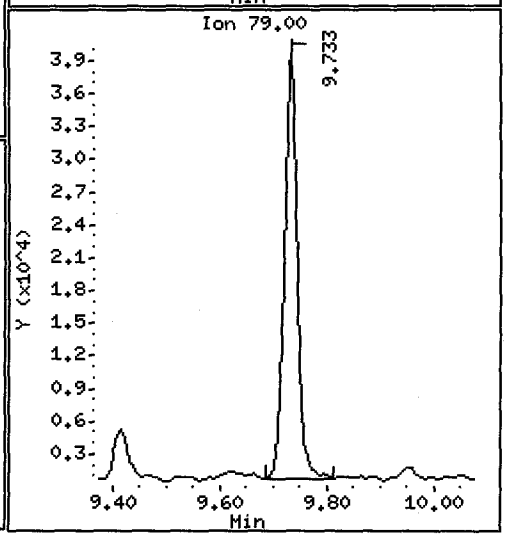



Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

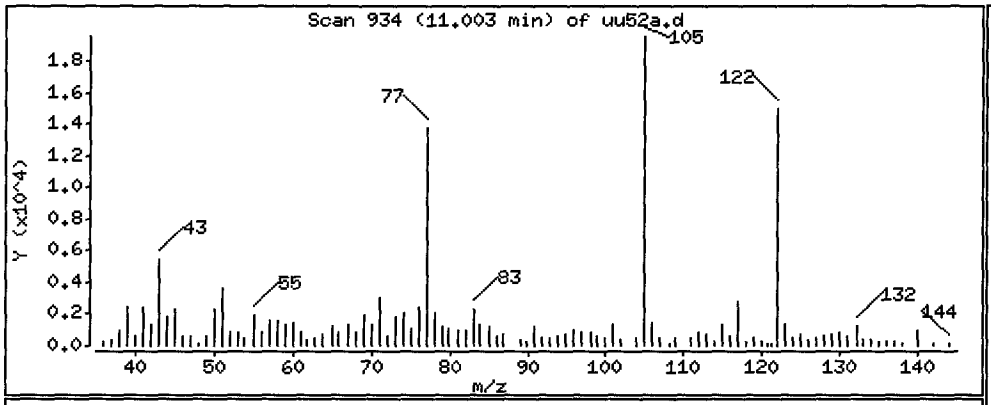
Operator: VTS/YZ

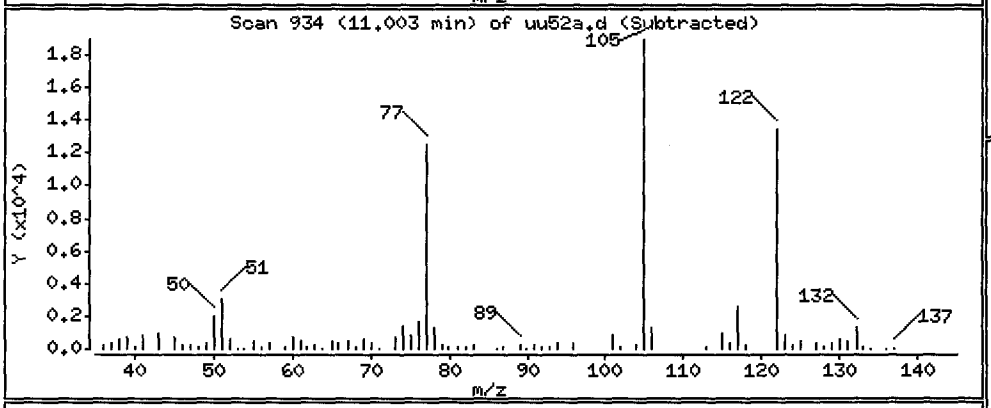
Column phase: ZB-5msi

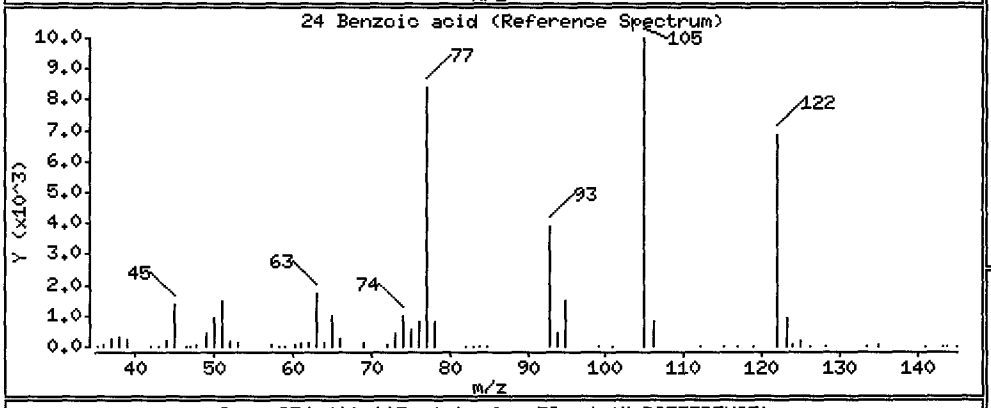
Column diameter: 0.25

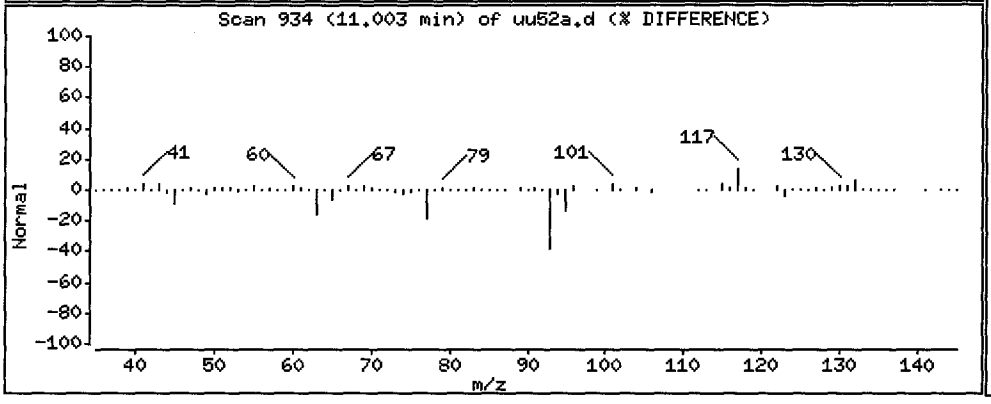
24 Benzoic acid

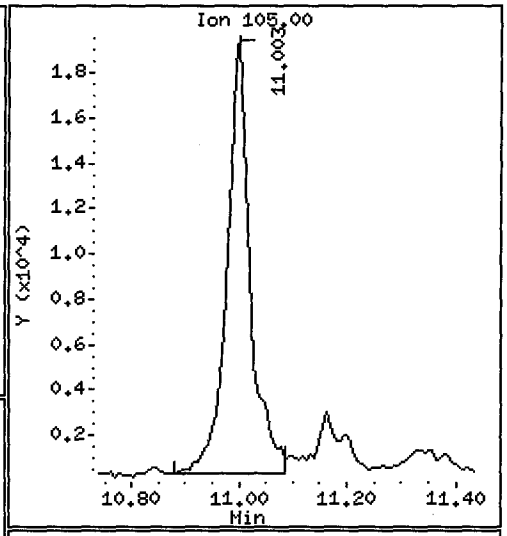
Concentration: 389.7 ug/kg

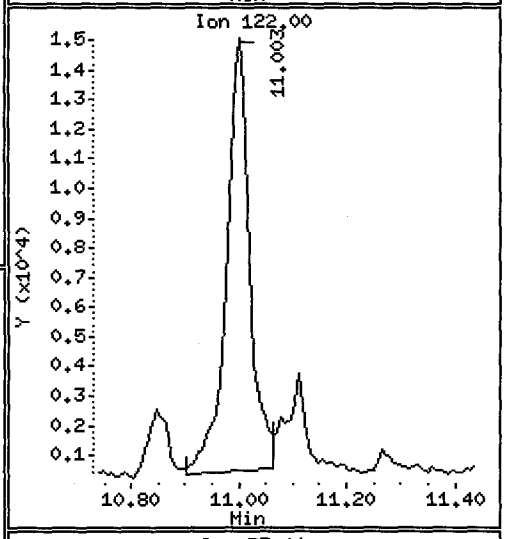


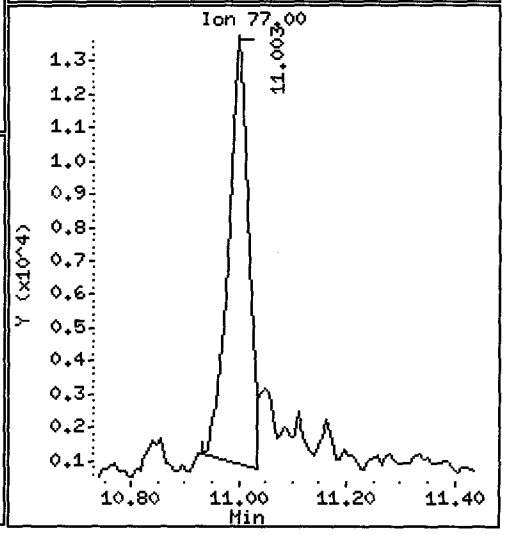



Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

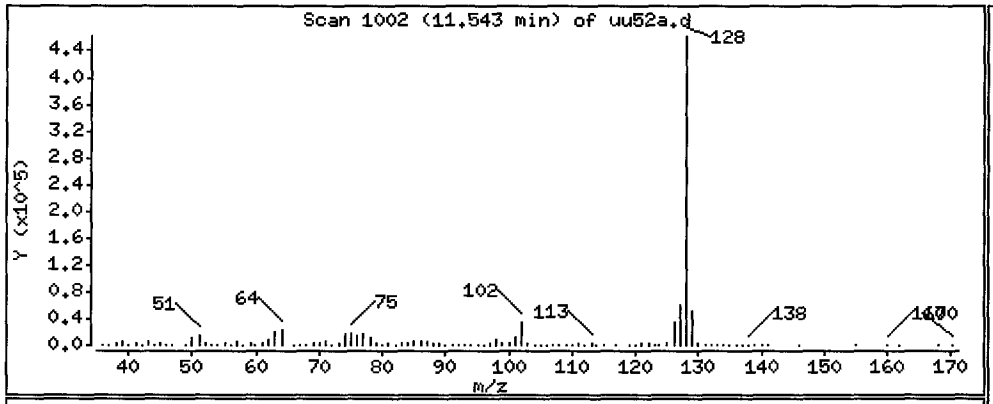
Operator: VTS/YZ

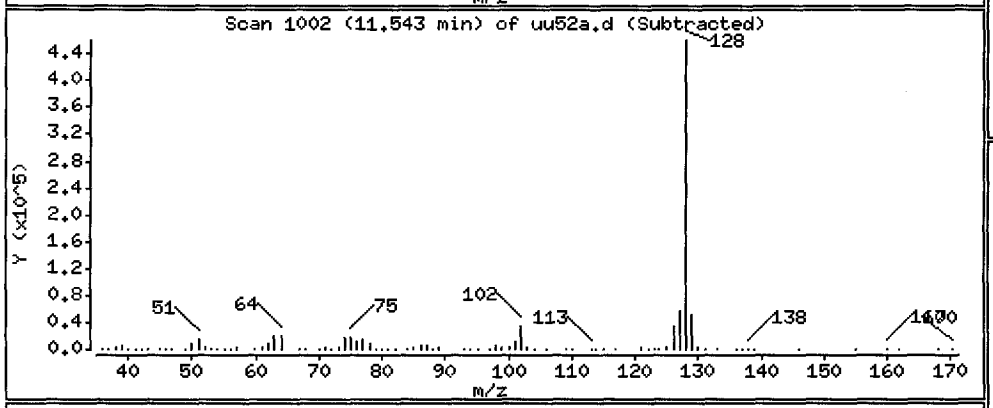
Column phase: ZB-5msi

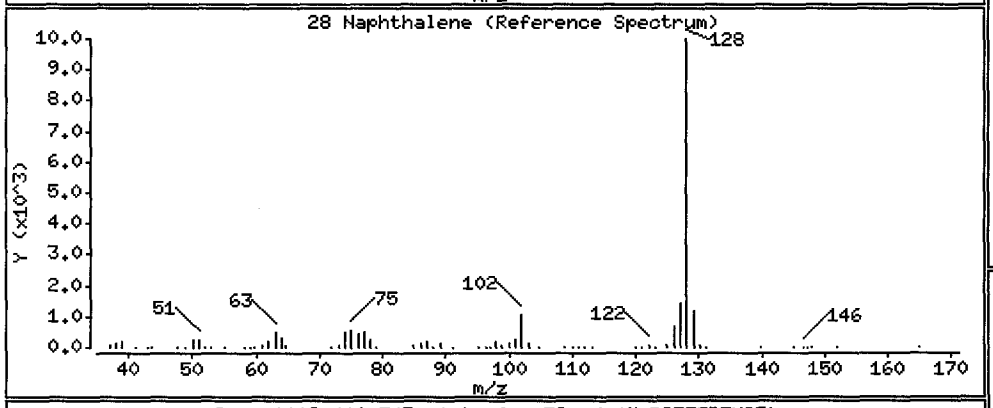
Column diameter: 0.25

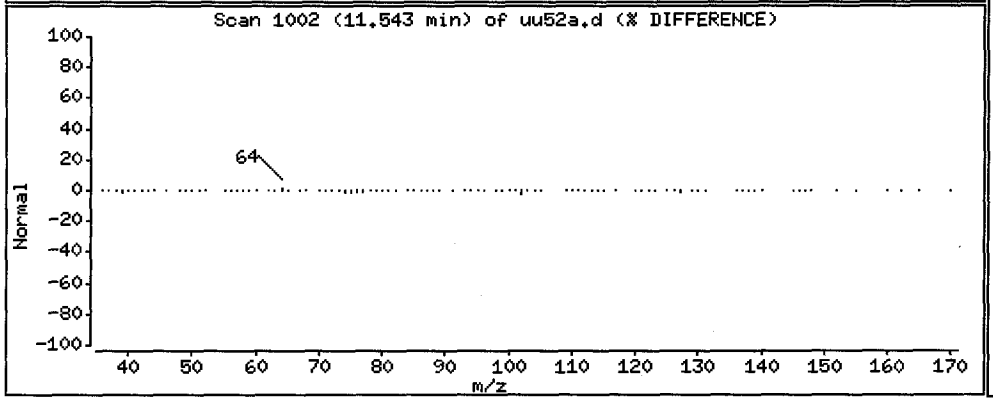
28 Naphthalene

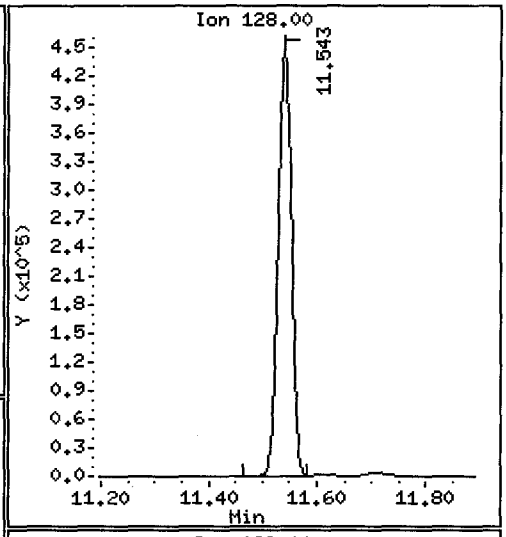
Concentration: 1093 ug/kg

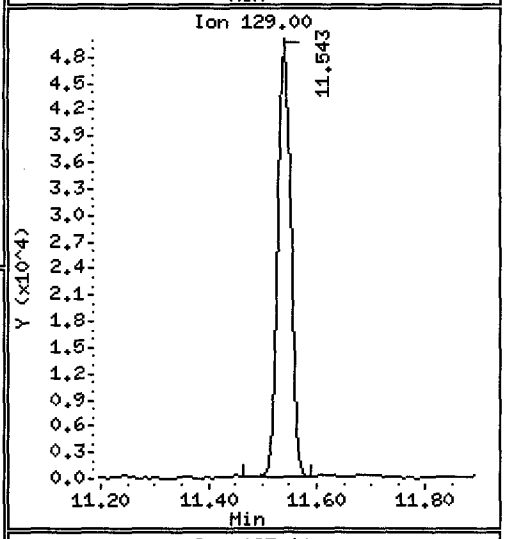


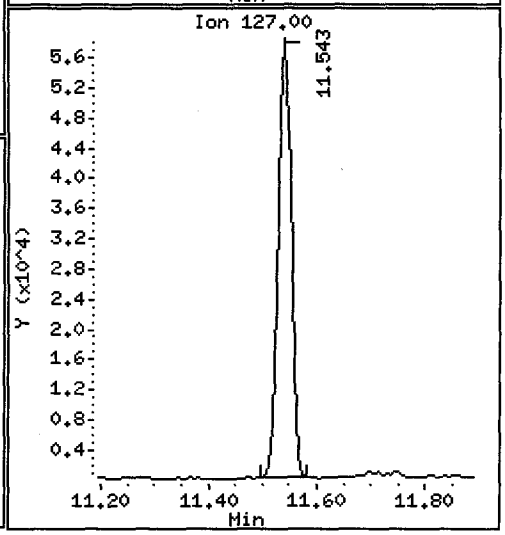



Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

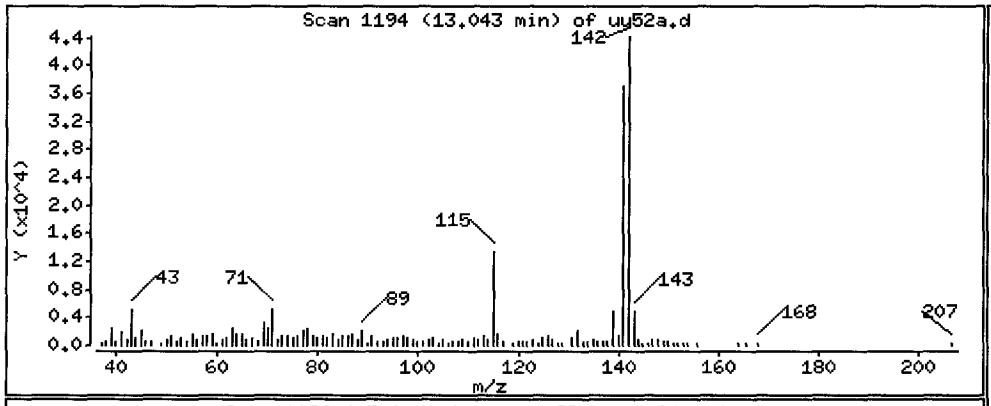
Client ID: MS001-SS-120515 Instrument: nt10.i

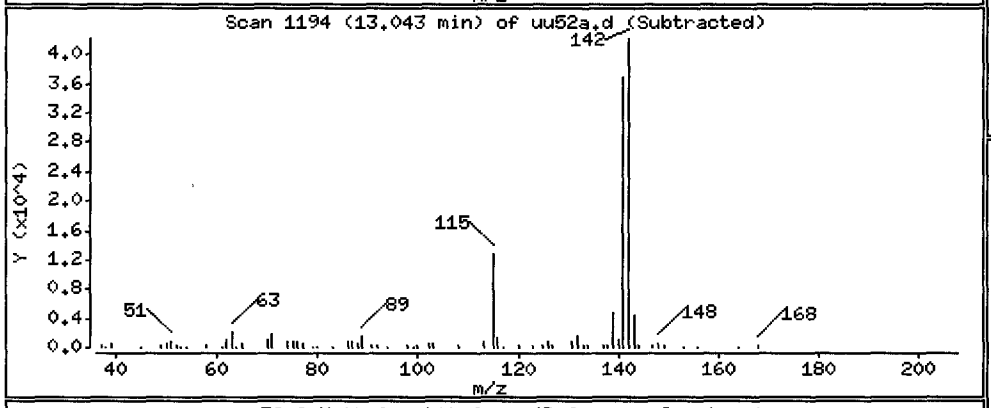
Sample Info: UU52A,3

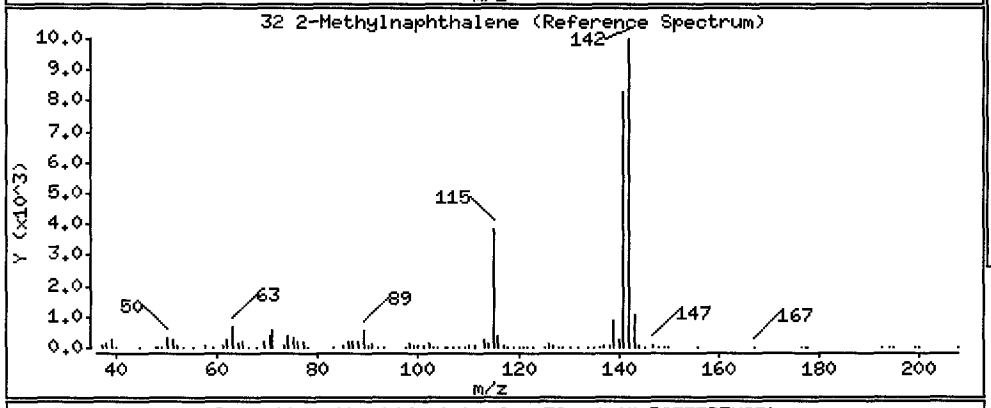
Volume Injected (uL): 1.0 Operator: VTS/YZ

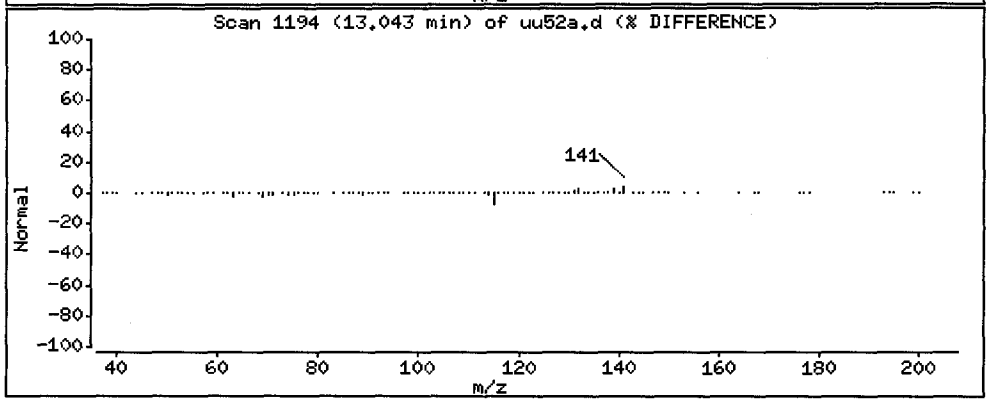
Column phase: ZB-5msi Column diameter: 0.25

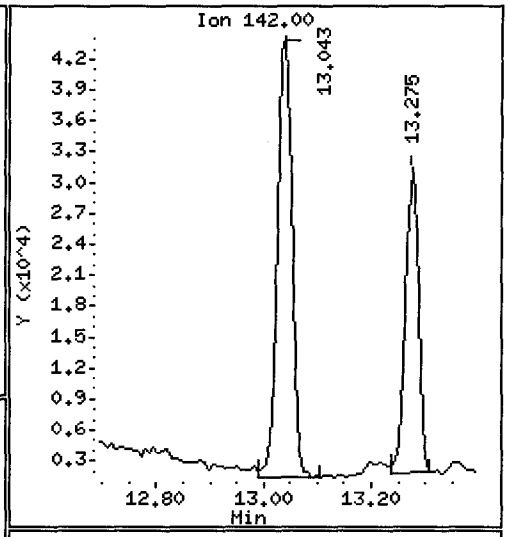
32 2-Methylnaphthalene Concentration: 171.6 ug/kg

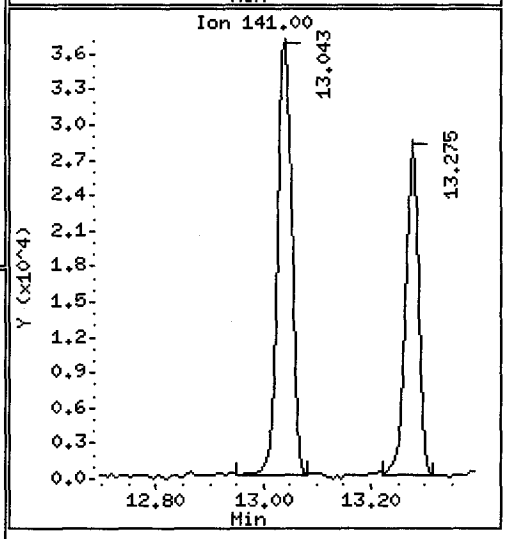


Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

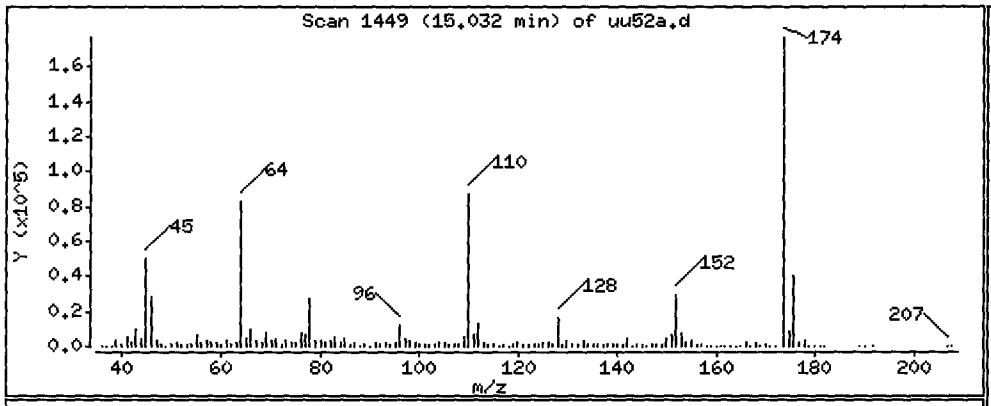
Client ID: MS001-SS-120515 Instrument: nt10.i

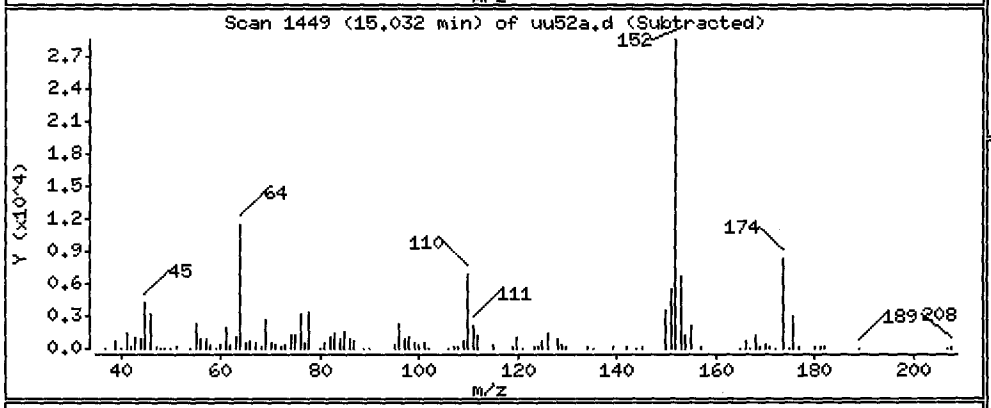
Sample Info: UU52A,3

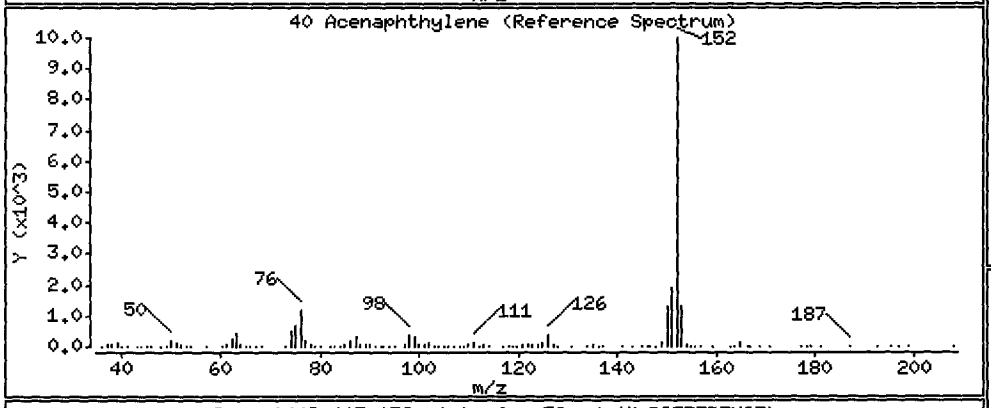
Volume Injected (uL): 1.0 Operator: VTS/YZ

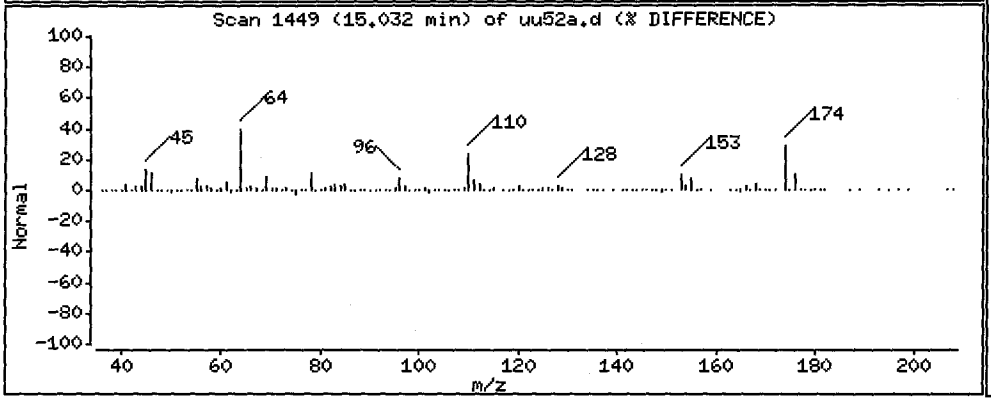
Column phase: ZB-5msi Column diameter: 0.25

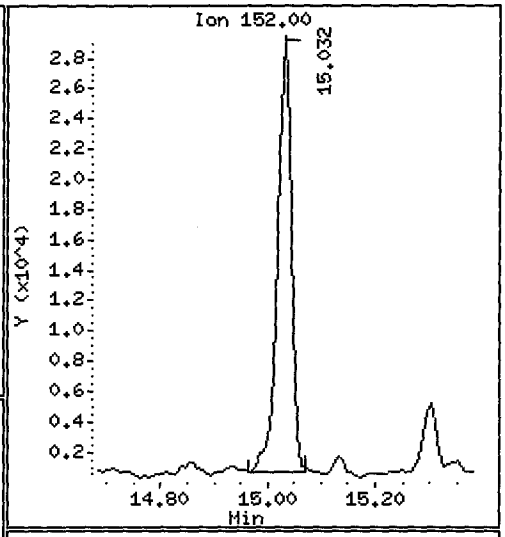
40 Acenaphthylene Concentration: 75.52 ug/kg

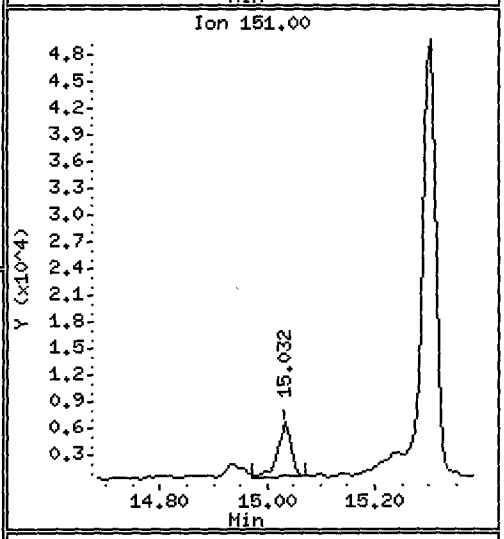


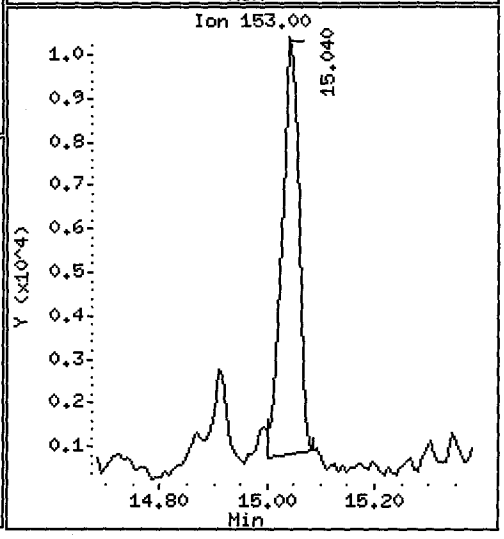



Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

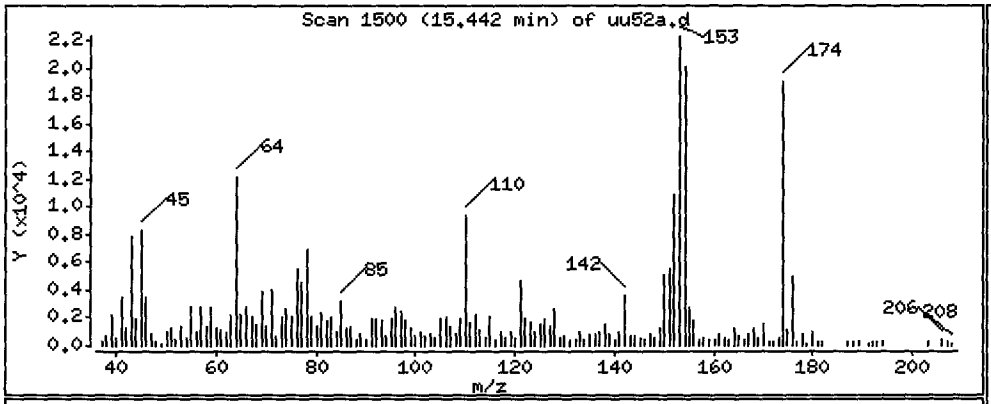
Operator: VTS/YZ

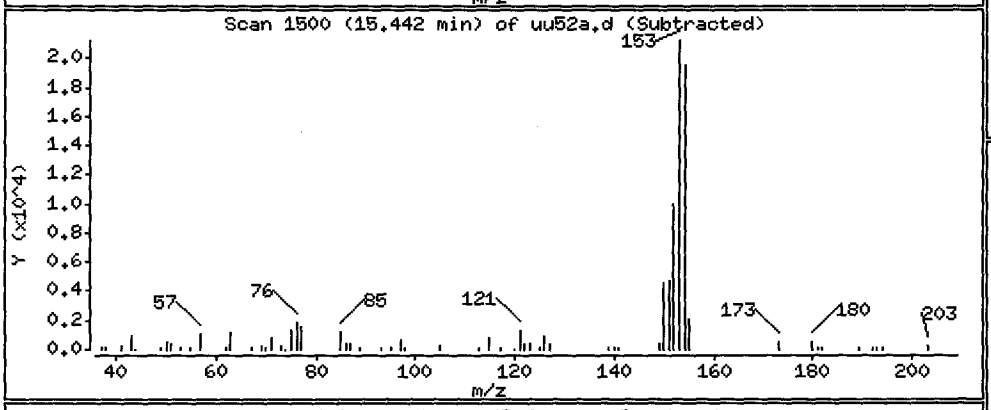
Column phase: ZB-5msi

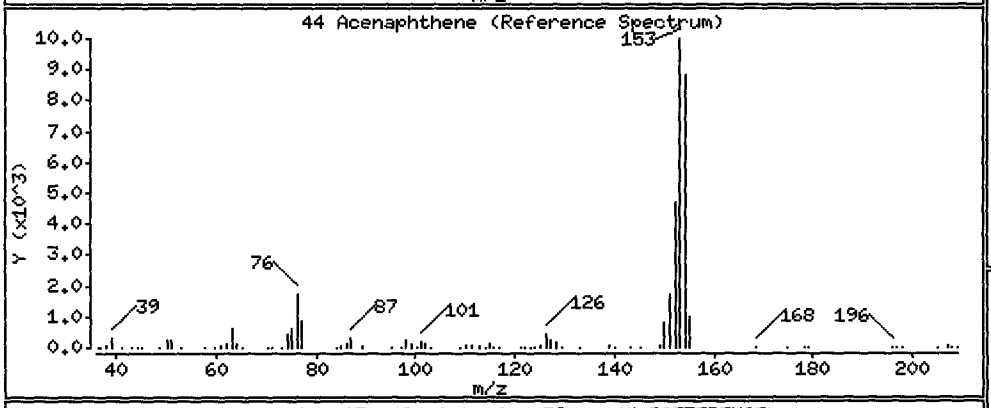
Column diameter: 0.25

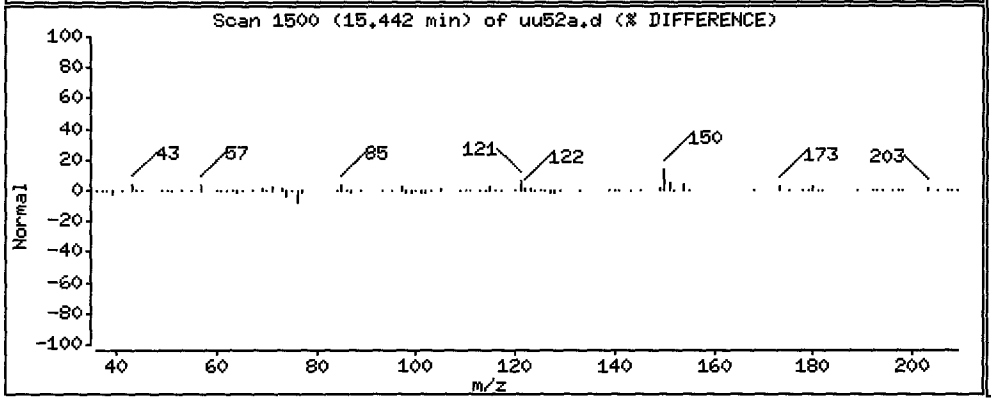
44 Acenaphthene

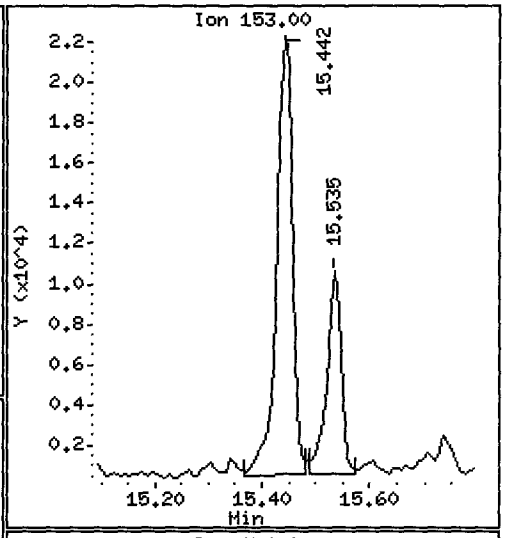
Concentration: 111.7 ug/kg

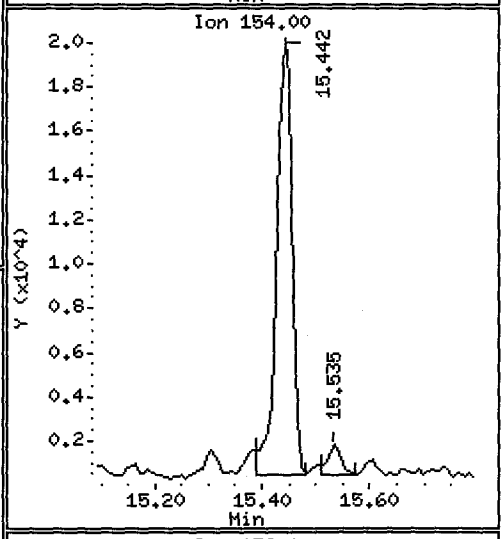


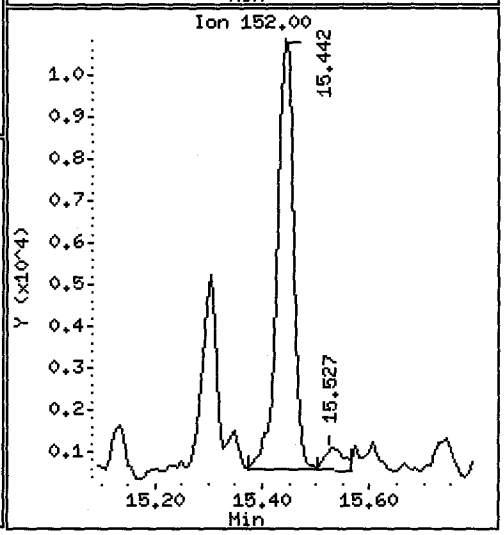



Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

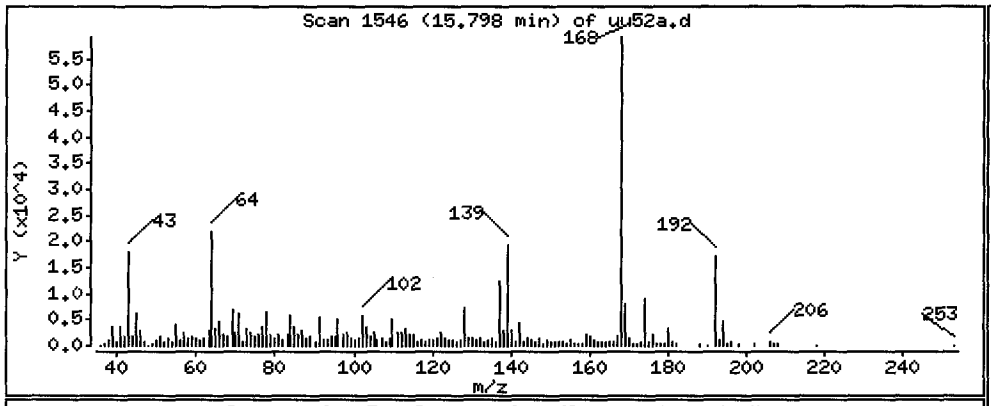
Client ID: MS001-SS-120515 Instrument: nt10.i

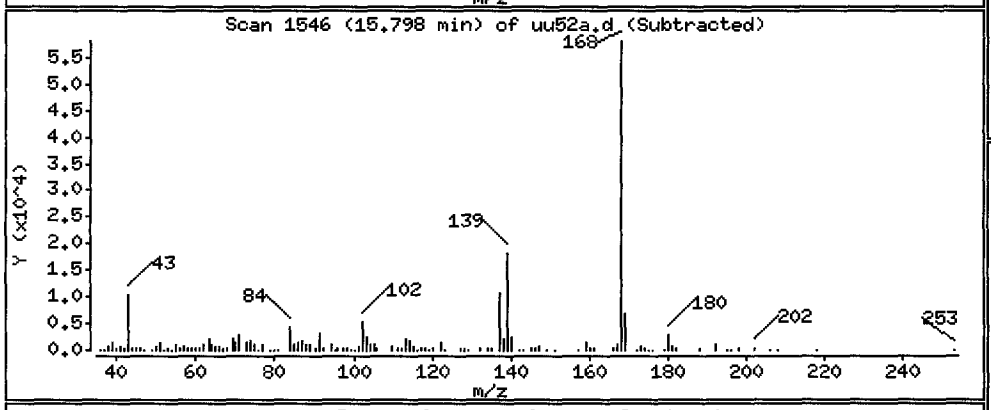
Sample Info: UU52A,3

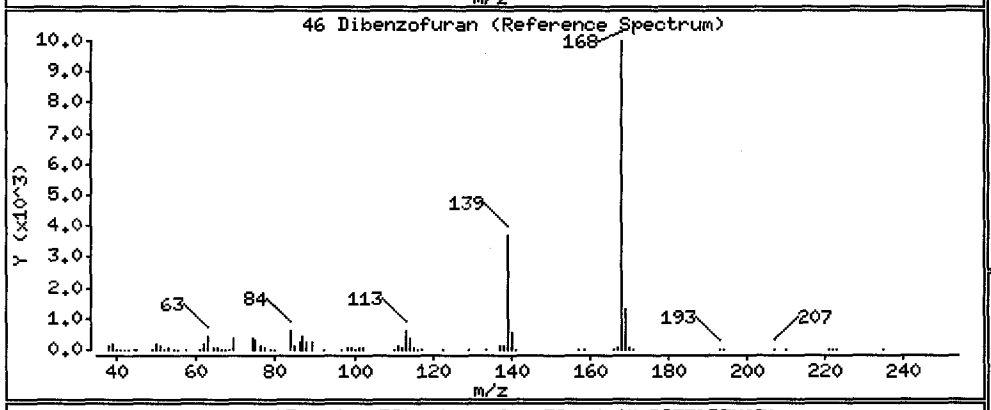
Volume Injected (uL): 1.0 Operator: VTS/YZ

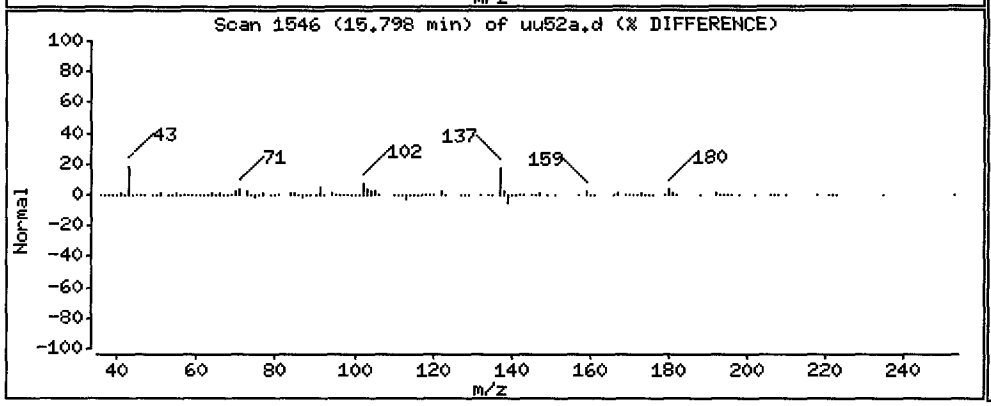
Column phase: ZB-5msi Column diameter: 0.25

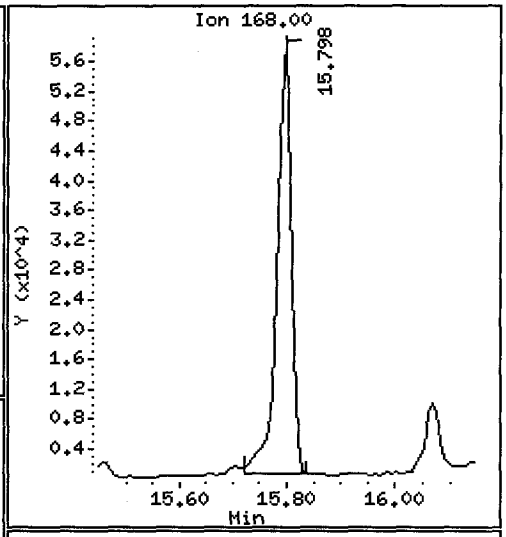
46 Dibenzofuran Concentration: 179.8 ug/kg

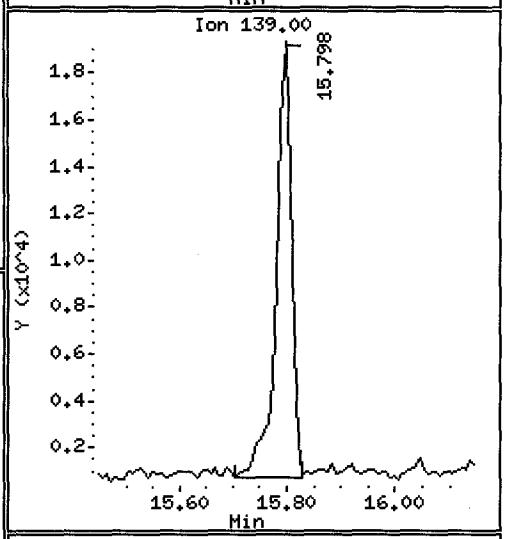


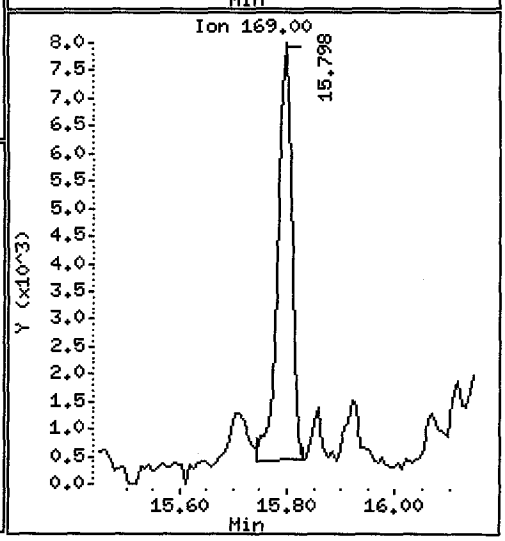



Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

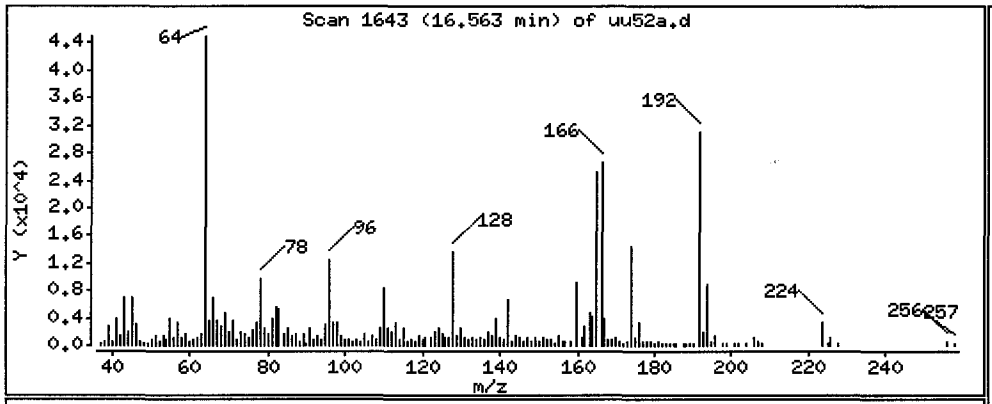
Operator: VTS/YZ

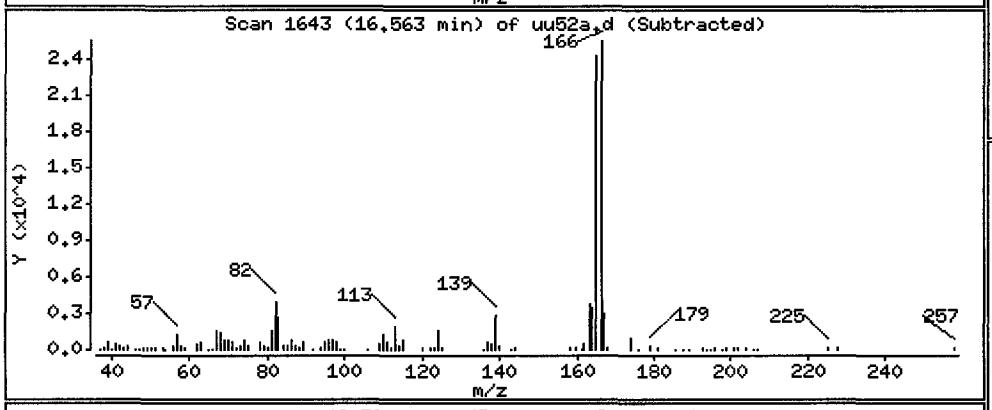
Column phase: ZB-5msi

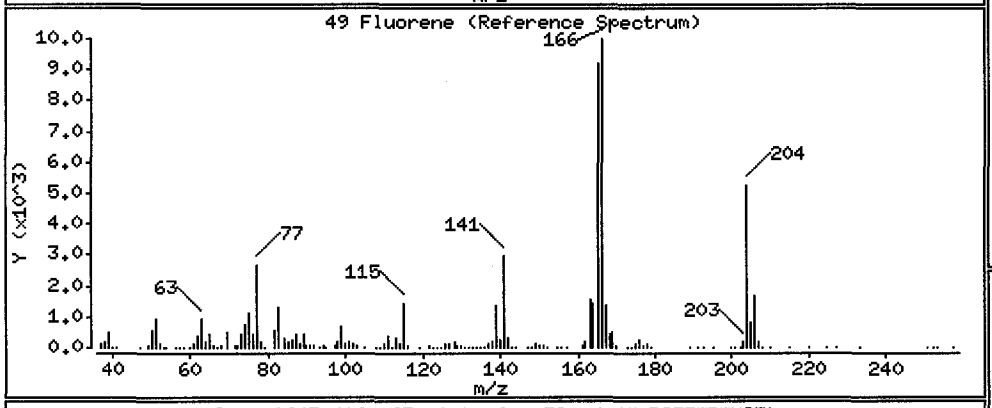
Column diameter: 0.25

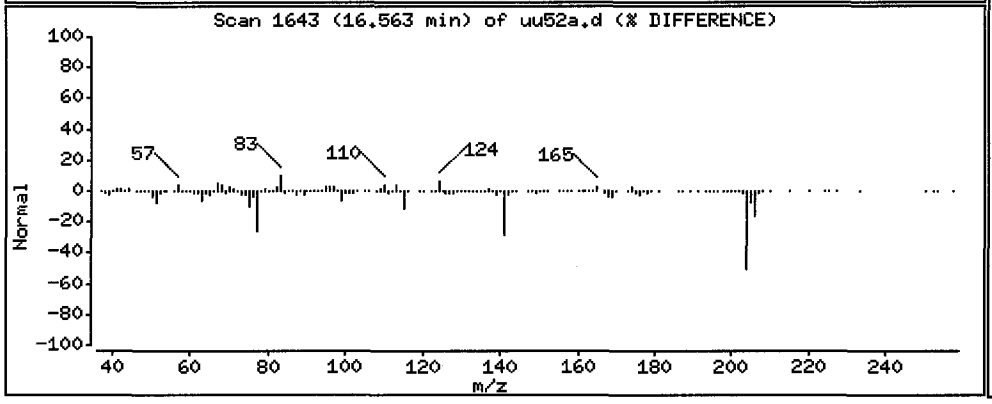
49 Fluorene

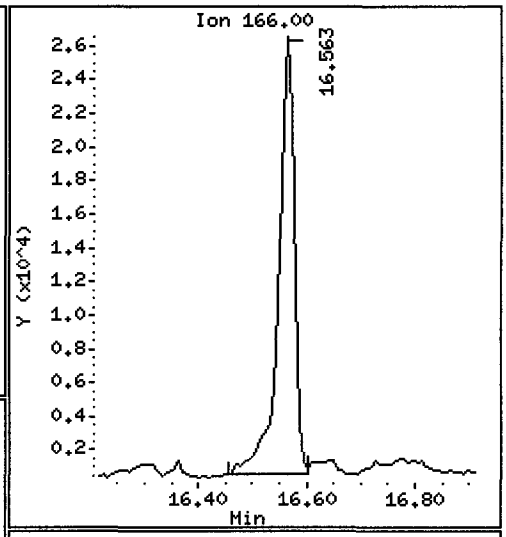
Concentration: 120.3 ug/kg

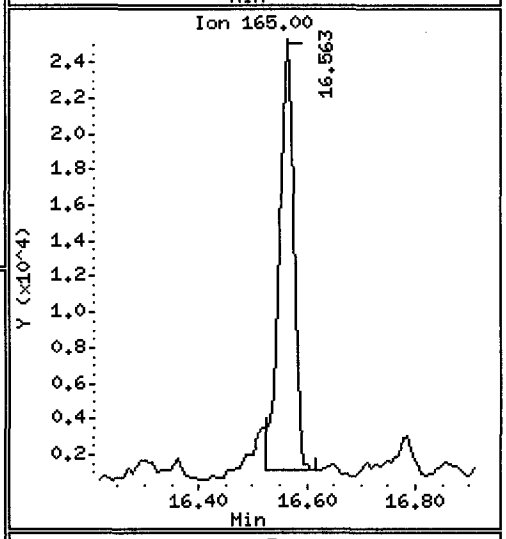


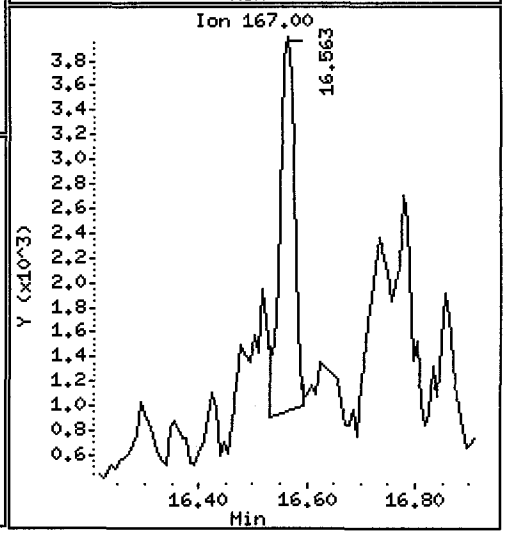



Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

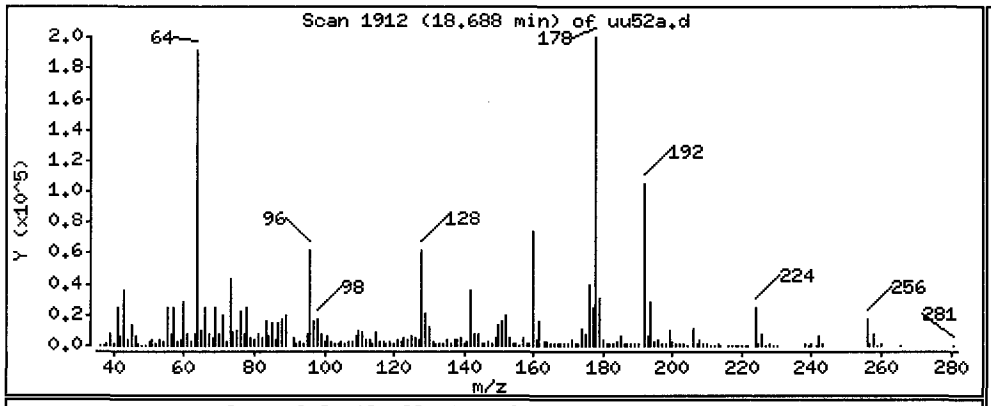
Operator: VTS/YZ

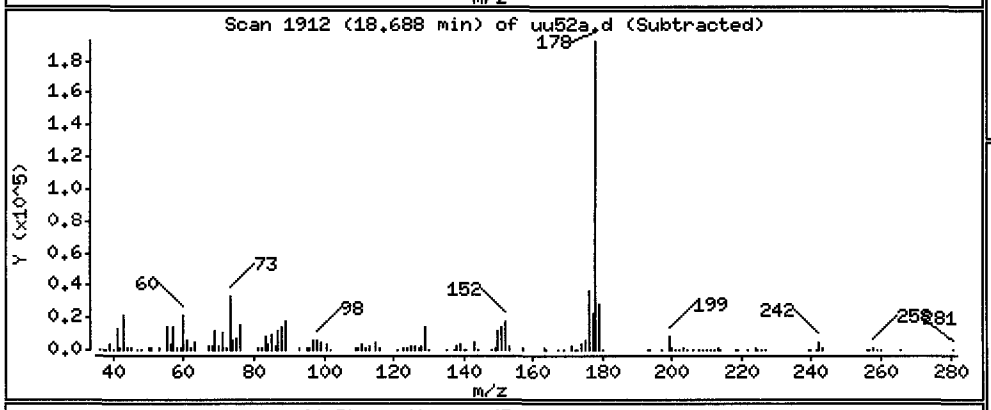
Column phase: ZB-5msi

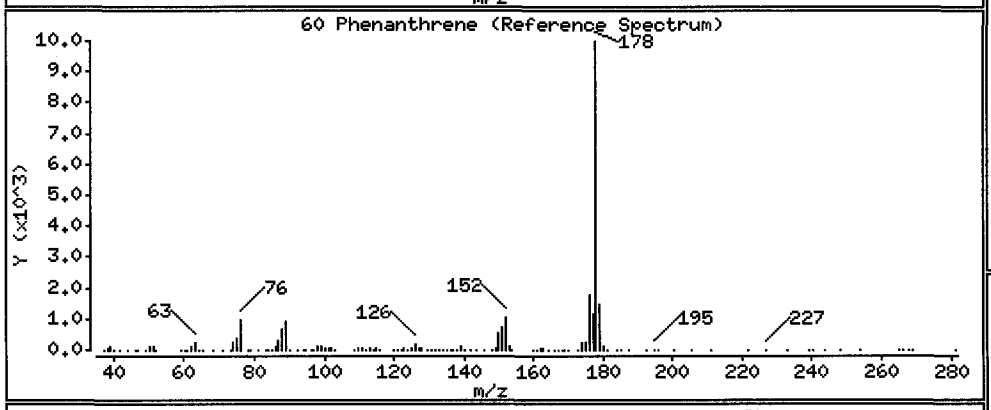
Column diameter: 0.25

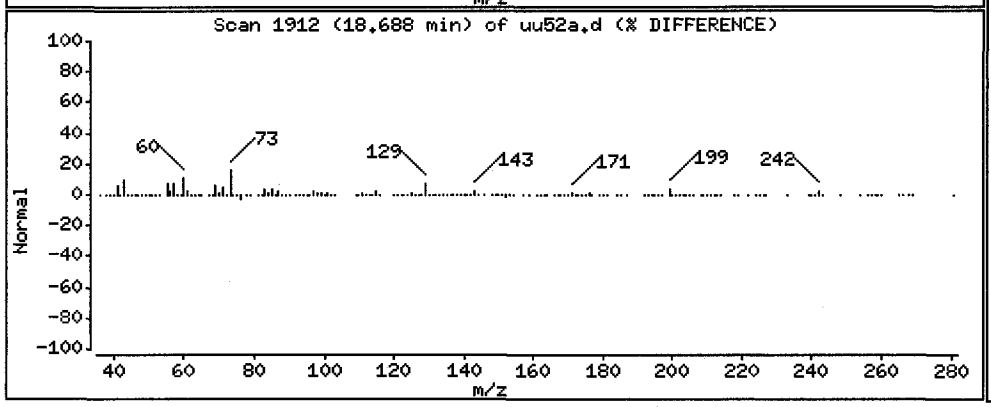
60 Phenanthrene

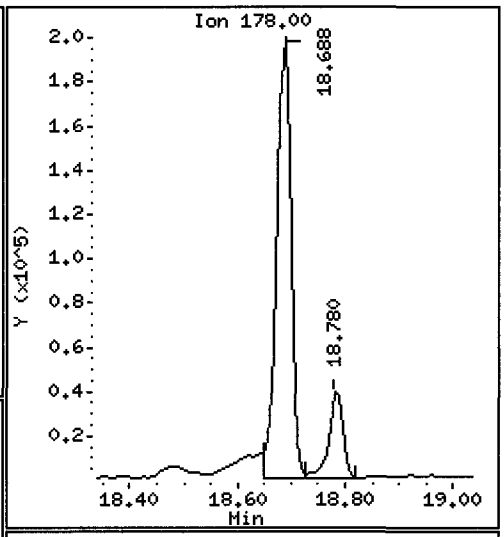
Concentration: 687.8 ug/kg

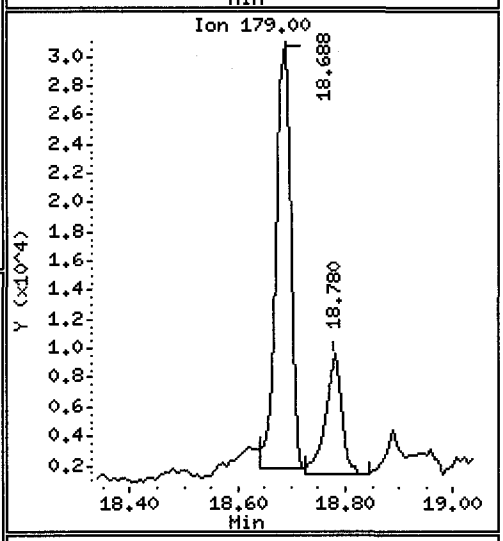


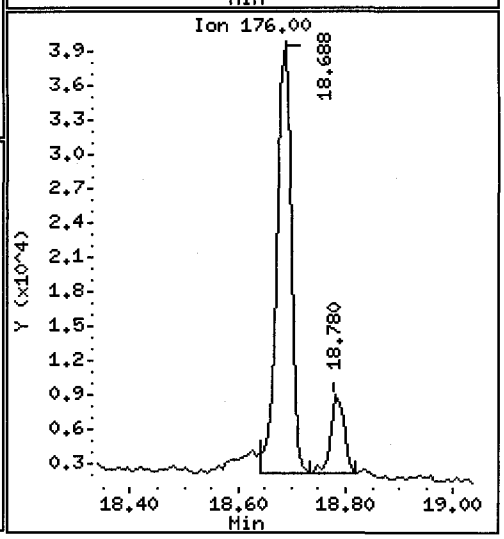



Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

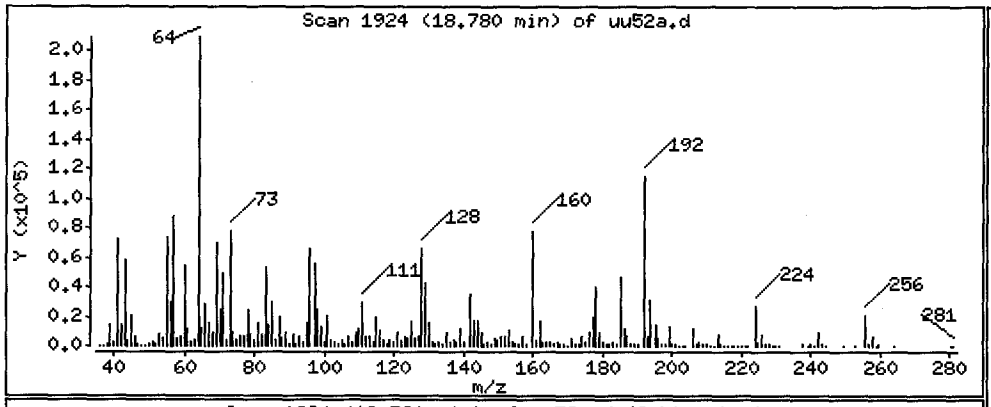
Operator: VTS/YZ

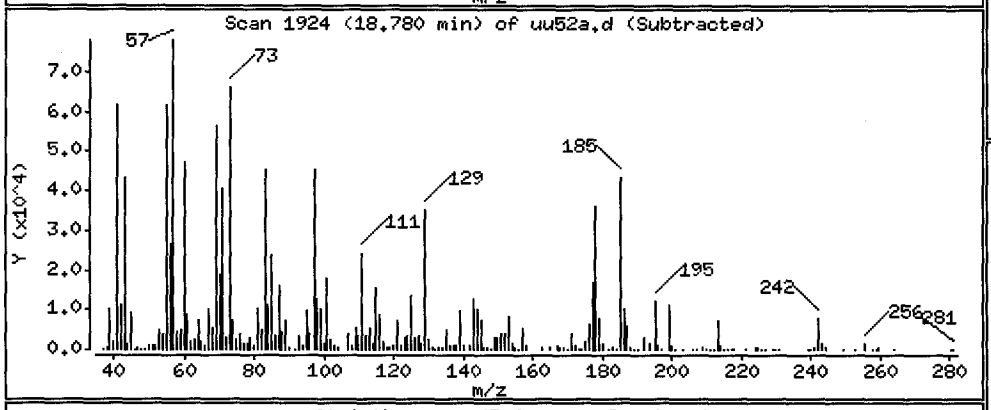
Column phase: ZB-5msi

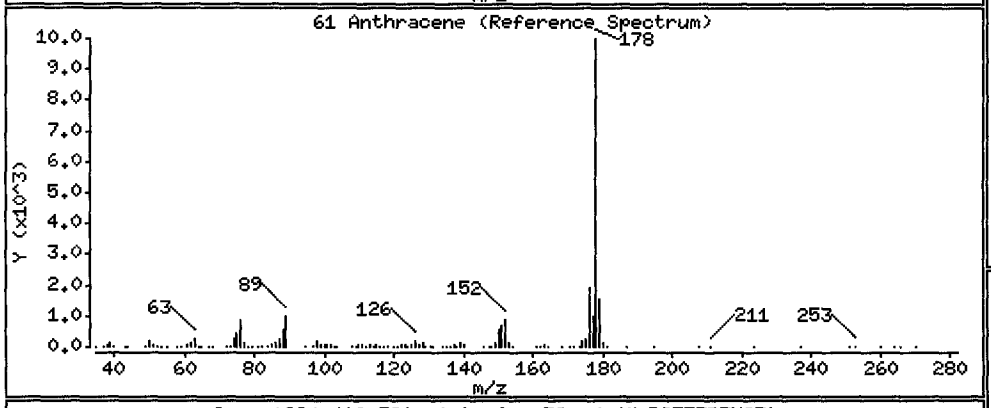
Column diameter: 0.25

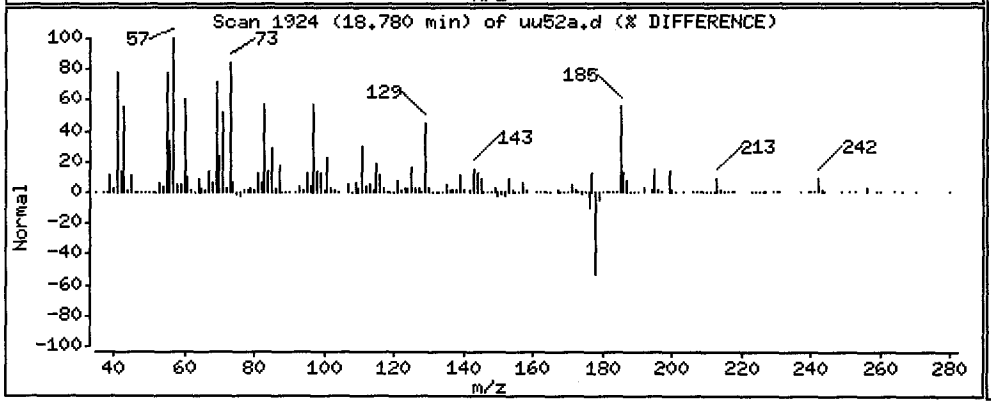
61 Anthracene

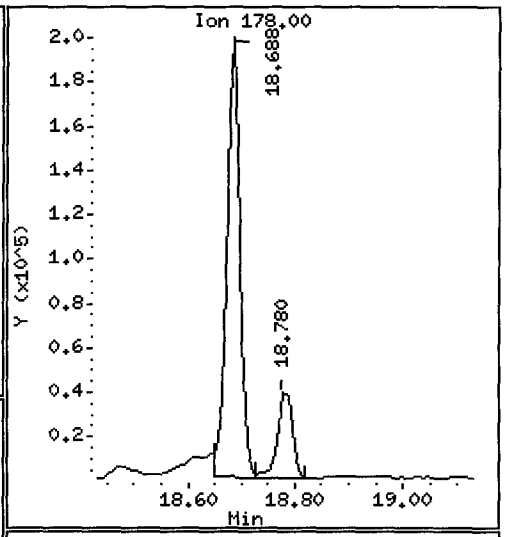
Concentration: 135.8 ug/kg

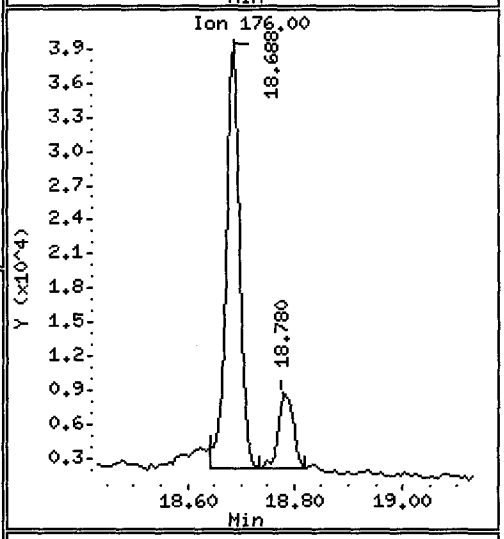


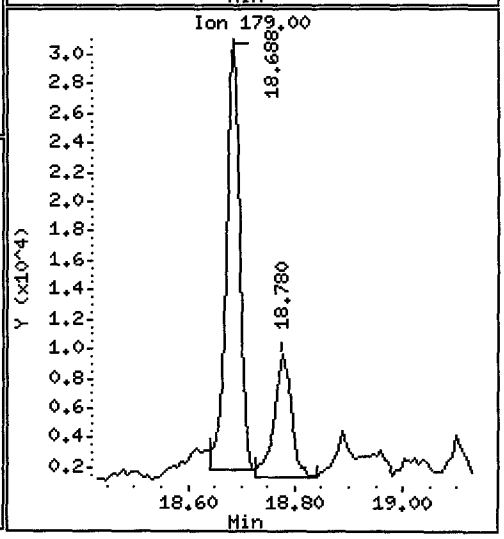



Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

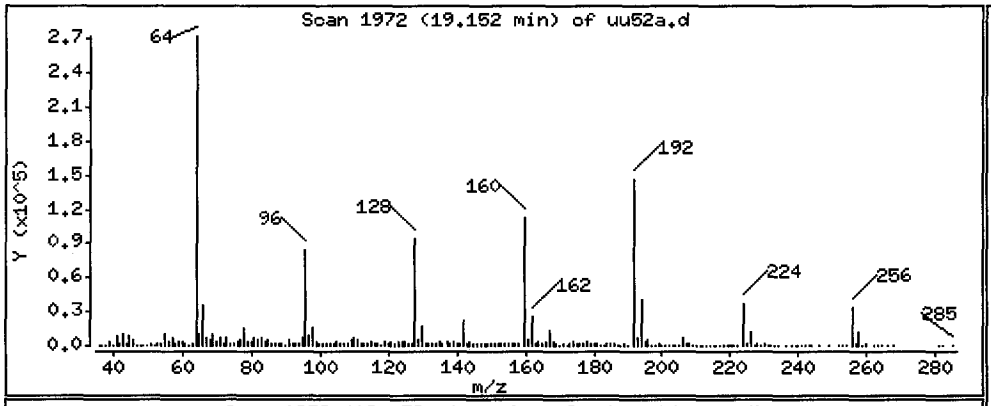
Operator: VTS/YZ

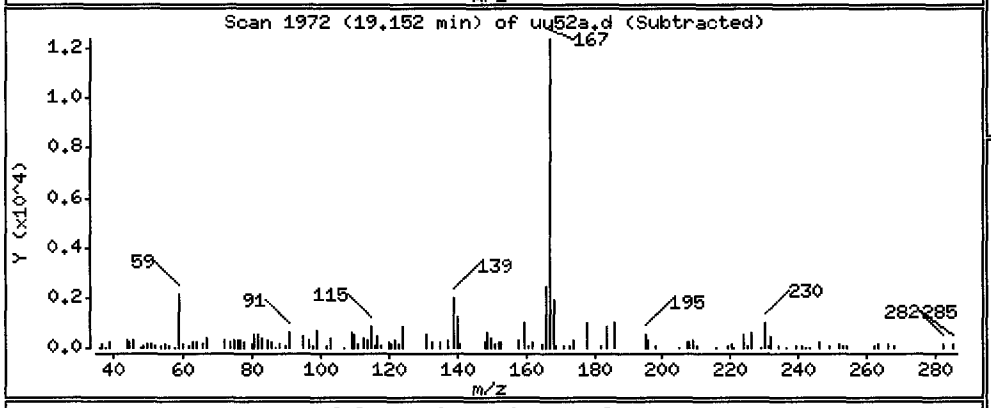
Column phase: ZB-5msi

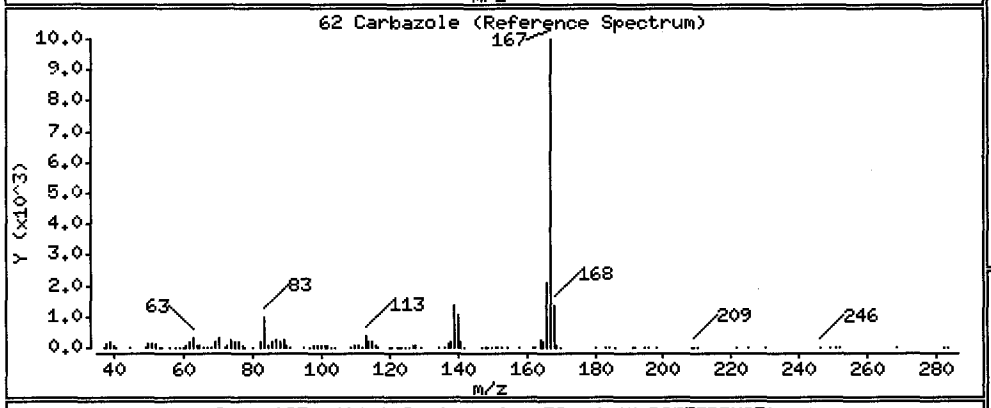
Column diameter: 0.25

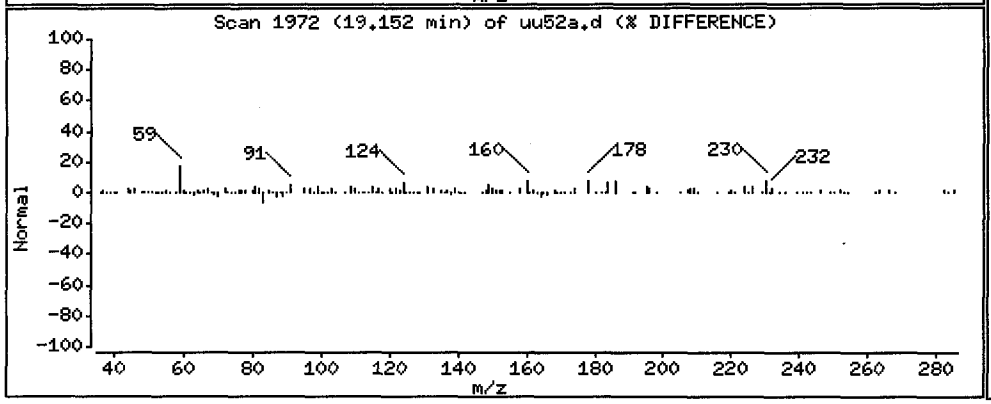
62 Carbazole

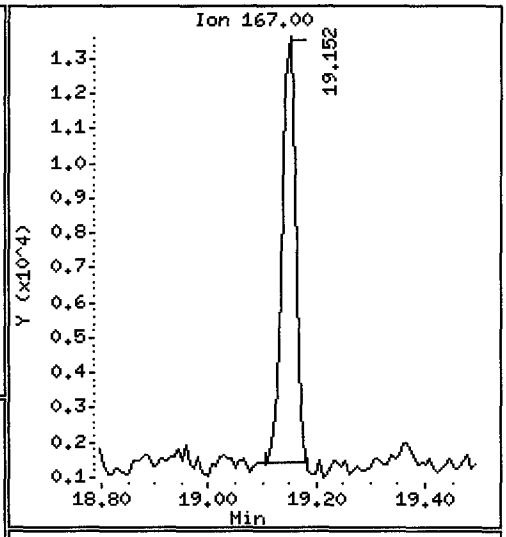
Concentration: 40.93 ug/kg

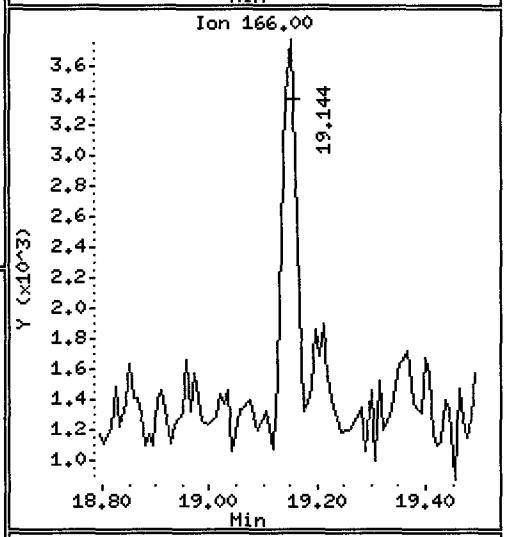


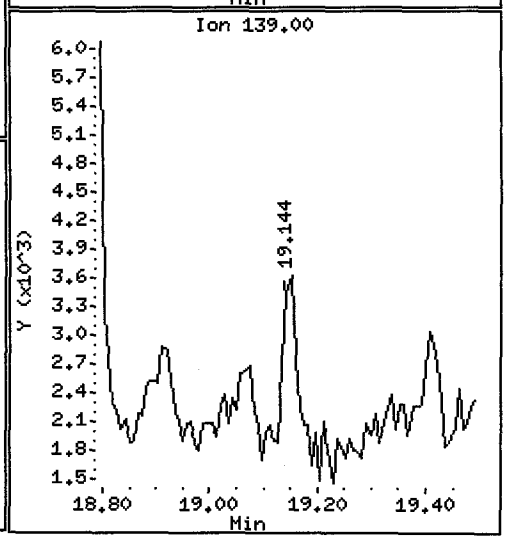



Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

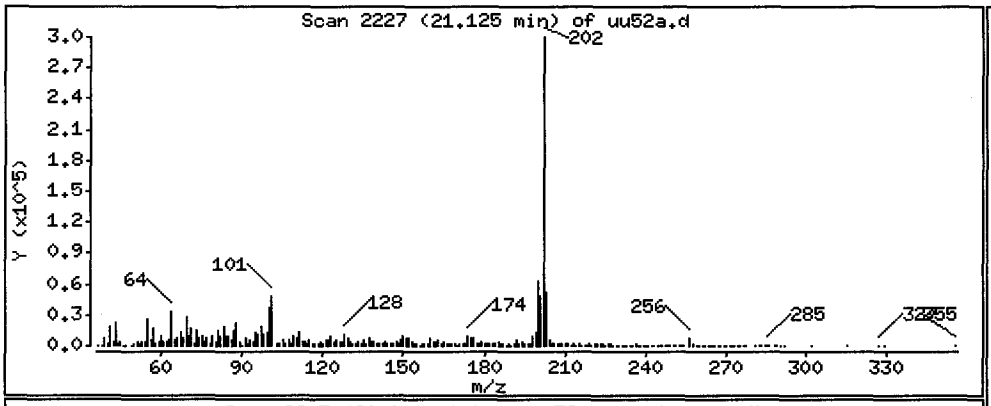
Operator: VTS/YZ

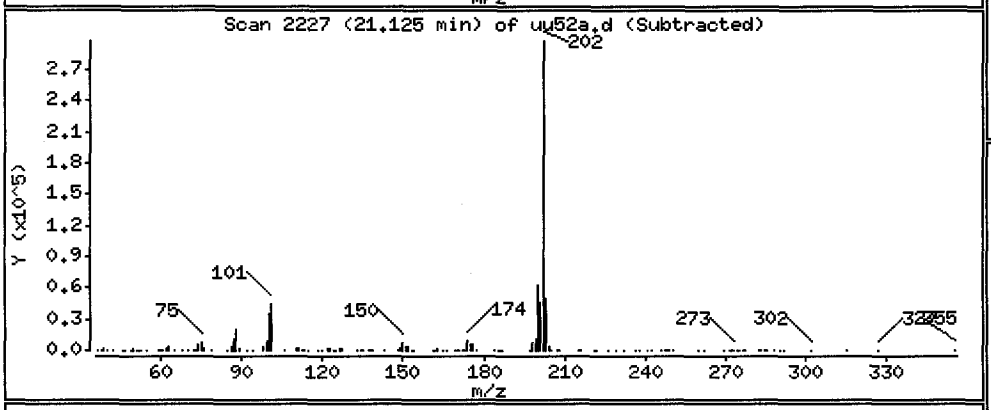
Column phase: ZB-5msi

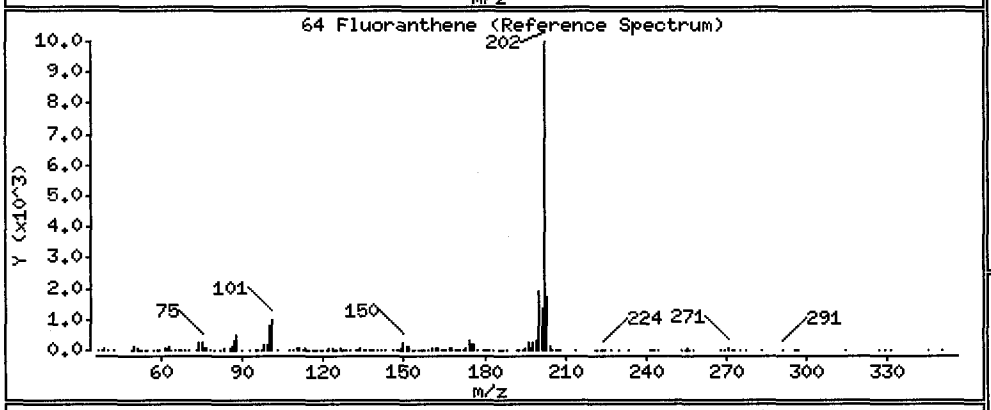
Column diameter: 0.25

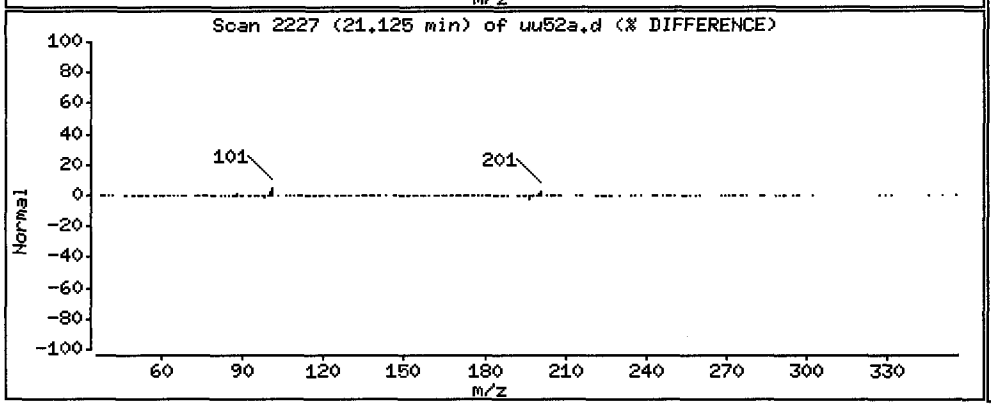
64 Fluoranthene

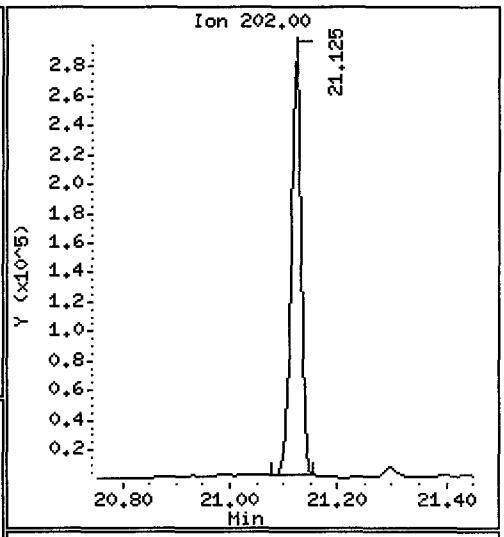
Concentration: 654.3 ug/kg

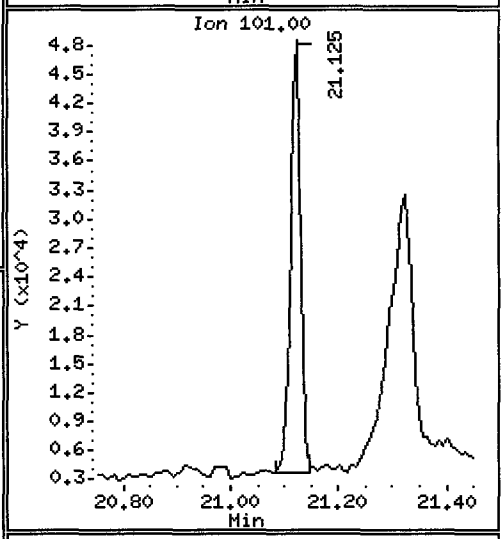


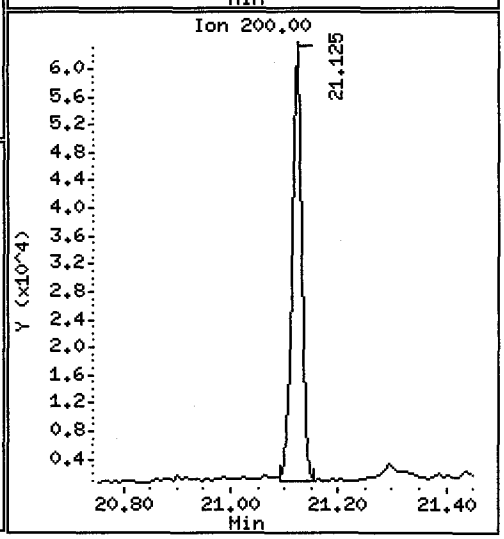



Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

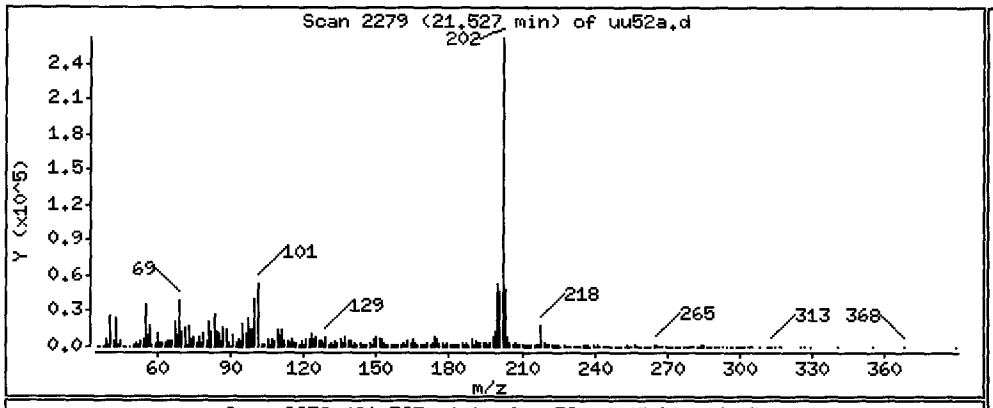
Operator: VTS/YZ

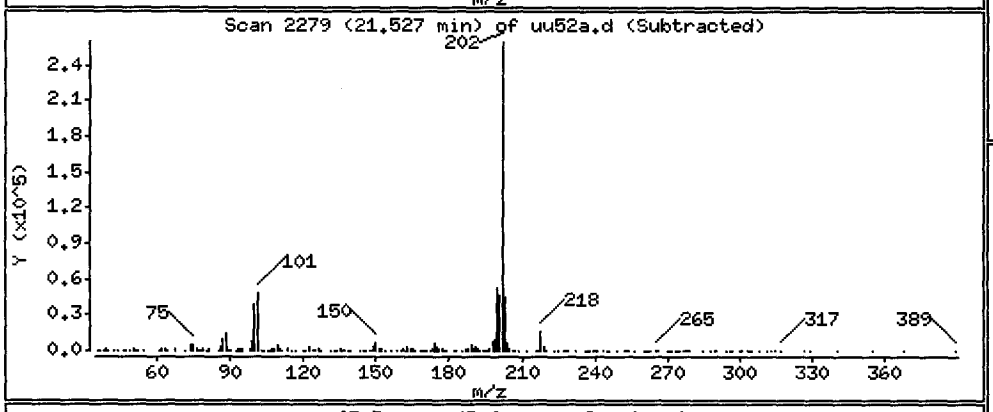
Column phase: ZB-5msi

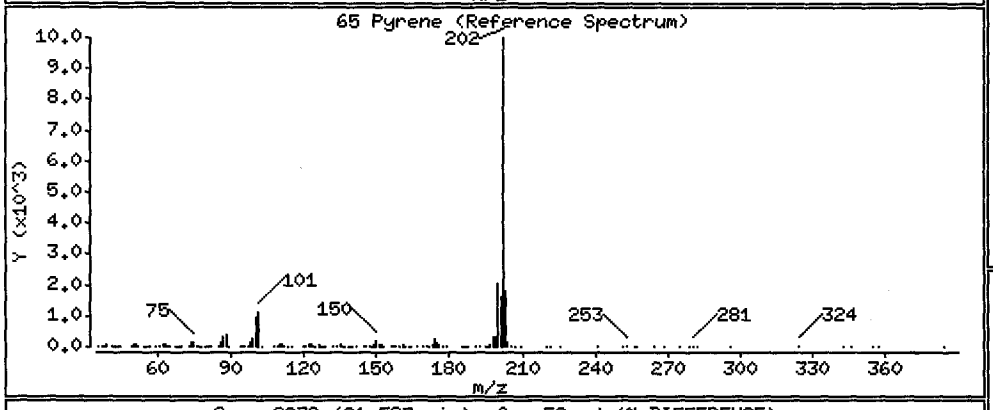
Column diameter: 0.25

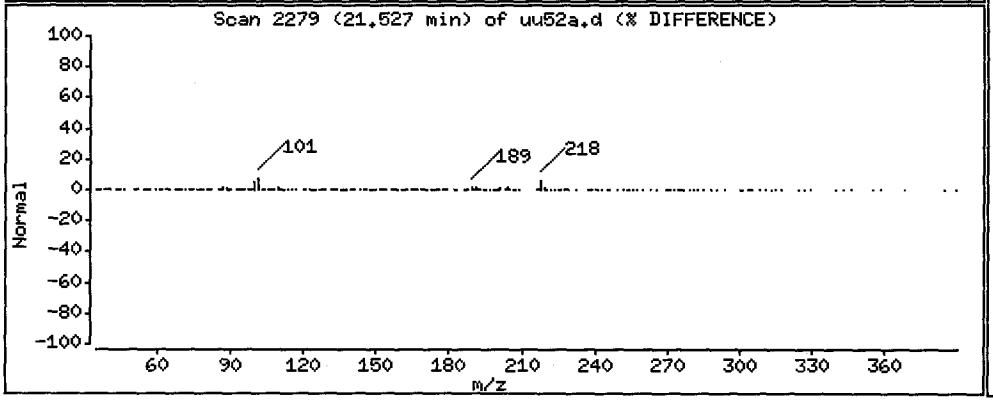
65 Pyrene

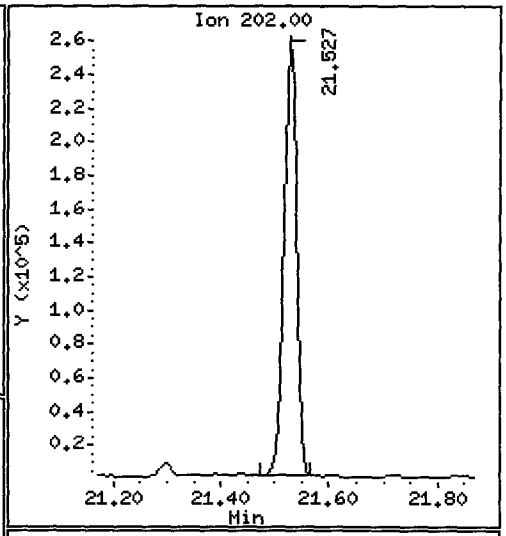
Concentration: 580.1 ug/kg

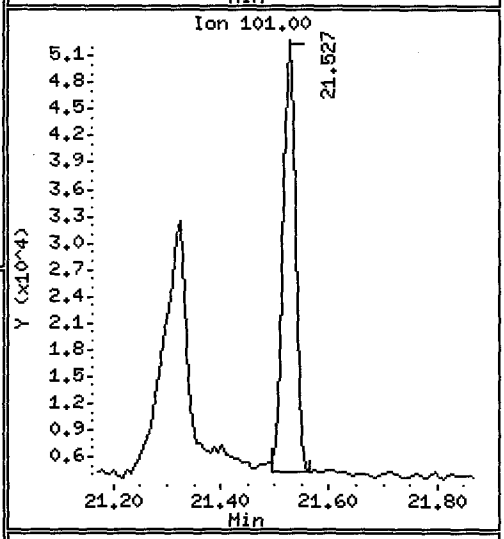


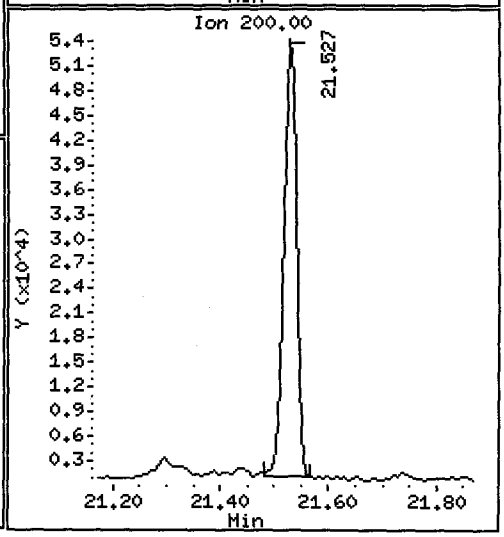



Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

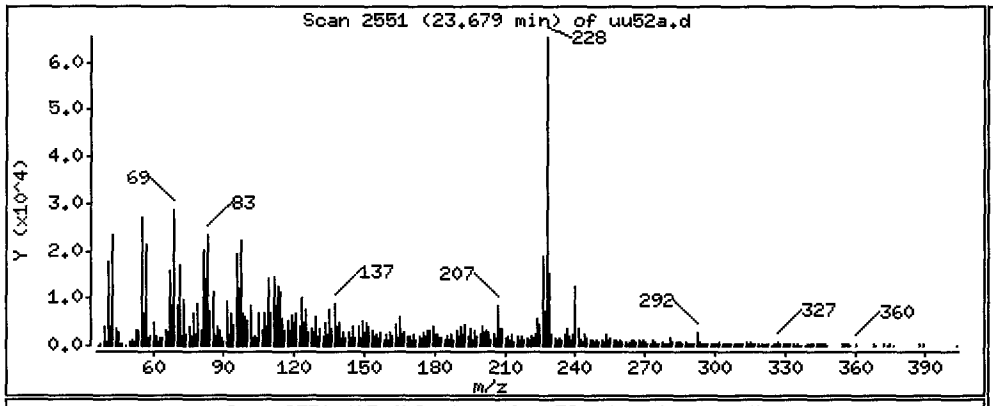
Operator: VTS/YZ

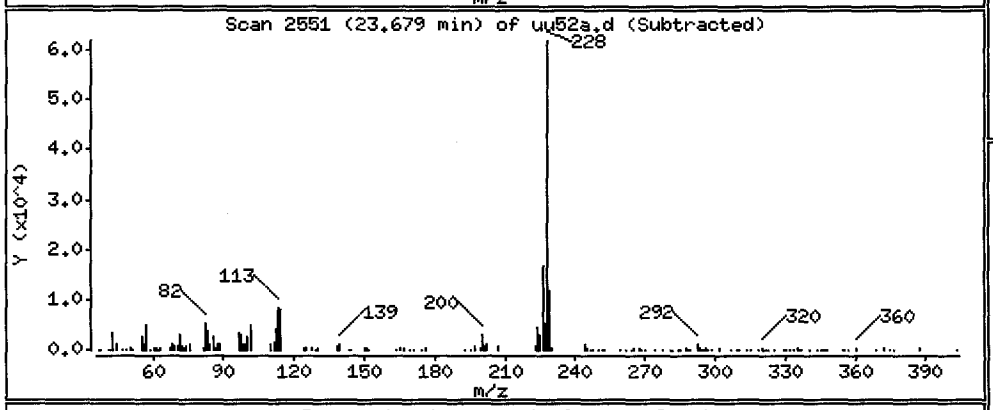
Column phase: ZB-5msi

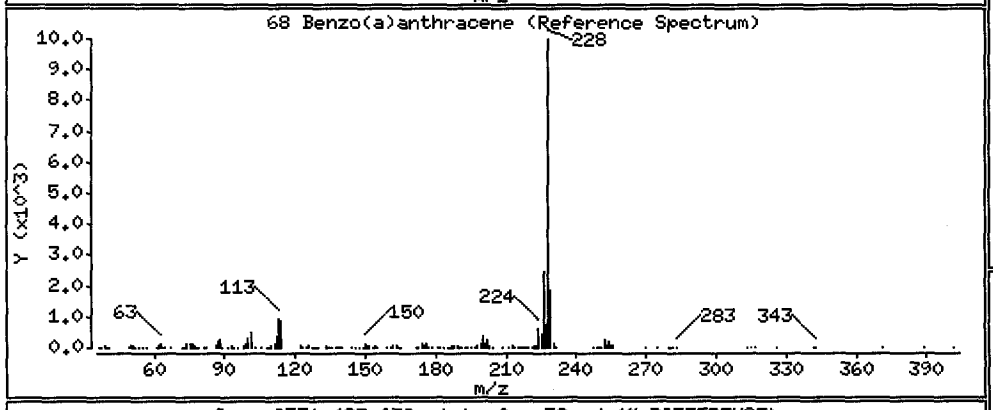
Column diameter: 0.25

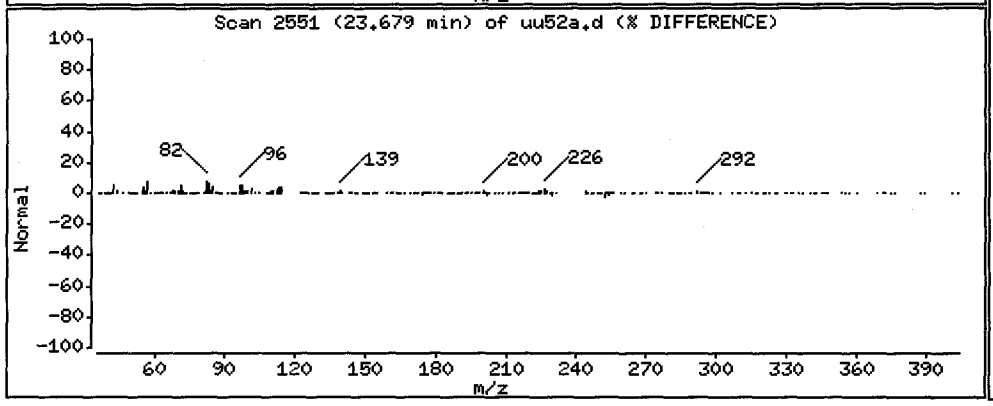
68 Benzo(a)anthracene

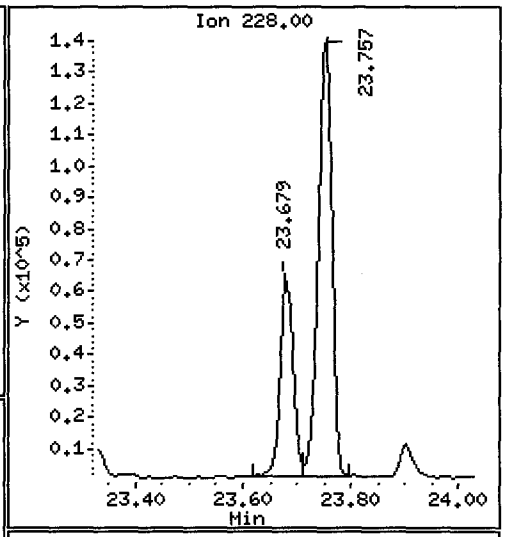
Concentration: 158.4 ug/kg

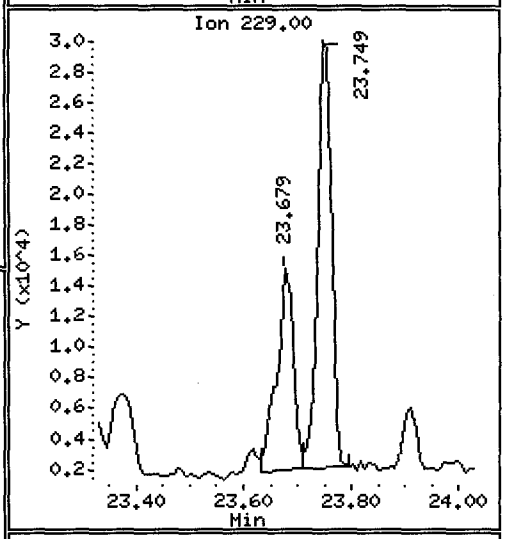


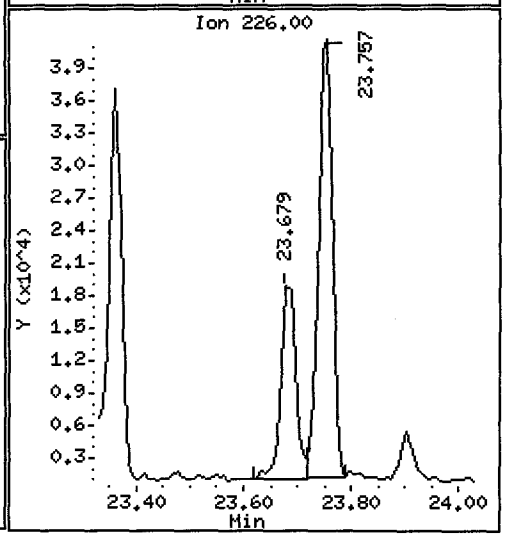



Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

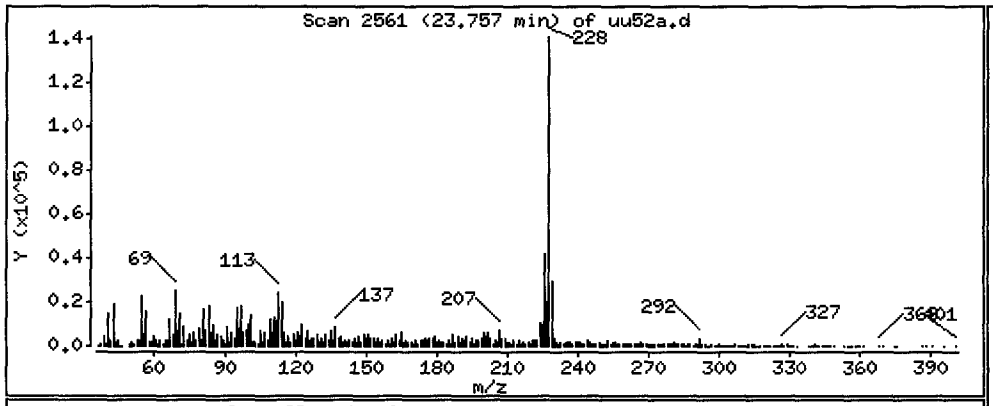
Client ID: MS001-SS-120515 Instrument: nt10.i

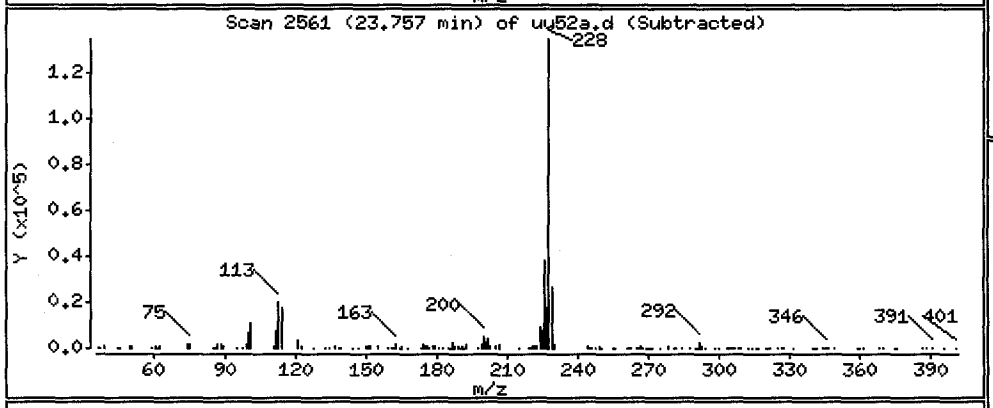
Sample Info: UU52A,3

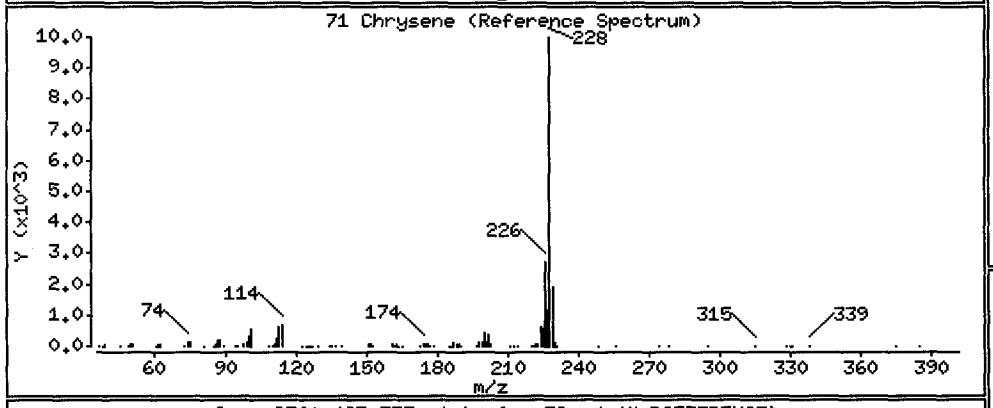
Volume Injected (uL): 1.0 Operator: VTS/YZ

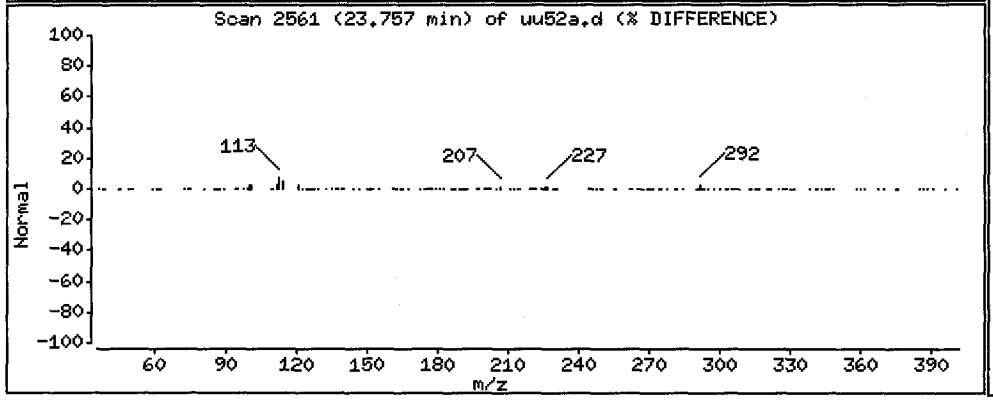
Column phase: ZB-5msi Column diameter: 0.25

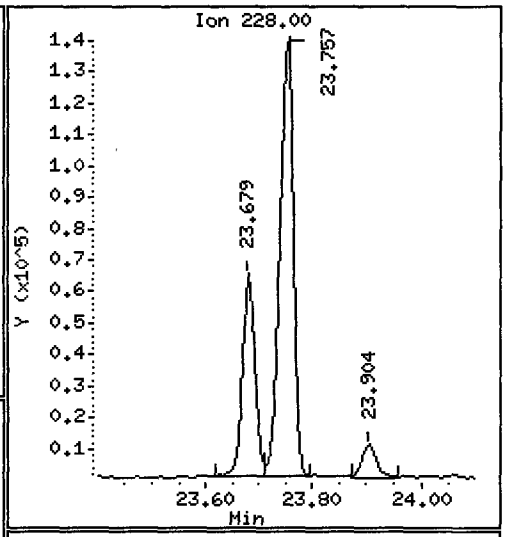
71 Chrysene Concentration: 424.5 ug/kg

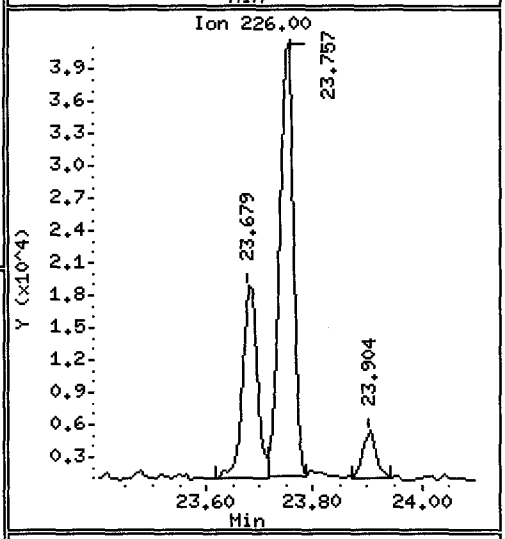


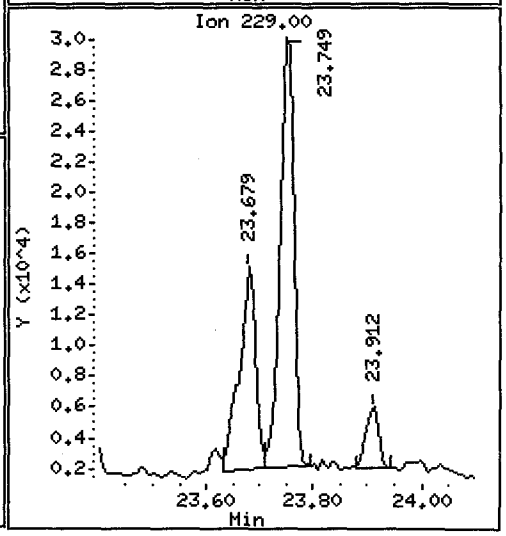



Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

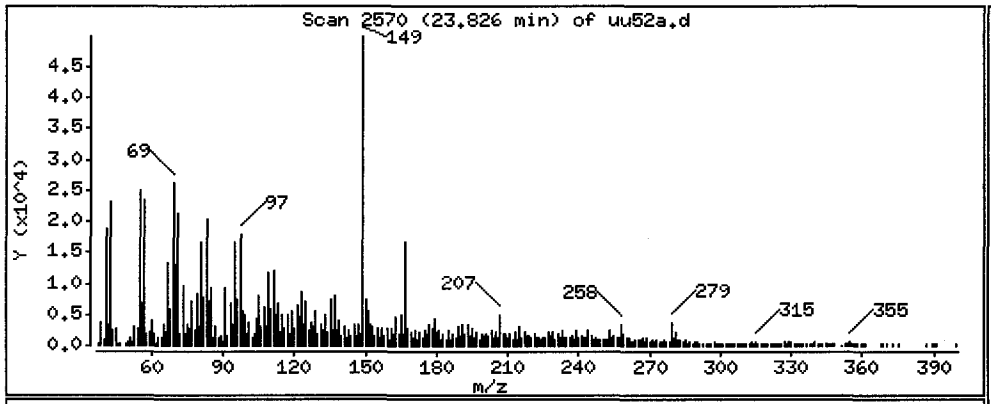
Operator: VTS/YZ

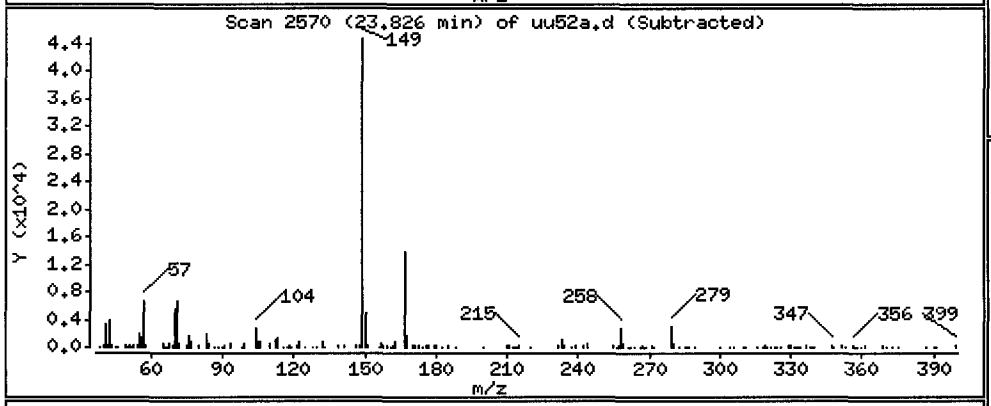
Column phase: ZB-5msi

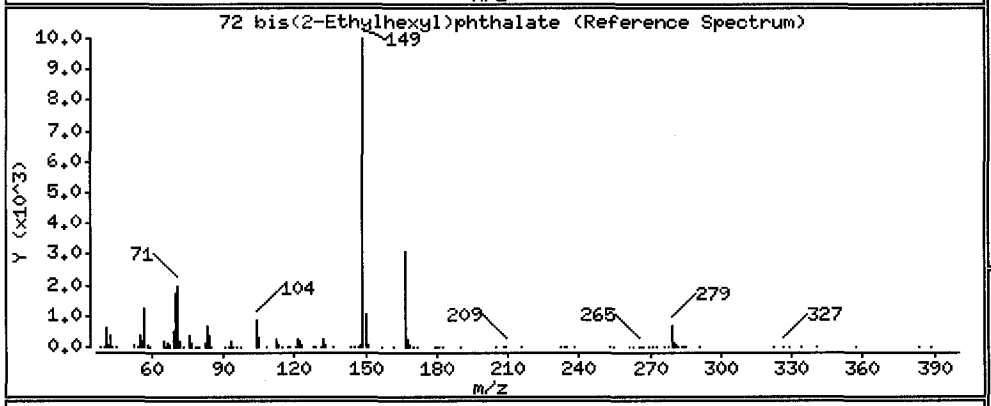
Column diameter: 0.25

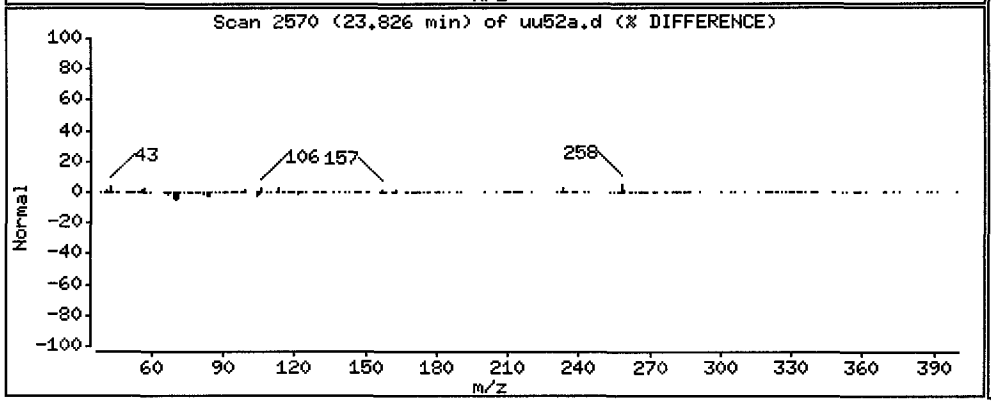
72 bis(2-Ethylhexyl)phthalate

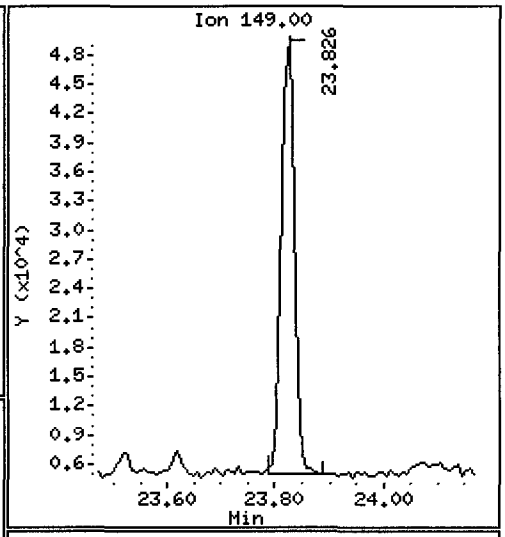
Concentration: 141.3 ug/kg

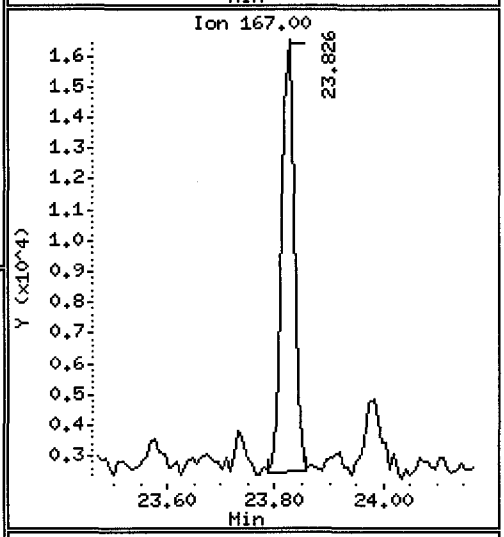


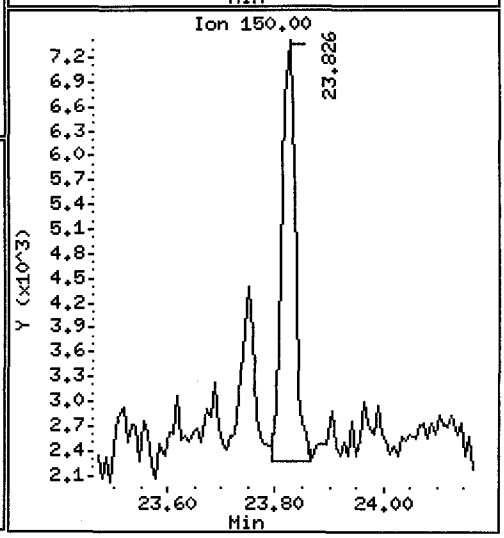



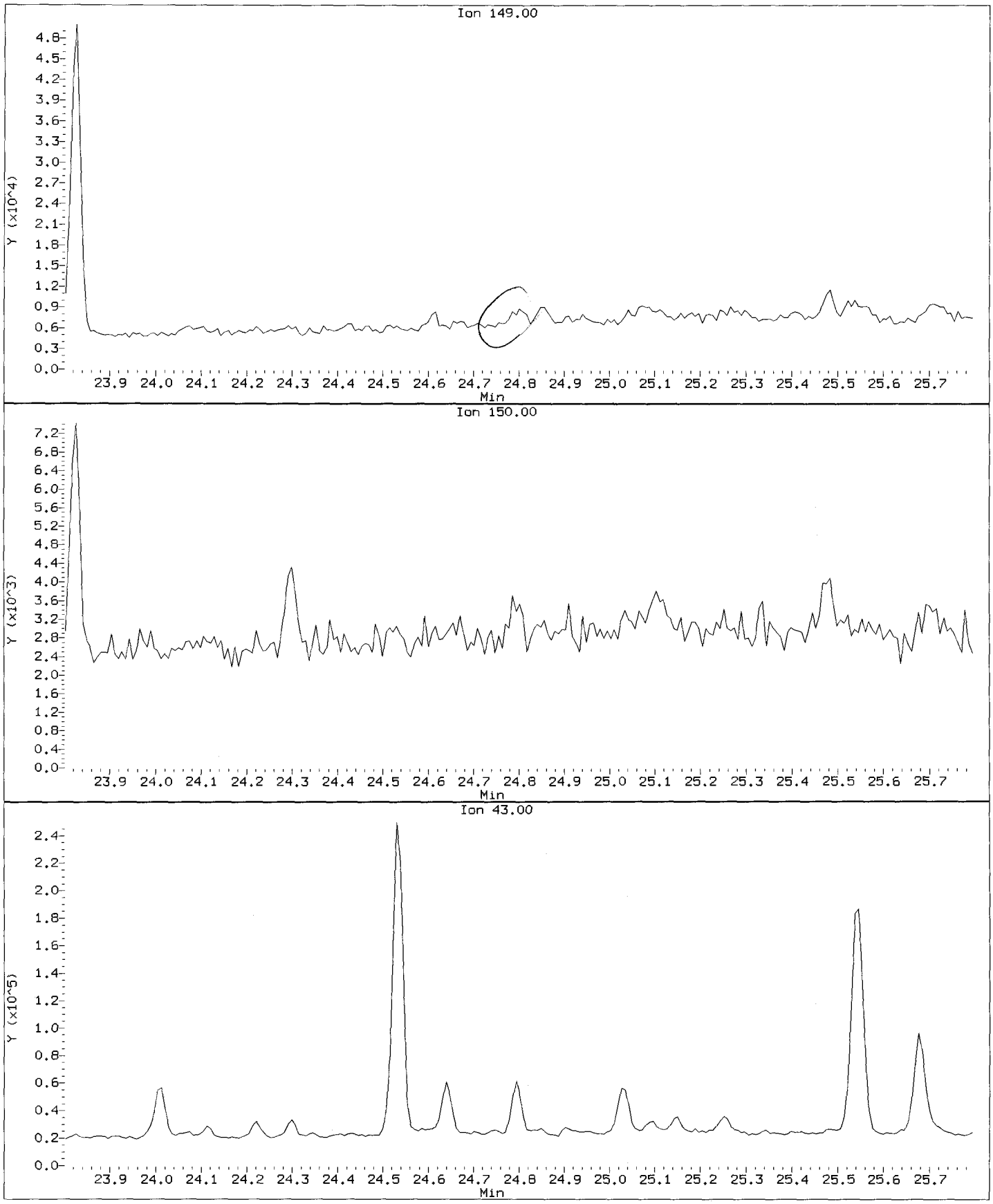



Data File: /chem1/nt10.i/20120526.b/uu52a.d
Injection Date: 26-MAY-2012 17:11
Instrument: nt10.i
Client Sample ID: MS001-SS-120515

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

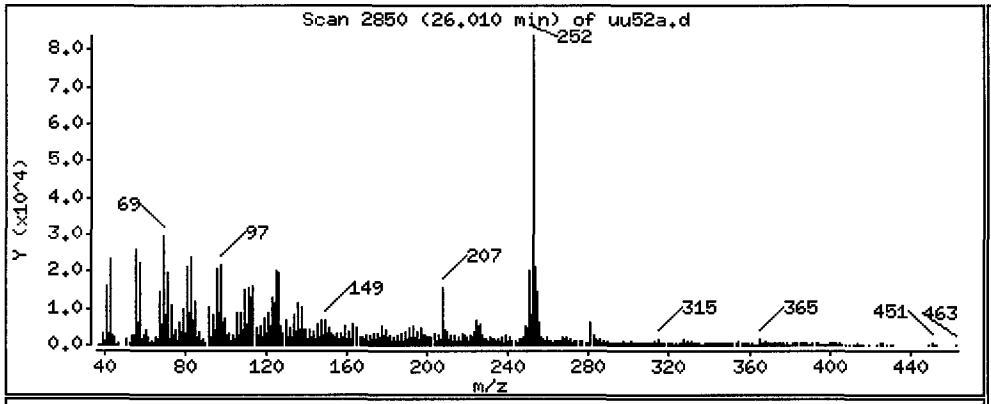
Client ID: MS001-SS-120515 Instrument: nt10.i

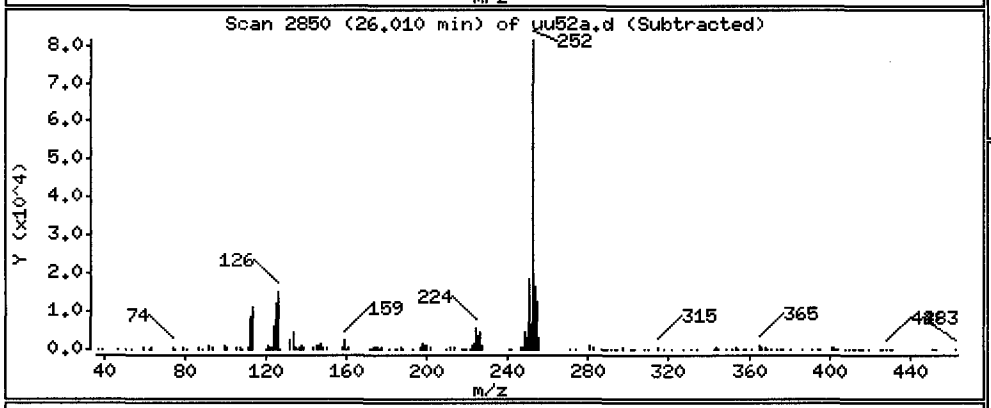
Sample Info: UU52A,3

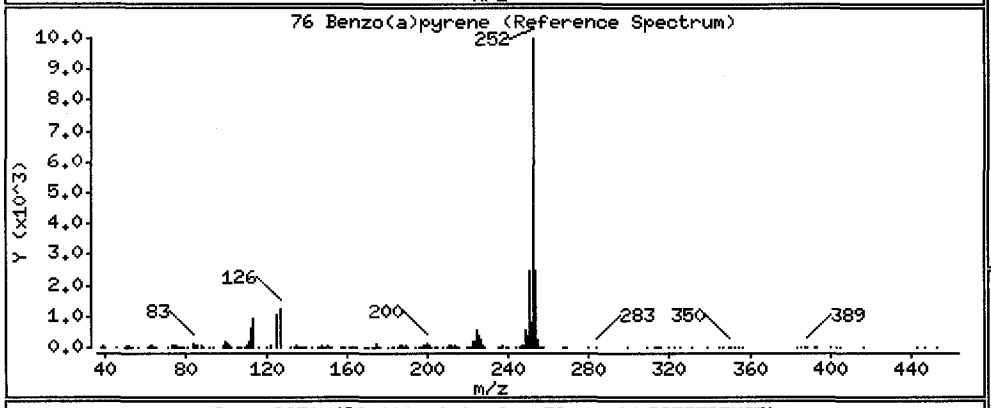
Volume Injected (uL): 1.0 Operator: VTS/YZ

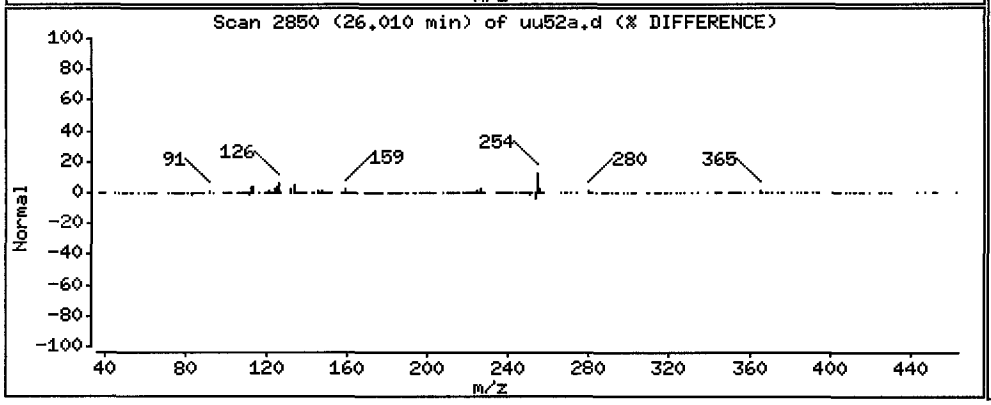
Column phase: ZB-5msi Column diameter: 0.25

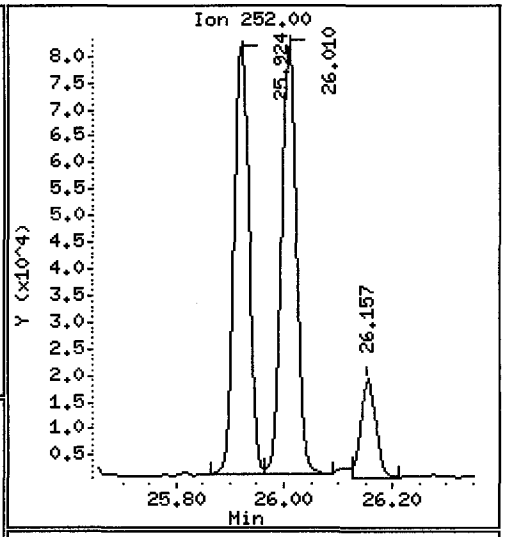
76 Benzo(a)pyrene Concentration: 257.0 ug/kg

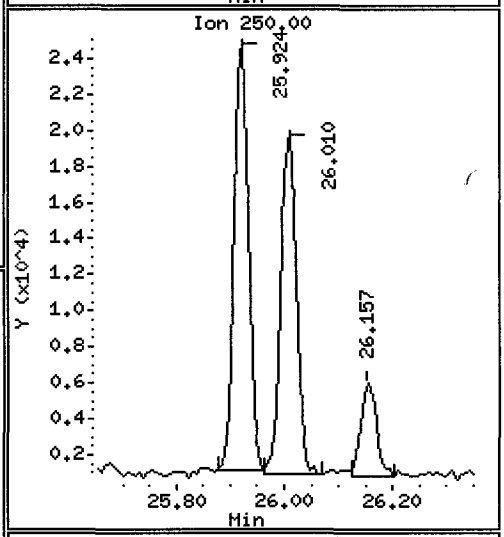


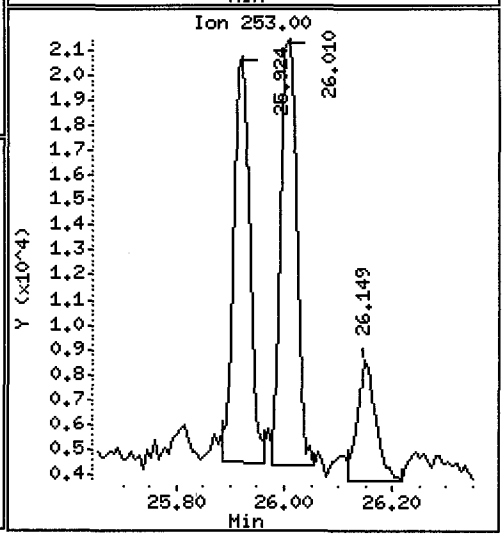



Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

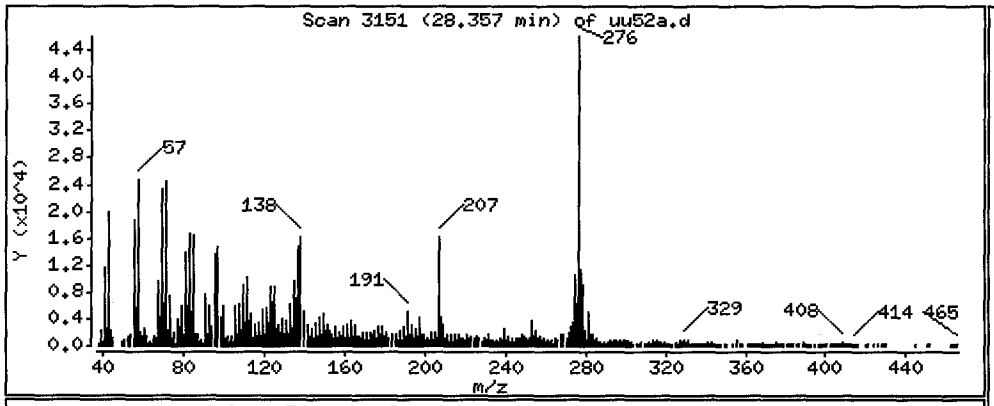
Client ID: MS001-SS-120515 Instrument: nt10.i

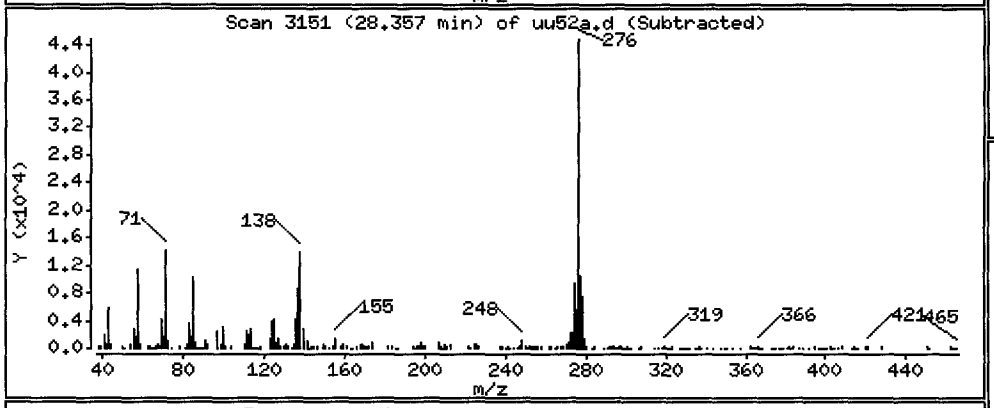
Sample Info: UU52A,3

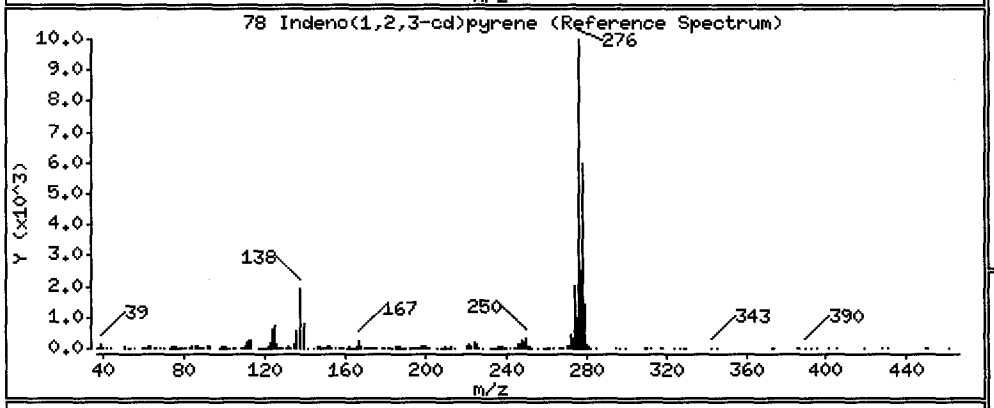
Volume Injected (uL): 1.0 Operator: VTS/YZ

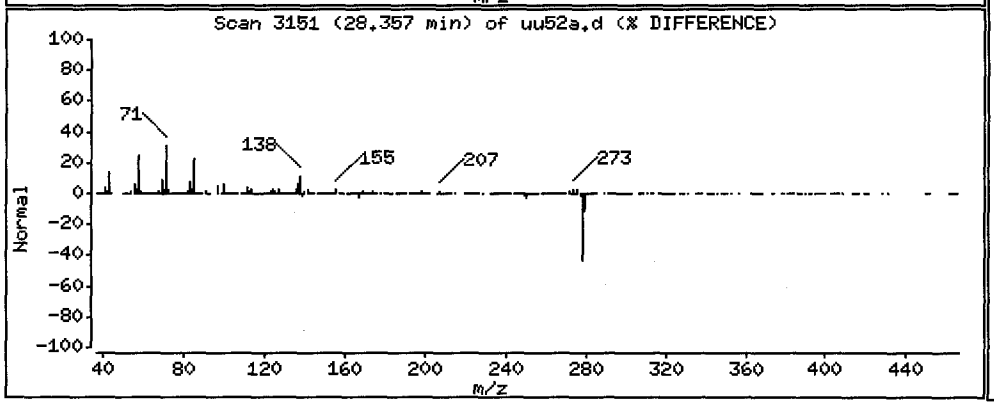
Column phase: ZB-5msi Column diameter: 0.25

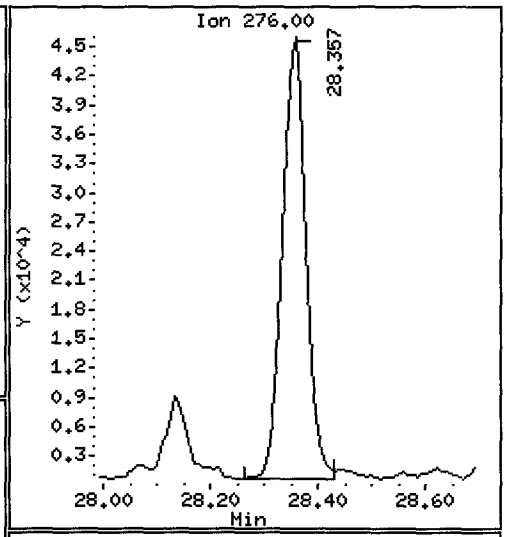
78 Indeno(1,2,3-cd)pyrene Concentration: 201.6 ug/kg

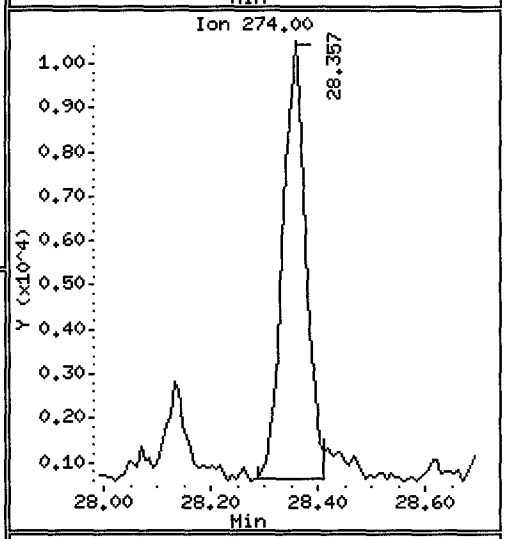


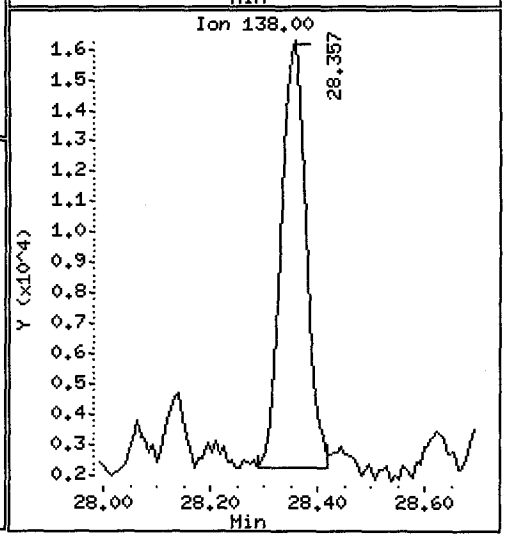



Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

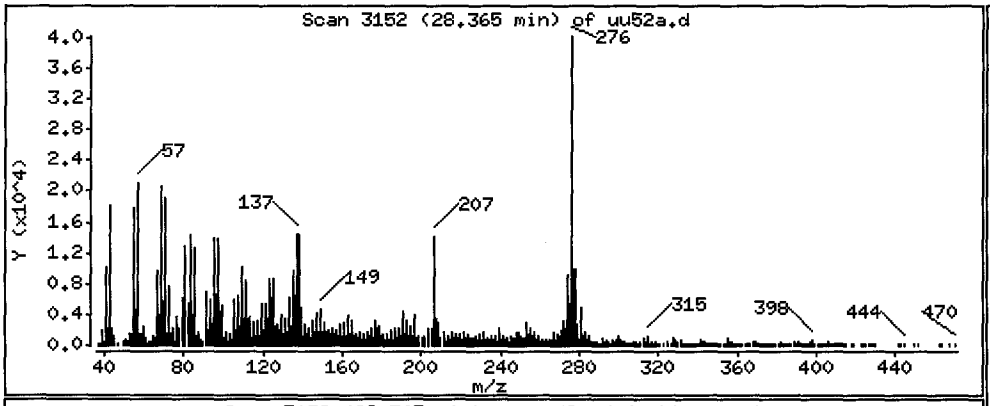
Operator: VTS/YZ

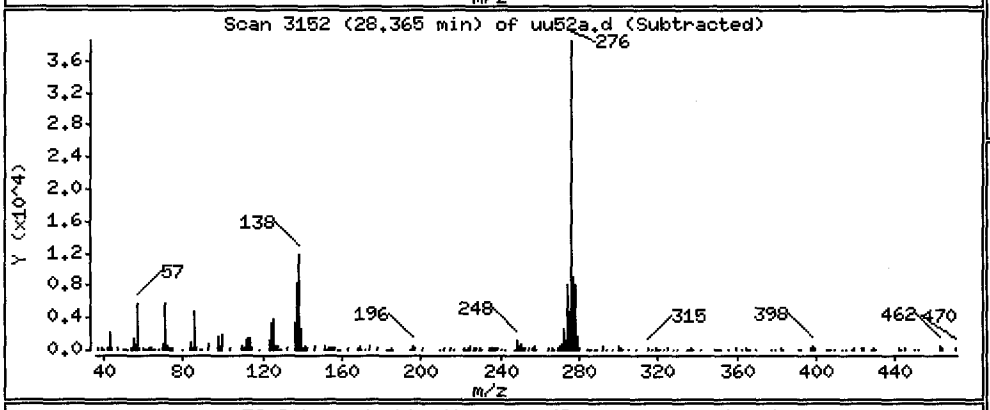
Column phase: ZB-5msi

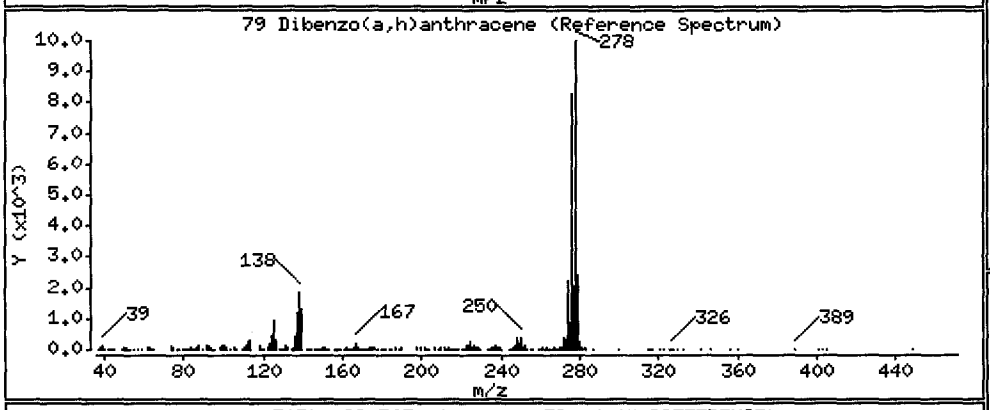
Column diameter: 0.25

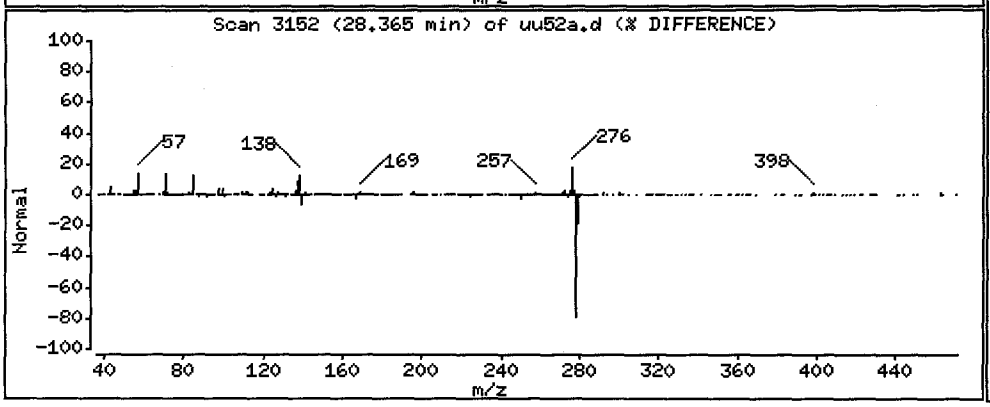
79 Dibenzo(a,h)anthracene

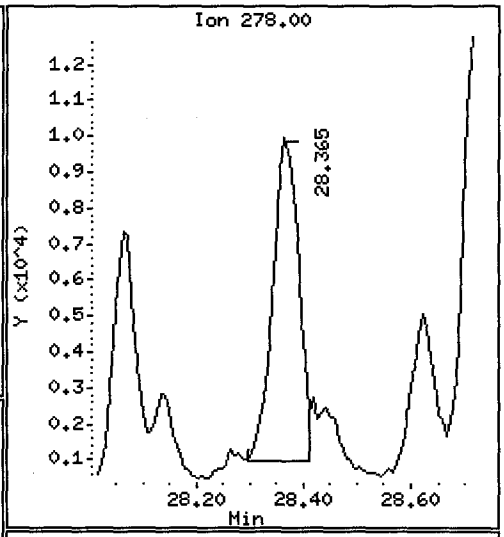
Concentration: 56.03 ug/kg

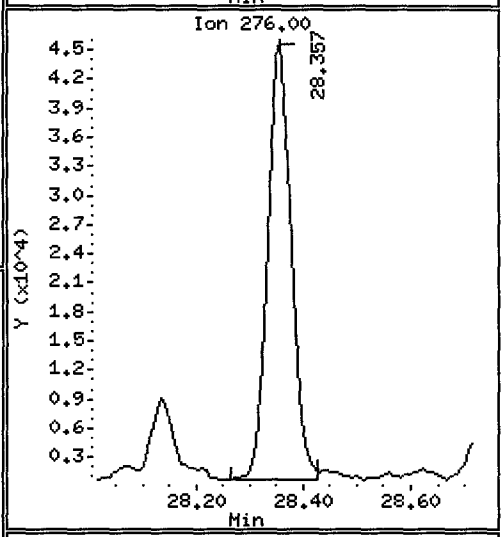


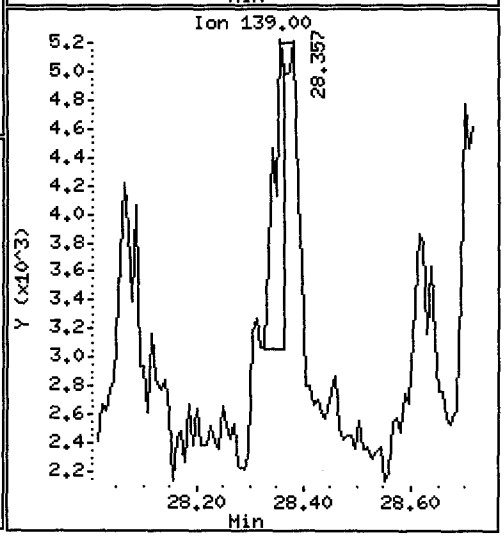



Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

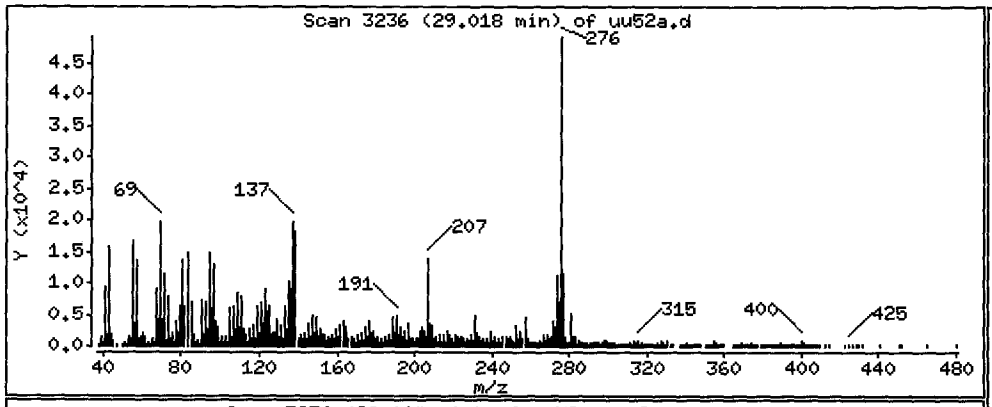
Operator: VTS/YZ

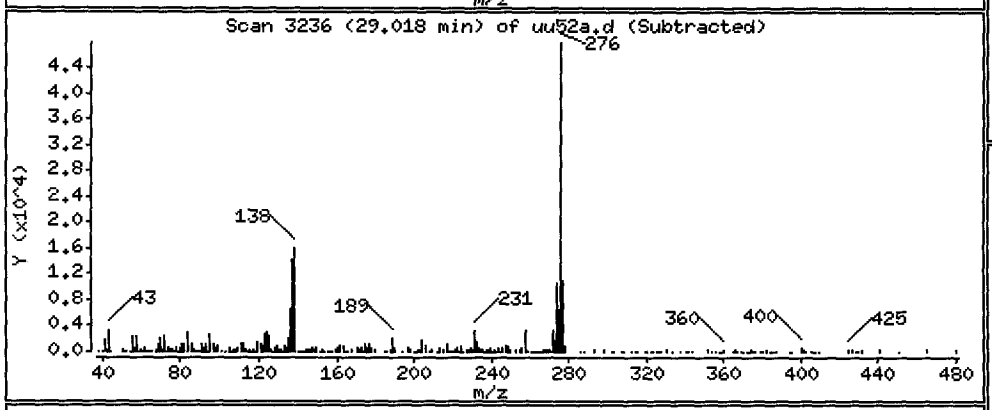
Column phase: ZB-5msi

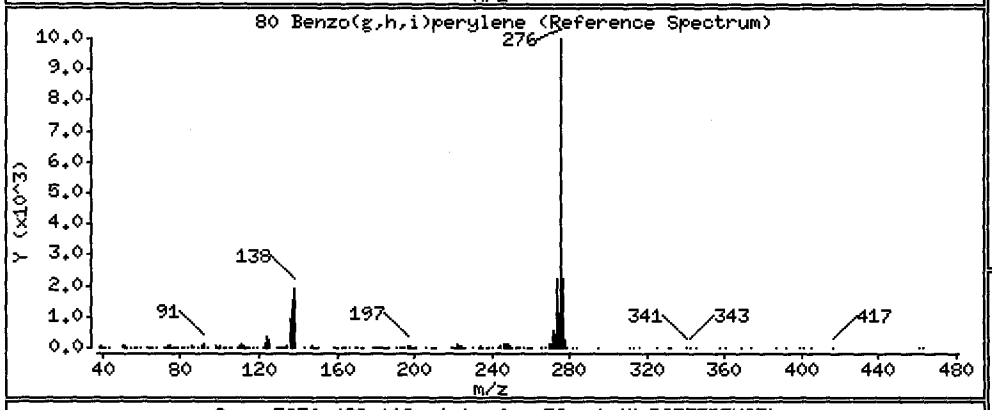
Column diameter: 0.25

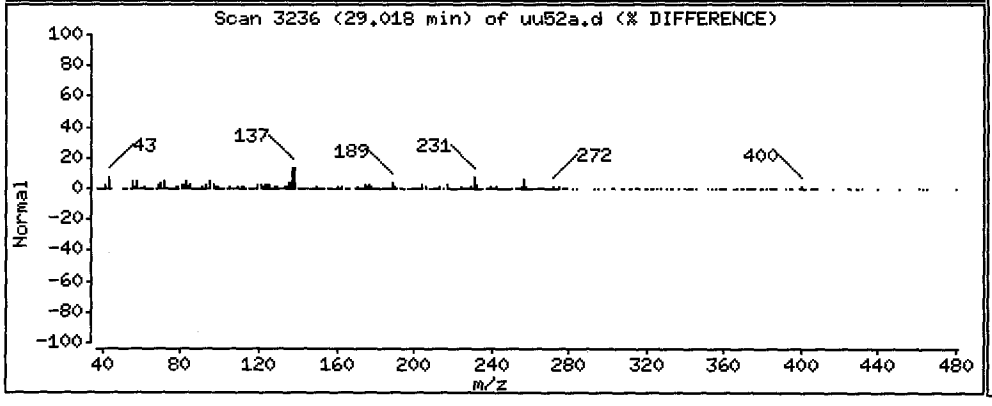
80 Benzo(g,h,i)perylene

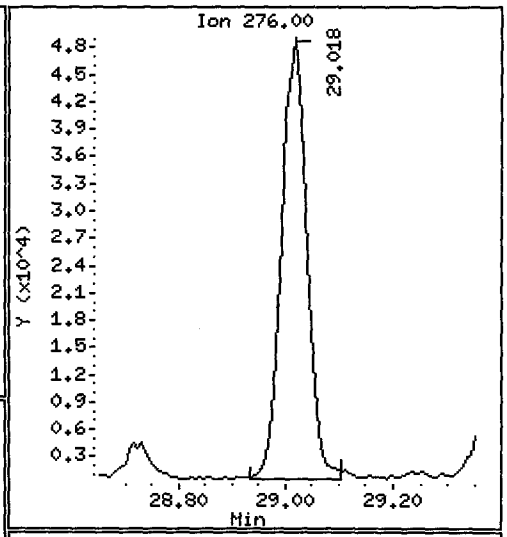
Concentration: 272.9 ug/kg

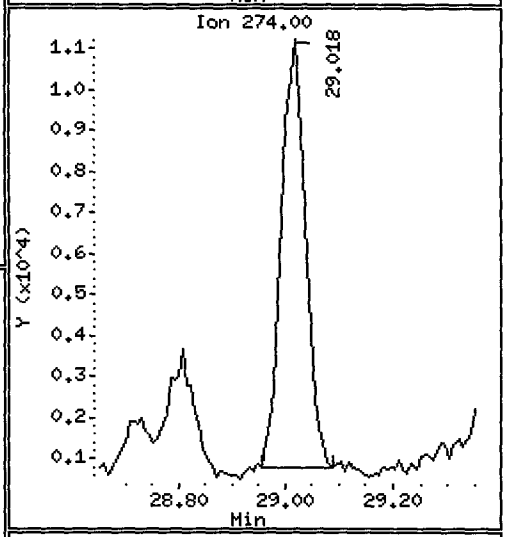


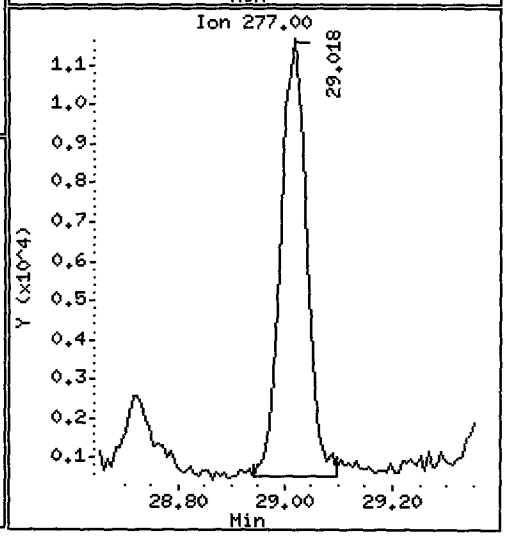



Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

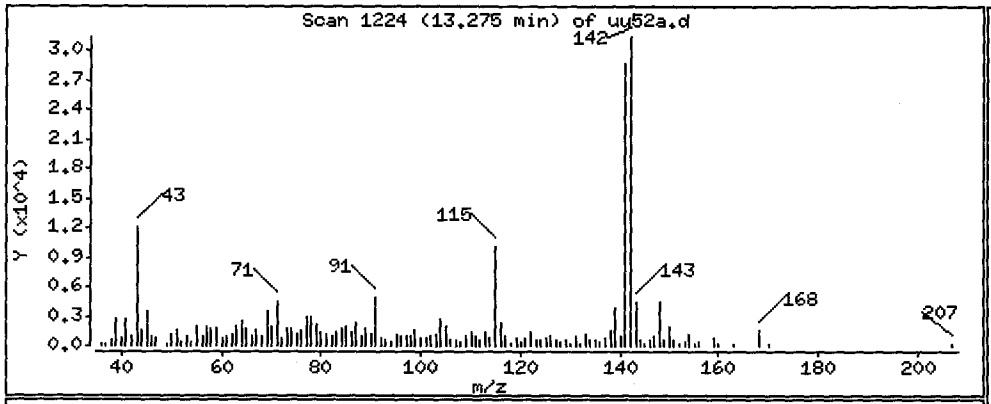
Operator: VTS/YZ

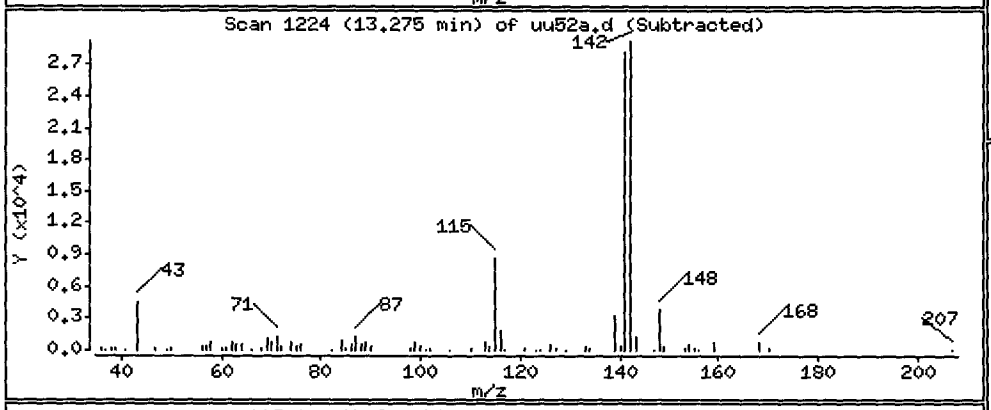
Column phase: ZB-5msi

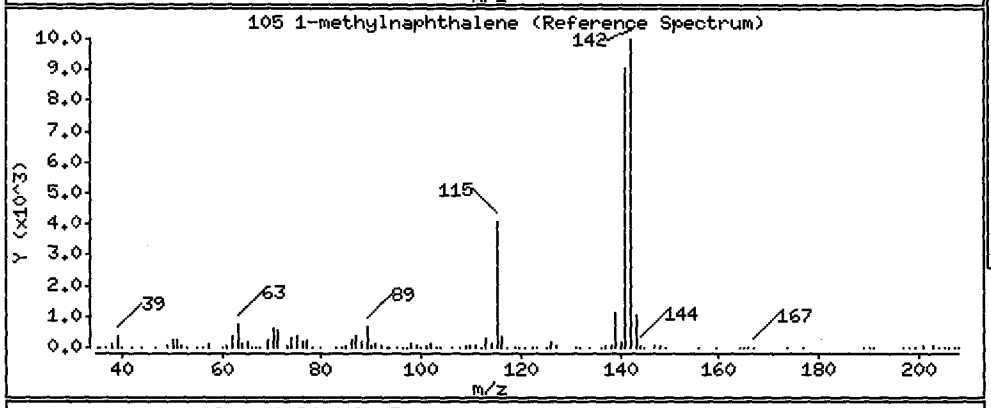
Column diameter: 0.25

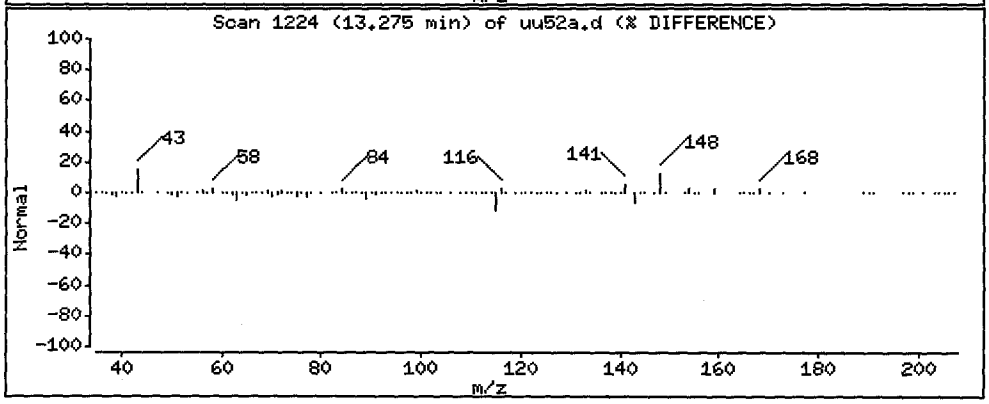
105 1-methylnaphthalene

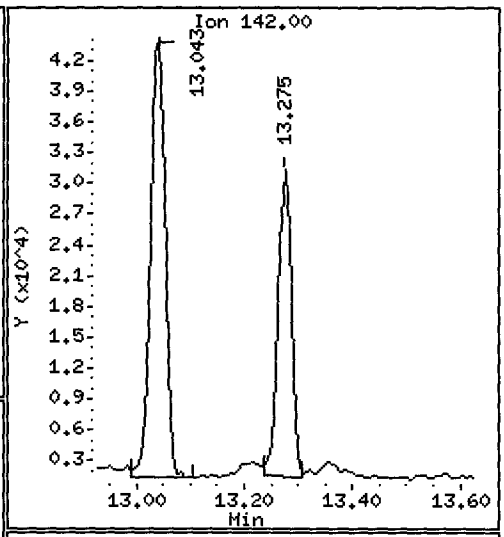
Concentration: 105.9 ug/kg

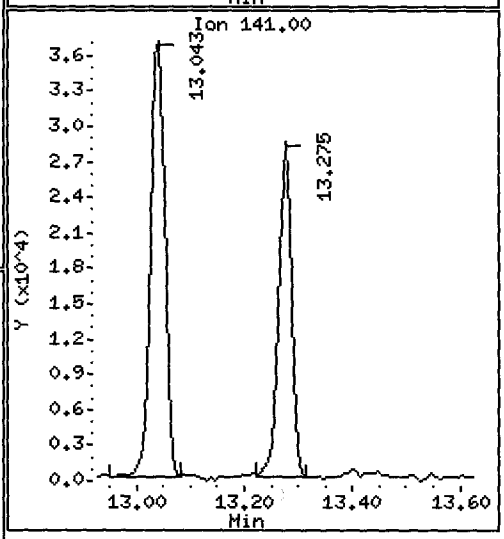


Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

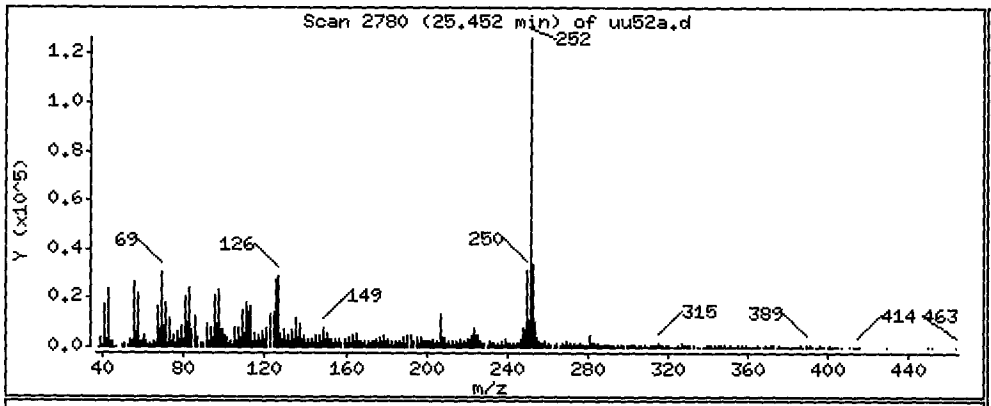
Operator: VTS/YZ

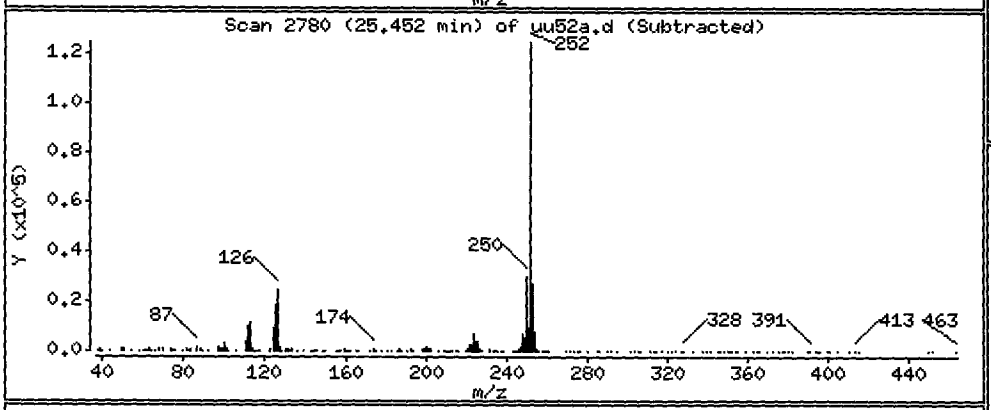
Column phase: ZB-5msi

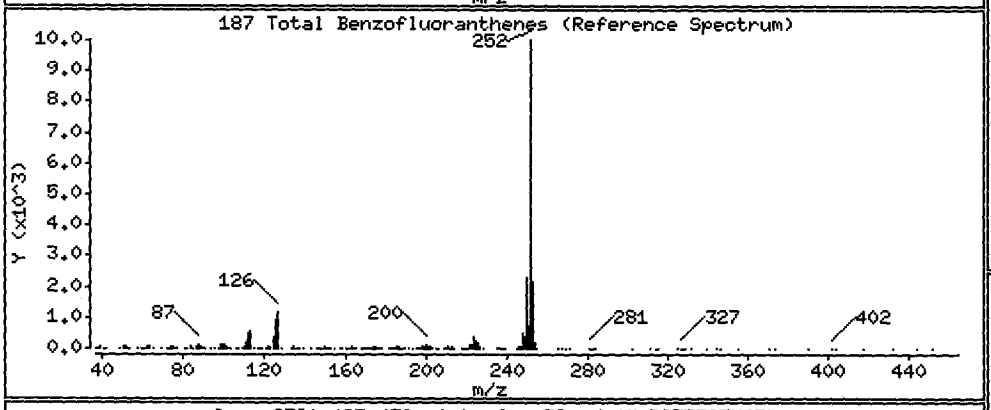
Column diameter: 0.25

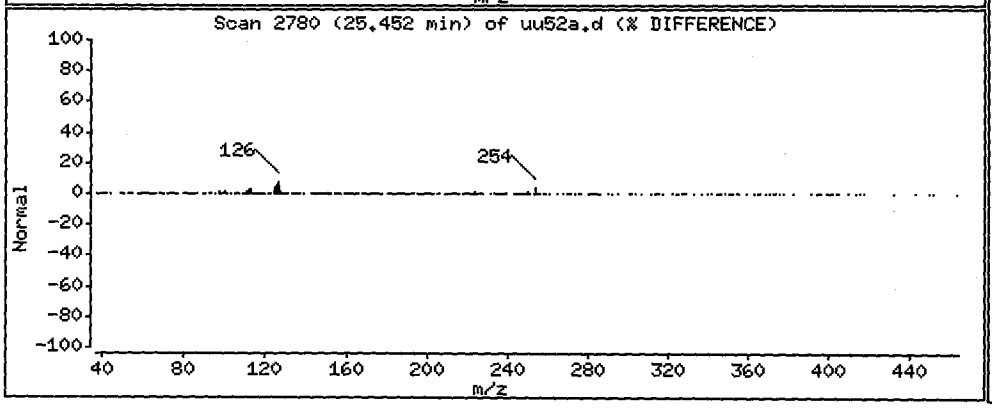
187 Total Benzofluoranthenes

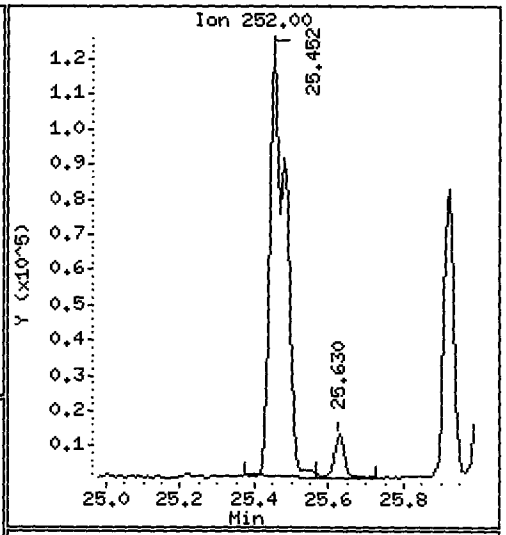
Concentration: 570.6 ug/kg

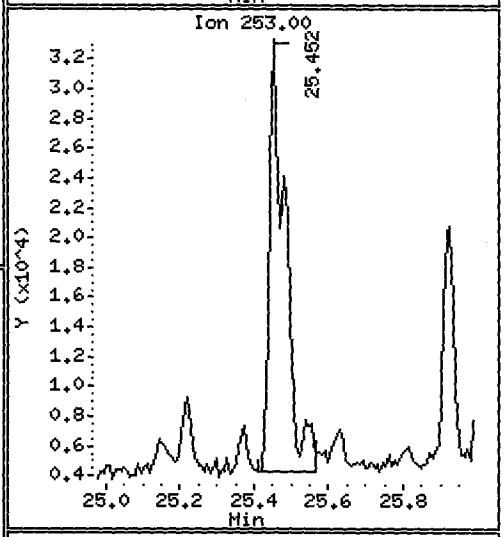


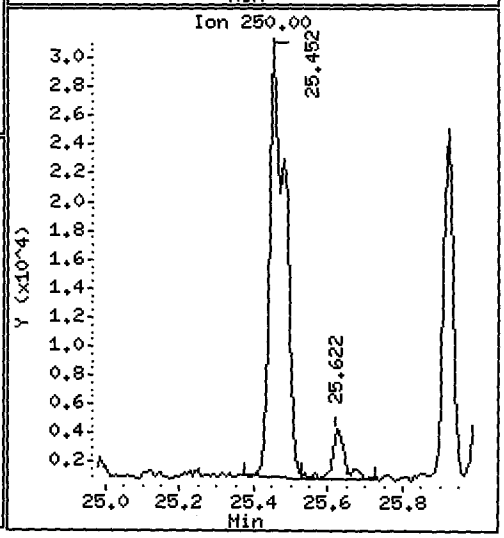



Data File: /chem1/nt10.i/20120526.b/uu52a.d

Date : 26-MAY-2012 17:11

Client ID: MS001-SS-120515

Instrument: nt10.i

Sample Info: UU52A,3

Volume Injected (uL): 1.0

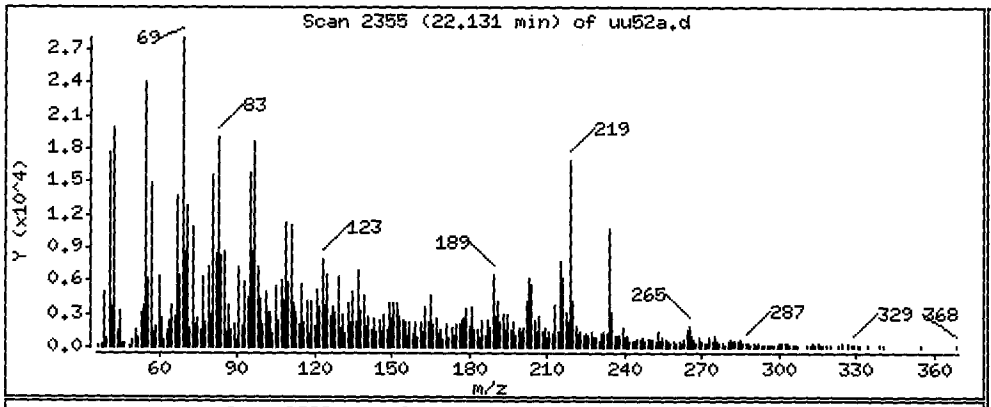
Operator: VTS/YZ

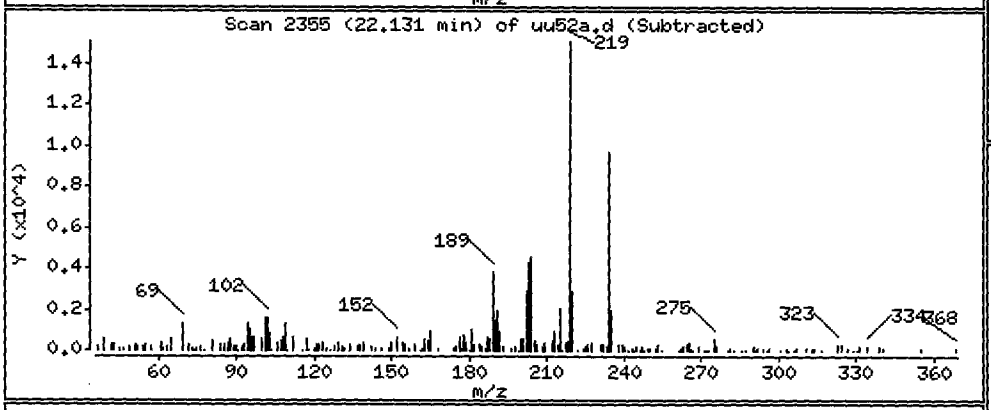
Column phase: ZB-5msi

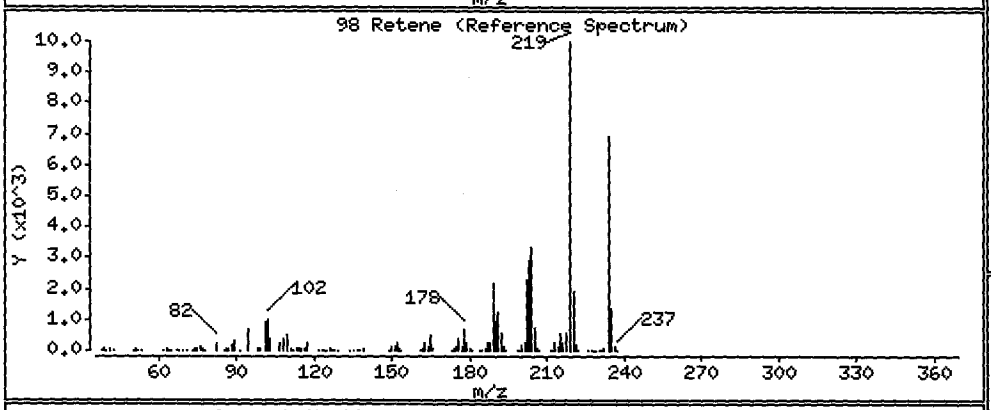
Column diameter: 0.25

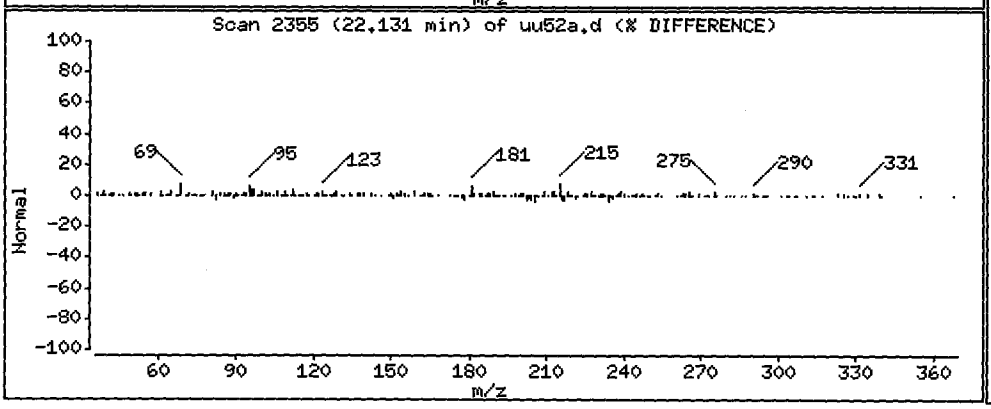
98 Retene

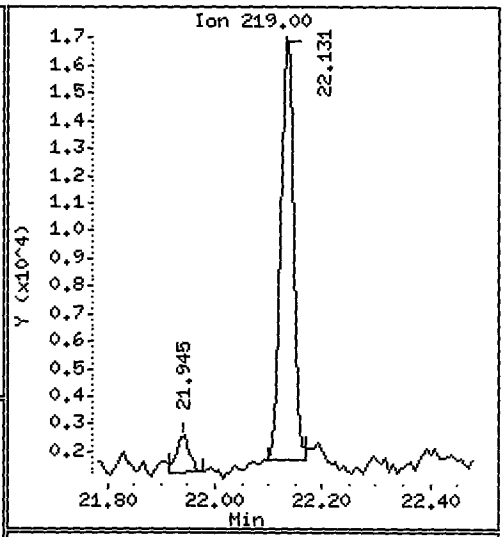
Concentration: 75.74 ug/kg

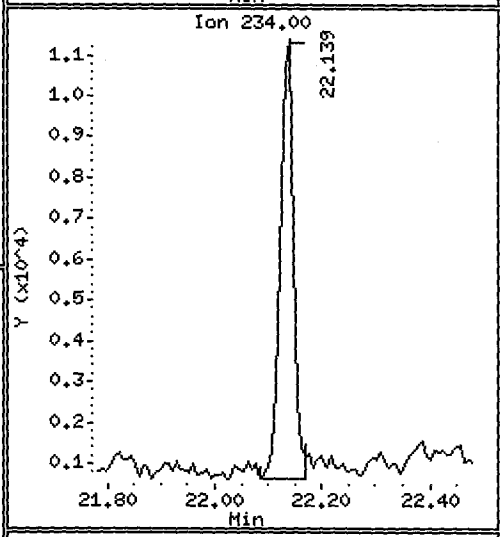


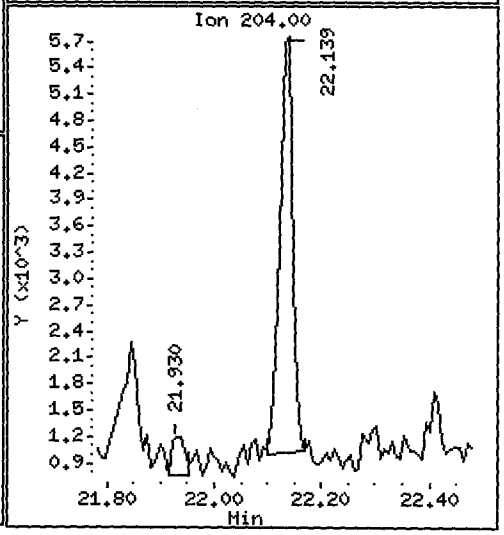



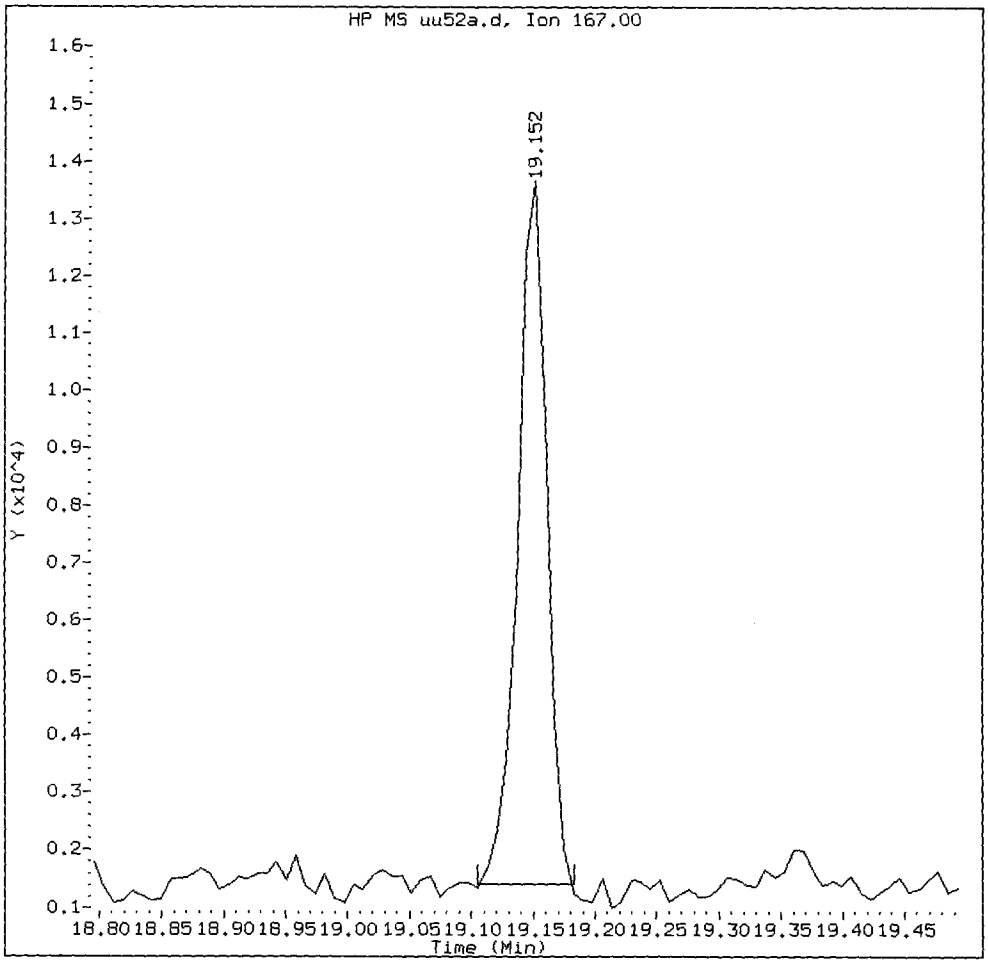



UU52A, /chem1/nt10.i/20120526.b/uu52a.d

Carbazole Amount: 0.14 Area: 20102




MANUAL INTEGRATION for Carbazole

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YB Date: 6/5/12

CO-ELUTION SUMMARY FOR FILE - uu52a.d

Lab ID: UU52A, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/uu52b.d
Lab Smp Id: UU52B Client Smp ID: MS101-SS-120515
Inj Date : 26-MAY-2012 17:48
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52B,3
Misc Info : 12-8894
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 04-Jun-2012 10:50 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 4
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 3.00000 | Dilution Factor |
| Vt | 1000.00000 | Volume of final extract (uL) |
| Ws | 103.00000 | Weight of sample extracted (g) |
| M | 90.20000 | % Moisture |

Cpnd Variable Local Compound Variable

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| $ | 1 2-Fluorophenol | 112 | 6.560 | 6.537 | (0.741) | 104496 | 1.56183 | 464.2 |
| $ | 2 Phenol-d5 | 99 | 8.244 | 8.237 | (0.931) | 136257 | 1.63489 | 485.9 |
| | 3 Phenol | 94 | 8.268 | 8.260 | (0.934) | 120073 | 1.35163 | 401.7 |
| $ | 5 2-Chlorophenol-d4 | 132 | 8.484 | 8.476 | (0.958) | 117430 | 1.60823 | 478.0 |
| | 4 Bis(2-Chloroethyl)ether | 93 | Compound Not Detected. | | | | | |
| | 6 2-Chlorophenol | 128 | Compound Not Detected. | | | | | |
| | 7 1,3-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| * | 8 1,4-Dichlorobenzene-d4 | 152 | 8.855 | 8.855 | (1.000) | 191331 | 4.00000 | |
| | 9 1,4-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| $ | 10 1,2-Dichlorobenzene-d4 | 152 | 9.236 | 9.236 | (1.043) | 45483 | 0.94953 | 282.2 |
| | 12 1,2-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| | 11 Benzyl alcohol | 108 | 9.181 | 9.166 | (1.037) | 4604 | 0.12336 | 36.66 |
| | 14 2,2'-oxybis(1-Chloropropane) | 121 | Compound Not Detected. | | | | | |
| | 13 2-Methylphenol | 108 | Compound Not Detected. | | | | | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| | 17 Hexachloroethane | 117 | Compound Not Detected. | | | | | |
| | 16 N-Nitroso-di-n-propylamine | 70 | Compound Not Detected. | | | | | |
| | 15 4-Methylphenol | 108 | 9.740 | 9.725 | (1.100) | 382447 | 5.23559 | 1556 |
| $ | 18 Nitrobenzene-d5 | 82 | 10.027 | 10.027 | (0.872) | 68438 | 0.98606 | 293.1 |
| | 19 Nitrobenzene | 77 | Compound Not Detected. | | | | | |
| | 20 Isophorone | 82 | Compound Not Detected. | | | | | |
| | 21 2-Nitrophenol | 139 | Compound Not Detected. | | | | | |
| | 22 2,4-Dimethylphenol | 107 | 10.856 | 10.833 | (0.944) | 8101 | 0.11872 | 35.28 |
| | 23 Bis(2-Chloroethoxy)methane | 93 | Compound Not Detected. | | | | | |
| | 24 Benzoic acid | 105 | 11.026 | 11.087 | (0.958) | 96121 | 2.15197 | 639.6 |
| | 25 2,4-Dichlorophenol | 162 | Compound Not Detected. | | | | | |
| | 26 1,2,4-Trichlorobenzene | 180 | Compound Not Detected. | | | | | |
| * | 27 Naphthalene-d8 | 136 | 11.504 | 11.504 | (1.000) | 774622 | 4.00000 | |
| | 28 Naphthalene | 128 | 11.542 | 11.542 | (1.003) | 1214937 | 6.22144 | 1849 |
| | 29 4-Chloroaniline | 127 | Compound Not Detected. | | | | | |
| | 30 Hexachlorobutadiene | 225 | Compound Not Detected. | | | | | |
| | 31 4-Chloro-3-methylphenol | 107 | Compound Not Detected. | | | | | |
| | 32 2-Methylnaphthalene | 142 | 13.043 | 13.043 | (1.134) | 125267 | 0.92272 | 274.2 |
| | 33 Hexachlorocyclopentadiene | 237 | Compound Not Detected. | | | | | |
| | 34 2,4,6-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| | 35 2,4,5-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| $ | 36 2-Fluorobiphenyl | 172 | 13.902 | 13.902 | (0.904) | 163778 | 1.09375 | 325.1 |
| | 37 2-Chloronaphthalene | 162 | Compound Not Detected. | | | | | |
| | 38 2-Nitroaniline | 65 | Compound Not Detected. | | | | | |
| | 39 Dimethylphthalate | 163 | Compound Not Detected. | | | | | |
| | 40 Acenaphthylene | 152 | 15.032 | 15.032 | (0.977) | 84179 | 0.43391 | 129.0 |
| | 41 2,6-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| * | 42 Acenaphthene-d10 | 164 | 15.380 | 15.373 | (1.000) | 431955 | 4.00000 | |
| | 43 3-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 44 Acenaphthene | 153 | 15.442 | 15.442 | (1.004) | 60440 | 0.51652 | 153.5 |
| | 45 2,4-Dinitrophenol | 184 | Compound Not Detected. | | | | | |
| | 46 Dibenzofuran | 168 | 15.798 | 15.798 | (1.027) | 161833 | 0.94401 | 280.6 |
| | 47 4-Nitrophenol | 109 | Compound Not Detected. | | | | | |
| | 48 2,4-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| | 50 Diethylphthalate | 149 | Compound Not Detected. | | | | | |
| | 49 Fluorene | 166 | 16.563 | 16.563 | (1.077) | 76692 | 0.58385 | 173.5 |
| | 51 4-Chlorophenyl-phenylether | 204 | Compound Not Detected. | | | | | |
| | 52 4-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 53 4,6-Dinitro-2-methylphenol | 198 | Compound Not Detected. | | | | | |
| | 54 N-Nitrosodiphenylamine | 169 | Compound Not Detected. | | | | | |
| $ | 55 2,4,6-Tribromophenol | 330 | 17.149 | 17.142 | (1.115) | 31403 | 1.76134 | 523.5 |
| | 56 4-Bromophenyl-phenylether | 248 | Compound Not Detected. | | | | | |
| | 57 Hexachlorobenzene | 284 | Compound Not Detected. | | | | | |
| | 58 Pentachlorophenol | 266 | 18.386 | 18.378 | (0.986) | 10089 | 0.53004 | 157.5 |
| * | 59 Phenanthrene-d10 | 188 | 18.641 | 18.633 | (1.000) | 601035 | 4.00000 | |
| | 60 Phenanthrene | 178 | 18.695 | 18.687 | (1.003) | 609174 | 3.93057 | 1168 |
| | 61 Anthracene | 178 | 18.788 | 18.780 | (1.008) | 96618 | 0.59677 | 177.4 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| 62 | Carbazole | 167 | 19.152 | 19.144 | (1.027) | 28849 | 0.19258 | 57.24(M) |
| 63 | Di-n-butylphthalate | 149 | Compound Not Detected. | | | | | |
| 64 | Fluoranthene | 202 | 21.132 | 21.101 | (1.134) | 575551 | 3.27075 | 972.1 |
| 65 | Pyrene | 202 | 21.535 | 21.519 | (0.908) | 621489 | 3.05625 | 908.3 |
| $ 66 | Terphenyl-d14 | 244 | 21.852 | 21.844 | (0.921) | 146138 | 1.14720 | 341.0 |
| 67 | Butylbenzylphthalate | 149 | Compound Not Detected. | | | | | |
| 68 | Benzo(a)anthracene | 228 | 23.687 | 23.679 | (0.999) | 109471 | 0.58231 | 173.1 |
| * 69 | Chrysene-d12 | 240 | 23.718 | 23.710 | (1.000) | 668327 | 4.00000 | |
| 70 | 3,3'-Dichlorobenzidine | 252 | Compound Not Detected. | | | | | |
| 71 | Chrysene | 228 | 23.757 | 23.749 | (1.002) | 220845 | 1.33539 | 396.9 |
| 72 | bis(2-Ethylhexyl)phthalate | 149 | 23.826 | 23.818 | (0.961) | 61873 | 0.41508 | 123.4 |
| * 134 | Di-n-octylphthalate-d4 | 153 | 24.802 | 24.794 | (1.000) | 1085453 | 4.00000 | |
| 73 | Di-n-octylphthalate | 149 | Compound Not Detected. | | | | | |
| 74 | Benzo(b)fluoranthene | 252 | Compound Not Detected. | | | | | |
| 75 | Benzo(k)fluoranthene | 252 | Compound Not Detected. | | | | | |
| 76 | Benzo(a)pyrene | 252 | 26.017 | 26.002 | (0.996) | 157613 | 0.91381 | 271.6 |
| * 77 | Perylene-d12 | 264 | 26.118 | 26.102 | (1.000) | 667061 | 4.00000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | 28.365 | 28.342 | (1.086) | 151843 | 0.76107 | 226.2 |
| 79 | Dibenzo(a,h)anthracene | 278 | 28.373 | 28.365 | (1.086) | 28544 | 0.18162 | 53.98 |
| 80 | Benzo(g,h,i)perylene | 276 | 29.025 | 29.002 | (1.111) | 191714 | 1.12057 | 333.0 |
| 90 | N-Nitrosodimethylamine | 74 | Compound Not Detected. | | | | | |
| 91 | Aniline | 93 | Compound Not Detected. | | | | | |
| 93 | Benzidine | 184 | Compound Not Detected. | | | | | |
| 103 | Pyridine | 79 | Compound Not Detected. | | | | | |
| 105 | 1-methylnaphthalene | 142 | 13.283 | 13.275 | (1.155) | 78703 | 0.56845 | 168.9 |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | Compound Not Detected. | | | | | |
| 187 | Total Benzofluoranthenes | 252 | 25.460 | 25.483 | (0.975) | 393793 | 2.12756 | 632.3 |
| 99 | Perylene | 252 | Compound Not Detected. | | | | | |
| 98 | Retene | 219 | 22.138 | 22.131 | (0.933) | 32970 | 0.34818 | 103.5 |

## QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52b.d
Lab Smp Id: UU52B
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8894

Calibration Date: 26-MAY-2012
Calibration Time: 10:59
Client Smp ID: MS101-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 191331 | 0.96 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 774622 | 5.98 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 431955 | 2.68 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 601035 | -5.93 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 668327 | 3.61 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 1085453 | 6.82 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 667061 | 2.62 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.86 | 0.00 |
| 27 Naphthalene-d8 | 11.50 | 11.00 | 12.00 | 11.50 | 0.00 |
| 42 Acenaphthene-d10 | 15.37 | 14.87 | 15.87 | 15.38 | 0.05 |
| 59 Phenanthrene-d10 | 18.63 | 18.13 | 19.13 | 18.64 | 0.04 |
| 69 Chrysene-d12 | 23.71 | 23.21 | 24.21 | 23.72 | 0.03 |
| 134 Di-n-octylphthala | 24.79 | 24.29 | 25.29 | 24.80 | 0.03 |
| 77 Perylene-d12 | 26.10 | 25.60 | 26.60 | 26.12 | 0.06 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52B Client Smp ID: MS101-SS-120515
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8894

| SURROGATE COMPOUND | CONC ADDED ug/kg | CONC RECOVERED ug/kg | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 1 2-Fluorophenol | 743.0 | 464.2 | 62.47 | 30-160 |
| $ 2 Phenol-d5 | 743.0 | 485.9 | 65.40 | 30-160 |
| $ 5 2-Chlorophenol-d4 | 743.0 | 478.0 | 64.33 | 30-160 |
| $ 10 1,2-Dichlorobenzen | 495.3 | 282.2 | 56.97 | 30-160 |
| $ 18 Nitrobenzene-d5 | 495.3 | 293.1 | 59.16 | 30-160 |
| $ 36 2-Fluorobiphenyl | 495.3 | 325.1 | 65.62 | 30-160 |
| $ 55 2,4,6-Tribromophen | 743.0 | 523.5 | 70.45 | 30-160 |
| $ 66 Terphenyl-d14 | 495.3 | 341.0 | 68.83 | 30-160 |

Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Sample Info: UU52B,3

Volume Injected (uL): 1.0

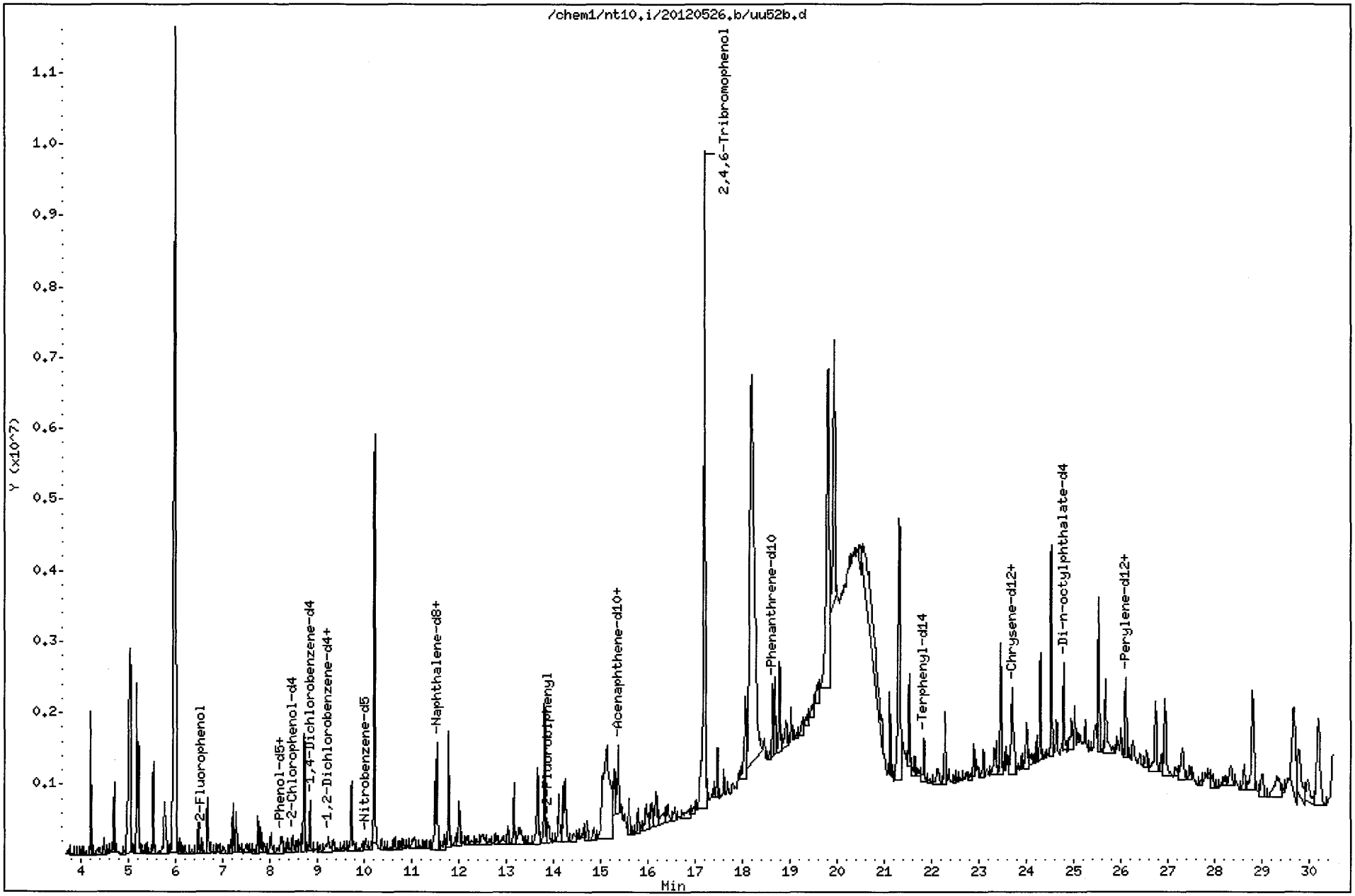
Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ

Column diameter: 0.25






UU52:00731

Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

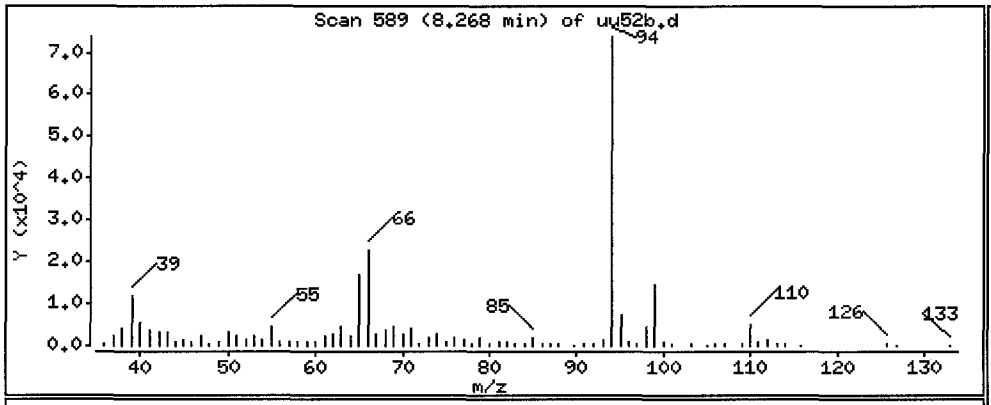
Operator: VTS/YZ

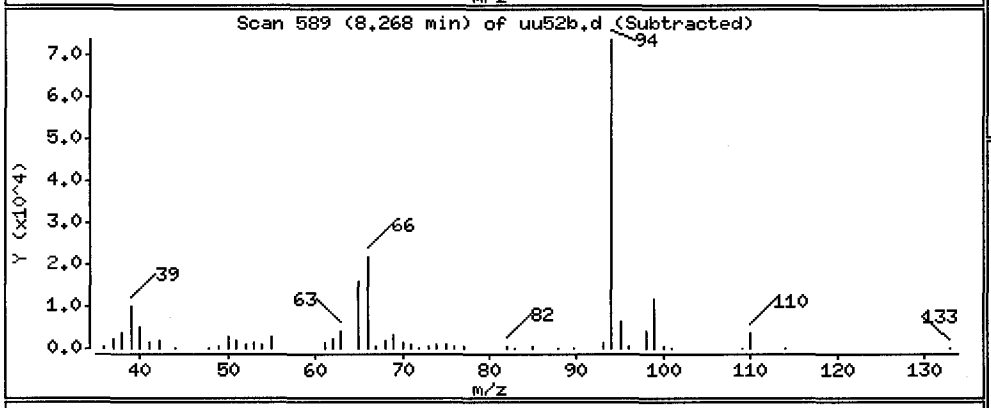
Column phase: ZB-5msi

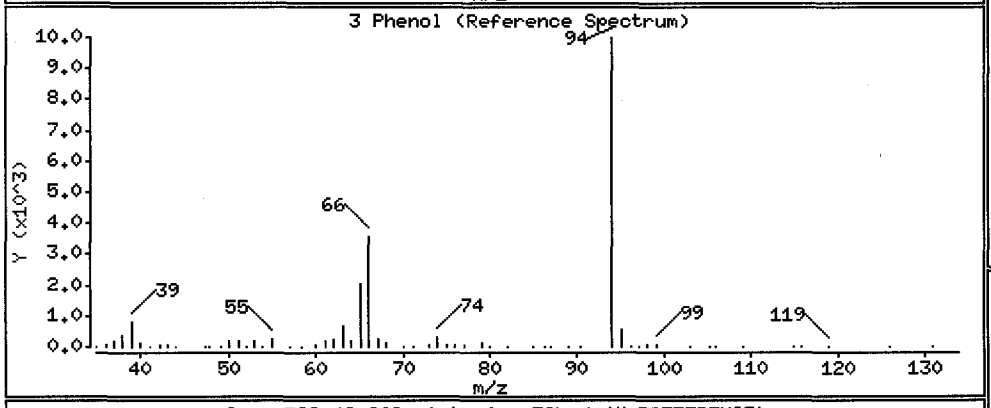
Column diameter: 0.25

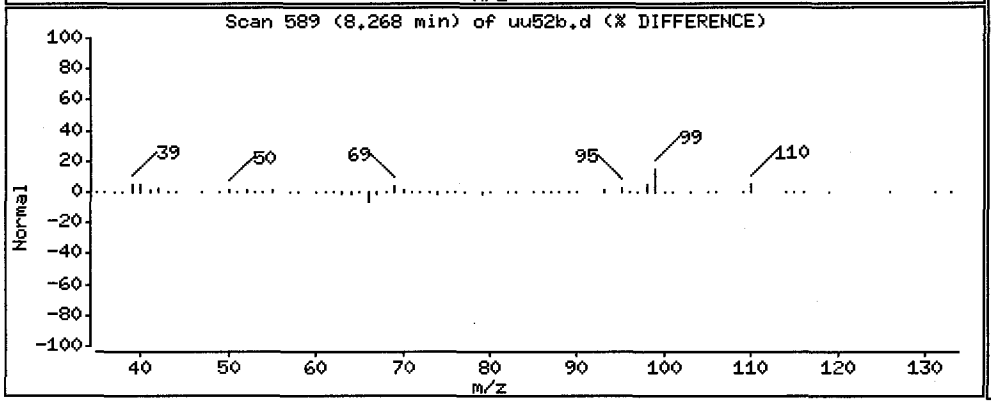
3 Phenol

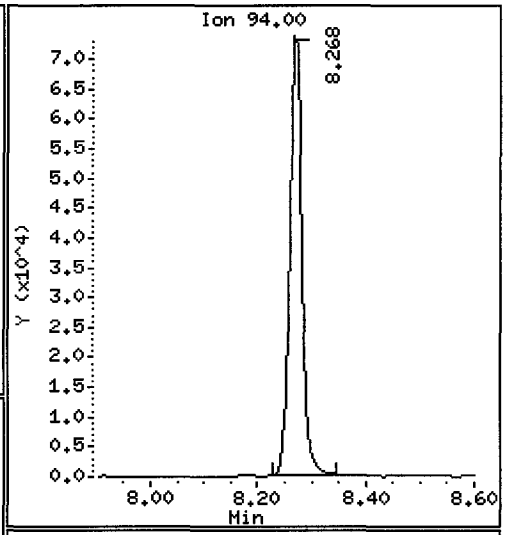
Concentration: 401.7 ug/kg

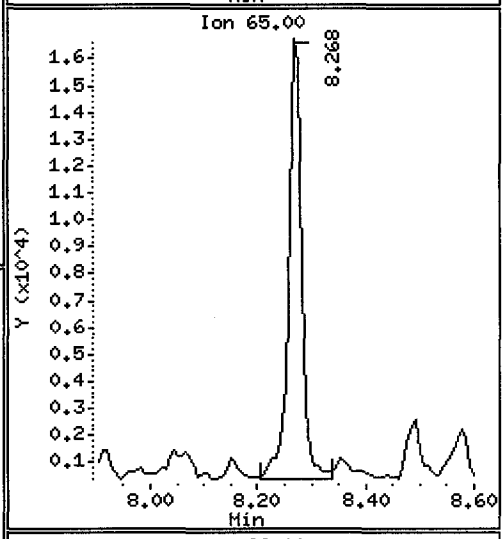


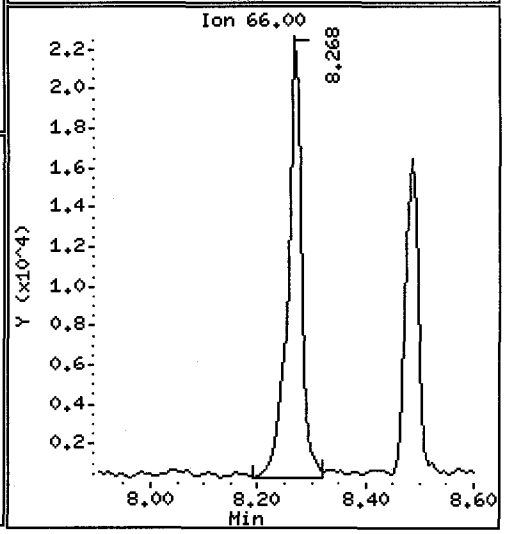



Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

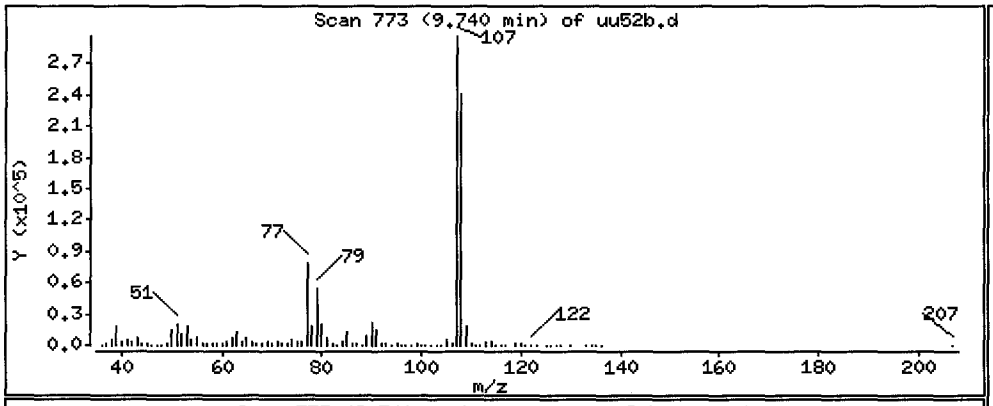
Client ID: MS101-SS-120515 Instrument: nt10.i

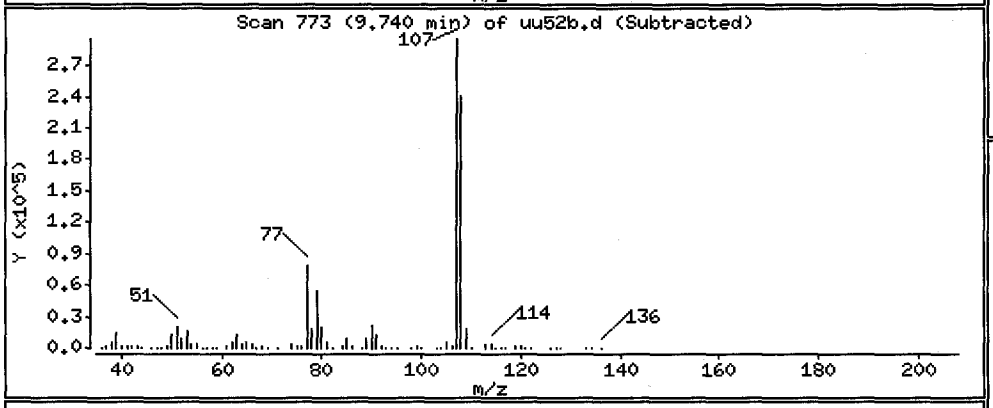
Sample Info: UU52B,3

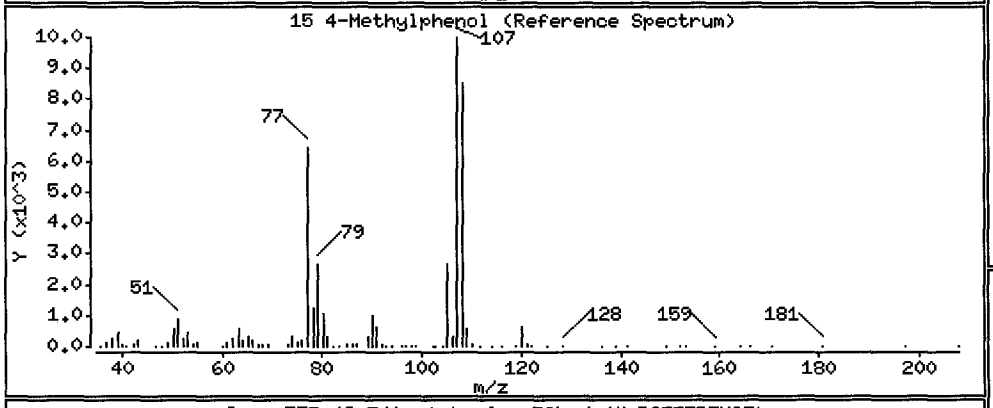
Volume Injected (uL): 1.0 Operator: VTS/YZ

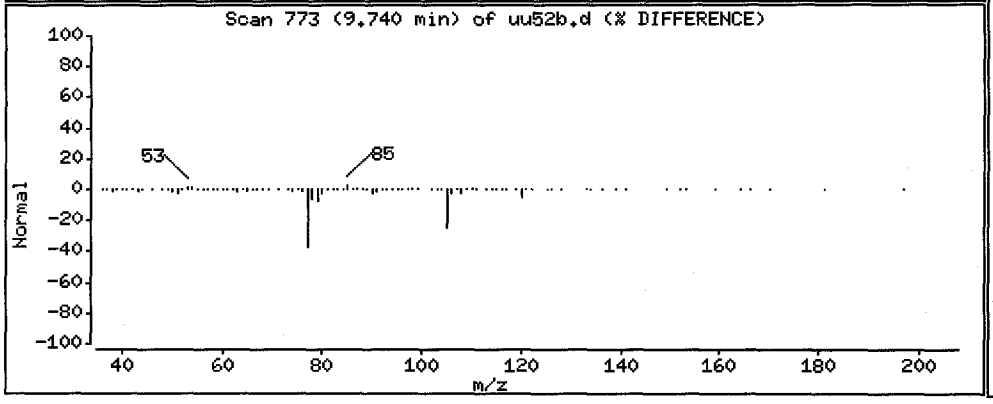
Column phase: ZB-5msi Column diameter: 0.25

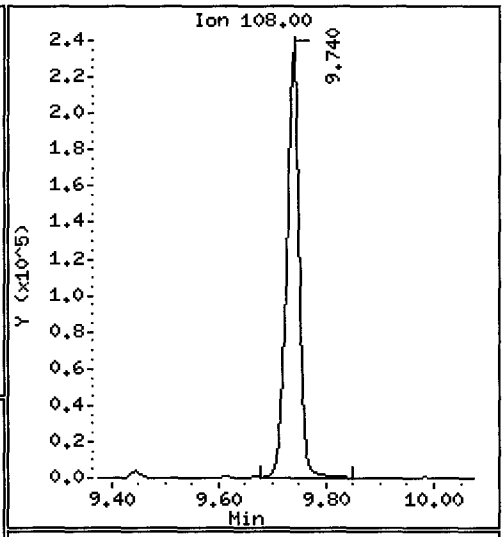
15 4-Methylphenol Concentration: 1556 ug/kg

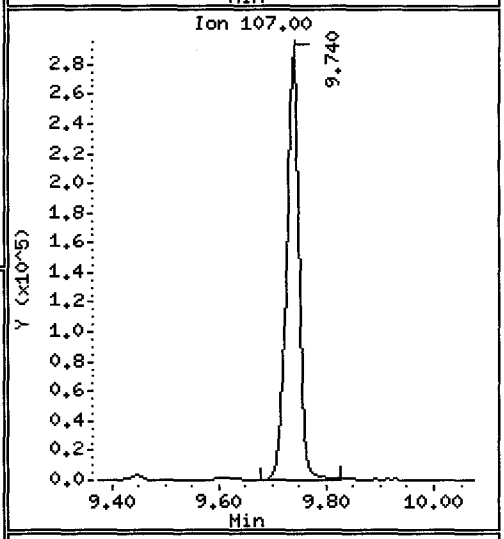


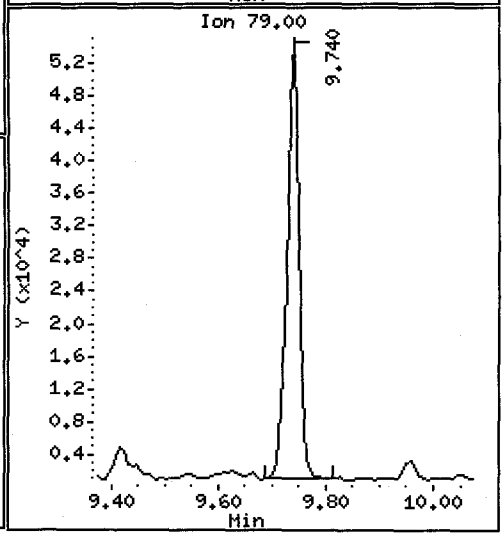



Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

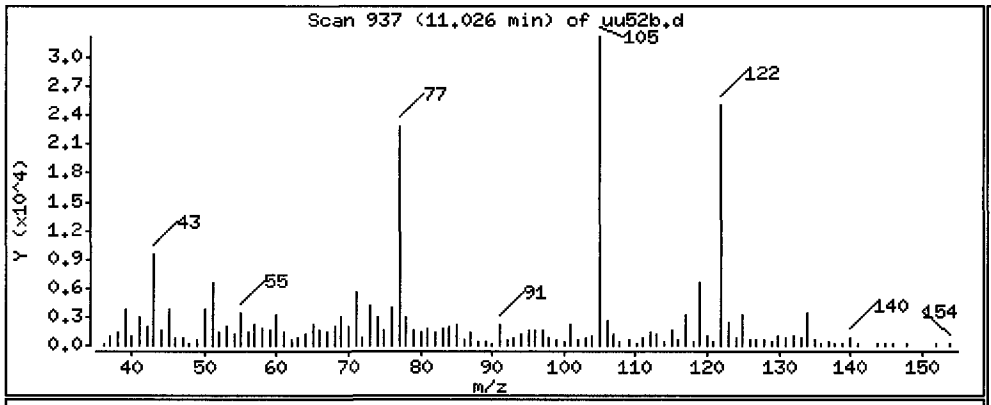
Operator: VTS/YZ

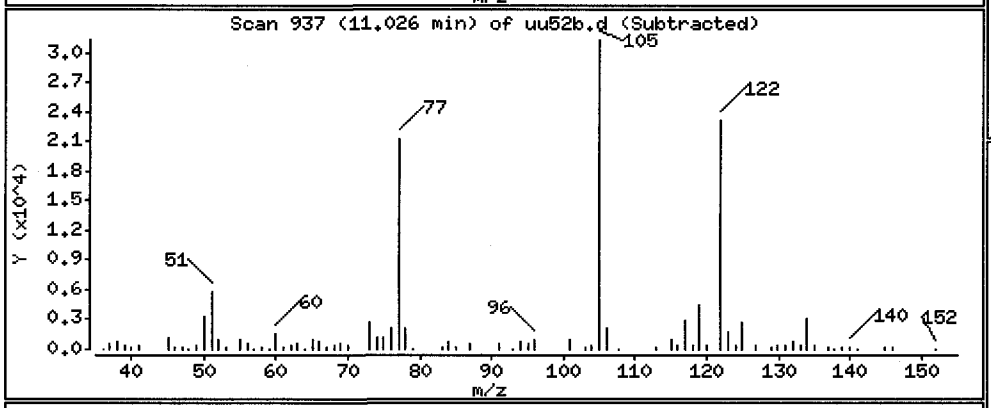
Column phase: ZB-5msi

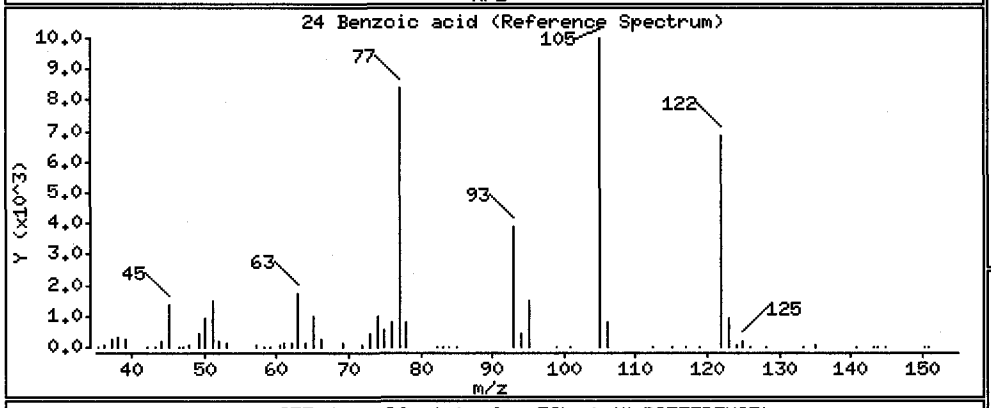
Column diameter: 0.25

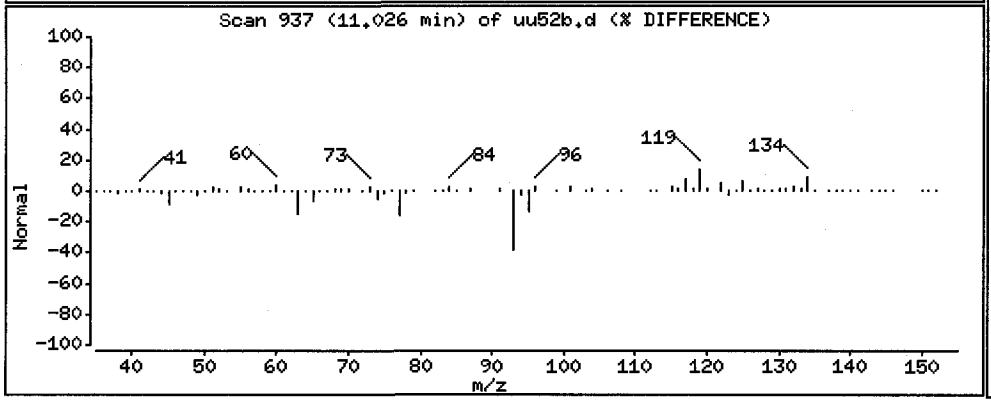
24 Benzoic acid

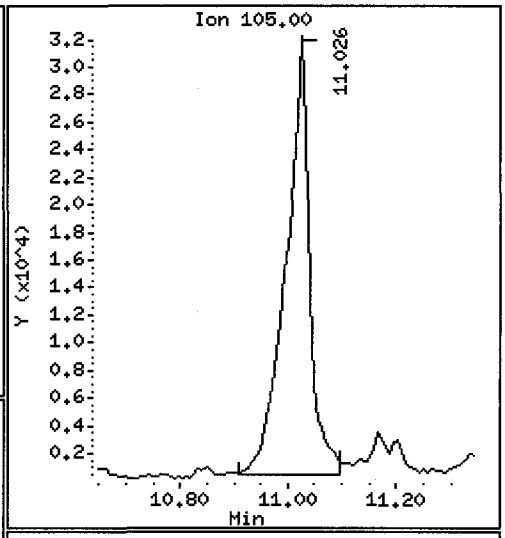
Concentration: 639.6 ug/kg

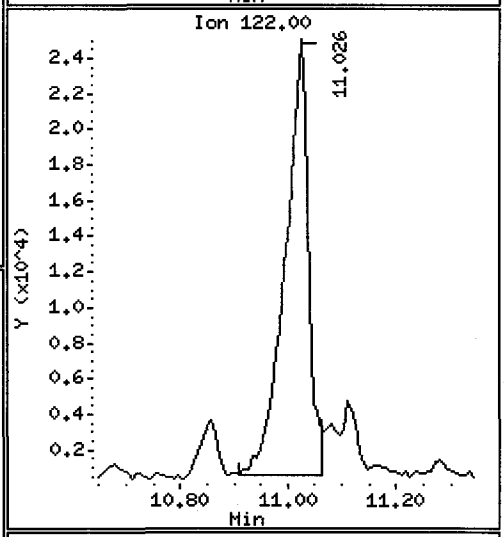


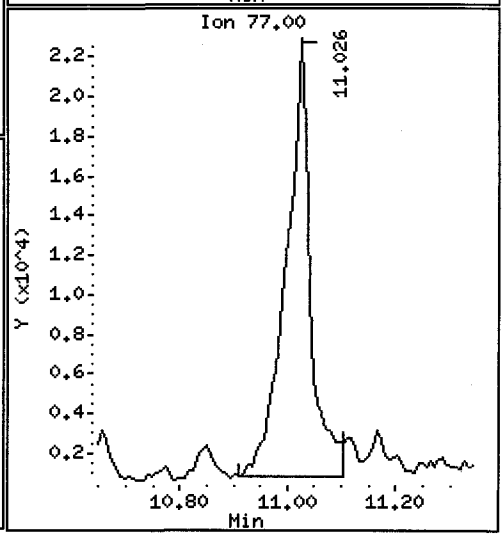



Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

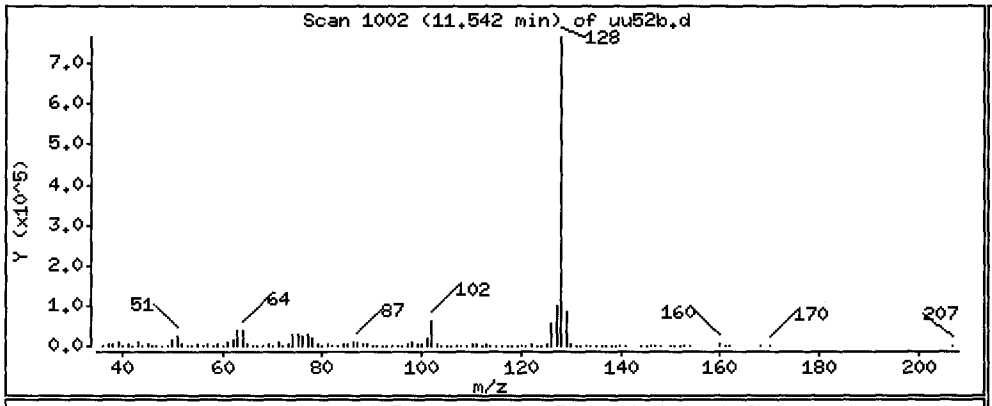
Operator: VTS/YZ

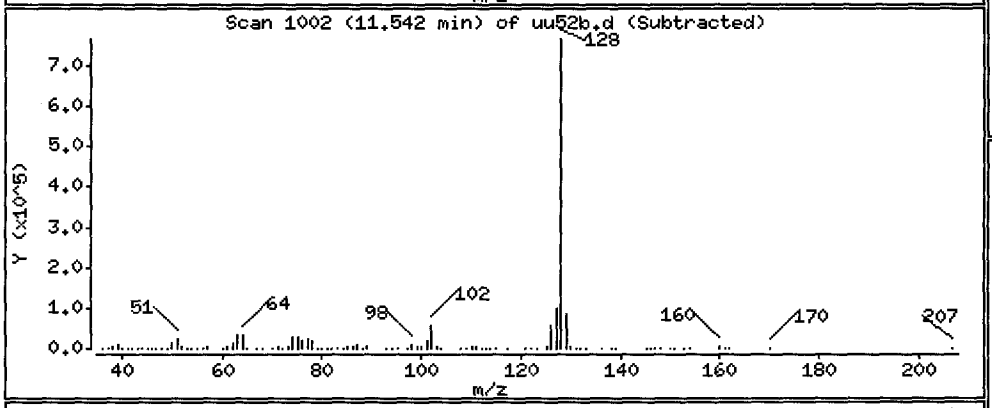
Column phase: ZB-5msi

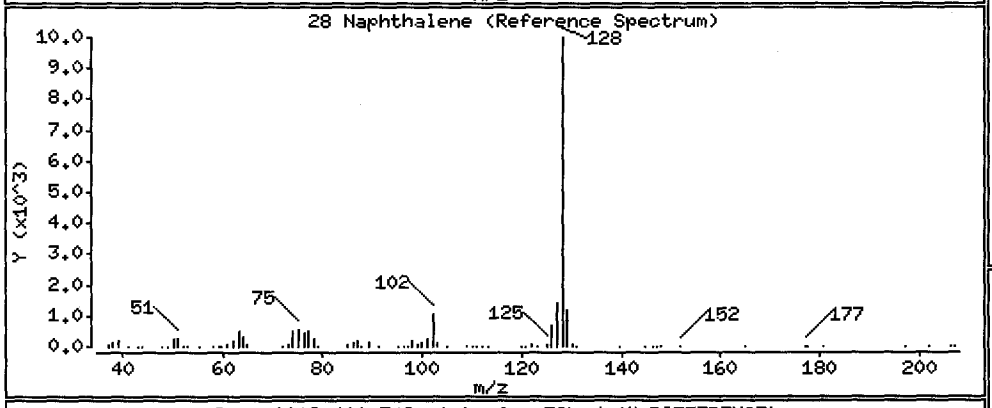
Column diameter: 0.25

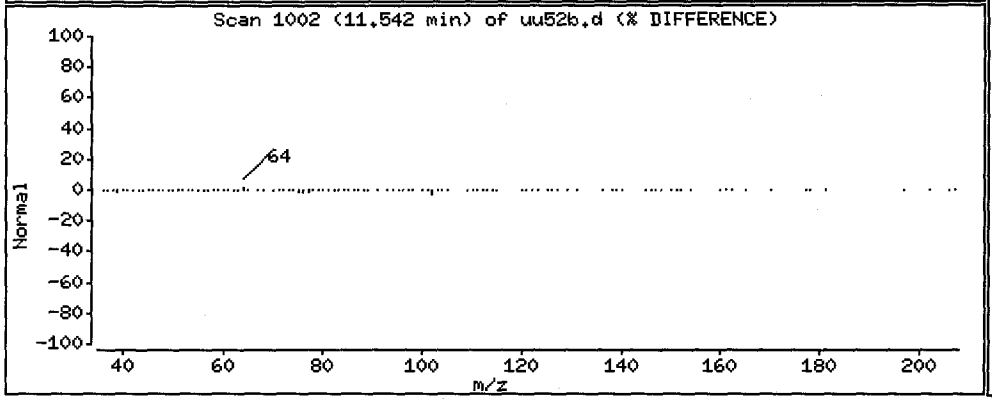
28 Naphthalene

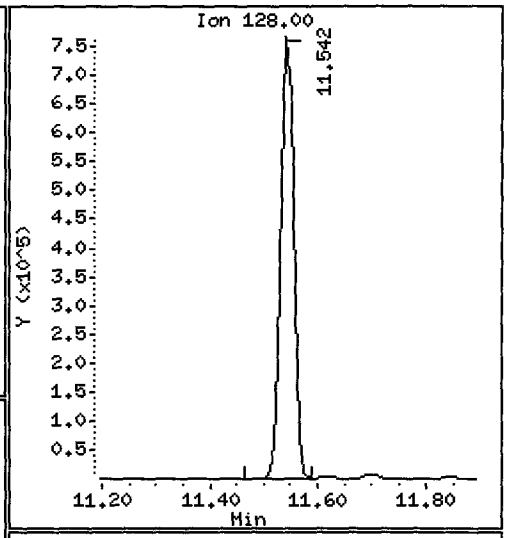
Concentration: 1849 ug/kg

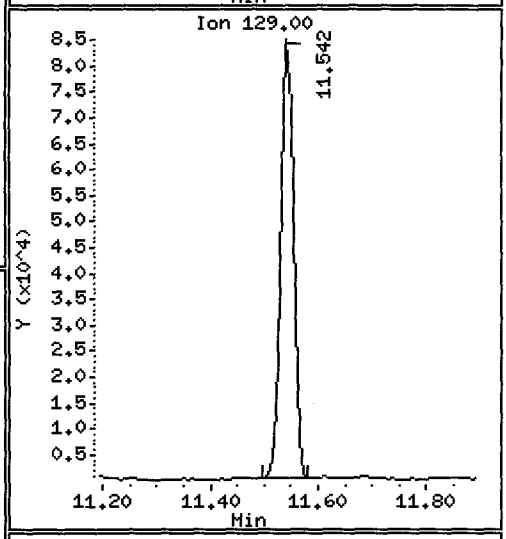


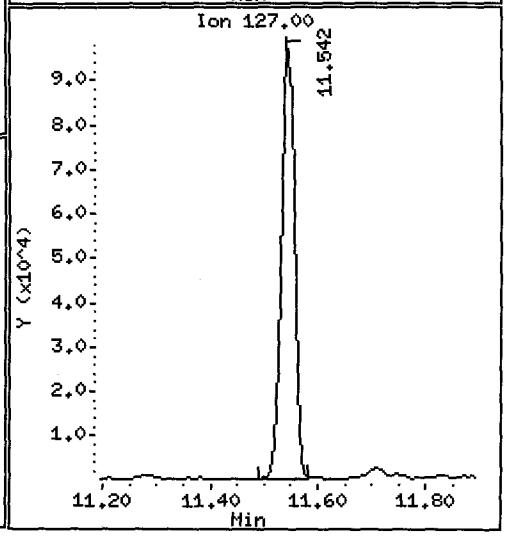



Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

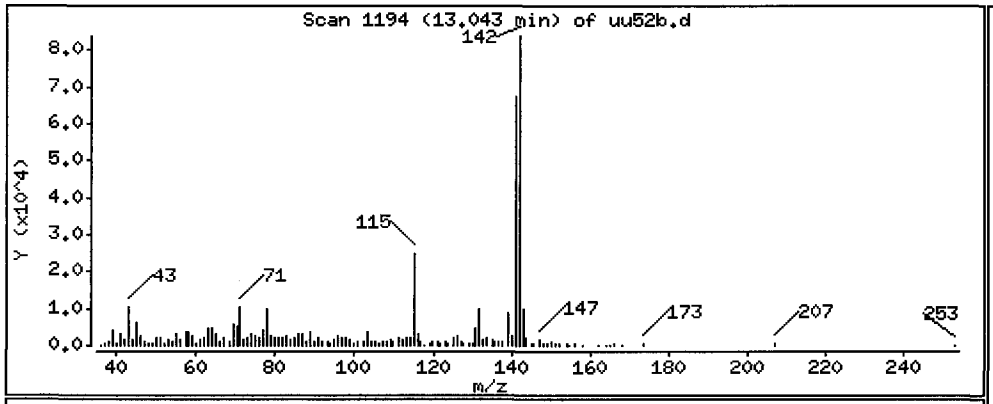
Client ID: MS101-SS-120515 Instrument: nt10.i

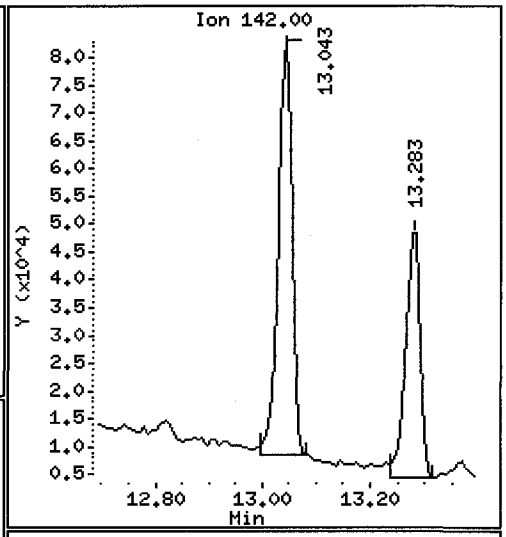
Sample Info: UU52B,3

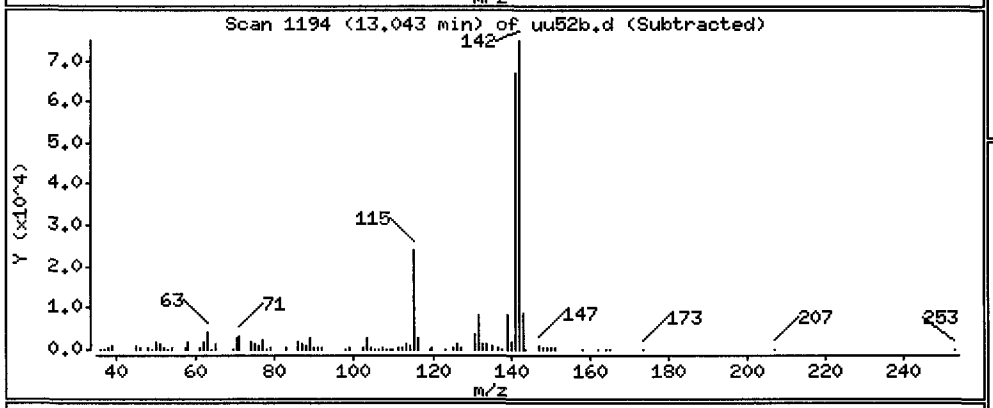
Volume Injected (uL): 1.0 Operator: VTS/YZ

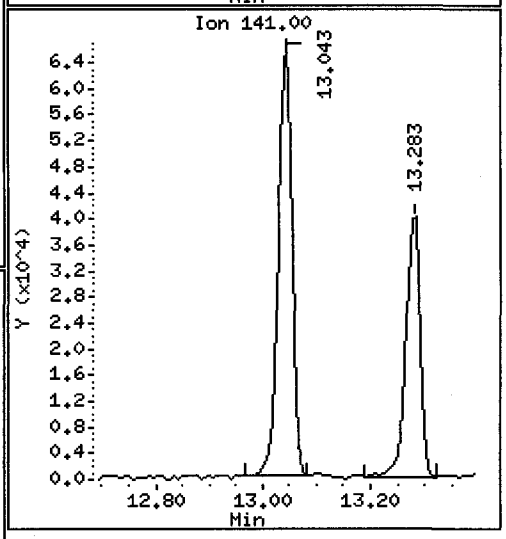
Column phase: ZB-5msi Column diameter: 0.25

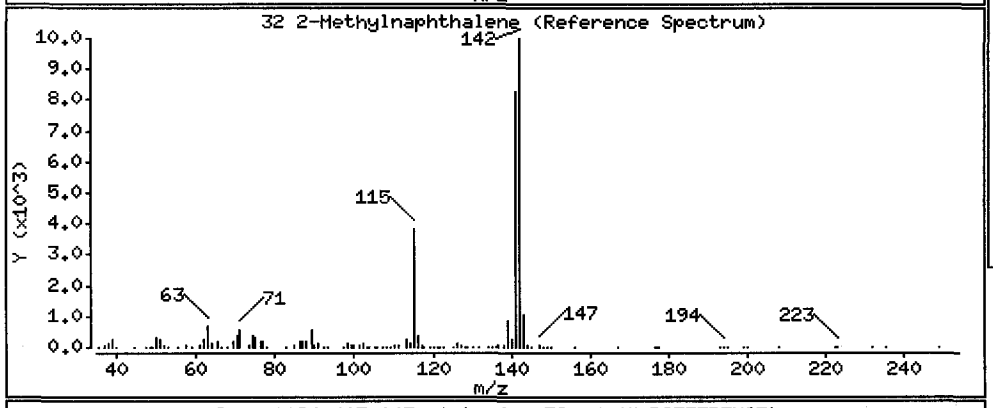
32 2-Methylnaphthalene Concentration: 274.2 ug/kg

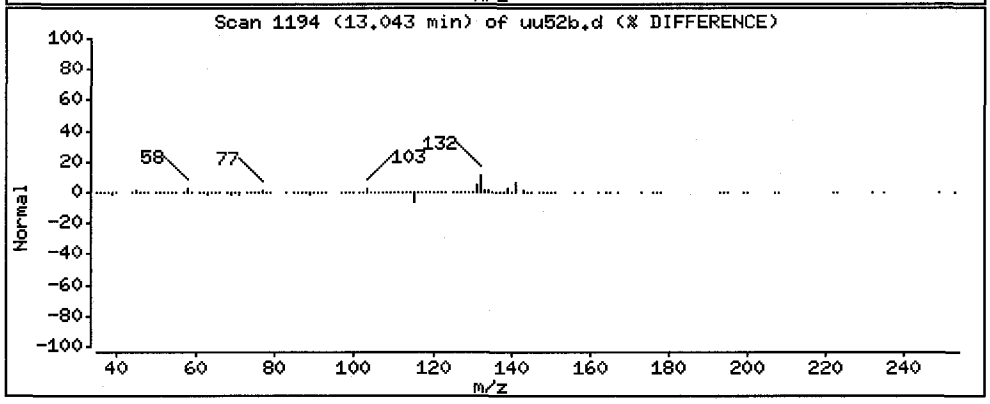


Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

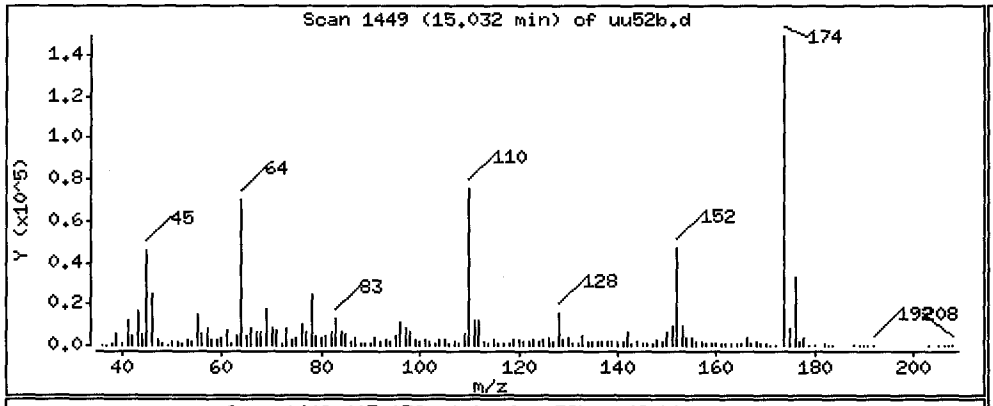
Operator: VTS/YZ

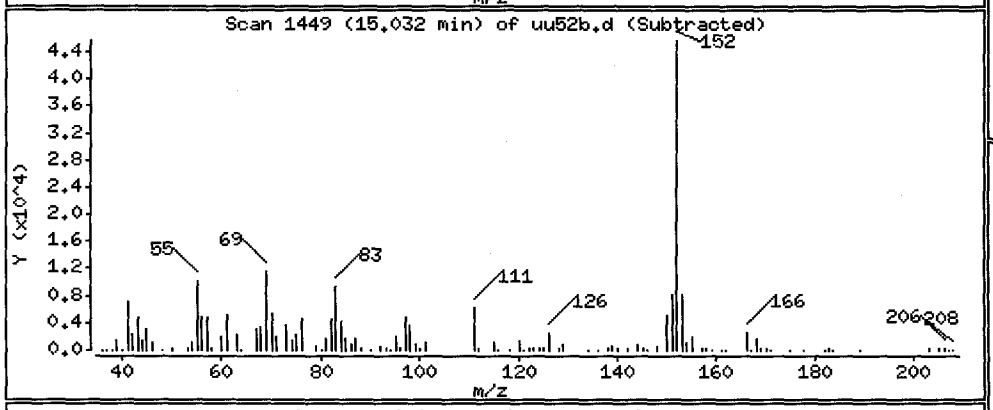
Column phase: ZB-5msi

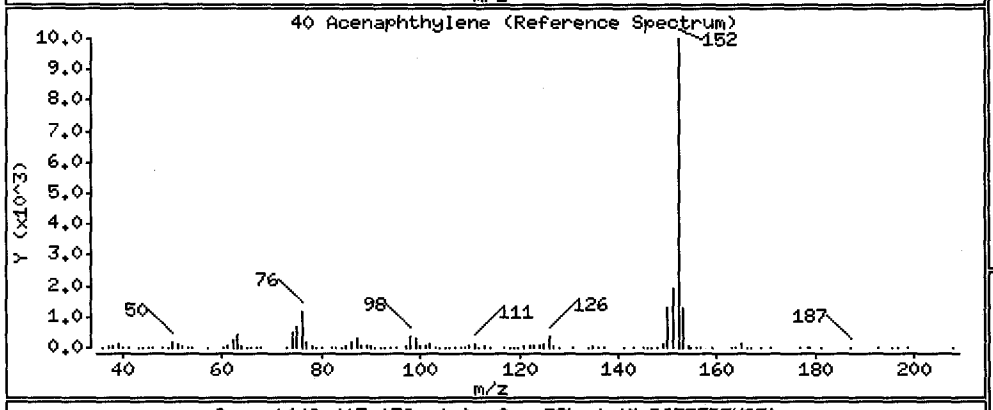
Column diameter: 0.25

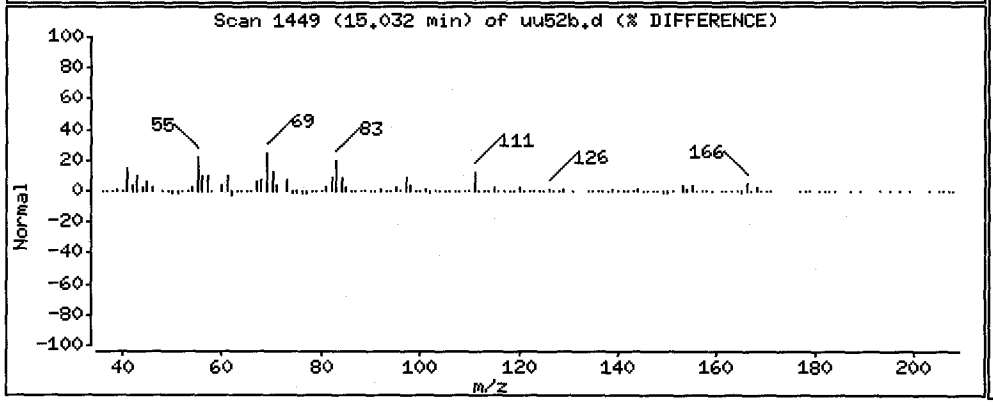
40 Acenaphthylene

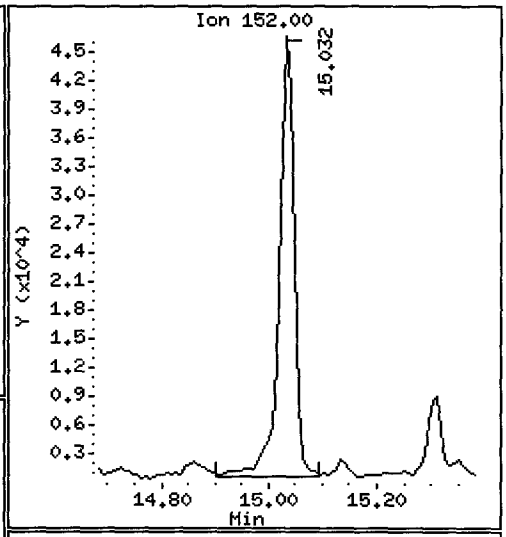
Concentration: 129.0 ug/kg

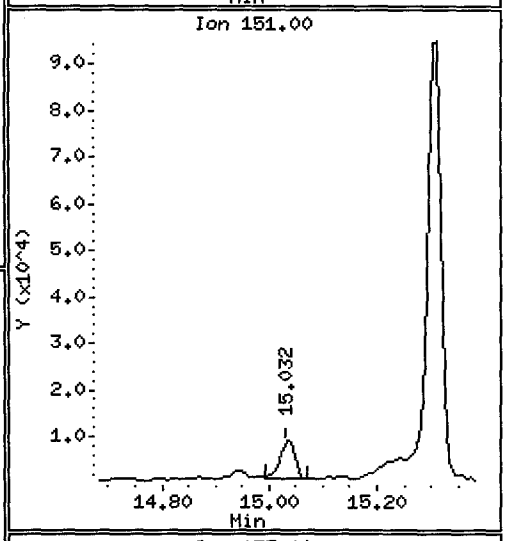


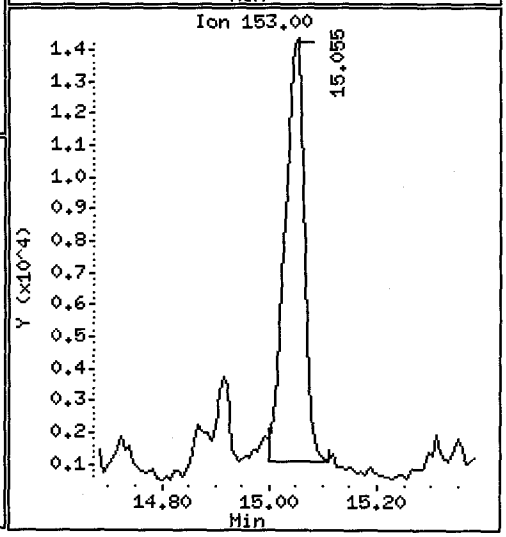



Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

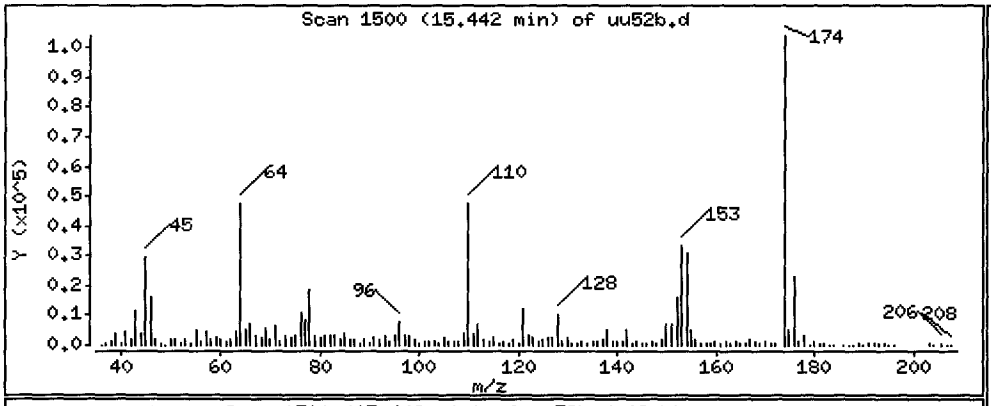
Operator: VTS/YZ

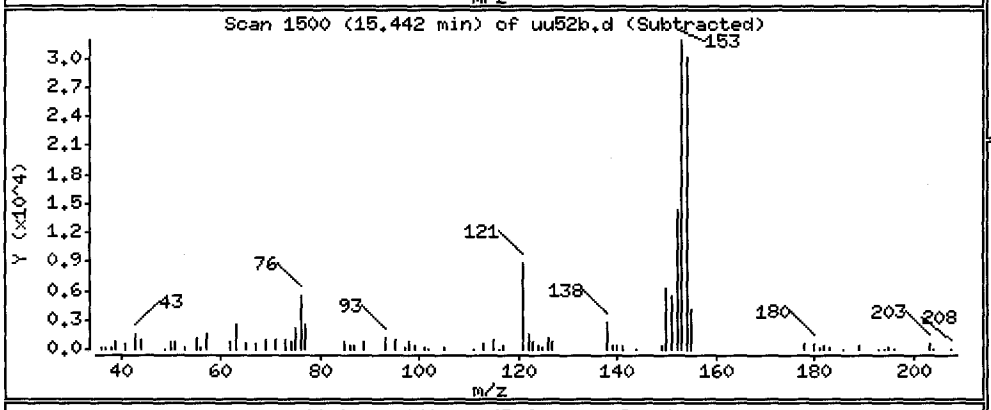
Column phase: ZB-5msi

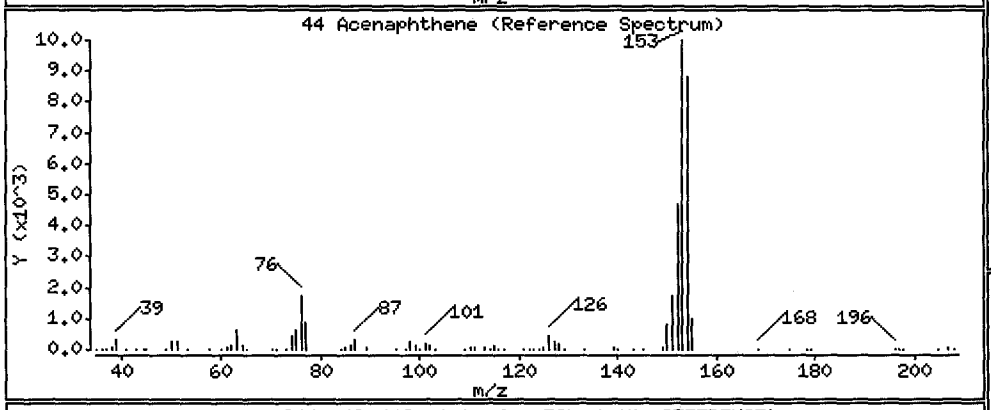
Column diameter: 0.25

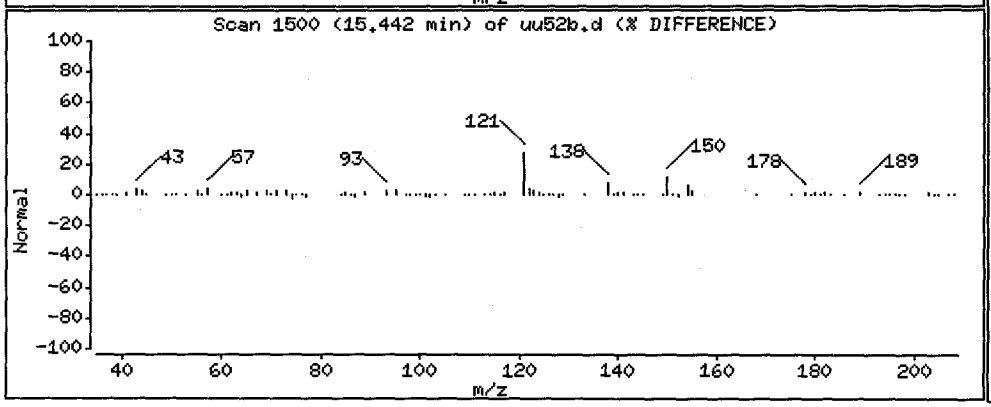
44 Acenaphthene

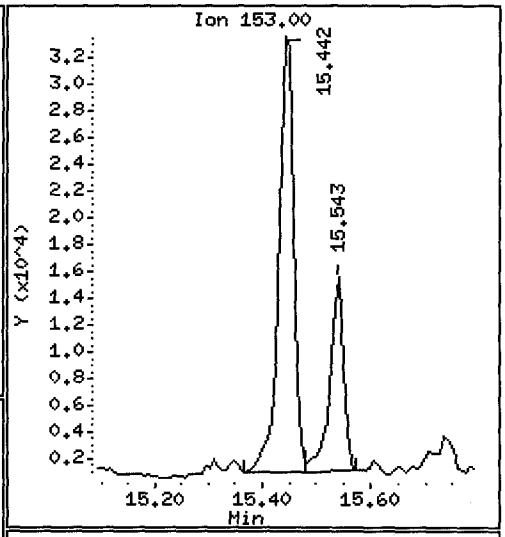
Concentration: 153.5 ug/kg

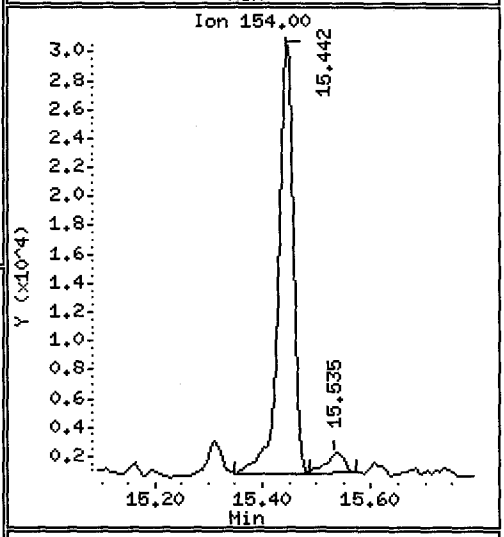


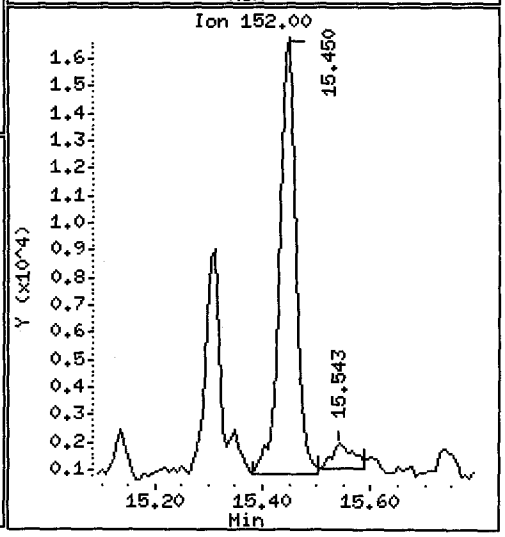



Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

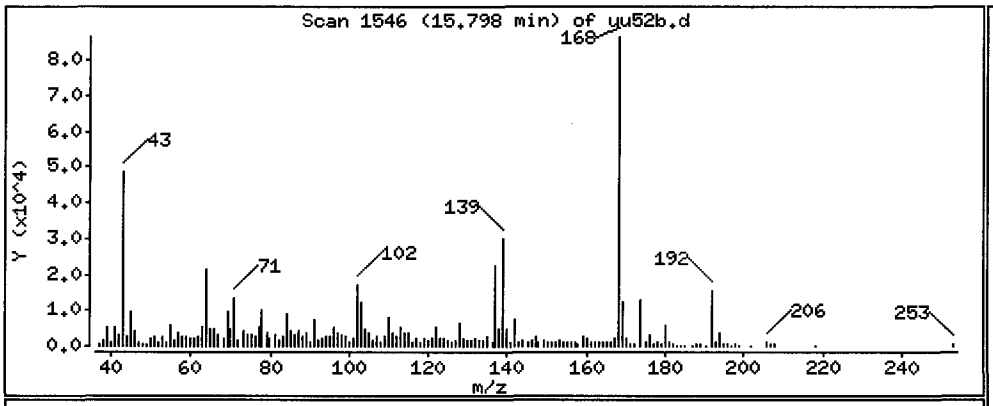
Operator: VTS/YZ

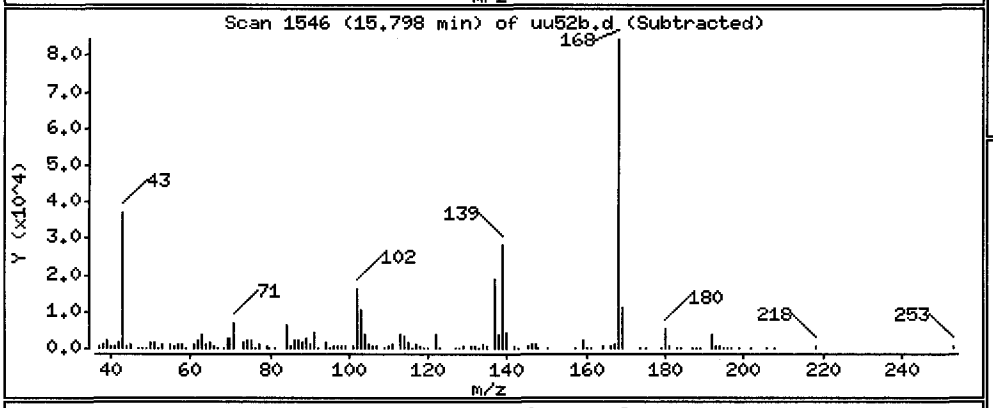
Column phase: ZB-5msi

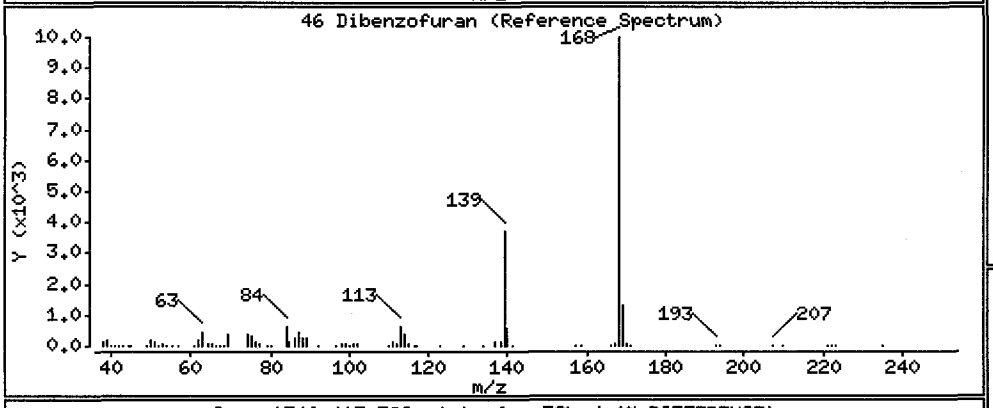
Column diameter: 0.25

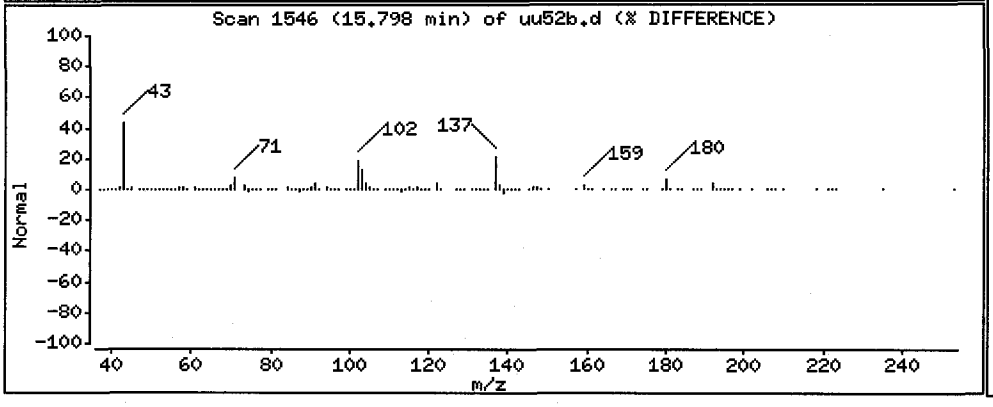
46 Dibenzofuran

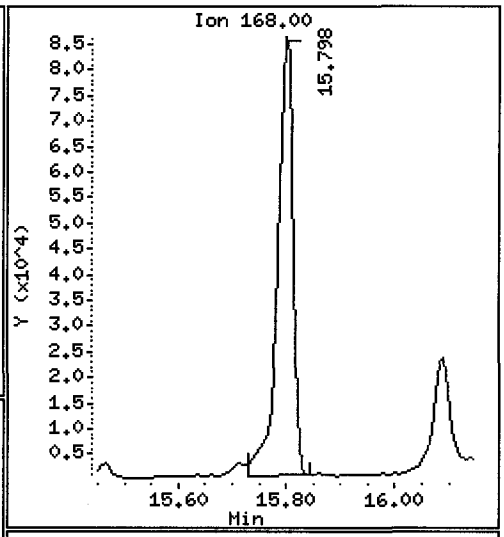
Concentration: 280.6 ug/kg

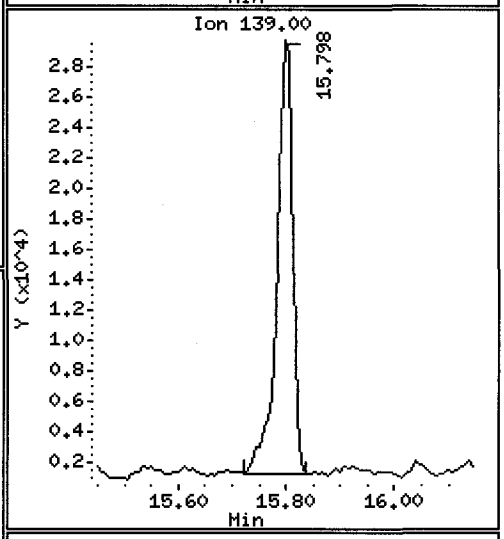


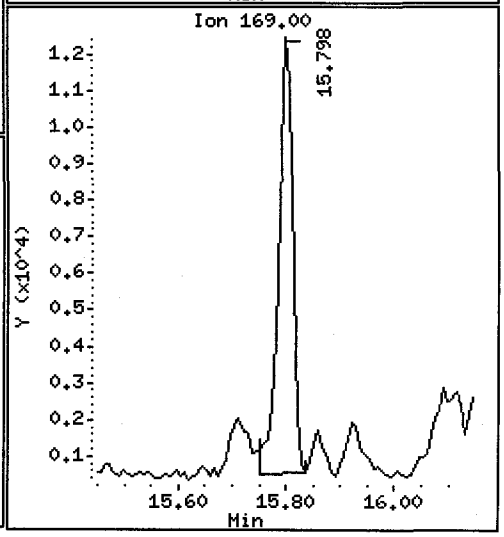



Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

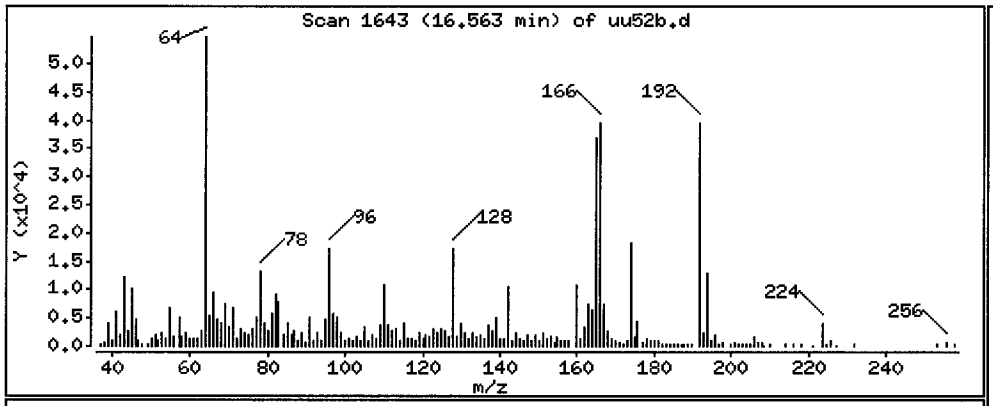
Operator: VTS/YZ

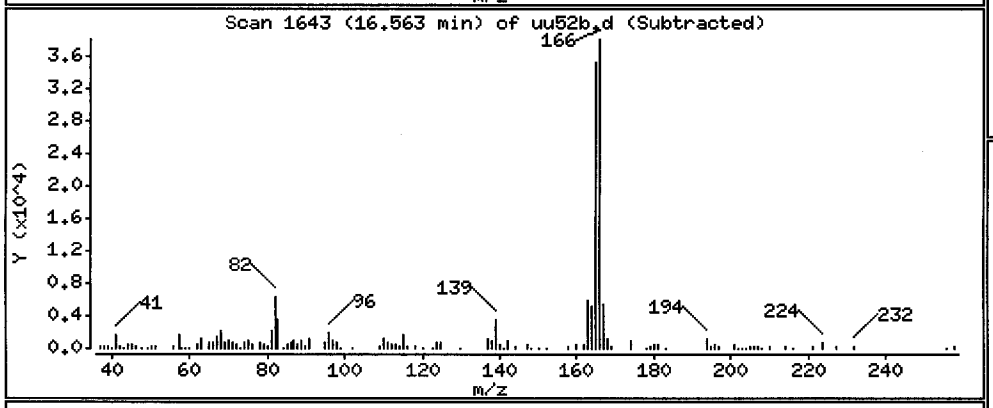
Column phase: ZB-5msi

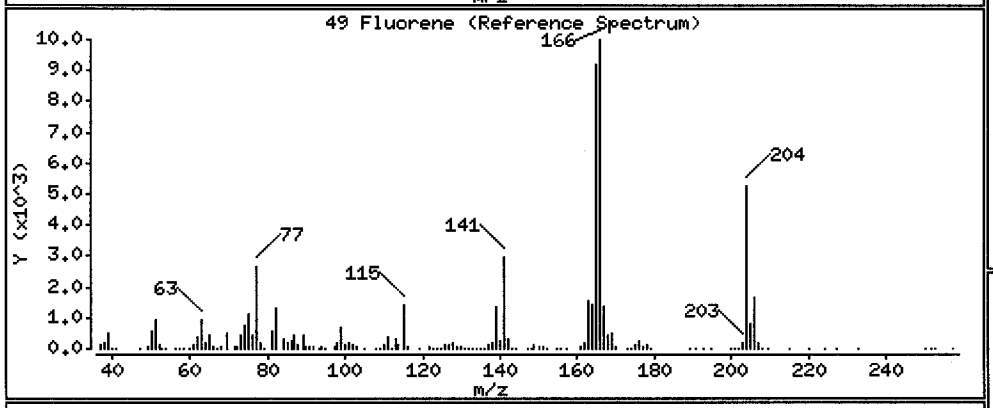
Column diameter: 0.25

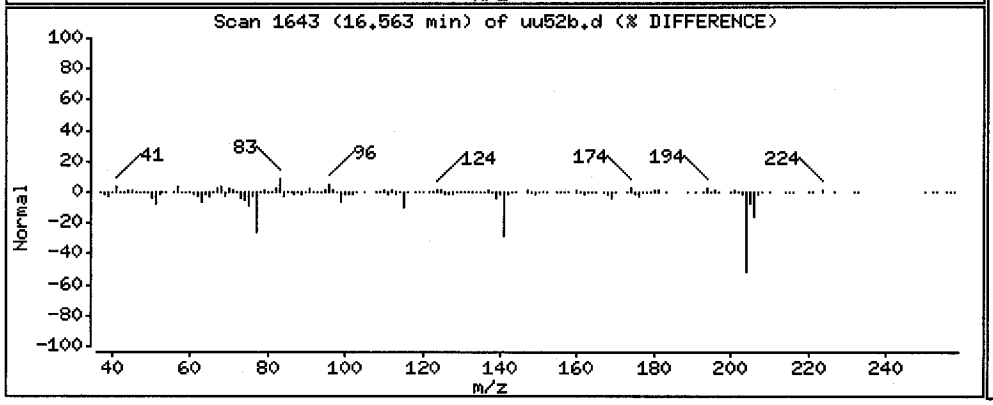
49 Fluorene

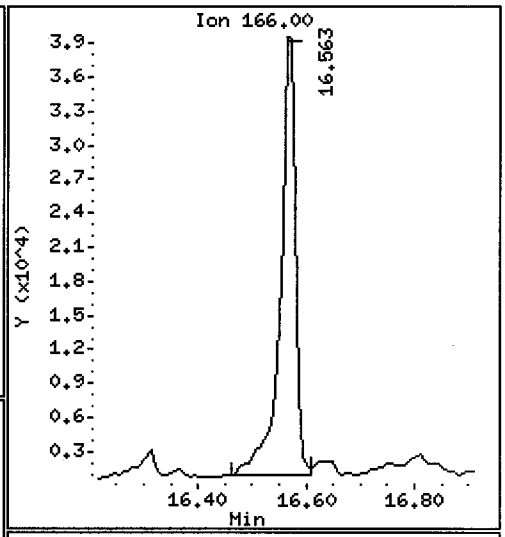
Concentration: 173.5 ug/kg

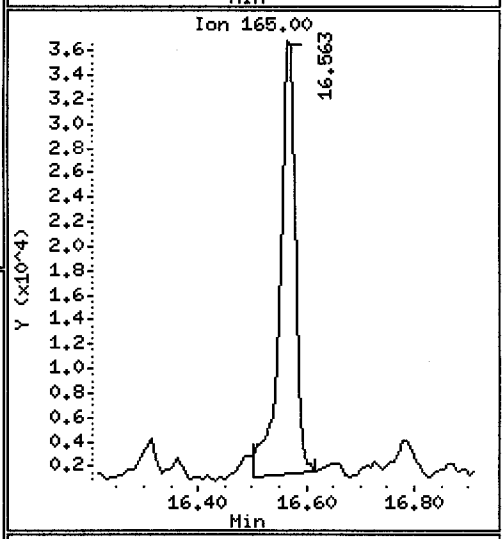


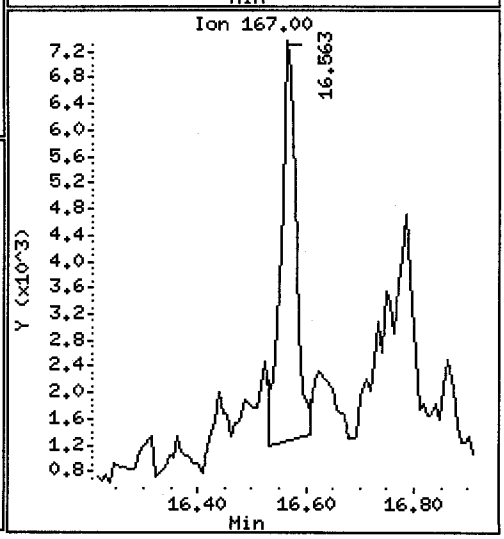



Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

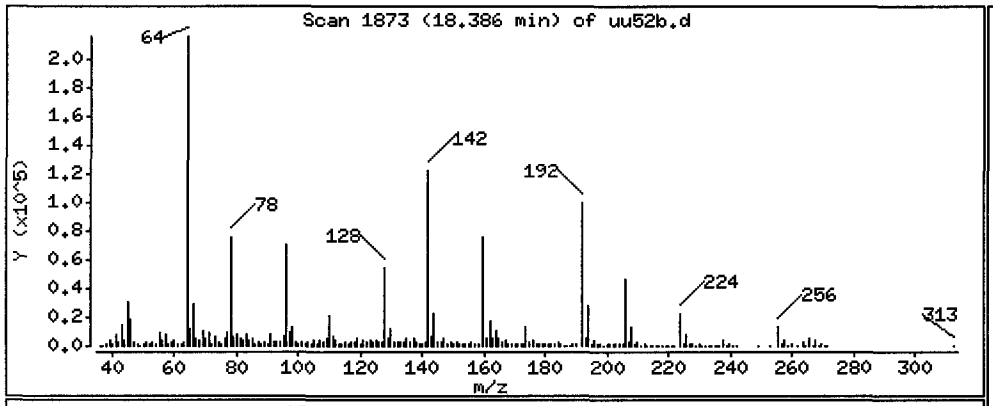
Client ID: MS101-SS-120515 Instrument: nt10.i

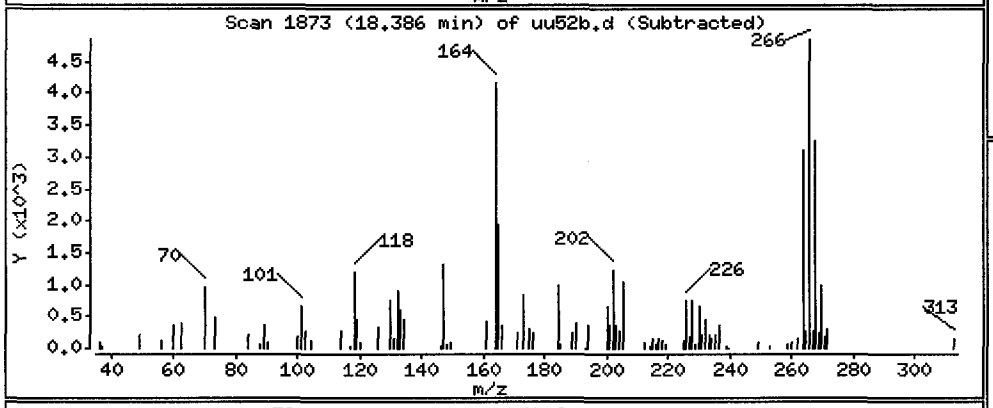
Sample Info: UU52B,3

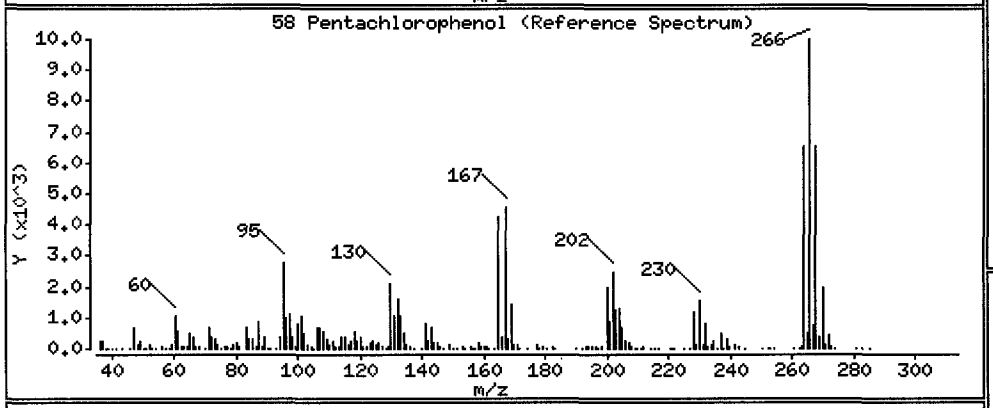
Volume Injected (uL): 1.0 Operator: VTS/YZ

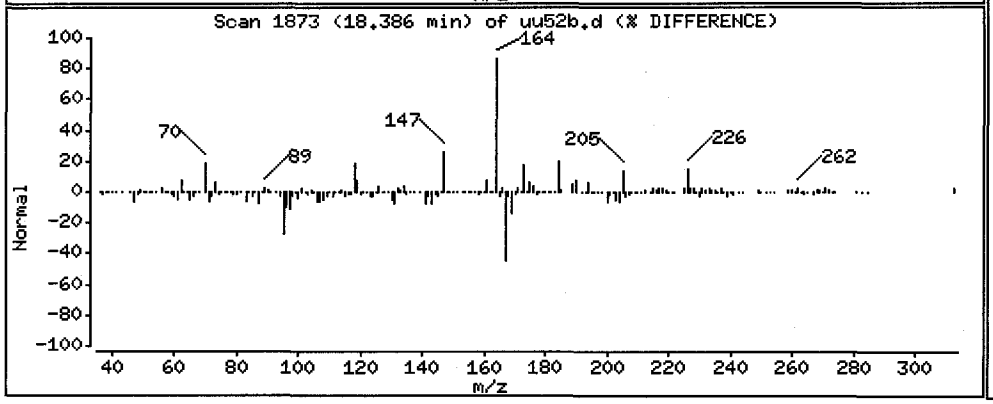
Column phase: ZB-5msi Column diameter: 0.25

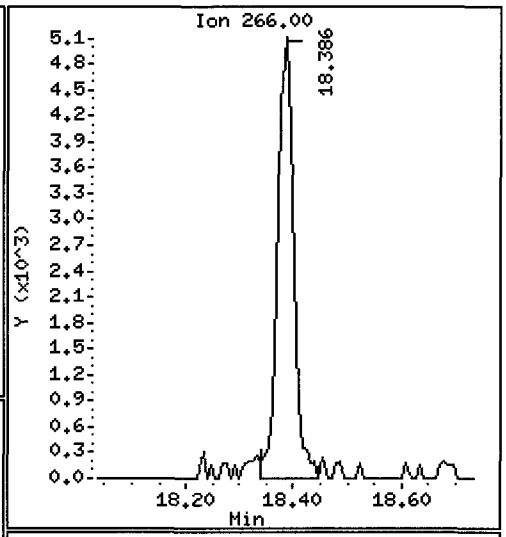
58 Pentachlorophenol Concentration: 157.5 ug/kg

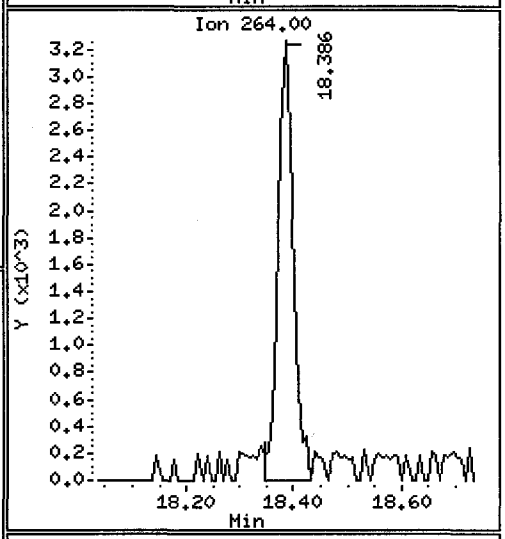


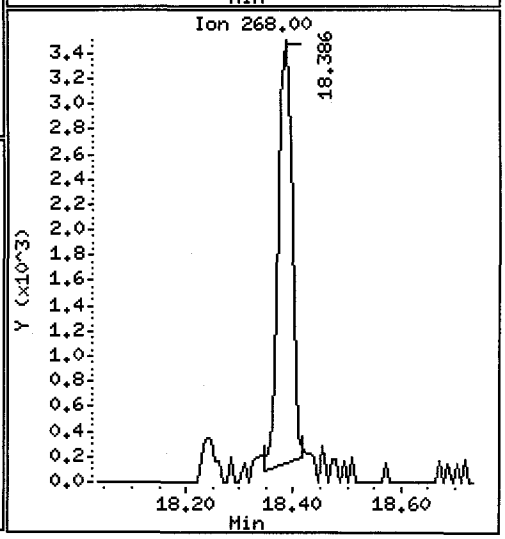



Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

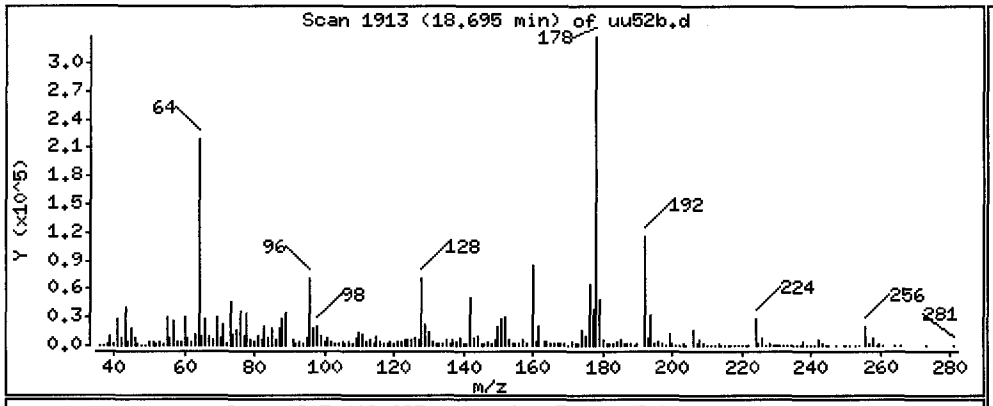
Operator: VTS/YZ

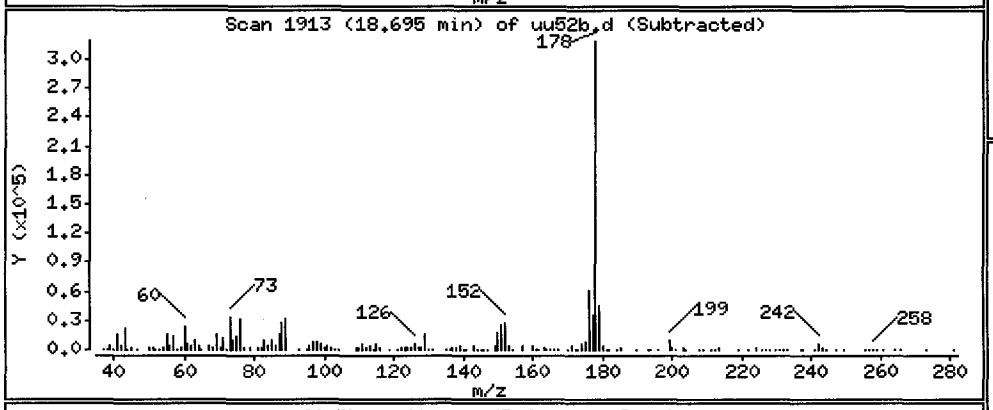
Column phase: ZB-5msi

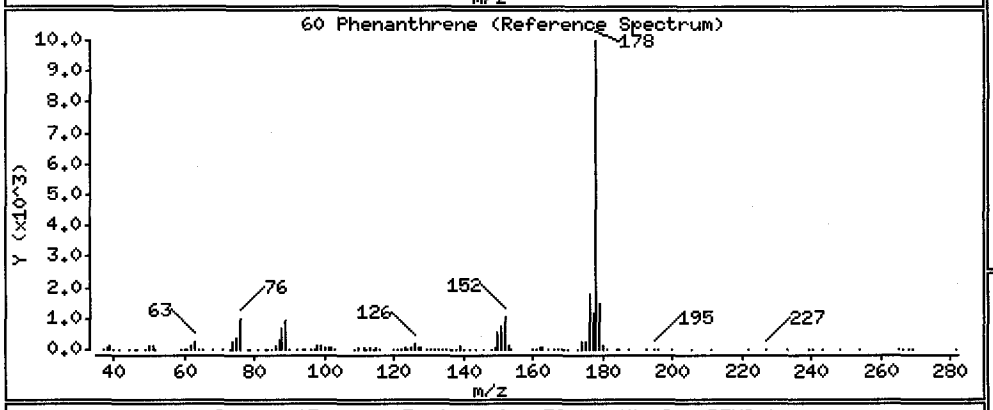
Column diameter: 0.25

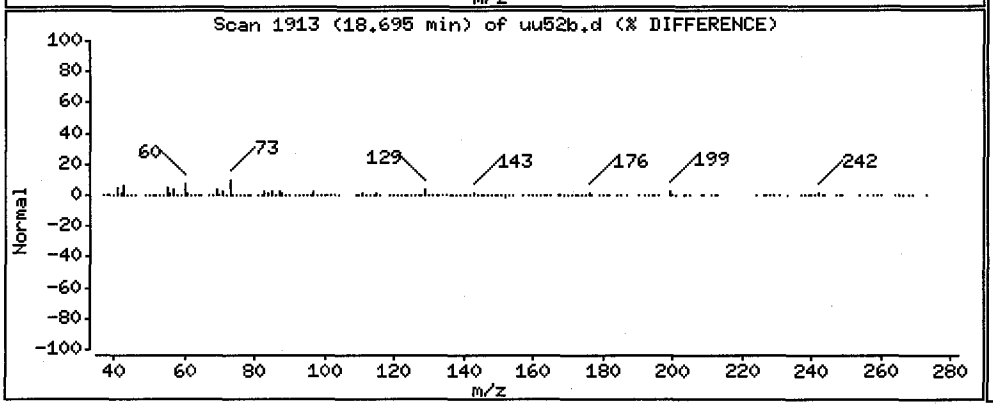
60 Phenanthrene

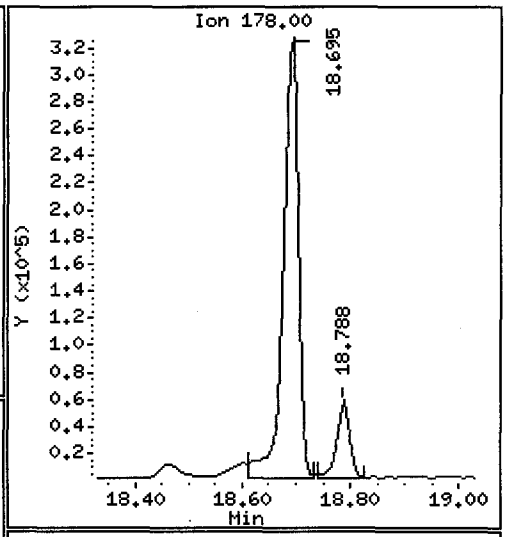
Concentration: 1168 ug/kg

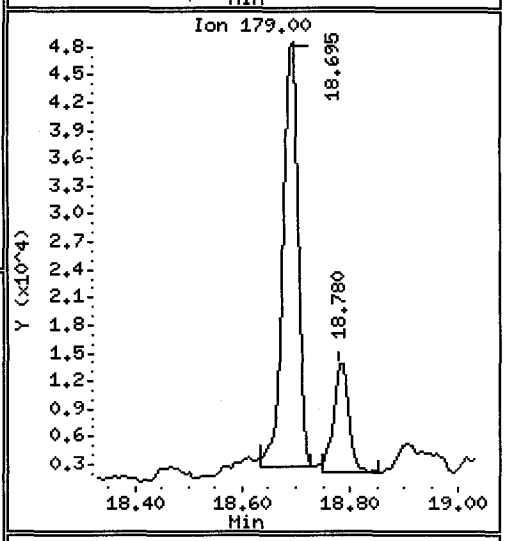


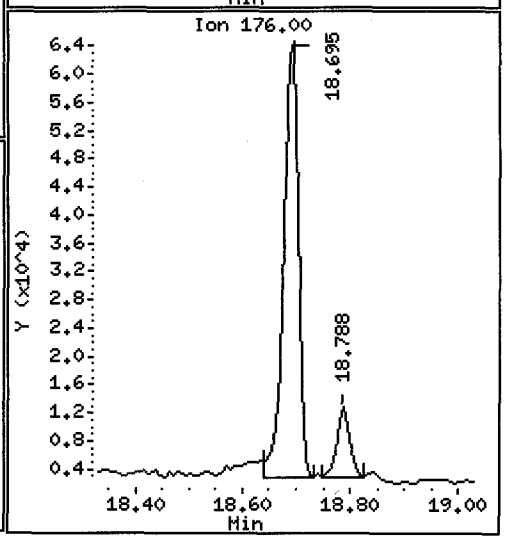



Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

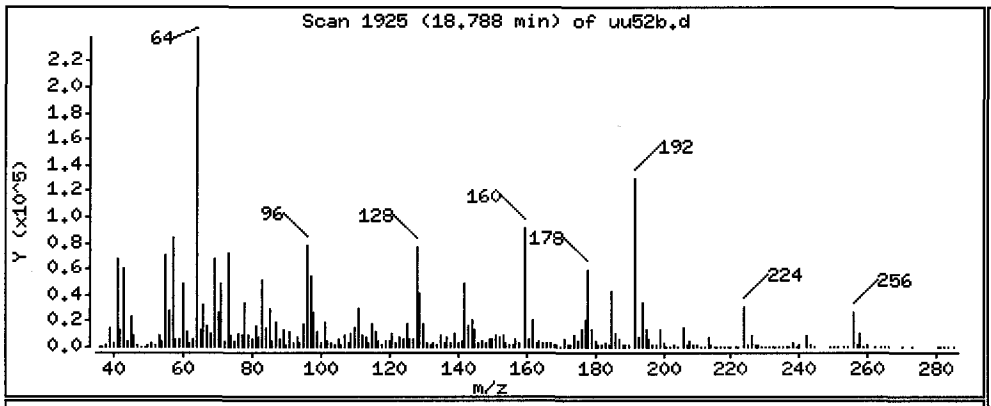
Operator: VTS/YZ

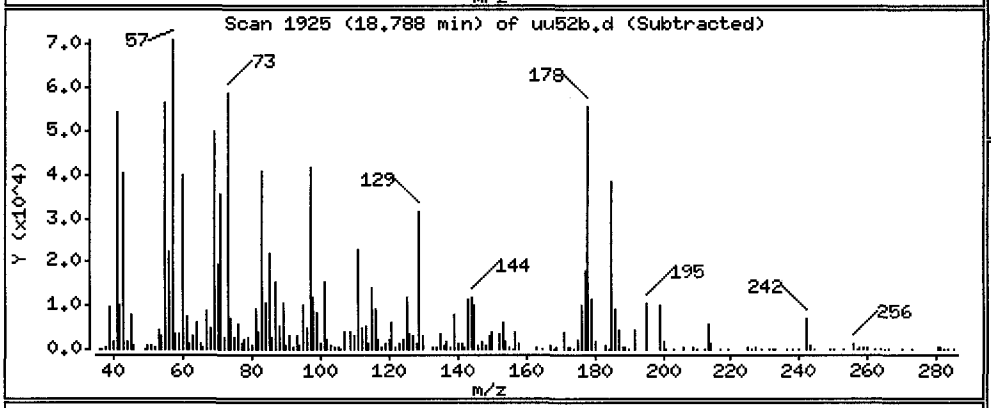
Column phase: ZB-5msi

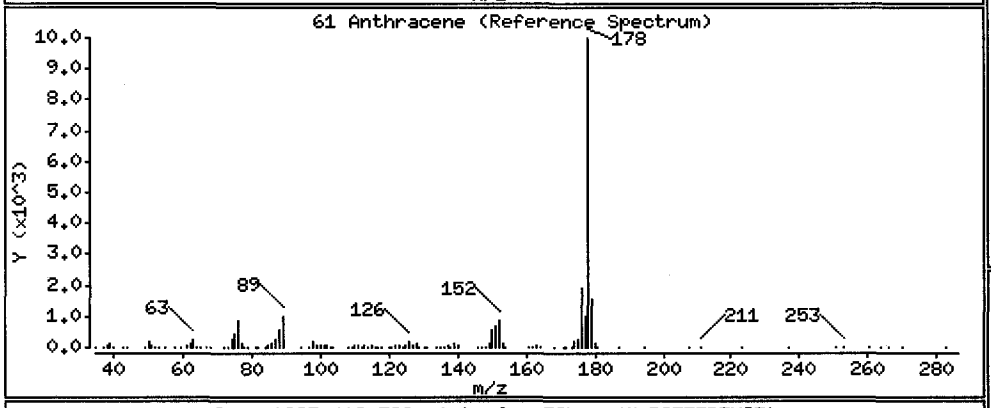
Column diameter: 0.25

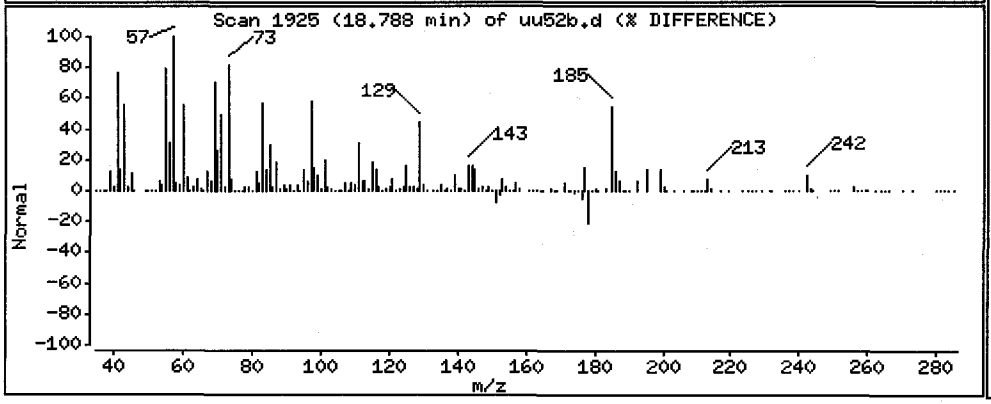
61 Anthracene

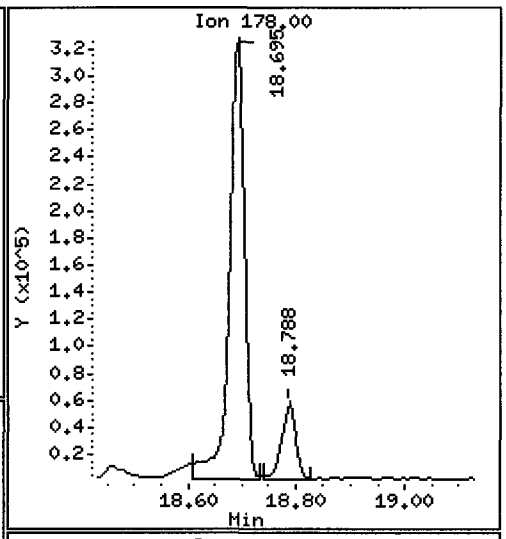
Concentration: 177.4 ug/kg

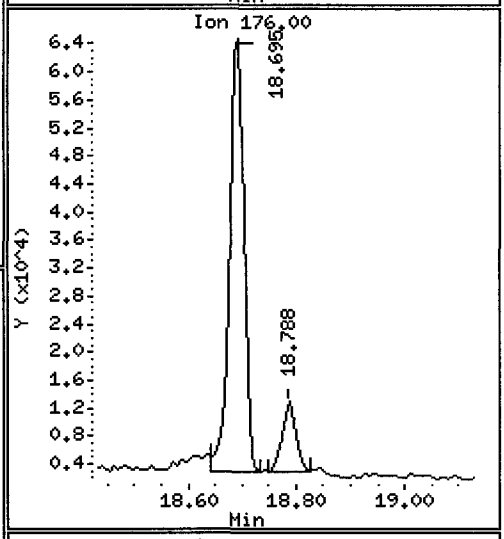


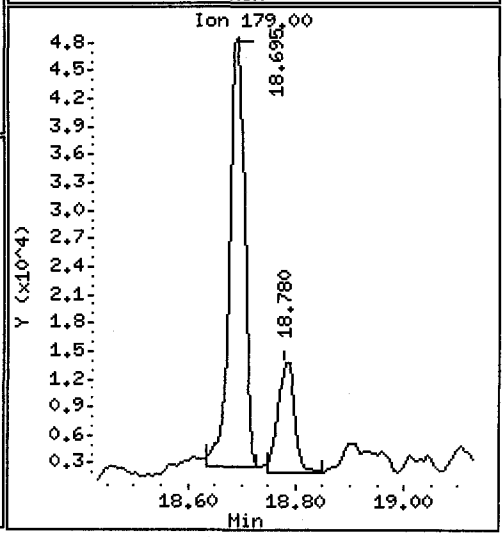



Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

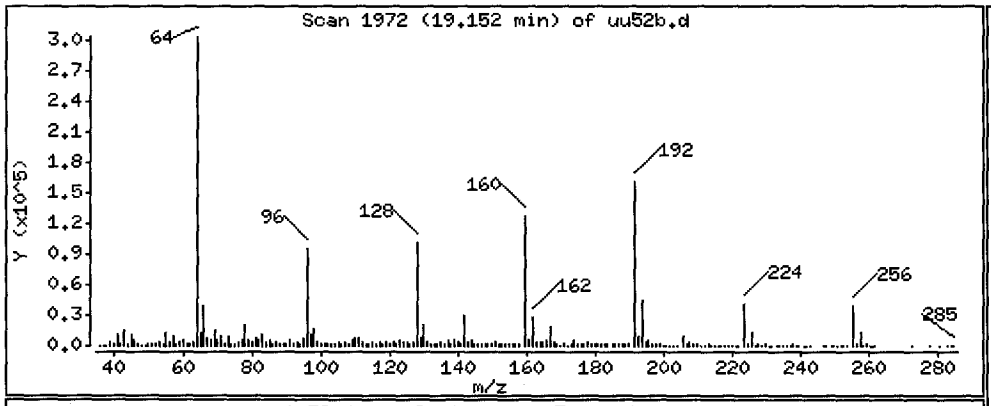
Operator: VTS/YZ

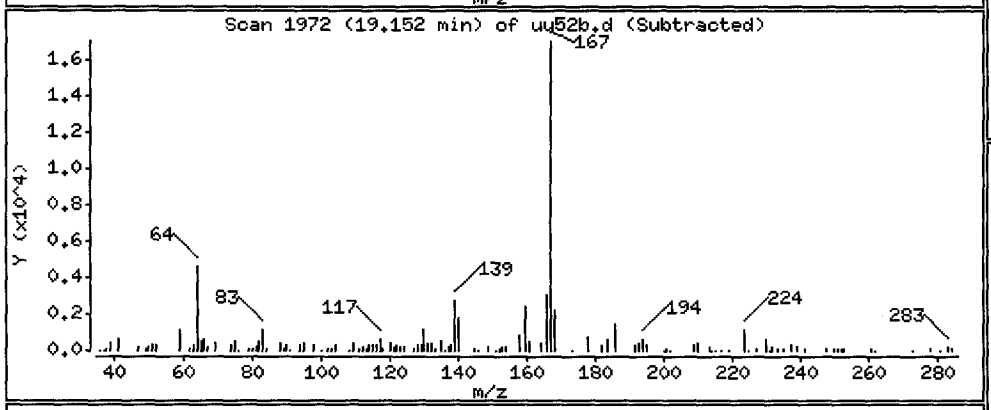
Column phase: ZB-5msi

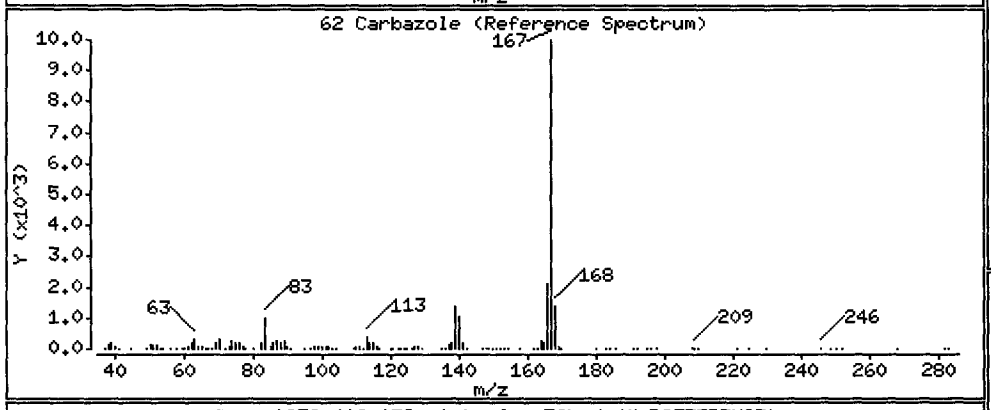
Column diameter: 0.25

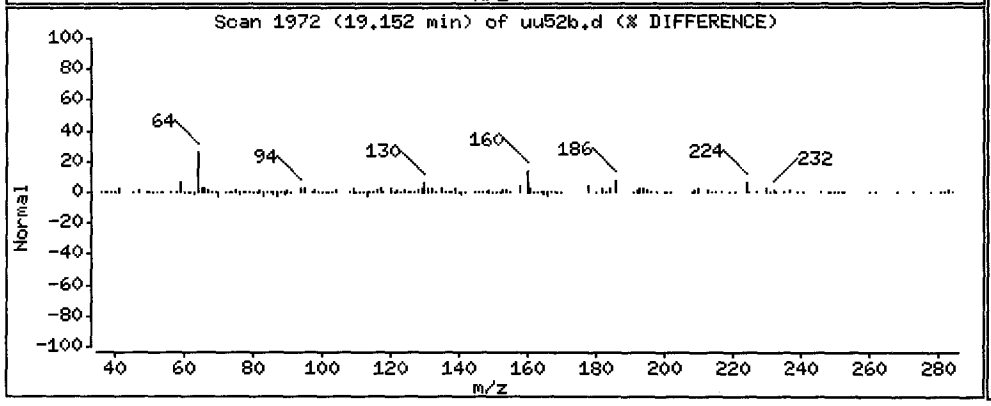
62 Carbazole

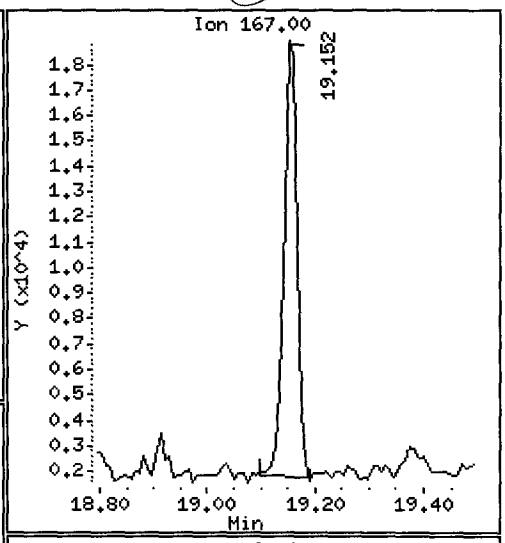
Concentration: 57.24 ug/kg

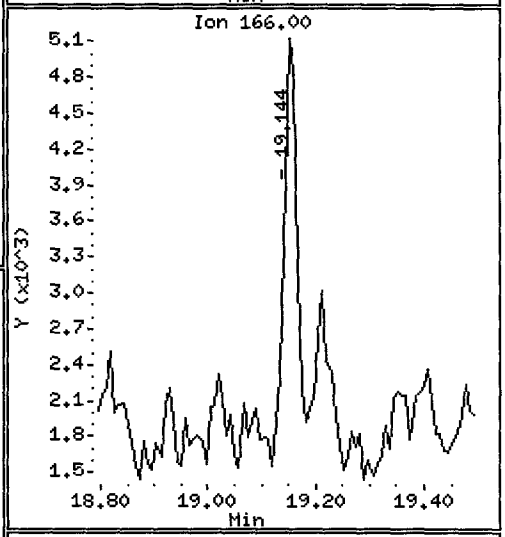


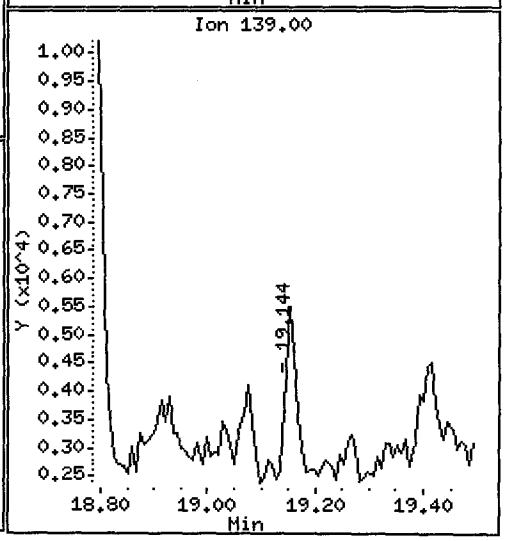



Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

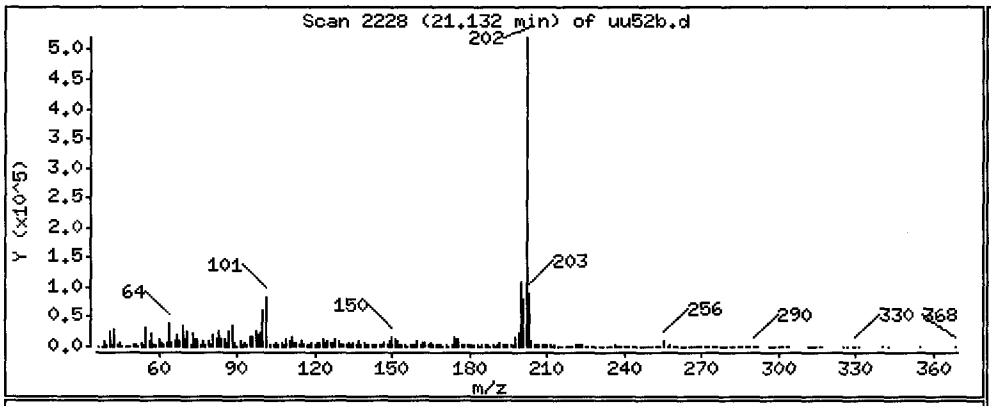
Client ID: MS101-SS-120515 Instrument: nt10.i

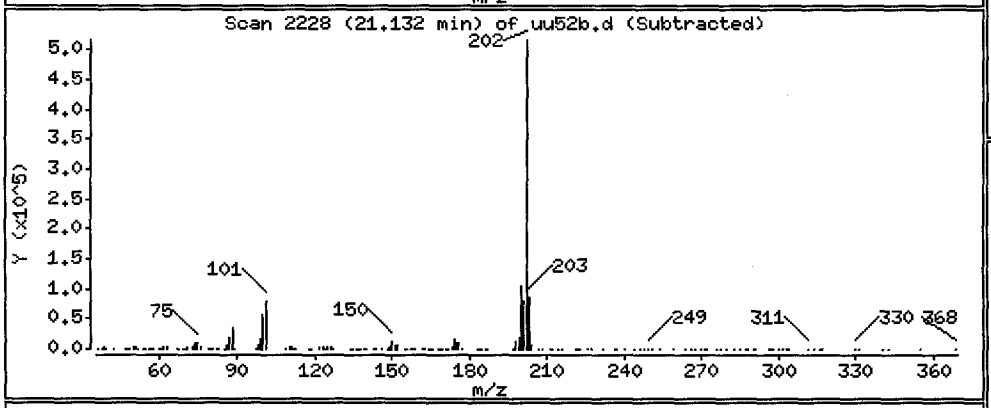
Sample Info: UU52B,3

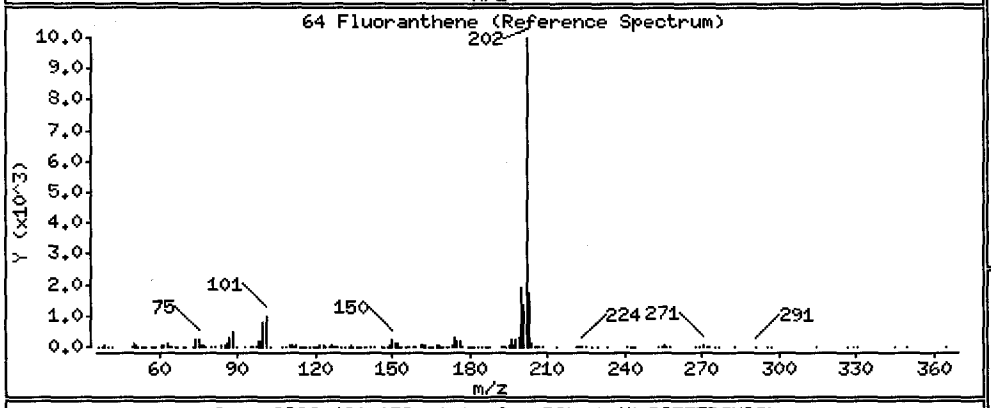
Volume Injected (uL): 1.0 Operator: VTS/YZ

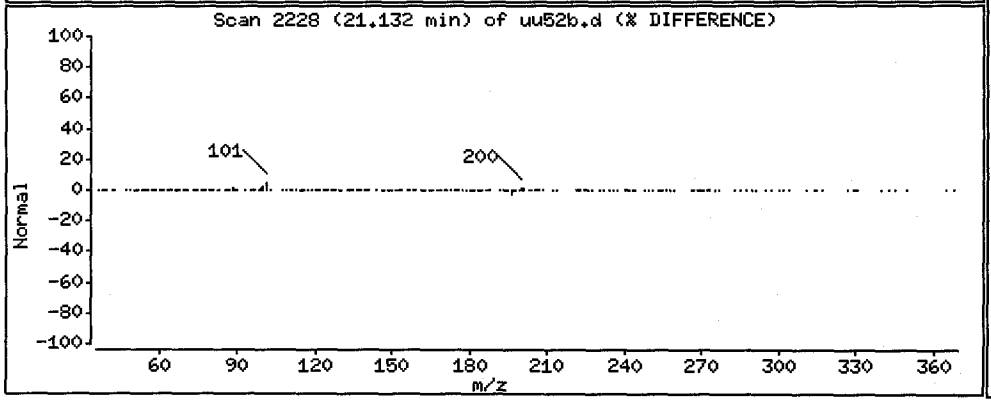
Column phase: ZB-5msi Column diameter: 0.25

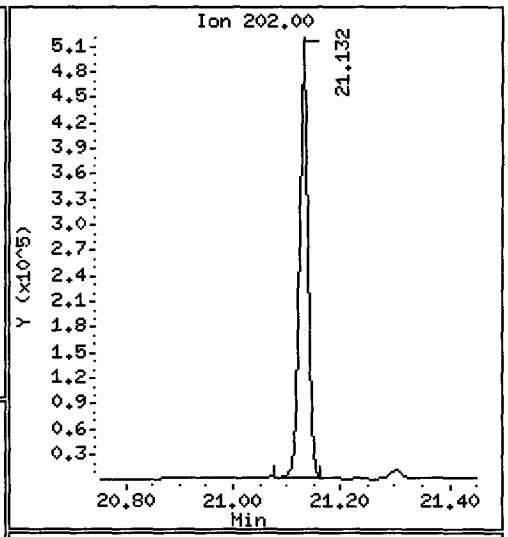
64 Fluoranthene Concentration: 972.1 ug/kg

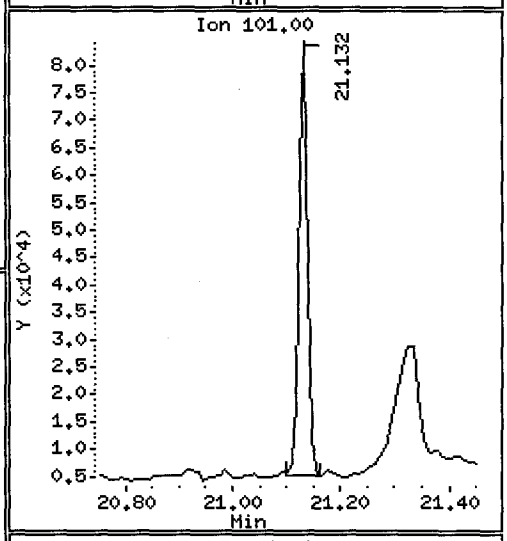


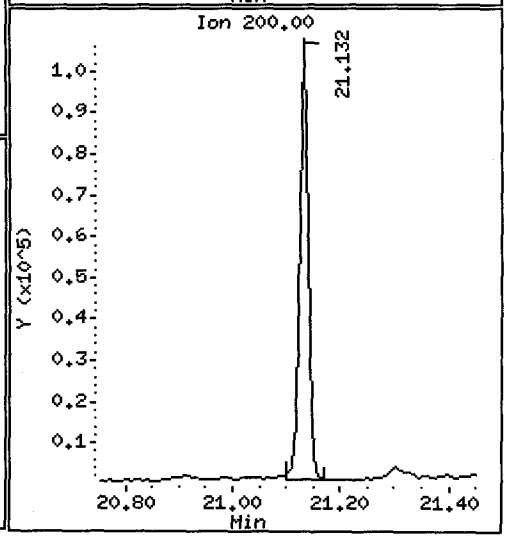



Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

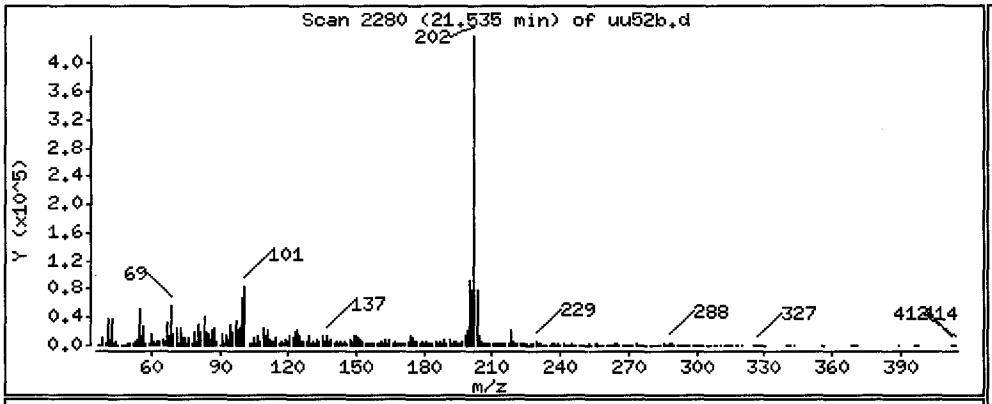
Operator: VTS/YZ

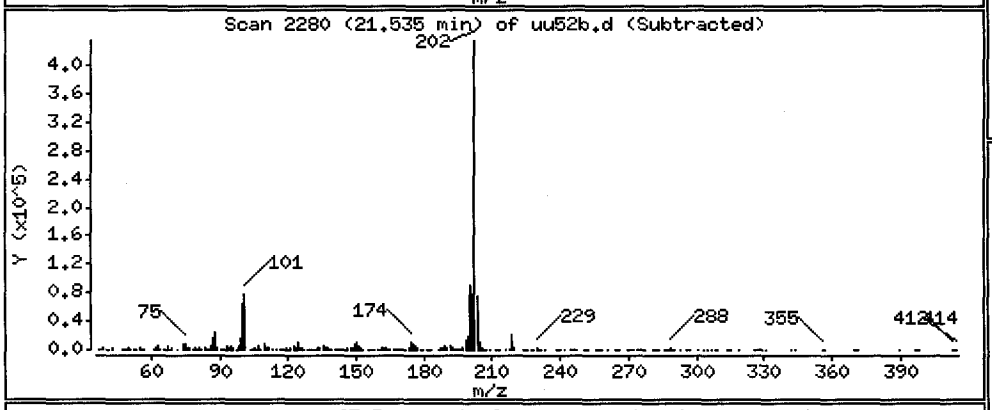
Column phase: ZB-5msi

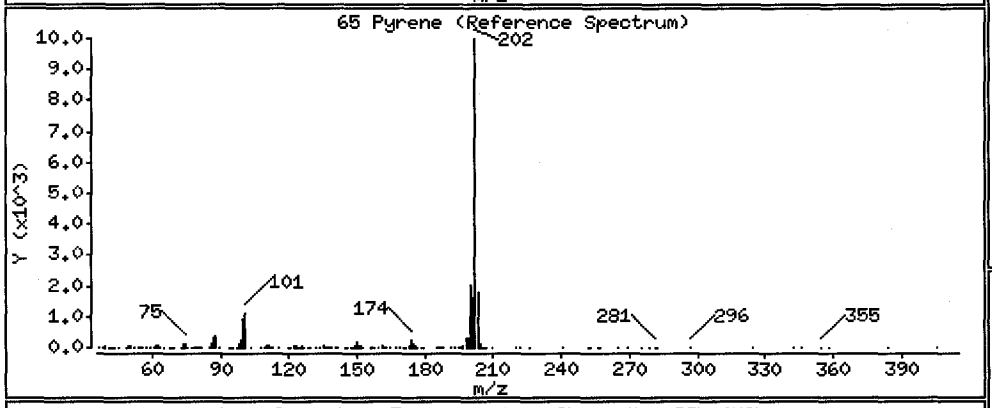
Column diameter: 0.25

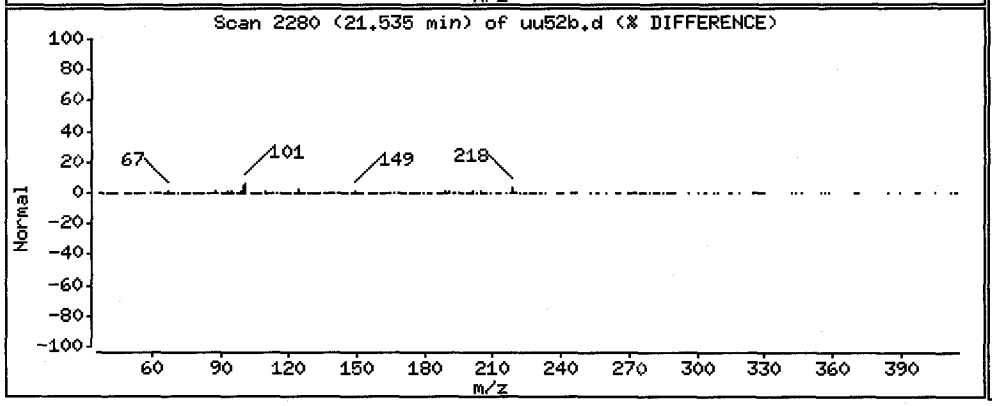
65 Pyrene

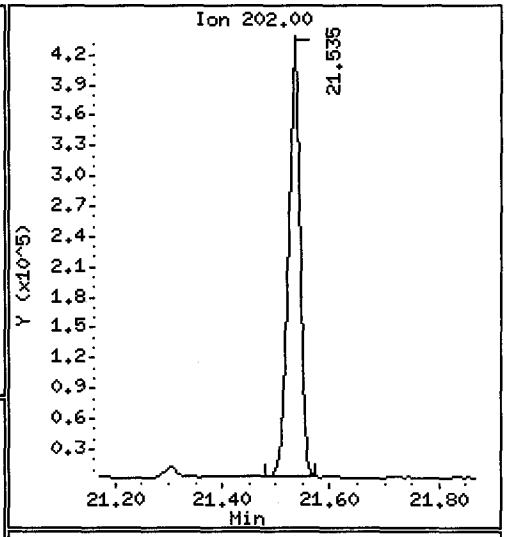
Concentration: 908.3 ug/kg

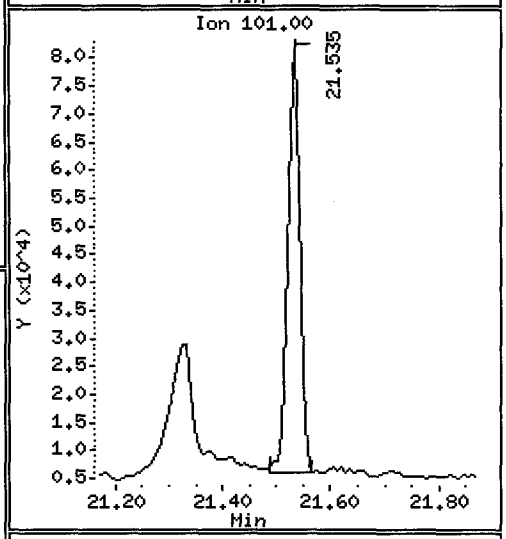


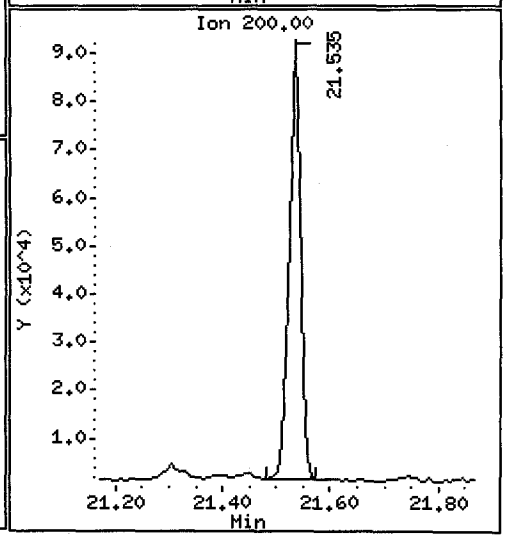



Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

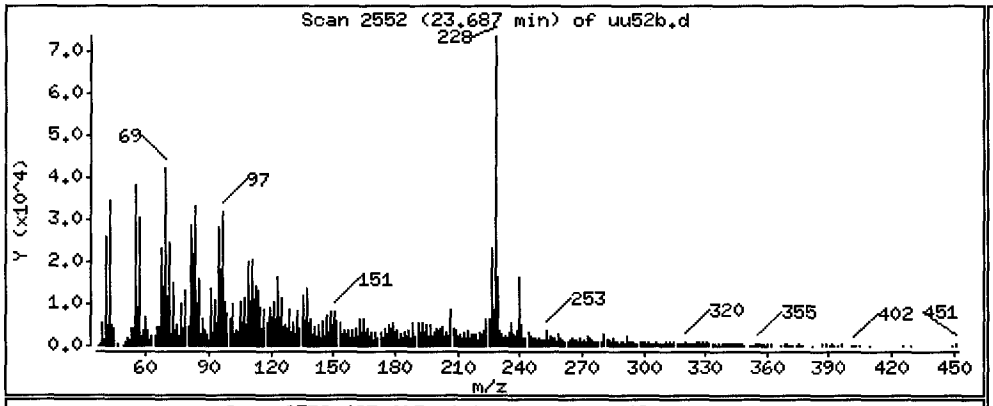
Client ID: MS101-SS-120515 Instrument: nt10.i

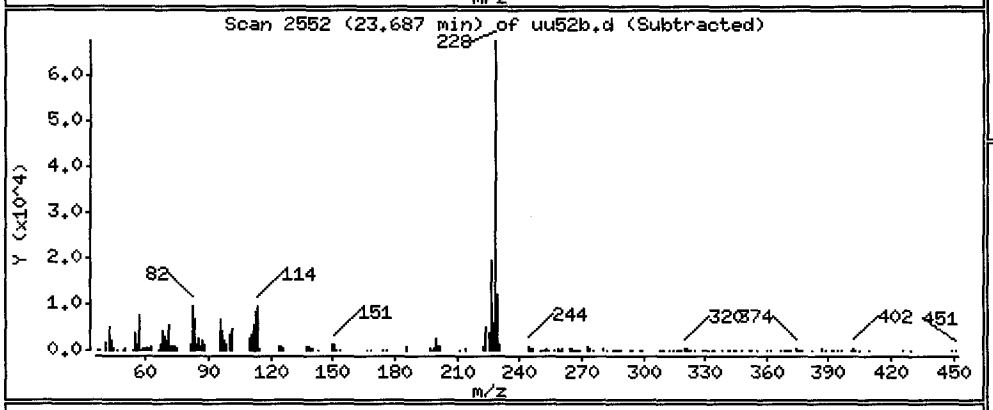
Sample Info: UU52B,3

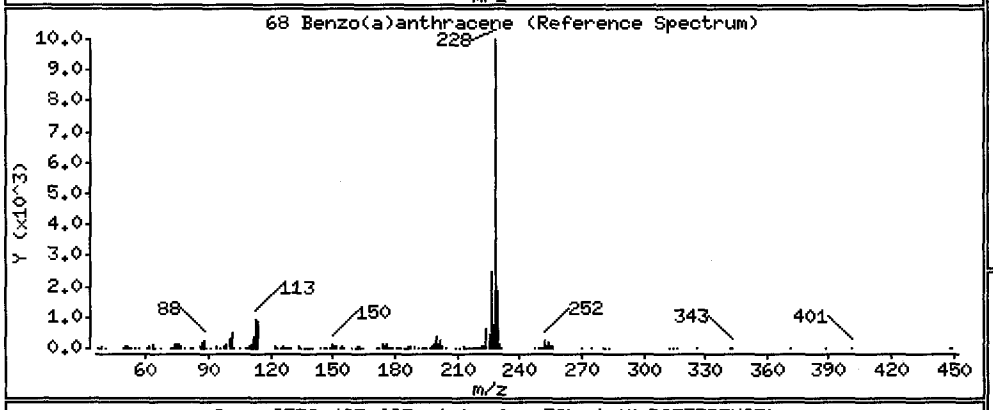
Volume Injected (uL): 1.0 Operator: VTS/YZ

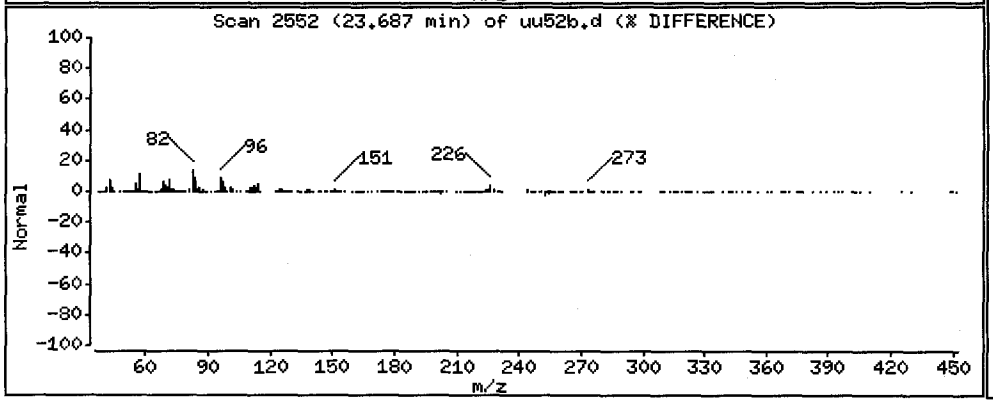
Column phase: ZB-5msi Column diameter: 0.25

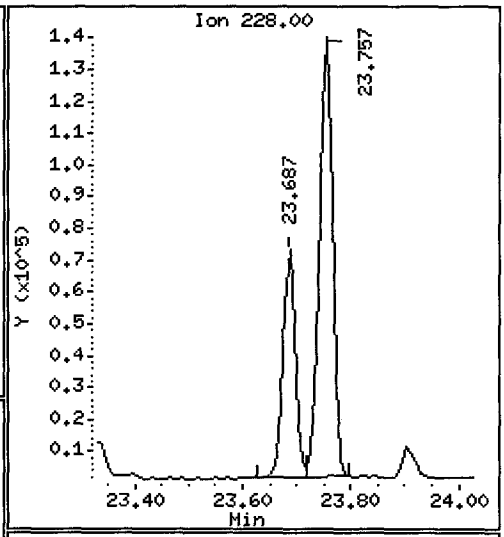
68 Benzo(a)anthracene Concentration: 173.1 ug/kg

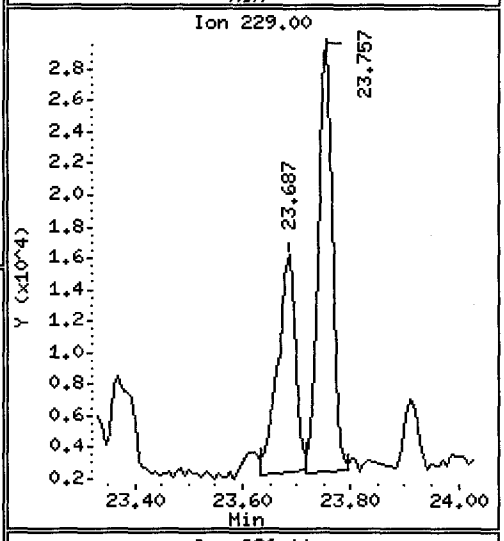


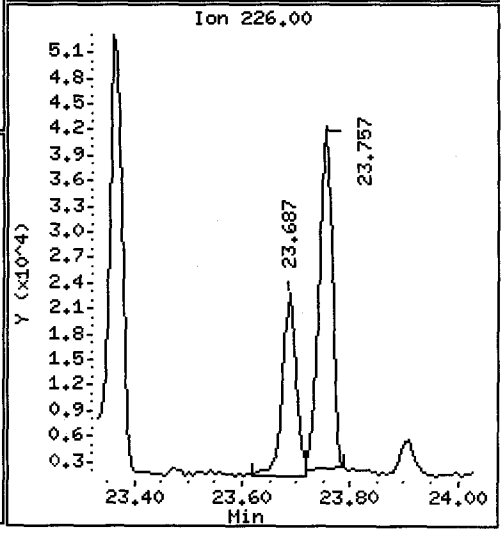



Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

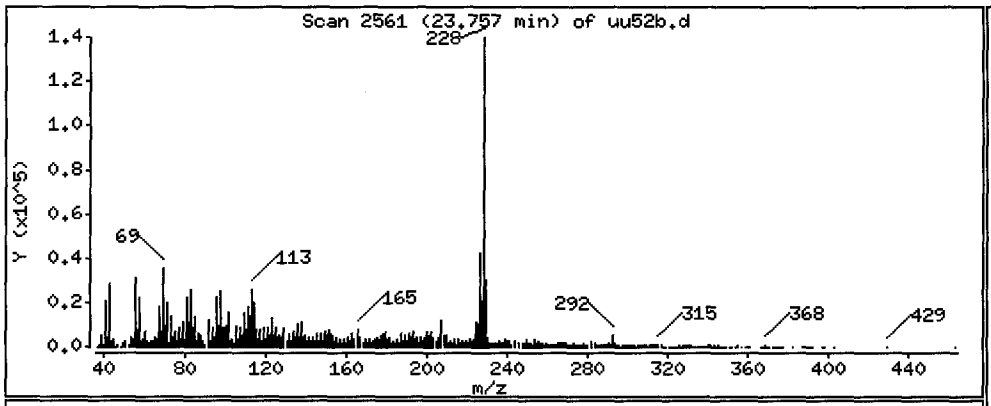
Operator: VTS/YZ

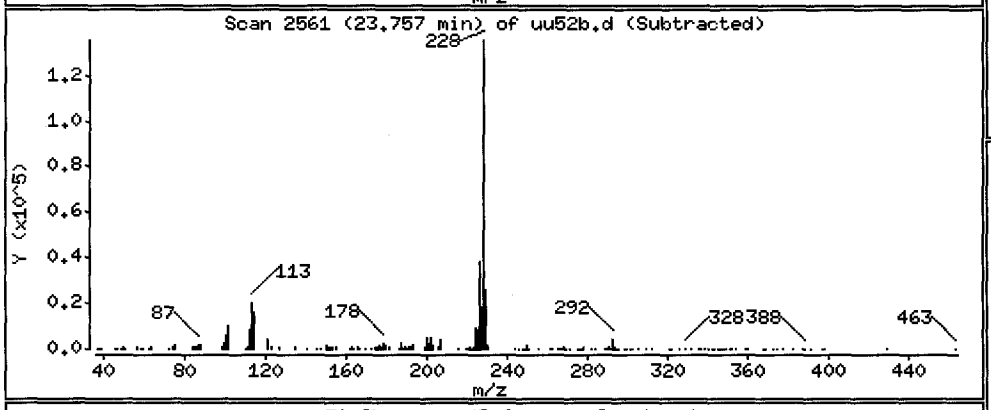
Column phase: ZB-5msi

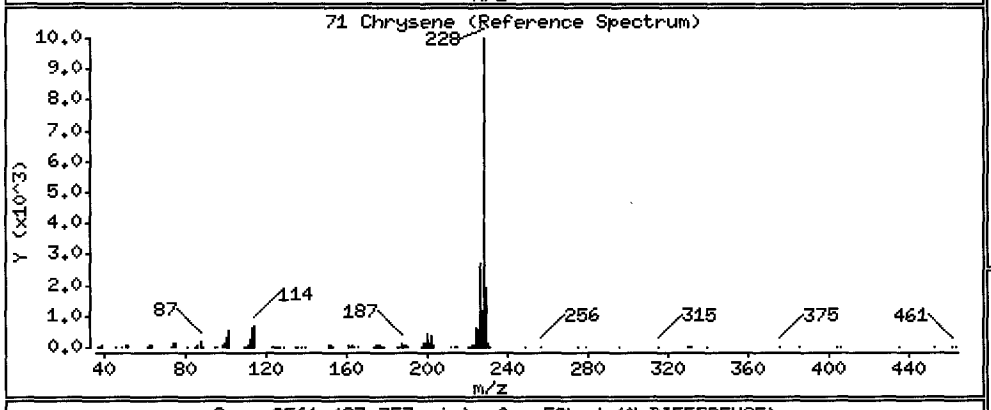
Column diameter: 0.25

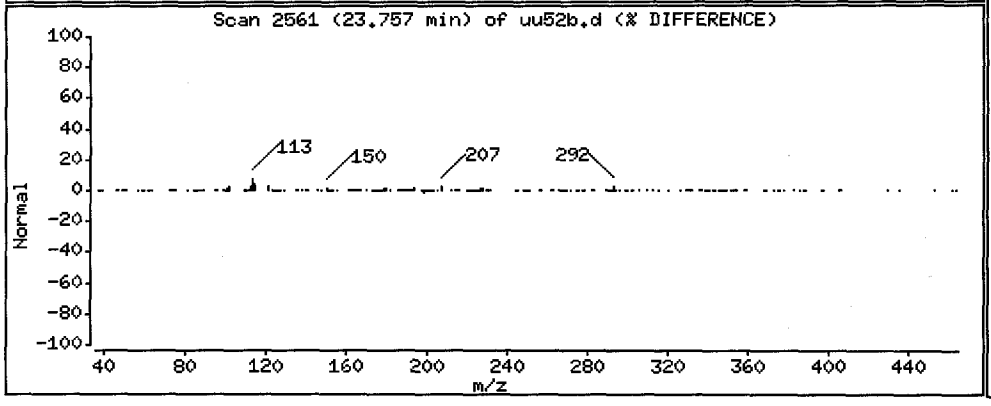
71 Chrysene

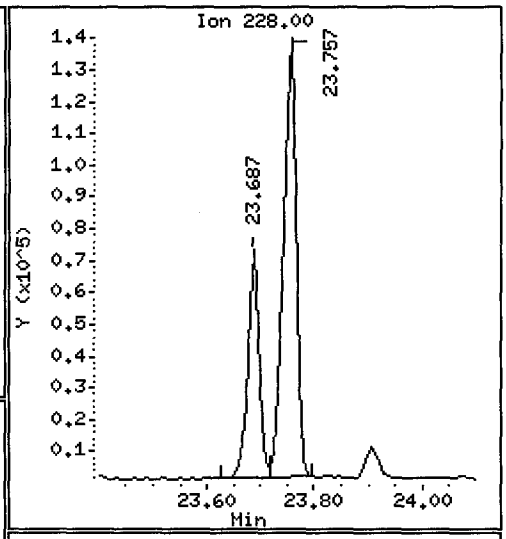
Concentration: 396.9 ug/kg

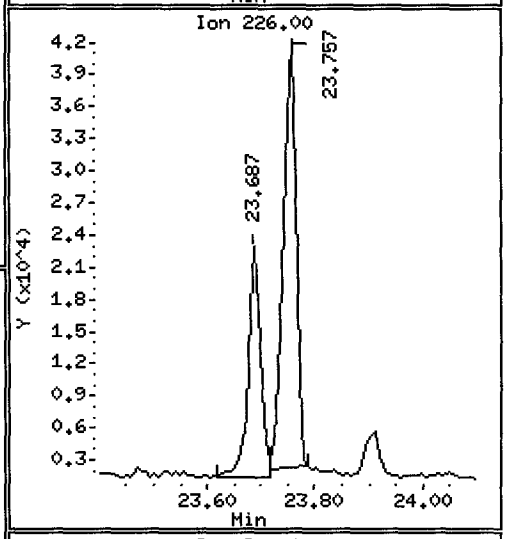


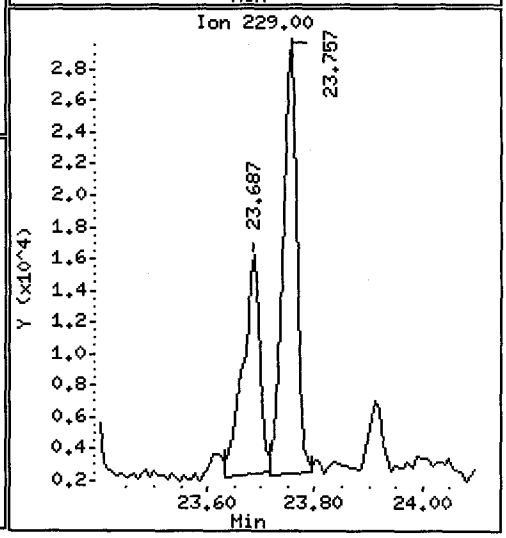



Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

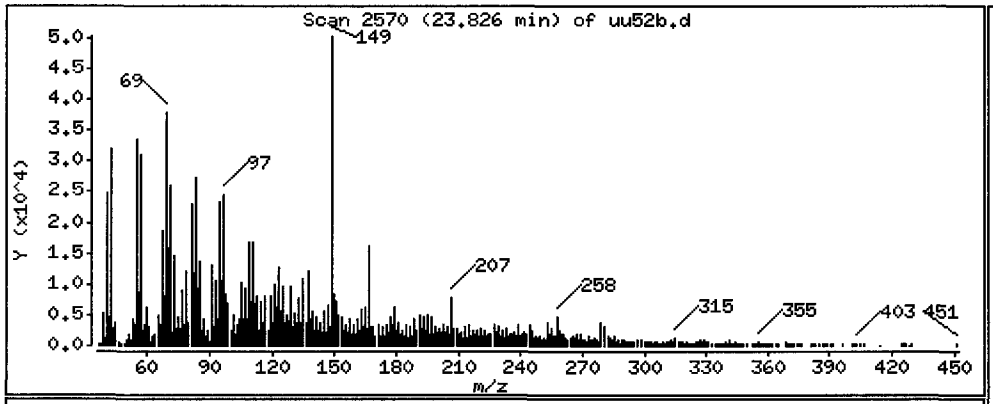
Client ID: MS101-SS-120515 Instrument: nt10.i

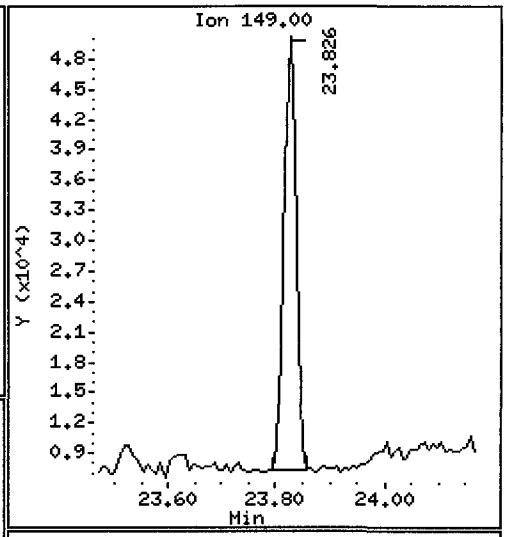
Sample Info: UU52B,3

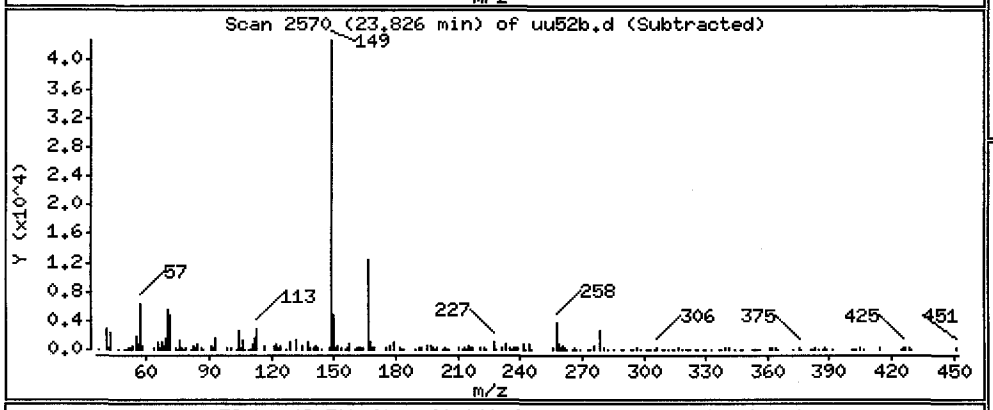
Volume Injected (uL): 1.0 Operator: VTS/YZ

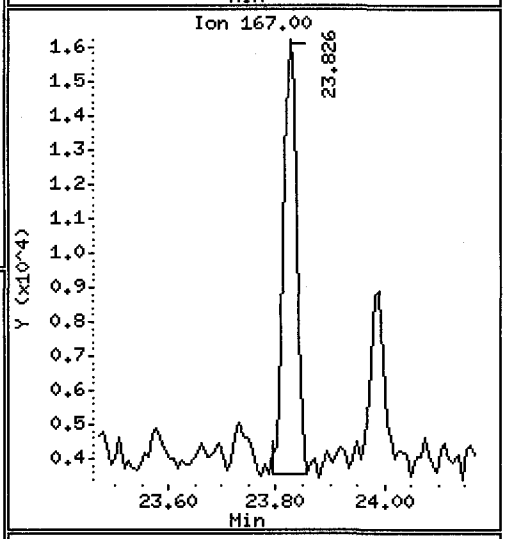
Column phase: ZB-5msi Column diameter: 0.25

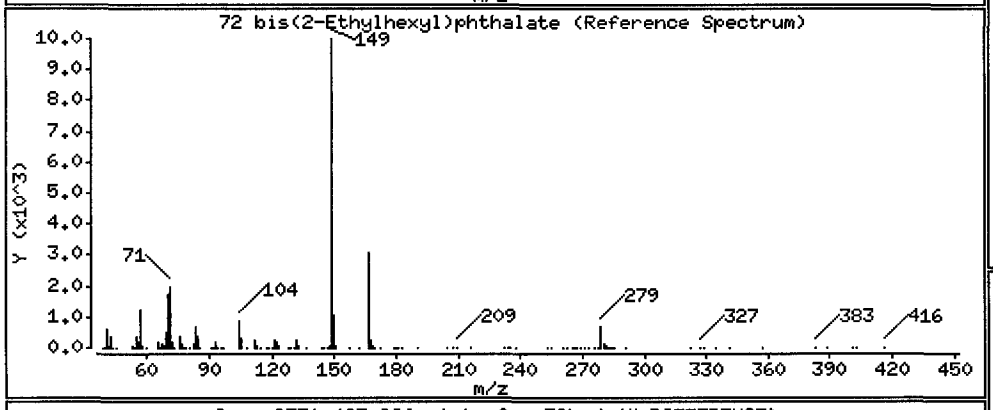
72 bis(2-Ethylhexyl)phthalate Concentration: 123.4 ug/kg

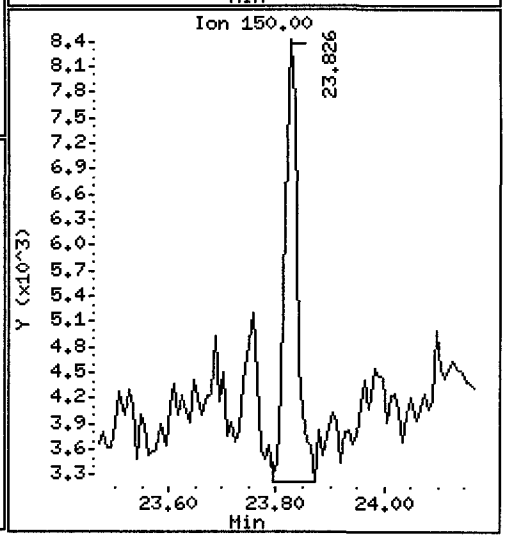


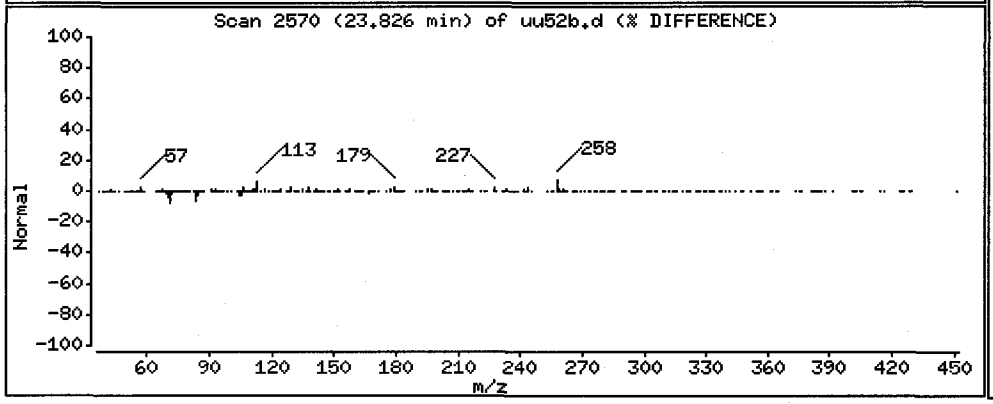



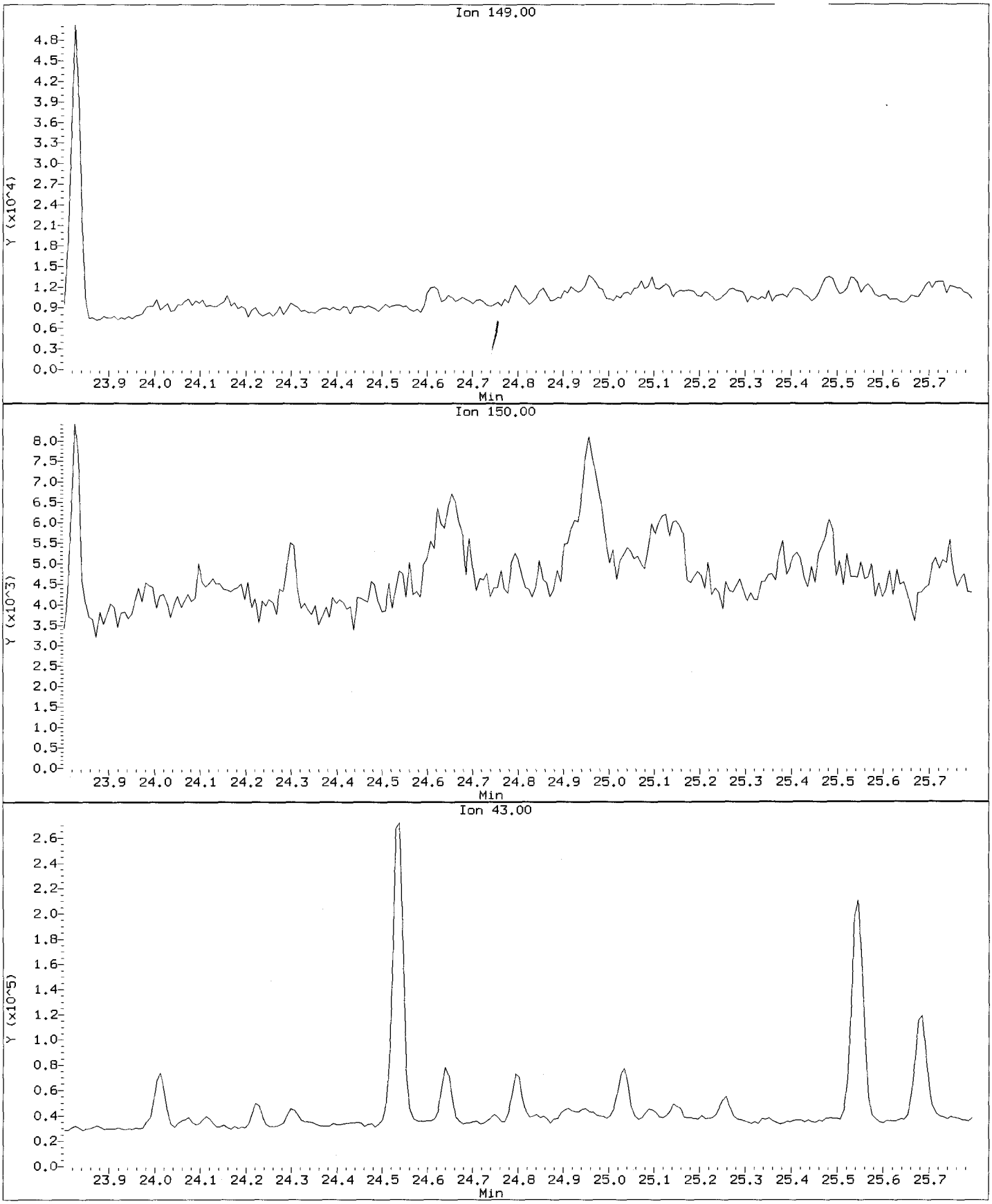



Data File: /chem1/nt10.i/20120526.b/uu52b.d
Injection Date: 26-MAY-2012 17:48
Instrument: nt10.i
Client Sample ID: MS101-SS-120515

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

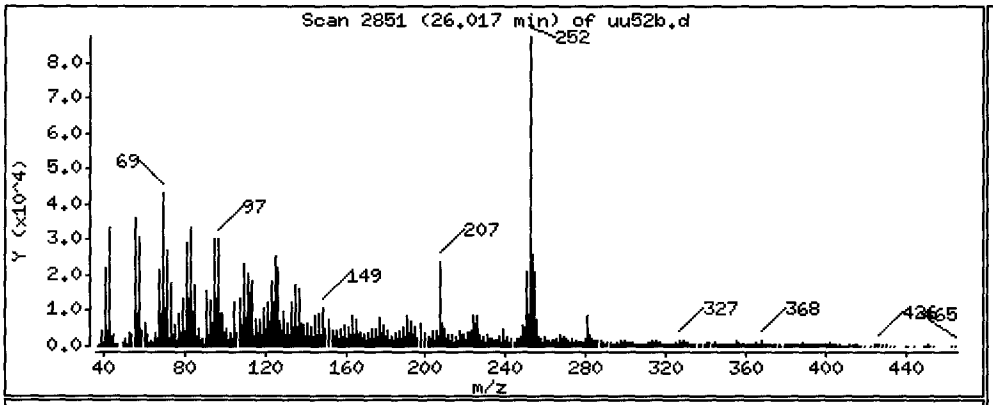
Client ID: MS101-SS-120515 Instrument: nt10.i

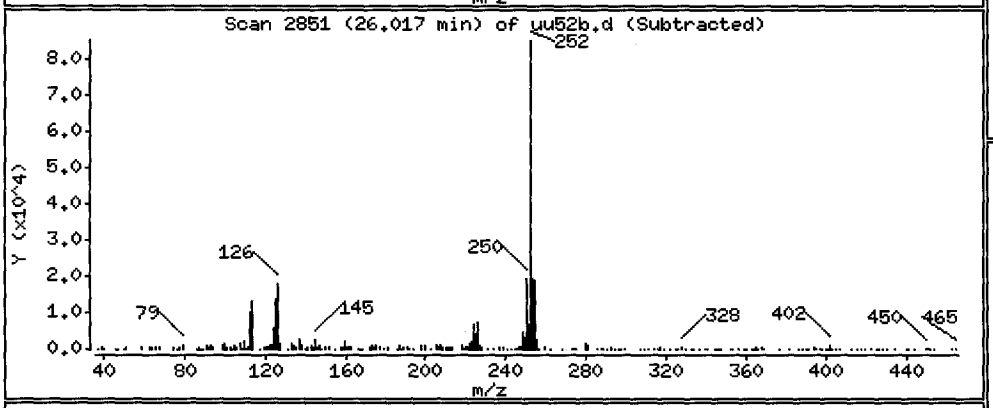
Sample Info: UU52B,3

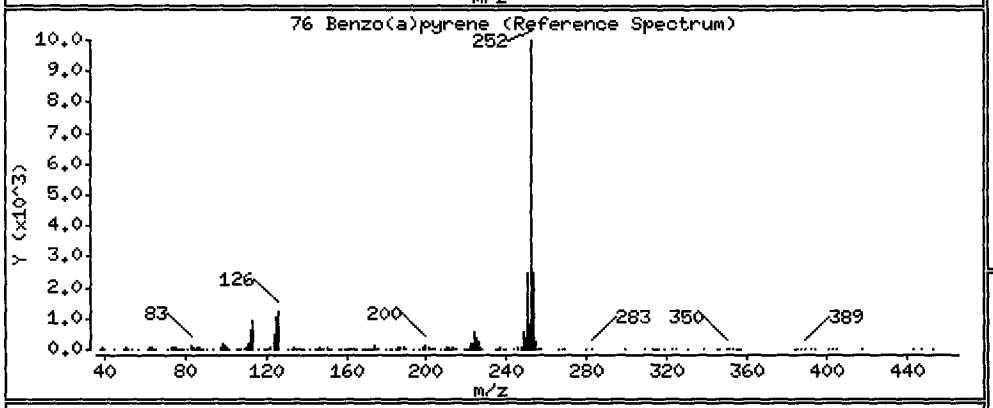
Volume Injected (uL): 1.0 Operator: VTS/YZ

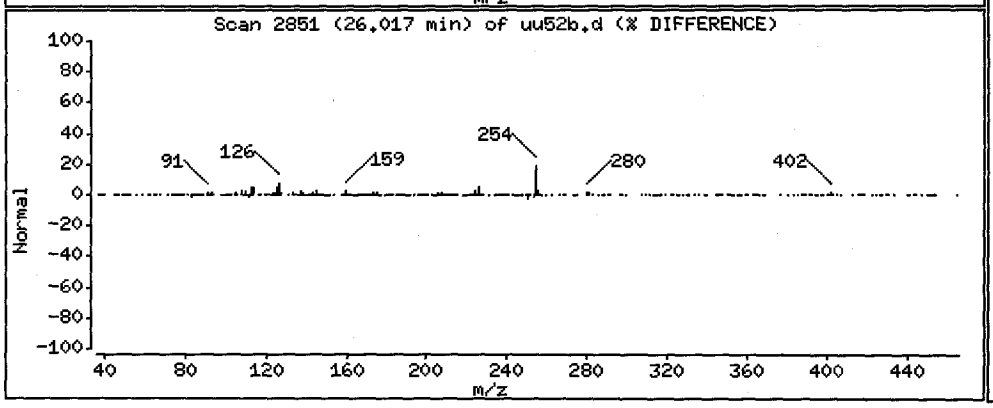
Column phase: ZB-5msi Column diameter: 0.25

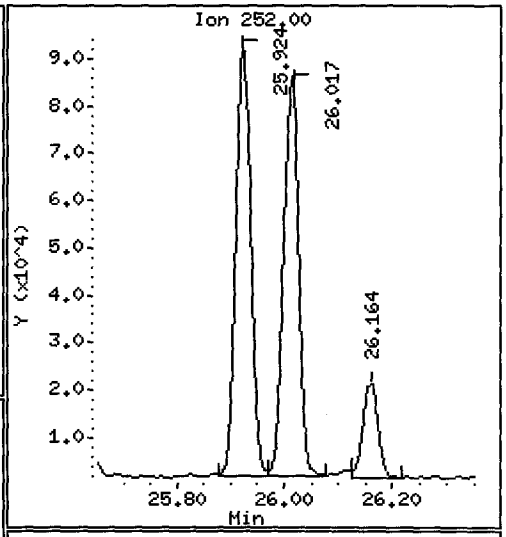
76 Benzo(a)pyrene Concentration: 271.6 ug/kg

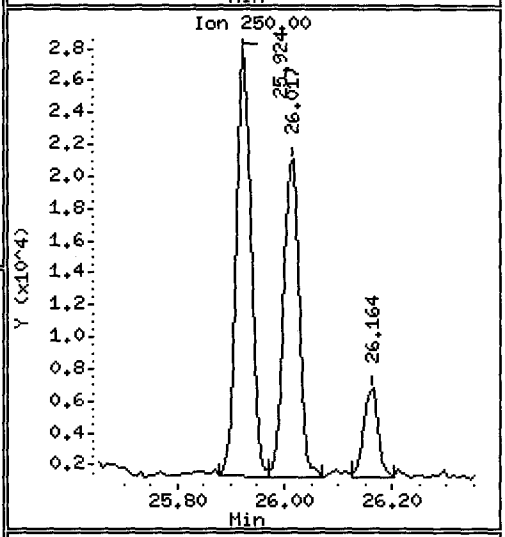


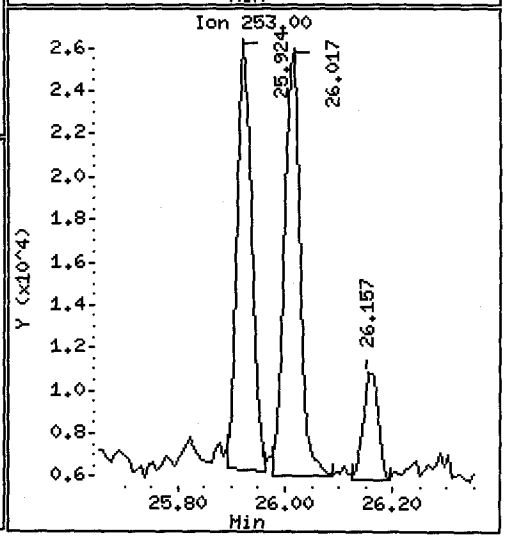



Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

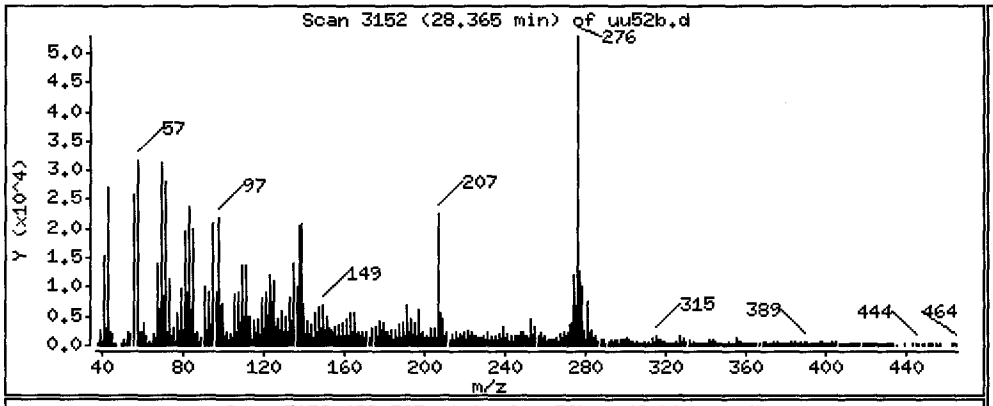
Operator: VTS/YZ

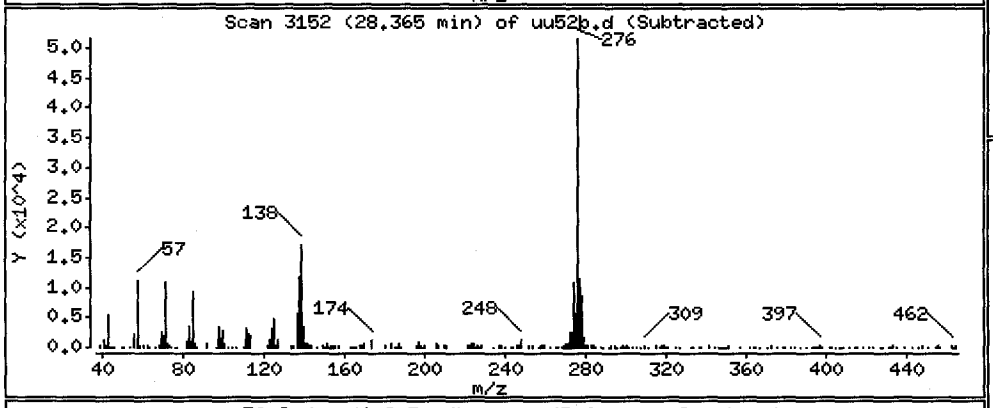
Column phase: ZB-5msi

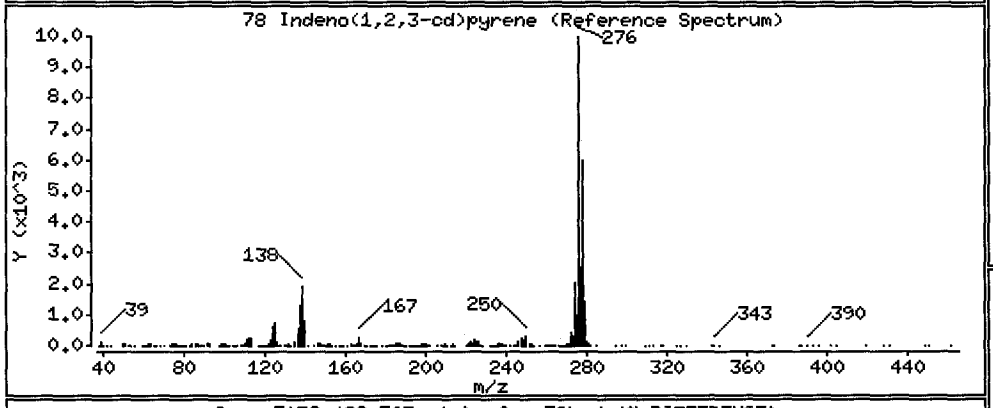
Column diameter: 0.25

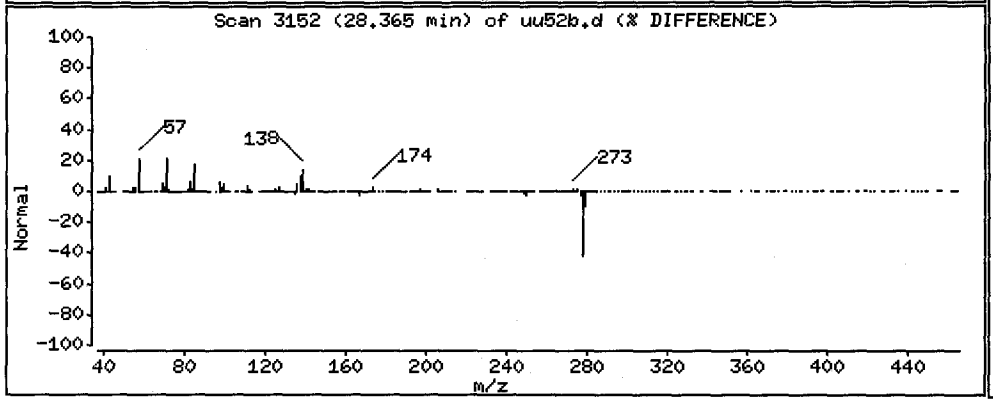
78 Indeno(1,2,3-cd)pyrene

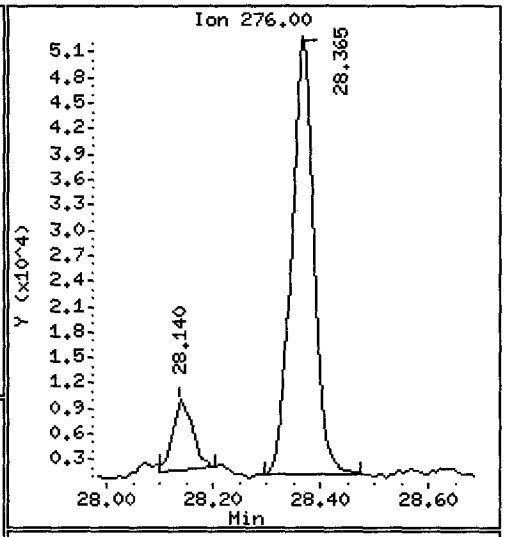
Concentration: 226.2 ug/kg

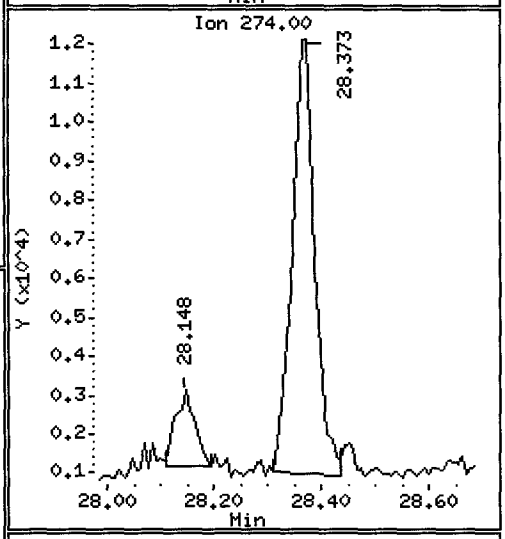


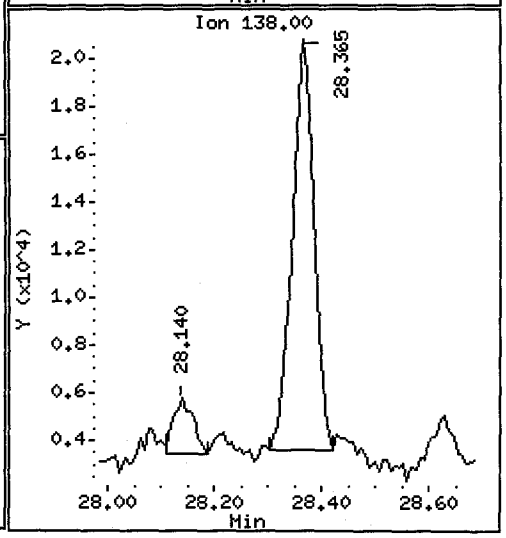



Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

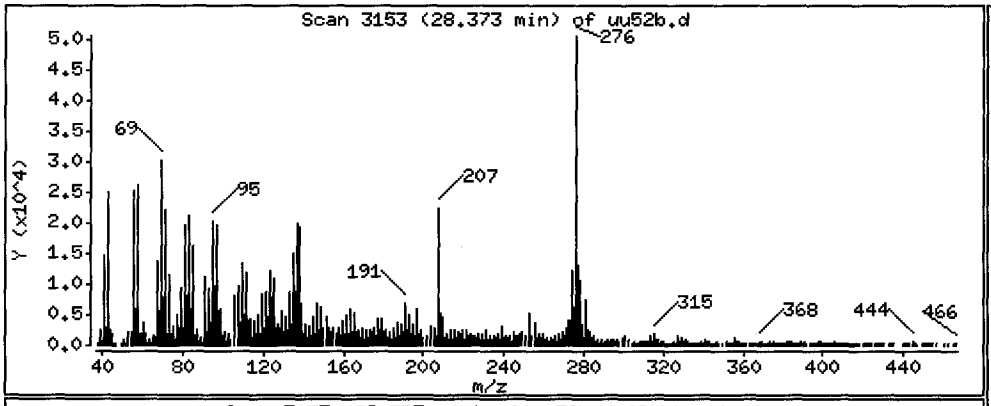
Operator: VTS/YZ

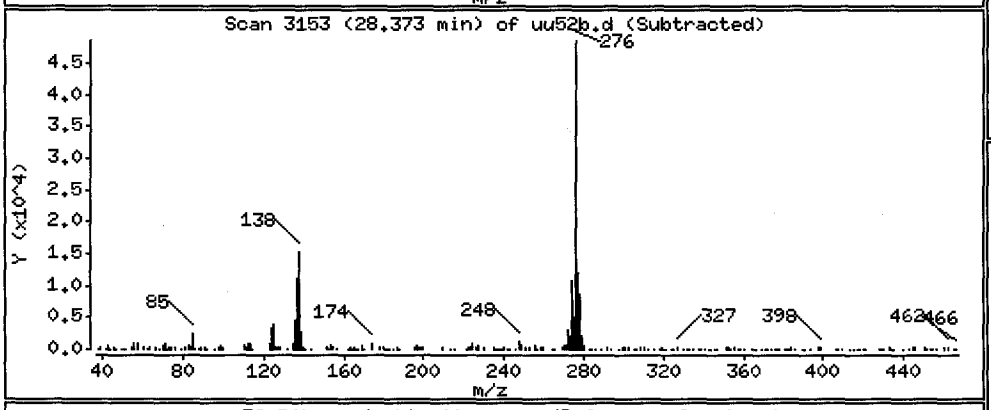
Column phase: ZB-5msi

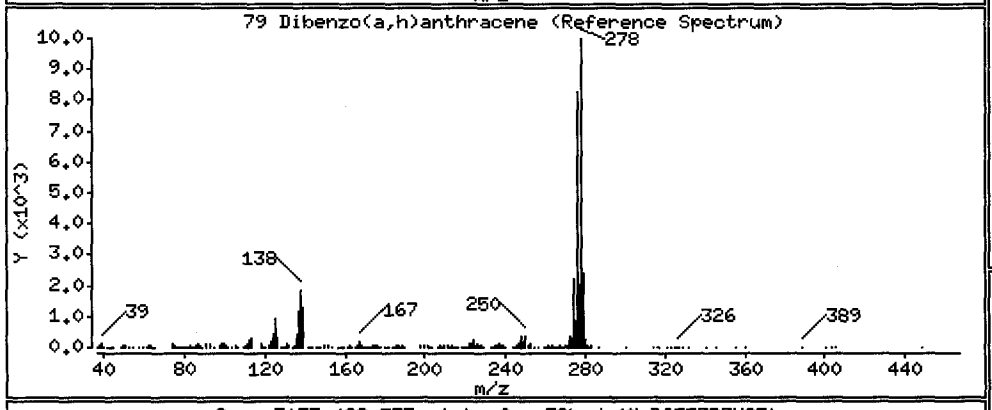
Column diameter: 0.25

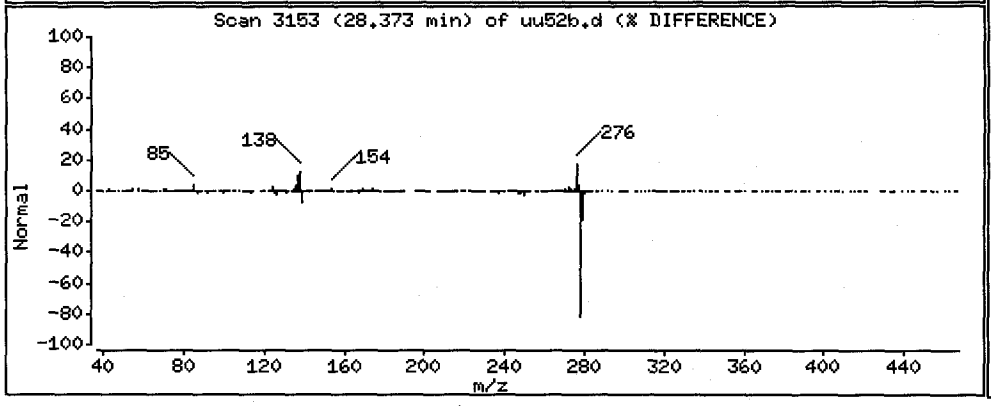
79 Dibenzo(a,h)anthracene

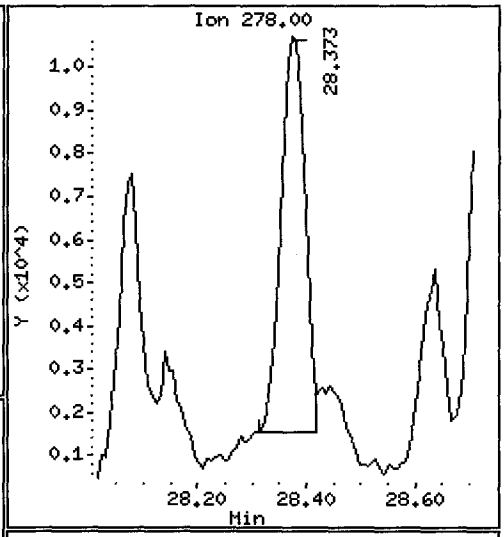
Concentration: 53.98 ug/kg

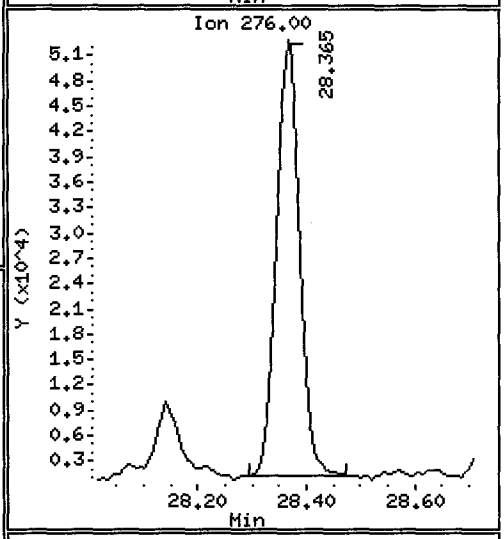


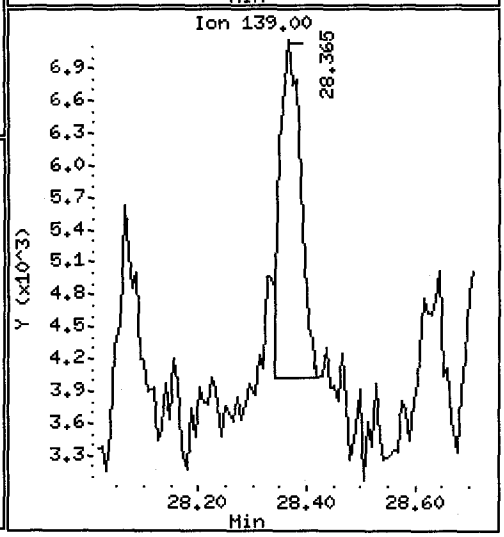



Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

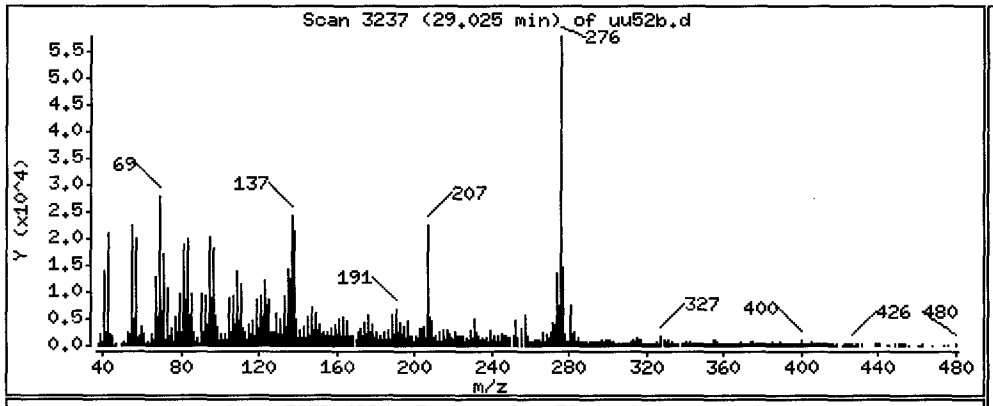
Operator: VTS/YZ

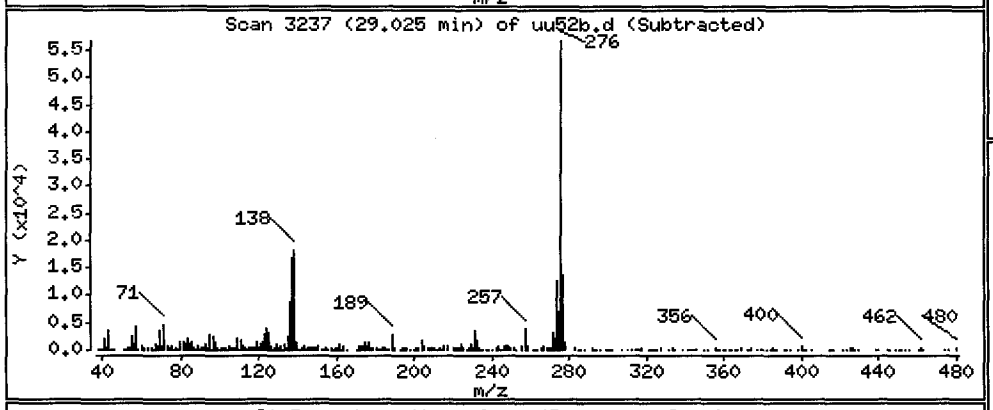
Column phase: ZB-5msi

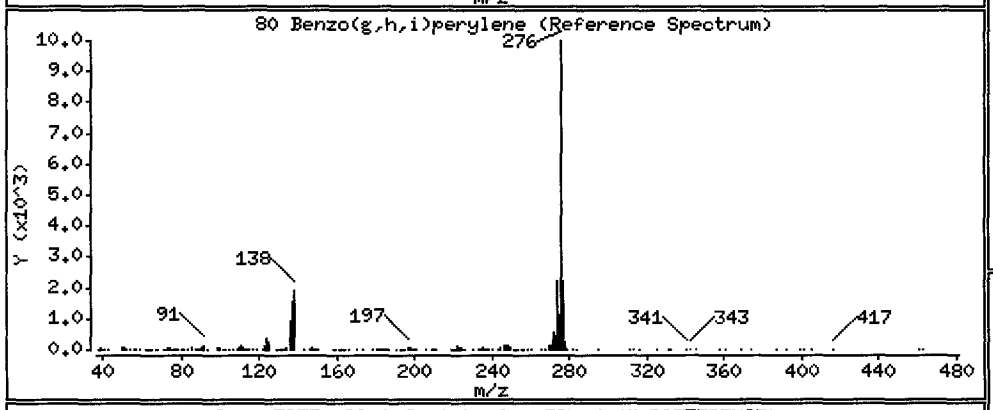
Column diameter: 0.25

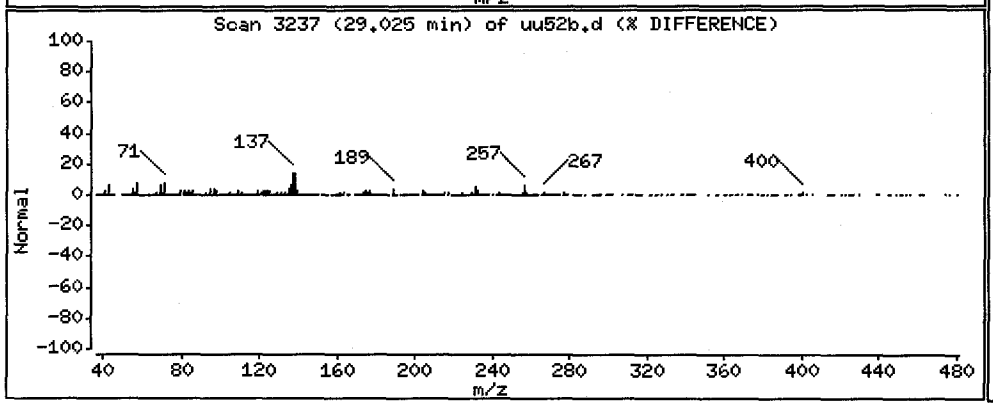
80 Benzo(g,h,i)perylene

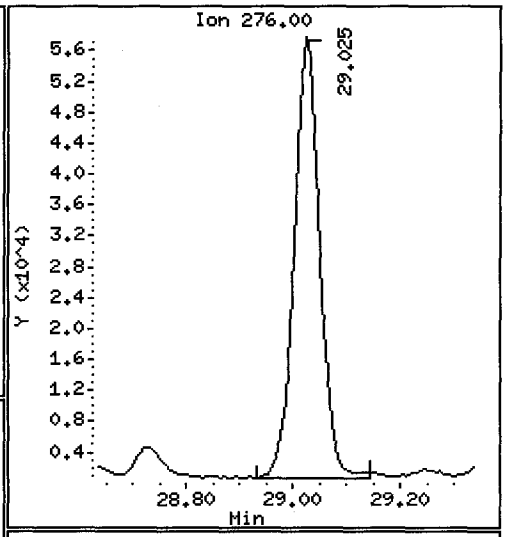
Concentration: 333.0 ug/kg

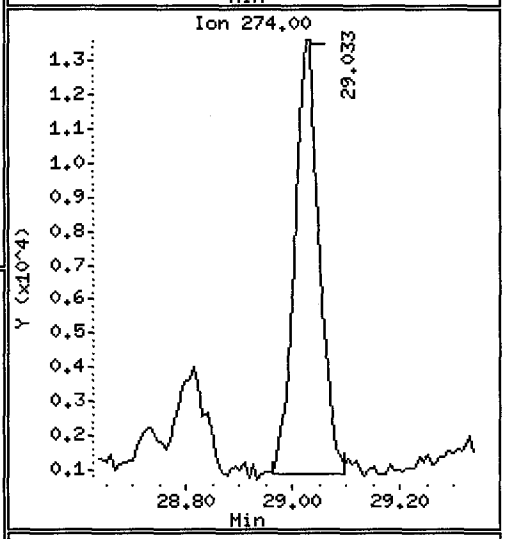


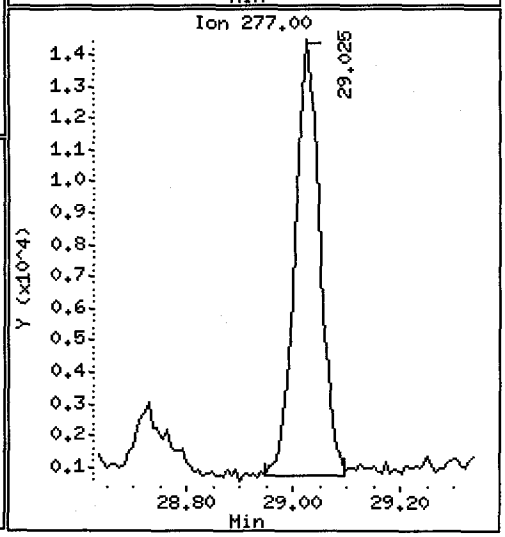



Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

Client ID: MS101-SS-120515

Instrument: nt10.i

Sample Info: UU52B,3

Volume Injected (uL): 1.0

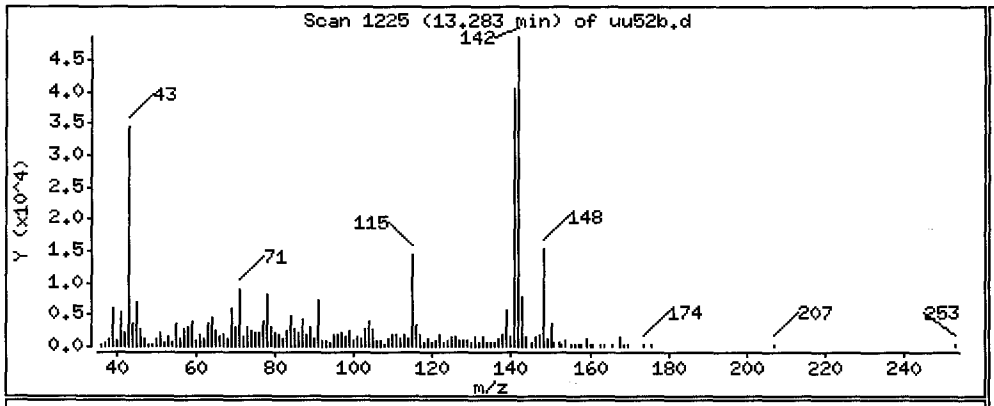
Operator: VTS/YZ

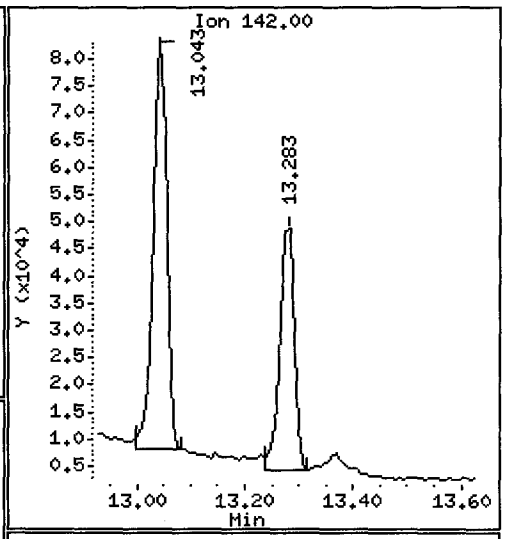
Column phase: ZB-5msi

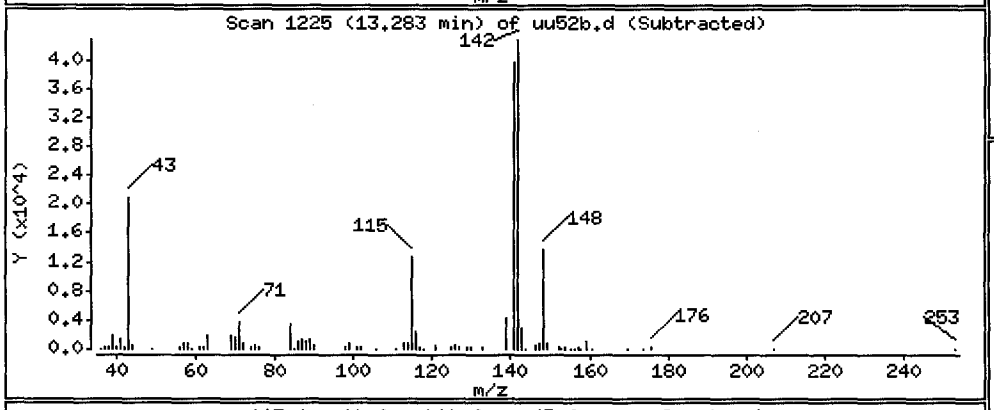
Column diameter: 0.25

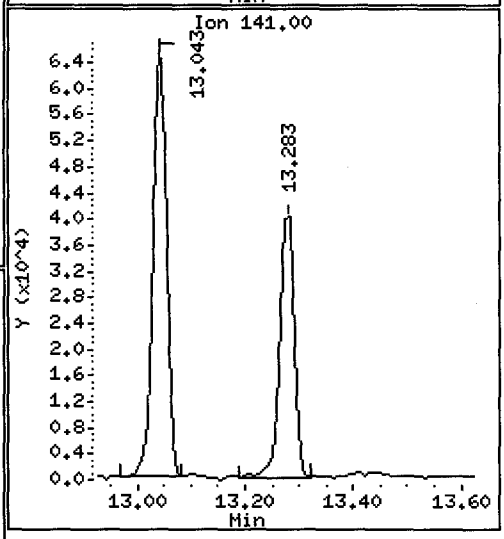
105 1-methylnaphthalene

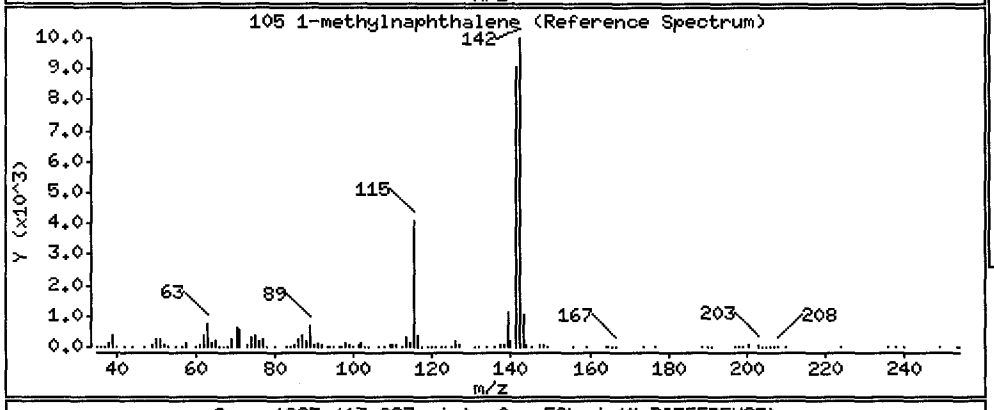
Concentration: 168.9 ug/kg

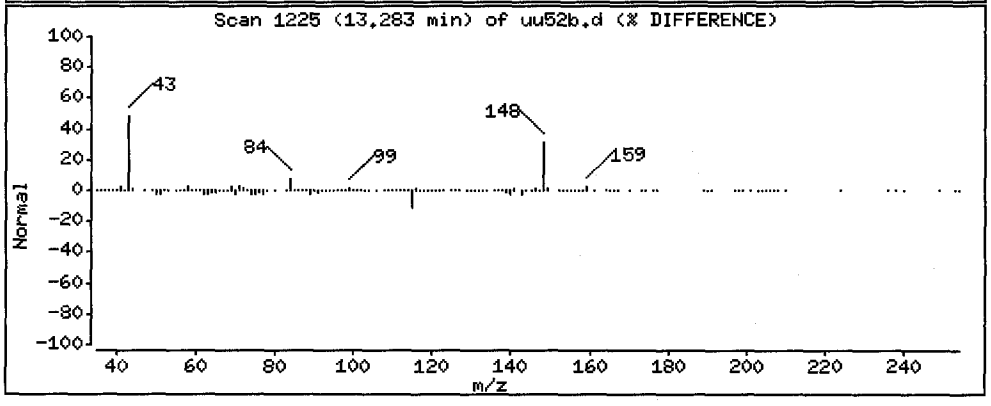


Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

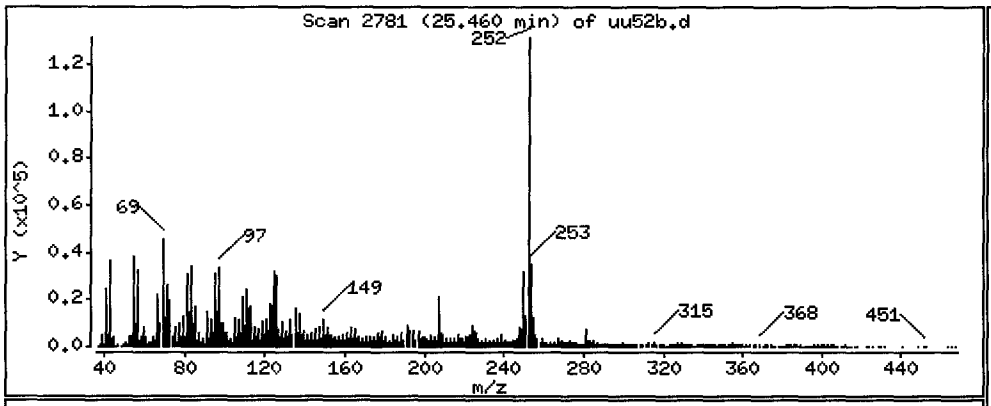
Client ID: MS101-SS-120515 Instrument: nt10.i

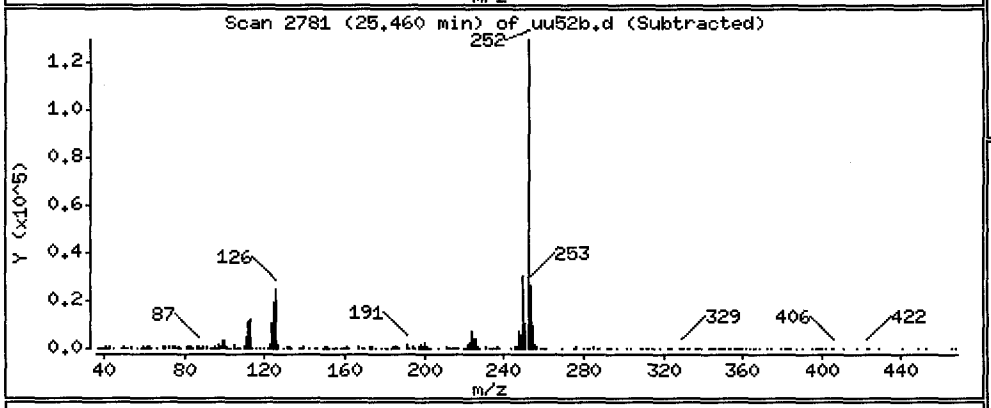
Sample Info: UU52B,3

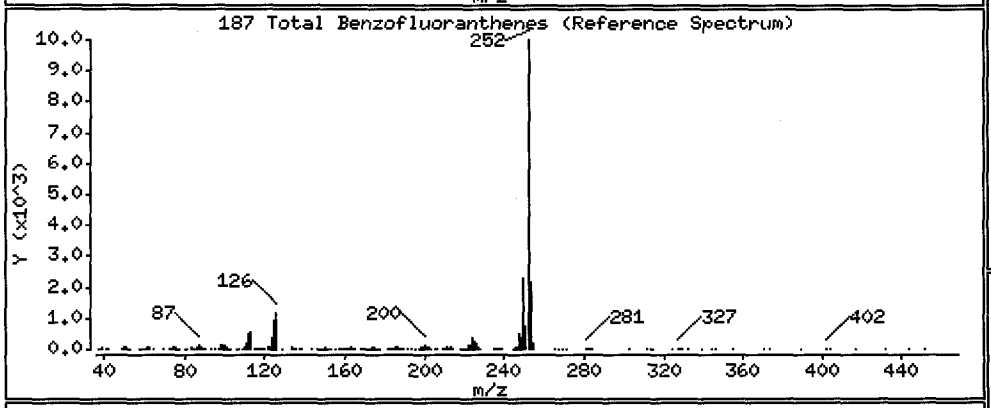
Volume Injected (uL): 1.0 Operator: VTS/YZ

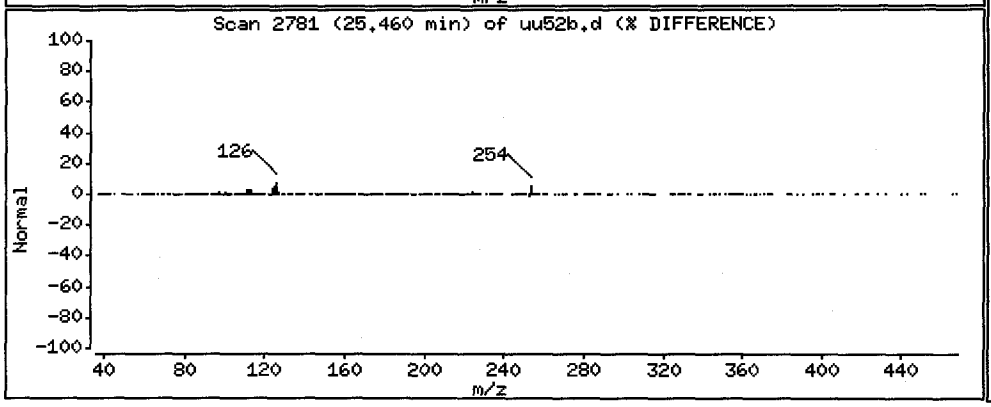
Column phase: ZB-5msi Column diameter: 0.25

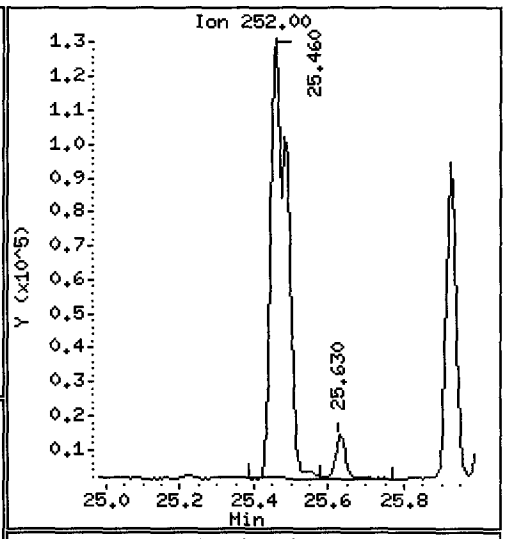
187 Total Benzofluoranthenes Concentration: 632.3 ug/kg

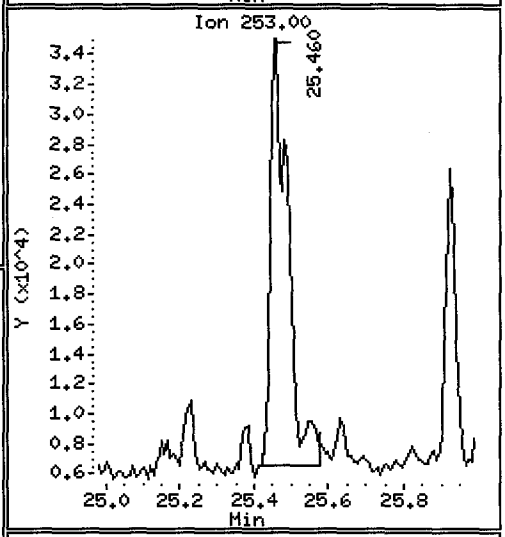


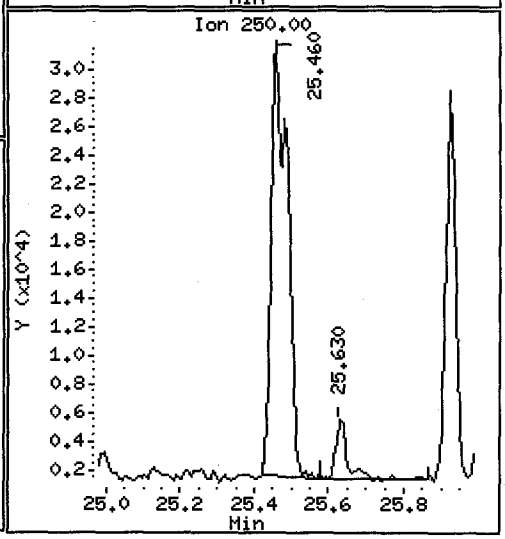



Data File: /chem1/nt10.i/20120526.b/uu52b.d

Date : 26-MAY-2012 17:48

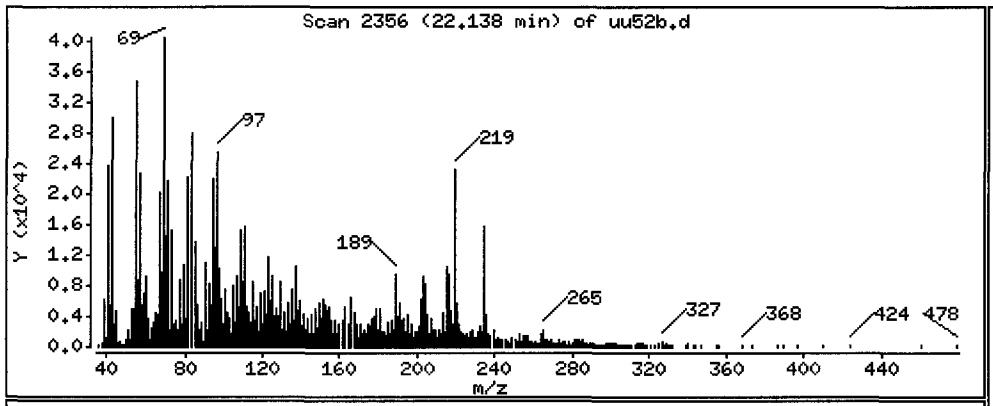
Client ID: MS101-SS-120515 Instrument: nt10.i

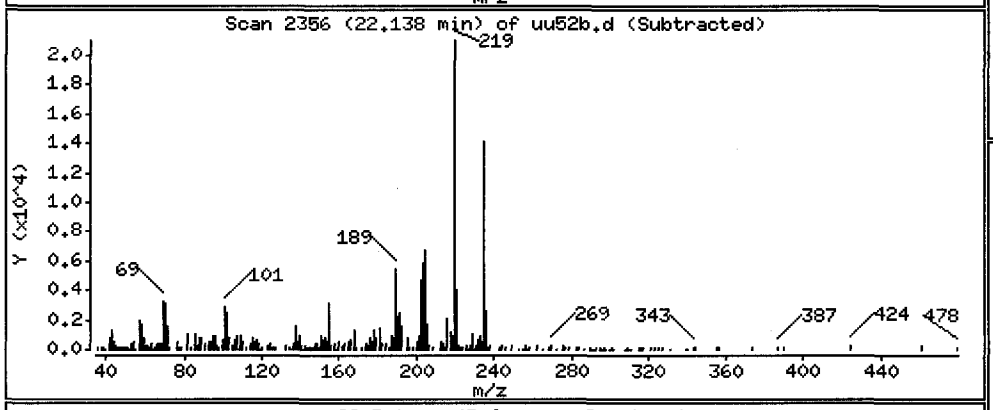
Sample Info: UU52B,3

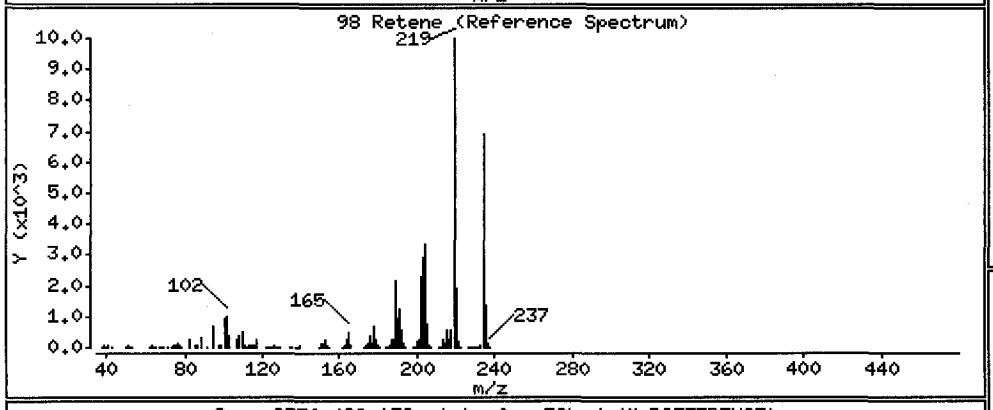
Volume Injected (uL): 1.0 Operator: VTS/YZ

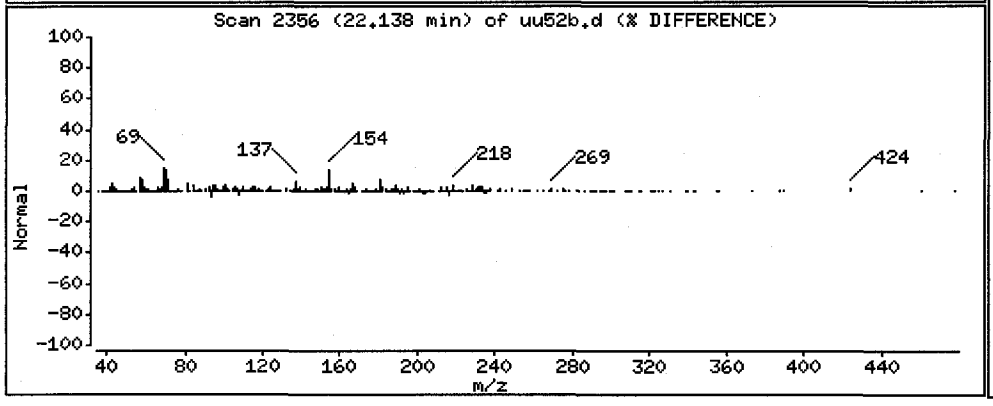
Column phase: ZB-5msi Column diameter: 0.25

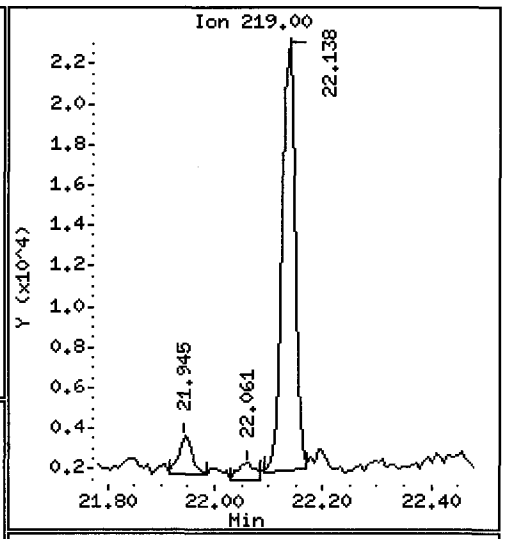
98 Retene Concentration: 103.5 ug/kg

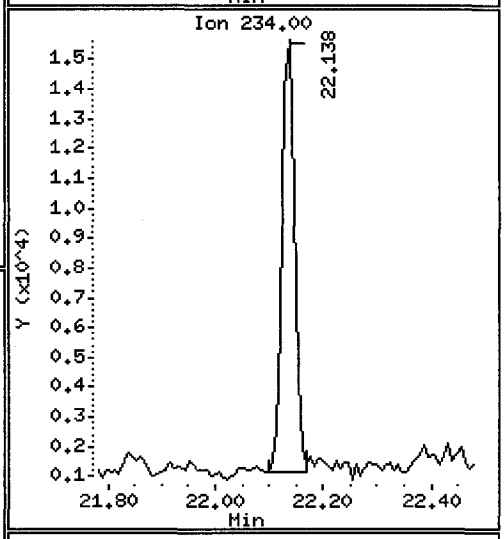


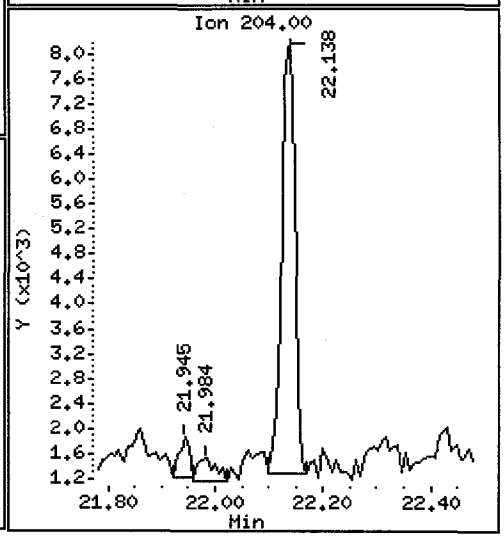



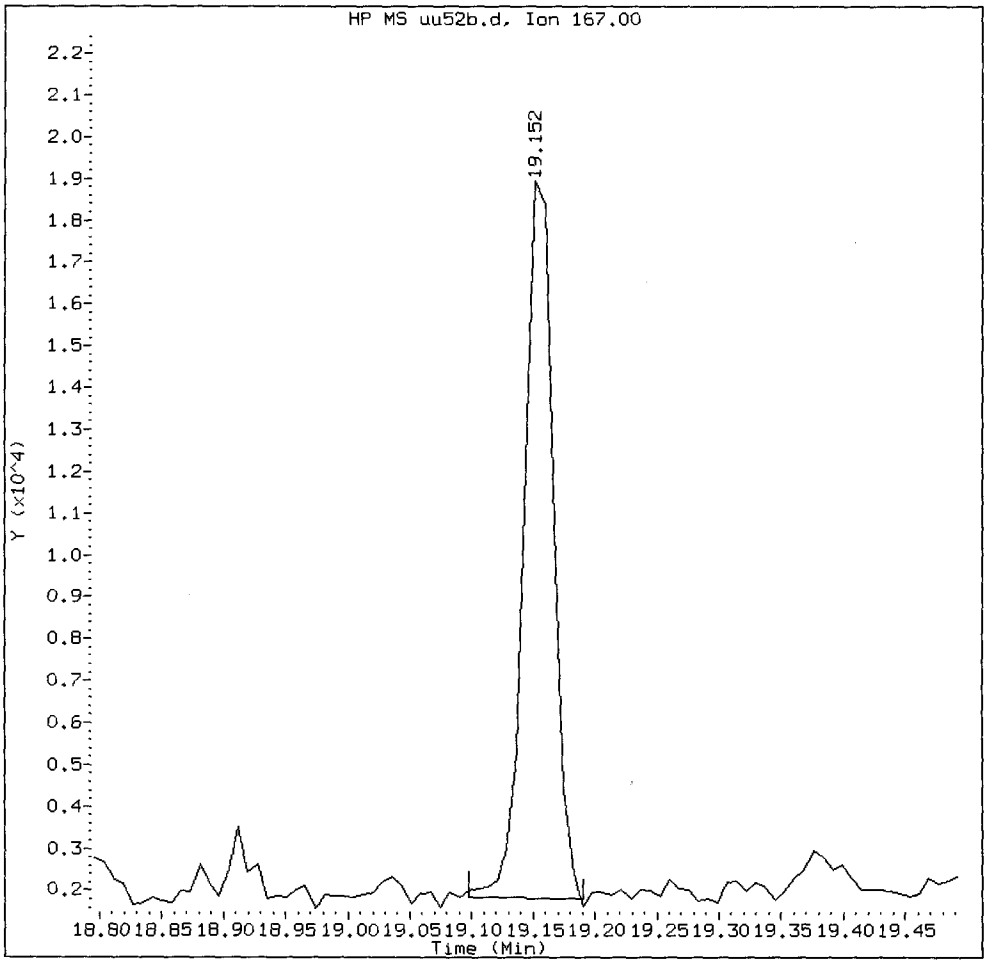



UU52B, /chem1/nt10.i/20120526.b/uu52b.d

Carbazole Amount: 0.19 Area: 28849




MANUAL INTEGRATION for Carbazole

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 6/4/12

CO-ELUTION SUMMARY FOR FILE - uu52b.d

Lab ID: UU52B, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/uu52c.d
Lab Smp Id: UU52C Client Smp ID: MS002-SS-120515
Inj Date : 26-MAY-2012 18:25
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52C,3
Misc Info : 12-8895
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 04-Jun-2012 10:50 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 5
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

YZ 6/4/12

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 3.00000 | Dilution Factor |
| Vt | 1000.00000 | Volume of final extract (uL) |
| Ws | 99.10000 | Weight of sample extracted (g) |
| M | 89.80000 | % Moisture |

Cpnd Variable Local Compound Variable

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|
| $ 1 2-Fluorophenol | 112 | 6.560 | 6.537 | (0.741) | 106665 | 1.60716 | 477.0 |
| $ 2 Phenol-d5 | 99 | 8.245 | 8.237 | (0.931) | 143555 | 1.73641 | 515.3 |
| 3 Phenol | 94 | 8.268 | 8.260 | (0.934) | 76732 | 0.87075 | 258.4 |
| $ 5 2-Chlorophenol-d4 | 132 | 8.484 | 8.476 | (0.958) | 120657 | 1.66582 | 494.4 |
| 4 Bis(2-Chloroethyl)ether | 93 | Compound Not Detected. | | | | | |
| 6 2-Chlorophenol | 128 | Compound Not Detected. | | | | | |
| 7 1,3-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| * 8 1,4-Dichlorobenzene-d4 | 152 | 8.855 | 8.855 | (1.000) | 189793 | 4.00000 | |
| 9 1,4-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| $ 10 1,2-Dichlorobenzene-d4 | 152 | 9.236 | 9.236 | (1.043) | 47340 | 0.99631 | 295.7 |
| 12 1,2-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| 11 Benzyl alcohol | 108 | Compound Not Detected. | | | | | |
| 14 2,2'-oxybis(1-Chloropropane) | 121 | Compound Not Detected. | | | | | |
| 13 2-Methylphenol | 108 | Compound Not Detected. | | | | | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| | 17 Hexachloroethane | 117 | Compound Not Detected. | | | | | |
| | 16 N-Nitroso-di-n-propylamine | 70 | Compound Not Detected. | | | | | |
| | 15 4-Methylphenol | 108 | 9.740 | 9.725 | (1.100) | 342549 | 4.72740 | 1403 |
| $ | 18 Nitrobenzene-d5 | 82 | 10.028 | 10.027 | (0.872) | 72146 | 1.05554 | 313.3 |
| | 19 Nitrobenzene | 77 | Compound Not Detected. | | | | | |
| | 20 Isophorone | 82 | Compound Not Detected. | | | | | |
| | 21 2-Nitrophenol | 139 | Compound Not Detected. | | | | | |
| | 22 2,4-Dimethylphenol | 107 | Compound Not Detected. | | | | | |
| | 23 Bis(2-Chloroethoxy)methane | 93 | Compound Not Detected. | | | | | |
| | 24 Benzoic acid | 105 | 11.026 | 11.087 | (0.958) | 62829 | 1.43002 | 424.4 |
| | 25 2,4-Dichlorophenol | 162 | Compound Not Detected. | | | | | |
| | 26 1,2,4-Trichlorobenzene | 180 | Compound Not Detected. | | | | | |
| * | 27 Naphthalene-d8 | 136 | 11.504 | 11.504 | (1.000) | 762840 | 4.00000 | |
| | 28 Naphthalene | 128 | 11.543 | 11.542 | (1.003) | 856750 | 4.45500 | 1322 |
| | 29 4-Chloroaniline | 127 | Compound Not Detected. | | | | | |
| | 30 Hexachlorobutadiene | 225 | Compound Not Detected. | | | | | |
| | 31 4-Chloro-3-methylphenol | 107 | Compound Not Detected. | | | | | |
| | 32 2-Methylnaphthalene | 142 | 13.043 | 13.043 | (1.134) | 107209 | 0.80190 | 238.0 |
| | 33 Hexachlorocyclopentadiene | 237 | Compound Not Detected. | | | | | |
| | 34 2,4,6-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| | 35 2,4,5-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| $ | 36 2-Fluorobiphenyl | 172 | 13.902 | 13.902 | (0.904) | 169852 | 1.16359 | 345.3 |
| | 37 2-Chloronaphthalene | 162 | Compound Not Detected. | | | | | |
| | 38 2-Nitroaniline | 65 | Compound Not Detected. | | | | | |
| | 39 Dimethylphthalate | 163 | Compound Not Detected. | | | | | |
| | 40 Acenaphthylene | 152 | 15.040 | 15.032 | (0.978) | 55290 | 0.29236 | 86.77 |
| | 41 2,6-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| * | 42 Acenaphthene-d10 | 164 | 15.380 | 15.373 | (1.000) | 421087 | 4.00000 | |
| | 43 3-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 44 Acenaphthene | 153 | 15.442 | 15.442 | (1.004) | 54131 | 0.47454 | 140.8 |
| | 45 2,4-Dinitrophenol | 184 | Compound Not Detected. | | | | | |
| | 46 Dibenzofuran | 168 | 15.806 | 15.798 | (1.028) | 134028 | 0.80199 | 238.0 |
| | 47 4-Nitrophenol | 109 | Compound Not Detected. | | | | | |
| | 48 2,4-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| | 50 Diethylphthalate | 149 | 16.470 | 16.470 | (1.071) | 17315 | 0.13728 J | 40.74 |
| | 49 Fluorene | 166 | 16.571 | 16.563 | (1.077) | 69735 | 0.54459 | 161.6 |
| | 51 4-Chlorophenyl-phenylether | 204 | Compound Not Detected. | | | | | |
| | 52 4-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 53 4,6-Dinitro-2-methylphenol | 198 | Compound Not Detected. | | | | | |
| | 54 N-Nitrosodiphenylamine | 169 | Compound Not Detected. | | | | | |
| $ | 55 2,4,6-Tribromophenol | 330 | 17.150 | 17.142 | (1.115) | 32396 | 1.86394 | 553.2 |
| | 56 4-Bromophenyl-phenylether | 248 | Compound Not Detected. | | | | | |
| | 57 Hexachlorobenzene | 284 | Compound Not Detected. | | | | | |
| | 58 Pentachlorophenol | 266 | Compound Not Detected. | | | | | |
| * | 59 Phenanthrene-d10 | 188 | 18.641 | 18.633 | (1.000) | 644641 | 4.00000 | |
| | 60 Phenanthrene | 178 | 18.695 | 18.687 | (1.003) | 466441 | 2.80604 | 832.8 |
| | 61 Anthracene | 178 | 18.788 | 18.780 | (1.008) | 96806 | 0.55749 | 165.5 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| | 62 Carbazole | 167 | 19.160 | 19.144 | (1.028) | 30025 | 0.18687 | 55.46 (M) |
| | 63 Di-n-butylphthalate | 149 | Compound Not Detected. | | | | | |
| | 64 Fluoranthene | 202 | 21.132 | 21.101 | (1.134) | 547685 | 2.90186 | 861.2 |
| | 65 Pyrene | 202 | 21.535 | 21.519 | (0.908) | 592803 | 2.89231 | 858.4 |
| $ | 66 Terphenyl-d14 | 244 | 21.852 | 21.844 | (0.921) | 156944 | 1.22235 | 362.8 |
| | 67 Butylbenzylphthalate | 149 | Compound Not Detected. | | | | | |
| | 68 Benzo(a)anthracene | 228 | 23.687 | 23.679 | (0.999) | 177073 | 0.93451 | 277.4 |
| * | 69 Chrysene-d12 | 240 | 23.718 | 23.710 | (1.000) | 673614 | 4.00000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | Compound Not Detected. | | | | | |
| | 71 Chrysene | 228 | 23.757 | 23.749 | (1.002) | 447294 | 2.68344 | 796.4 |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 23.834 | 23.818 | (0.961) | 75018 | 0.50501 | 149.9 |
| * | 134 Di-n-octylphthalate-d4 | 153 | 24.802 | 24.794 | (1.000) | 1081717 | 4.00000 | |
| | 73 Di-n-octylphthalate | 149 | Compound Not Detected. | | | | | |
| | 74 Benzo(b)fluoranthene | 252 | Compound Not Detected. | | | | | |
| | 75 Benzo(k)fluoranthene | 252 | Compound Not Detected. | | | | | |
| | 76 Benzo(a)pyrene | 252 | 26.017 | 26.002 | (0.996) | 273211 | 1.58874 | 471.5 |
| * | 77 Perylene-d12 | 264 | 26.118 | 26.102 | (1.000) | 665077 | 4.00000 | |
| | 78 Indeno(1,2,3-cd)pyrene | 276 | 28.373 | 28.342 | (1.086) | 229330 | 1.15287 | 342.2 |
| | 79 Dibenzo(a,h)anthracene | 278 | 28.388 | 28.365 | (1.087) | 55054 | 0.35135 | 104.3 |
| | 80 Benzo(g,h,i)perylene | 276 | 29.041 | 29.002 | (1.112) | 246965 | 1.44782 | 429.7 |
| | 90 N-Nitrosodimethylamine | 74 | Compound Not Detected. | | | | | |
| | 91 Aniline | 93 | Compound Not Detected. | | | | | |
| | 93 Benzidine | 184 | Compound Not Detected. | | | | | |
| | 103 Pyridine | 79 | Compound Not Detected. | | | | | |
| | 105 1-methylnaphthalene | 142 | 13.283 | 13.275 | (1.155) | 65473 | 0.48020 | 142.5 |
| | 111 Azobenzene (1,2-DP-Hydrazine) | 77 | Compound Not Detected. | | | | | |
| | 187 Total Benzofluoranthenes | 252 | 25.460 | 25.483 | (0.975) | 633923 | 3.43514 | 1020 |
| | 99 Perylene | 252 | Compound Not Detected. | | | | | |
| | 98 Retene | 219 | 22.146 | 22.131 | (0.934) | 25521 | 0.26740 | 79.36 |

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52c.d
Lab Smp Id: UU52C
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8895

Calibration Date: 26-MAY-2012
Calibration Time: 10:59
Client Smp ID: MS002-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 189793 | 0.15 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 762840 | 4.37 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 421087 | 0.09 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 644641 | 0.89 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 673614 | 4.43 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 1081717 | 6.46 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 665077 | 2.31 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.86 | 0.00 |
| 27 Naphthalene-d8 | 11.50 | 11.00 | 12.00 | 11.50 | 0.00 |
| 42 Acenaphthene-d10 | 15.37 | 14.87 | 15.87 | 15.38 | 0.05 |
| 59 Phenanthrene-d10 | 18.63 | 18.13 | 19.13 | 18.64 | 0.04 |
| 69 Chrysene-d12 | 23.71 | 23.21 | 24.21 | 23.72 | 0.03 |
| 134 Di-n-octylphthala | 24.79 | 24.29 | 25.29 | 24.80 | 0.03 |
| 77 Perylene-d12 | 26.10 | 25.60 | 26.60 | 26.12 | 0.06 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52C Client Smp ID: MS002-SS-120515
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8895

| SURROGATE COMPOUND | CONC ADDED ug/kg | CONC RECOVERED ug/kg | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 1 2-Fluorophenol | 742.0 | 477.0 | 64.29 | 30-160 |
| $ 2 Phenol-d5 | 742.0 | 515.3 | 69.46 | 30-160 |
| $ 5 2-Chlorophenol-d4 | 742.0 | 494.4 | 66.63 | 30-160 |
| $ 10 1,2-Dichlorobenzen | 494.6 | 295.7 | 59.78 | 30-160 |
| $ 18 Nitrobenzene-d5 | 494.6 | 313.3 | 63.33 | 30-160 |
| $ 36 2-Fluorobiphenyl | 494.6 | 345.3 | 69.82 | 30-160 |
| $ 55 2,4,6-Tribromophen | 742.0 | 553.2 | 74.56 | 30-160 |
| $ 66 Terphenyl-d14 | 494.6 | 362.8 | 73.34 | 30-160 |

Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Sample Info: UU52C,3

Volume Injected (uL): 1.0

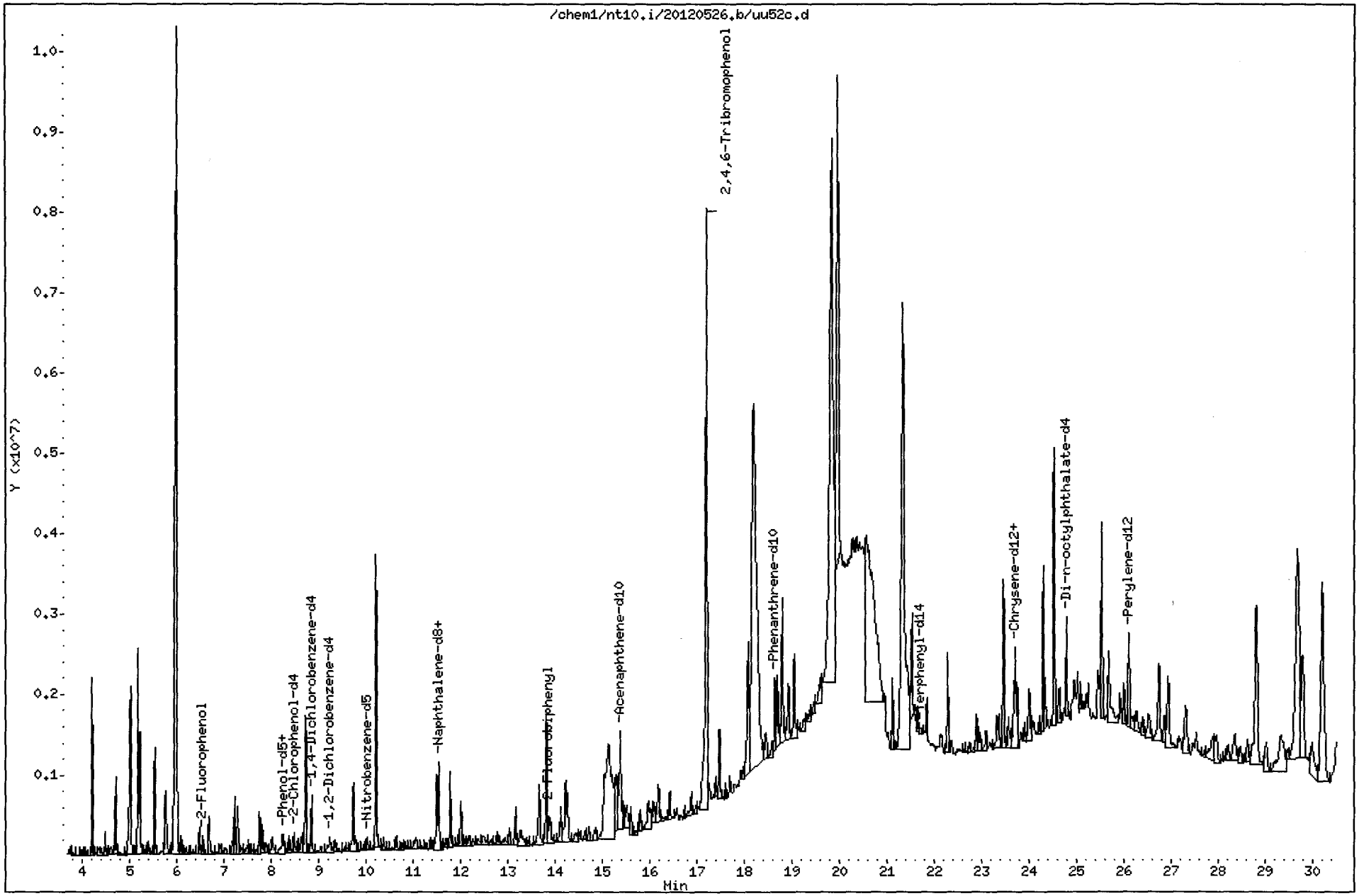
Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ

Column diameter: 0.25






UU52:00755

Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

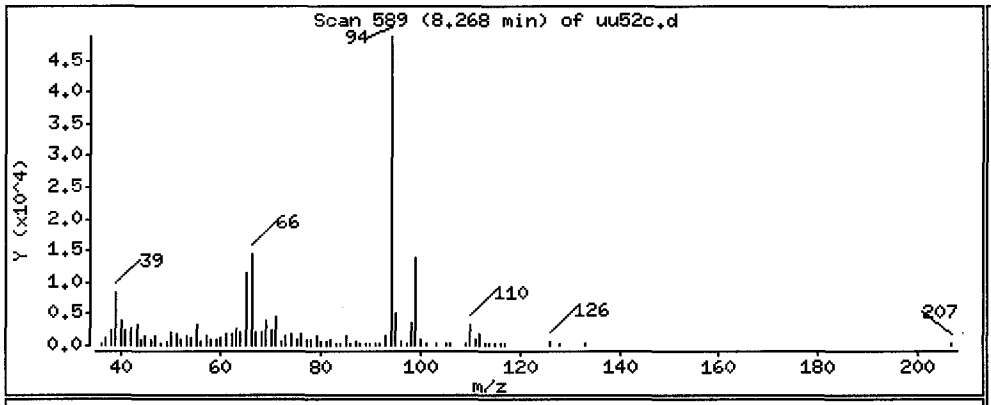
Client ID: MS002-SS-120515 Instrument: nt10.i

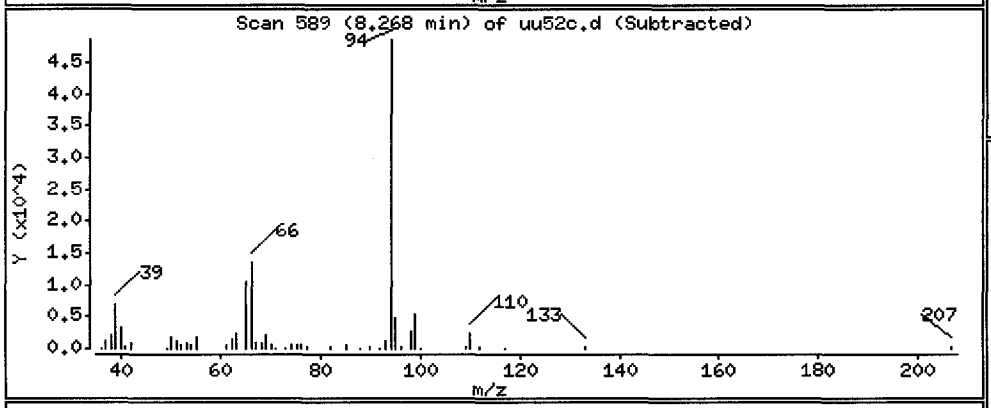
Sample Info: UU52C,3

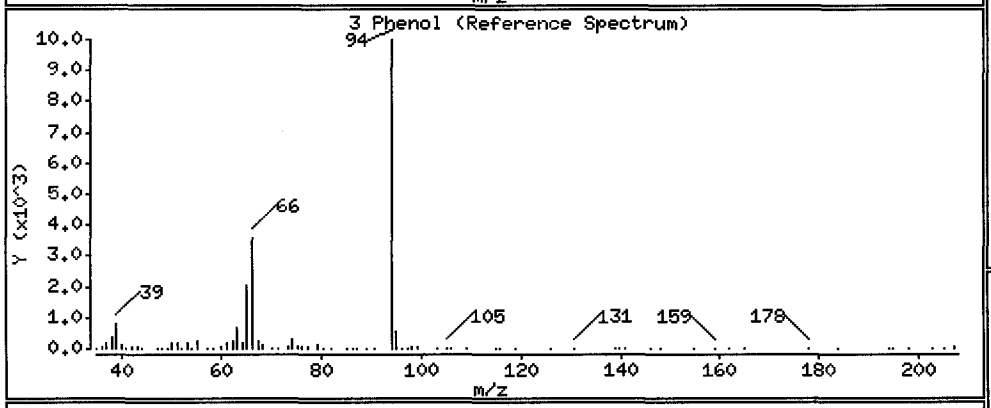
Volume Injected (uL): 1.0 Operator: VTS/YZ

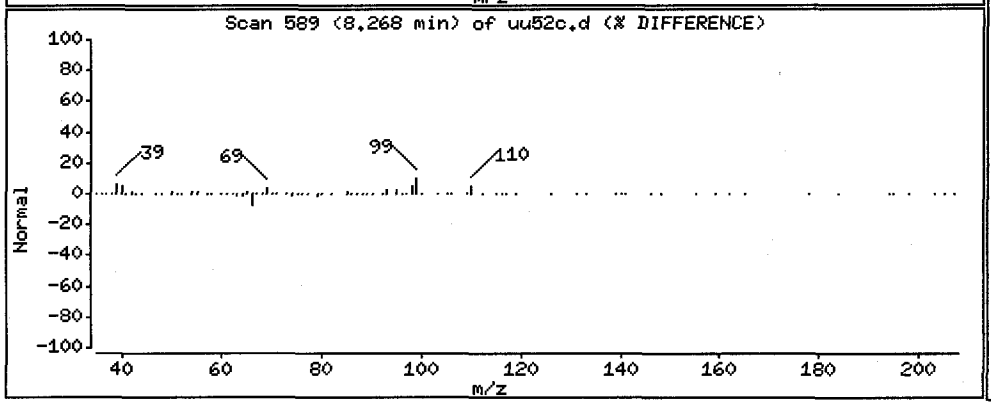
Column phase: ZB-5msi Column diameter: 0.25

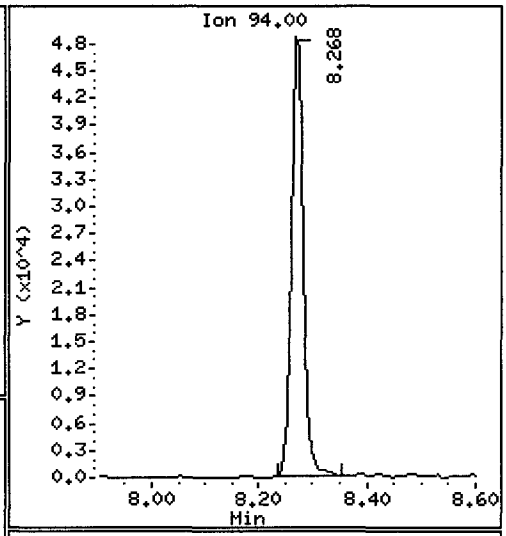
3 Phenol Concentration: 258.4 ug/kg

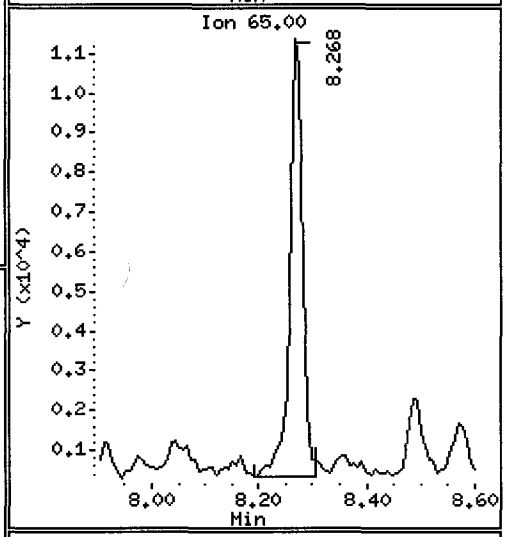


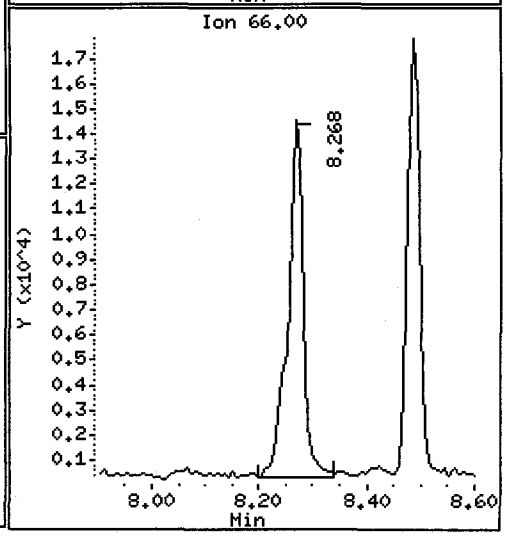



Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

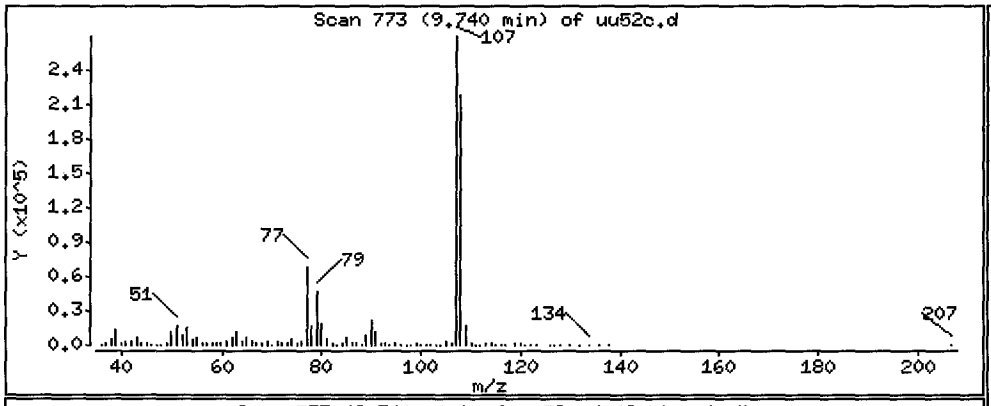
Operator: VTS/YZ

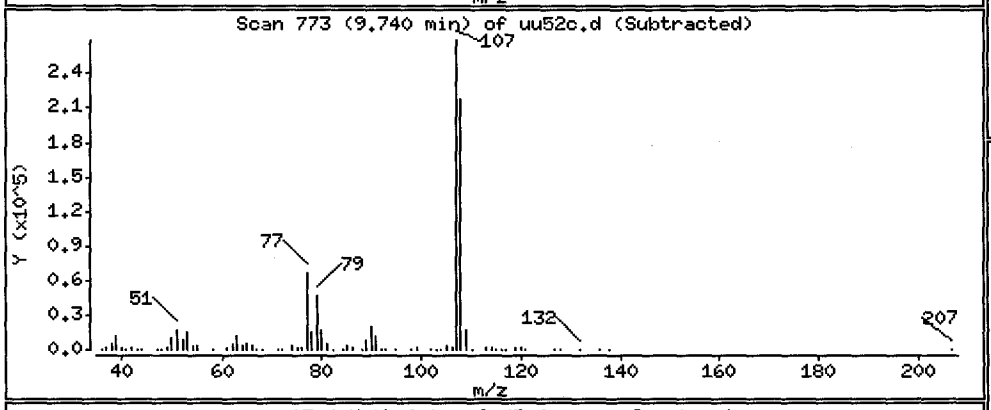
Column phase: ZB-5msi

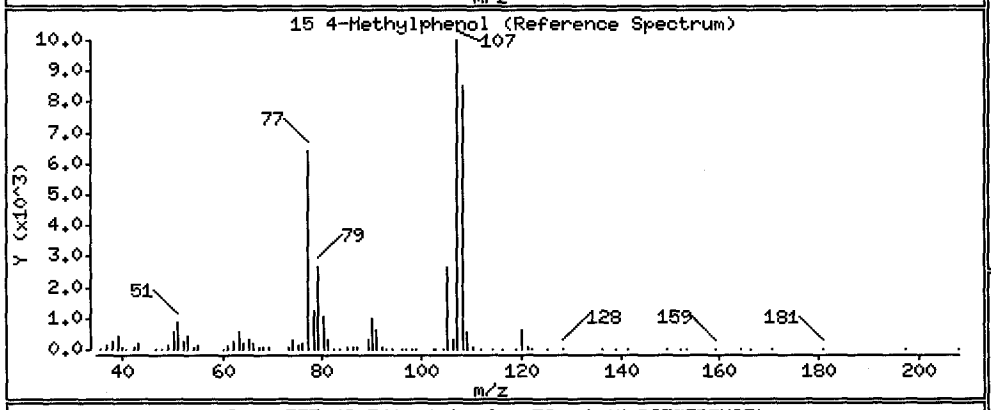
Column diameter: 0.25

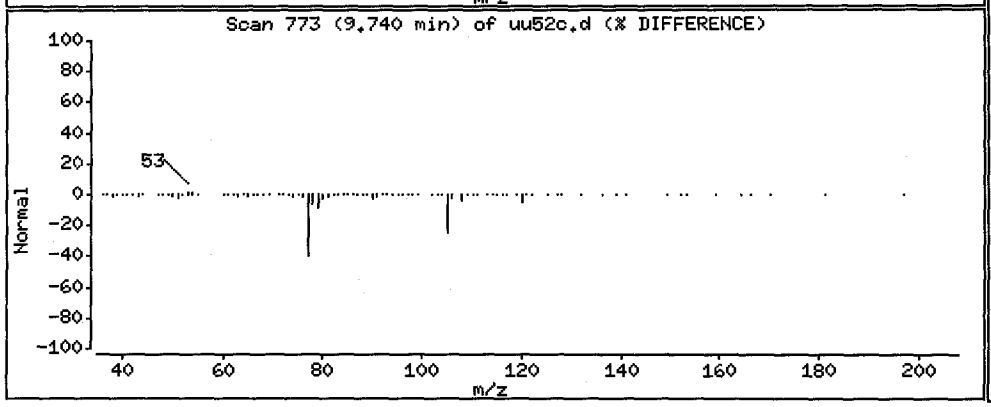
15 4-Methylphenol

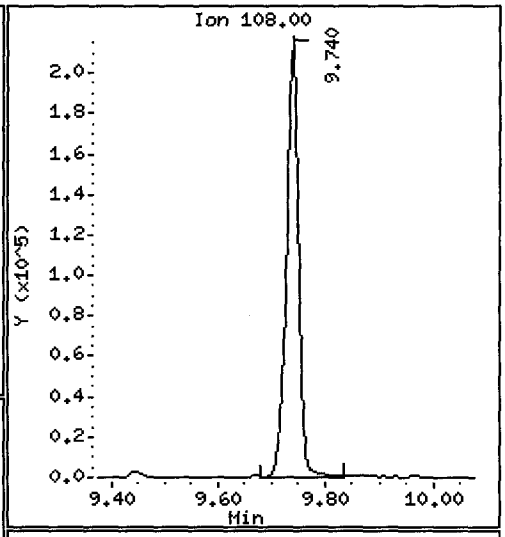
Concentration: 1403 ug/kg

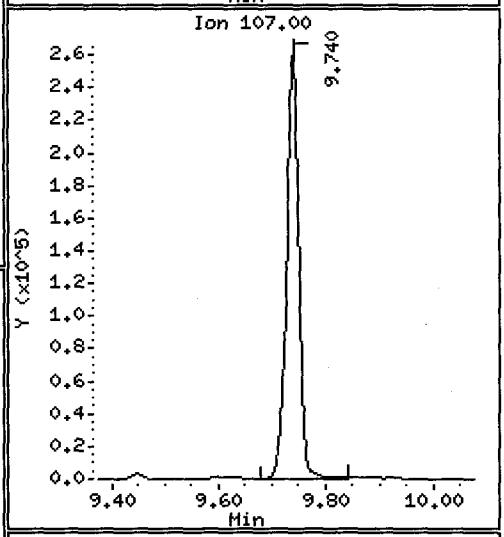


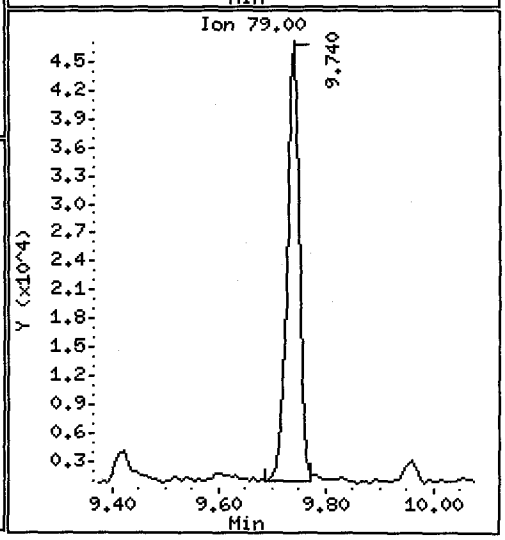



Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

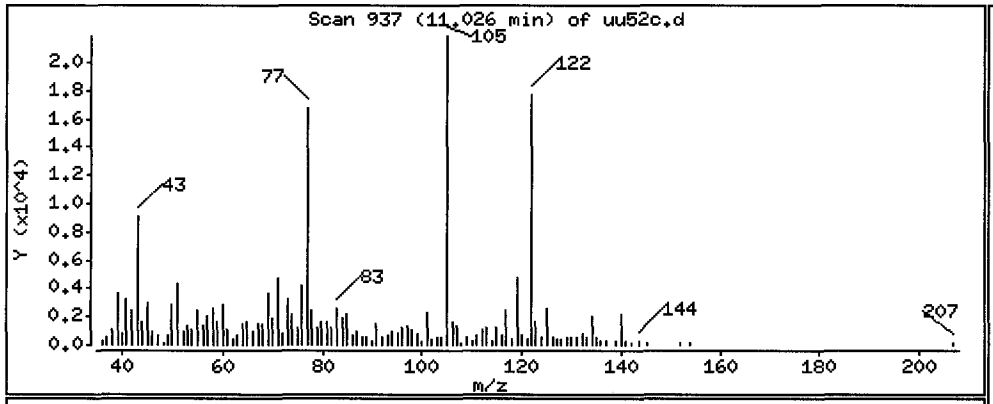
Client ID: MS002-SS-120515 Instrument: nt10.i

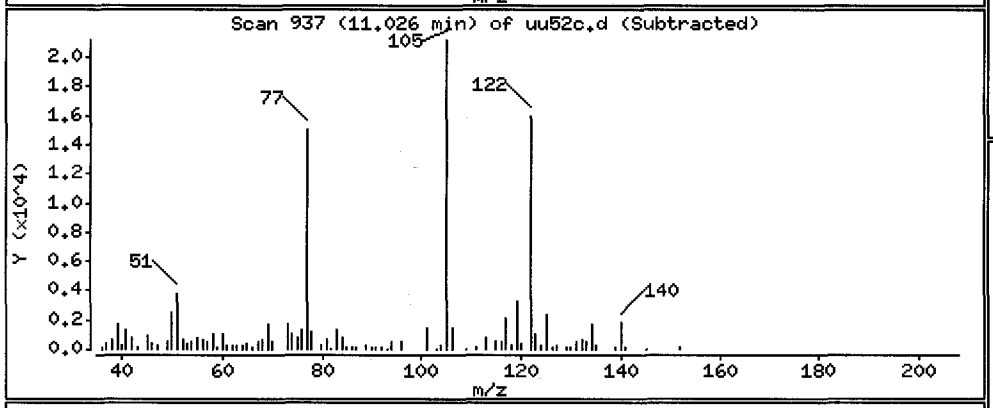
Sample Info: UU52C,3

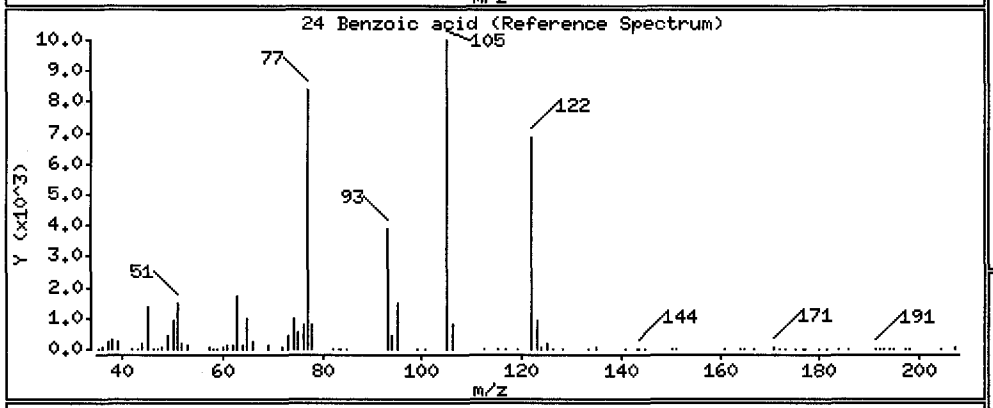
Volume Injected (uL): 1.0 Operator: VTS/YZ

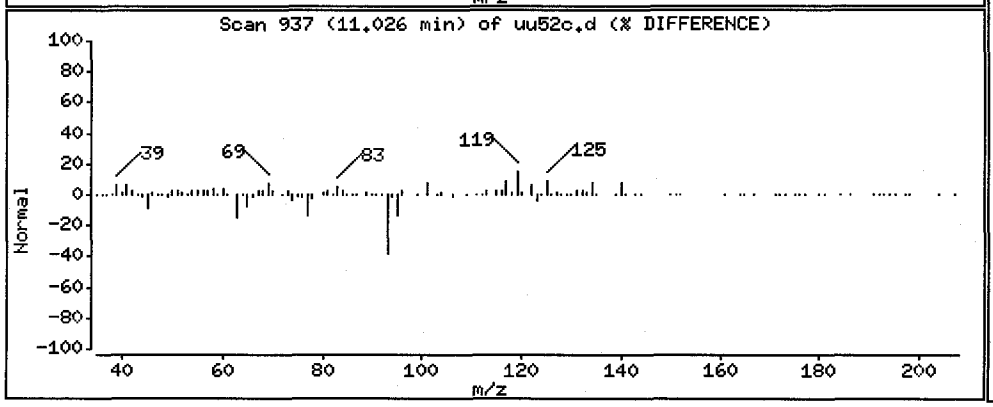
Column phase: ZB-5msi Column diameter: 0.25

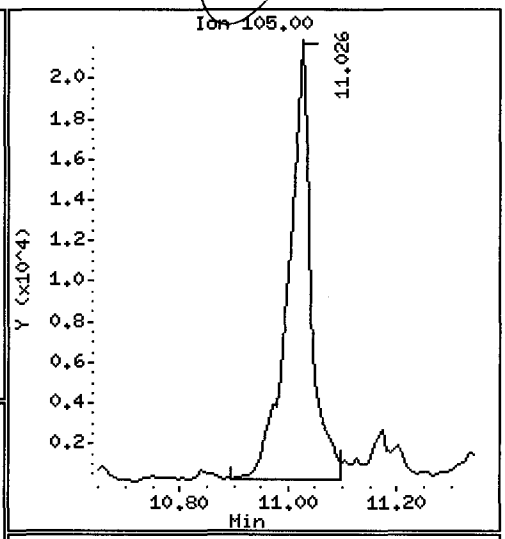
24 Benzoic acid Concentration: 424.4 ug/kg

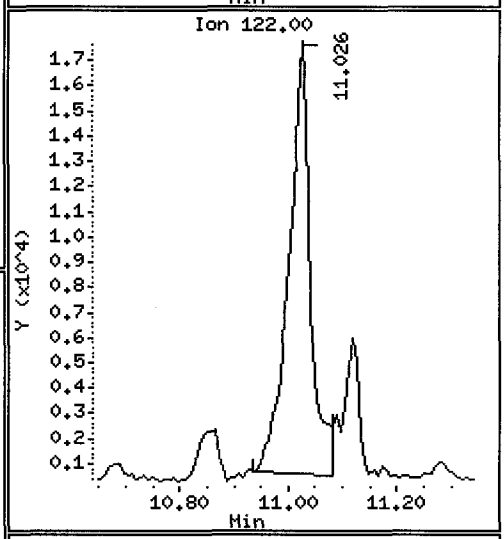


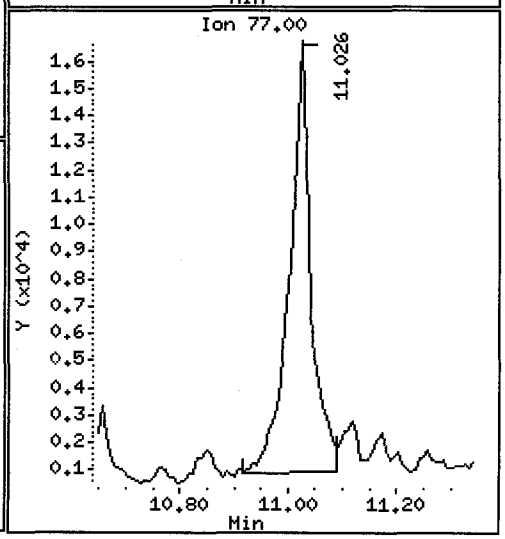



Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

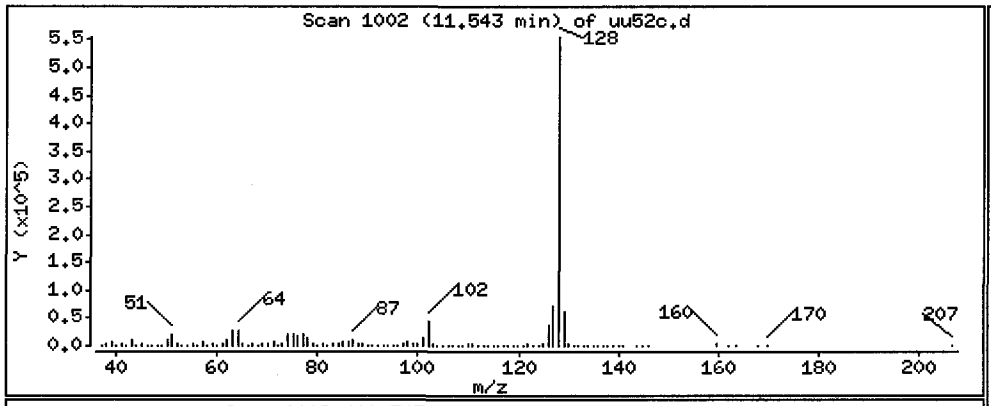
Client ID: MS002-SS-120515 Instrument: nt10.i

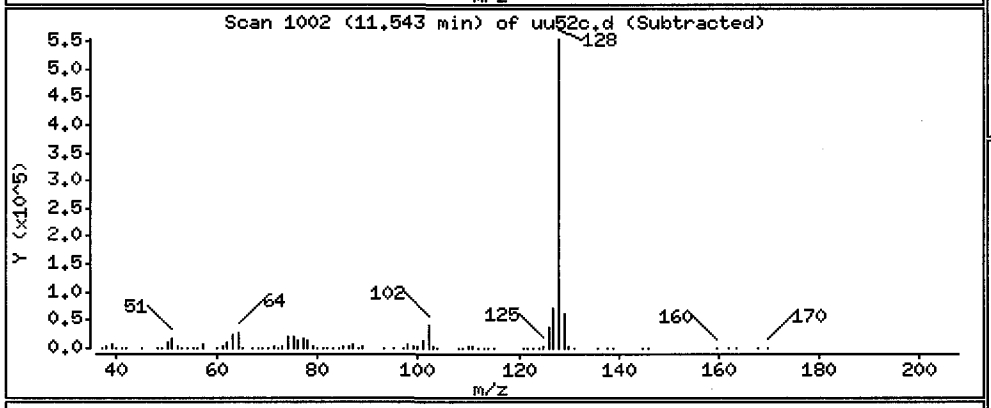
Sample Info: UU52C,3

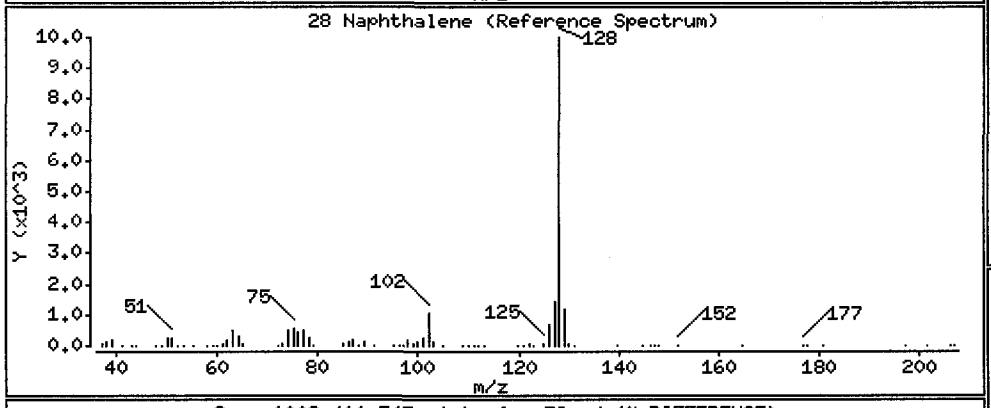
Volume Injected (uL): 1.0 Operator: VTS/YZ

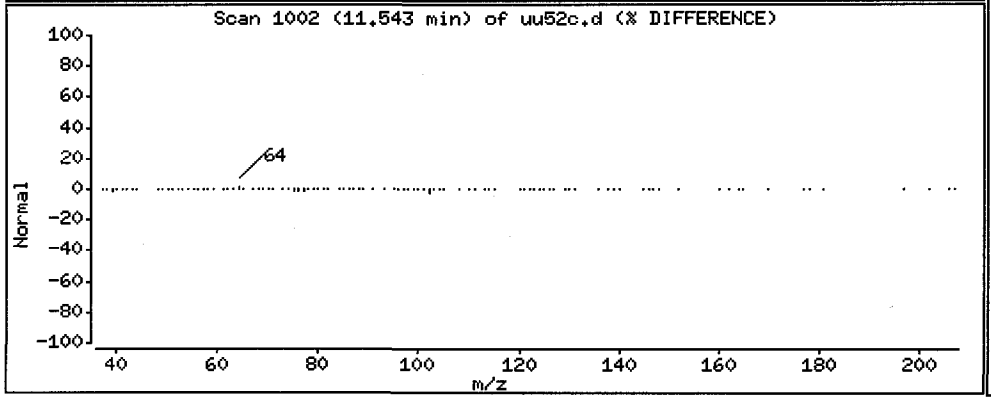
Column phase: ZB-5msi Column diameter: 0.25

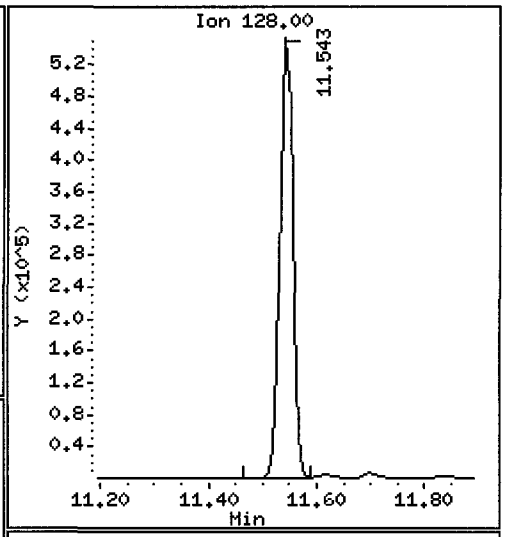
28 Naphthalene Concentration: 1322 ug/kg

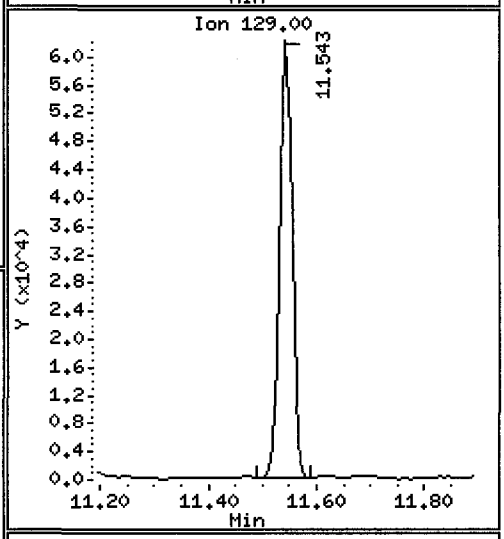


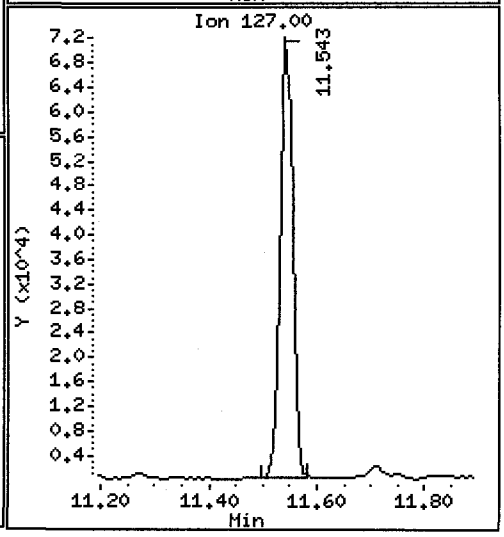



Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

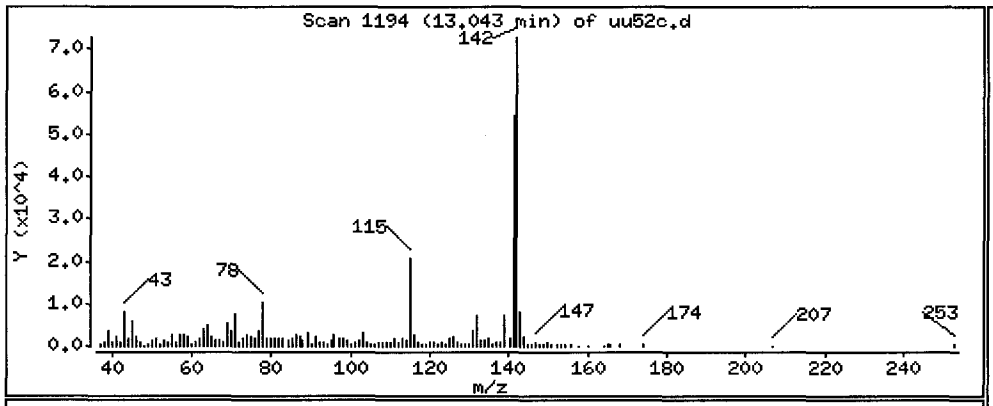
Operator: VTS/YZ

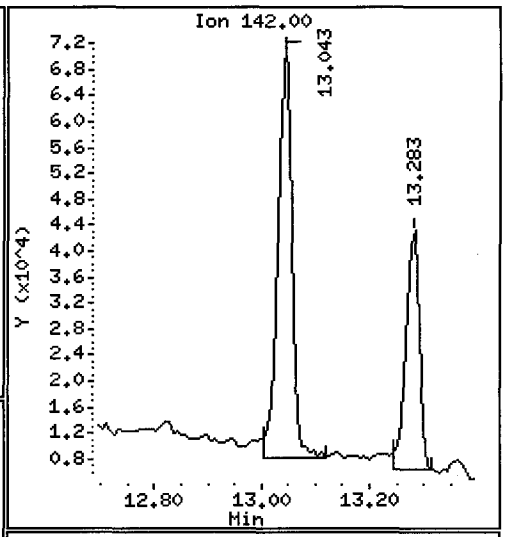
Column phase: ZB-5msi

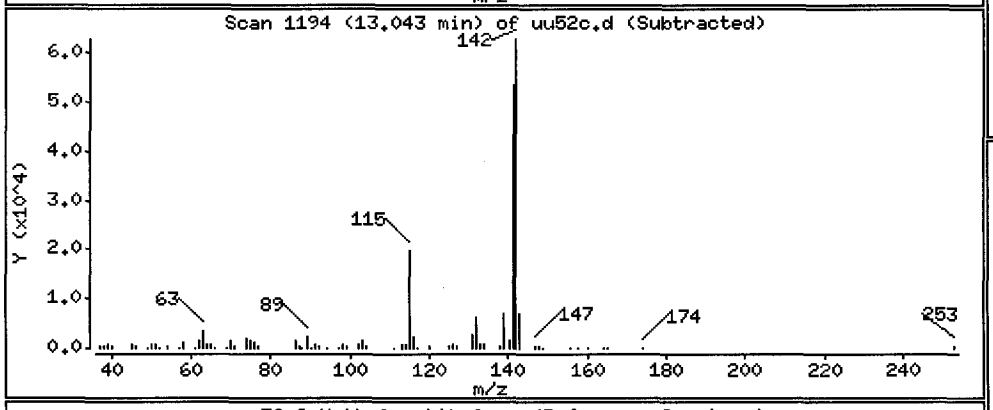
Column diameter: 0.25

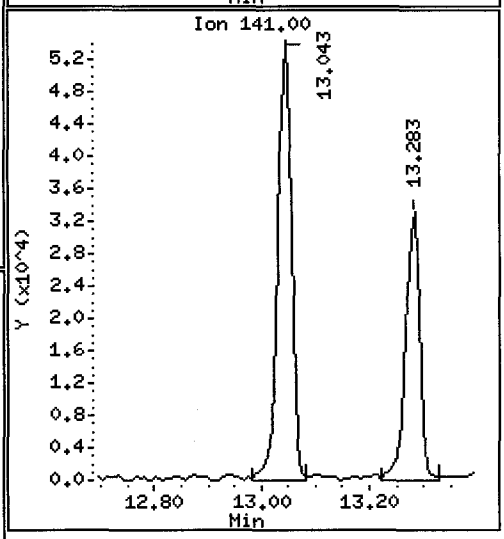
32 2-Methylnaphthalene

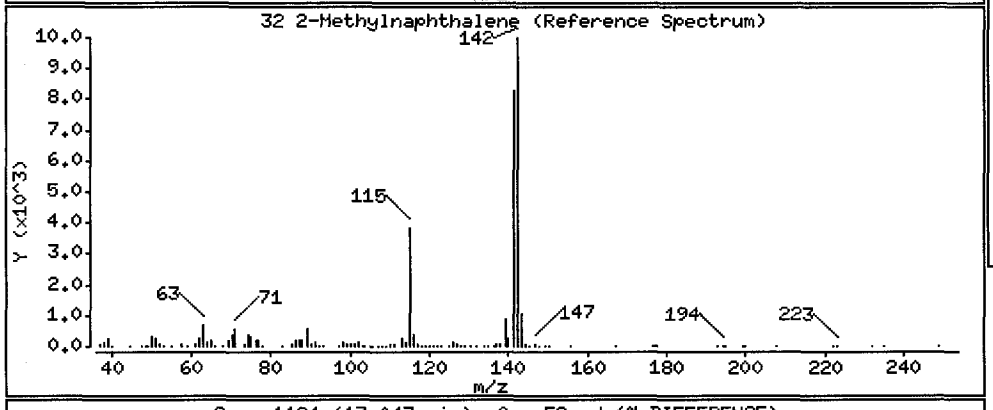
Concentration: 238.0 ug/kg

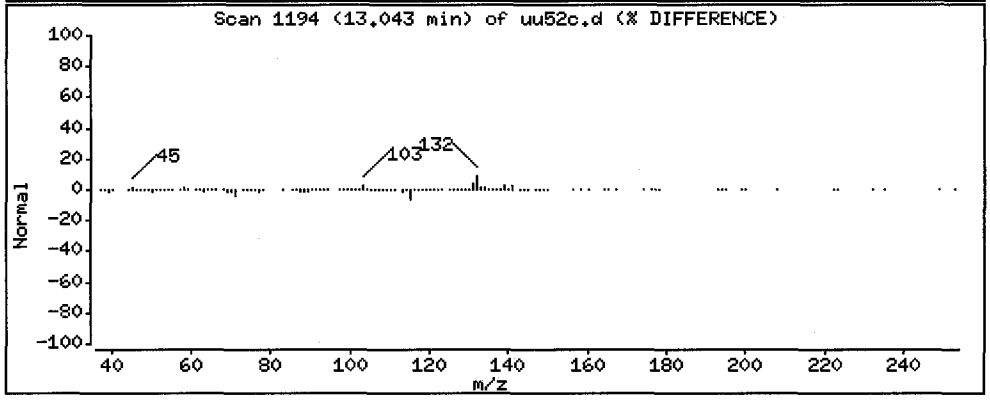


Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

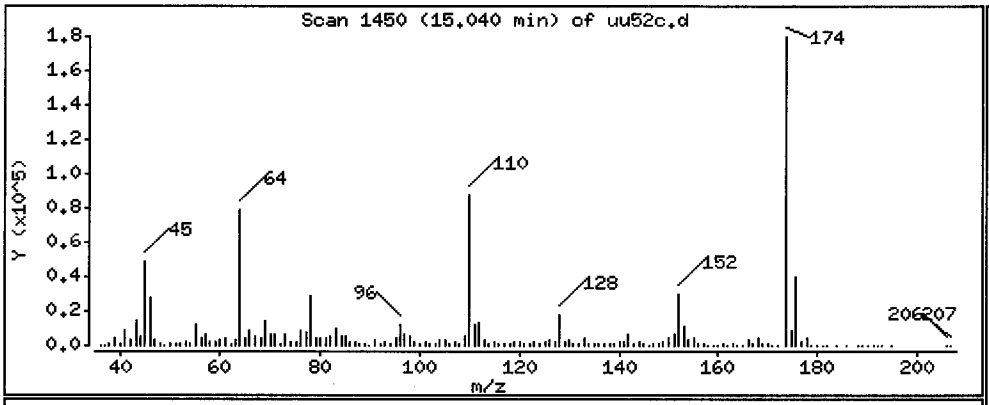
Operator: VTS/YZ

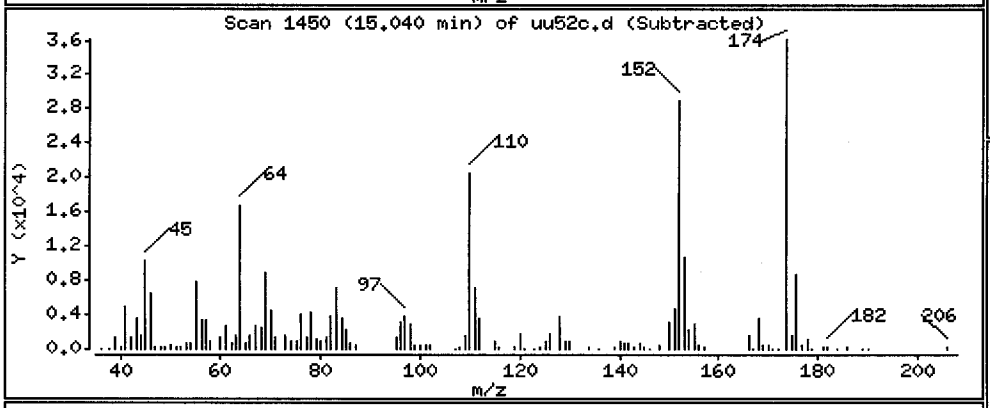
Column phase: ZB-5msi

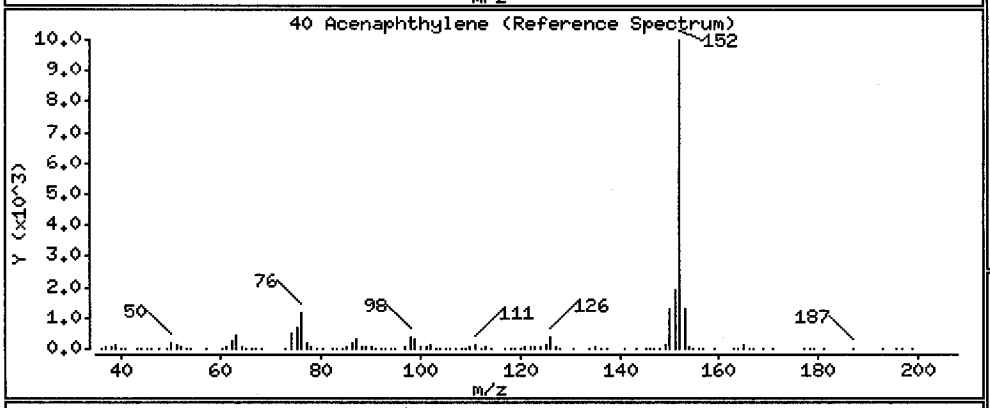
Column diameter: 0.25

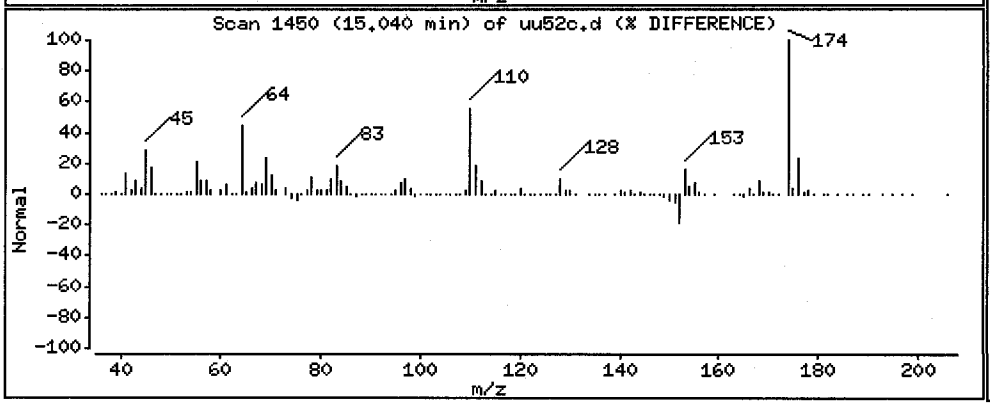
40 Acenaphthylene

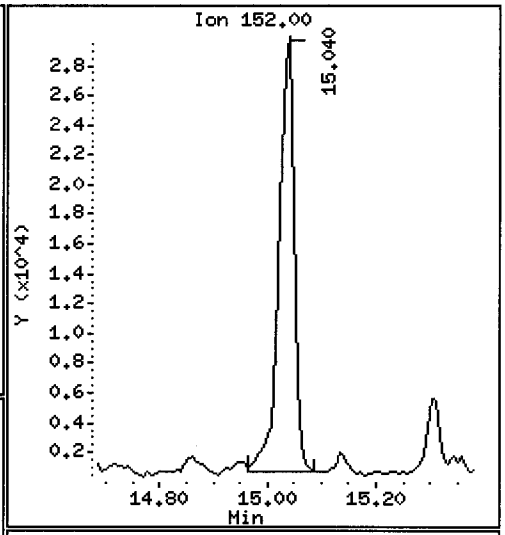
Concentration: 86.77 ug/kg

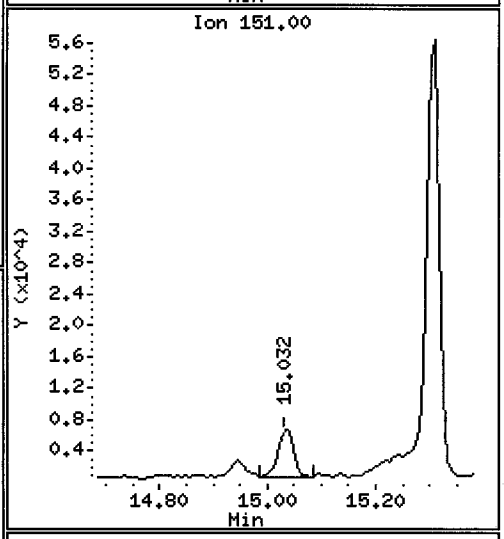


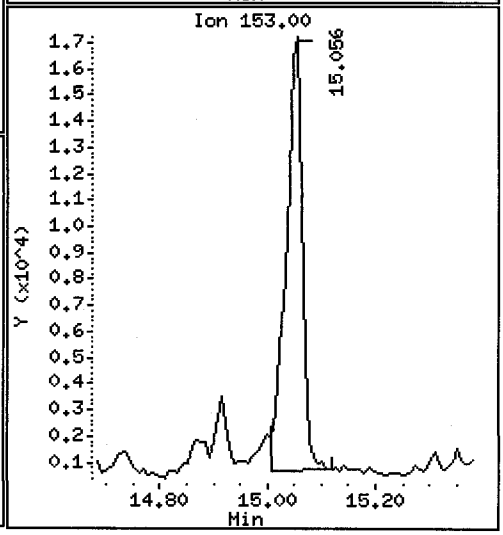



Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

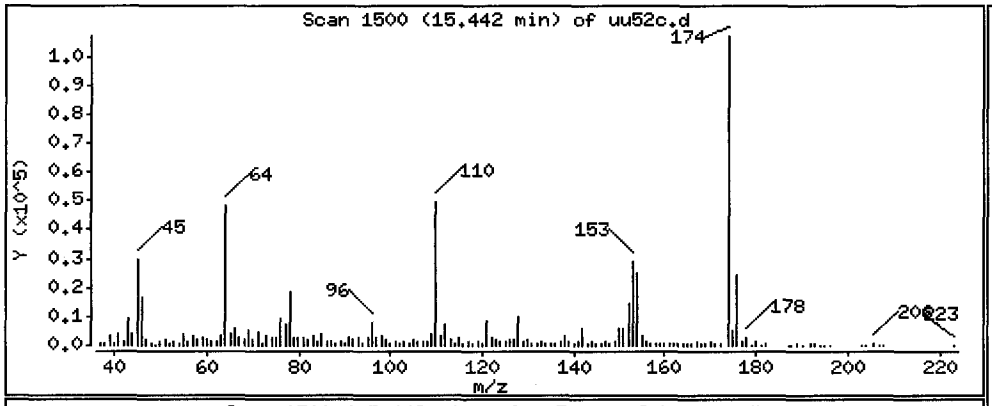
Operator: VTS/YZ

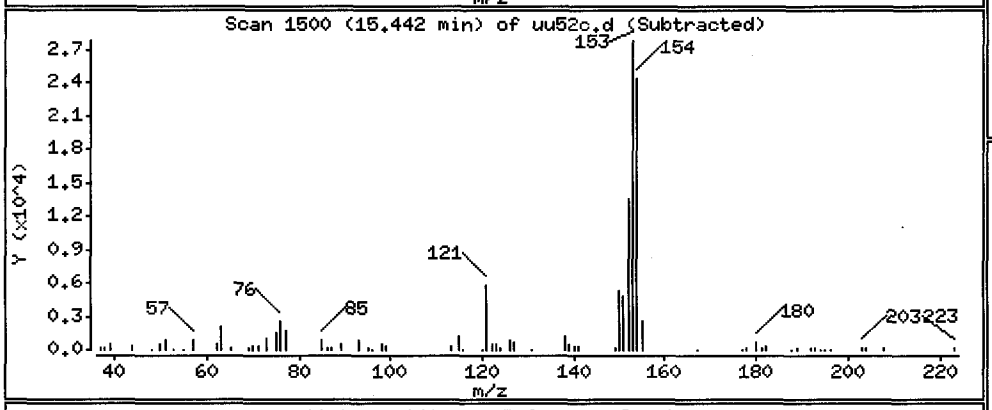
Column phase: ZB-5msi

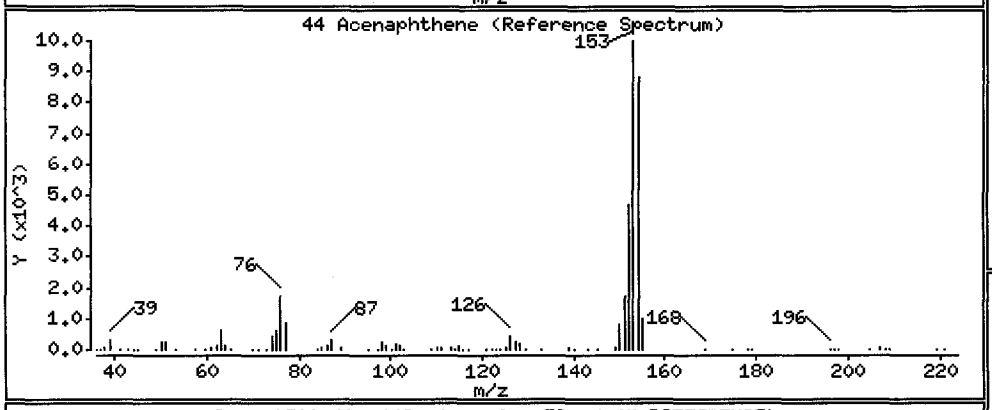
Column diameter: 0.25

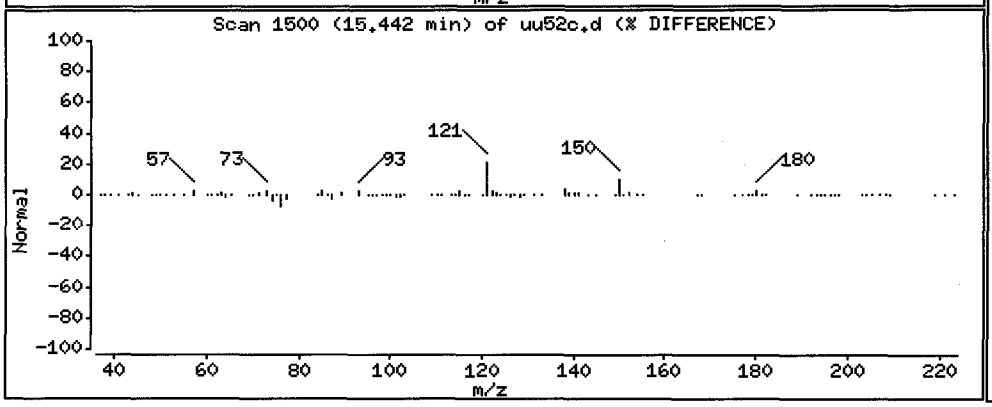
44 Acenaphthene

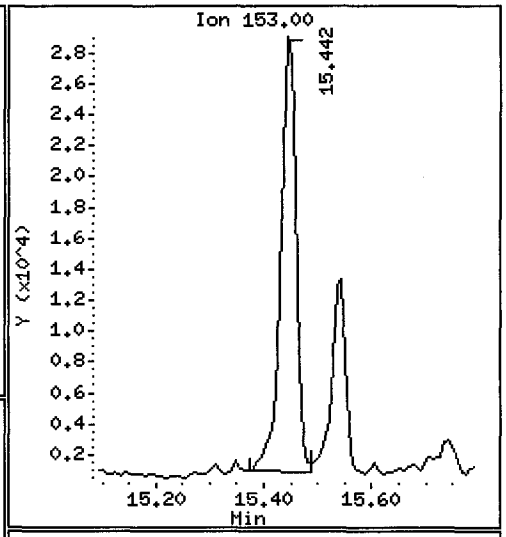
Concentration: 140.8 ug/kg

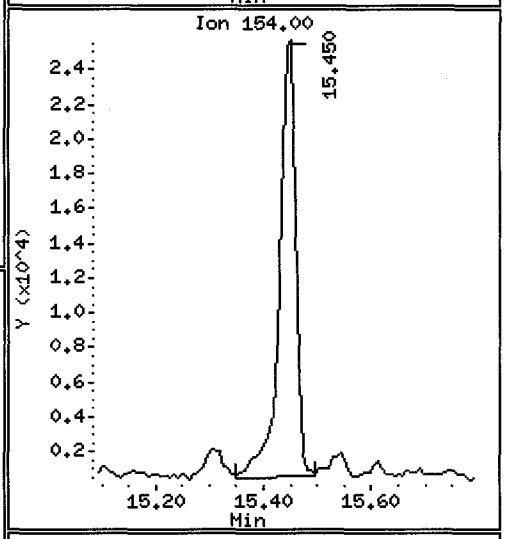


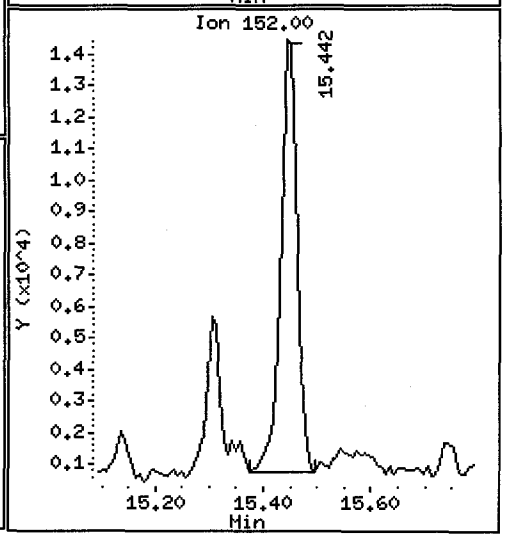



Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

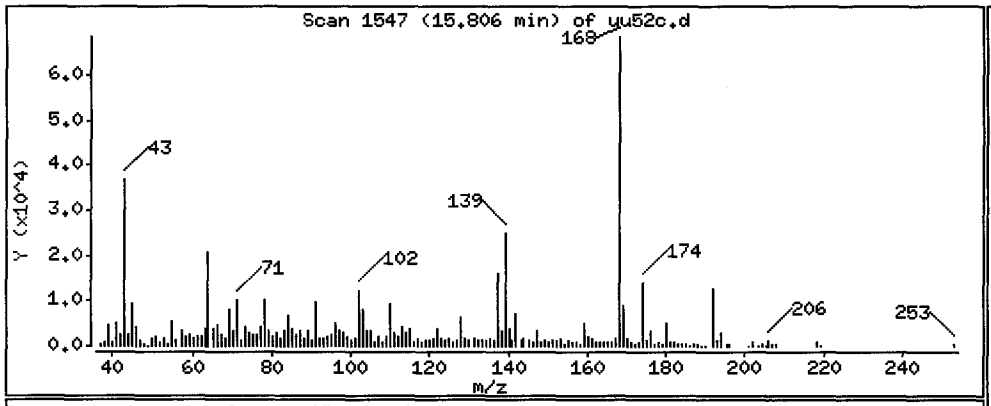
Client ID: MS002-SS-120515 Instrument: nt10.i

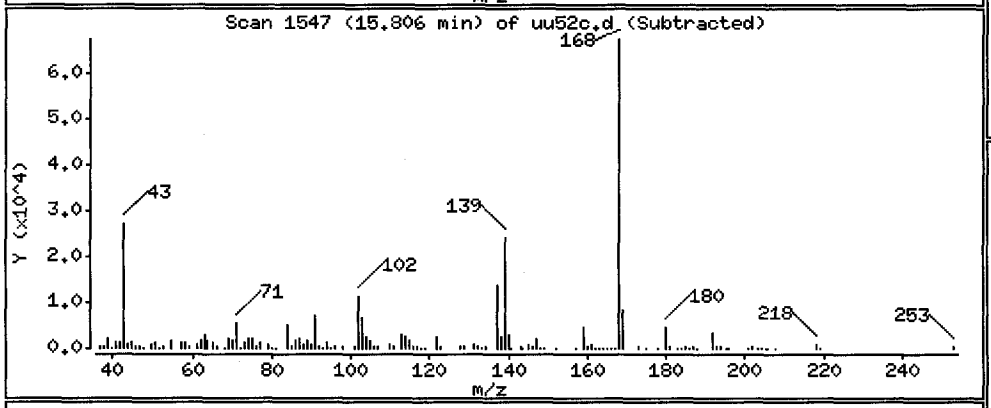
Sample Info: UU52C,3

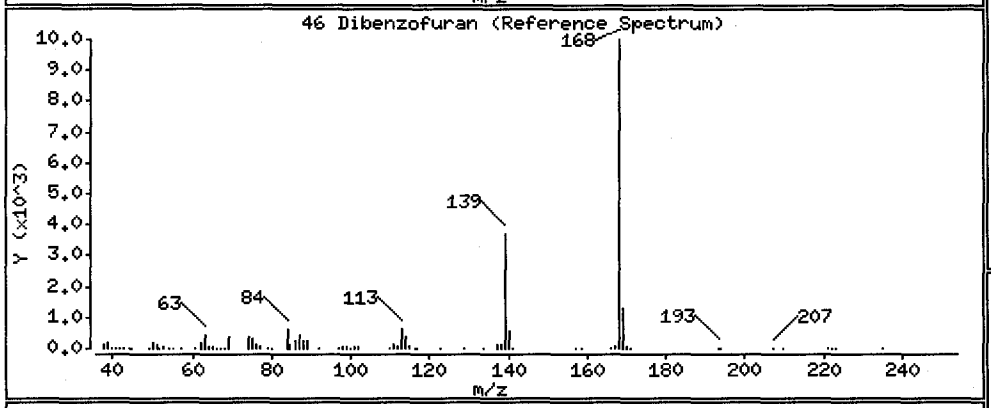
Volume Injected (uL): 1.0 Operator: VTS/YZ

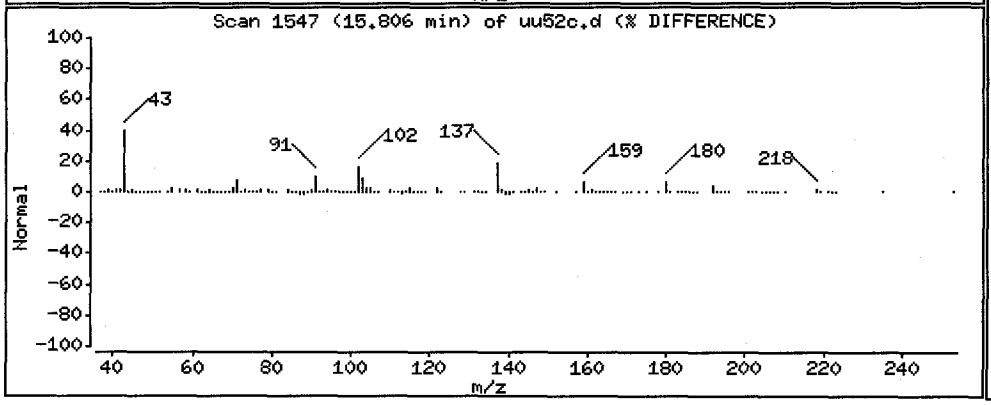
Column phase: ZB-5msi Column diameter: 0.25

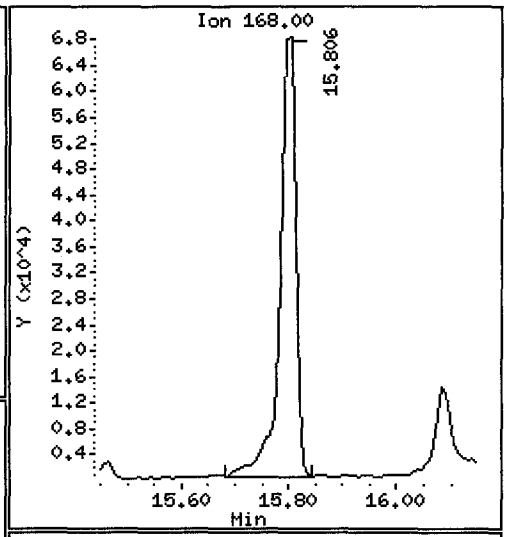
46 Dibenzofuran Concentration: 238.0 ug/kg

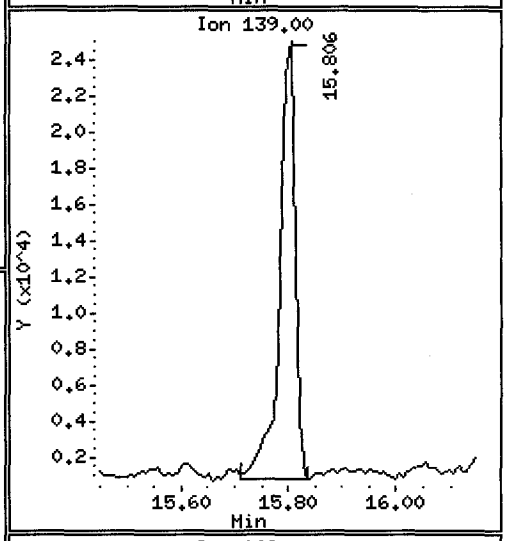


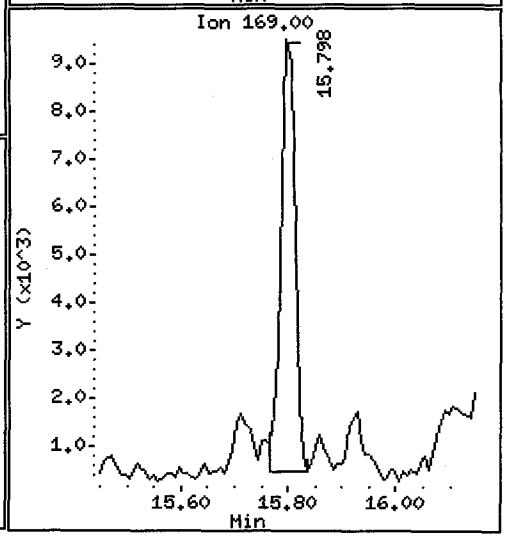



Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

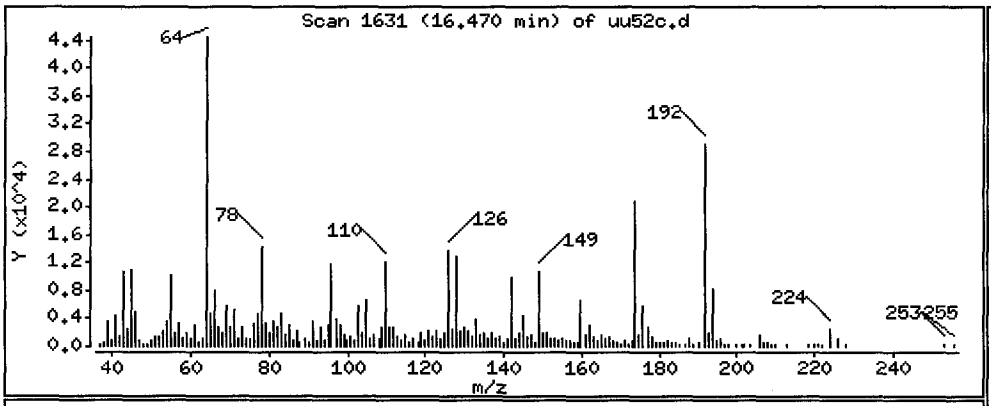
Operator: VTS/YZ

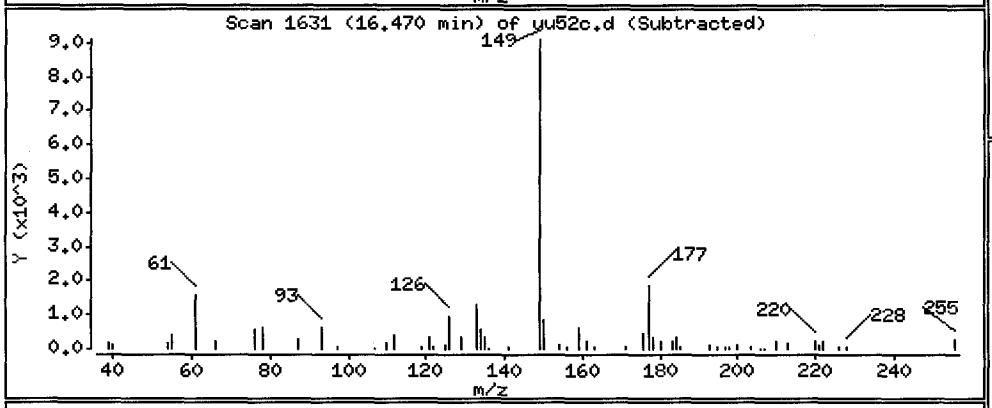
Column phase: ZB-5msi

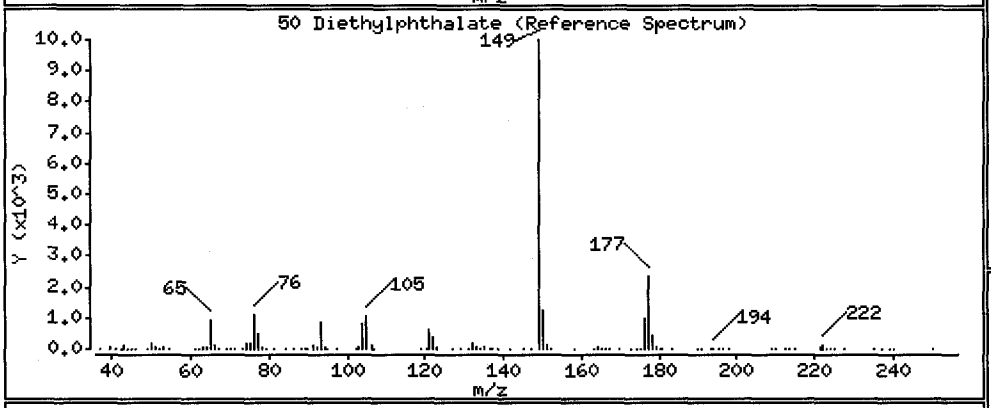
Column diameter: 0.25

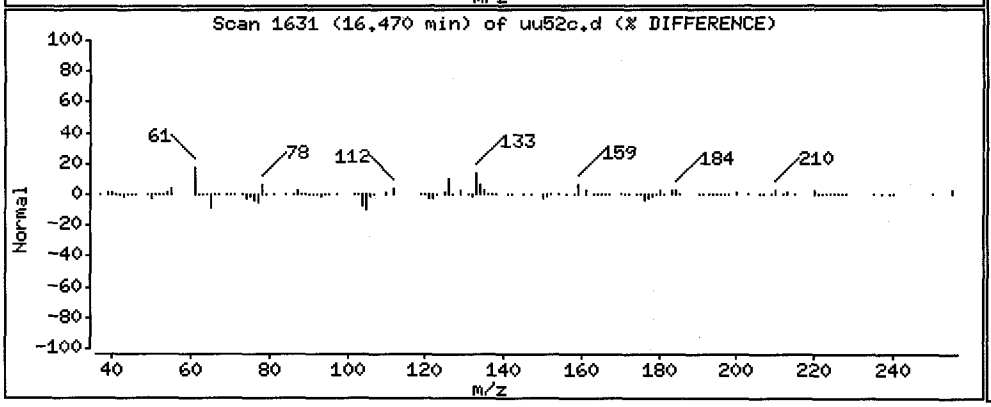
50 Diethylphthalate

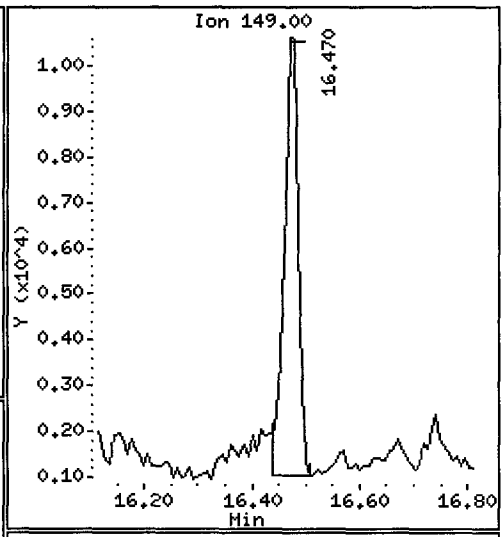
Concentration: 40.74 ug/kg

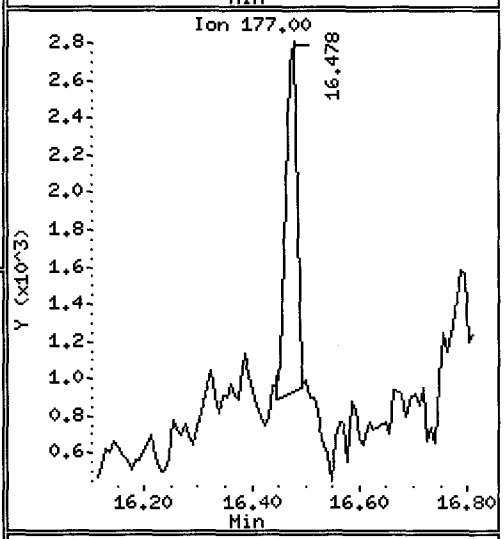


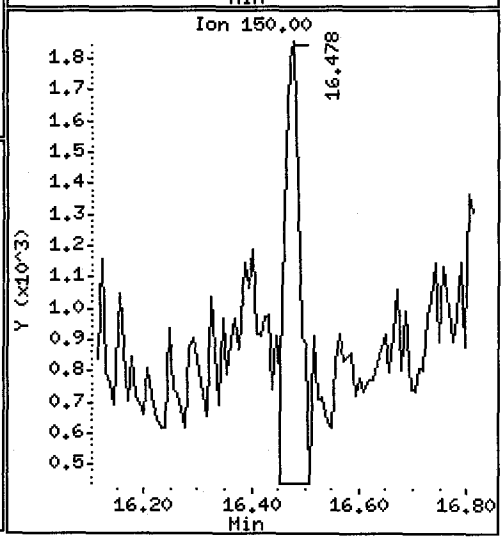



Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

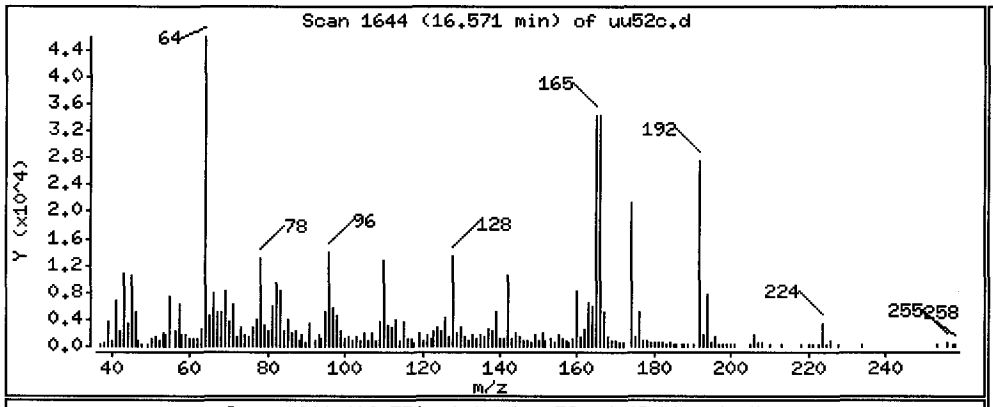
Operator: VTS/YZ

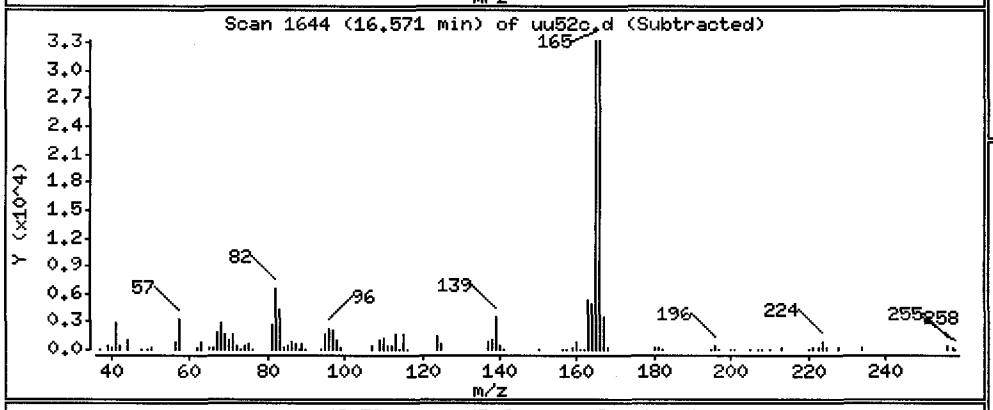
Column phase: ZB-5msi

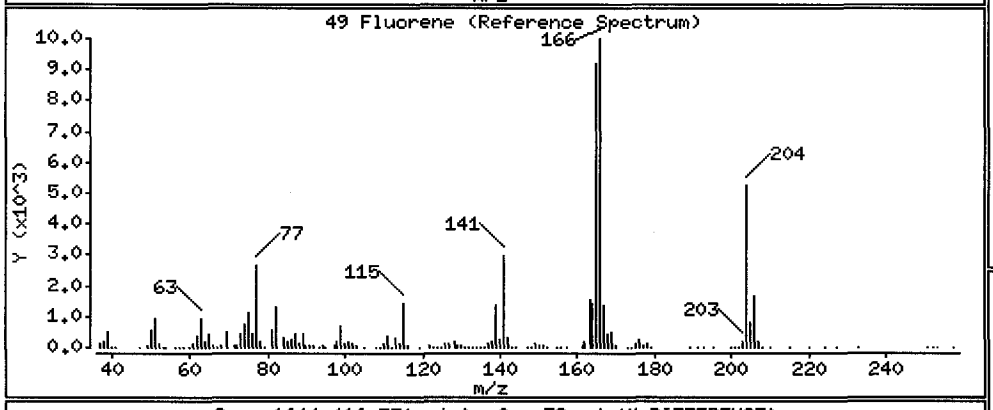
Column diameter: 0.25

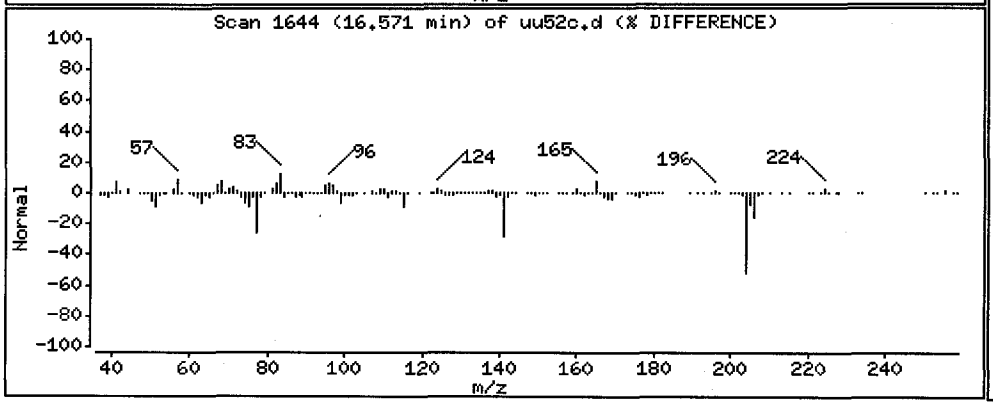
49 Fluorene

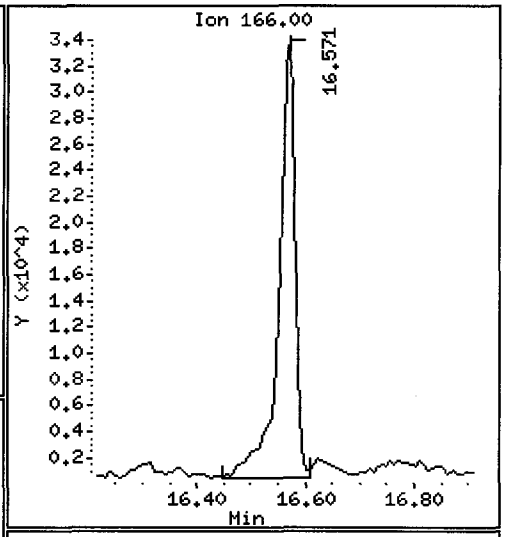
Concentration: 161.6 ug/kg

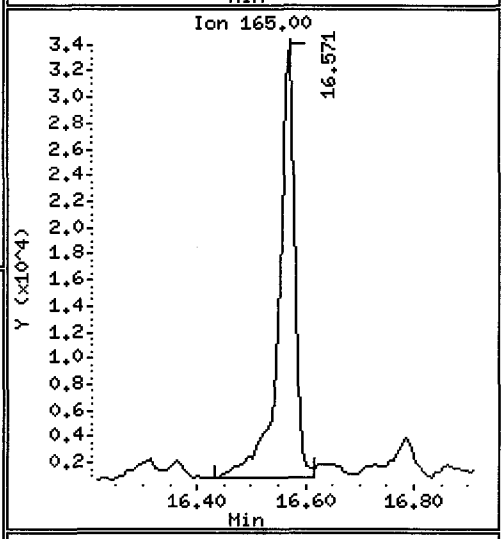


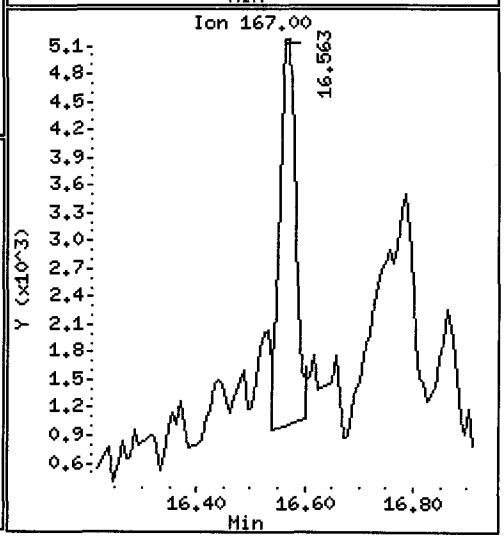



Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

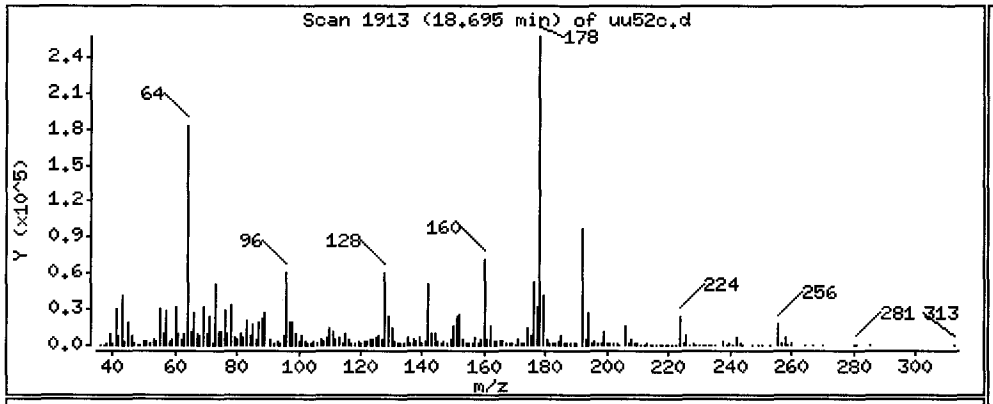
Client ID: MS002-SS-120515 Instrument: nt10.i

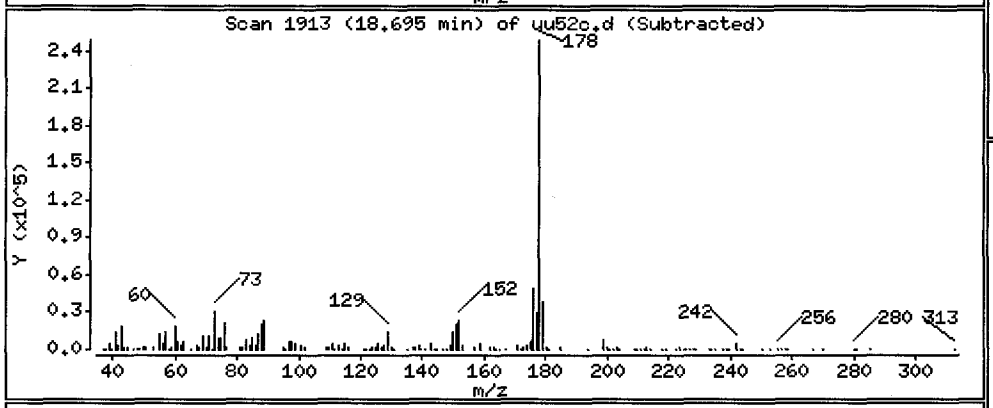
Sample Info: UU52C,3

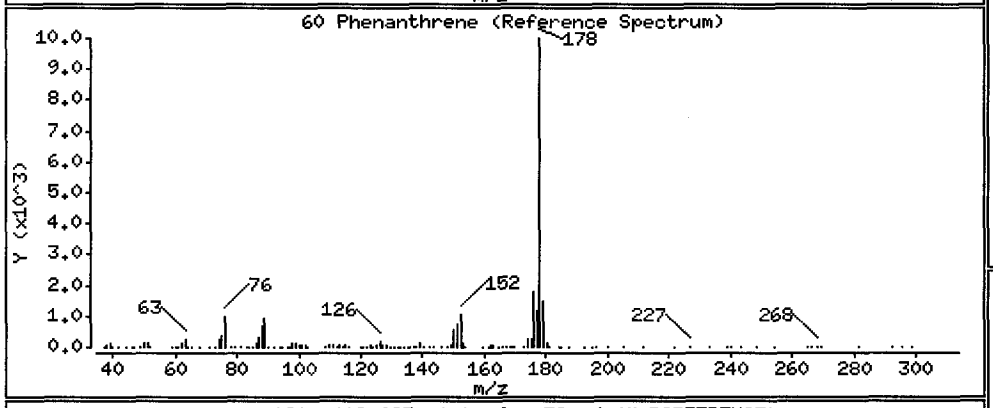
Volume Injected (uL): 1.0 Operator: VTS/YZ

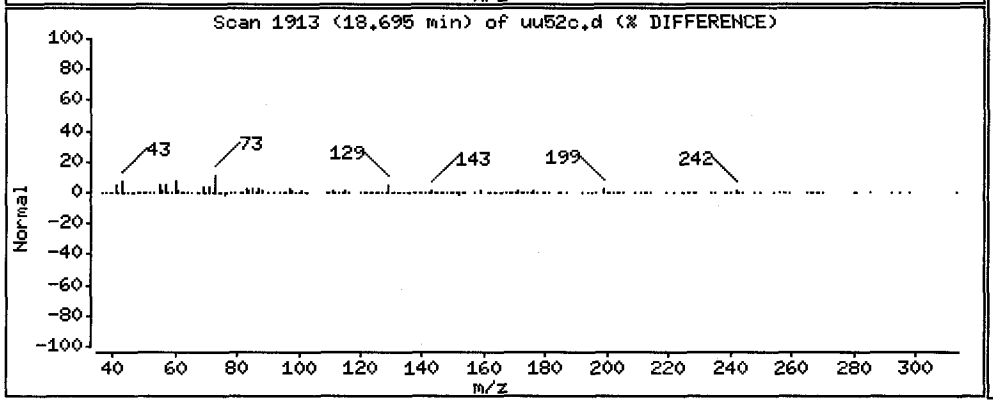
Column phase: ZB-5msi Column diameter: 0.25

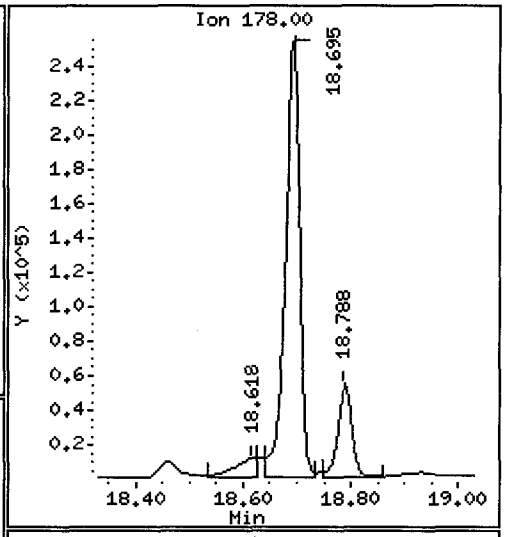
60 Phenanthrene Concentration: 832.8 ug/kg

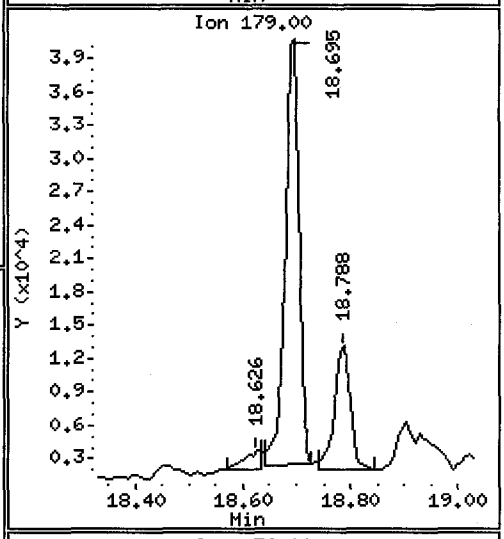


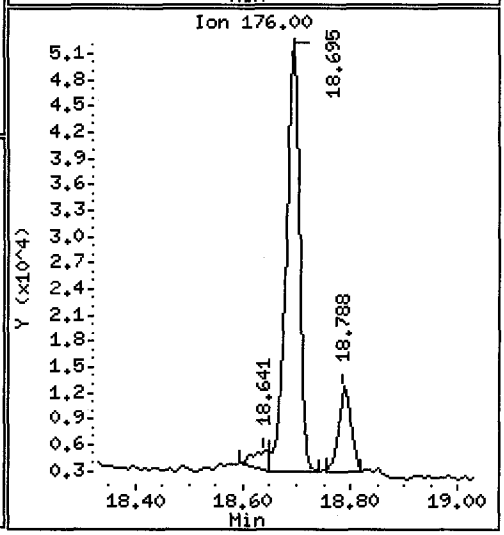



Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

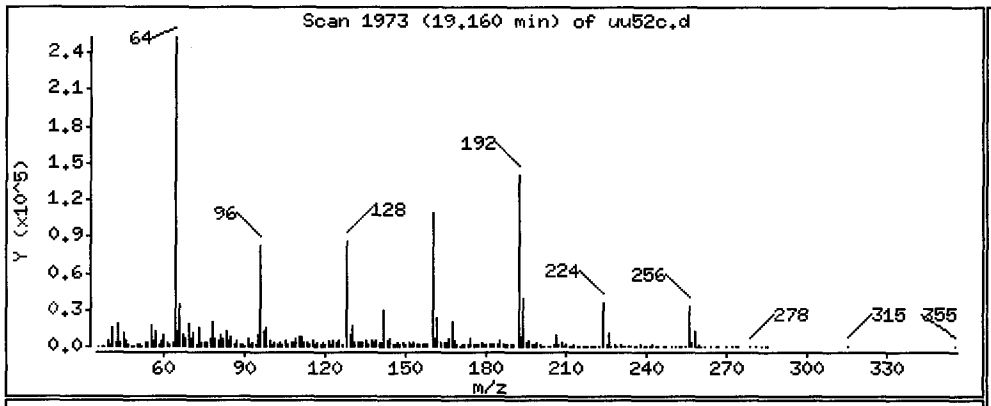
Operator: VTS/YZ

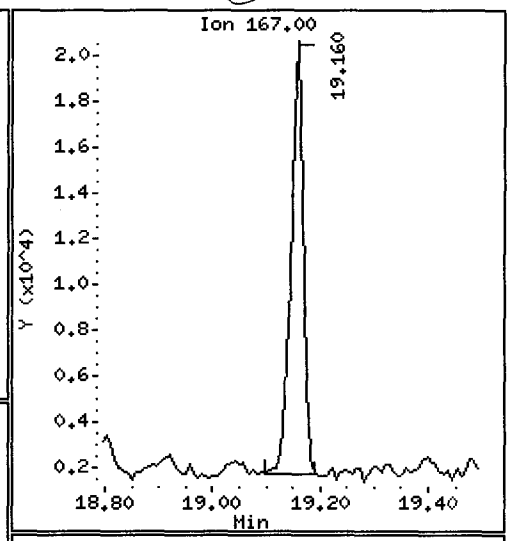
Column phase: ZB-5msi

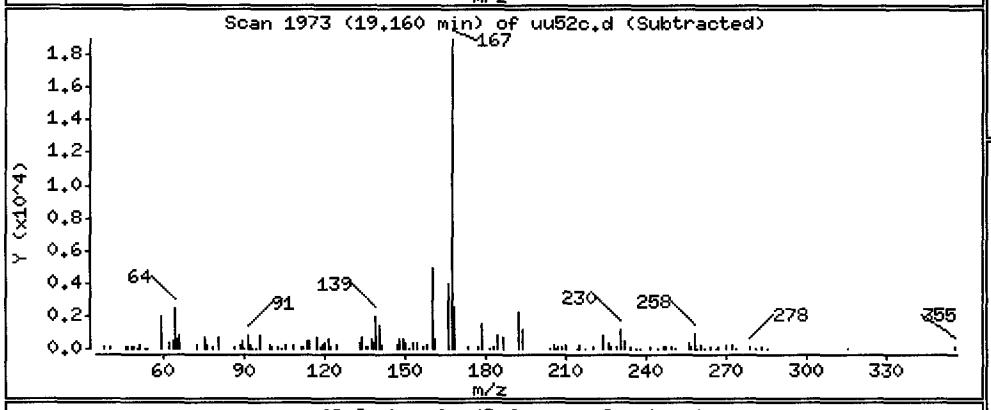
Column diameter: 0.25

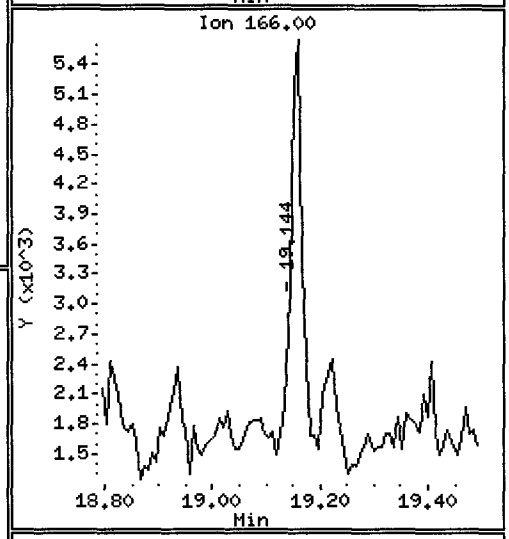
62 Carbazole

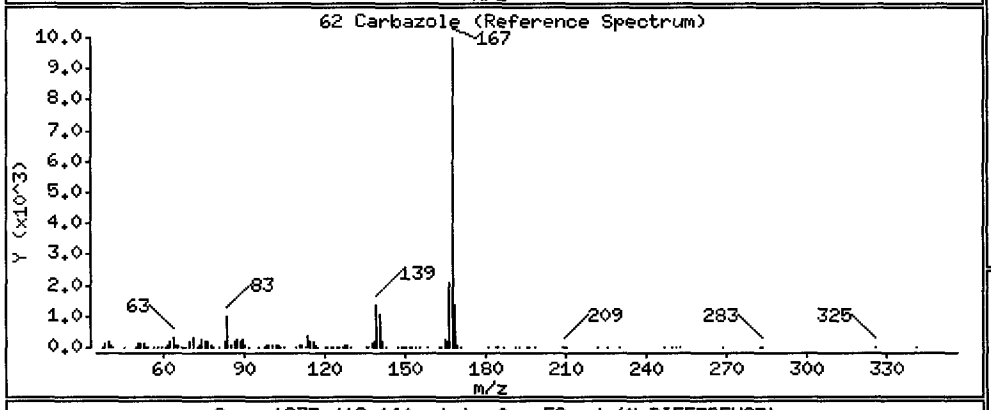
Concentration: 55.46 ug/kg

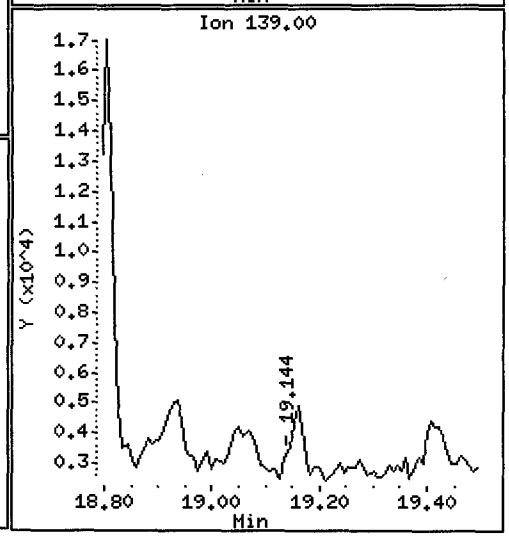


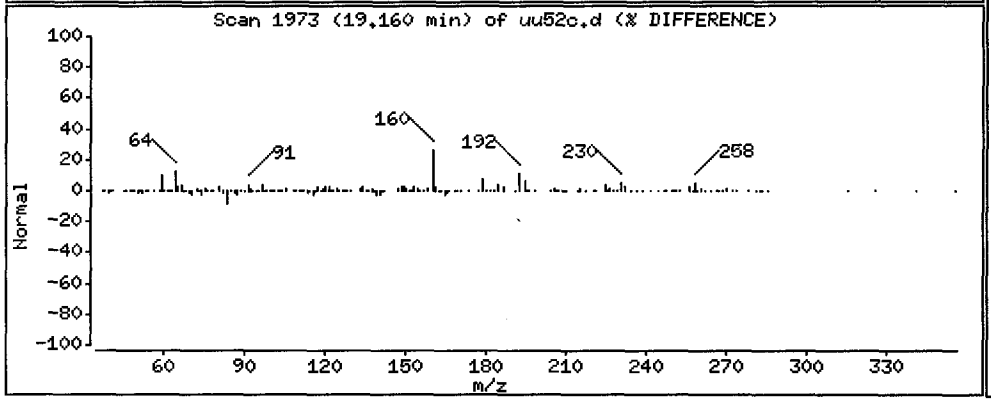



Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

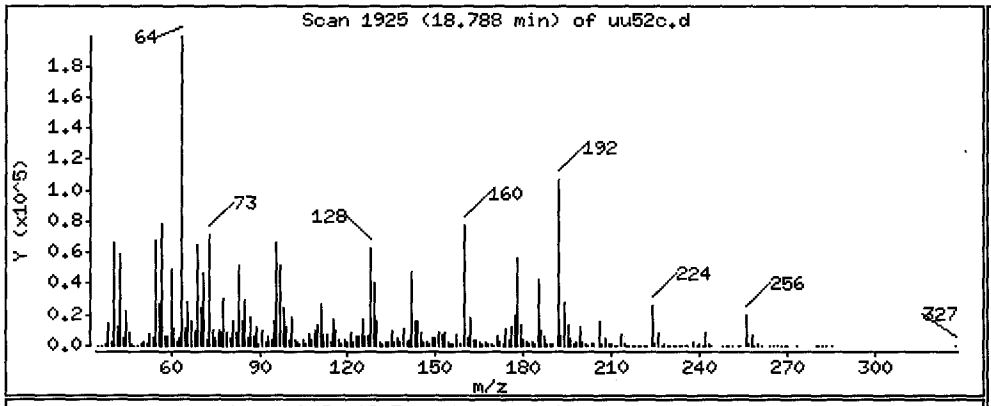
Client ID: MS002-SS-120515 Instrument: nt10.i

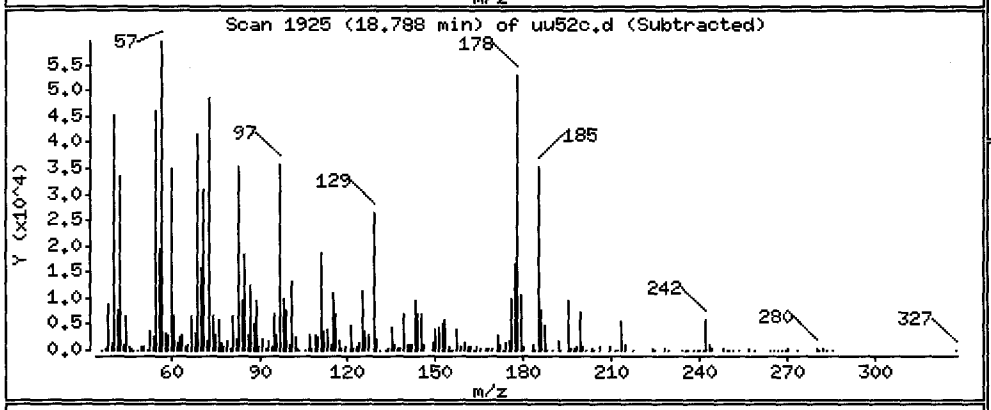
Sample Info: UU52C,3

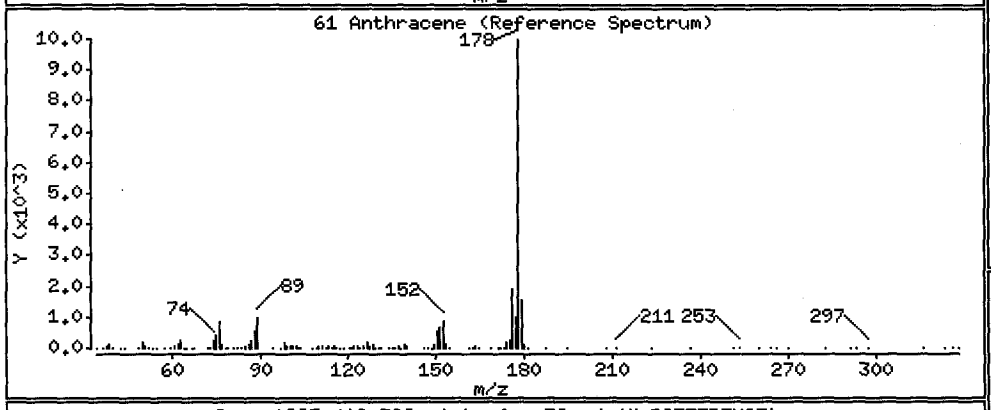
Volume Injected (uL): 1.0 Operator: VTS/YZ

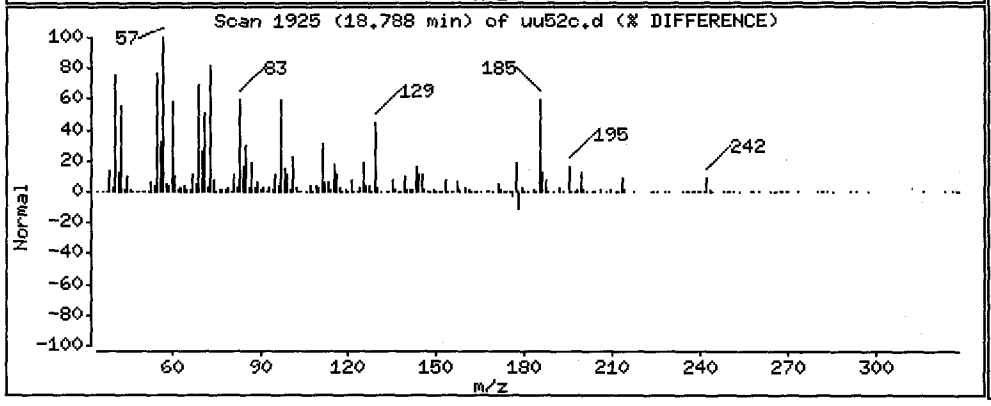
Column phase: ZB-5msi Column diameter: 0.25

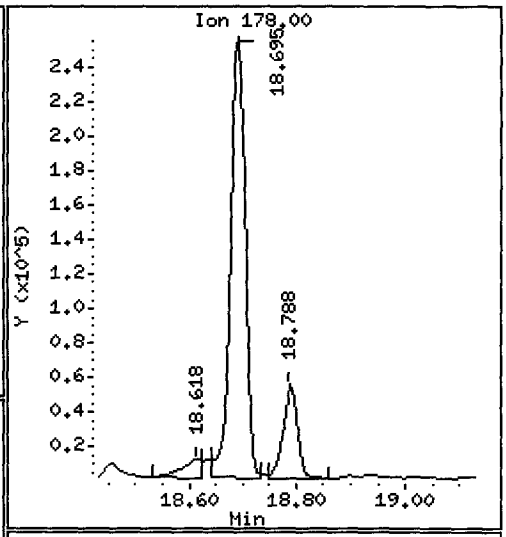
61 Anthracene Concentration: 165.5 ug/kg

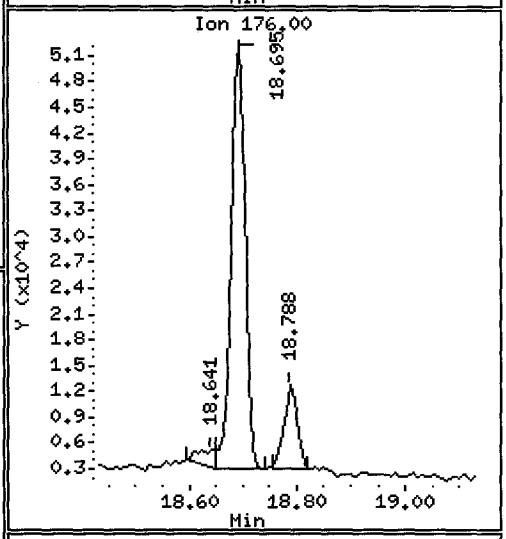


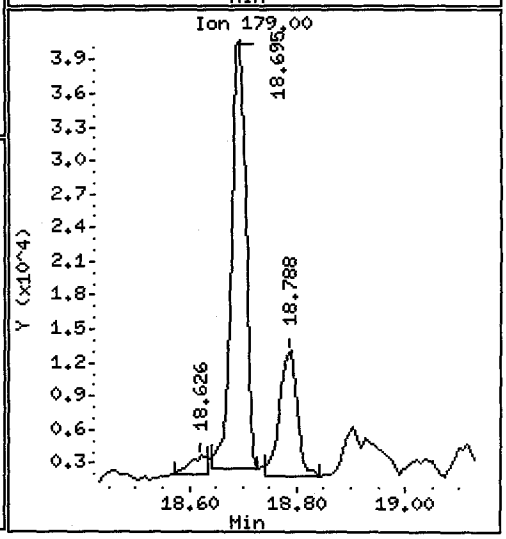



Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

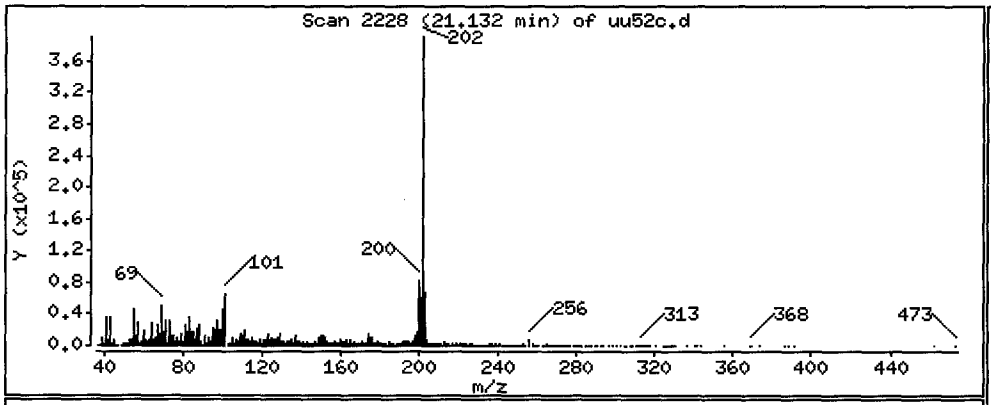
Client ID: MS002-SS-120515 Instrument: nt10.i

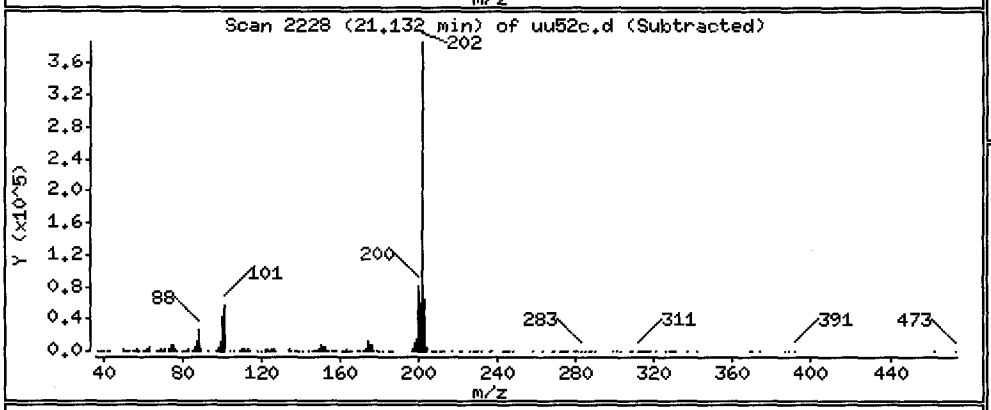
Sample Info: UU52C,3

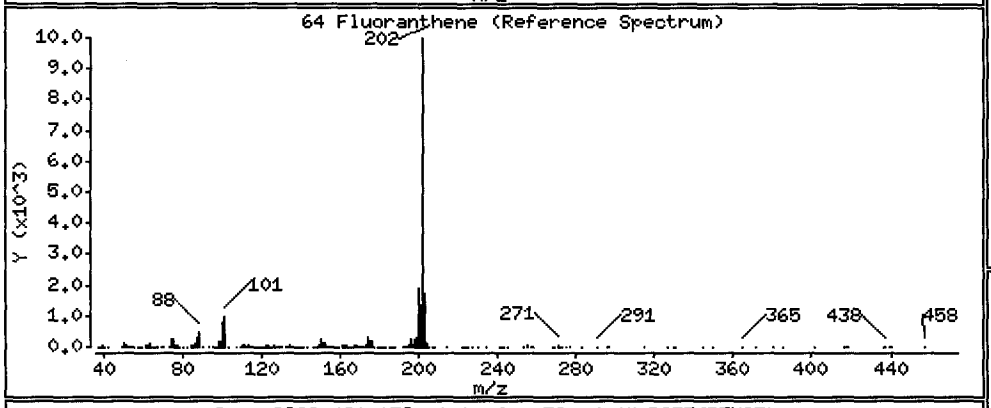
Volume Injected (uL): 1.0 Operator: VTS/YZ

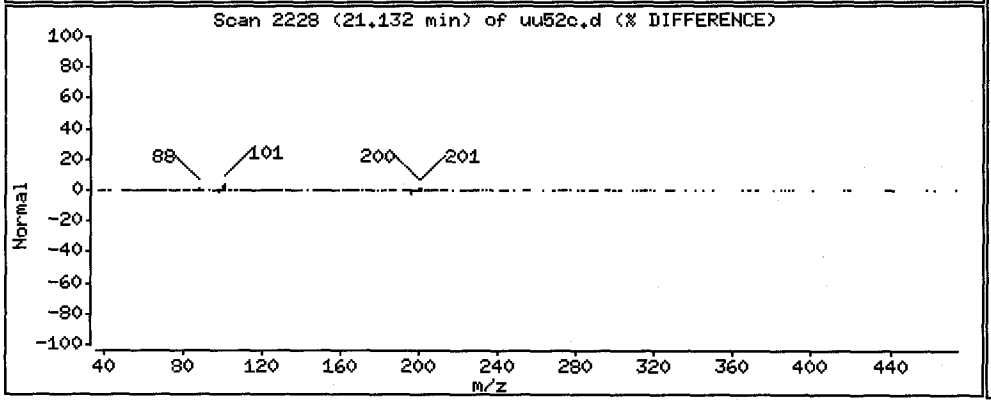
Column phase: ZB-5msi Column diameter: 0.25

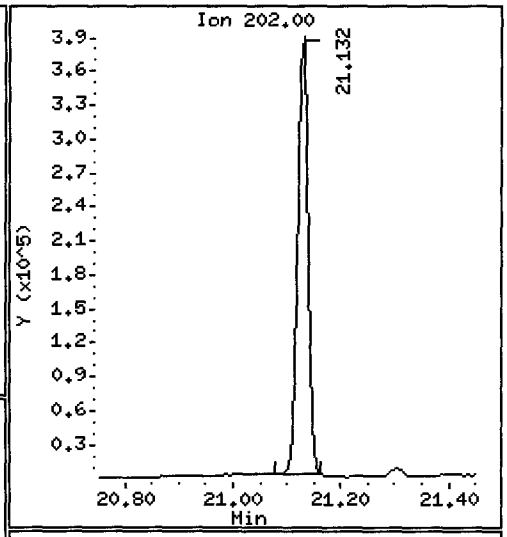
64 Fluoranthene Concentration: 861.2 ug/kg

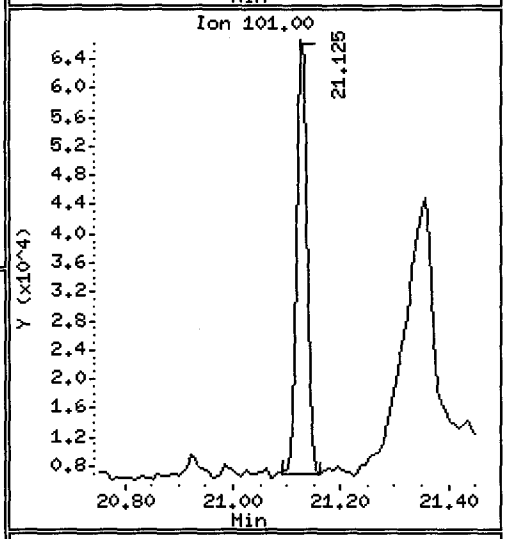


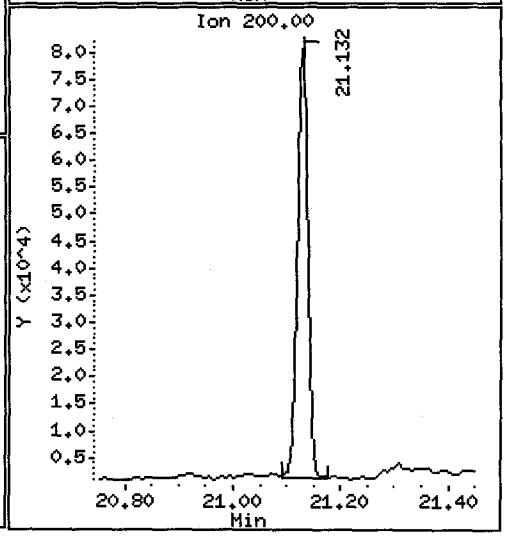



Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

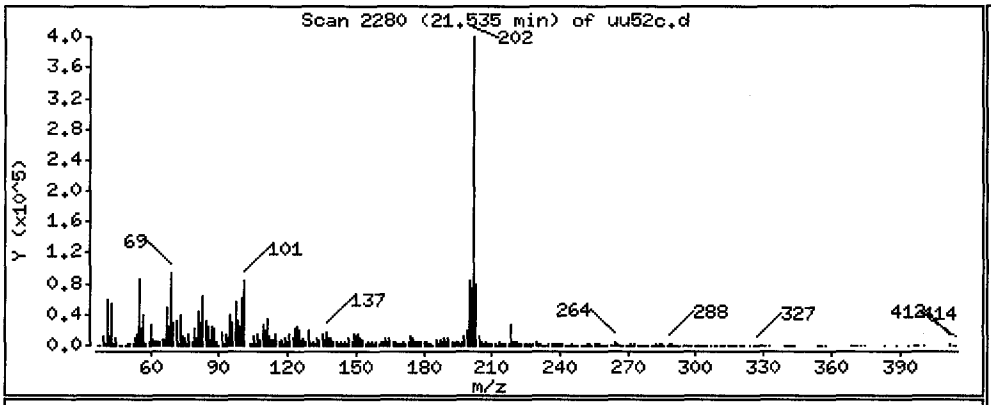
Client ID: MS002-SS-120515 Instrument: nt10.i

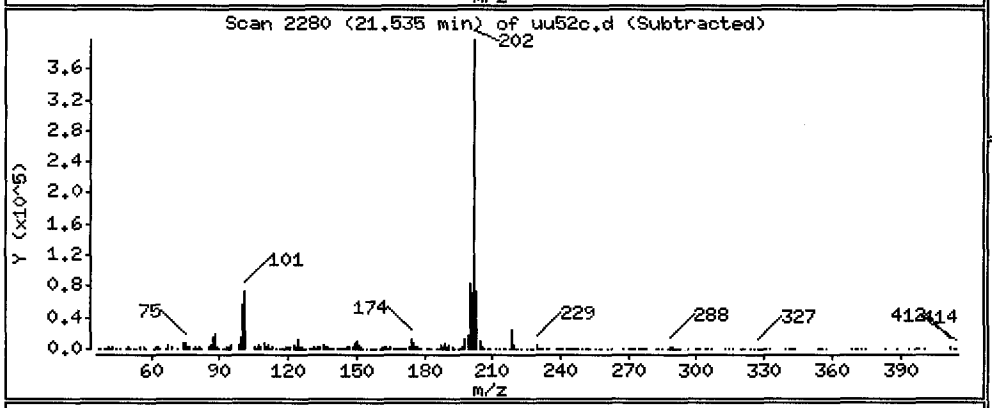
Sample Info: UU52C,3

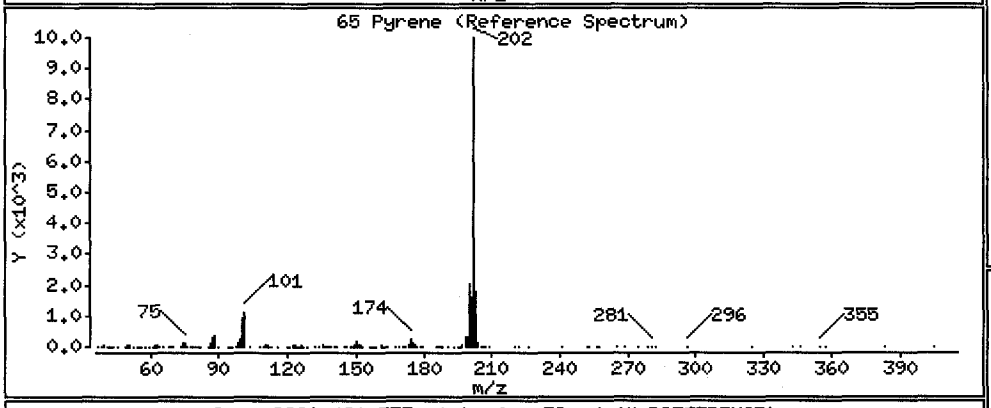
Volume Injected (uL): 1.0 Operator: VTS/YZ

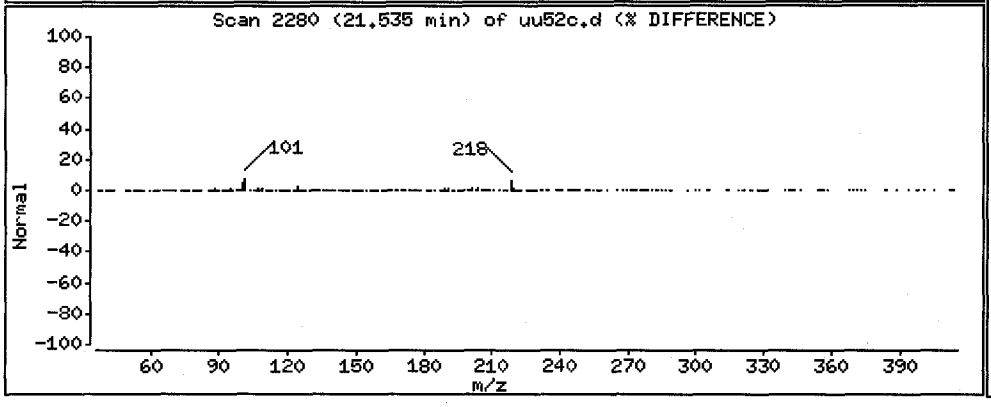
Column phase: ZB-5msi Column diameter: 0.25

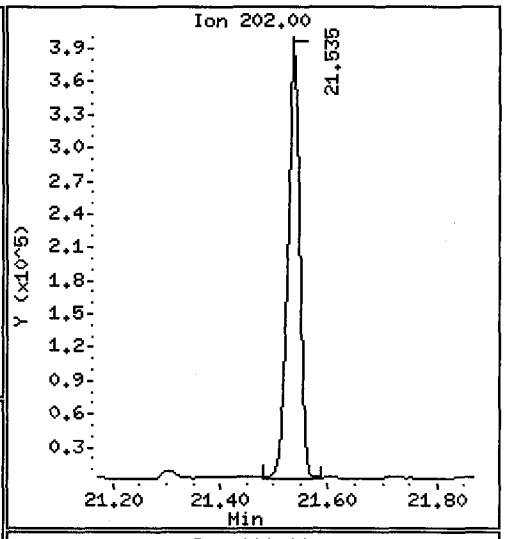
65 Pyrene Concentration: 858.4 ug/kg

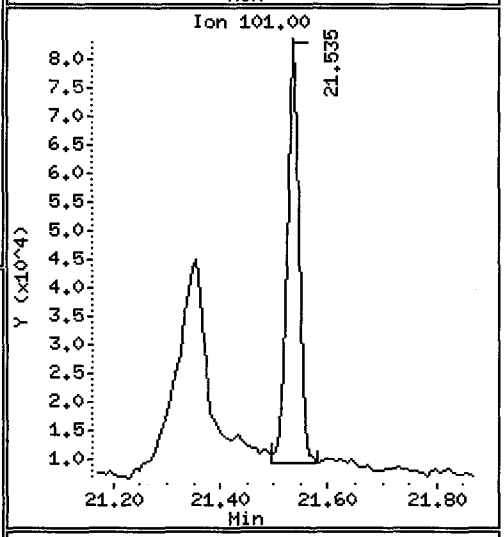


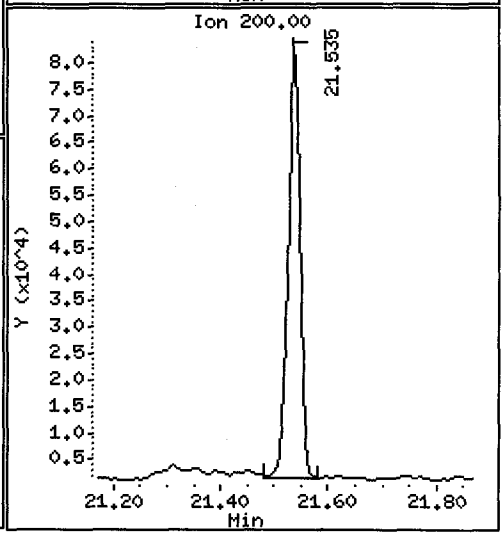



Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

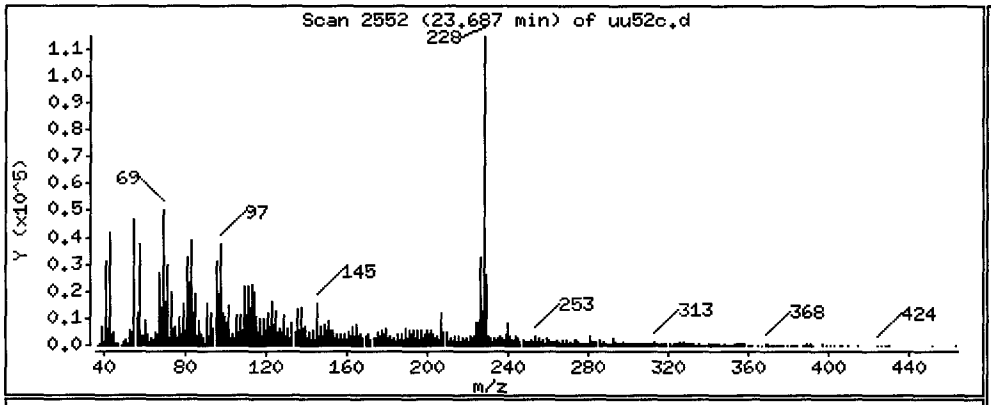
Operator: VTS/YZ

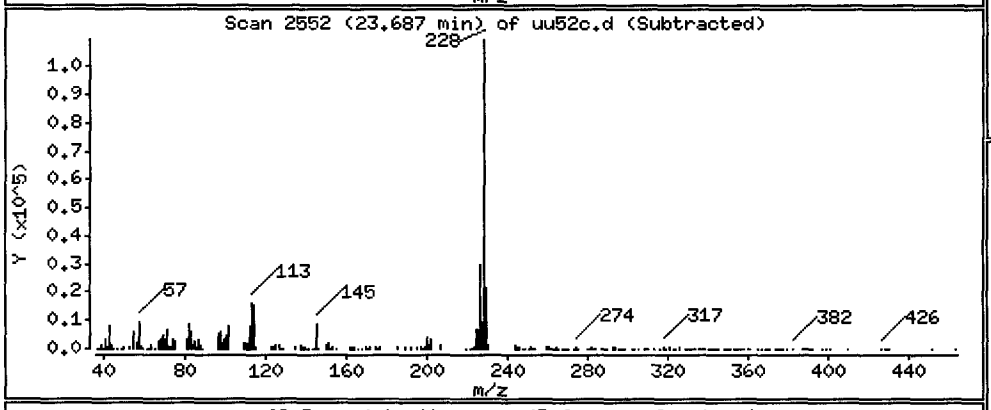
Column phase: ZB-5msi

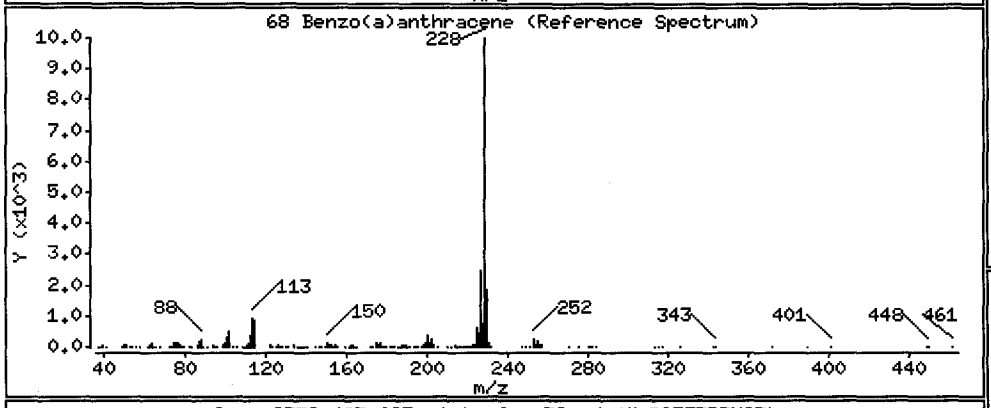
Column diameter: 0.25

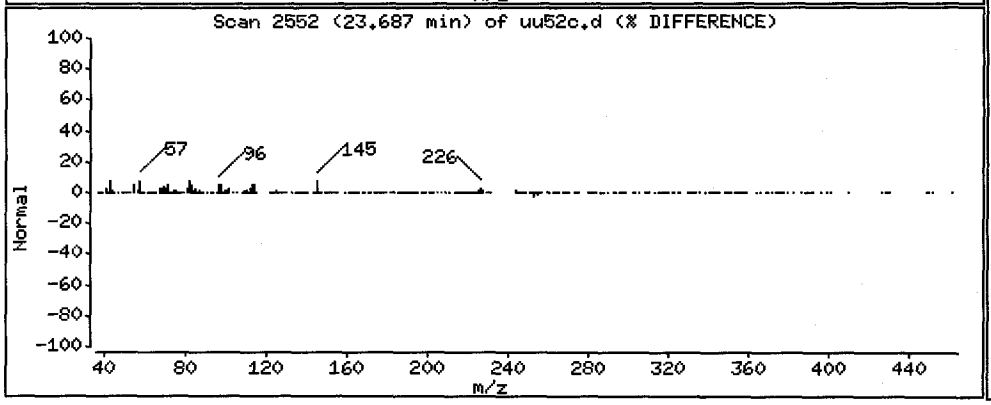
68 Benzo(a)anthracene

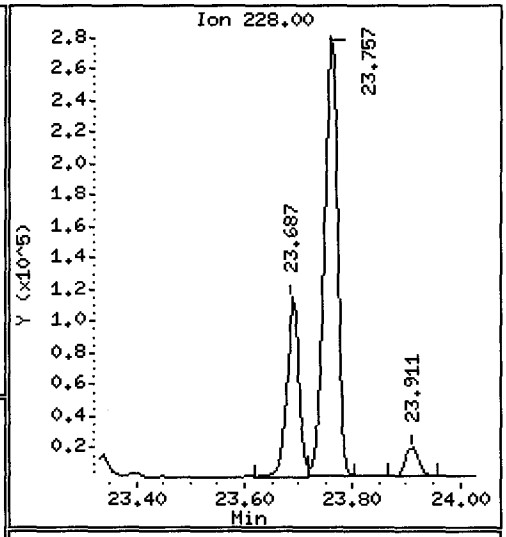
Concentration: 277.4 ug/kg

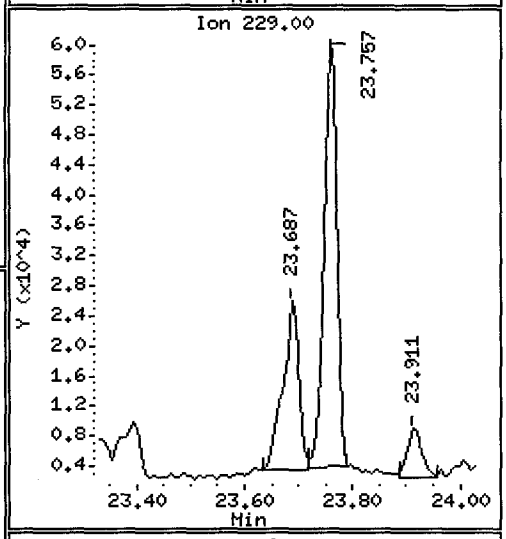


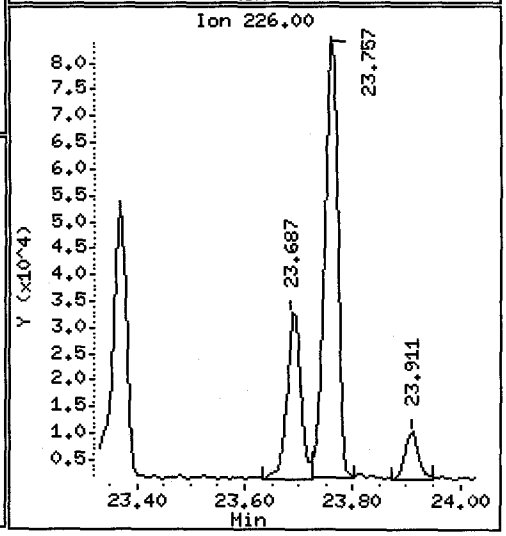



Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

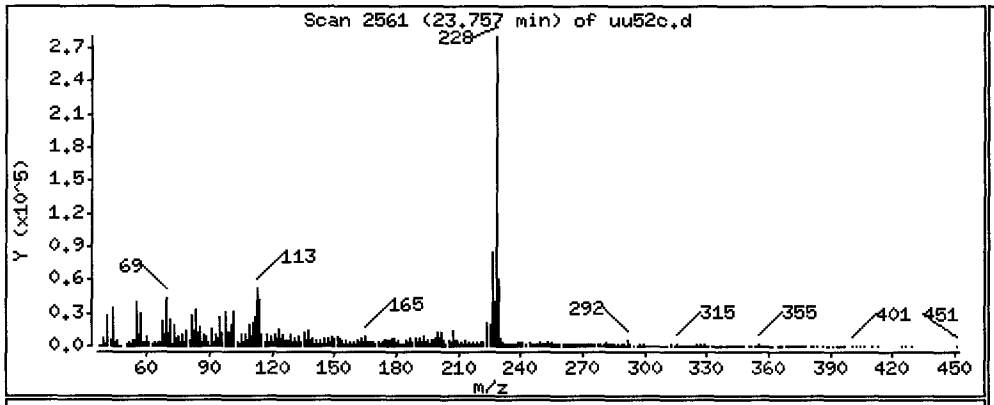
Operator: VTS/YZ

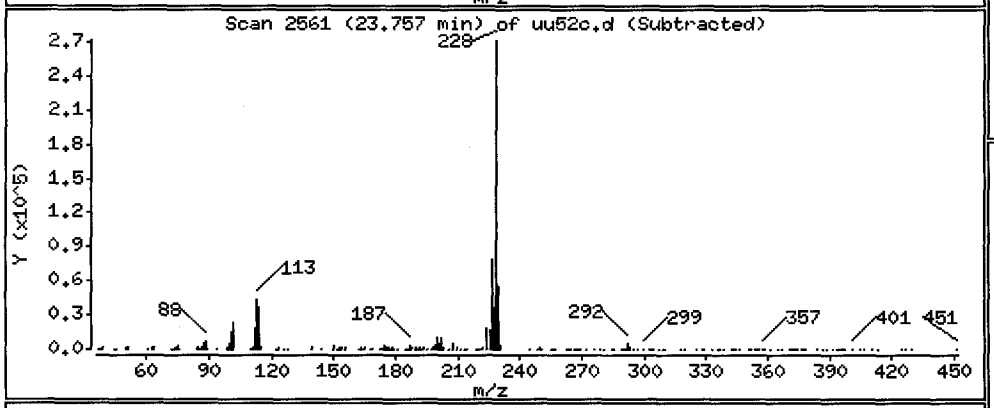
Column phase: ZB-5msi

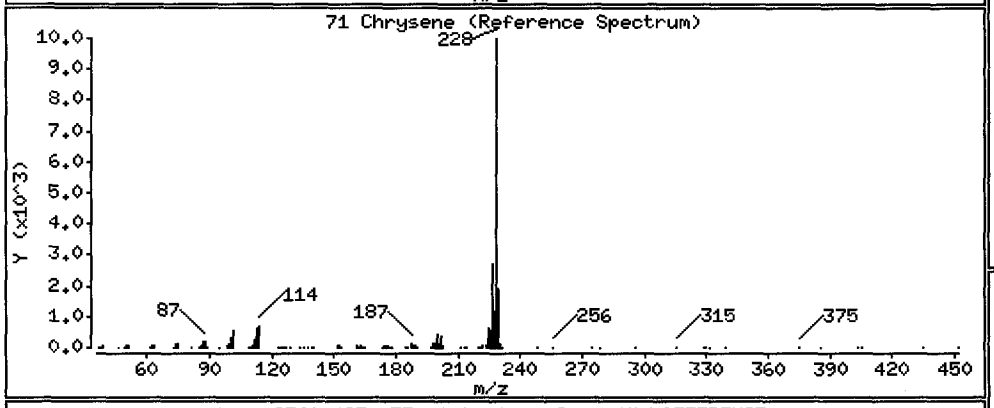
Column diameter: 0.25

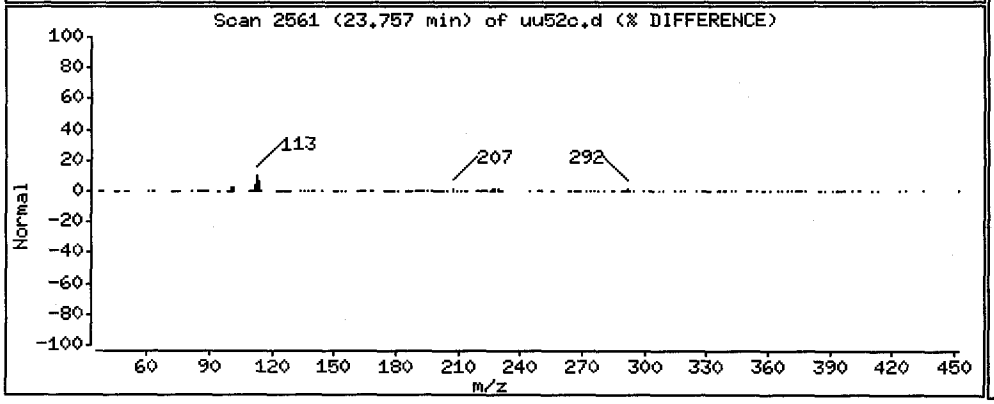
71 Chrysene

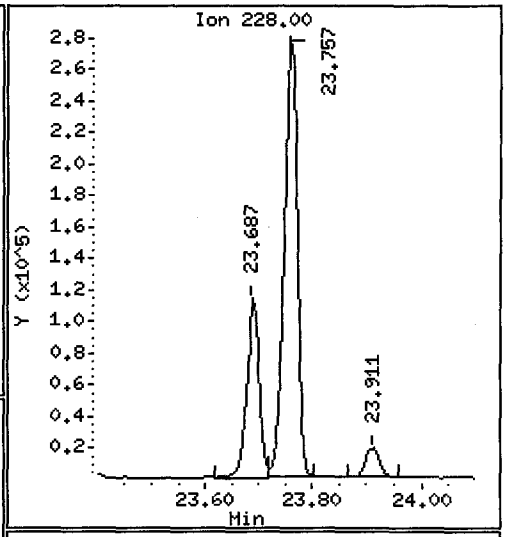
Concentration: 796.4 ug/kg

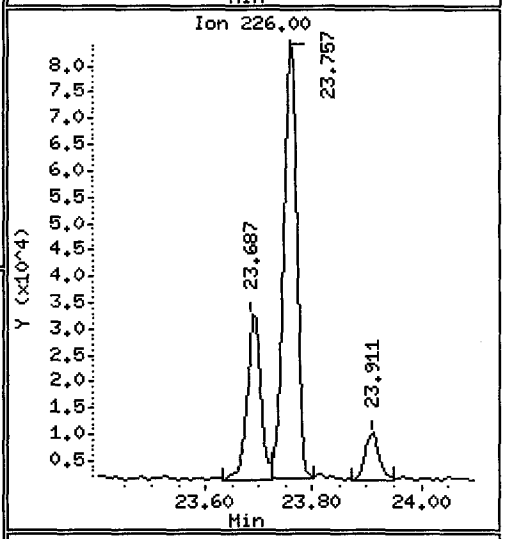


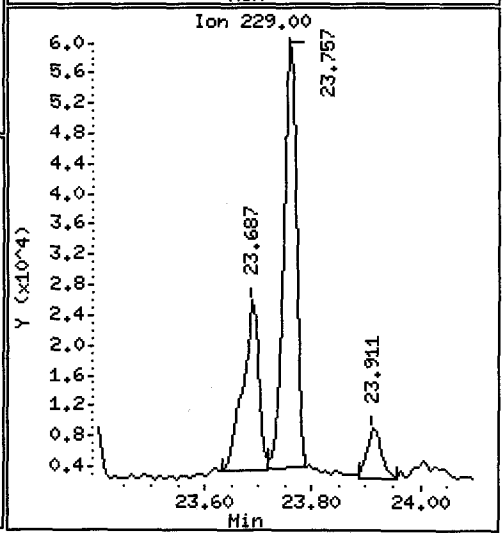



Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

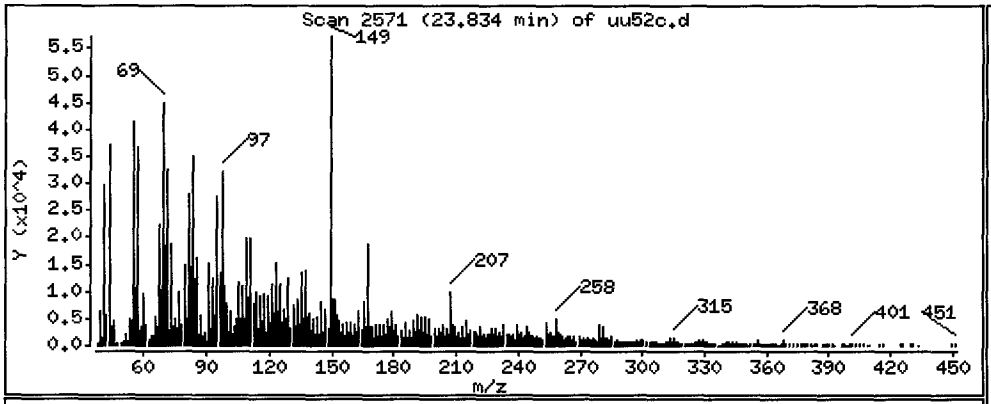
Client ID: MS002-SS-120515 Instrument: nt10.i

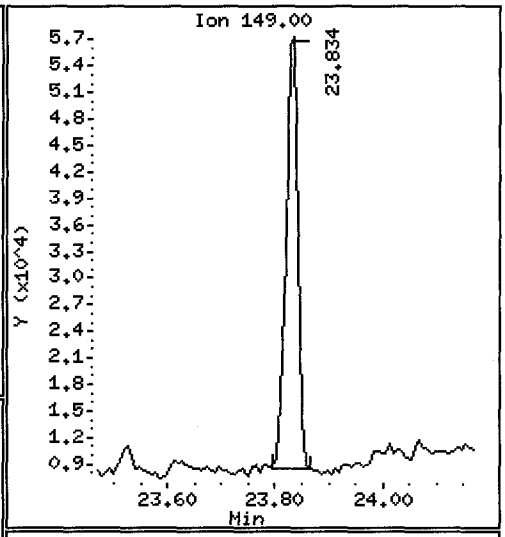
Sample Info: UU52C,3

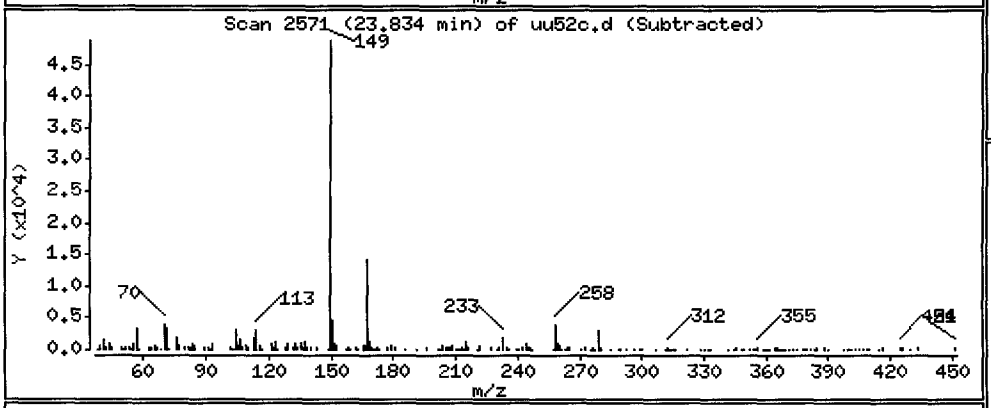
Volume Injected (uL): 1.0 Operator: VTS/YZ

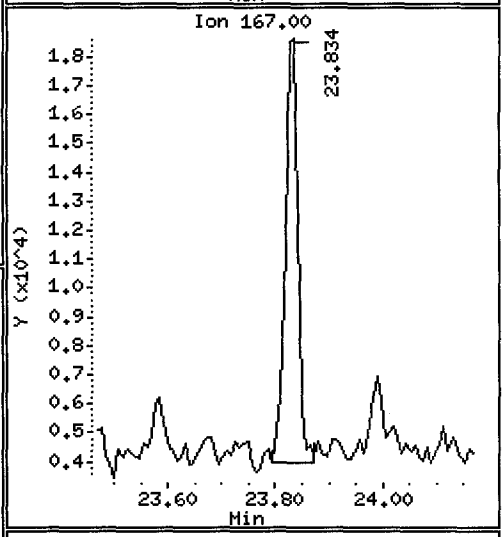
Column phase: ZB-5msi Column diameter: 0.25

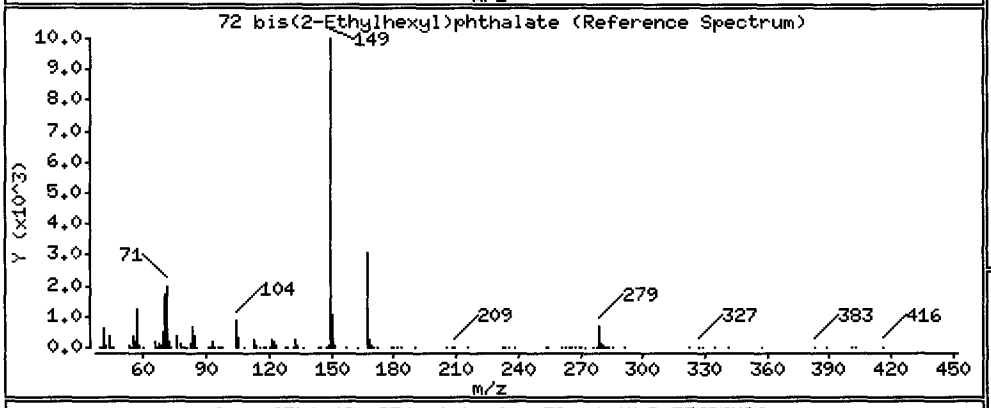
72 bis(2-Ethylhexyl)phthalate Concentration: 149.9 ug/kg

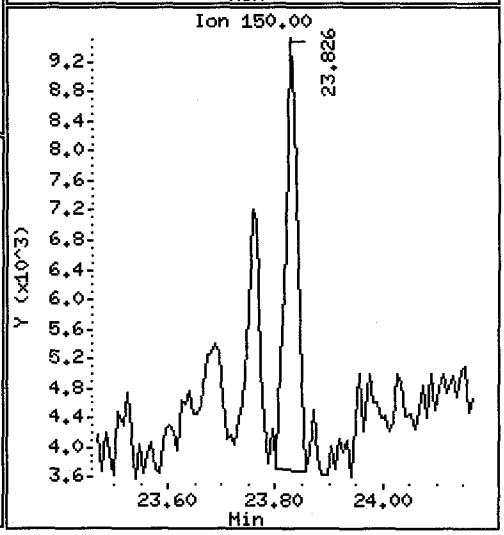


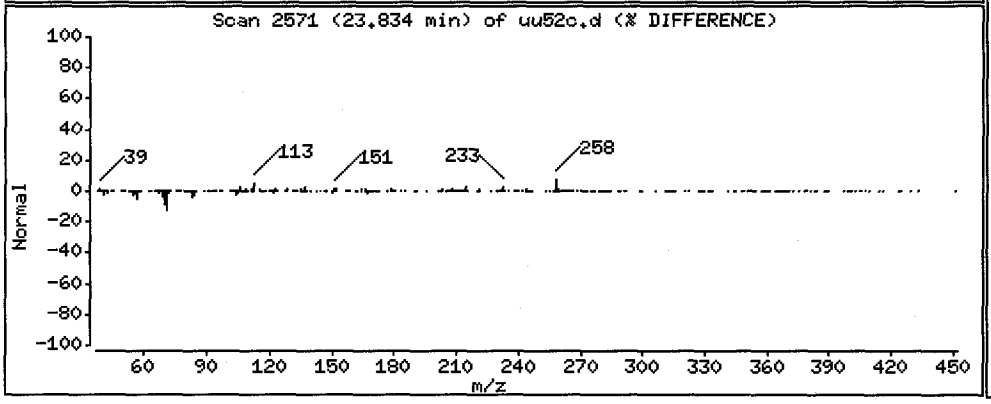



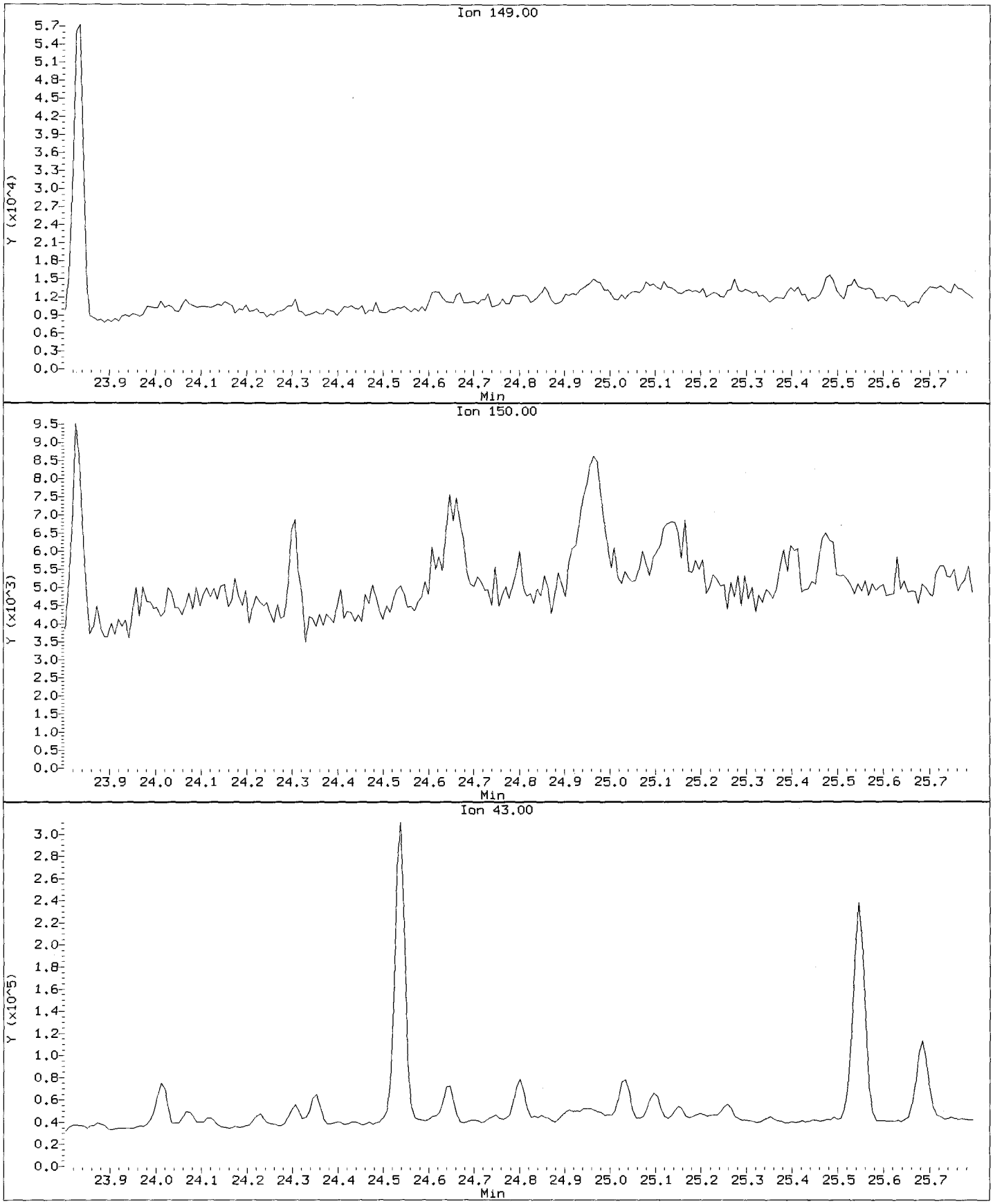



Data File: /chem1/nt10.i/20120526.b/uu52c.d
Injection Date: 26-MAY-2012 18:25
Instrument: nt10.i
Client Sample ID: MS002-SS-120515

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

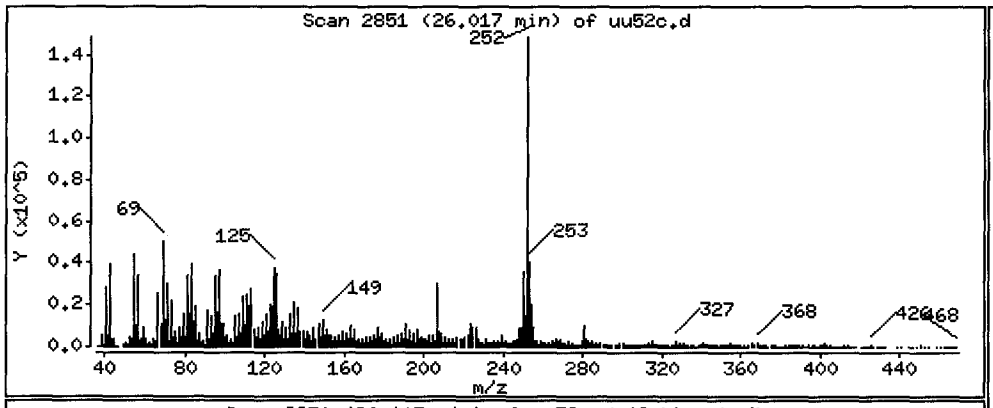
Operator: VTS/YZ

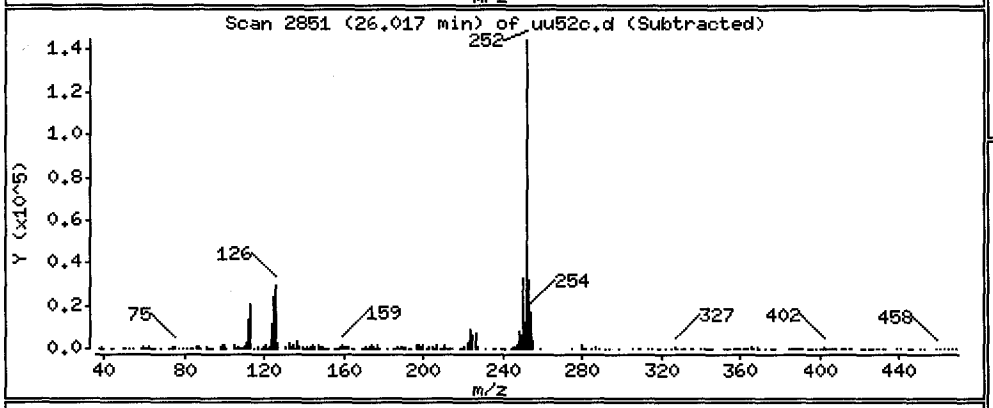
Column phase: ZB-5msi

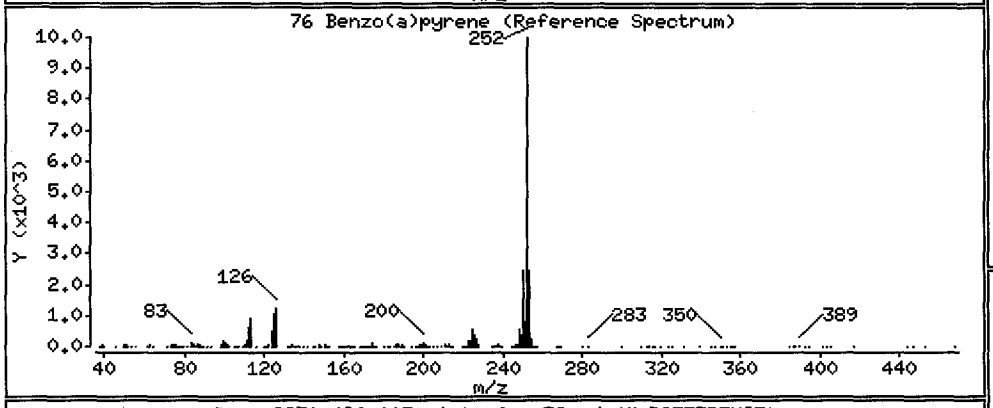
Column diameter: 0.25

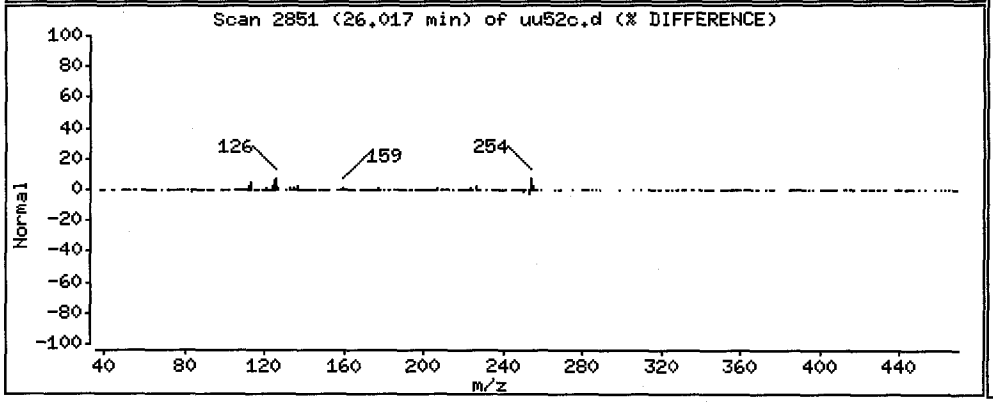
76 Benzo(a)pyrene

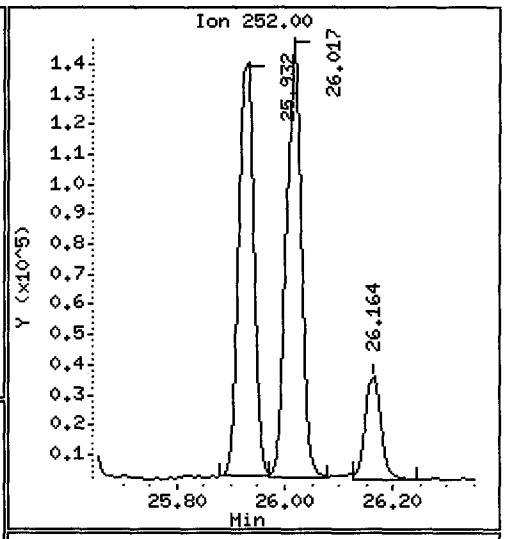
Concentration: 471.5 ug/kg

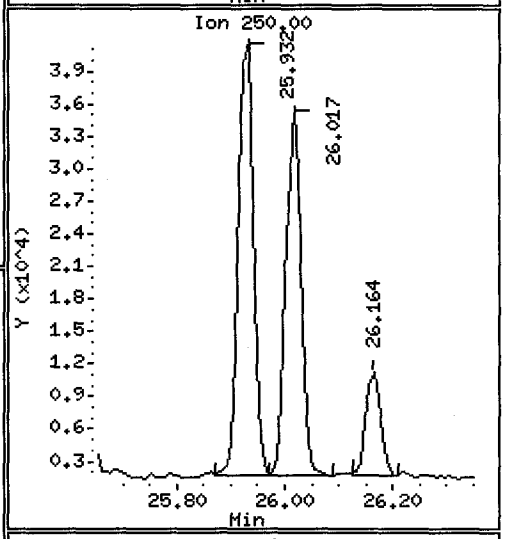


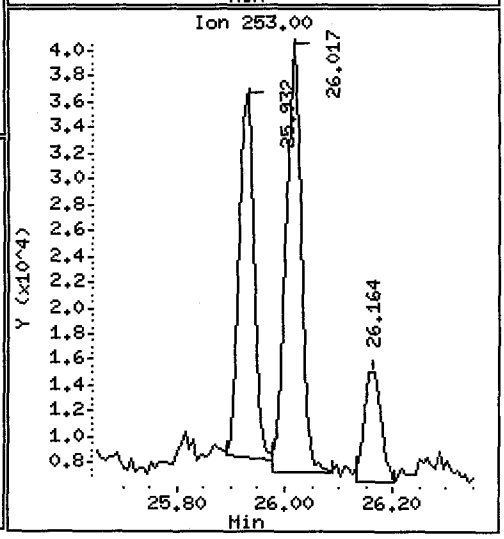



Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

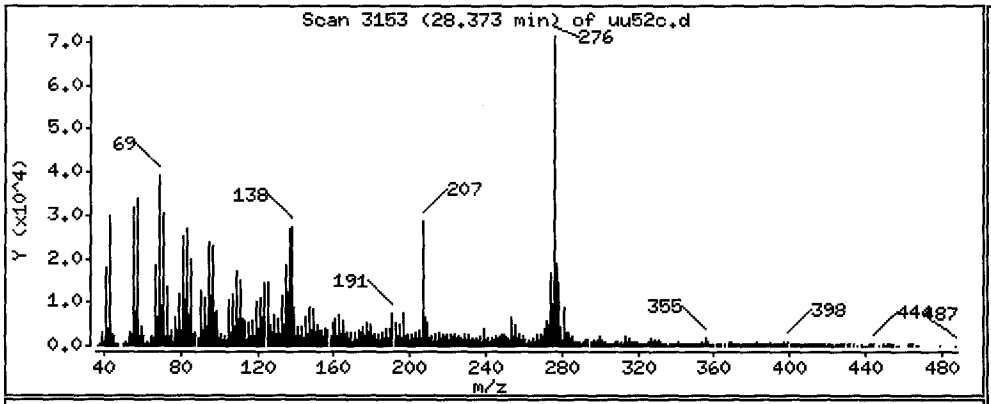
Operator: VTS/YZ

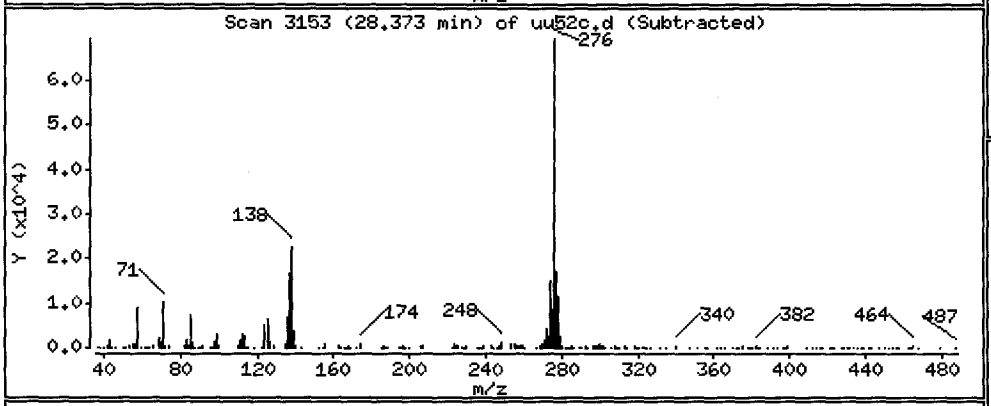
Column phase: ZB-5msi

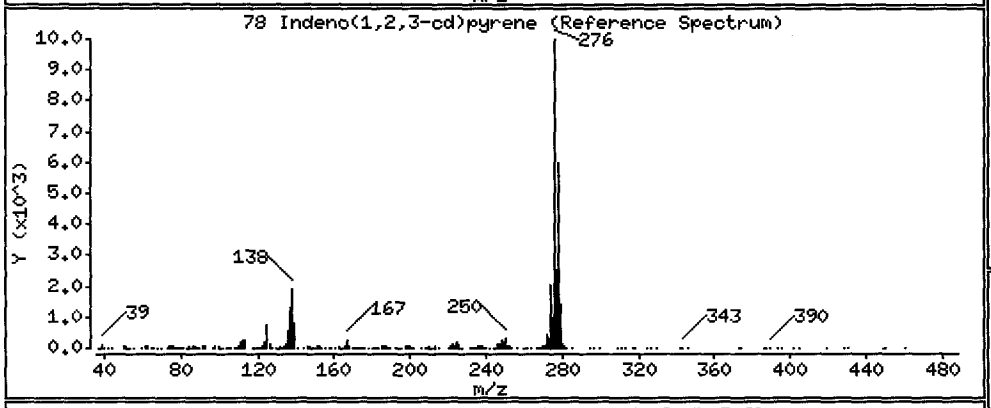
Column diameter: 0.25

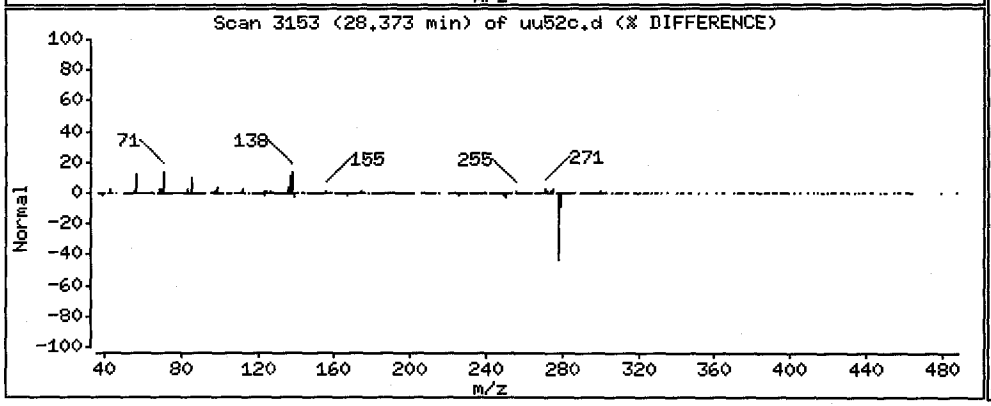
78 Indeno(1,2,3-cd)pyrene

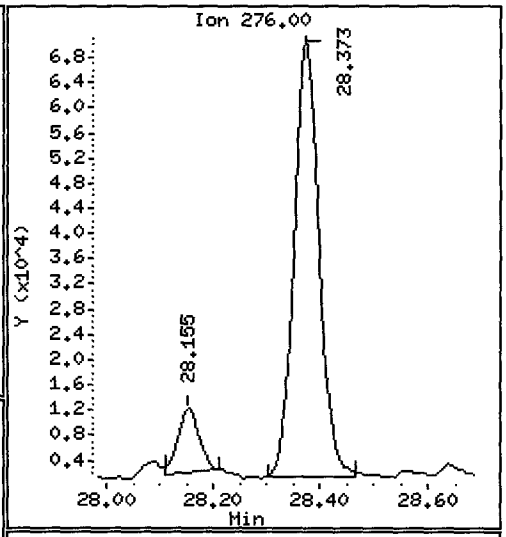
Concentration: 342.2 ug/kg

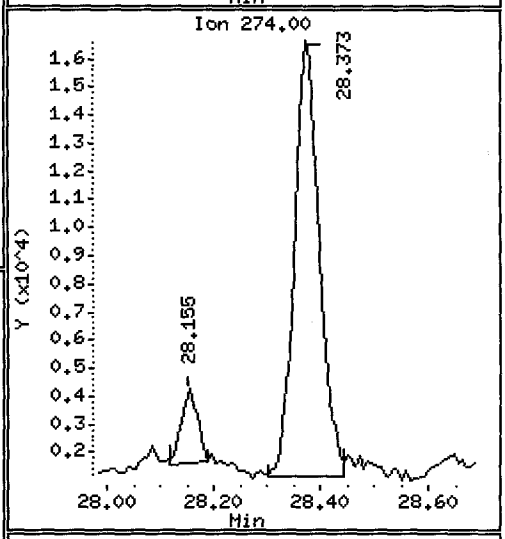


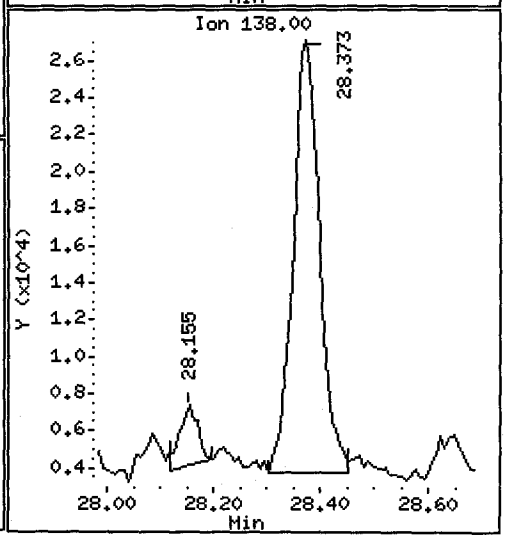



Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

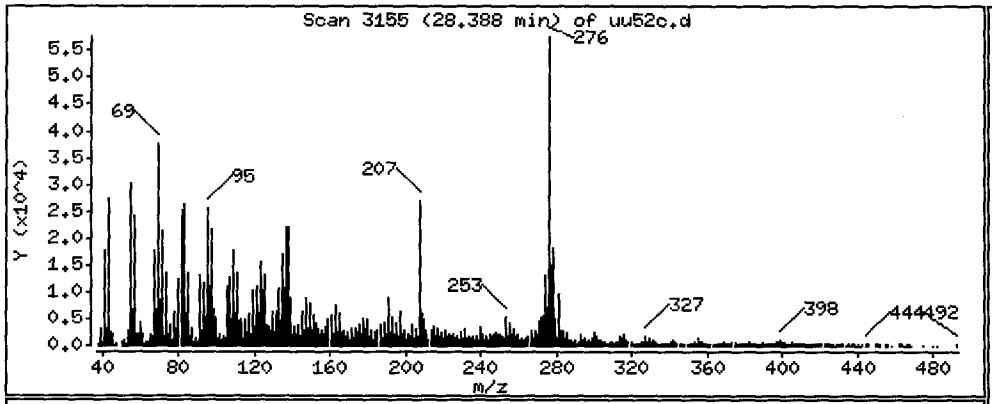
Operator: VTS/YZ

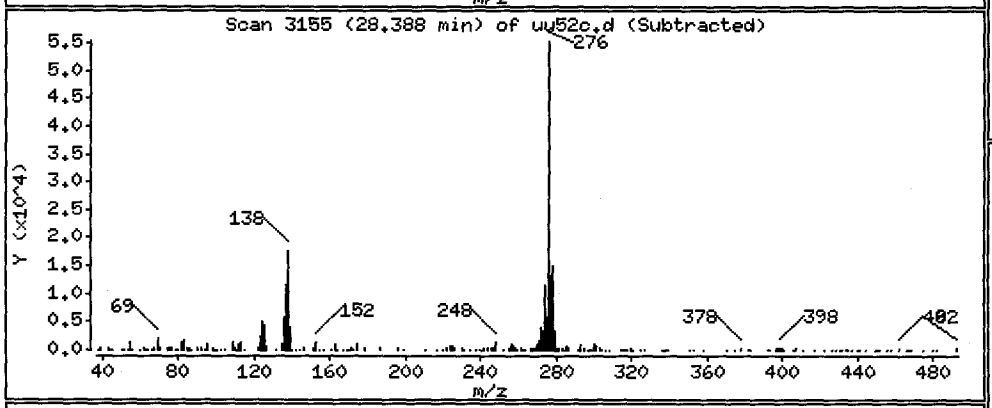
Column phase: ZB-5msi

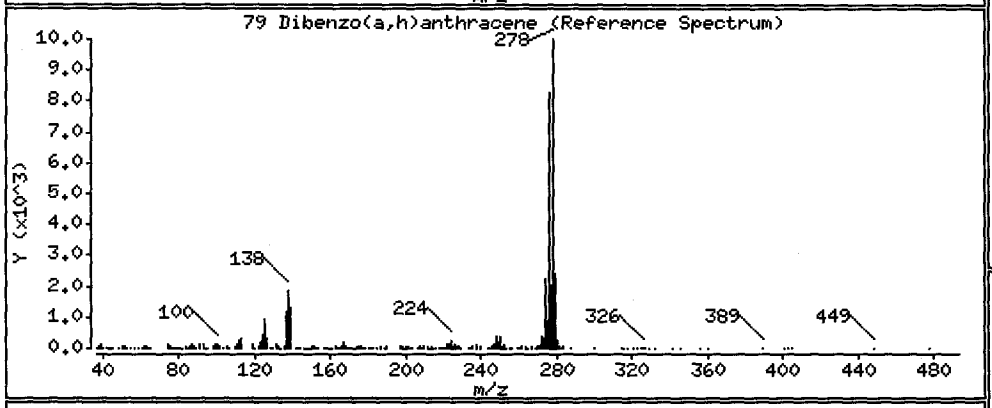
Column diameter: 0.25

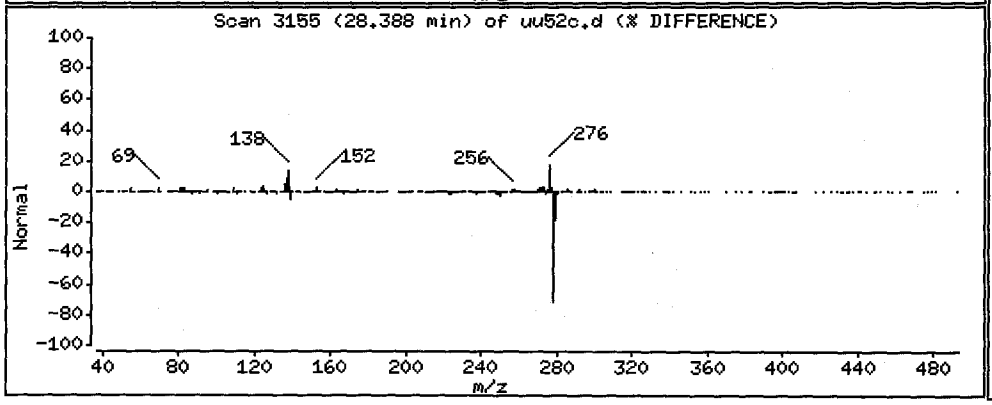
79 Dibenzo(a,h)anthracene

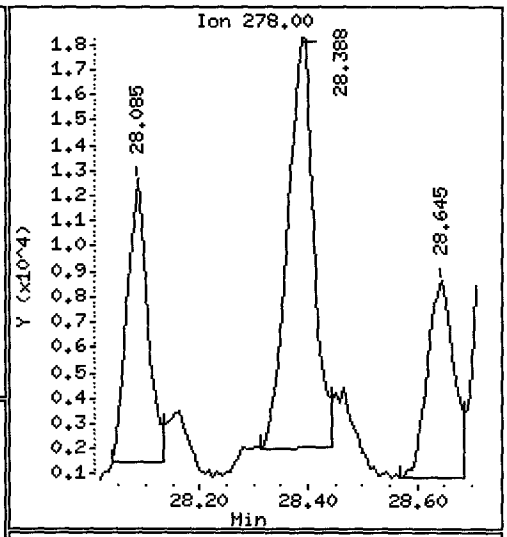
Concentration: 104.3 ug/kg

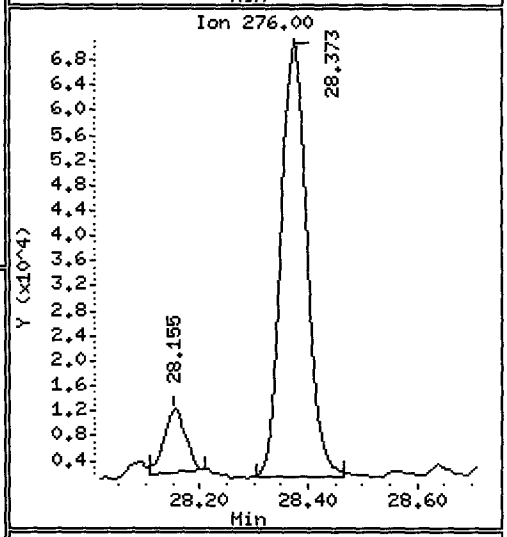


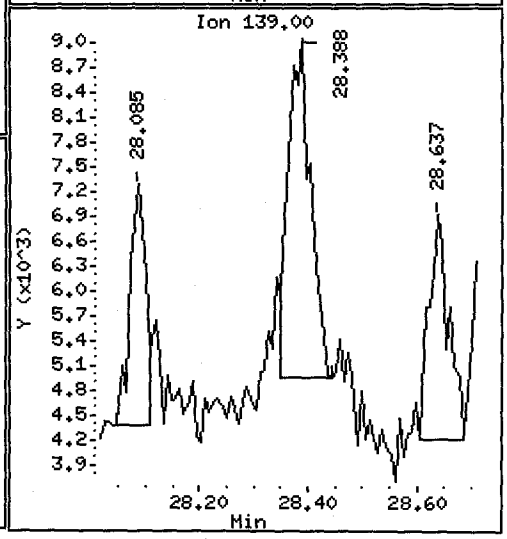



Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

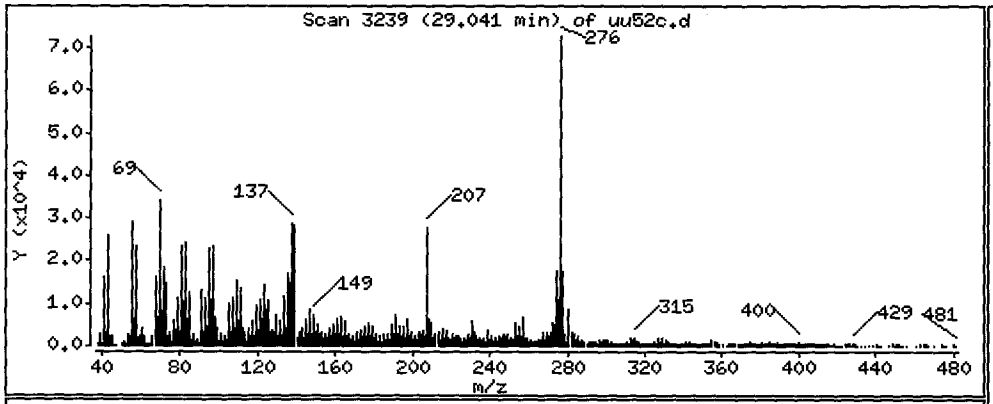
Client ID: MS002-SS-120515 Instrument: nt10.i

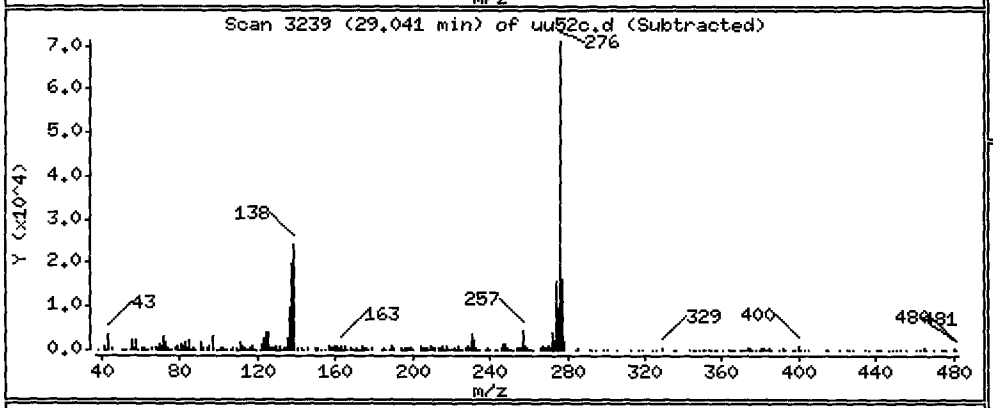
Sample Info: UU52C,3

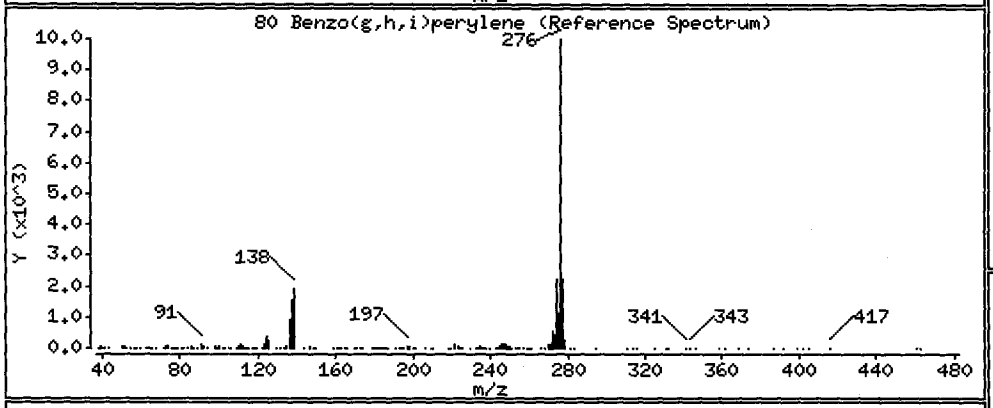
Volume Injected (uL): 1.0 Operator: VTS/YZ

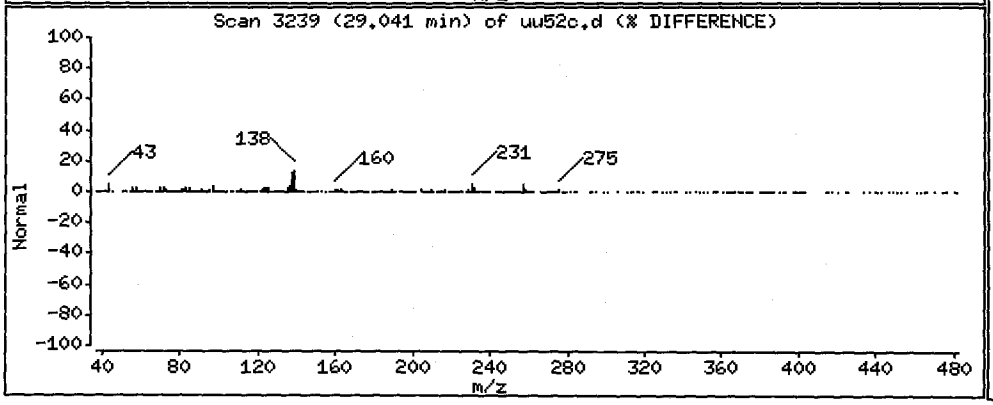
Column phase: ZB-5msi Column diameter: 0.25

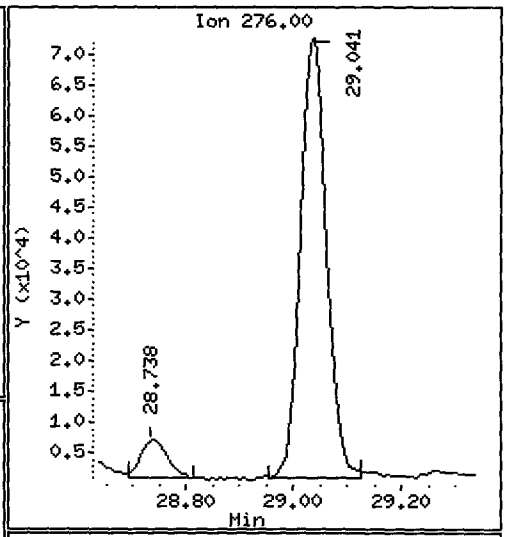
80 Benzo(g,h,i)perylene Concentration: 429.7 ug/kg

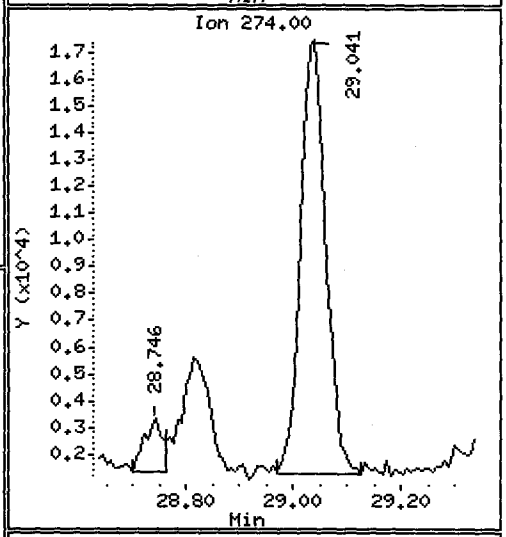


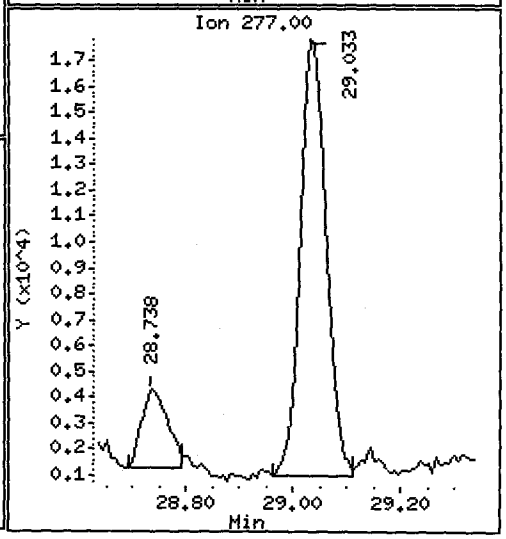



Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

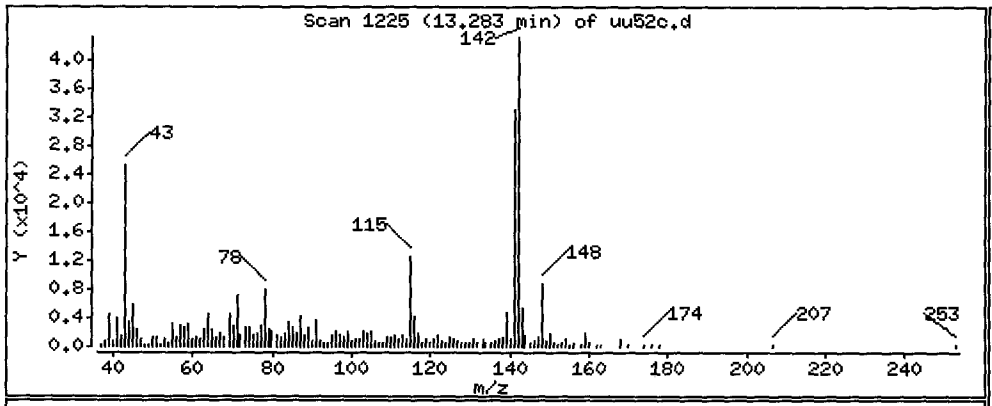
Client ID: MS002-SS-120515 Instrument: nt10.i

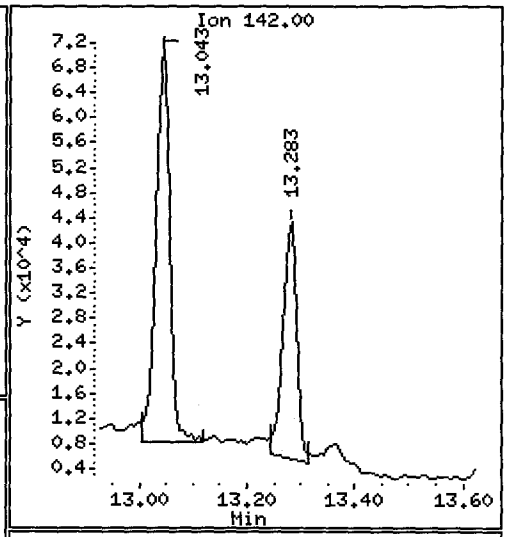
Sample Info: UU52C,3

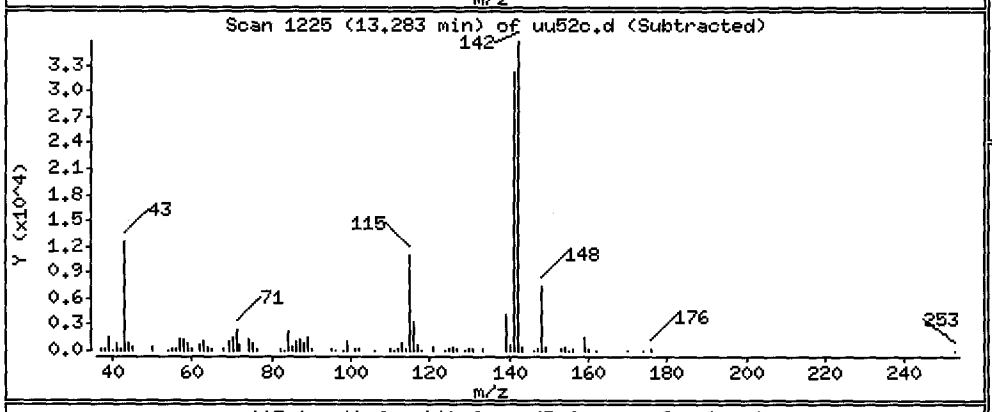
Volume Injected (uL): 1.0 Operator: VTS/YZ

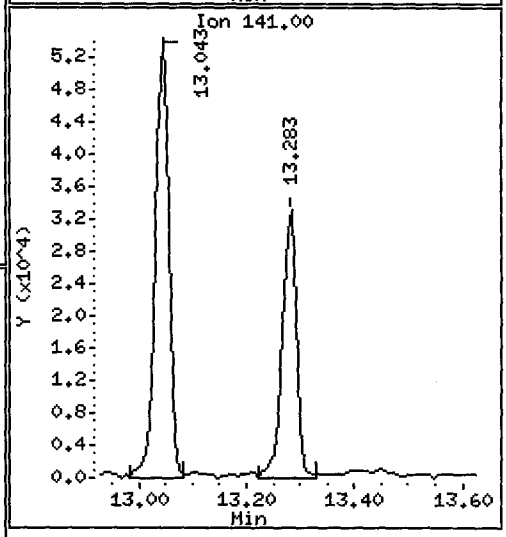
Column phase: ZB-5msi Column diameter: 0.25

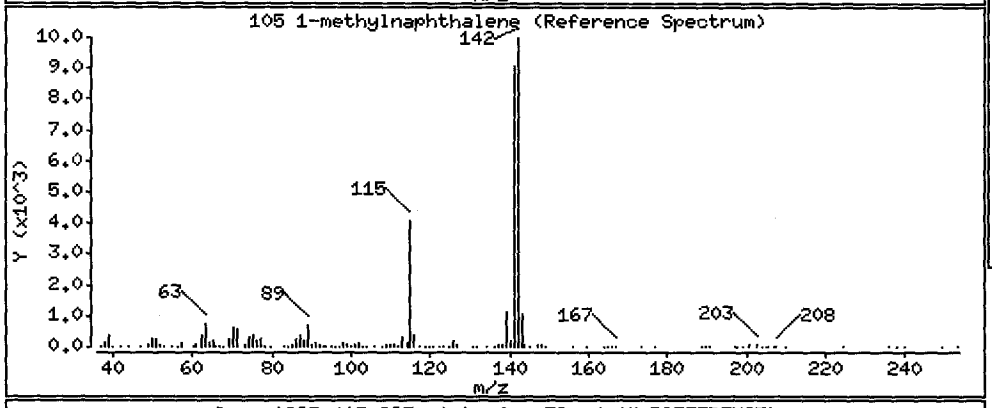
105 1-methylnaphthalene Concentration: 142.5 ug/kg

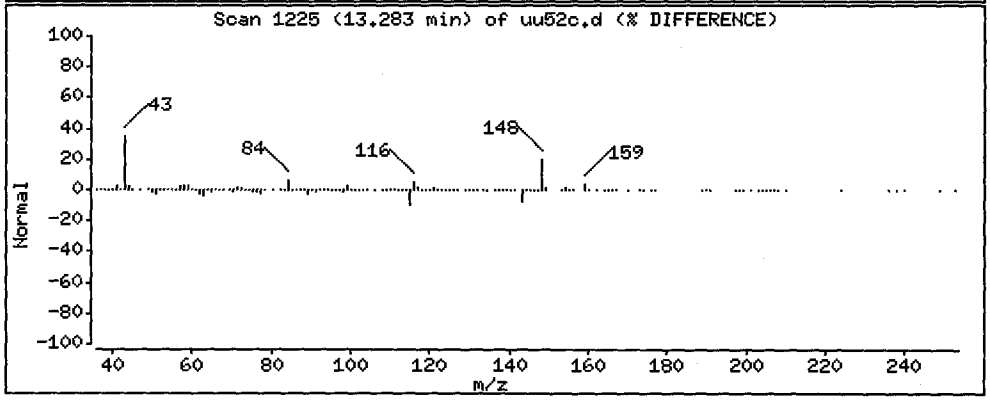


Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

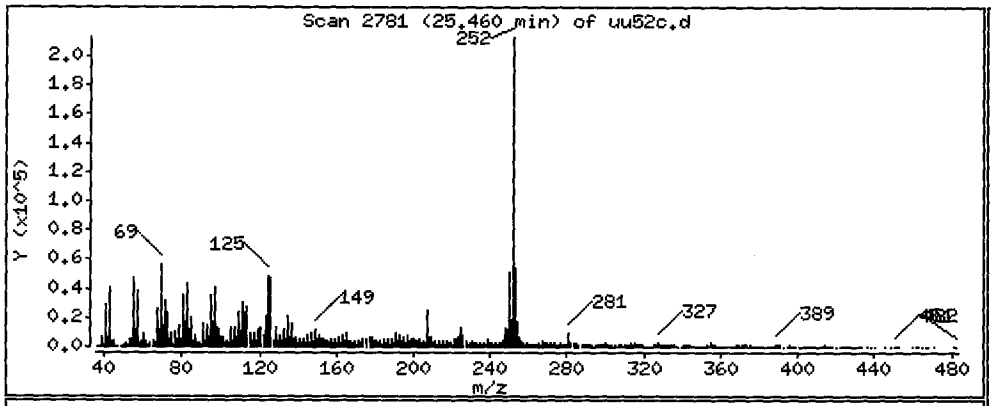
Operator: VTS/YZ

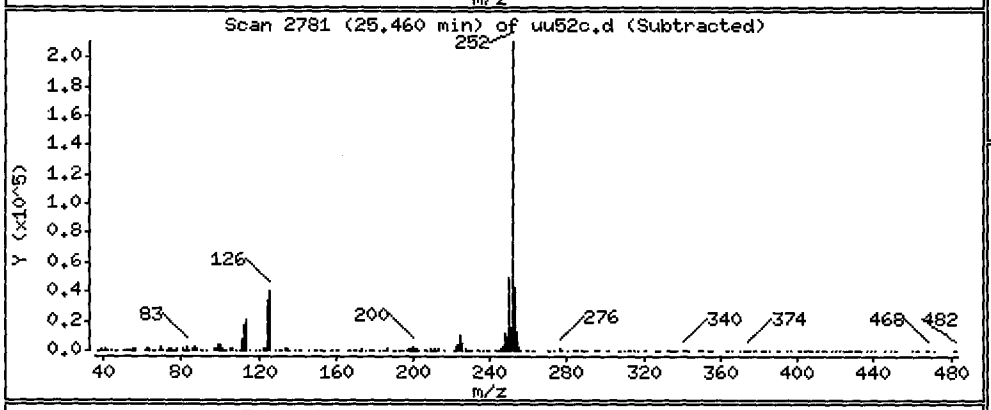
Column phase: ZB-5msi

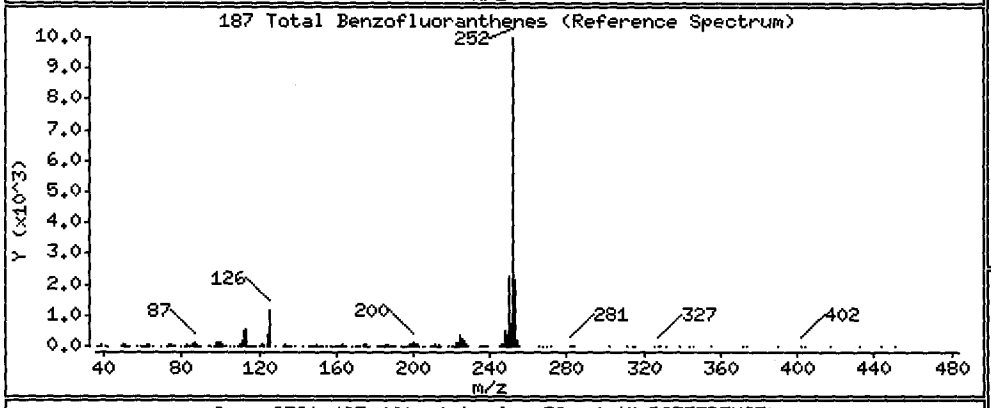
Column diameter: 0.25

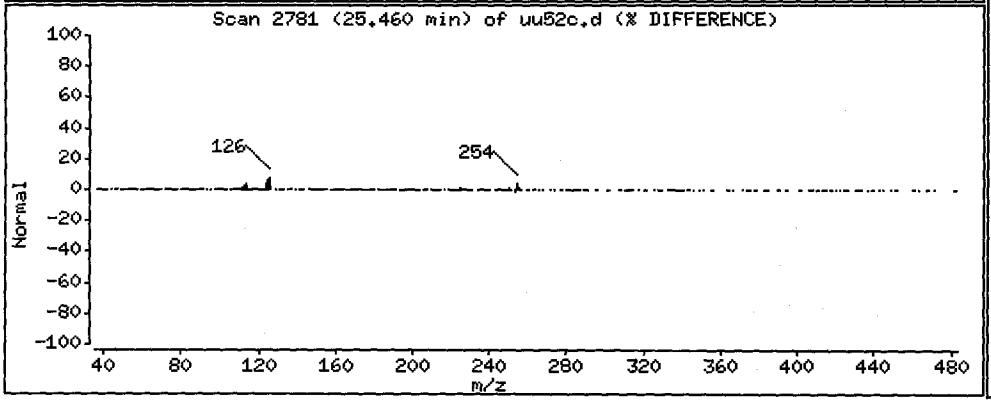
187 Total Benzofluoranthenes

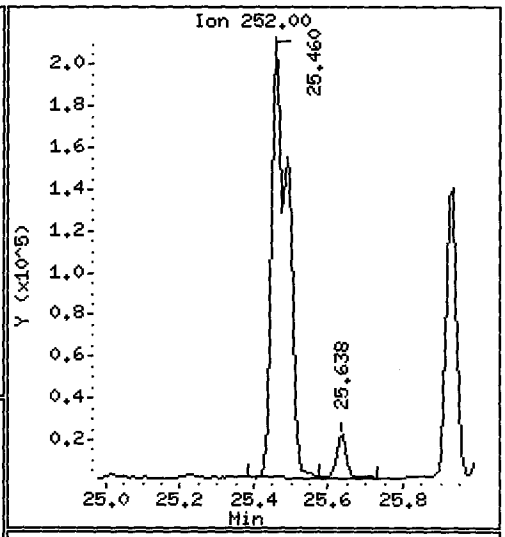
Concentration: 1020 ug/kg

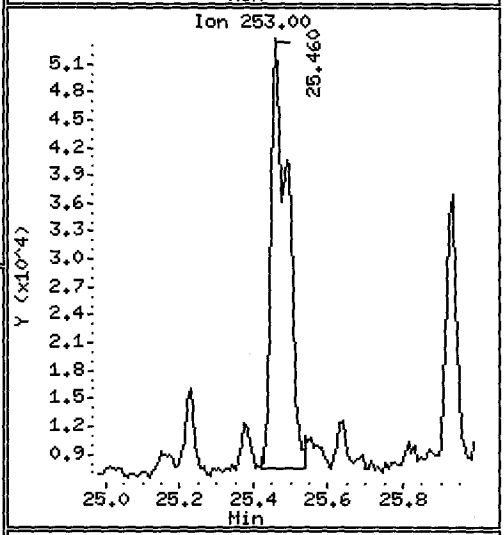


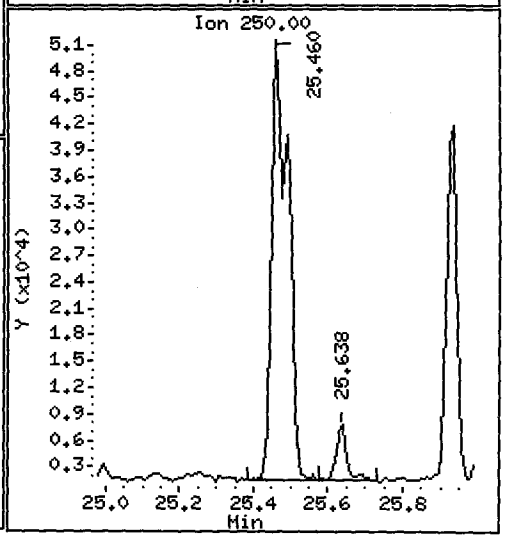



Data File: /chem1/nt10.i/20120526.b/uu52c.d

Date : 26-MAY-2012 18:25

Client ID: MS002-SS-120515

Instrument: nt10.i

Sample Info: UU52C,3

Volume Injected (uL): 1.0

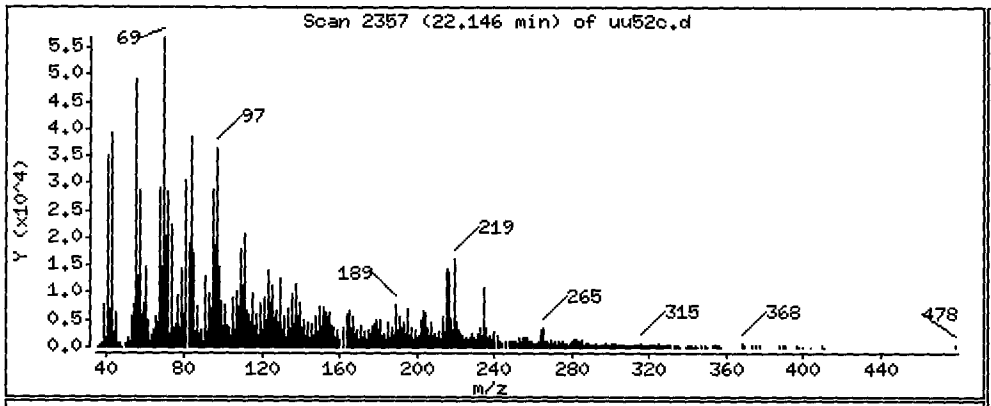
Operator: VTS/YZ

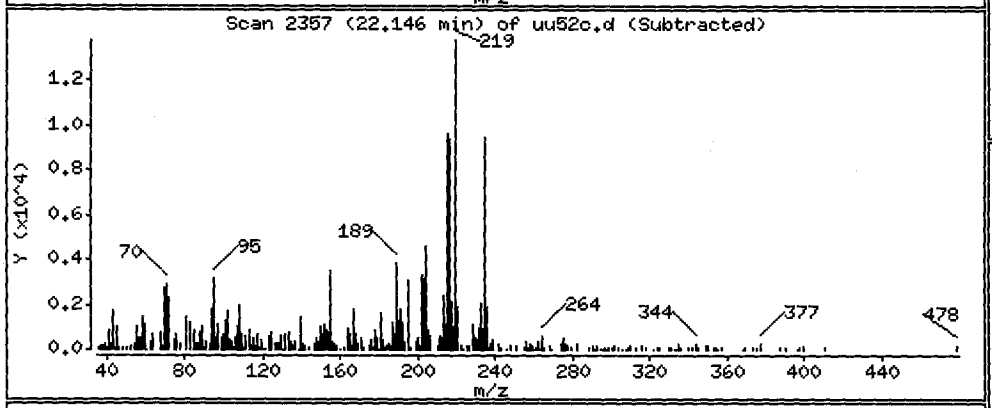
Column phase: ZB-5msi

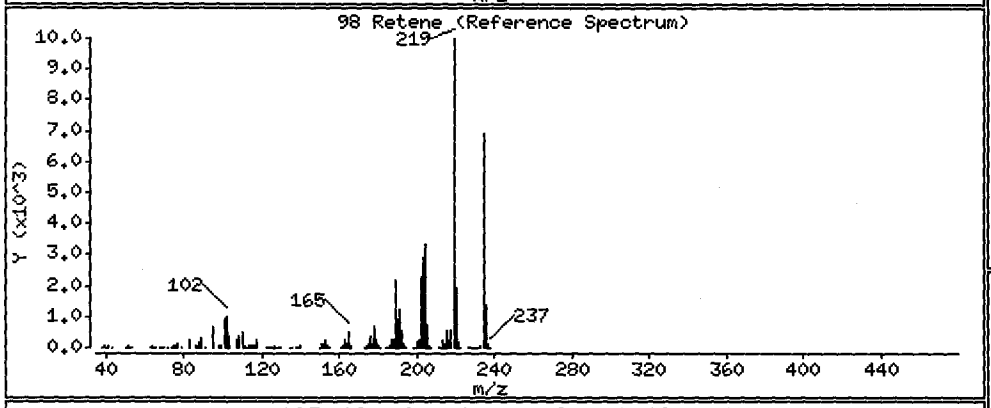
Column diameter: 0.25

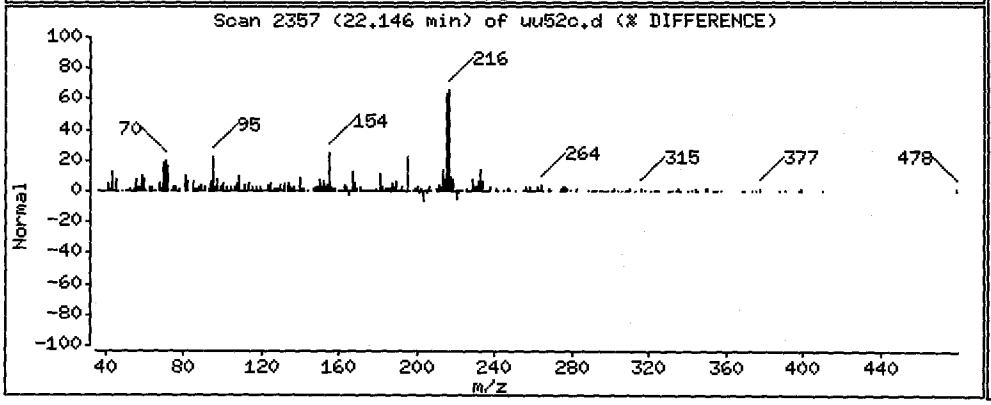
98 Retene

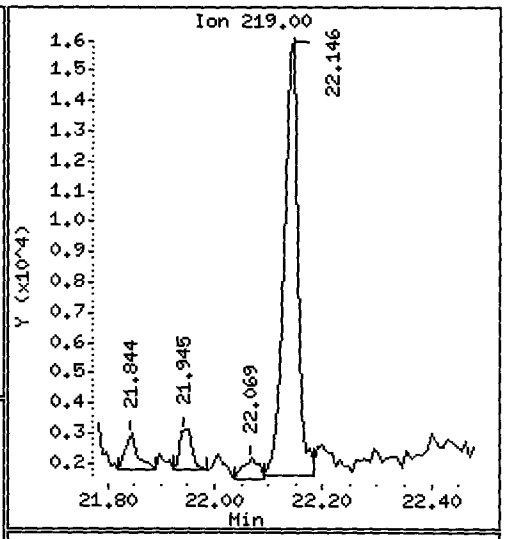
Concentration: 79.36 ug/kg

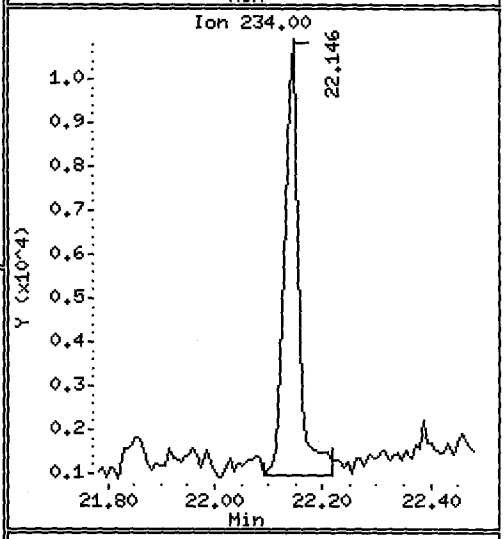


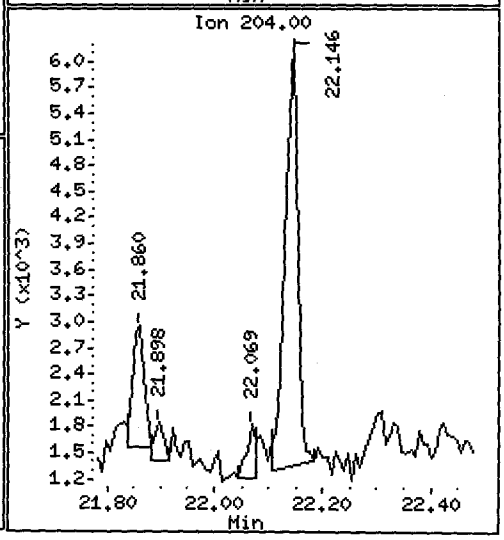



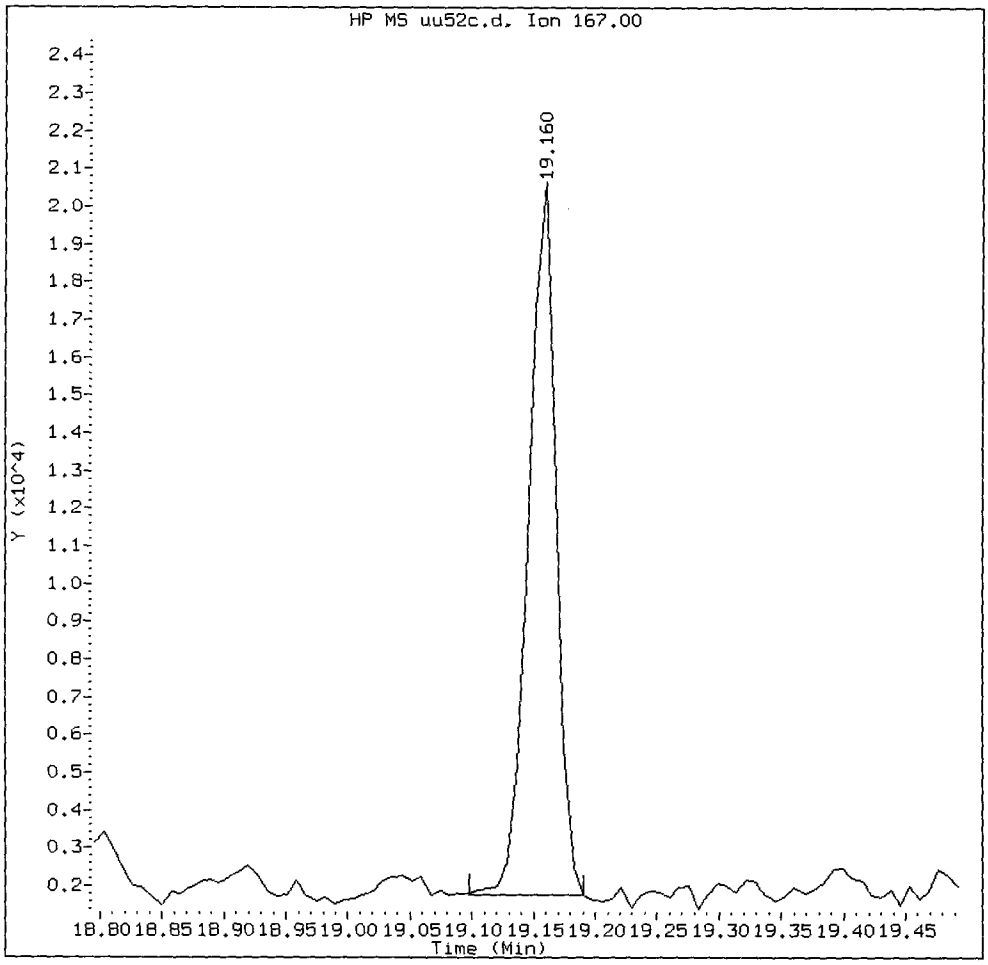



UU52C, /chem1/nt10.i/20120526.b/uu52c.d

Carbazole Amount: 0.19 Area: 30025




MANUAL INTEGRATION for Carbazole

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

CO-ELUTION SUMMARY FOR FILE - uu52c.d

Lab ID: UU52C, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 6/4/12

Data file : /chem1/nt10.i/20120526.b/uu52d.d
Lab Smp Id: UU52D Client Smp ID: MS003-SS-120515
Inj Date : 26-MAY-2012 19:02
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52D,3
Misc Info : 12-8896
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 04-Jun-2012 10:50 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 6
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 3.00000 | Dilution Factor |
| Vt | 1000.00000 | Volume of final extract (uL) |
| Ws | 109.00000 | Weight of sample extracted (g) |
| M | 90.70000 | % Moisture |

Cpnd Variable Local Compound Variable

| | | | QUANT SIG | | | | | CONCENTRATIONS | |
|---|---|---|---|---|---|---|---|---|---|
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | ON-COLUMN (ug/mL) | FINAL (ug/kg) |
| $ | 1 | 2-Fluorophenol | 112 | 6.560 | 6.537 | (0.740) | 100119 | 1.46312 | 433.0 |
| $ | 2 | Phenol-d5 | 99 | 8.252 | 8.237 | (0.931) | 134469 | 1.57755 | 466.9 |
| | 3 | Phenol | 94 | 8.275 | 8.260 | (0.934) | 55442 | 0.61021 | 180.6 |
| $ | 5 | 2-Chlorophenol-d4 | 132 | 8.484 | 8.476 | (0.957) | 115894 | 1.55189 | 459.3 |
| | 4 | Bis(2-Chloroethyl)ether | 93 | Compound Not Detected. | | | | | |
| | 6 | 2-Chlorophenol | 128 | Compound Not Detected. | | | | | |
| | 7 | 1,3-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| * | 8 | 1,4-Dichlorobenzene-d4 | 152 | 8.863 | 8.855 | (1.000) | 195684 | 4.00000 | |
| | 9 | 1,4-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| $ | 10 | 1,2-Dichlorobenzene-d4 | 152 | 9.236 | 9.236 | (1.042) | 45372 | 0.92614 | 274.1 |
| | 12 | 1,2-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| | 11 | Benzyl alcohol | 108 | Compound Not Detected. | | | | | |
| | 14 | 2,2'-oxybis(1-Chloropropane) | 121 | Compound Not Detected. | | | | | |
| | 13 | 2-Methylphenol | 108 | Compound Not Detected. | | | | | |

| | | | | | | | CONCENTRATIONS | |
|---|---|---|---|---|---|---|---|---|
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | ON-COLUMN (ug/mL) | FINAL (ug/kg) |
| | 17 Hexachloroethane | 117 | Compound Not Detected. | | | | | |
| | 16 N-Nitroso-di-n-propylamine | 70 | Compound Not Detected. | | | | | |
| | 15 4-Methylphenol | 108 | 9.740 | 9.725 | (1.099) | 266177 | 3.56283 | 1054 |
| $ | 18 Nitrobenzene-d5 | 82 | 10.027 | 10.027 | (0.872) | 66940 | 0.95575 | 282.8 |
| | 19 Nitrobenzene | 77 | Compound Not Detected. | | | | | |
| | 20 Isophorone | 82 | Compound Not Detected. | | | | | |
| | 21 2-Nitrophenol | 139 | Compound Not Detected. | | | | | |
| | 22 2,4-Dimethylphenol | 107 | Compound Not Detected. | | | | | |
| | 23 Bis(2-Chloroethoxy)methane | 93 | Compound Not Detected. | | | | | |
| | 24 Benzoic acid | 105 | 11.033 | 11.087 | (0.959) | 49498 | 1.10001 | 325.5 |
| | 25 2,4-Dichlorophenol | 162 | Compound Not Detected. | | | | | |
| | 26 1,2,4-Trichlorobenzene | 180 | Compound Not Detected. | | | | | |
| * | 27 Naphthalene-d8 | 136 | 11.504 | 11.504 | (1.000) | 781696 | 4.00000 | |
| | 28 Naphthalene | 128 | 11.542 | 11.542 | (1.003) | 363786 | 1.84602 | 546.3 |
| | 29 4-Chloroaniline | 127 | Compound Not Detected. | | | | | |
| | 30 Hexachlorobutadiene | 225 | Compound Not Detected. | | | | | |
| | 31 4-Chloro-3-methylphenol | 107 | Compound Not Detected. | | | | | |
| | 32 2-Methylnaphthalene | 142 | 13.043 | 13.043 | (1.134) | 39687 | 0.28969 | 85.73 |
| | 33 Hexachlorocyclopentadiene | 237 | Compound Not Detected. | | | | | |
| | 34 2,4,6-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| | 35 2,4,5-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| $ | 36 2-Fluorobiphenyl | 172 | 13.902 | 13.902 | (0.904) | 160125 | 1.06534 | 315.3 |
| | 37 2-Chloronaphthalene | 162 | Compound Not Detected. | | | | | |
| | 38 2-Nitroaniline | 65 | Compound Not Detected. | | | | | |
| | 39 Dimethylphthalate | 163 | Compound Not Detected. | | | | | |
| | 40 Acenaphthylene | 152 | 15.040 | 15.032 | (0.978) | 38602 | 0.19823 | 58.67 |
| | 41 2,6-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| * | 42 Acenaphthene-d10 | 164 | 15.380 | 15.373 | (1.000) | 433584 | 4.00000 | |
| | 43 3-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 44 Acenaphthene | 153 | 15.450 | 15.442 | (1.005) | 27756 | 0.23631 | 69.93 |
| | 45 2,4-Dinitrophenol | 184 | Compound Not Detected. | | | | | |
| | 46 Dibenzofuran | 168 | 15.798 | 15.798 | (1.027) | 64527 | 0.37499 | 111.0 |
| | 47 4-Nitrophenol | 109 | Compound Not Detected. | | | | | |
| | 48 2,4-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| | 50 Diethylphthalate | 149 | Compound Not Detected. | | | | | |
| | 49 Fluorene | 166 | 16.571 | 16.563 | (1.077) | 32582 | 0.24711 | 73.13 |
| | 51 4-Chlorophenyl-phenylether | 204 | Compound Not Detected. | | | | | |
| | 52 4-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 53 4,6-Dinitro-2-methylphenol | 198 | Compound Not Detected. | | | | | |
| | 54 N-Nitrosodiphenylamine | 169 | Compound Not Detected. | | | | | |
| $ | 55 2,4,6-Tribromophenol | 330 | 17.149 | 17.142 | (1.115) | 31514 | 1.76093 | 521.1 |
| | 56 4-Bromophenyl-phenylether | 248 | Compound Not Detected. | | | | | |
| | 57 Hexachlorobenzene | 284 | Compound Not Detected. | | | | | |
| | 58 Pentachlorophenol | 266 | Compound Not Detected. | | | | | |
| * | 59 Phenanthrene-d10 | 188 | 18.641 | 18.633 | (1.000) | 608068 | 4.00000 | |
| | 60 Phenanthrene | 178 | 18.695 | 18.687 | (1.003) | 261353 | 1.66682 | 493.3 |
| | 61 Anthracene | 178 | 18.788 | 18.780 | (1.008) | 64809 | 0.39567 | 117.1 |
| | 62 Carbazole | 167 | Compound Not Detected. | | | | | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| 63 | Di-n-butylphthalate | 149 | Compound Not Detected. | | | | | |
| 64 | Fluoranthene | 202 | 21.125 | 21.101 | (1.133) | 328973 | 1.84787 | 546.9 |
| 65 | Pyrene | 202 | 21.542 | 21.519 | (0.908) | 366111 | 1.70465 | 504.5 |
| $ 66 | Terphenyl-d14 | 244 | 21.852 | 21.844 | (0.921) | 148792 | 1.10591 | 327.3 |
| 67 | Butylbenzylphthalate | 149 | Compound Not Detected. | | | | | |
| 68 | Benzo(a)anthracene | 228 | 23.695 | 23.679 | (0.999) | 88337 | 0.44490 | 131.7 |
| * 69 | Chrysene-d12 | 240 | 23.718 | 23.710 | (1.000) | 705866 | 4.00000 | |
| 70 | 3,3'-Dichlorobenzidine | 252 | Compound Not Detected. | | | | | |
| 71 | Chrysene | 228 | 23.764 | 23.749 | (1.002) | 227198 | 1.30074 | 384.9 |
| 72 | bis(2-Ethylhexyl)phthalate | 149 | 23.834 | 23.818 | (0.961) | 61724 | 0.41036 | 121.4 |
| * 134 | Di-n-octylphthalate-d4 | 153 | 24.802 | 24.794 | (1.000) | 1095300 | 4.00000 | |
| 73 | Di-n-octylphthalate | 149 | Compound Not Detected. | | | | | |
| 74 | Benzo(b)fluoranthene | 252 | Compound Not Detected. | | | | | |
| 75 | Benzo(k)fluoranthene | 252 | Compound Not Detected. | | | | | |
| 76 | Benzo(a)pyrene | 252 | 26.017 | 26.002 | (0.996) | 147795 | 0.83022 | 245.7 |
| * 77 | Perylene-d12 | 264 | 26.118 | 26.102 | (1.000) | 688484 | 4.00000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | 28.380 | 28.342 | (1.087) | 120715 | 0.58622 | 173.5 |
| 79 | Dibenzo(a,h)anthracene | 278 | 28.388 | 28.365 | (1.087) | 27469 | 0.16934 | 50.12 |
| 80 | Benzo(g,h,i)perylene | 276 | 29.048 | 29.002 | (1.112) | 134502 | 0.76171 | 225.4 |
| 90 | N-Nitrosodimethylamine | 74 | Compound Not Detected. | | | | | |
| 91 | Aniline | 93 | Compound Not Detected. | | | | | |
| 93 | Benzidine | 184 | Compound Not Detected. | | | | | |
| 103 | Pyridine | 79 | Compound Not Detected. | | | | | |
| 105 | 1-methylnaphthalene | 142 | 13.283 | 13.275 | (1.155) | 26639 | 0.19067 | 56.43 |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | Compound Not Detected. | | | | | |
| 187 | Total Benzofluoranthenes | 252 | 25.460 | 25.483 | (0.975) | 369394 | 1.93364 | 572.3 |
| 99 | Perylene | 252 | Compound Not Detected. | | | | | |
| 98 | Retene | 219 | 22.146 | 22.131 | (0.934) | 10666 | 0.10665 | 31.56 |

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52d.d
Lab Smp Id: UU52D
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8896

Calibration Date: 26-MAY-2012
Calibration Time: 10:59
Client Smp ID: MS003-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 195684 | 3.25 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 781696 | 6.95 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 433584 | 3.06 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 608068 | -4.83 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 705866 | 9.43 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 1095300 | 7.79 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 688484 | 5.92 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.86 | 0.09 |
| 27 Naphthalene-d8 | 11.50 | 11.00 | 12.00 | 11.50 | 0.00 |
| 42 Acenaphthene-d10 | 15.37 | 14.87 | 15.87 | 15.38 | 0.05 |
| 59 Phenanthrene-d10 | 18.63 | 18.13 | 19.13 | 18.64 | 0.04 |
| 69 Chrysene-d12 | 23.71 | 23.21 | 24.21 | 23.72 | 0.03 |
| 134 Di-n-octylphthala | 24.79 | 24.29 | 25.29 | 24.80 | 0.03 |
| 77 Perylene-d12 | 26.10 | 25.60 | 26.60 | 26.12 | 0.06 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

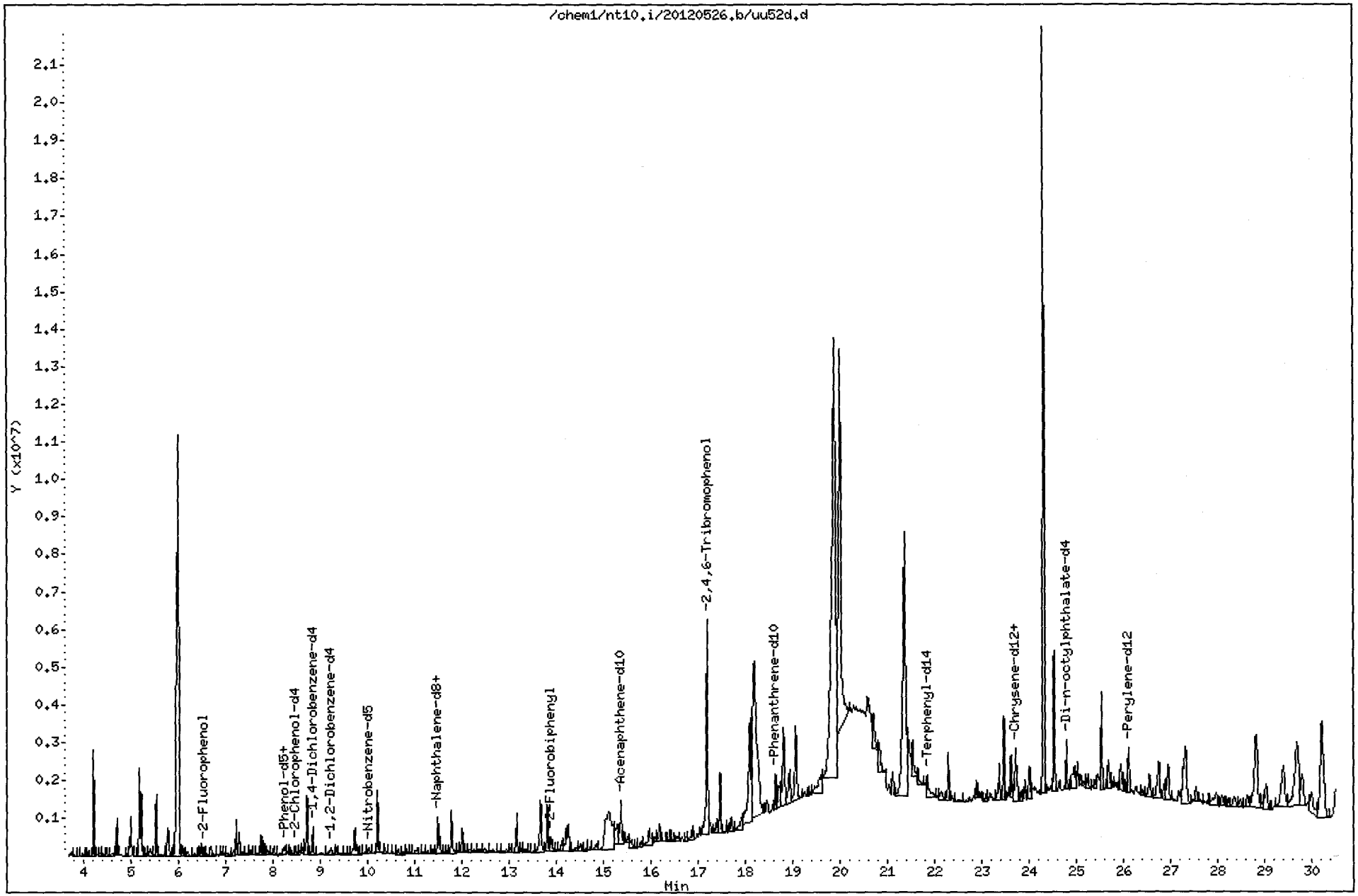
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52D Client Smp ID: MS003-SS-120515
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8896

| SURROGATE COMPOUND | CONC ADDED ug/kg | CONC RECOVERED ug/kg | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 1 2-Fluorophenol | 739.9 | 433.0 | 58.52 | 30-160 |
| $ 2 Phenol-d5 | 739.9 | 466.9 | 63.10 | 30-160 |
| $ 5 2-Chlorophenol-d4 | 739.9 | 459.3 | 62.08 | 30-160 |
| $ 10 1,2-Dichlorobenzen | 493.2 | 274.1 | 55.57 | 30-160 |
| $ 18 Nitrobenzene-d5 | 493.2 | 282.8 | 57.34 | 30-160 |
| $ 36 2-Fluorobiphenyl | 493.2 | 315.3 | 63.92 | 30-160 |
| $ 55 2,4,6-Tribromophen | 739.9 | 521.1 | 70.44 | 30-160 |
| $ 66 Terphenyl-d14 | 493.2 | 327.3 | 66.35 | 30-160 |

Data File: /chem1/nt10.i/20120526.b/uu52d.d
Date : 26-MAY-2012 19:02
Client ID: MS003-SS-120515
Sample Info: UU52D,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25




UU52:99759

Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

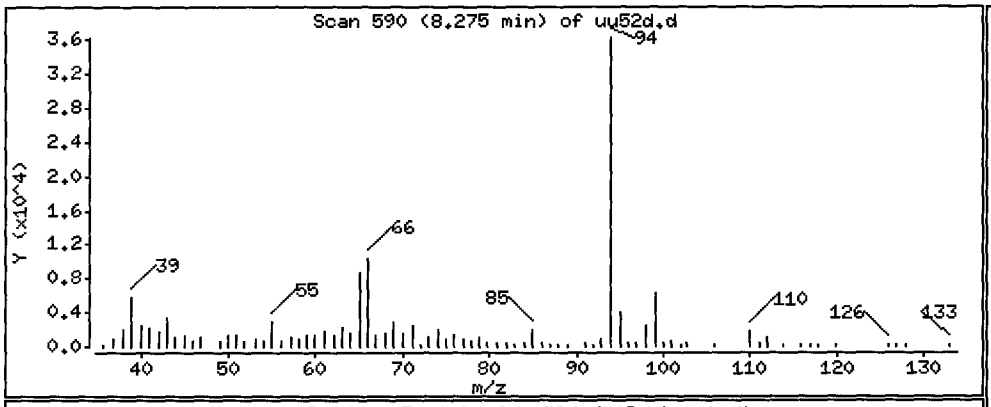
Operator: VTS/YZ

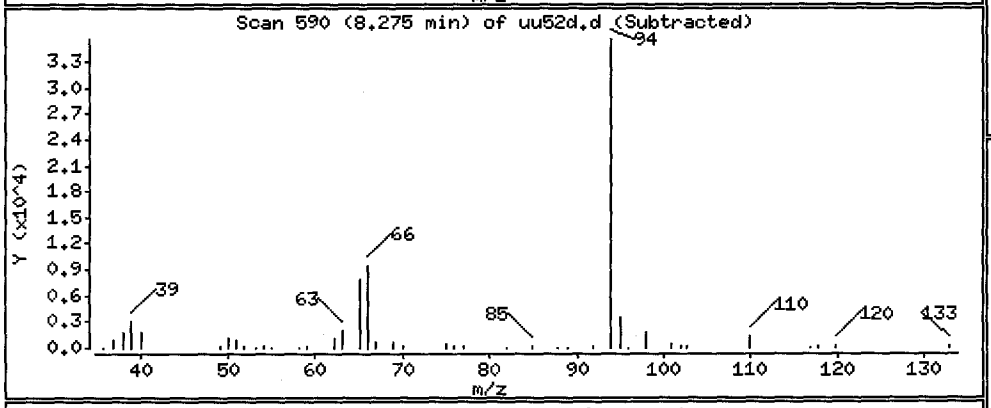
Column phase: ZB-5msi

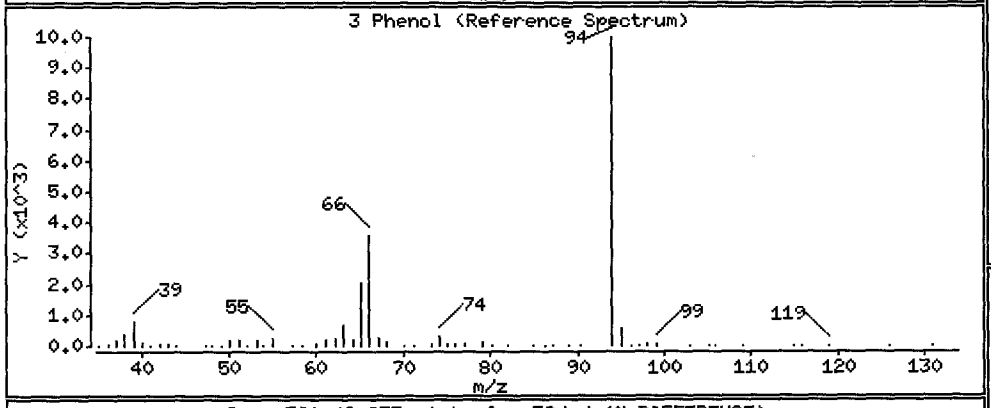
Column diameter: 0.25

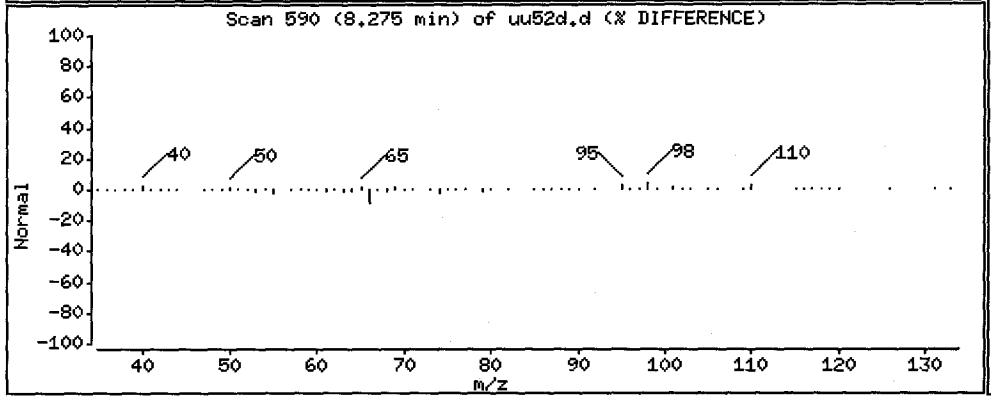
3 Phenol

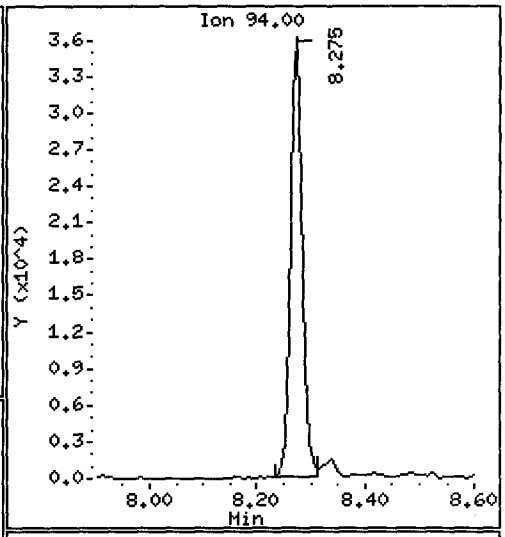
Concentration: 180.6 ug/kg

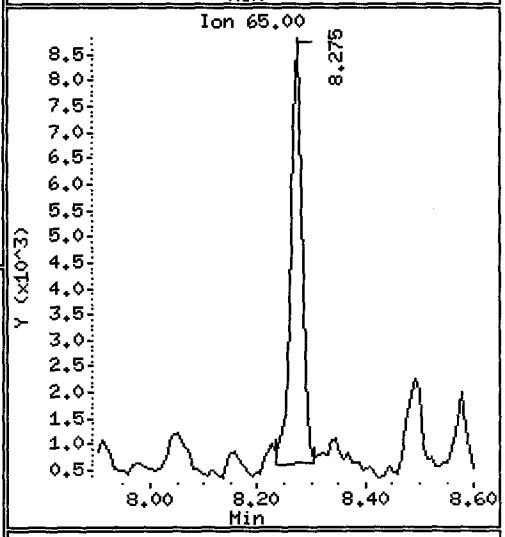


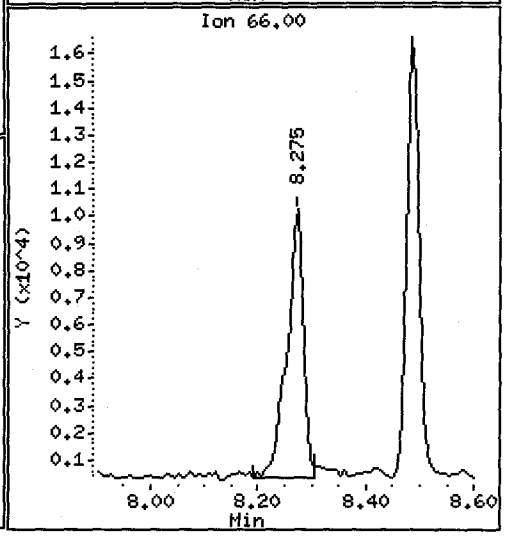



Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

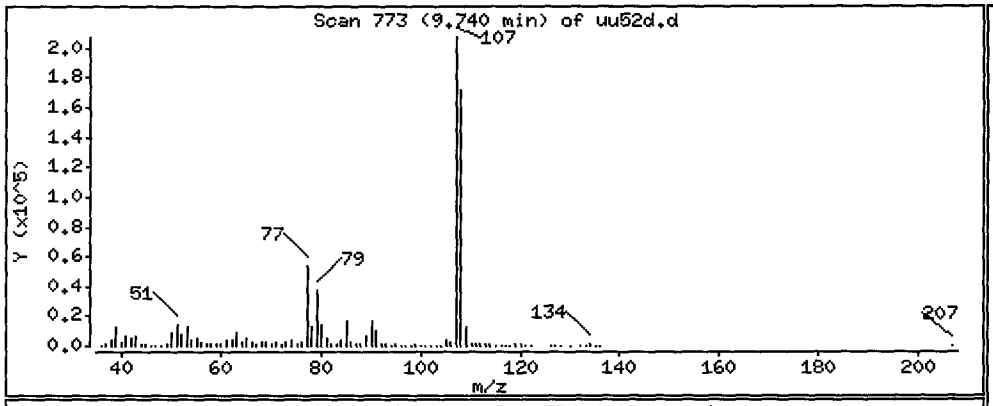
Operator: VTS/YZ

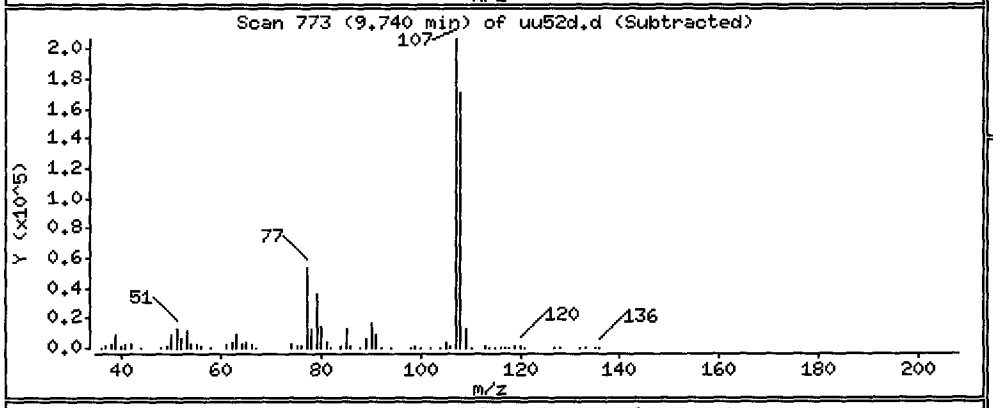
Column phase: ZB-5msi

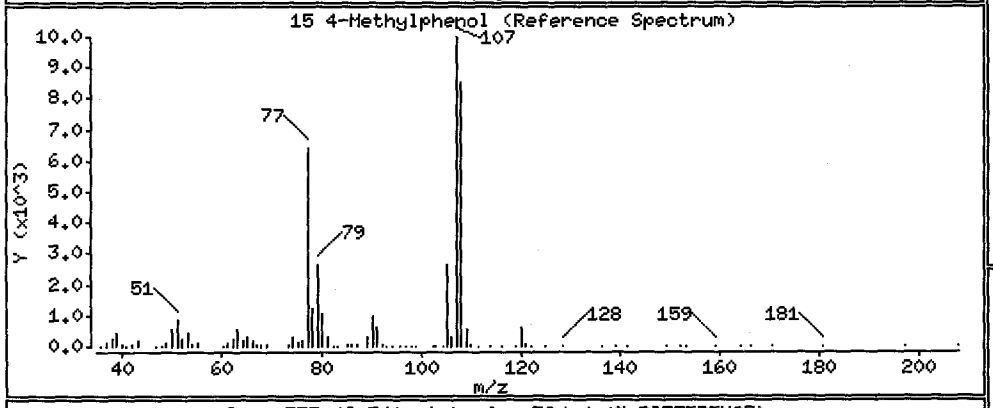
Column diameter: 0.25

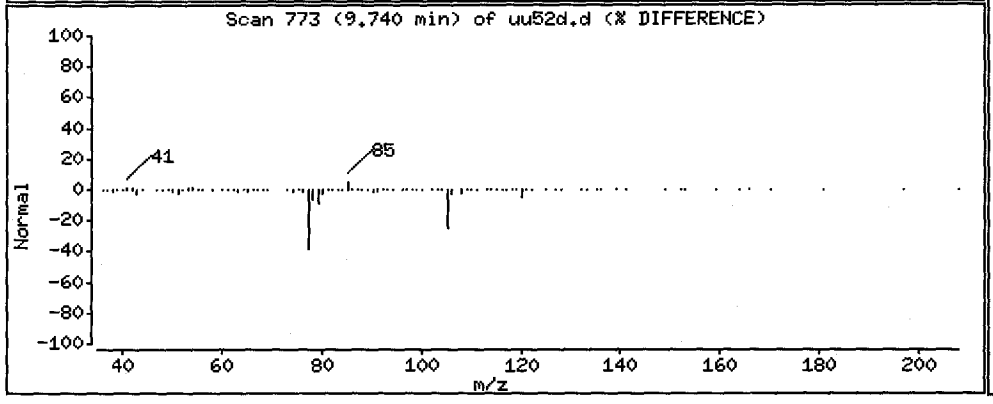
15 4-Methylphenol

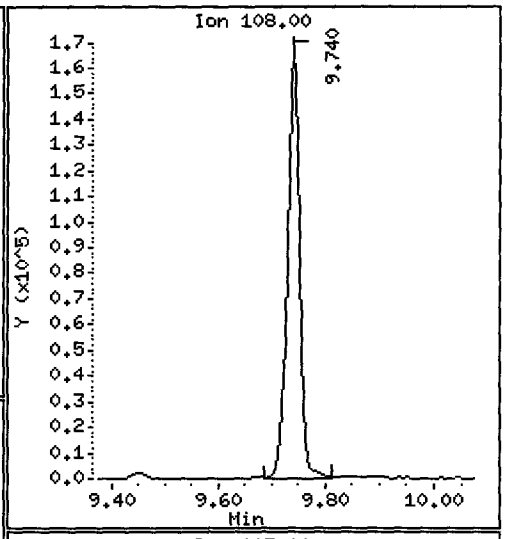
Concentration: 1054 ug/kg

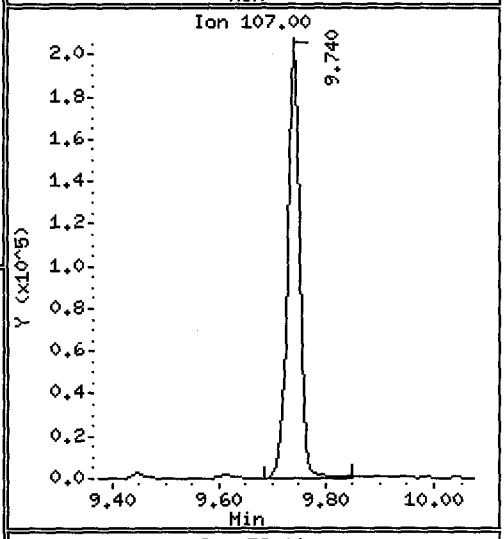


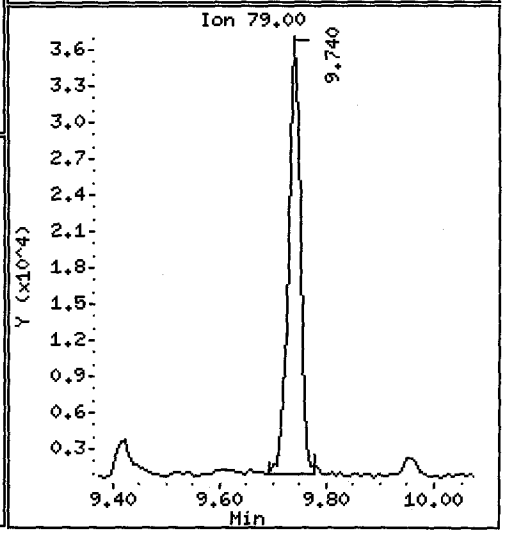



Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

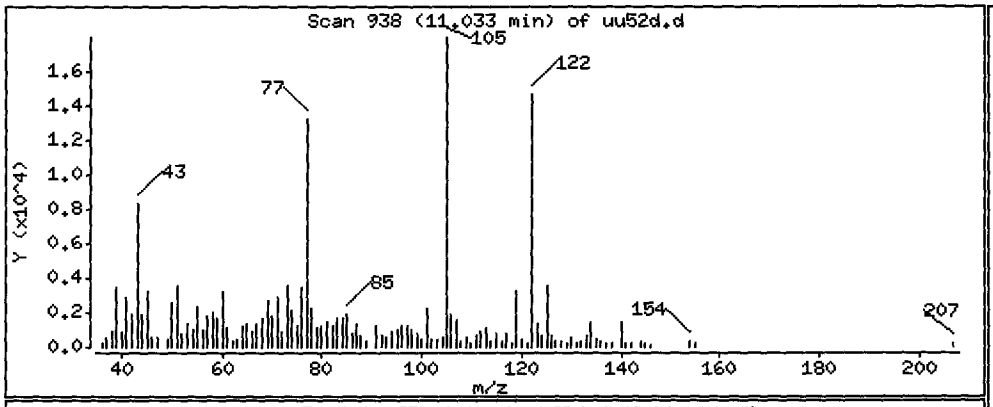
Operator: VTS/YZ

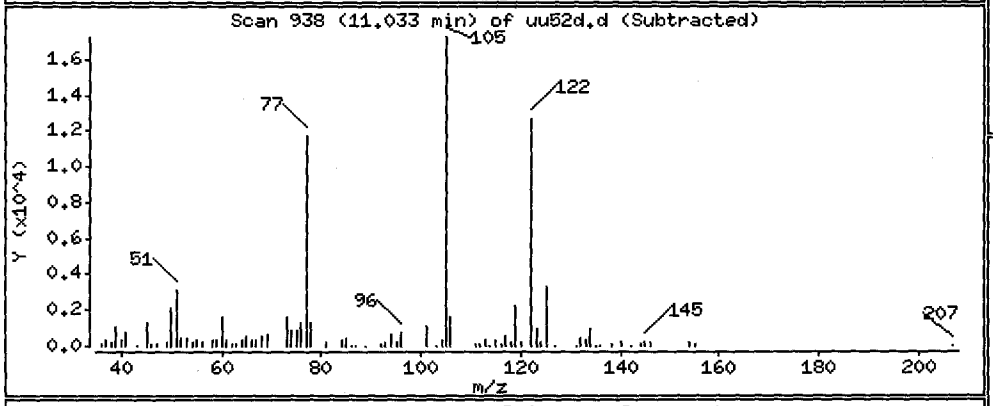
Column phase: ZB-5msi

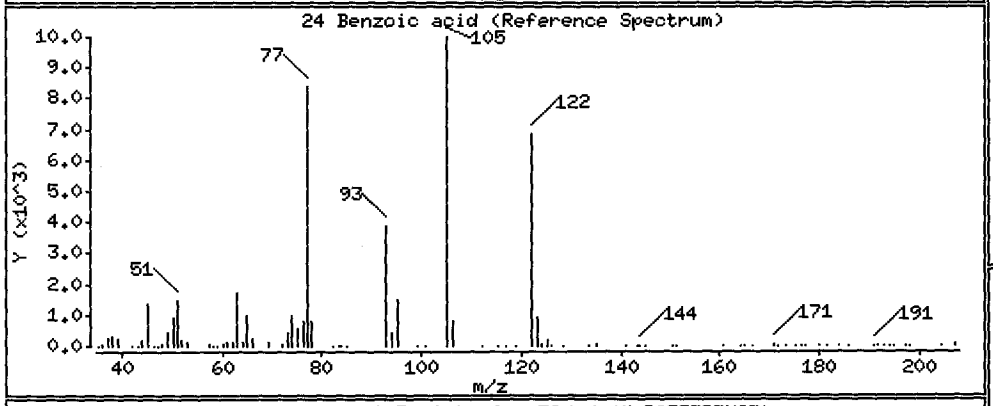
Column diameter: 0.25

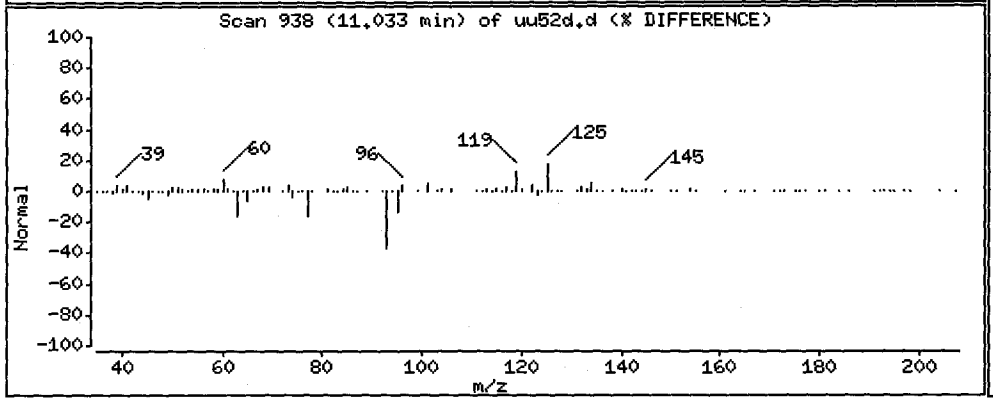
24 Benzoic acid

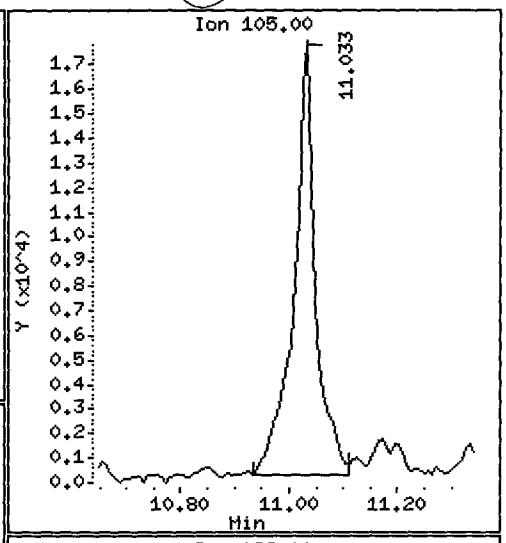
Concentration: 325.5 ug/kg

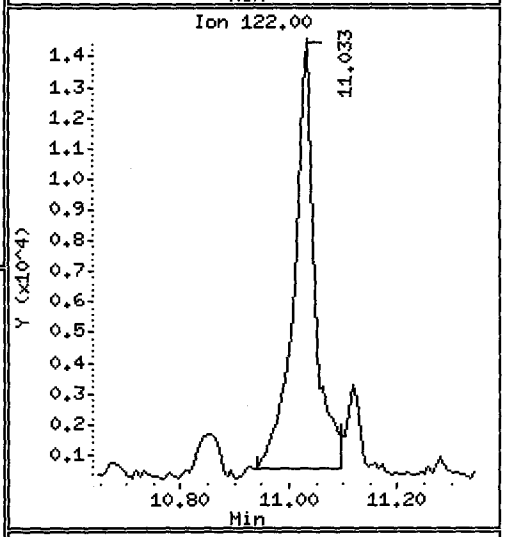


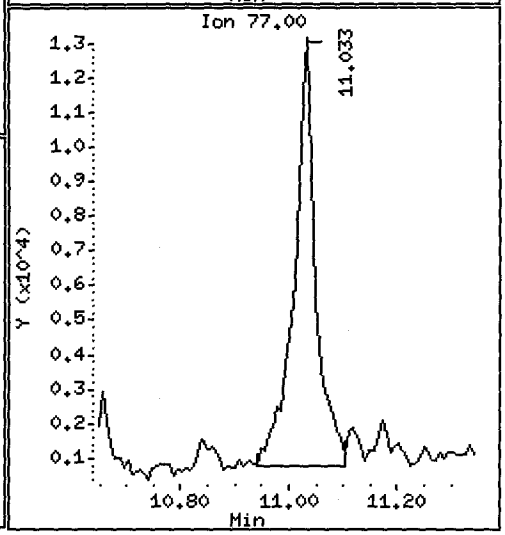



Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

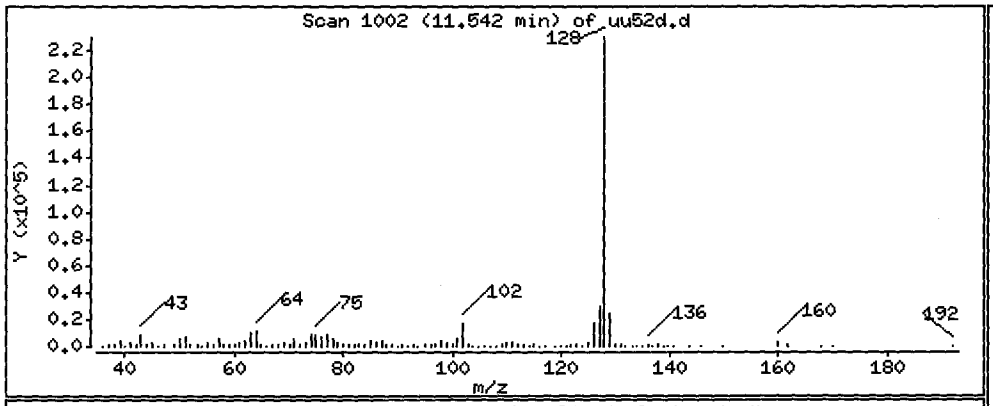
Operator: VTS/YZ

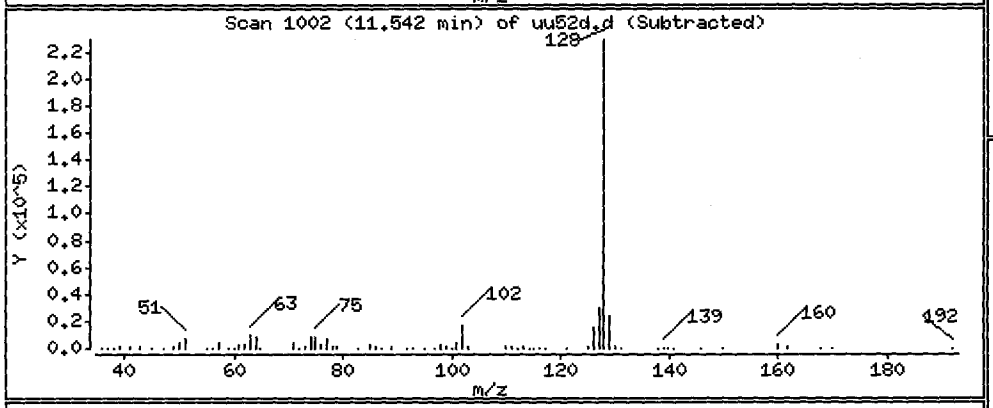
Column phase: ZB-5msi

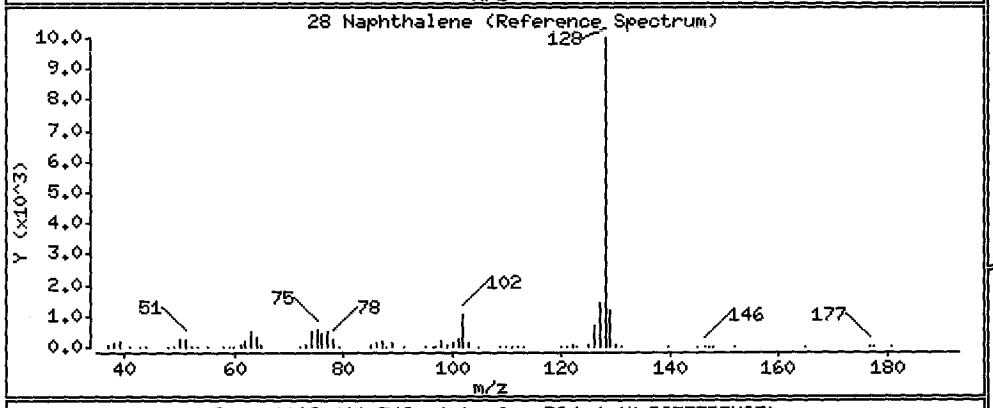
Column diameter: 0.25

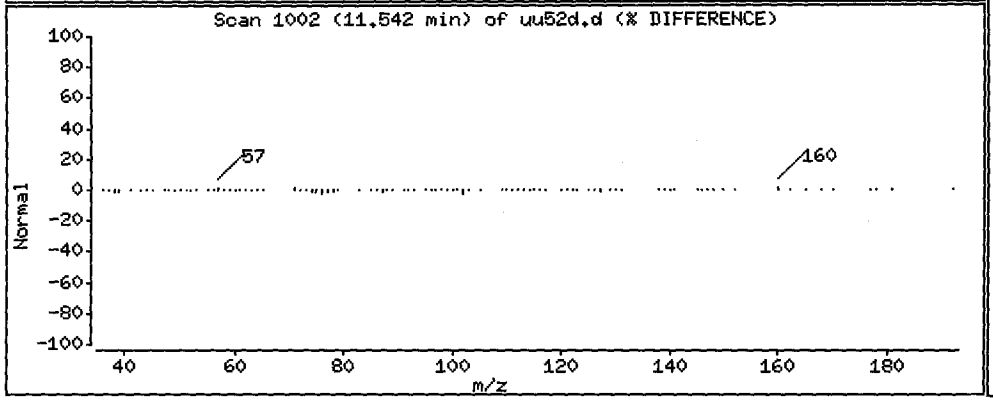
28 Naphthalene

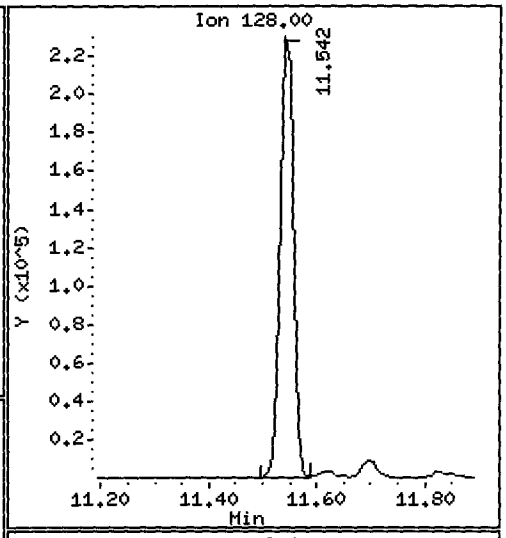
Concentration: 546.3 ug/kg

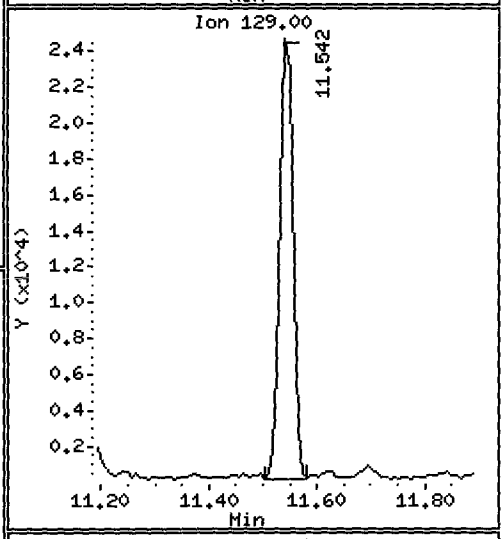


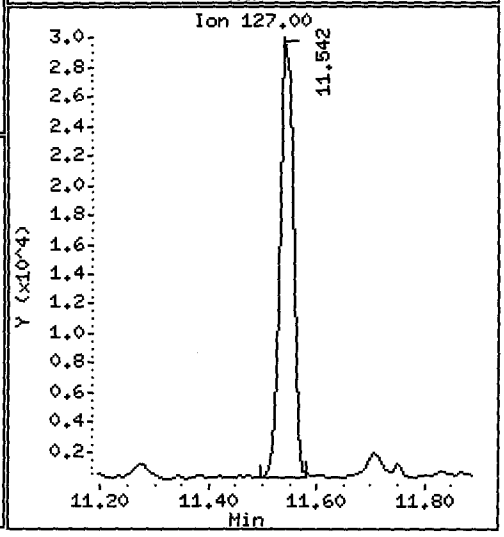



Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

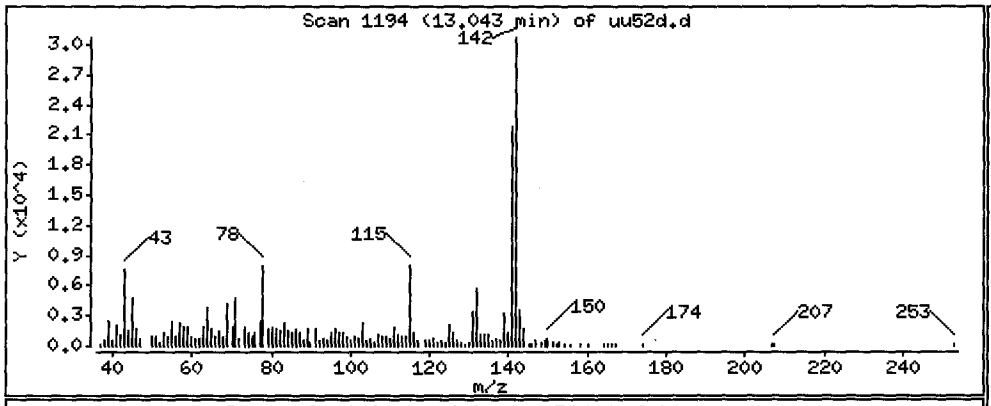
Operator: VTS/YZ

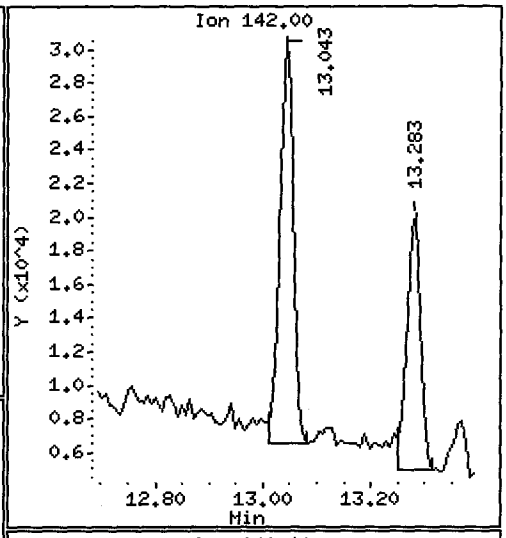
Column phase: ZB-5msi

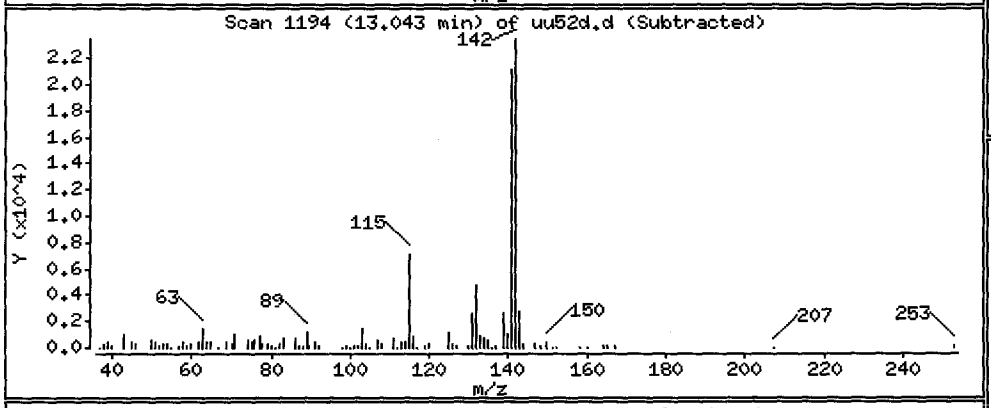
Column diameter: 0.25

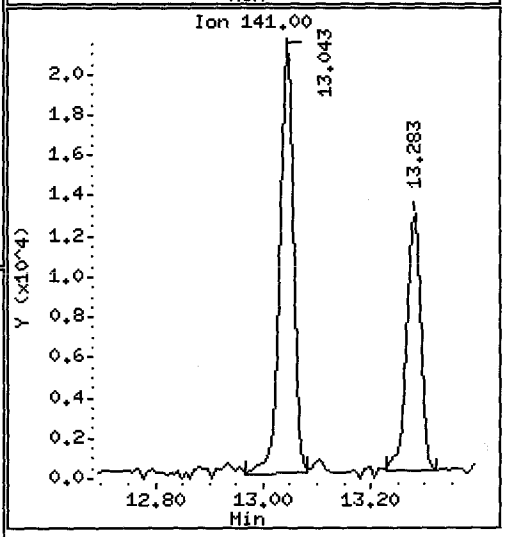
32 2-Methylnaphthalene

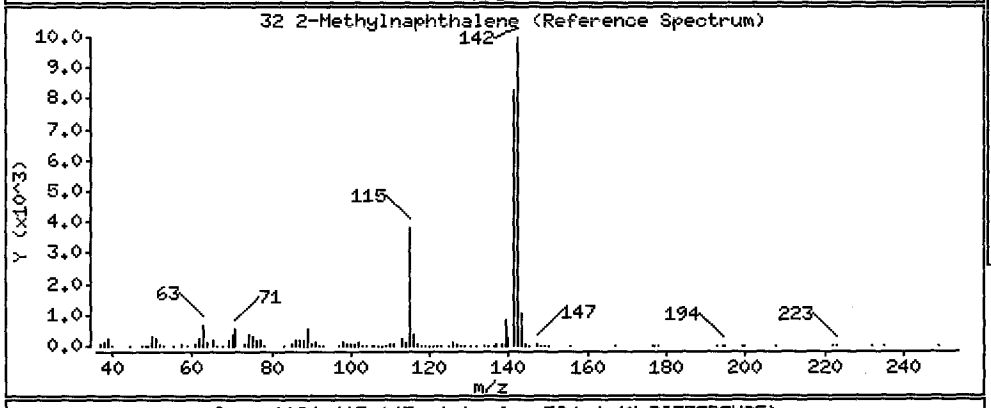
Concentration: 85.73 ug/kg

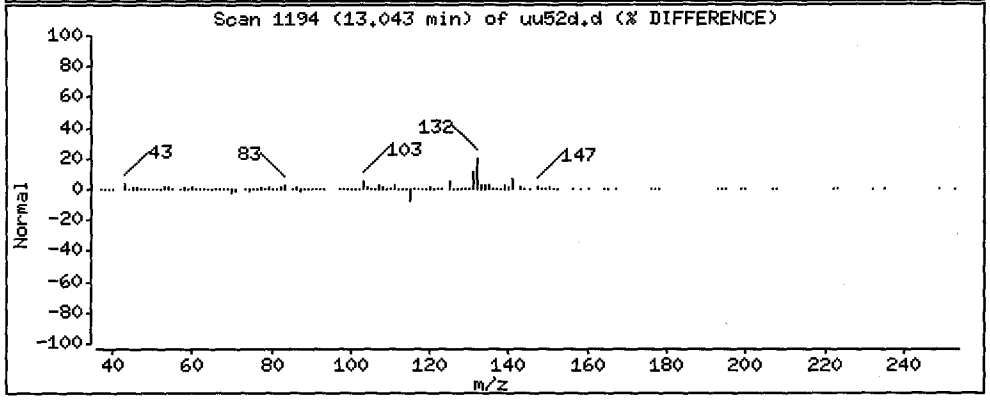


Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

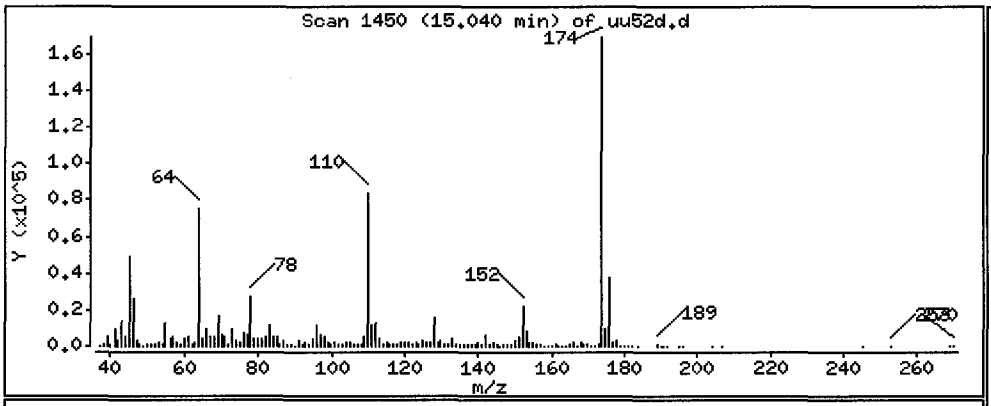
Client ID: MS003-SS-120515 Instrument: nt10.i

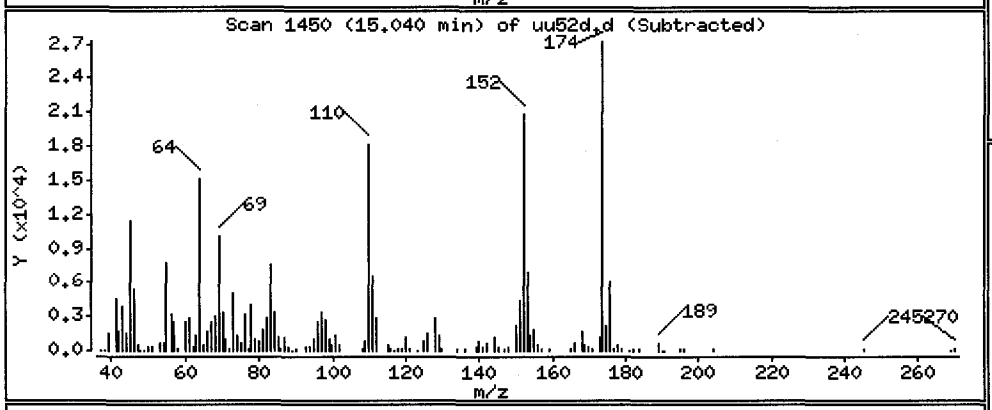
Sample Info: UU52D,3

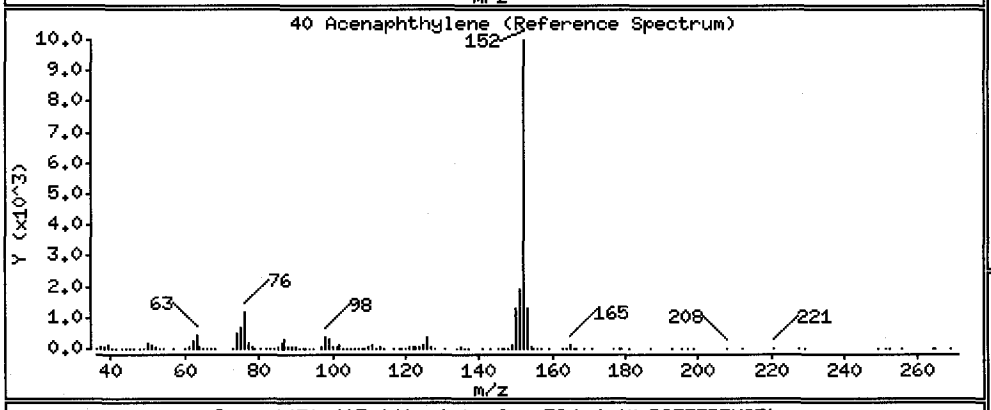
Volume Injected (uL): 1.0 Operator: VTS/YZ

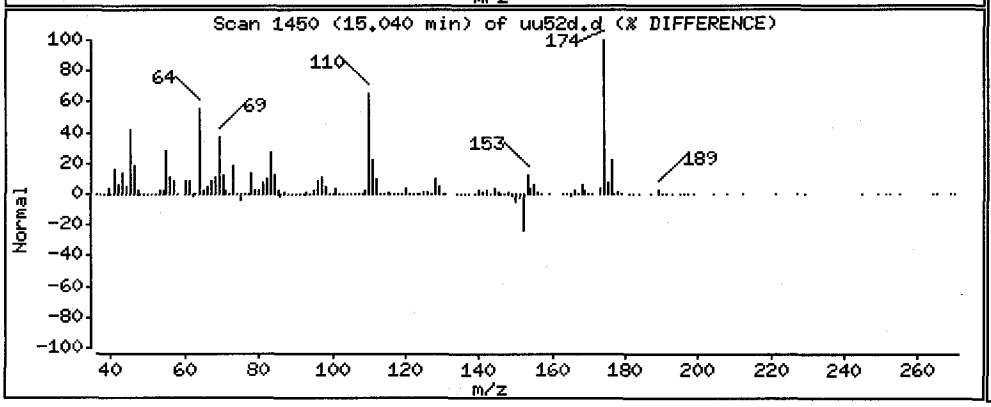
Column phase: ZB-5msi Column diameter: 0.25

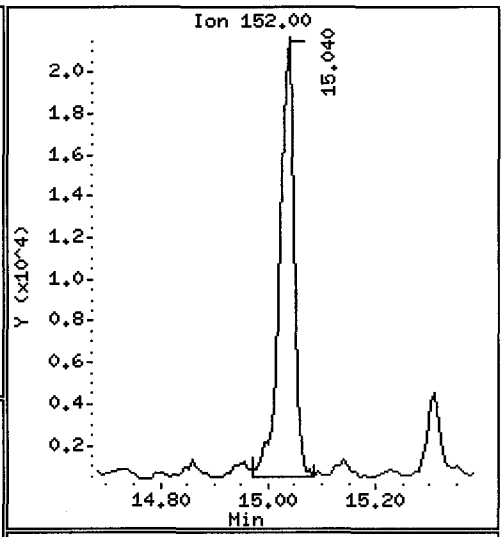
40 Acenaphthylene Concentration: 58.67 ug/kg

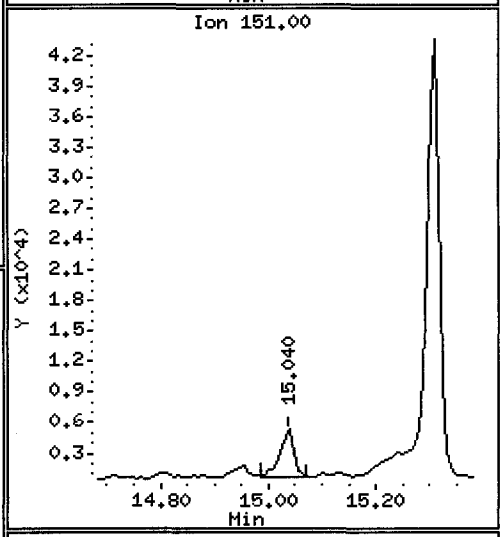


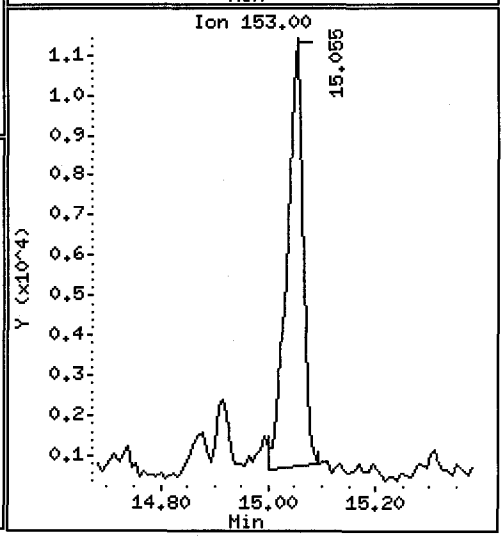



Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

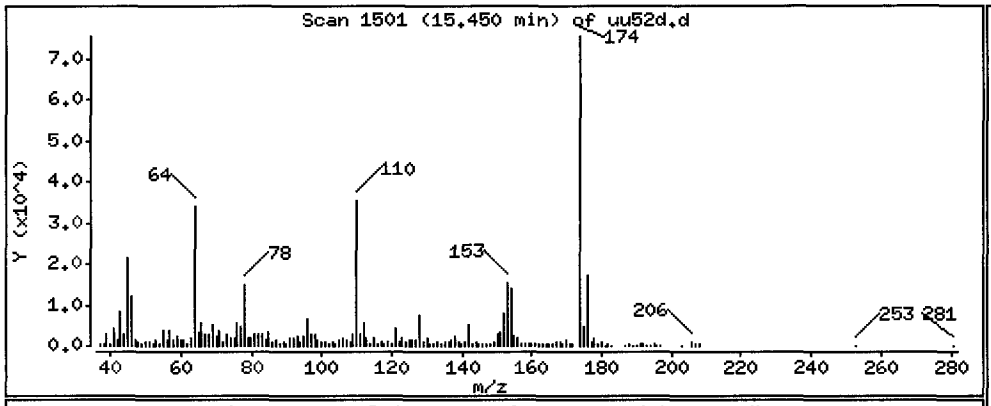
Operator: VTS/YZ

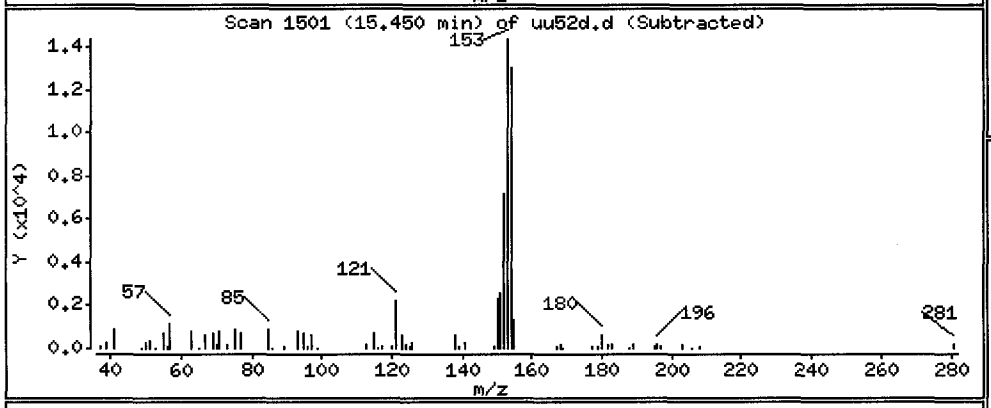
Column phase: ZB-5msi

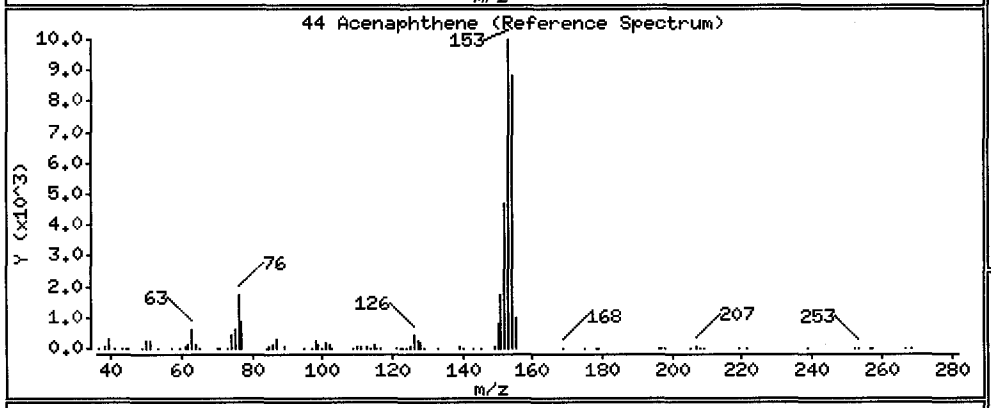
Column diameter: 0.25

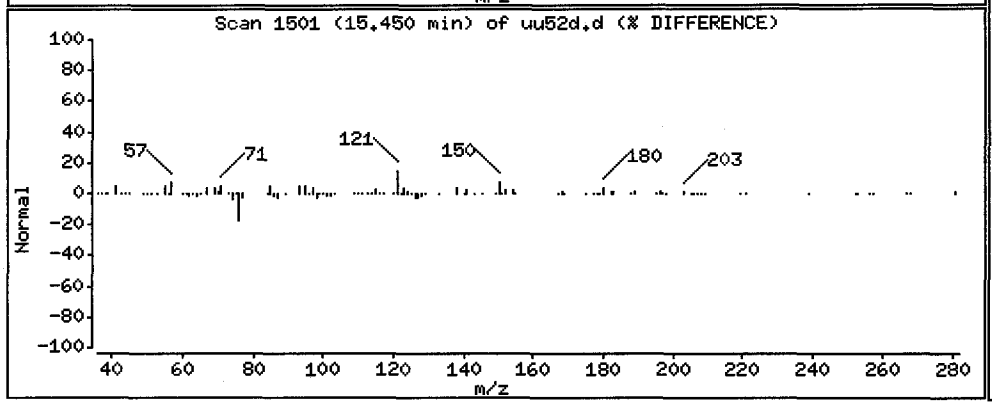
44 Acenaphthene

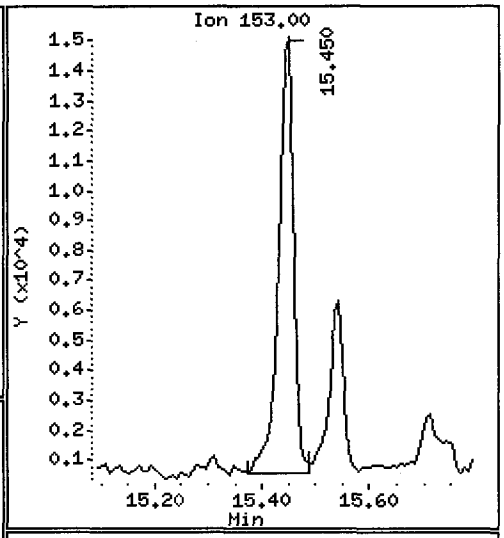
Concentration: 69.93 ug/kg

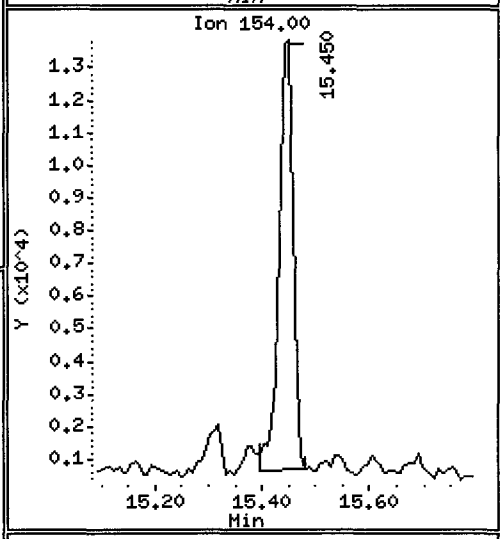


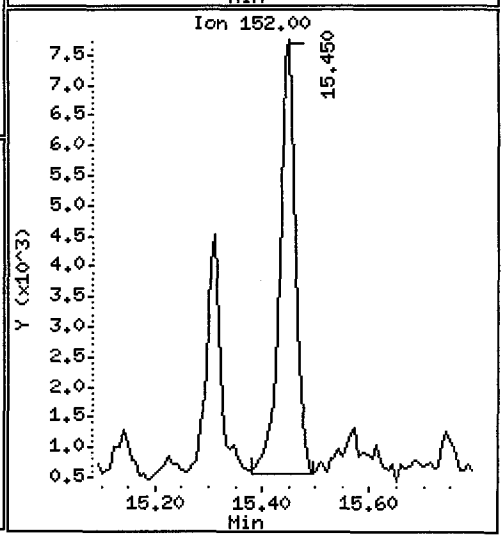



Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

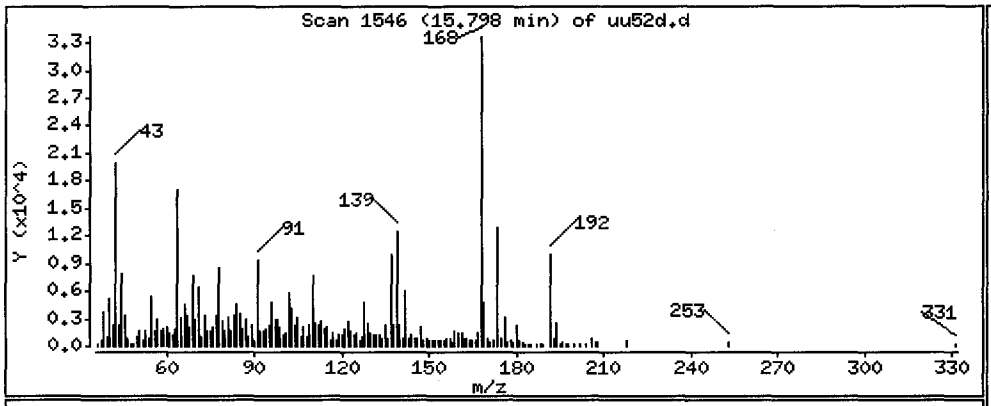
Operator: VTS/YZ

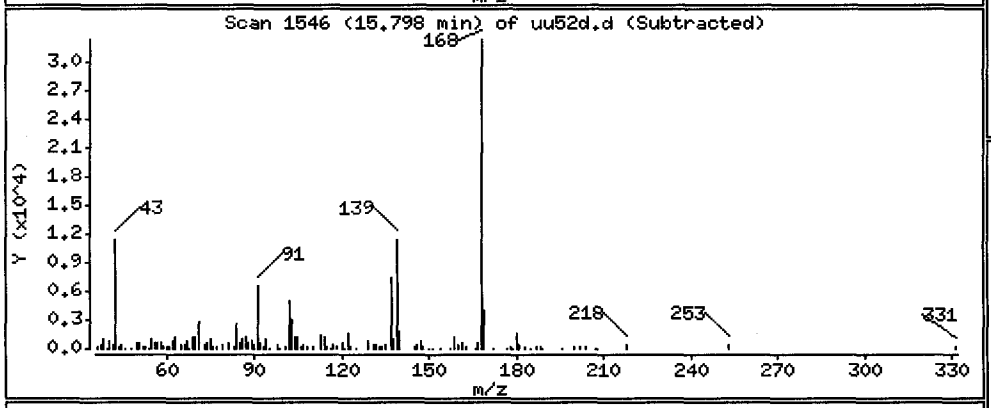
Column phase: ZB-5msi

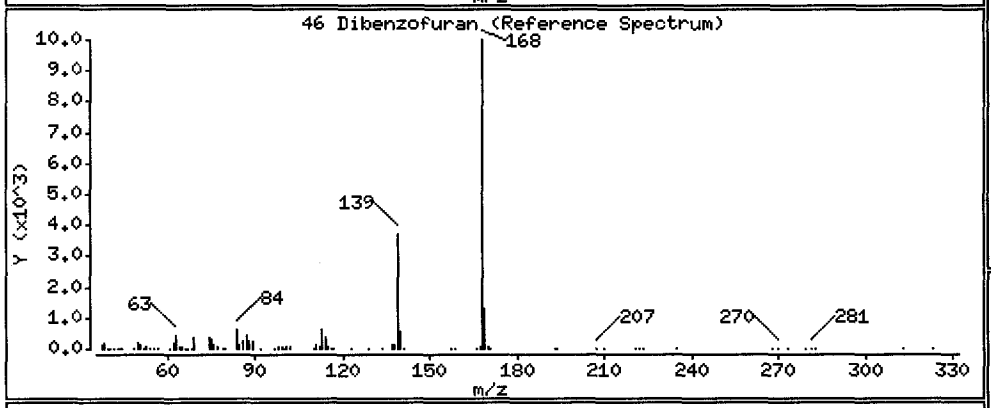
Column diameter: 0.25

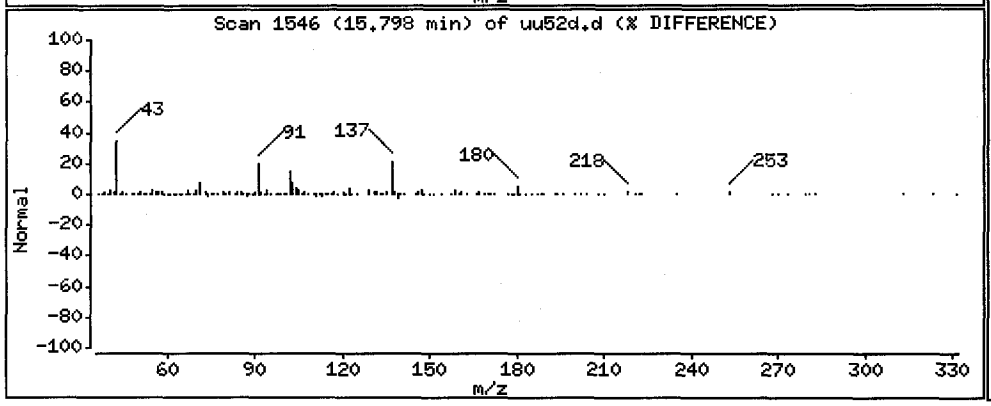
46 Dibenzofuran

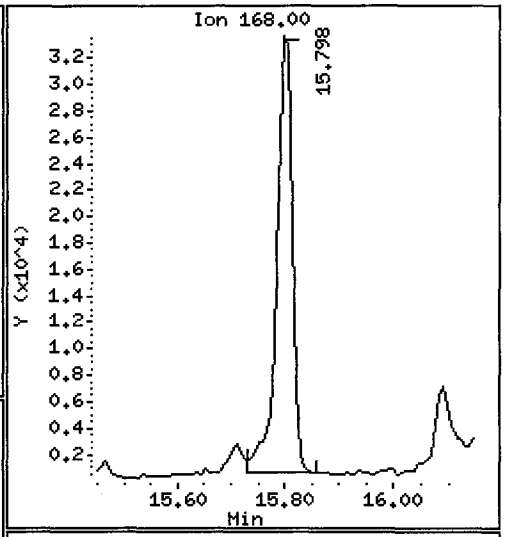
Concentration: 111.0 ug/kg

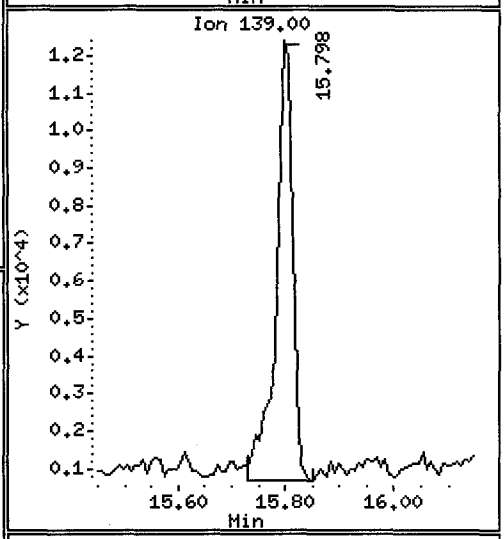


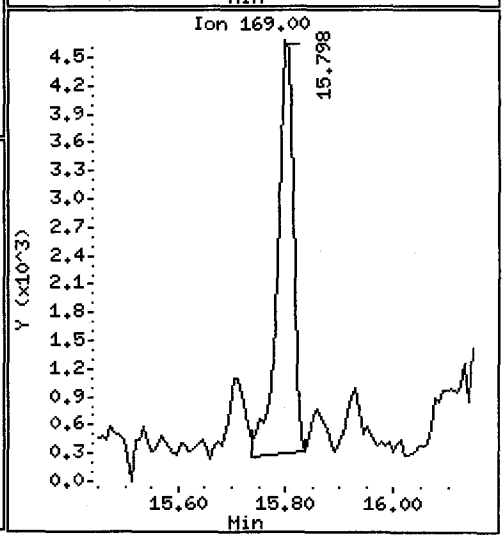



Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

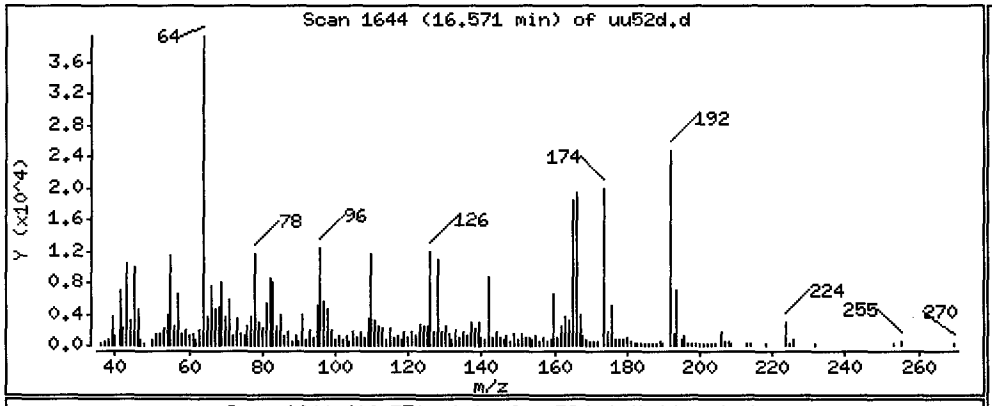
Operator: VTS/YZ

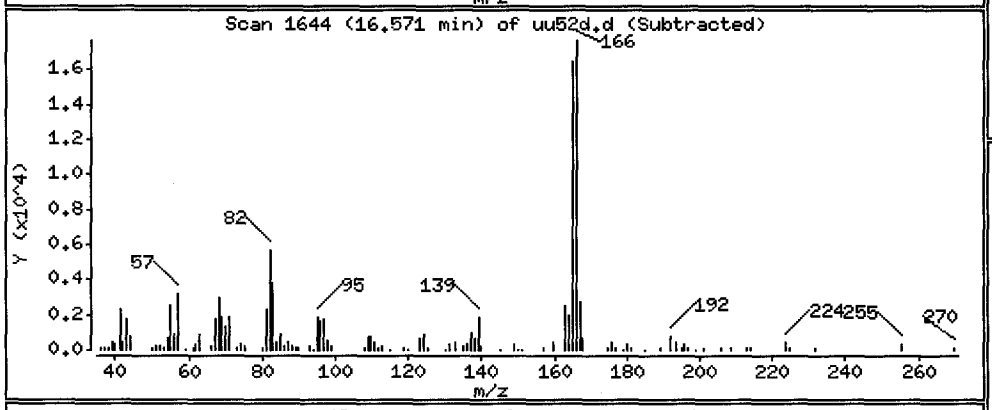
Column phase: ZB-5msi

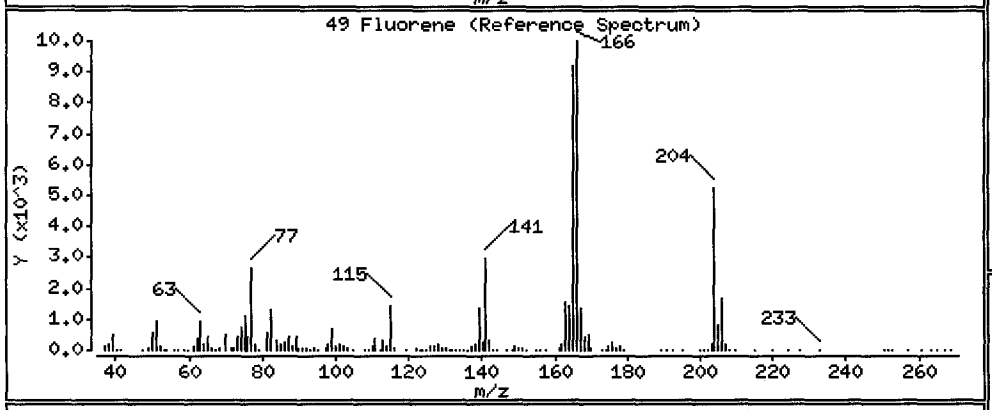
Column diameter: 0.25

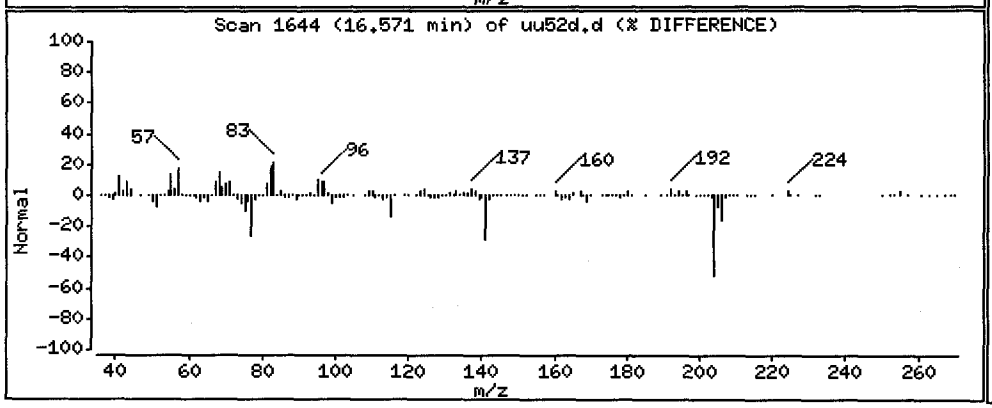
49 Fluorene

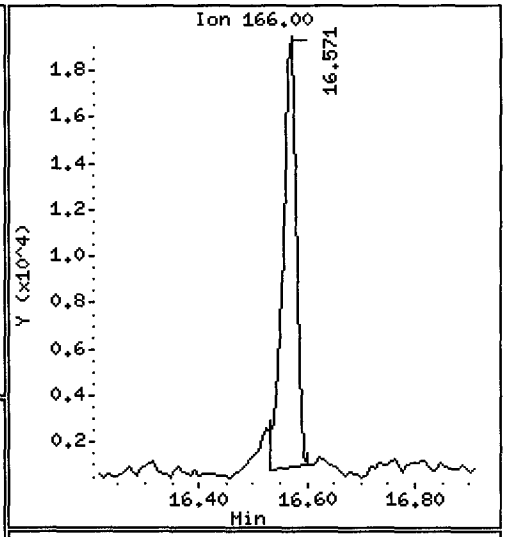
Concentration: 73.13 ug/kg

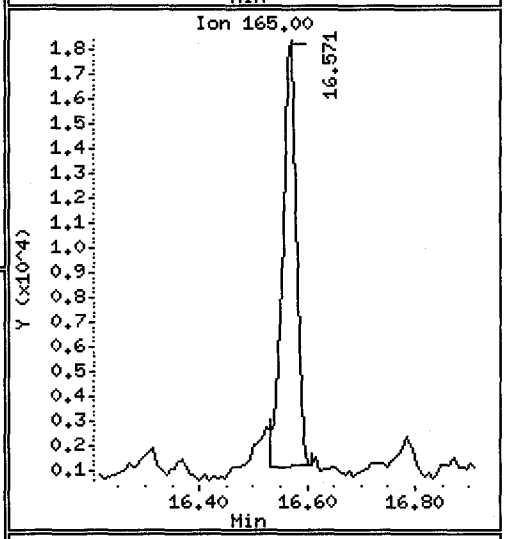


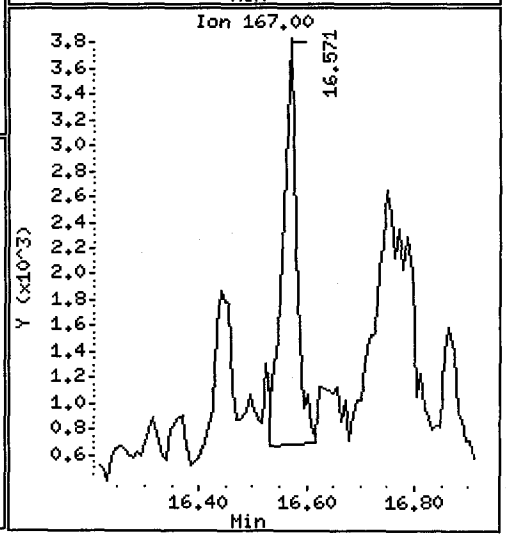



Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

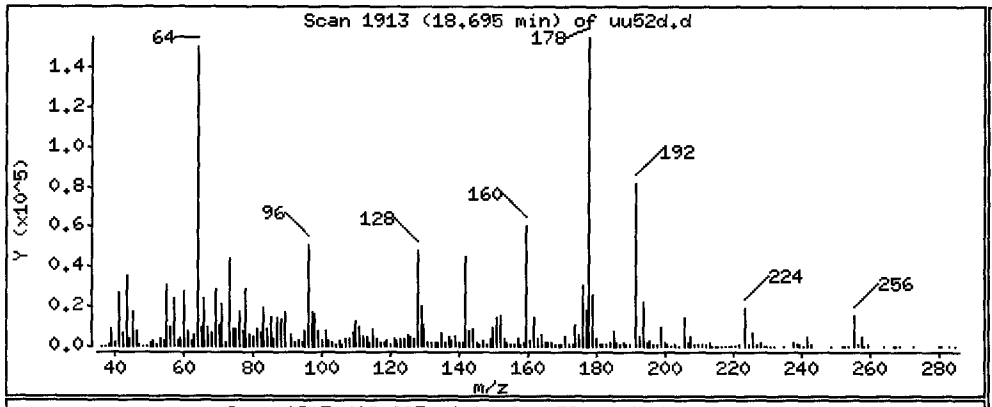
Operator: VTS/YZ

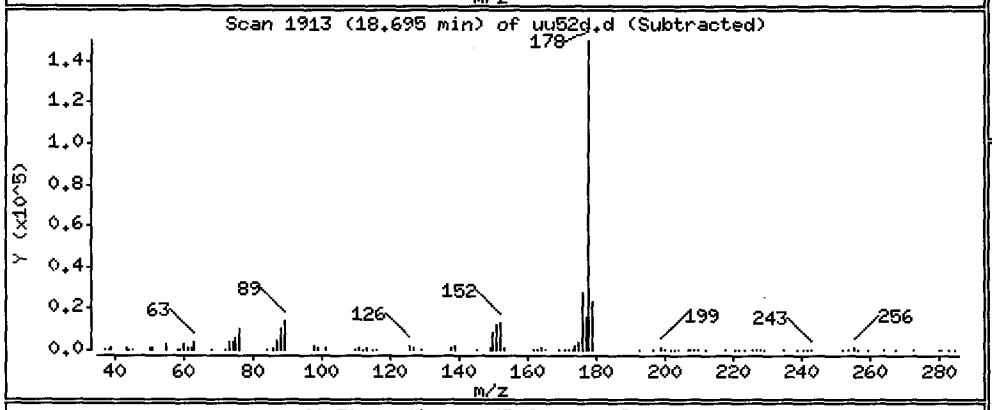
Column phase: ZB-5msi

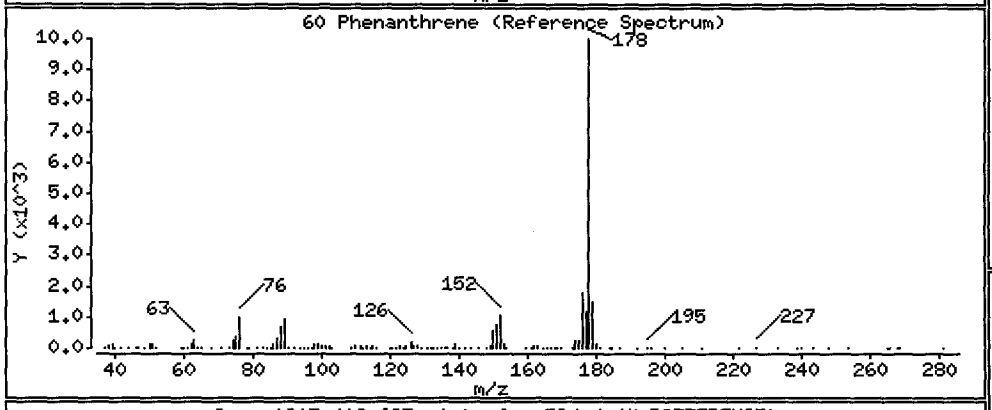
Column diameter: 0.25

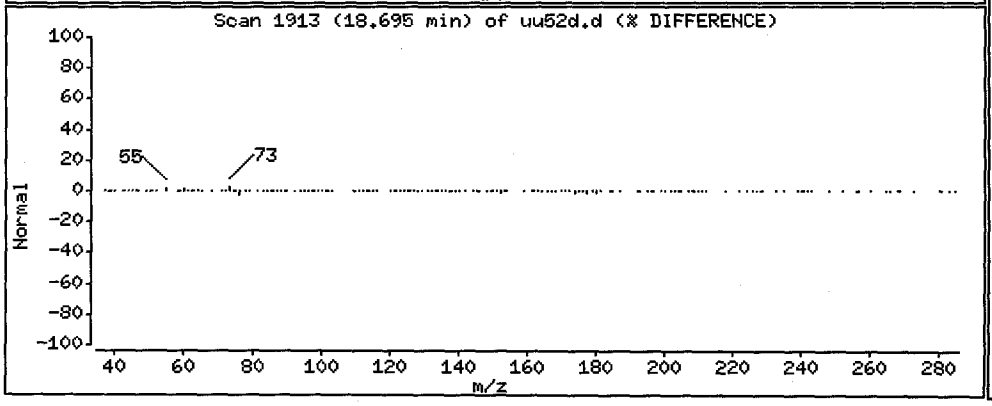
60 Phenanthrene

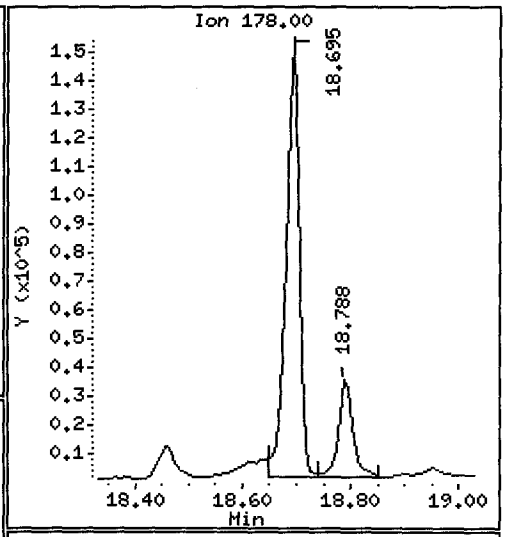
Concentration: 493.3 ug/kg

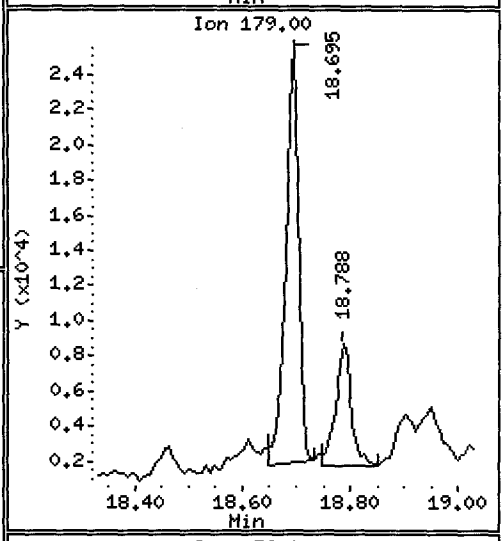


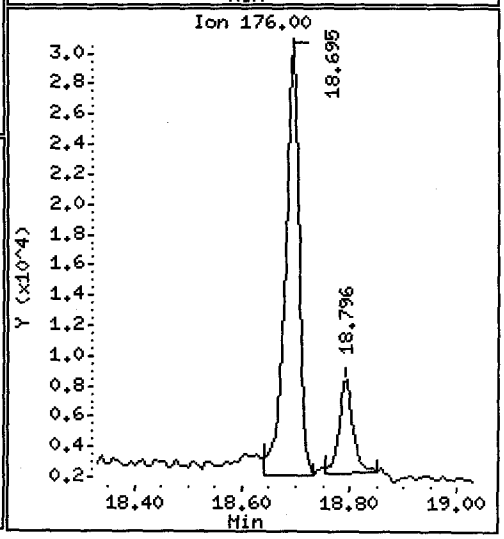



Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

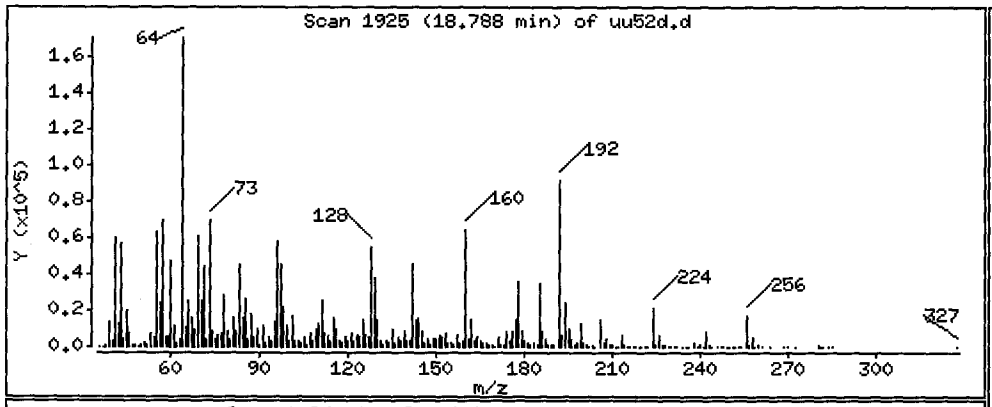
Operator: VTS/YZ

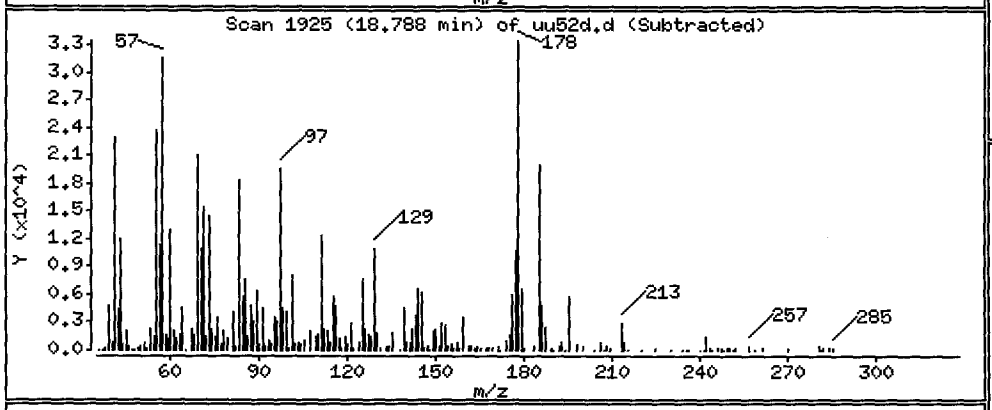
Column phase: ZB-5msi

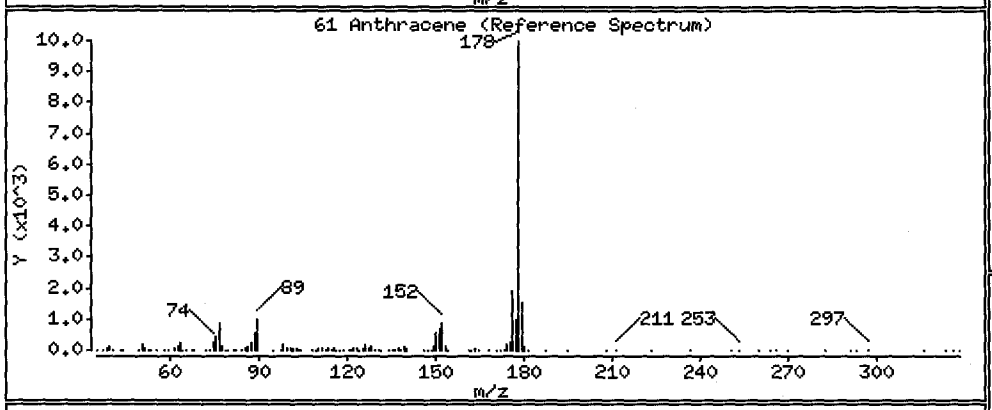
Column diameter: 0.25

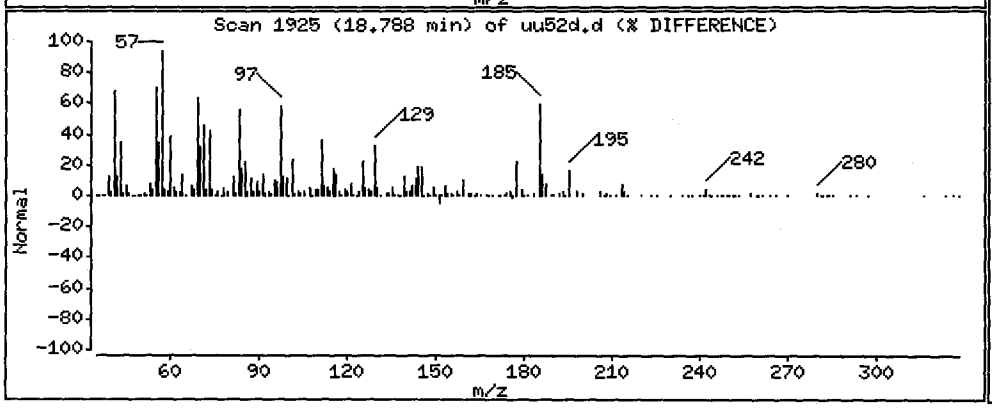
61 Anthracene

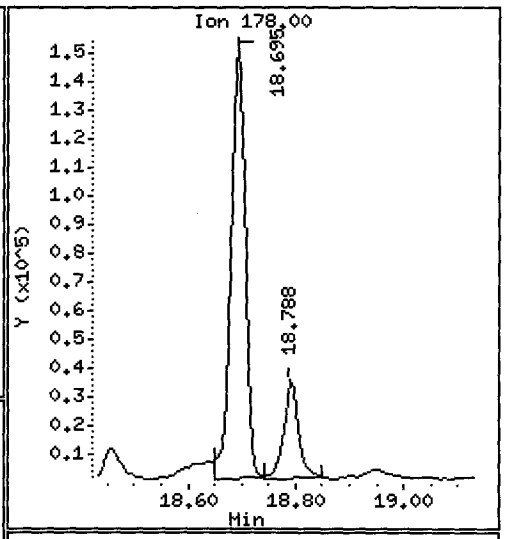
Concentration: 117.1 ug/kg

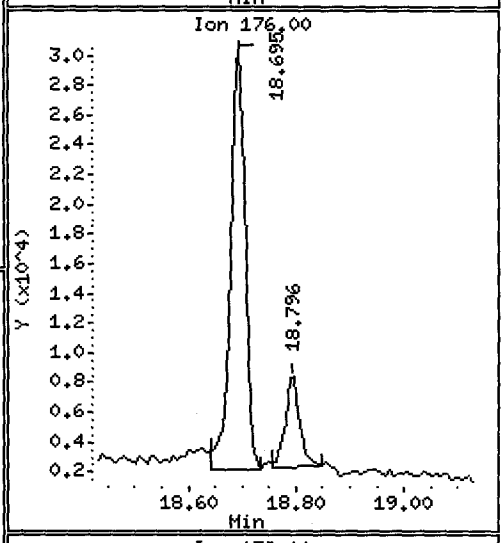


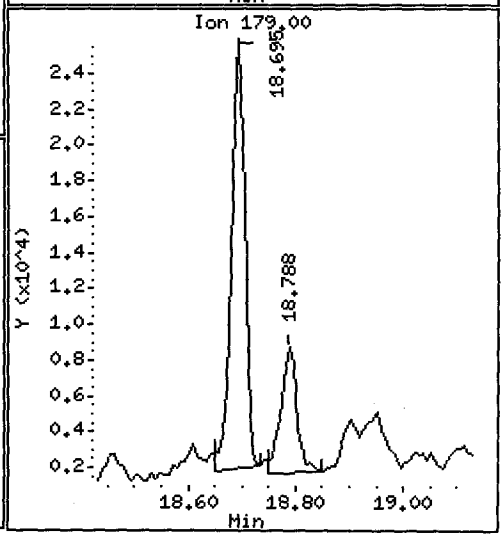



Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

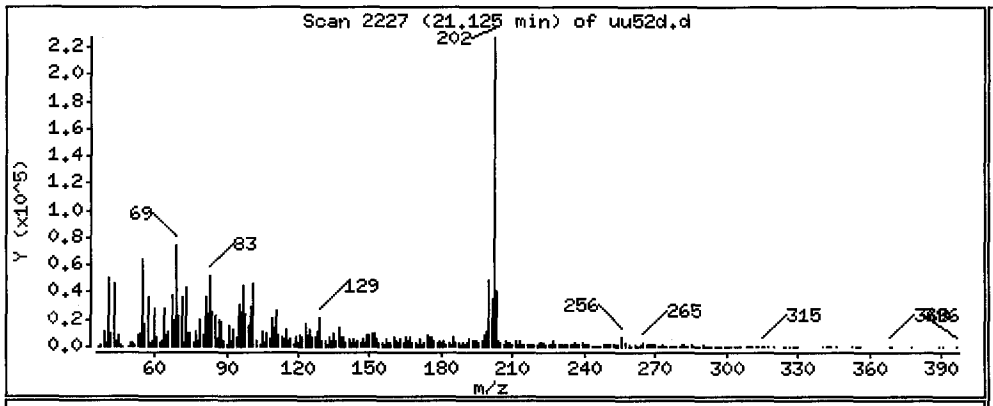
Operator: VTS/YZ

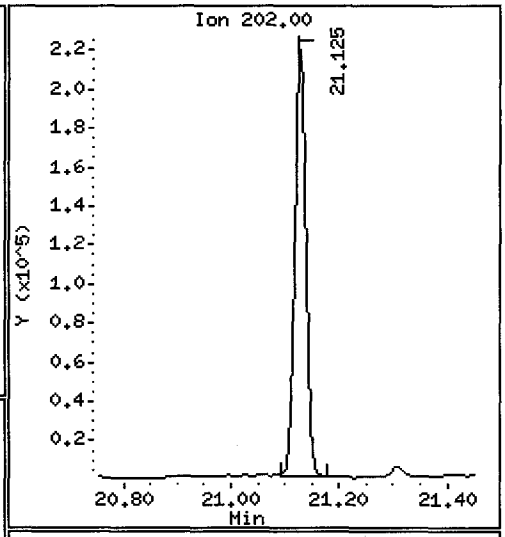
Column phase: ZB-5msi

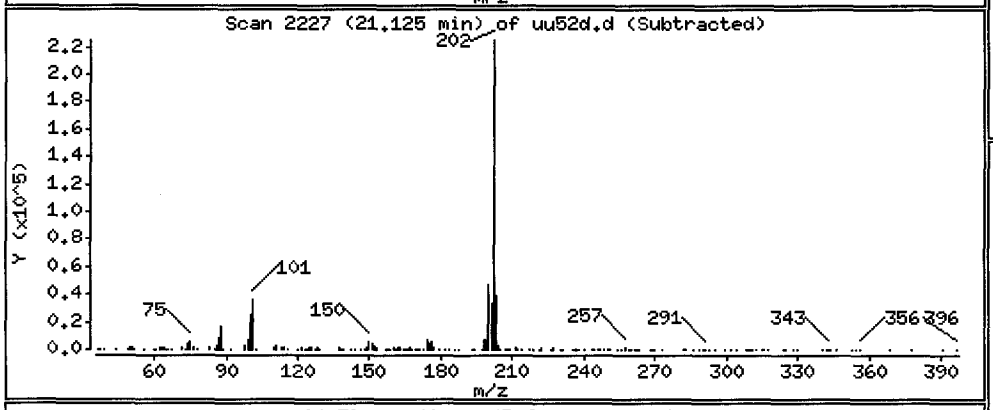
Column diameter: 0.25

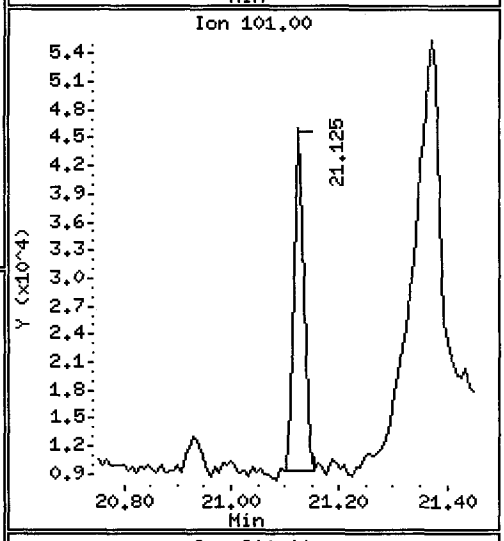
64 Fluoranthene

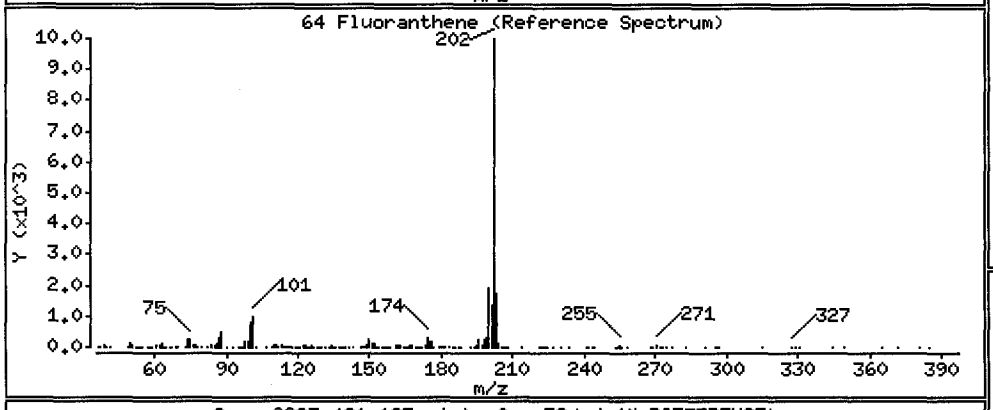
Concentration: 546.9 ug/kg

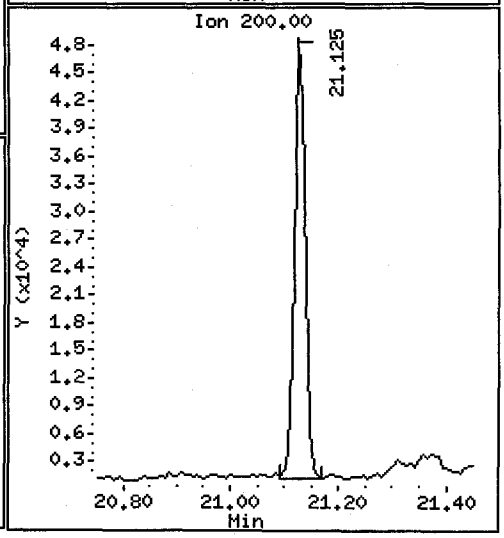


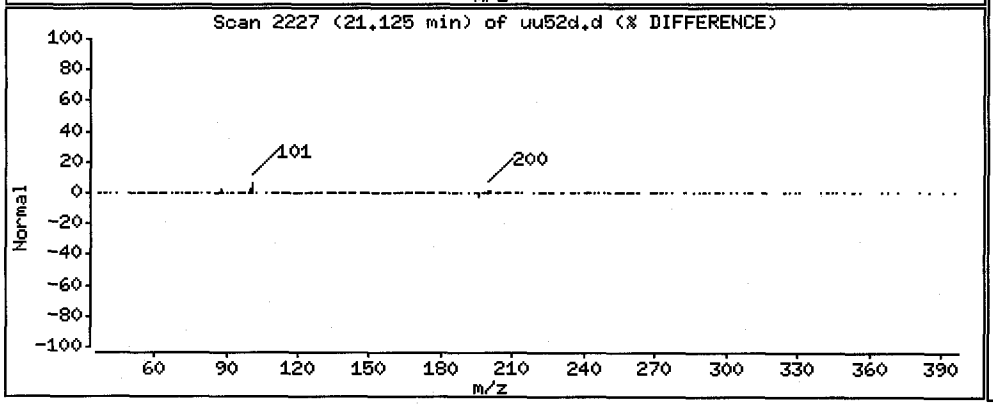



Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

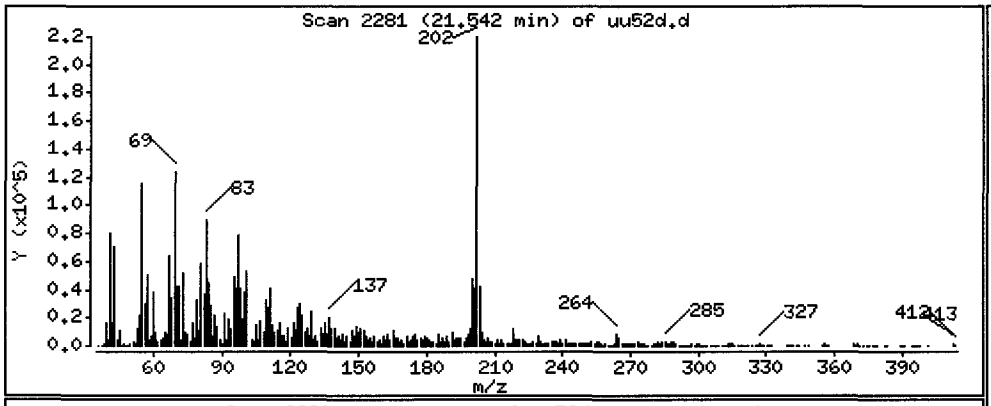
Operator: VTS/YZ

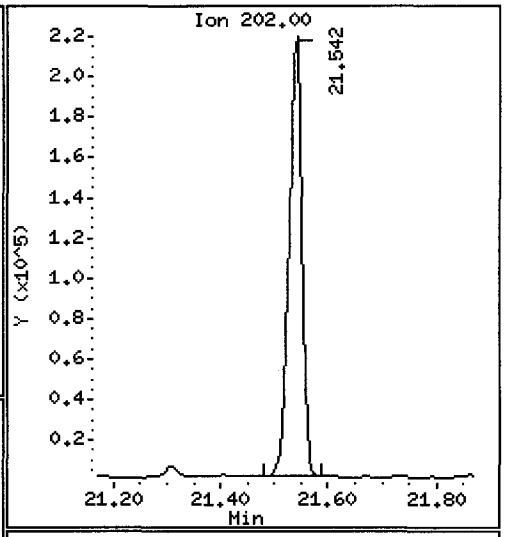
Column phase: ZB-5msi

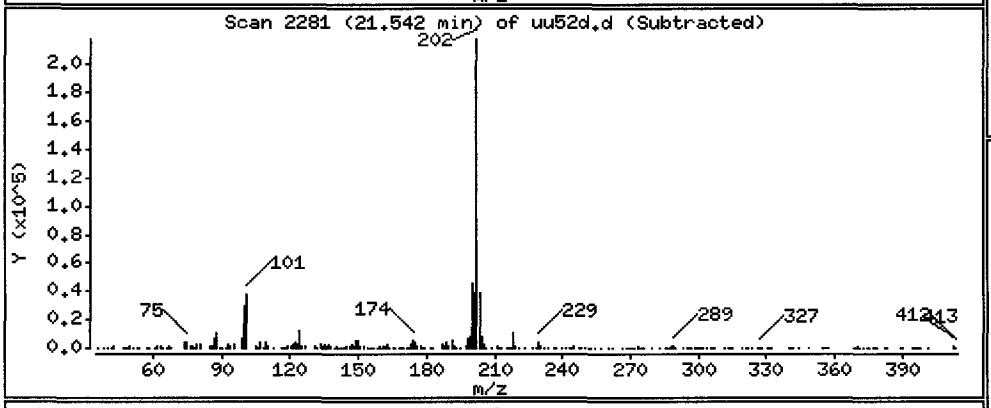
Column diameter: 0.25

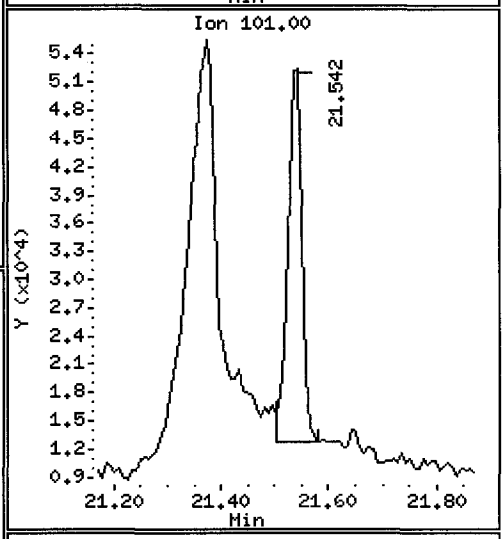
65 Pyrene

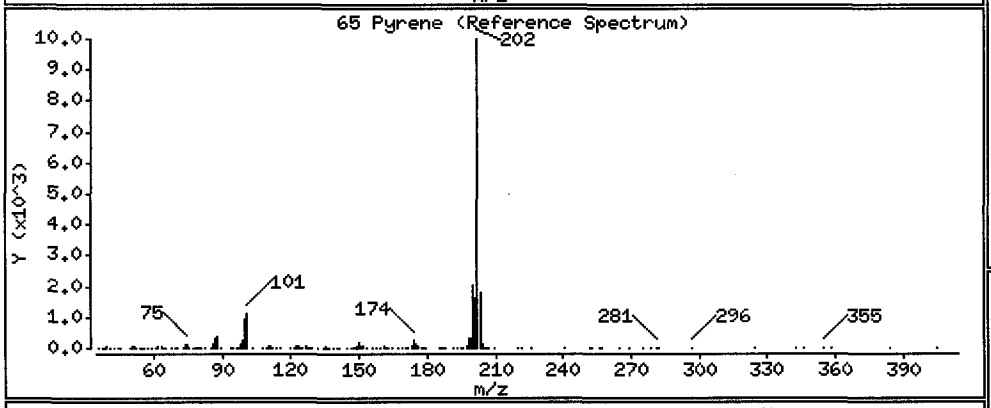
Concentration: 504.5 ug/kg

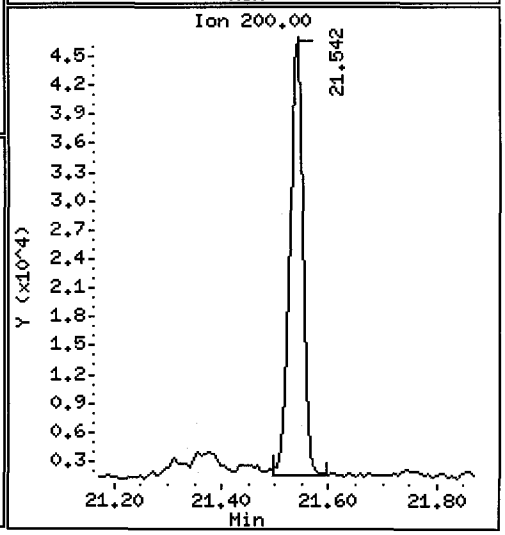


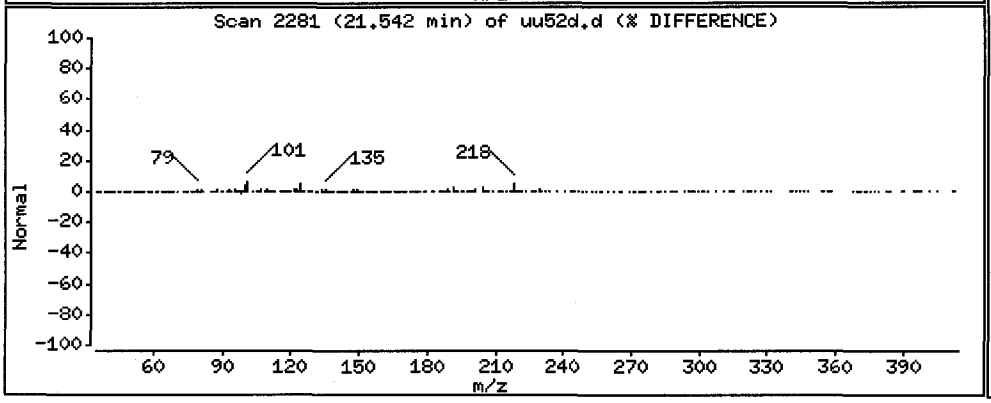



Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

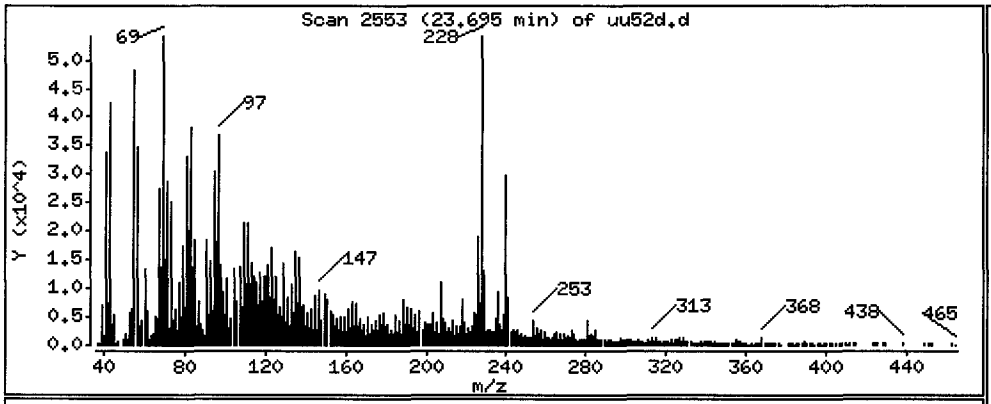
Operator: VTS/YZ

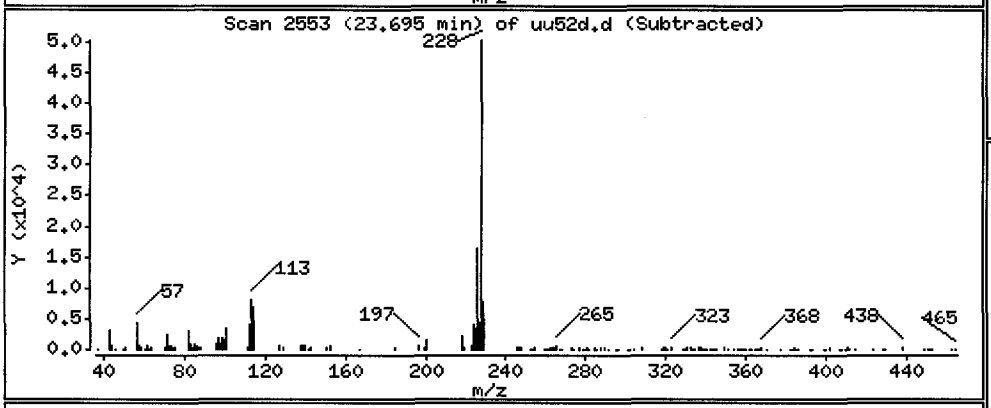
Column phase: ZB-5msi

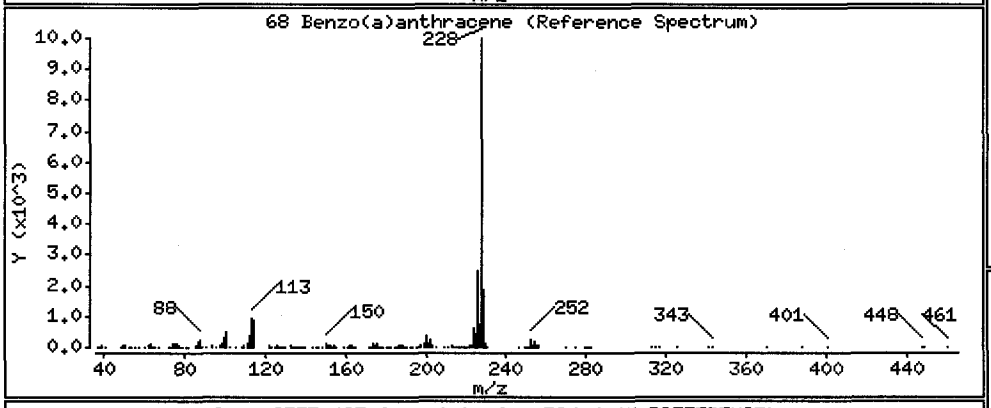
Column diameter: 0.25

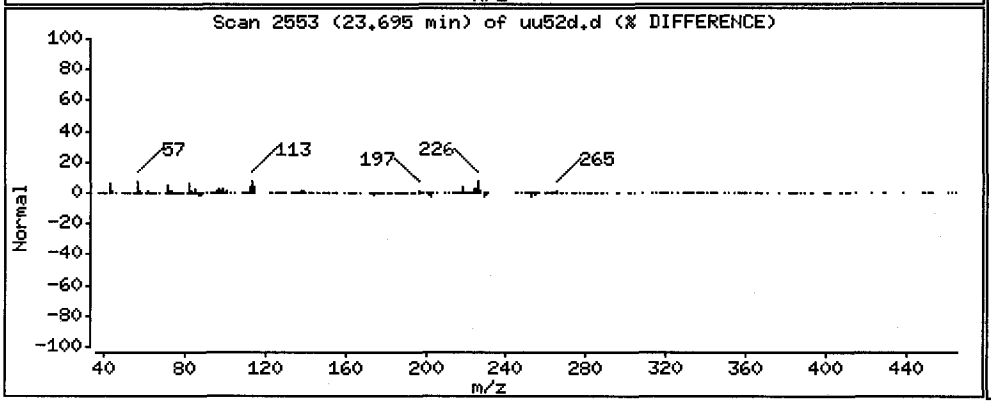
68 Benzo(a)anthracene

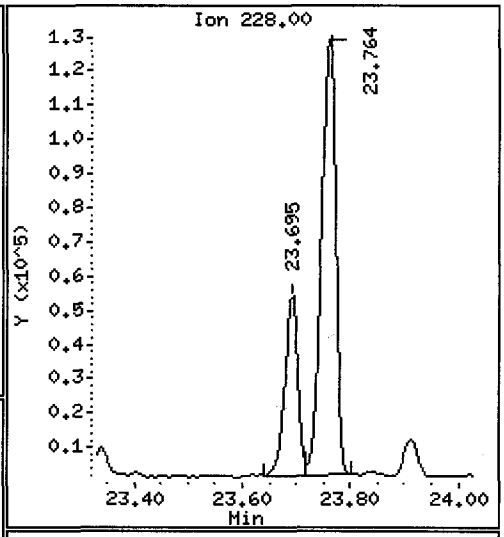
Concentration: 131.7 ug/kg

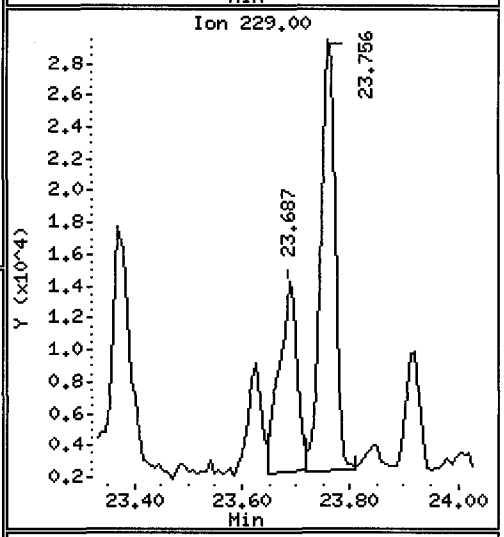


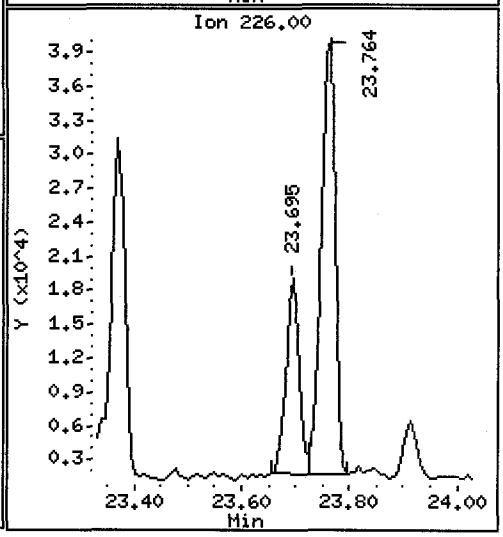



Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

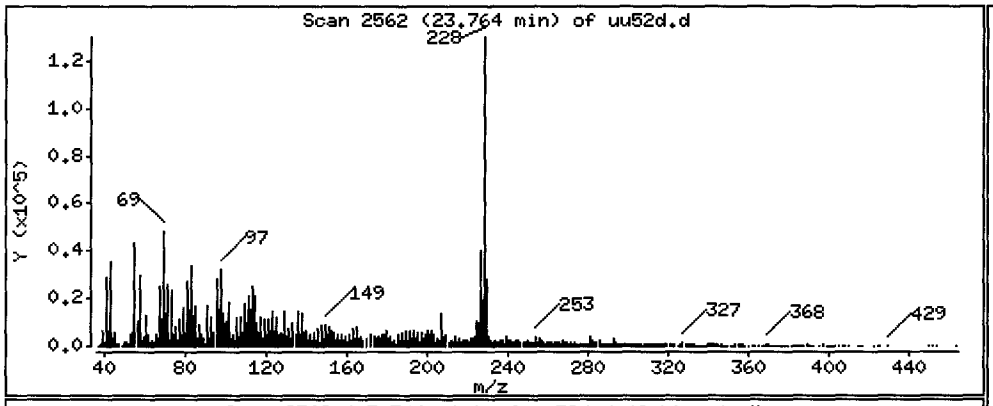
Operator: VTS/YZ

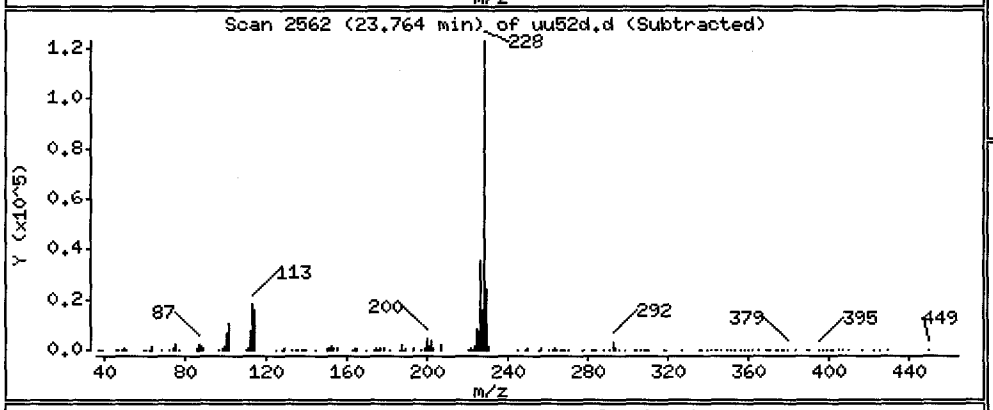
Column phase: ZB-5msi

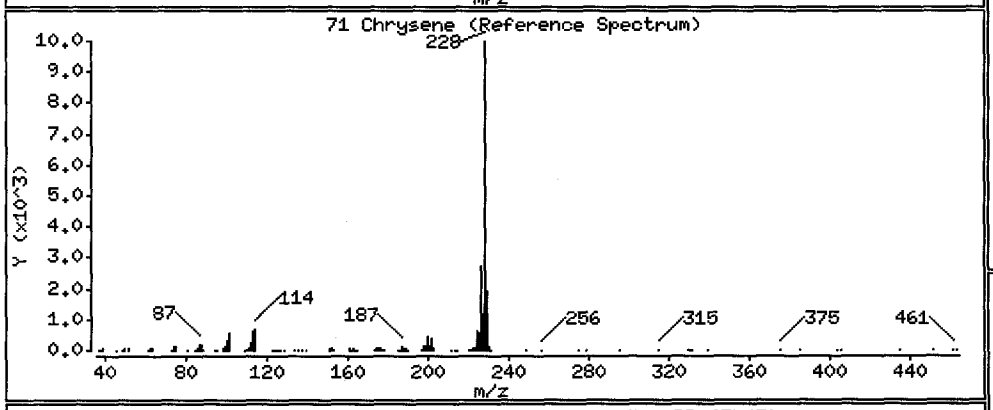
Column diameter: 0.25

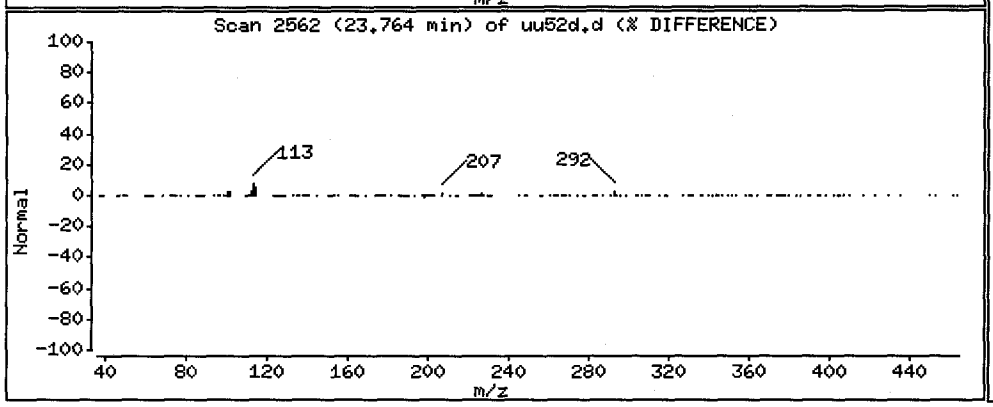
71 Chrysene

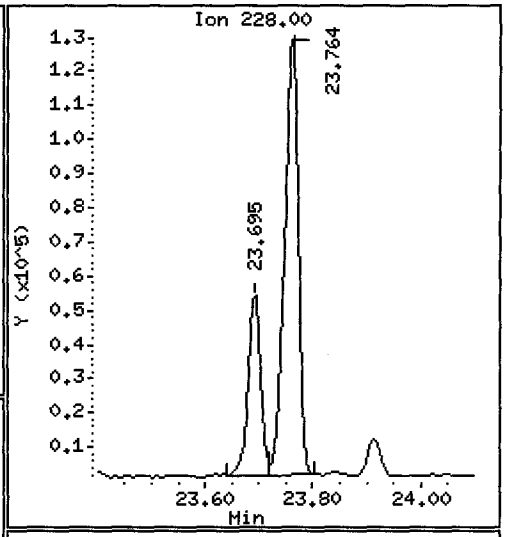
Concentration: 384.9 ug/kg

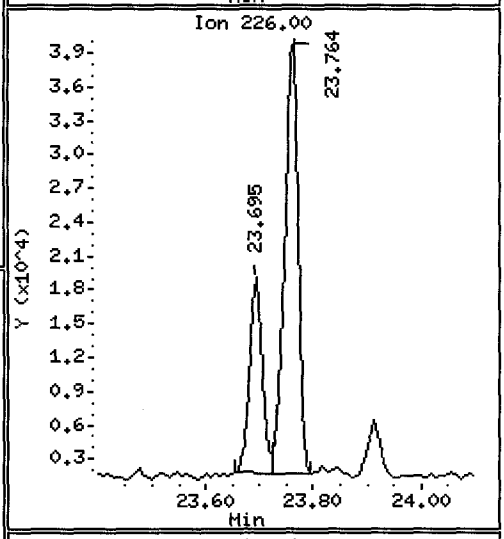


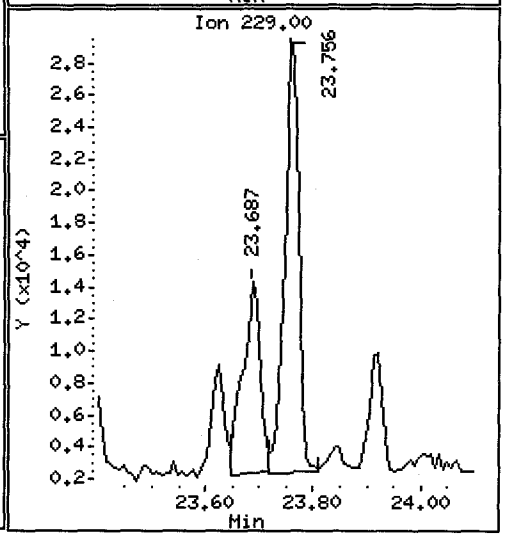



Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

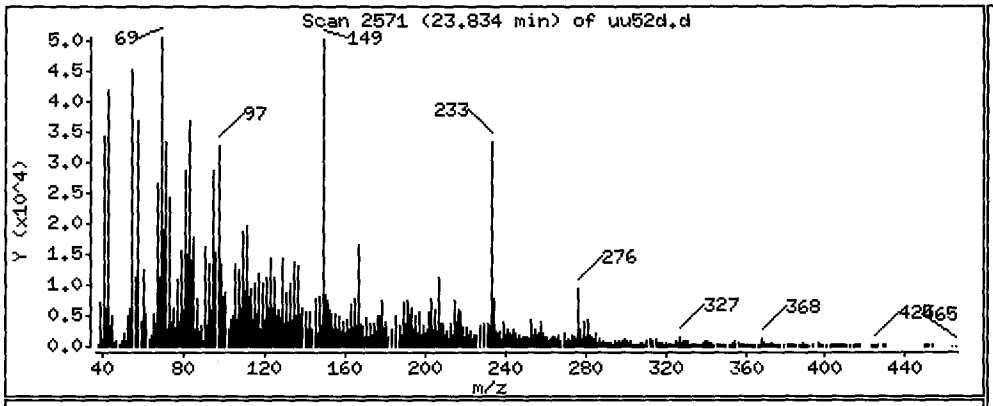
Operator: VTS/YZ

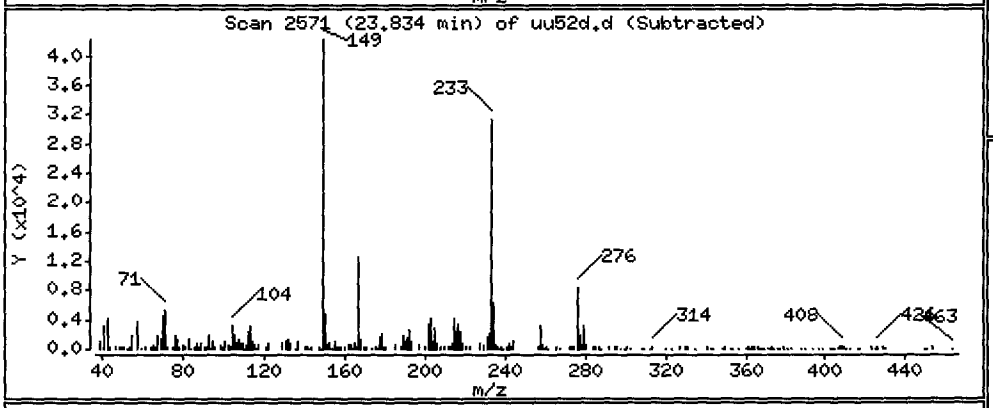
Column phase: ZB-5msi

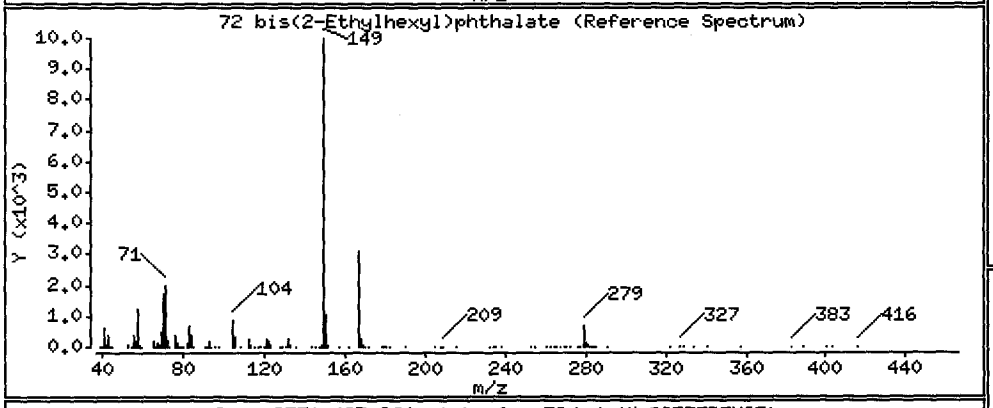
Column diameter: 0.25

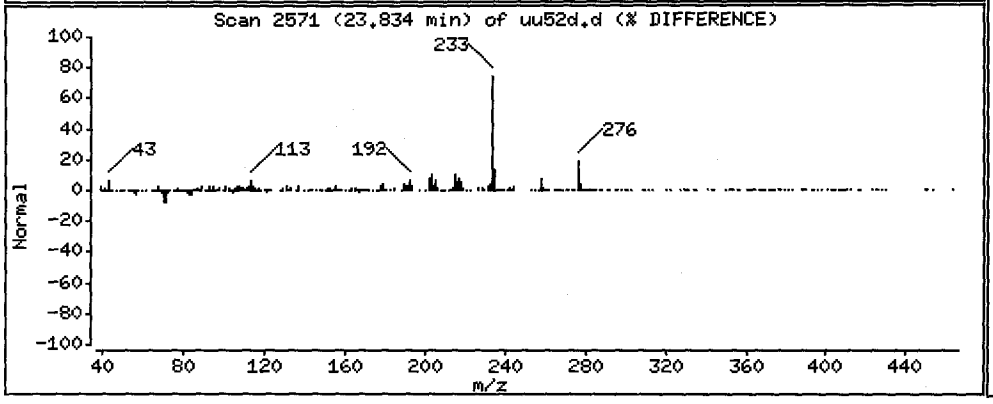
72 bis(2-Ethylhexyl)phthalate

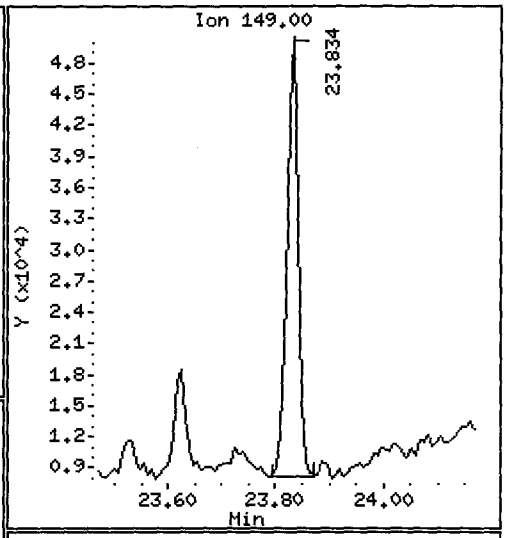
Concentration: 121.4 ug/kg

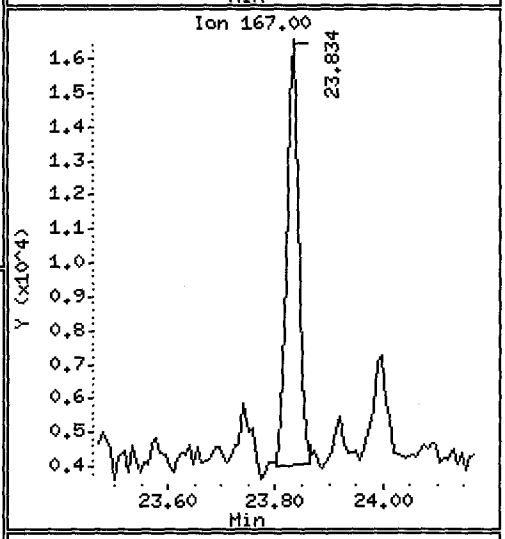


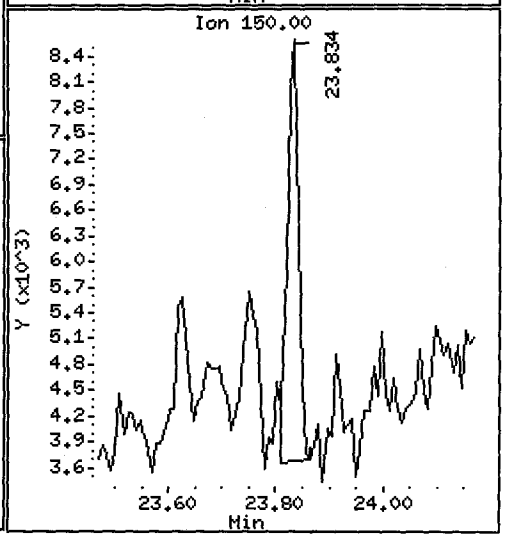



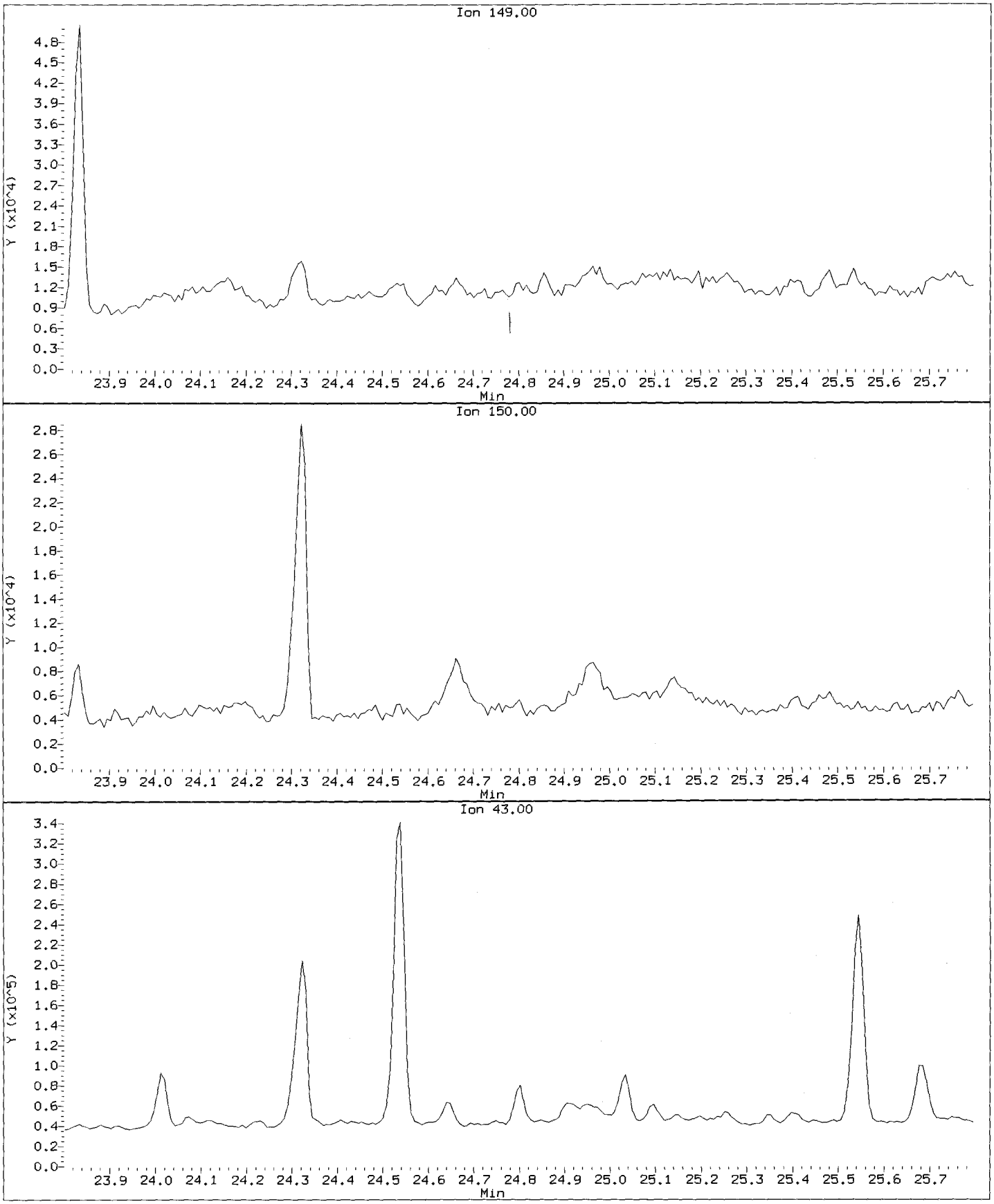



Data File: /chem1/nt10.i/20120526.b/uu52d.d
Injection Date: 26-MAY-2012 19:02
Instrument: nt10.i
Client Sample ID: MS003-SS-120515

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

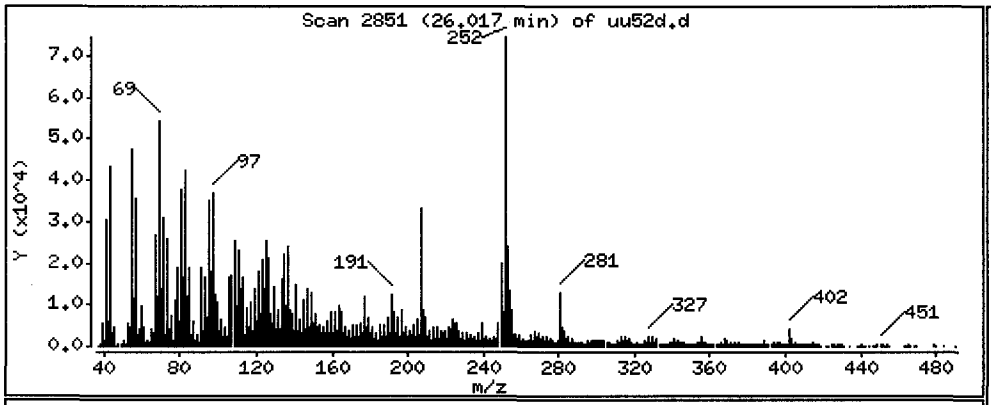
Operator: VTS/YZ

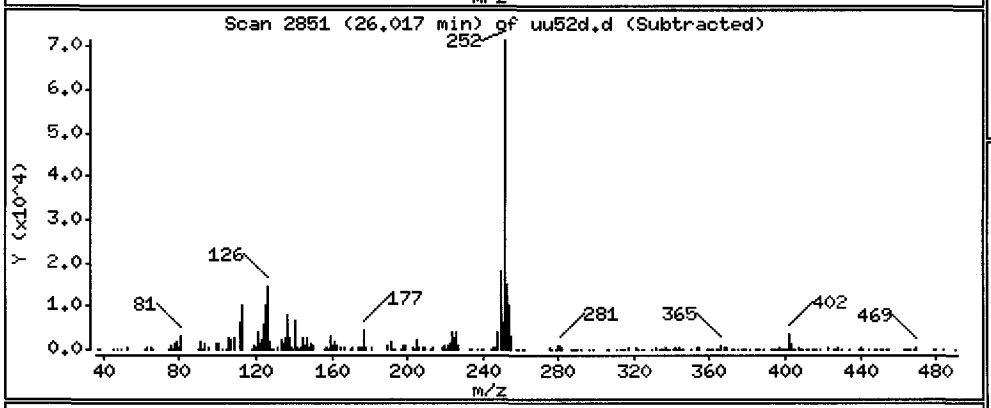
Column phase: ZB-5msi

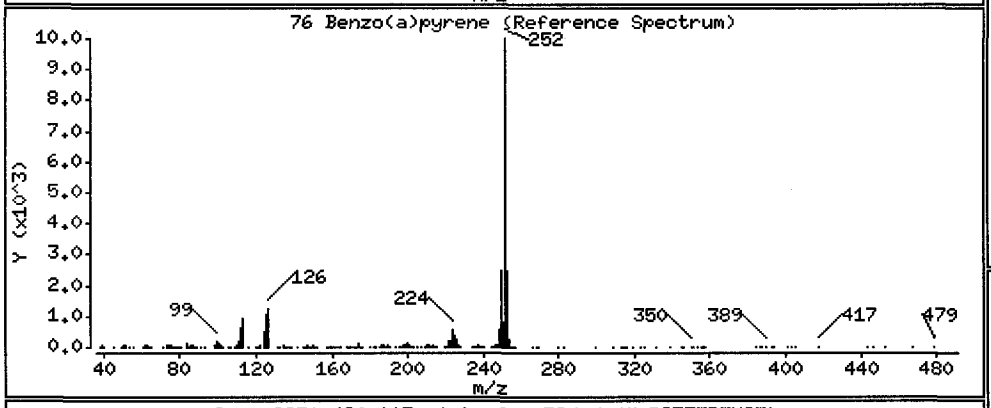
Column diameter: 0.25

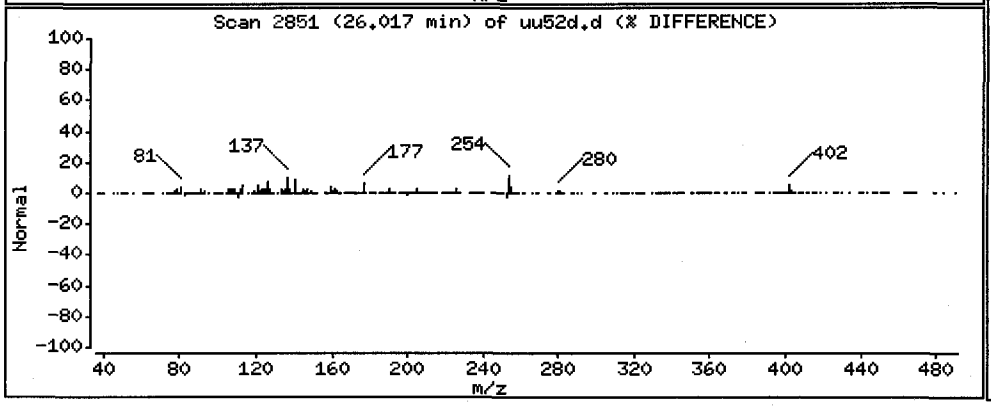
76 Benzo(a)pyrene

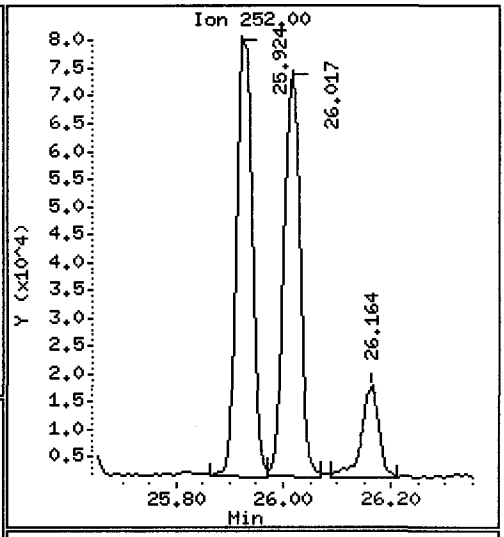
Concentration: 245.7 ug/kg

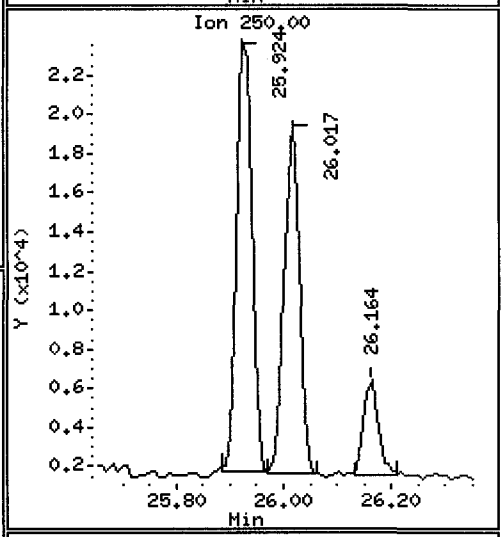


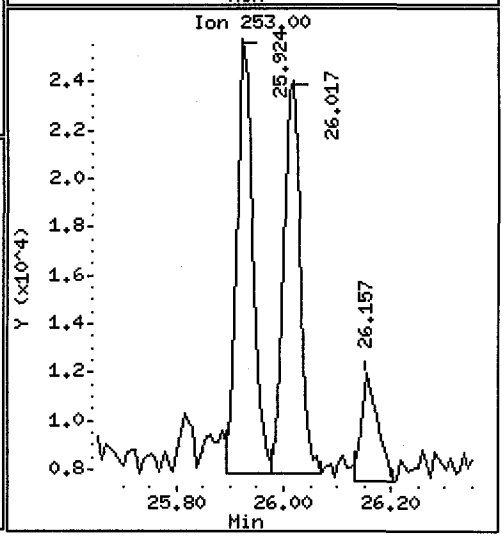



Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

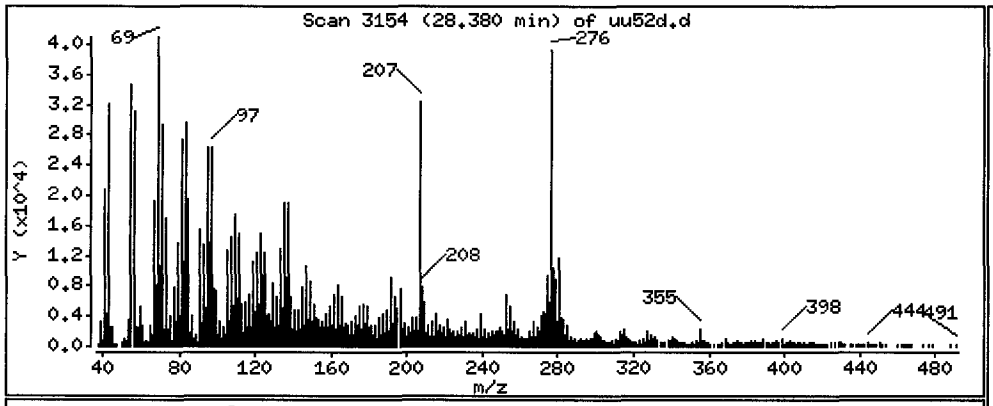
Operator: VTS/YZ

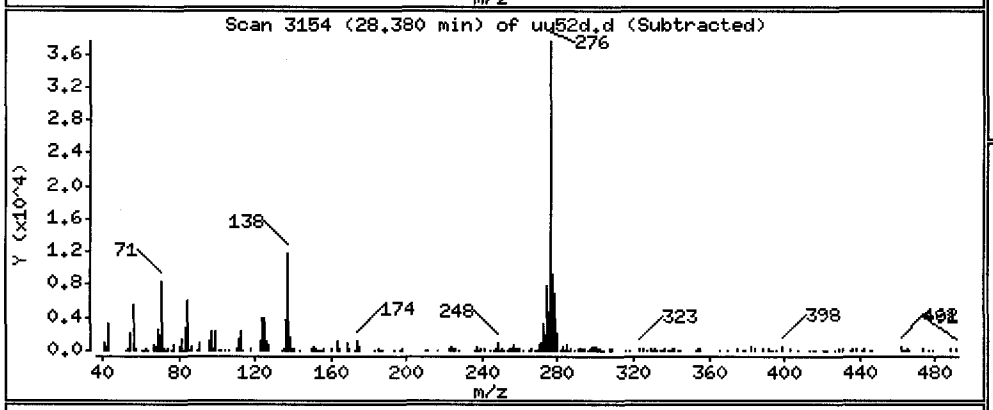
Column phase: ZB-5msi

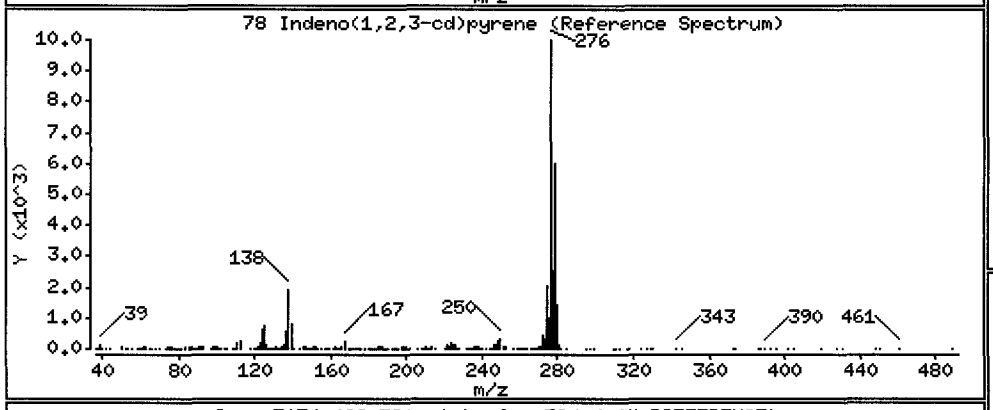
Column diameter: 0.25

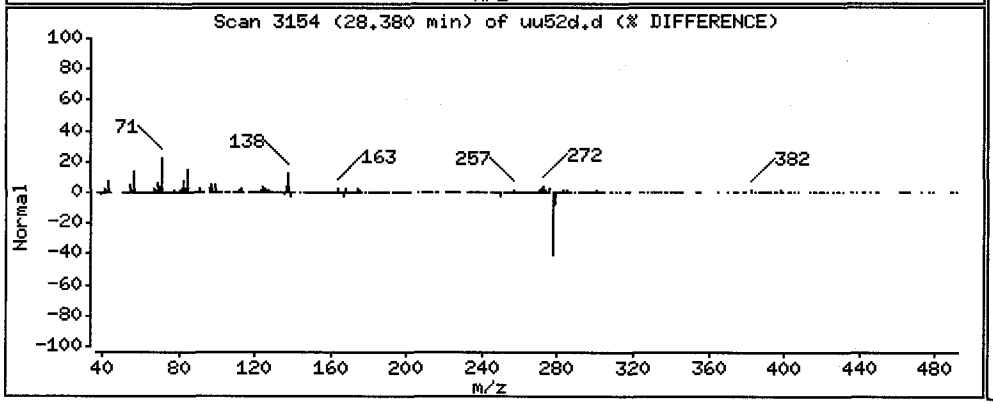
78 Indeno(1,2,3-cd)pyrene

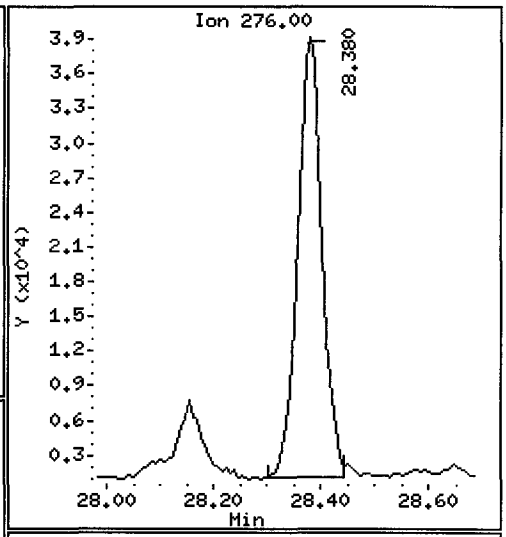
Concentration: 173.5 ug/kg

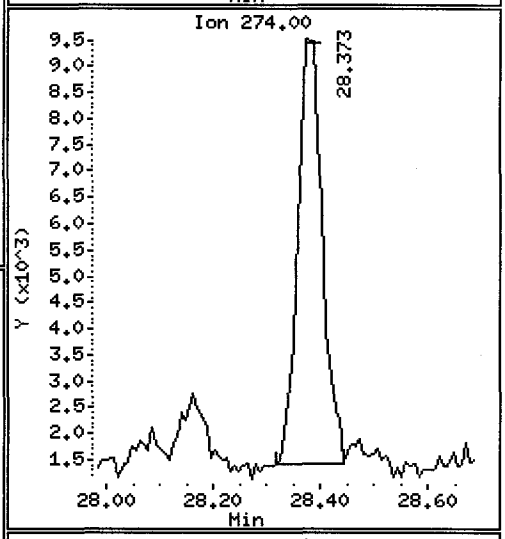


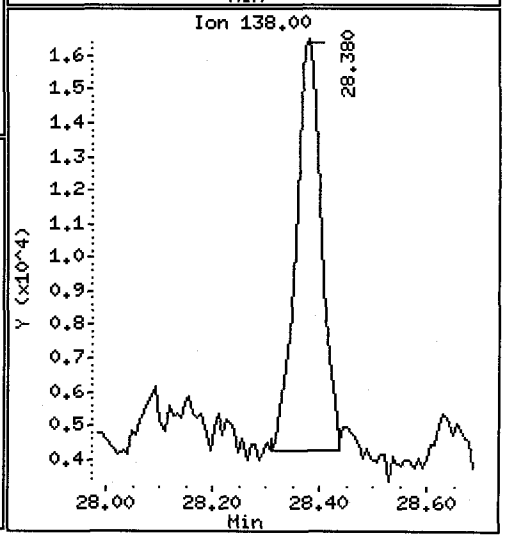



Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

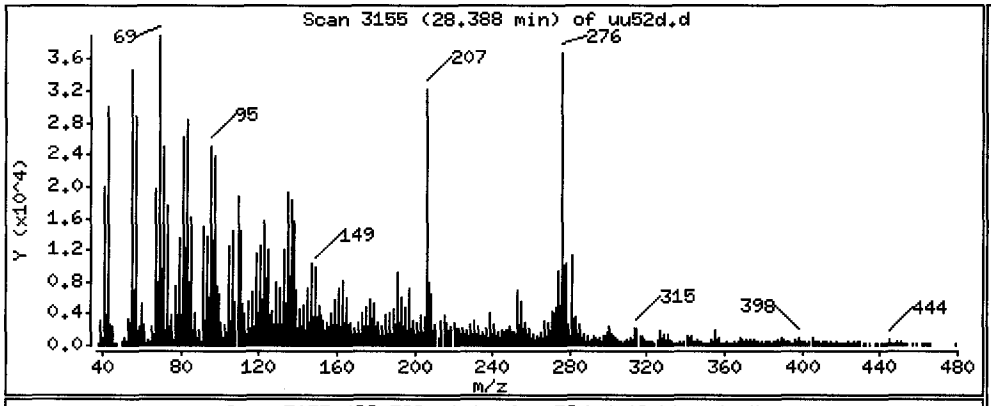
Operator: VTS/YZ

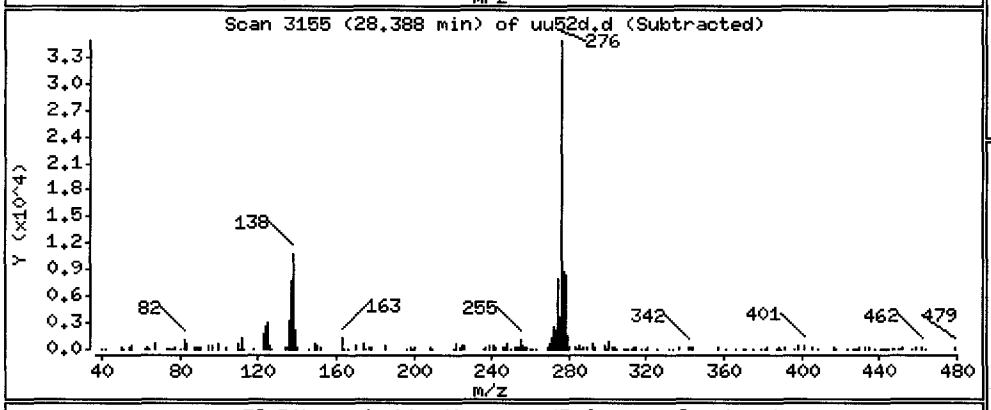
Column phase: ZB-5msi

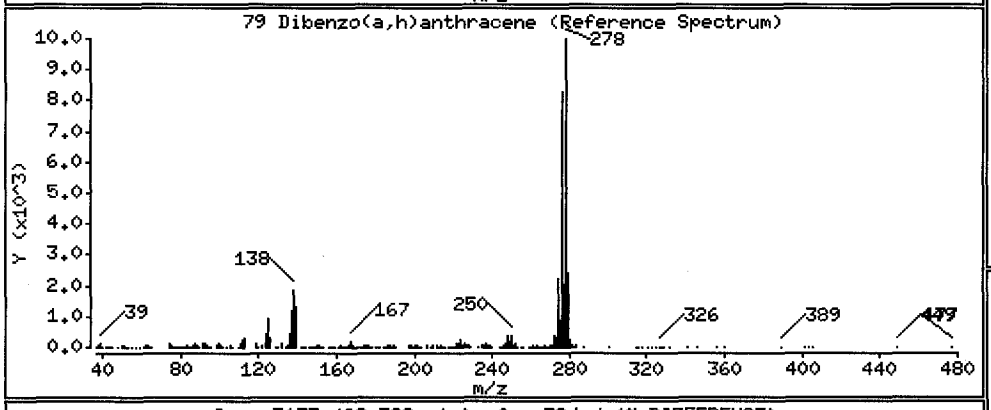
Column diameter: 0.25

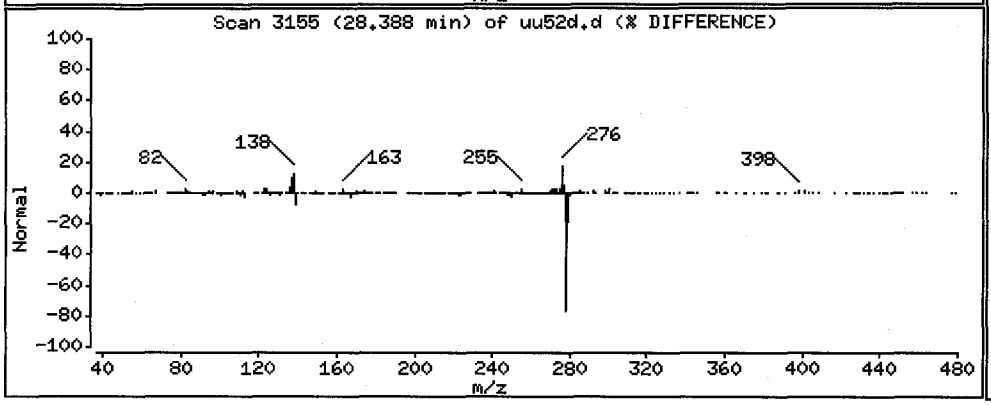
79 Dibenzo(a,h)anthracene

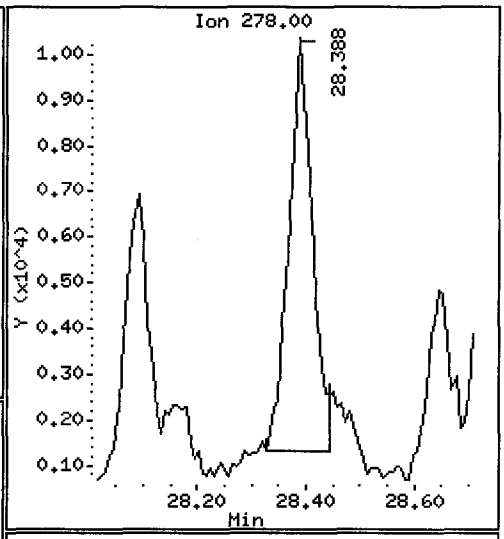
Concentration: 50.12 ug/kg

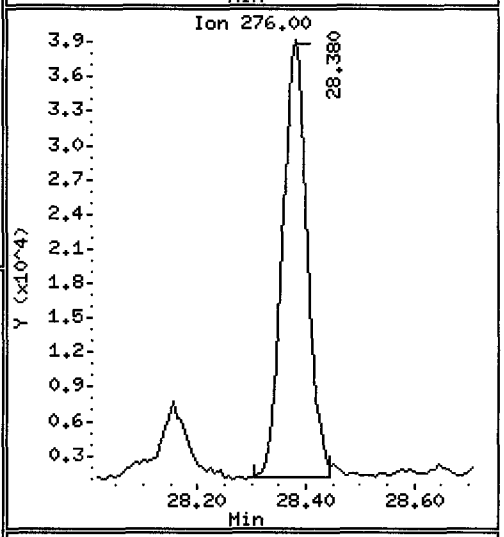


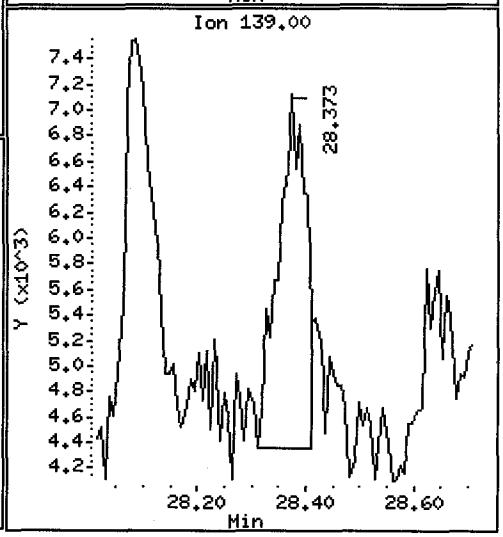



Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

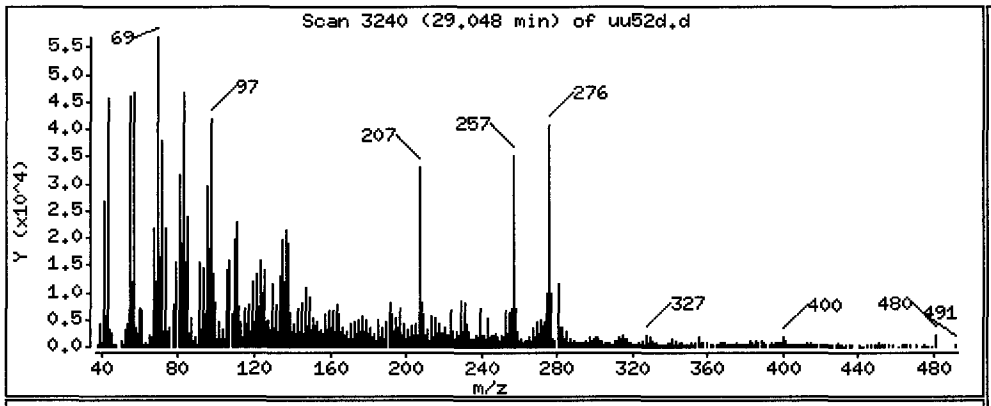
Client ID: MS003-SS-120515 Instrument: nt10.i

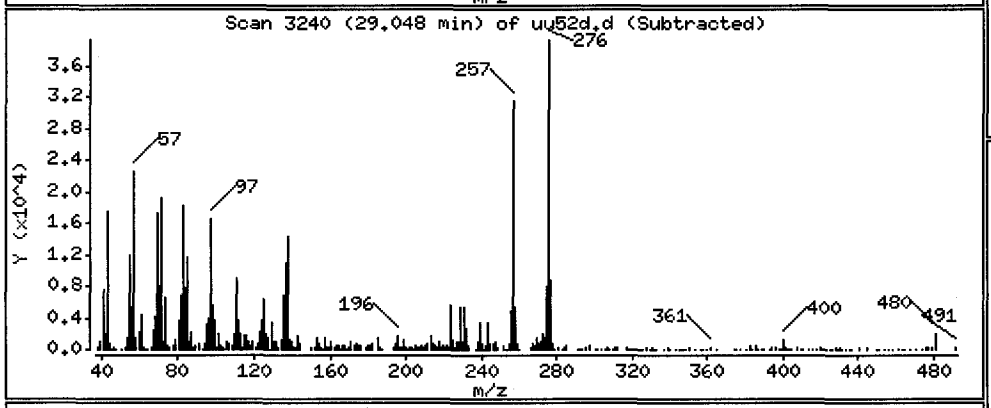
Sample Info: UU52D,3

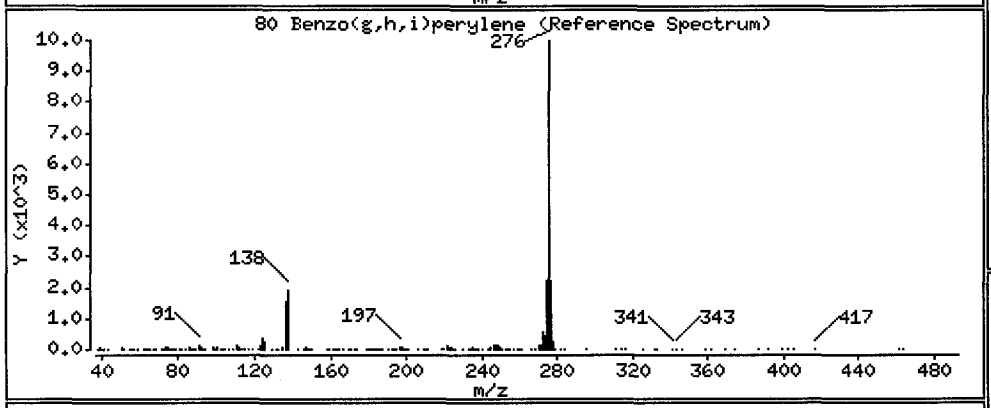
Volume Injected (uL): 1.0 Operator: VTS/YZ

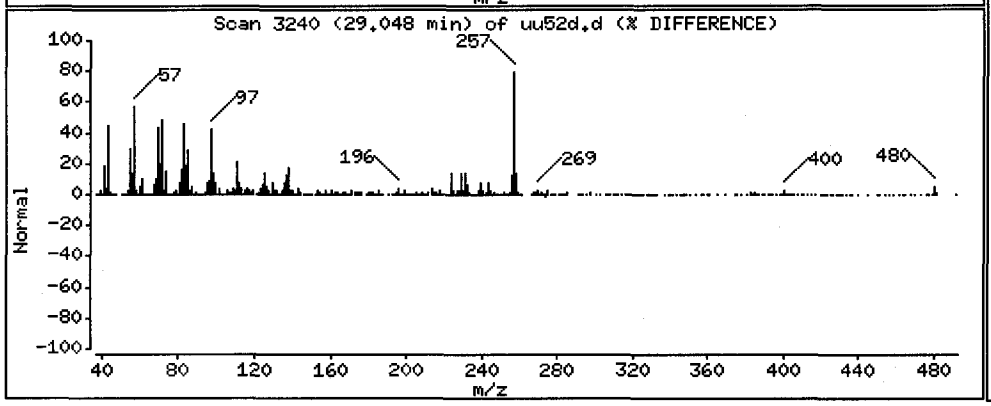
Column phase: ZB-5msi Column diameter: 0.25

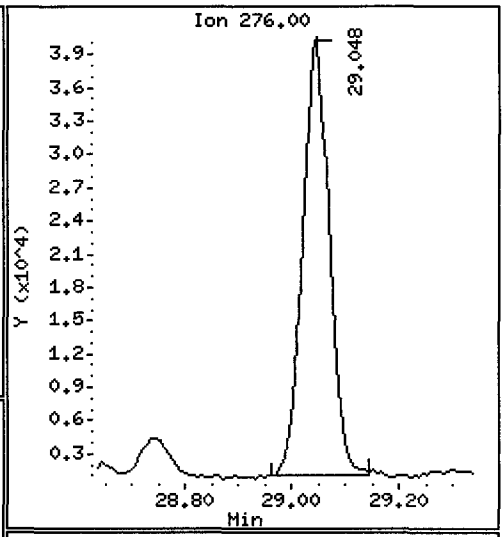
80 Benzo(g,h,i)perylene Concentration: 225.4 ug/kg

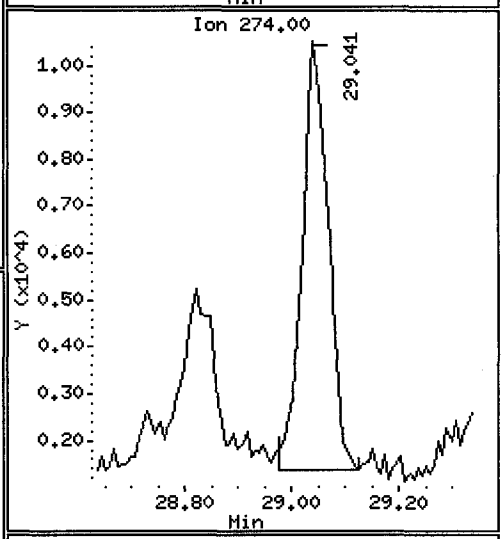


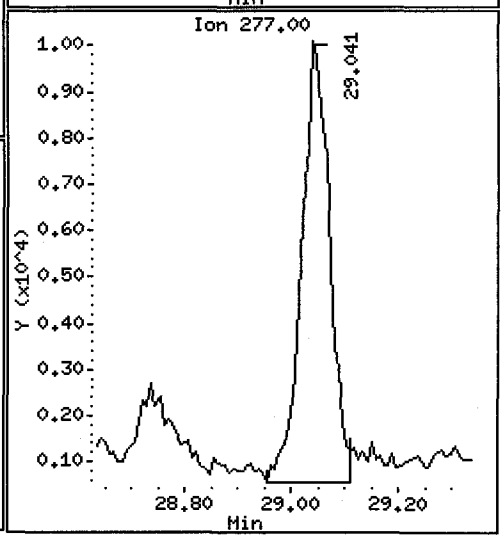



Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

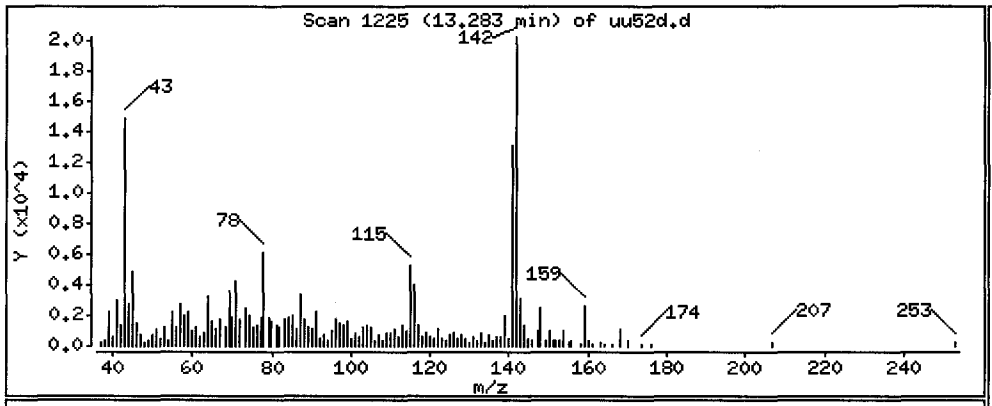
Operator: VTS/YZ

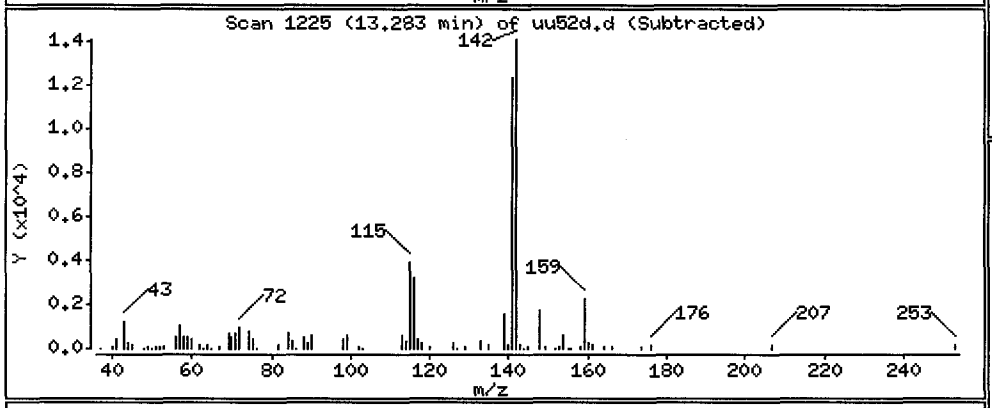
Column phase: ZB-5msi

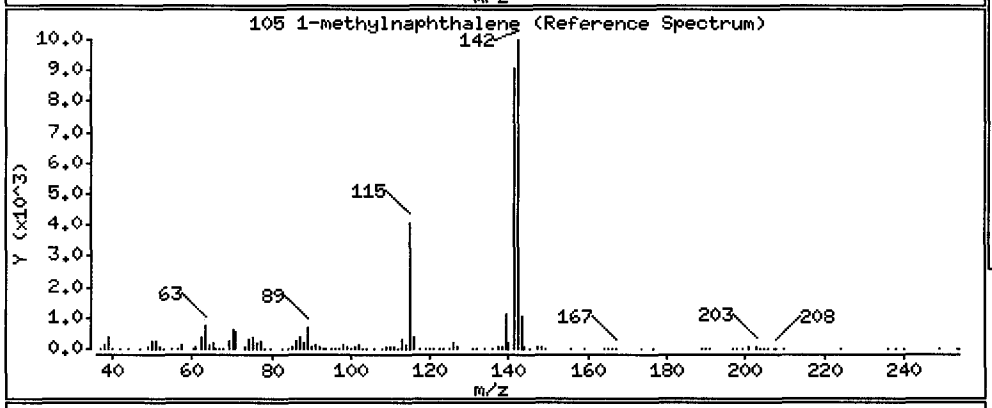
Column diameter: 0.25

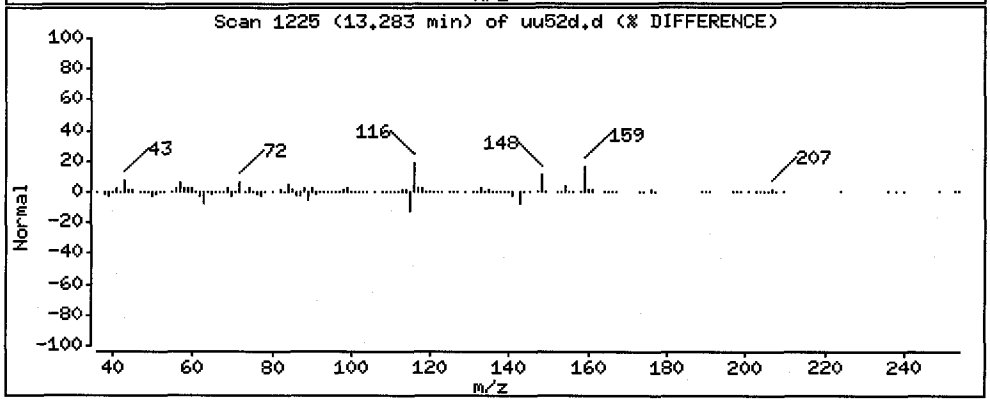
105 1-methylnaphthalene

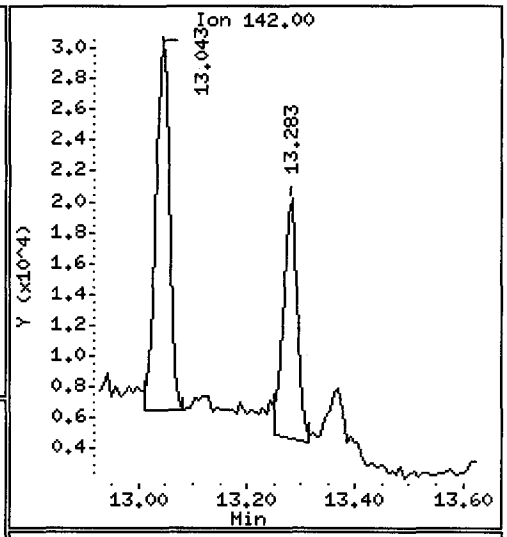
Concentration: 56.43 ug/kg

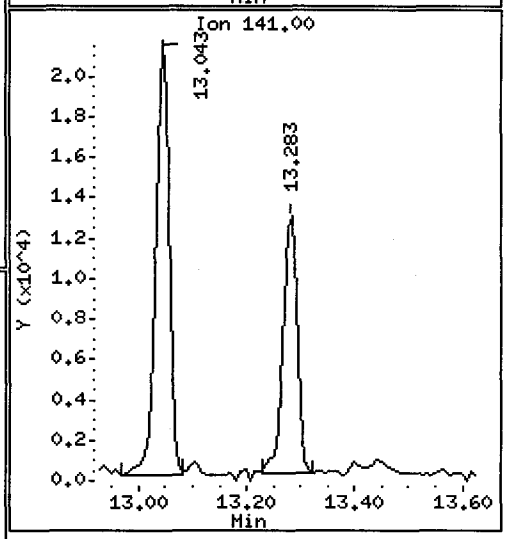


Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

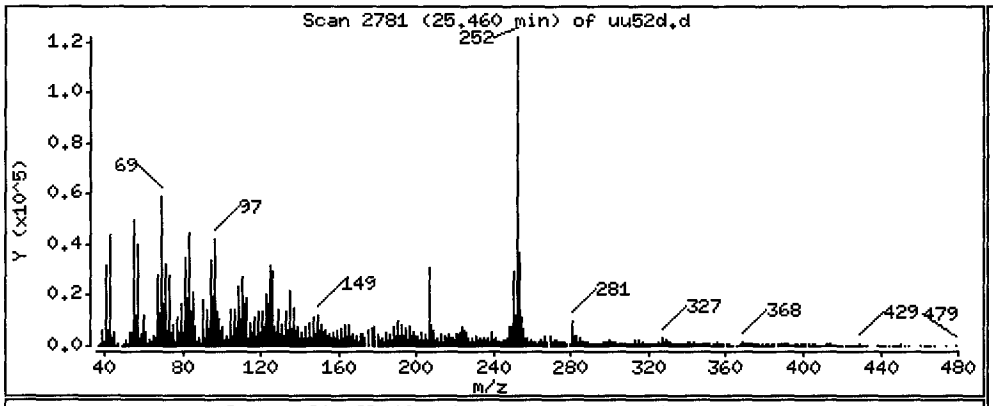
Operator: VTS/YZ

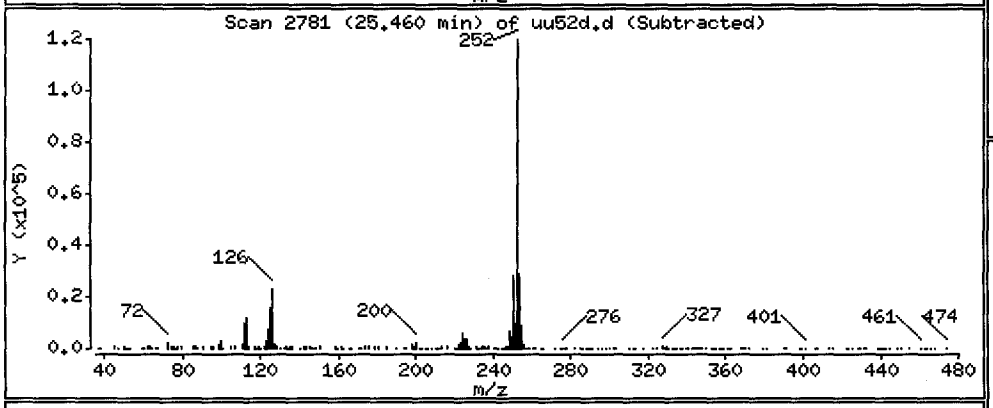
Column phase: ZB-5msi

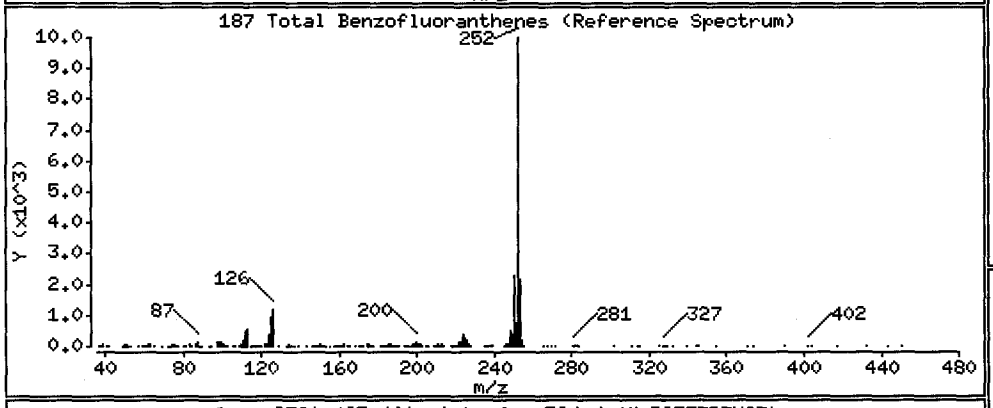
Column diameter: 0.25

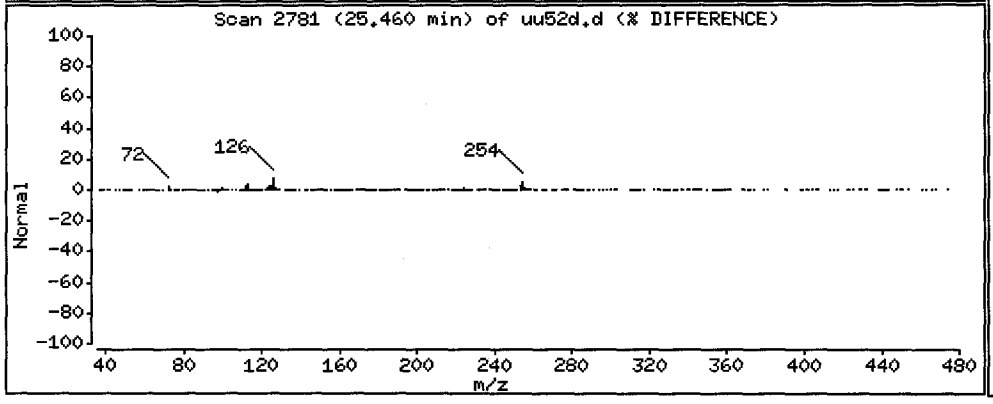
187 Total Benzofluoranthenes

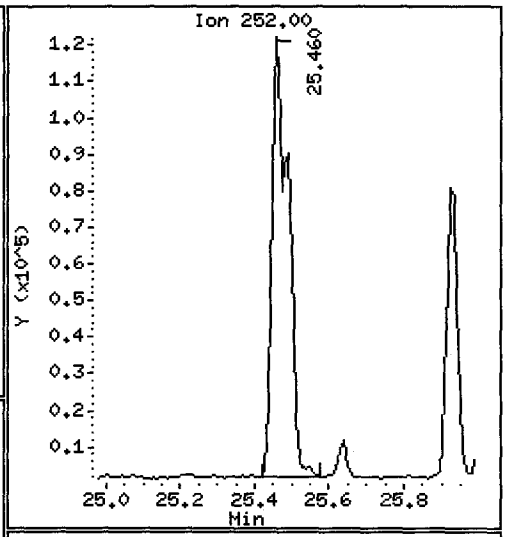
Concentration: 572.3 ug/kg

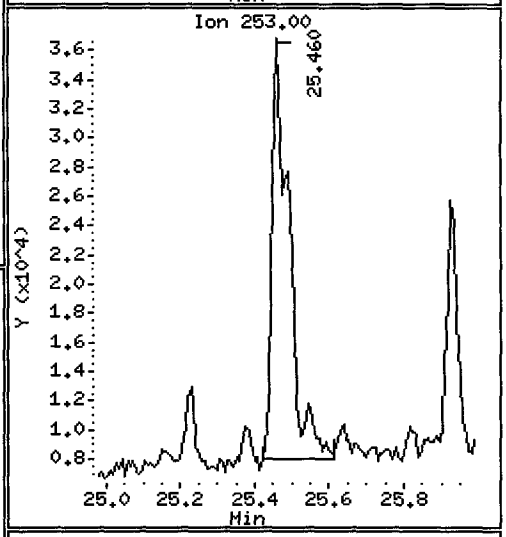


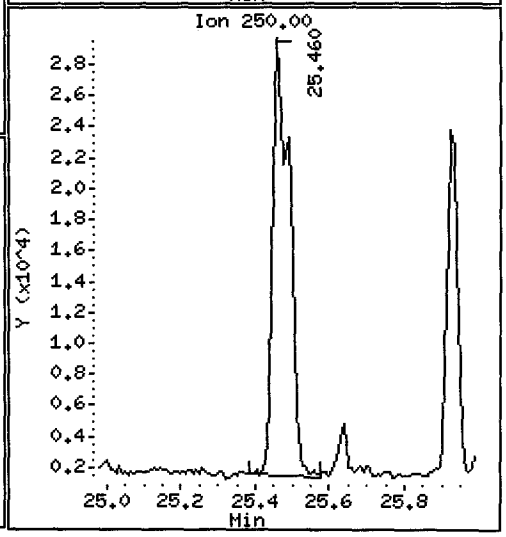



Data File: /chem1/nt10.i/20120526.b/uu52d.d

Date : 26-MAY-2012 19:02

Client ID: MS003-SS-120515

Instrument: nt10.i

Sample Info: UU52D,3

Volume Injected (uL): 1.0

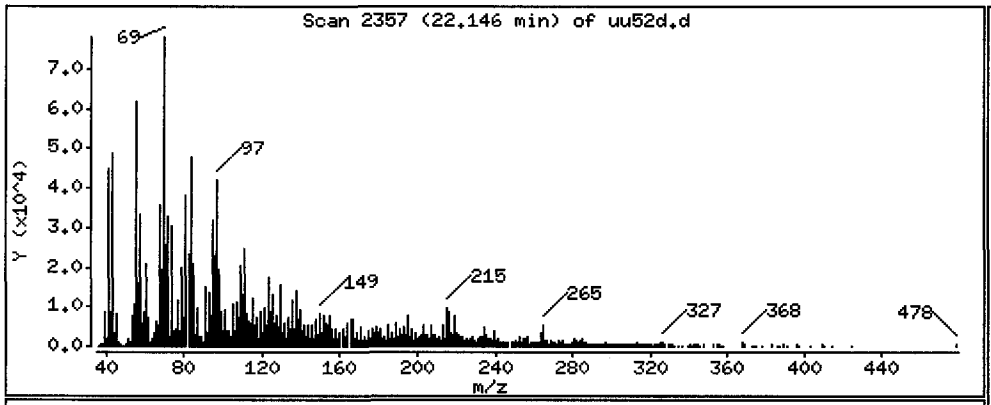
Operator: VTS/YZ

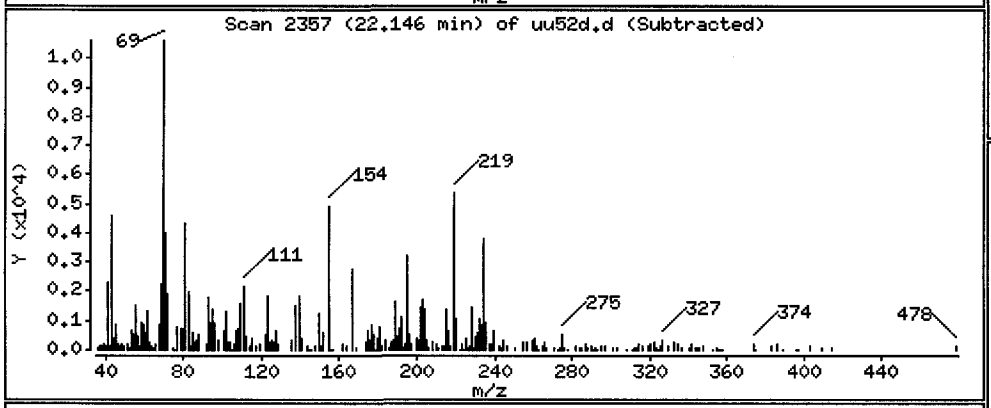
Column phase: ZB-5msi

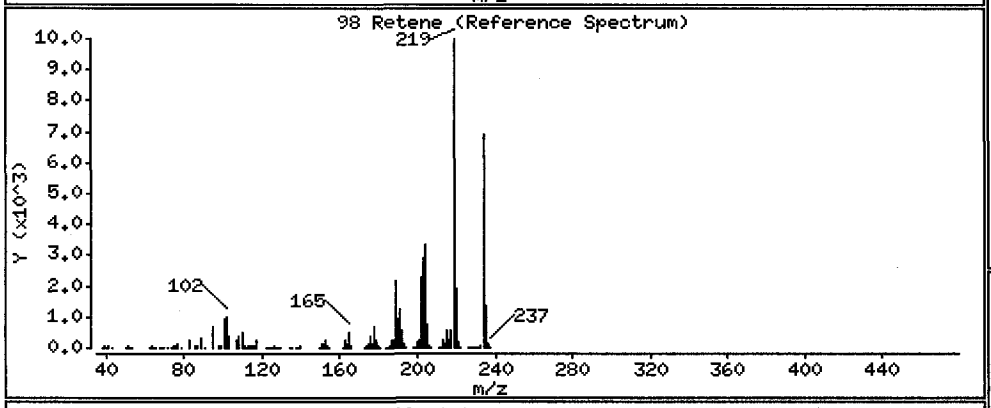
Column diameter: 0.25

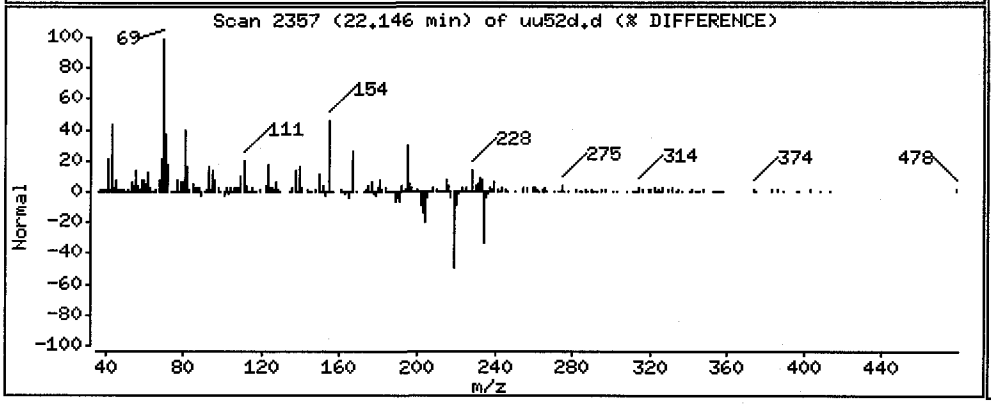
98 Retene

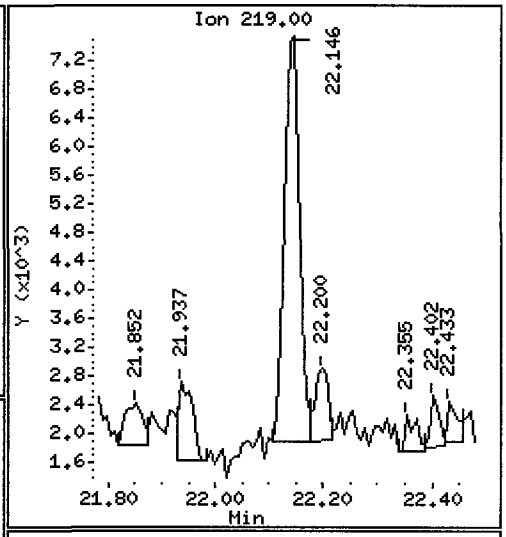
Concentration: 31.56 ug/kg

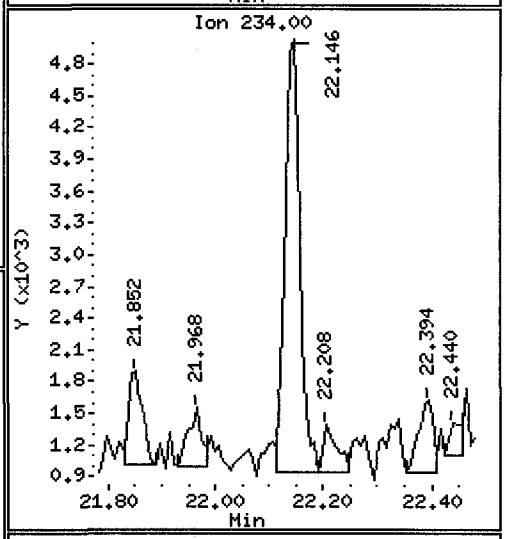


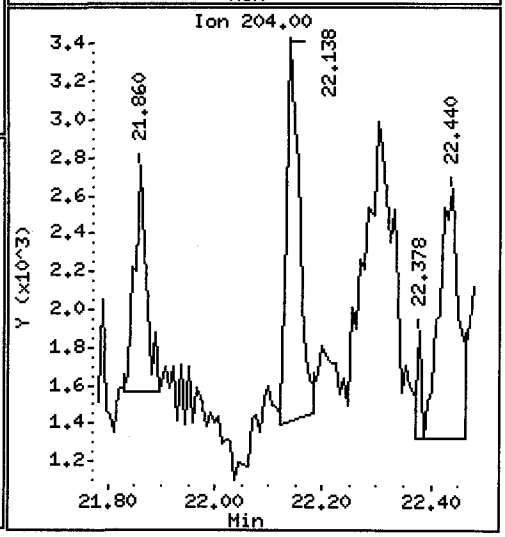



CO-ELUTION SUMMARY FOR FILE - uu52d.d

Lab ID: UU52D, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

12 4/4/12

Data file : /chem1/nt10.i/20120526.b/uu52e.d
Lab Smp Id: UU52E Client Smp ID: MS004-SS-120515
Inj Date : 26-MAY-2012 19:39
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52E,3
Misc Info : 12-8897
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 04-Jun-2012 10:50 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 7
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 3.00000 | Dilution Factor |
| Vt | 1000.00000 | Volume of final extract (uL) |
| Ws | 105.00000 | Weight of sample extracted (g) |
| M | 90.40000 | % Moisture |

Cpnd Variable Local Compound Variable

| | | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|
| $ | 1 | 2-Fluorophenol | 112 | 6.560 | 6.537 | (0.740) | 108495 | 1.57295 | 468.1 |
| $ | 2 | Phenol-d5 | 99 | 8.252 | 8.237 | (0.931) | 137061 | 1.59520 | 474.8 |
| | 3 | Phenol | 94 | 8.275 | 8.260 | (0.934) | 60378 | 0.65927 | 196.2 |
| $ | 5 | 2-Chlorophenol-d4 | 132 | 8.492 | 8.476 | (0.958) | 123380 | 1.63903 | 487.8 |
| | 4 | Bis(2-Chloroethyl)ether | 93 | Compound Not Detected. | | | | | |
| | 6 | 2-Chlorophenol | 128 | Compound Not Detected. | | | | | |
| | 7 | 1,3-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| * | 8 | 1,4-Dichlorobenzene-d4 | 152 | 8.863 | 8.855 | (1.000) | 197248 | 4.00000 | |
| | 9 | 1,4-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| $ | 10 | 1,2-Dichlorobenzene-d4 | 152 | 9.244 | 9.236 | (1.043) | 48012 | 0.97226 | 289.4 |
| | 12 | 1,2-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| | 11 | Benzyl alcohol | 108 | Compound Not Detected. | | | | | |
| | 14 | 2,2'-oxybis(1-Chloropropane) | 121 | Compound Not Detected. | | | | | |
| | 13 | 2-Methylphenol | 108 | Compound Not Detected. | | | | | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| | 17 Hexachloroethane | 117 | Compound Not Detected. | | | | | |
| | 16 N-Nitroso-di-n-propylamine | 70 | Compound Not Detected. | | | | | |
| | 15 4-Methylphenol | 108 | 9.740 | 9.725 | (1.099) | 173813 | 2.30807 | 686.9 |
| $ | 18 Nitrobenzene-d5 | 82 | 10.028 | 10.027 | (0.872) | 72946 | 1.03194 | 307.1 |
| | 19 Nitrobenzene | 77 | Compound Not Detected. | | | | | |
| | 20 Isophorone | 82 | Compound Not Detected. | | | | | |
| | 21 2-Nitrophenol | 139 | Compound Not Detected. | | | | | |
| | 22 2,4-Dimethylphenol | 107 | Compound Not Detected. | | | | | |
| | 23 Bis(2-Chloroethoxy)methane | 93 | Compound Not Detected. | | | | | |
| | 24 Benzoic acid | 105 | 11.034 | 11.087 | (0.959) | 59224 | 1.30364 | 388.0 |
| | 25 2,4-Dichlorophenol | 162 | Compound Not Detected. | | | | | |
| | 26 1,2,4-Trichlorobenzene | 180 | Compound Not Detected. | | | | | |
| * | 27 Naphthalene-d8 | 136 | 11.504 | 11.504 | (1.000) | 788940 | 4.00000 | |
| | 28 Naphthalene | 128 | 11.543 | 11.542 | (1.003) | 928037 | 4.66604 | 1389 |
| | 29 4-Chloroaniline | 127 | Compound Not Detected. | | | | | |
| | 30 Hexachlorobutadiene | 225 | Compound Not Detected. | | | | | |
| | 31 4-Chloro-3-methylphenol | 107 | Compound Not Detected. | | | | | |
| | 32 2-Methylnaphthalene | 142 | 13.043 | 13.043 | (1.134) | 124956 | 0.90373 | 269.0 |
| | 33 Hexachlorocyclopentadiene | 237 | Compound Not Detected. | | | | | |
| | 34 2,4,6-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| | 35 2,4,5-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| $ | 36 2-Fluorobiphenyl | 172 | 13.902 | 13.902 | (0.904) | 171209 | 1.14678 | 341.3 |
| | 37 2-Chloronaphthalene | 162 | Compound Not Detected. | | | | | |
| | 38 2-Nitroaniline | 65 | Compound Not Detected. | | | | | |
| | 39 Dimethylphthalate | 163 | Compound Not Detected. | | | | | |
| | 40 Acenaphthylene | 152 | 15.040 | 15.032 | (0.978) | 49975 | 0.25837 | 76.90 |
| | 41 2,6-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| * | 42 Acenaphthene-d10 | 164 | 15.380 | 15.373 | (1.000) | 430674 | 4.00000 | |
| | 43 3-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 44 Acenaphthene | 153 | 15.450 | 15.442 | (1.005) | 55286 | 0.47388 | 141.0 |
| | 45 2,4-Dinitrophenol | 184 | Compound Not Detected. | | | | | |
| | 46 Dibenzofuran | 168 | 15.798 | 15.798 | (1.027) | 174748 | 1.02238 | 304.3 |
| | 47 4-Nitrophenol | 109 | Compound Not Detected. | | | | | |
| | 48 2,4-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| | 50 Diethylphthalate | 149 | Compound Not Detected. | | | | | |
| | 49 Fluorene | 166 | 16.571 | 16.563 | (1.077) | 74808 | 0.57121 | 170.0 |
| | 51 4-Chlorophenyl-phenylether | 204 | Compound Not Detected. | | | | | |
| | 52 4-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 53 4,6-Dinitro-2-methylphenol | 198 | Compound Not Detected. | | | | | |
| | 54 N-Nitrosodiphenylamine | 169 | Compound Not Detected. | | | | | |
| $ | 55 2,4,6-Tribromophenol | 330 | 17.150 | 17.142 | (1.115) | 31764 | 1.78689 | 531.8 |
| | 56 4-Bromophenyl-phenylether | 248 | Compound Not Detected. | | | | | |
| | 57 Hexachlorobenzene | 284 | Compound Not Detected. | | | | | |
| | 58 Pentachlorophenol | 266 | Compound Not Detected. | | | | | |
| * | 59 Phenanthrene-d10 | 188 | 18.641 | 18.633 | (1.000) | 660353 | 4.00000 | |
| | 60 Phenanthrene | 178 | 18.695 | 18.687 | (1.003) | 505372 | 2.96790 | 883.3 |
| | 61 Anthracene | 178 | 18.796 | 18.780 | (1.008) | 108818 | 0.61175 | 182.1 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| 62 | Carbazole | 167 | 19.160 | 19.144 | (1.028) | 37142 | 0.22567 | 67.16(M) |
| 63 | Di-n-butylphthalate | 149 | Compound Not Detected. | | | | | |
| 64 | Fluoranthene | 202 | 21.132 | 21.101 | (1.134) | 562298 | 2.90840 | 865.6 |
| 65 | Pyrene | 202 | 21.543 | 21.519 | (0.908) | 564406 | 2.64654 | 787.7 |
| $ 66 | Terphenyl-d14 | 244 | 21.852 | 21.844 | (0.921) | 156299 | 1.16994 | 348.2 |
| 67 | Butylbenzylphthalate | 149 | Compound Not Detected. | | | | | |
| 68 | Benzo(a)anthracene | 228 | 23.695 | 23.679 | (0.999) | 156626 | 0.79442 | 236.4 |
| * 69 | Chrysene-d12 | 240 | 23.718 | 23.710 | (1.000) | 700903 | 4.00000 | |
| 70 | 3,3'-Dichlorobenzidine | 252 | Compound Not Detected. | | | | | |
| 71 | Chrysene | 228 | 23.764 | 23.749 | (1.002) | 395101 | 2.27803 | 678.0 |
| 72 | bis(2-Ethylhexyl)phthalate | 149 | 23.834 | 23.818 | (0.961) | 63302 | 0.41732 | 124.2 |
| * 134 | Di-n-octylphthalate-d4 | 153 | 24.802 | 24.794 | (1.000) | 1104559 | 4.00000 | |
| 73 | Di-n-octylphthalate | 149 | Compound Not Detected. | | | | | |
| 74 | Benzo(b)fluoranthene | 252 | Compound Not Detected. | | | | | |
| 75 | Benzo(k)fluoranthene | 252 | Compound Not Detected. | | | | | |
| 76 | Benzo(a)pyrene | 252 | 26.017 | 26.002 | (0.996) | 222144 | 1.25720 | 374.2 |
| * 77 | Perylene-d12 | 264 | 26.118 | 26.102 | (1.000) | 683374 | 4.00000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | 28.381 | 28.342 | (1.087) | 194371 | 0.95097 | 283.0 |
| 79 | Dibenzo(a,h)anthracene | 278 | 28.396 | 28.365 | (1.087) | 47009 | 0.29197 | 86.90 |
| 80 | Benzo(g,h,i)perylene | 276 | 29.041 | 29.002 | (1.112) | 211555 | 1.20703 | 359.2 |
| 90 | N-Nitrosodimethylamine | 74 | Compound Not Detected. | | | | | |
| 91 | Aniline | 93 | Compound Not Detected. | | | | | |
| 93 | Benzidine | 184 | Compound Not Detected. | | | | | |
| 103 | Pyridine | 79 | Compound Not Detected. | | | | | |
| 105 | 1-methylnaphthalene | 142 | 13.283 | 13.275 | (1.155) | 65451 | 0.46416 | 138.1 |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | Compound Not Detected. | | | | | |
| 187 | Total Benzofluoranthenes | 252 | 25.460 | 25.483 | (0.975) | 618322 | 3.26089 | 970.5 |
| 99 | Perylene | 252 | Compound Not Detected. | | | | | |
| 98 | Retene | 219 | 22.146 | 22.131 | (0.934) | 42161 | 0.42455 | 126.4 |

## QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52e.d
Lab Smp Id: UU52E
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8897

Calibration Date: 26-MAY-2012
Calibration Time: 10:59
Client Smp ID: MS004-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 197248 | 4.08 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 788940 | 7.94 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 430674 | 2.37 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 660353 | 3.35 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 700903 | 8.66 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 1104559 | 8.70 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 683374 | 5.13 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.86 | 0.09 |
| 27 Naphthalene-d8 | 11.50 | 11.00 | 12.00 | 11.50 | 0.00 |
| 42 Acenaphthene-d10 | 15.37 | 14.87 | 15.87 | 15.38 | 0.05 |
| 59 Phenanthrene-d10 | 18.63 | 18.13 | 19.13 | 18.64 | 0.04 |
| 69 Chrysene-d12 | 23.71 | 23.21 | 24.21 | 23.72 | 0.03 |
| 134 Di-n-octylphthala | 24.79 | 24.29 | 25.29 | 24.80 | 0.03 |
| 77 Perylene-d12 | 26.10 | 25.60 | 26.60 | 26.12 | 0.06 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

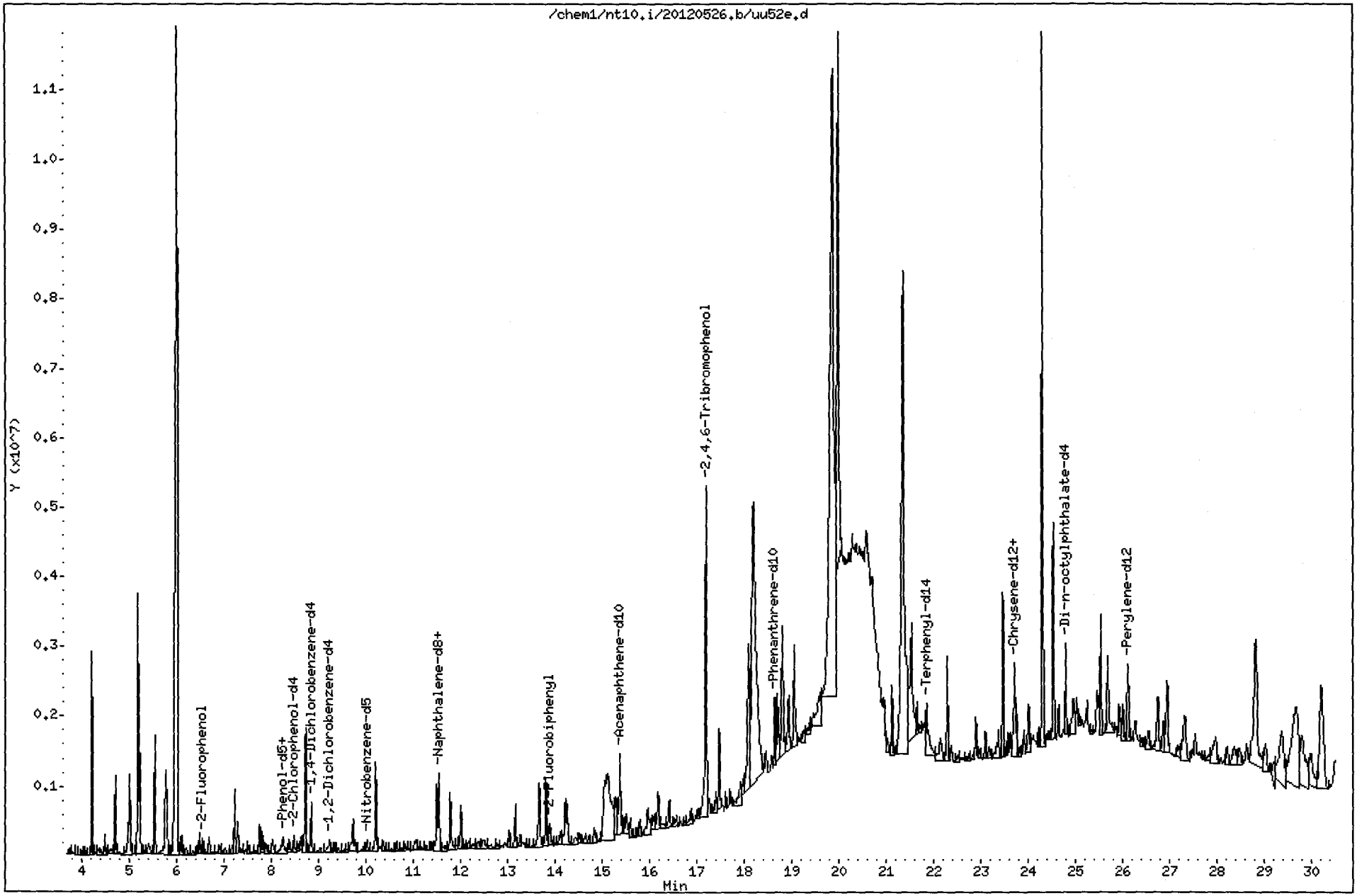
Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52E Client Smp ID: MS004-SS-120515
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8897

| SURROGATE COMPOUND | CONC ADDED ug/kg | CONC RECOVERED ug/kg | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 1 2-Fluorophenol | 744.0 | 468.1 | 62.92 | 30-160 |
| $ 2 Phenol-d5 | 744.0 | 474.8 | 63.81 | 30-160 |
| $ 5 2-Chlorophenol-d4 | 744.0 | 487.8 | 65.56 | 30-160 |
| $ 10 1,2-Dichlorobenzen | 496.0 | 289.4 | 58.34 | 30-160 |
| $ 18 Nitrobenzene-d5 | 496.0 | 307.1 | 61.92 | 30-160 |
| $ 36 2-Fluorobiphenyl | 496.0 | 341.3 | 68.81 | 30-160 |
| $ 55 2,4,6-Tribromophen | 744.0 | 531.8 | 71.48 | 30-160 |
| $ 66 Terphenyl-d14 | 496.0 | 348.2 | 70.20 | 30-160 |

Data File: /chem1/nt10.i/20120526.b/uu52e.d
Date : 26-MAY-2012 19:39
Client ID: MS004-SS-120515
Sample Info: UU52E,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25






UU52:00830

Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

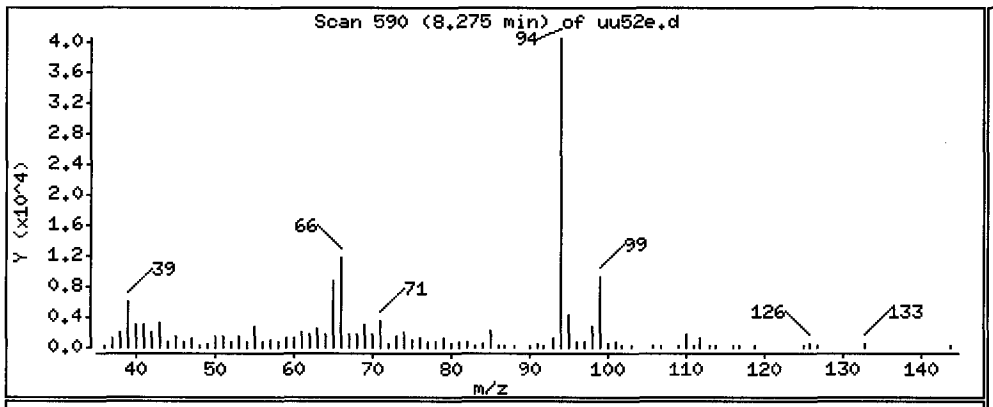
Operator: VTS/YZ

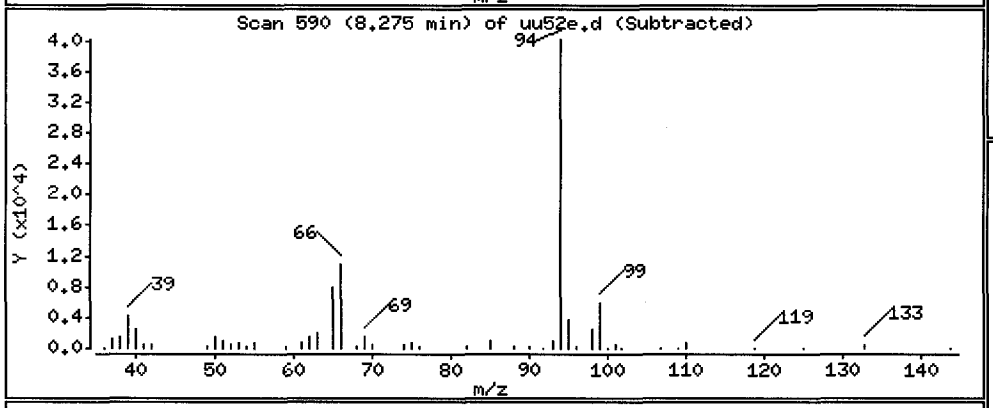
Column phase: ZB-5msi

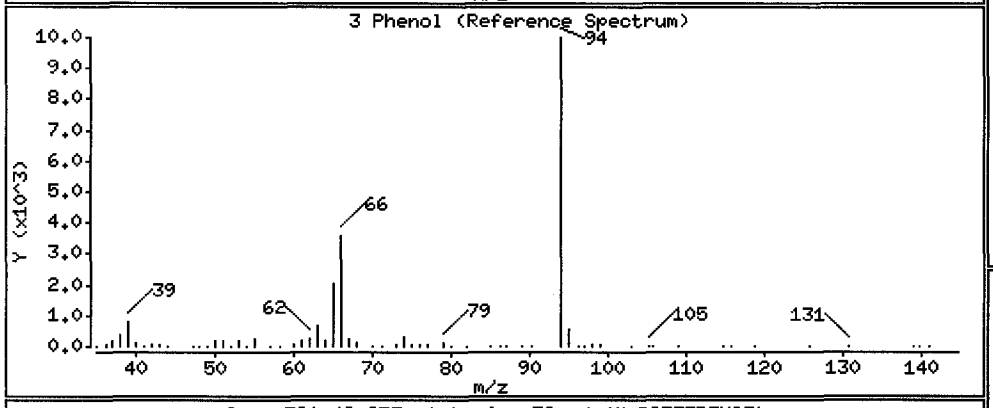
Column diameter: 0.25

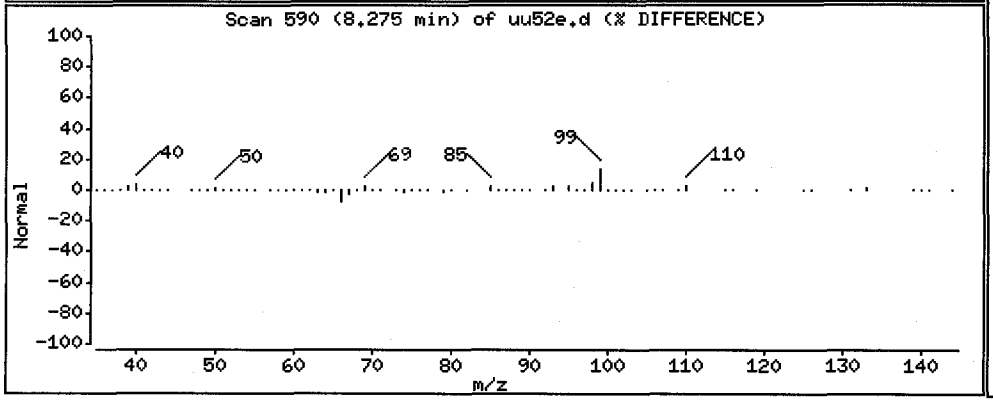
3 Phenol

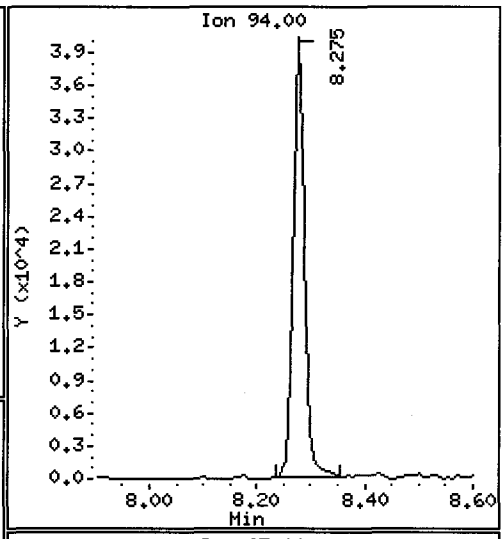
Concentration: 196.2 ug/kg

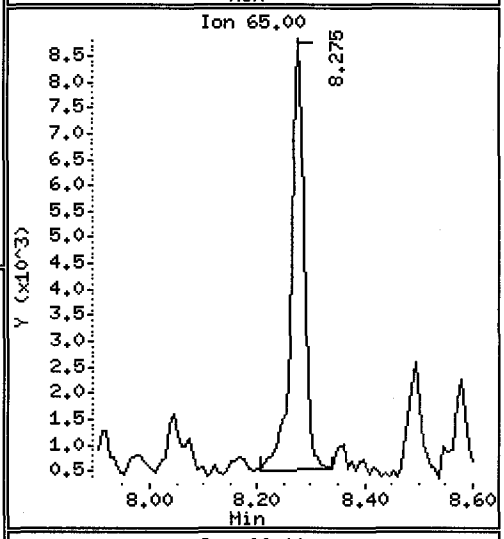


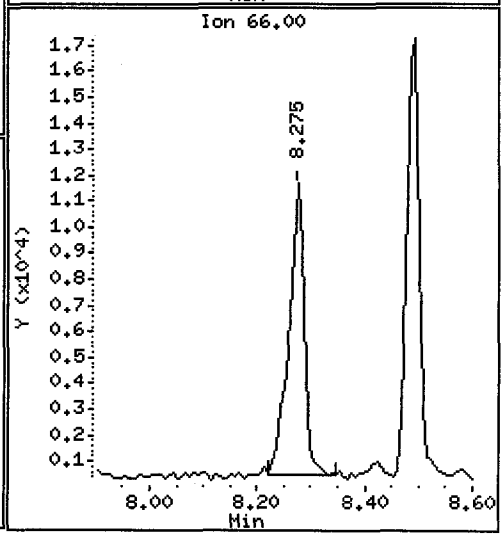



Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

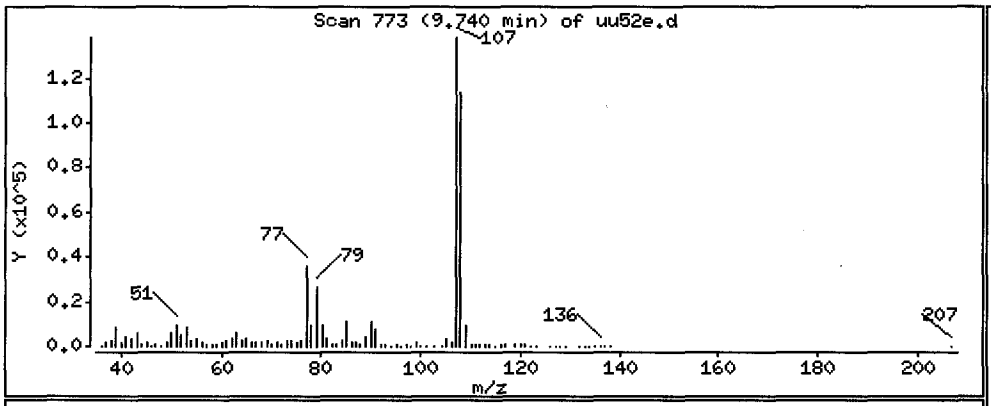
Client ID: MS004-SS-120515 Instrument: nt10.i

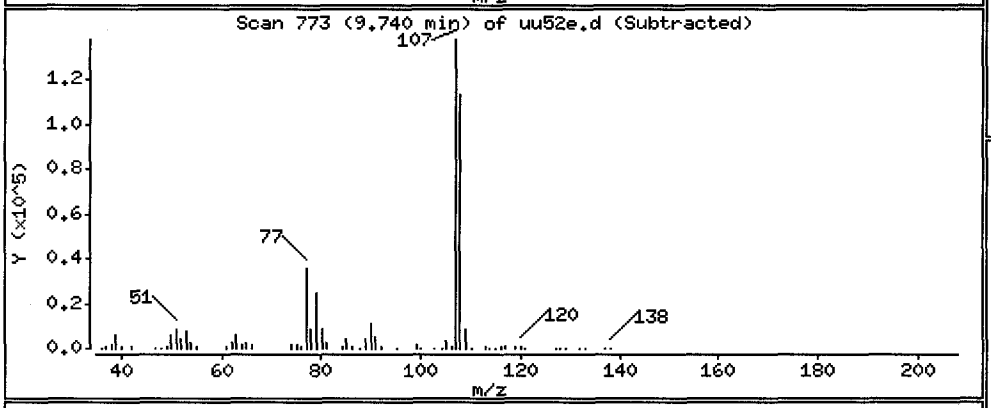
Sample Info: UU52E,3

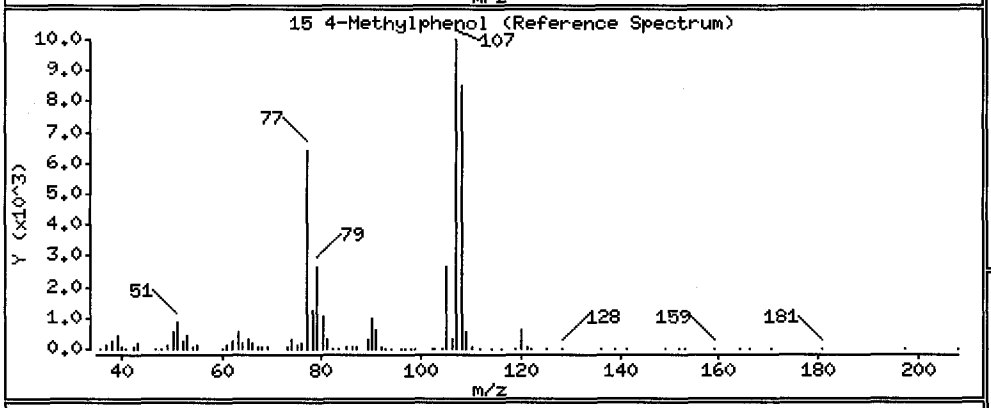
Volume Injected (uL): 1.0 Operator: VTS/YZ

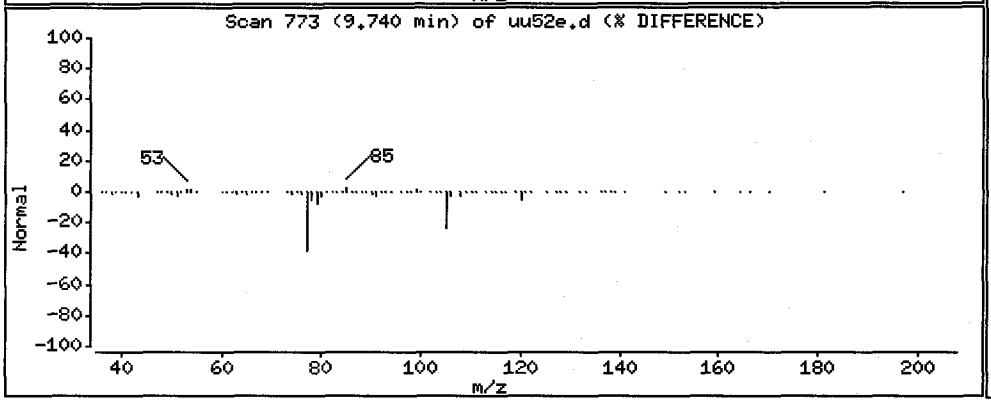
Column phase: ZB-5msi Column diameter: 0.25

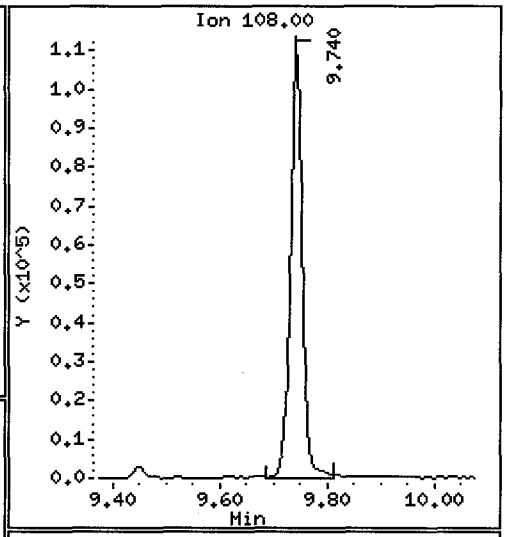
15 4-Methylphenol Concentration: 686.9 ug/kg

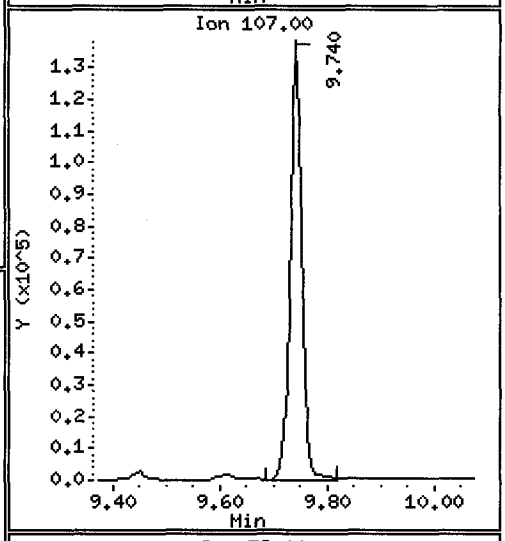


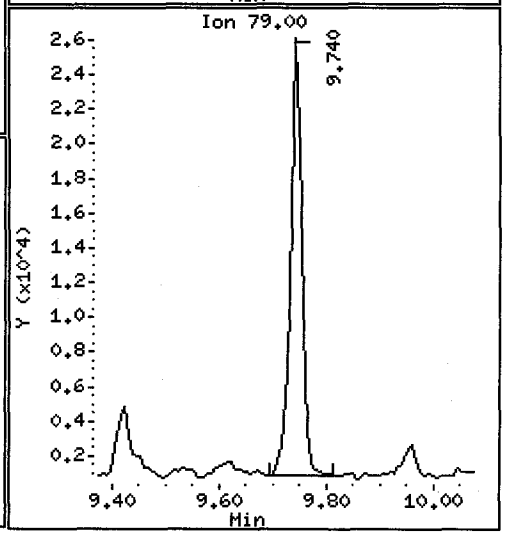



Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

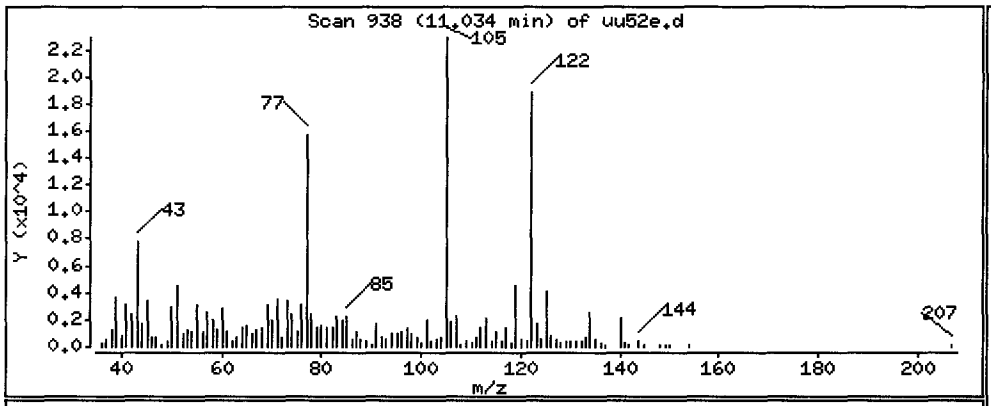
Client ID: MS004-SS-120515 Instrument: nt10.i

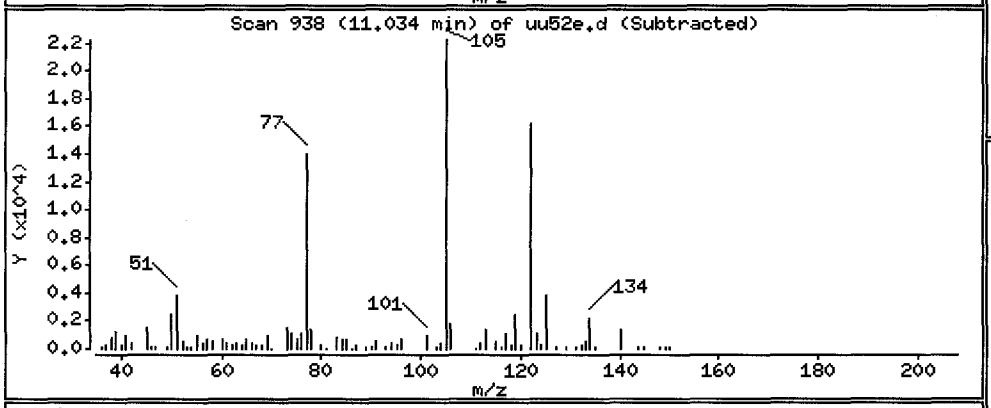
Sample Info: UU52E,3

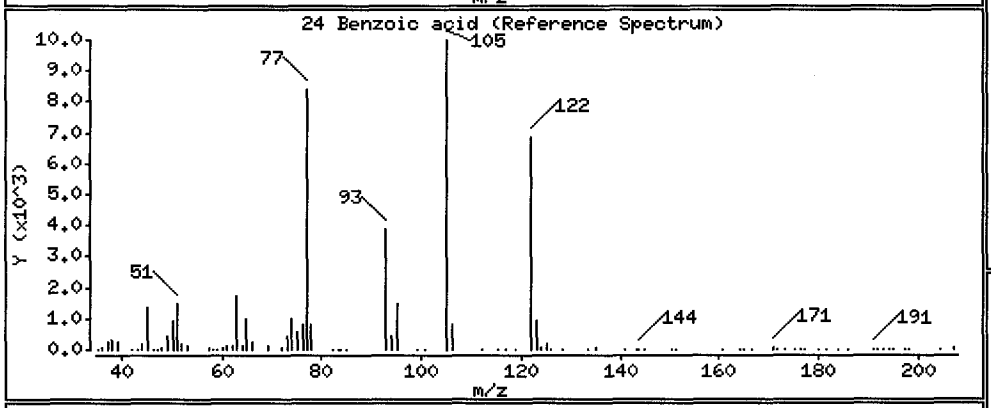
Volume Injected (uL): 1.0 Operator: VTS/YZ

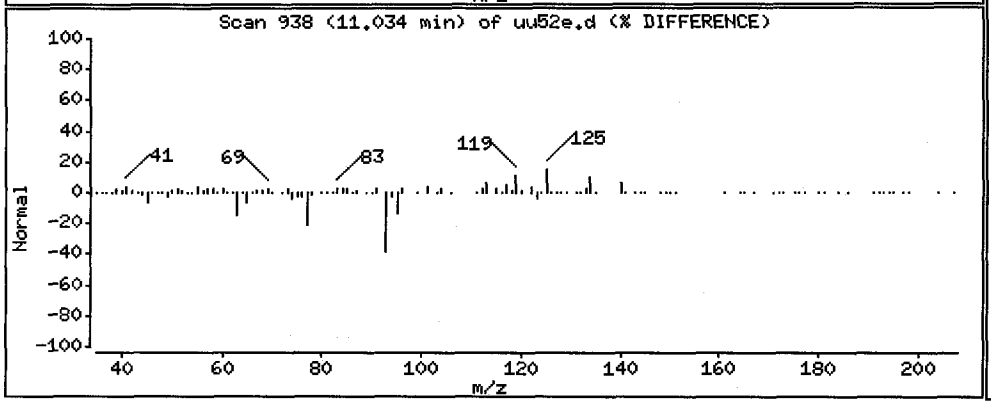
Column phase: ZB-5msi Column diameter: 0.25

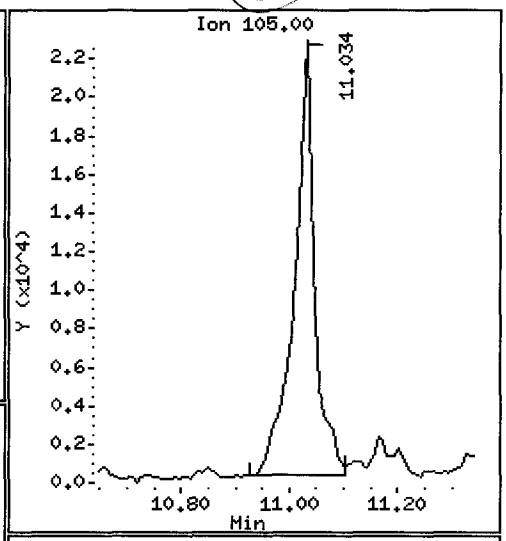
24 Benzoic acid Concentration: 388.0 ug/kg

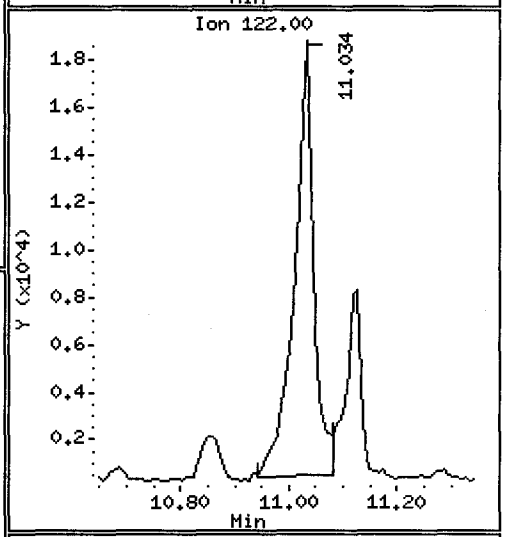


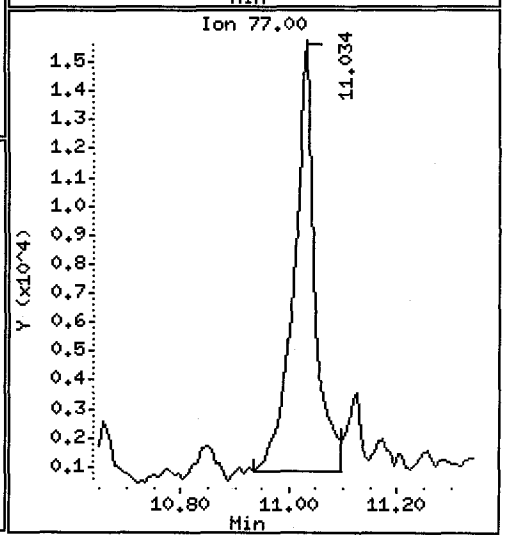



Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

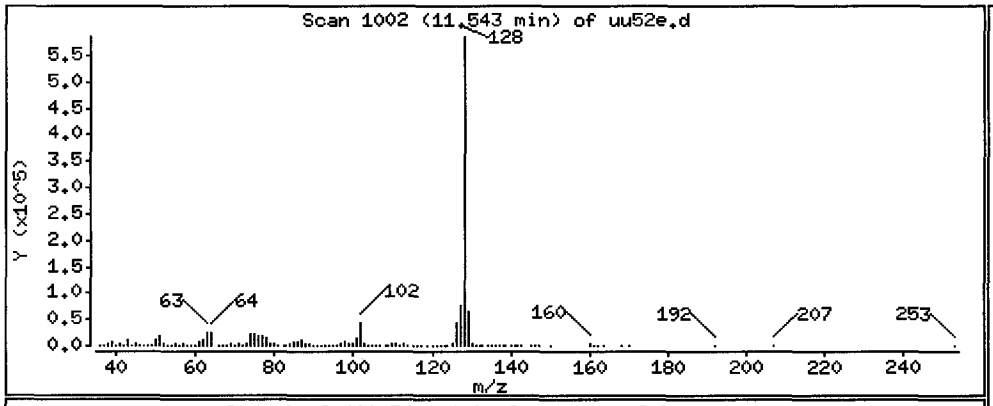
Operator: VTS/YZ

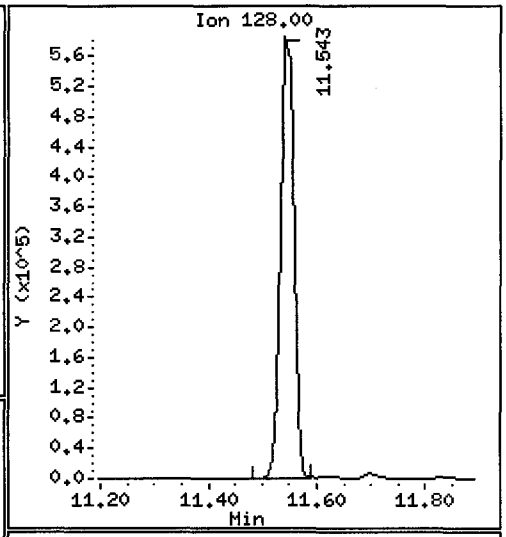
Column phase: ZB-5msi

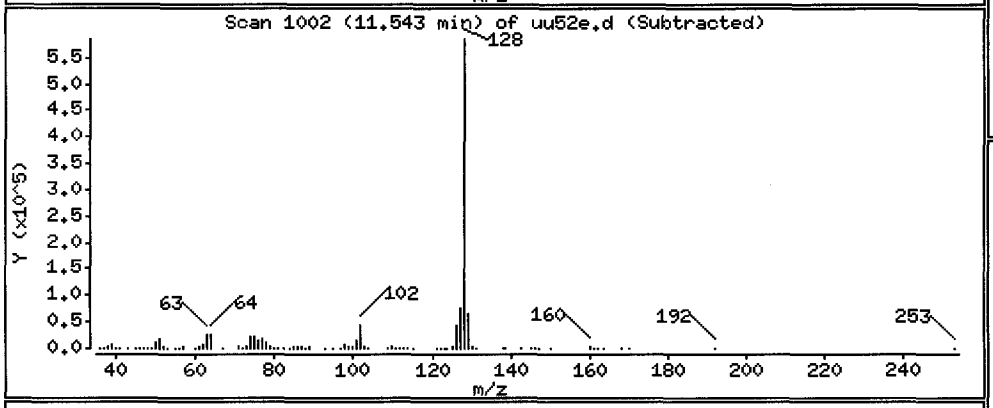
Column diameter: 0.25

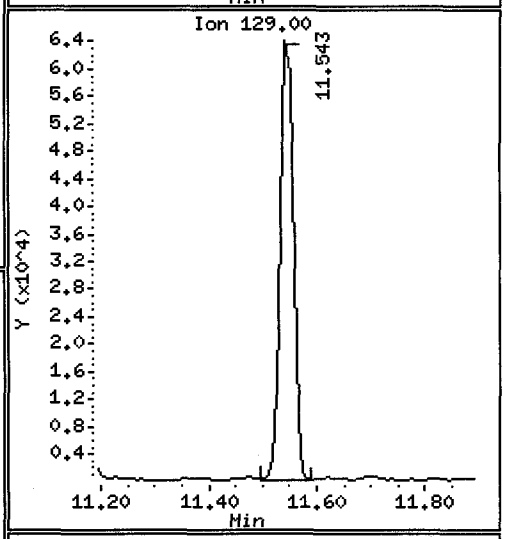
28 Naphthalene

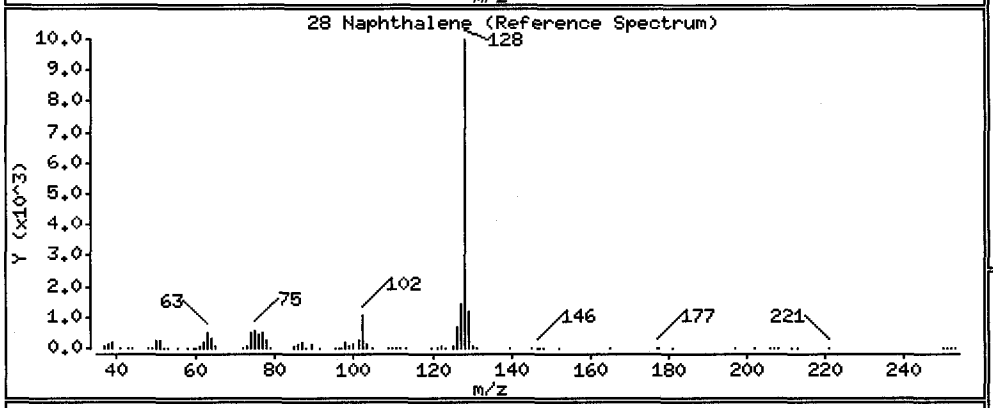
Concentration: 1389 ug/kg

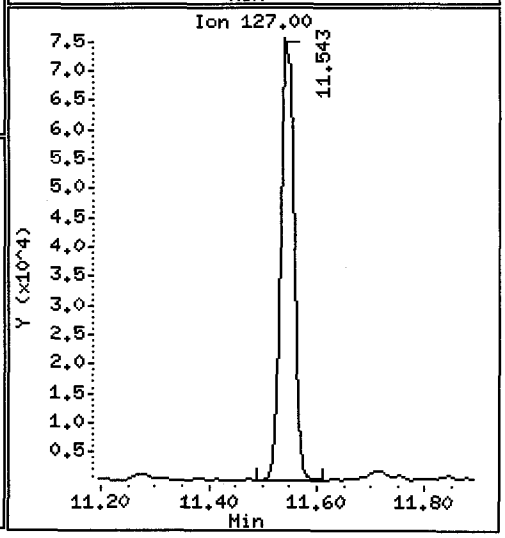


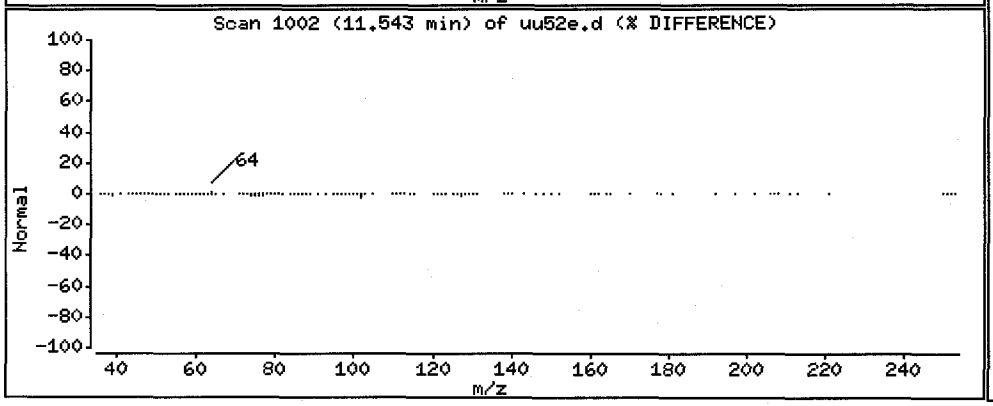



Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

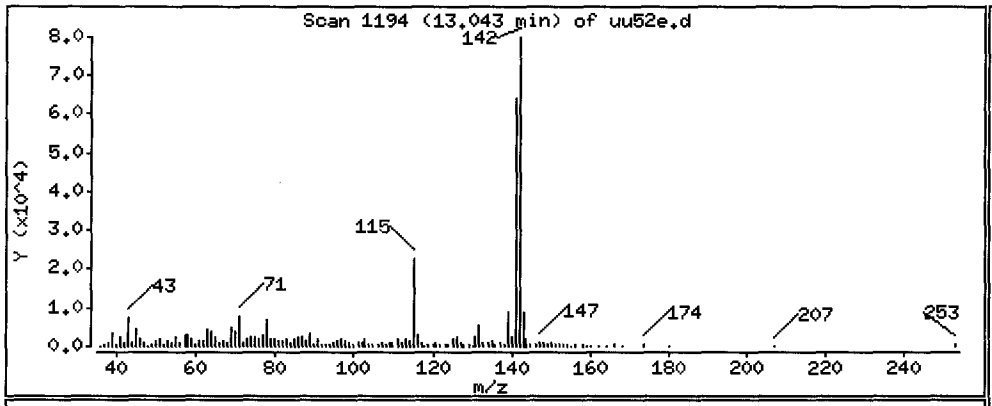
Client ID: MS004-SS-120515 Instrument: nt10.i

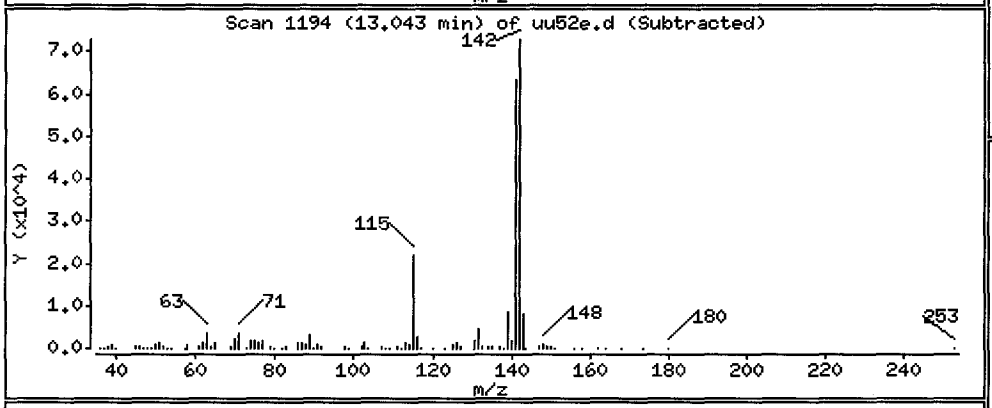
Sample Info: UU52E,3

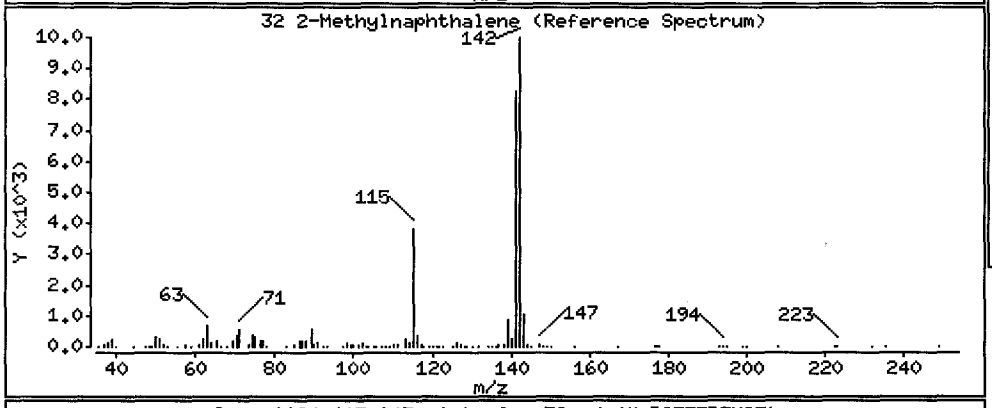
Volume Injected (uL): 1.0 Operator: VTS/YZ

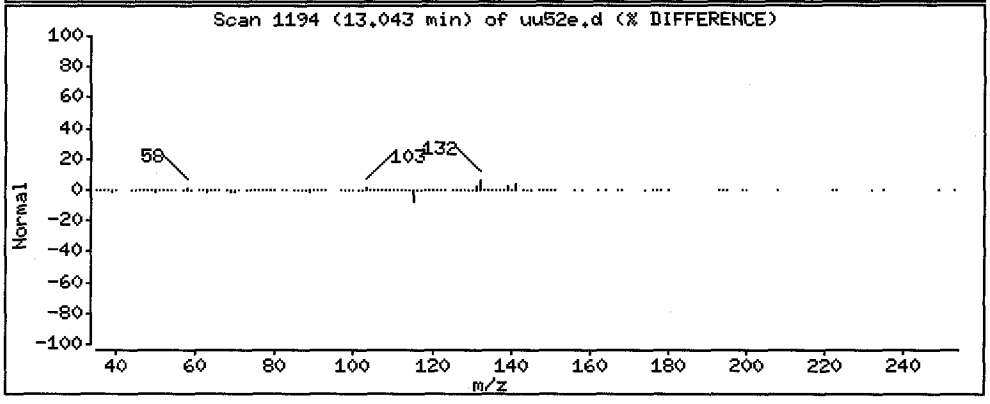
Column phase: ZB-5msi Column diameter: 0.25

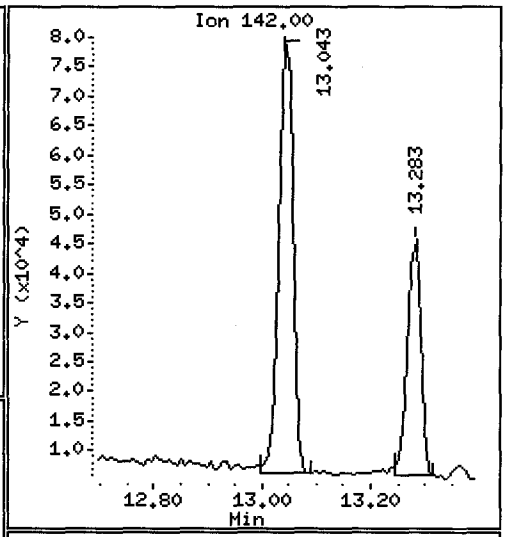
32 2-Methylnaphthalene Concentration: 269.0 ug/kg

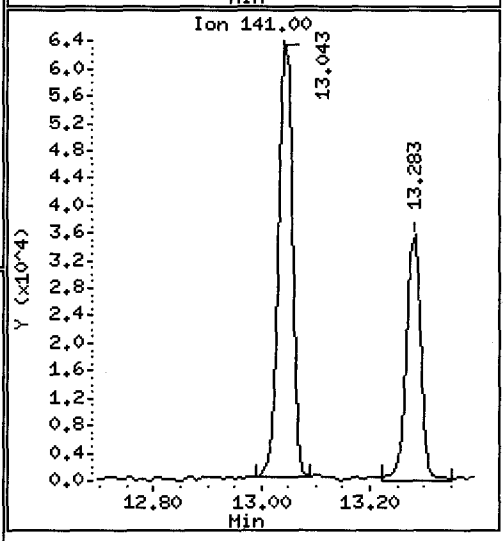


Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

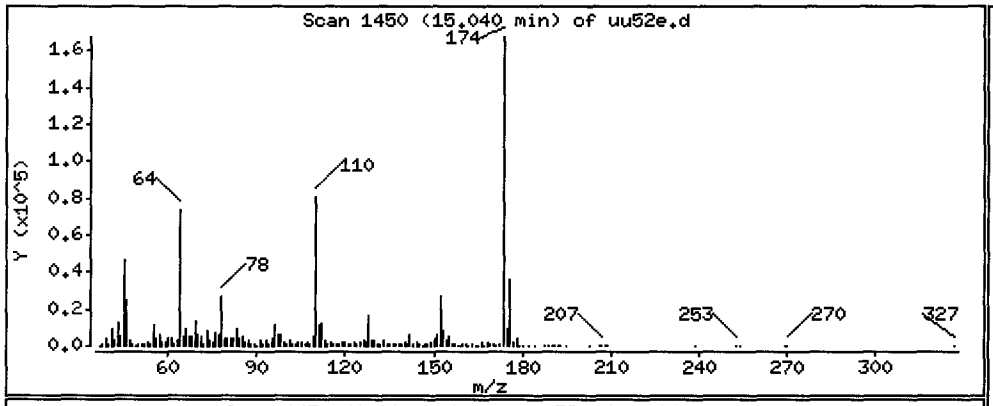
Operator: VTS/YZ

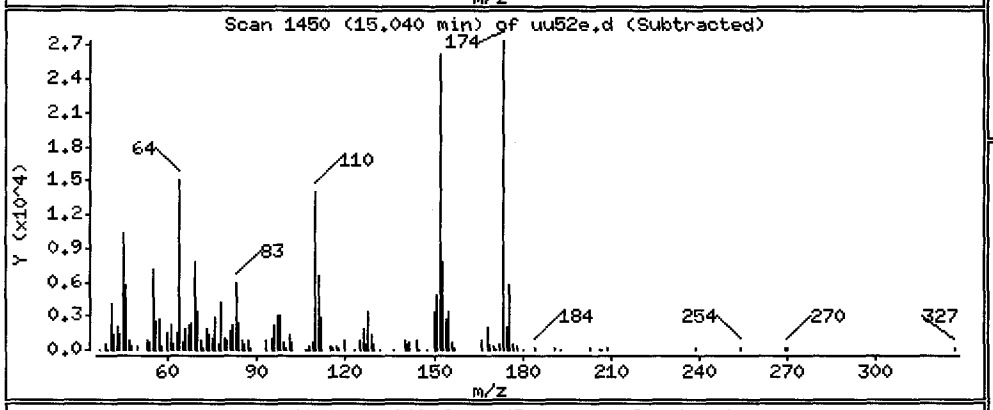
Column phase: ZB-5msi

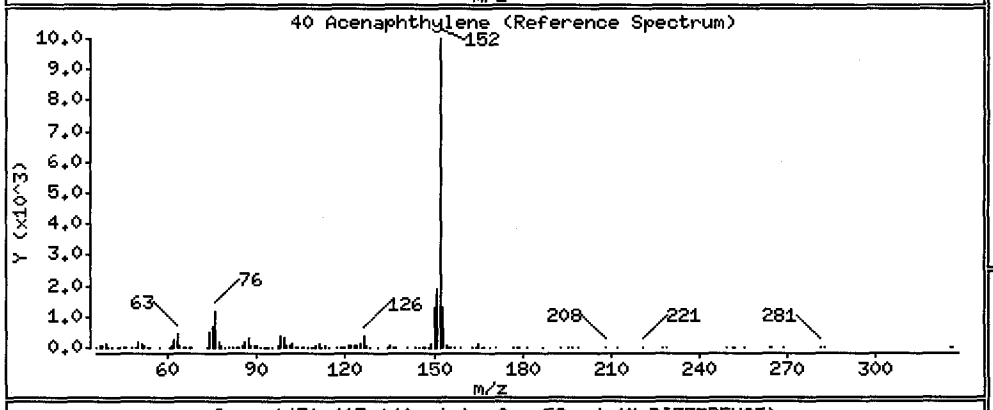
Column diameter: 0.25

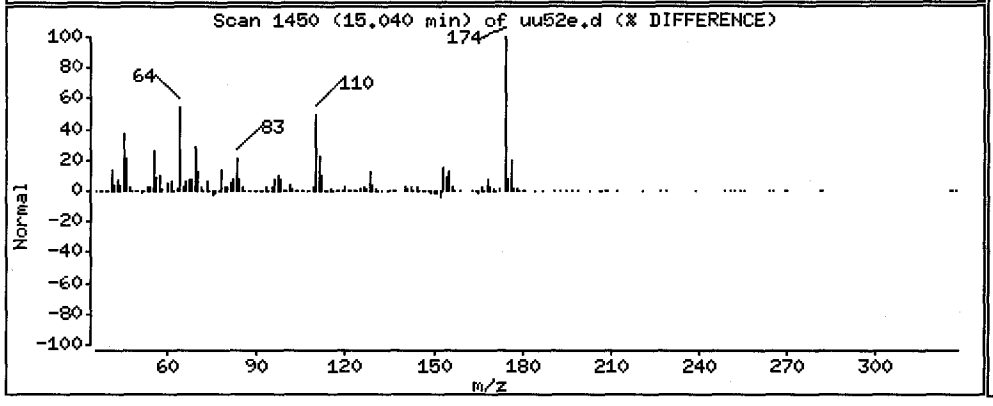
40 Acenaphthylene

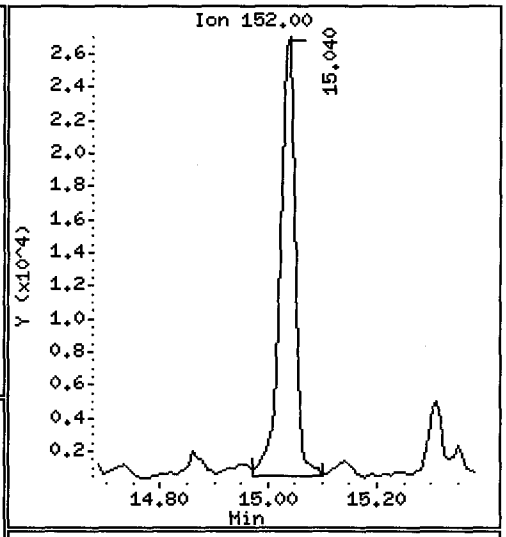
Concentration: 76.90 ug/kg

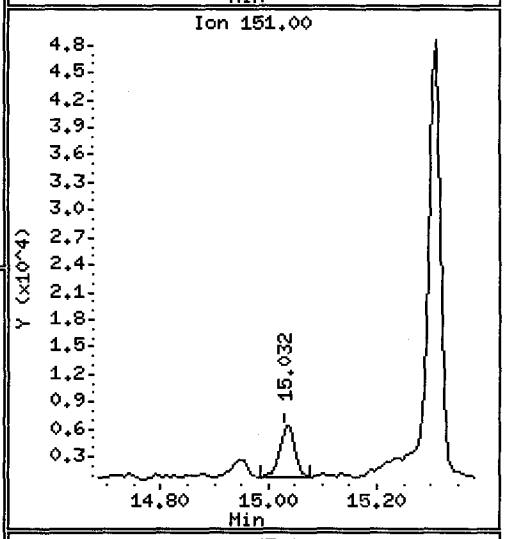


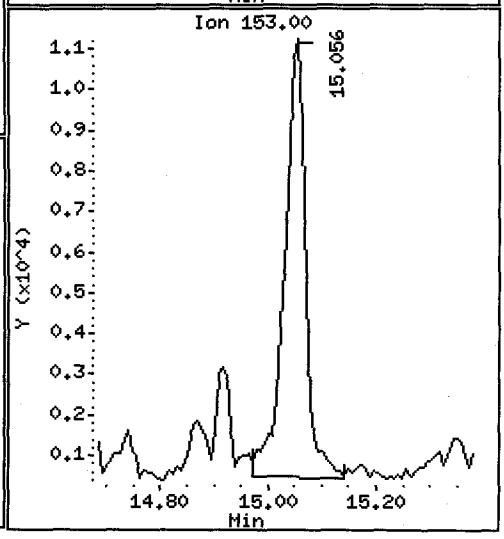



Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

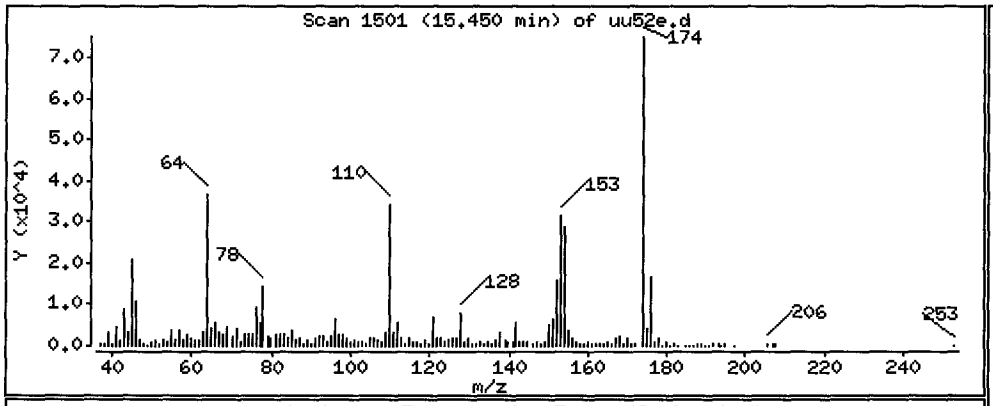
Operator: VTS/YZ

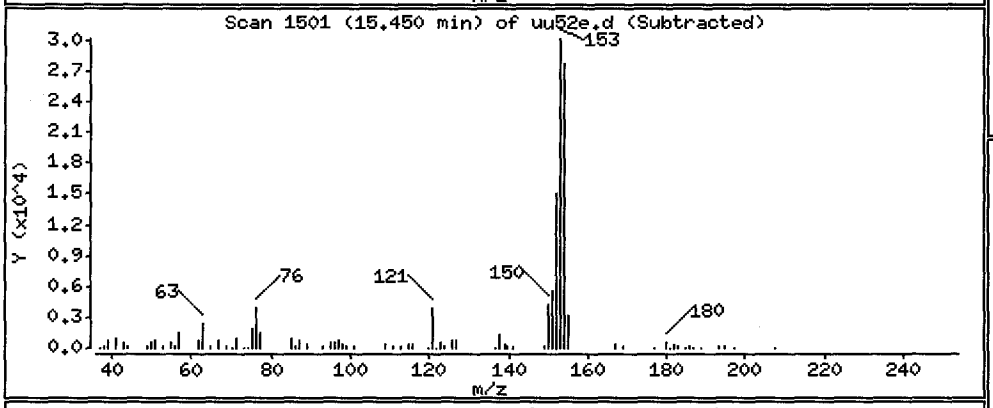
Column phase: ZB-5msi

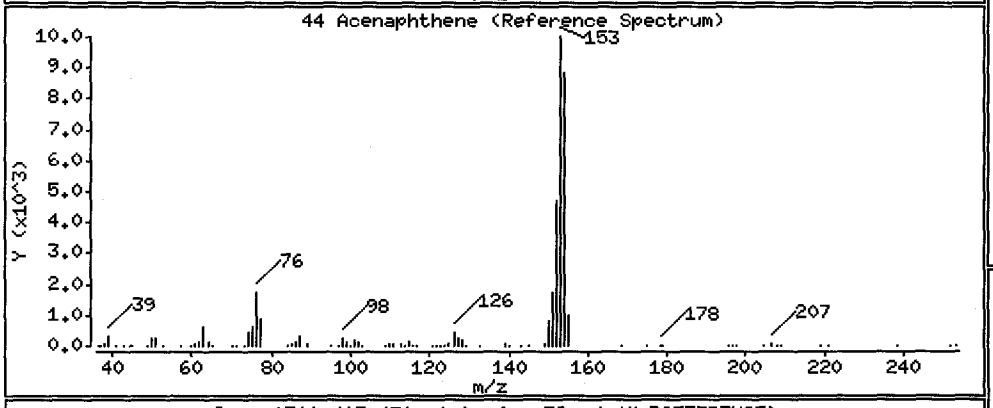
Column diameter: 0.25

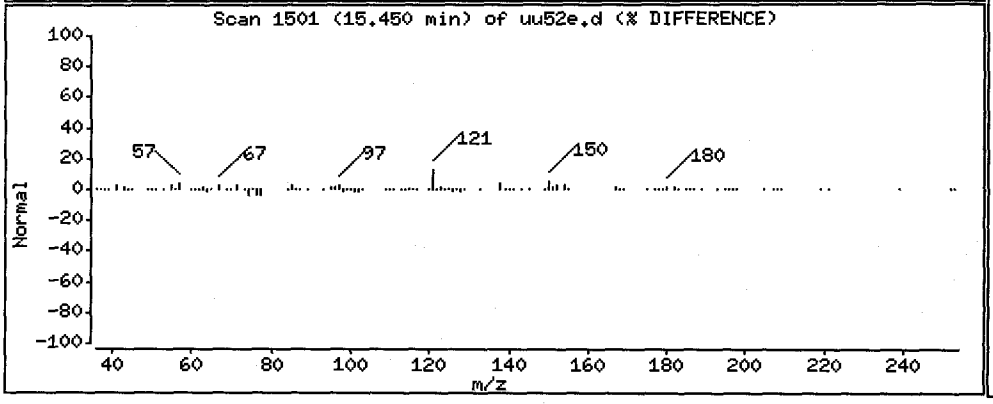
44 Acenaphthene

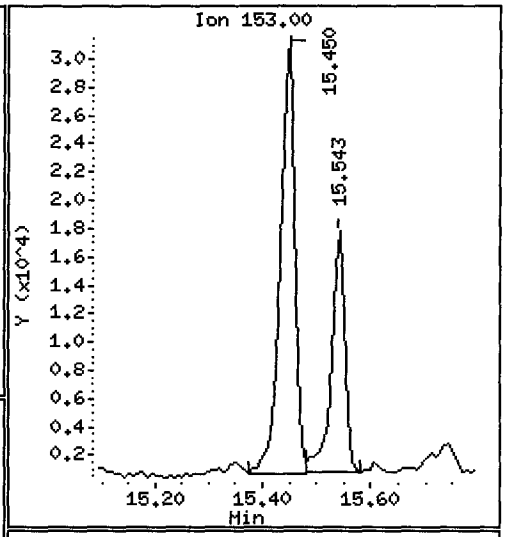
Concentration: 141.0 ug/kg

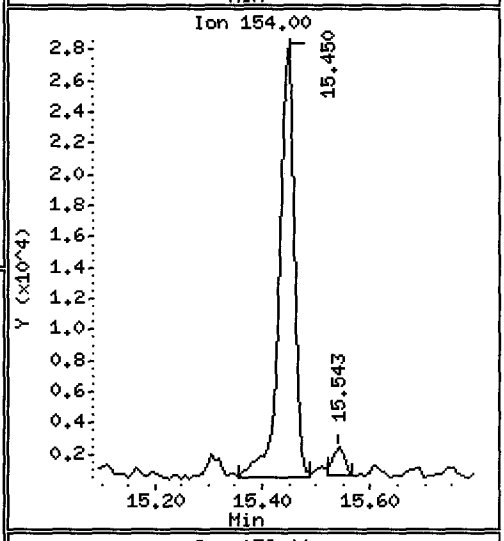


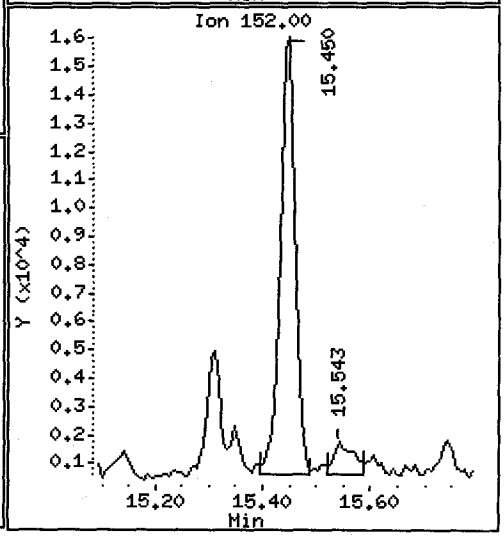



Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

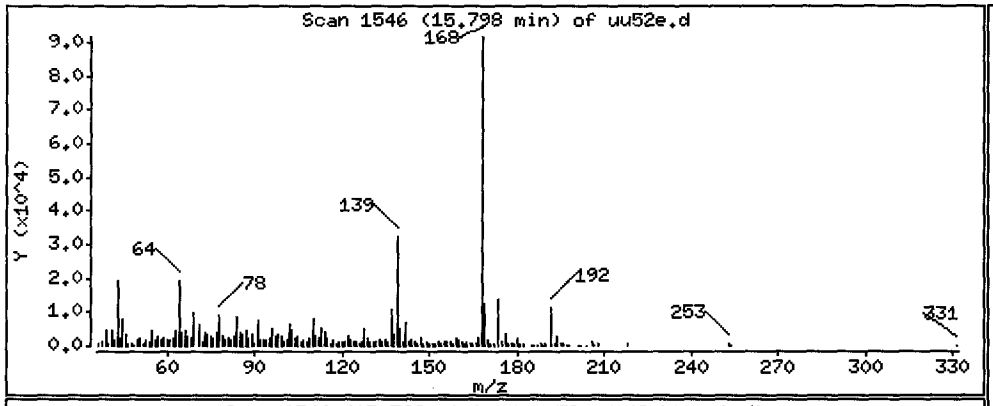
Operator: VTS/YZ

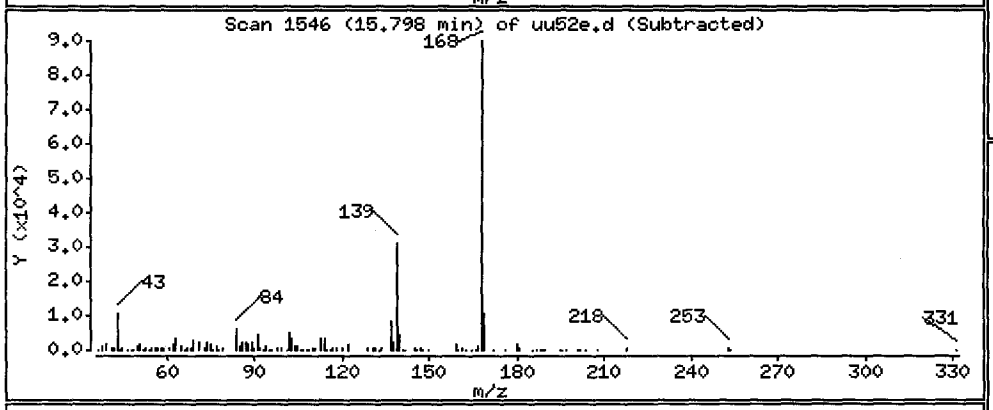
Column phase: ZB-5msi

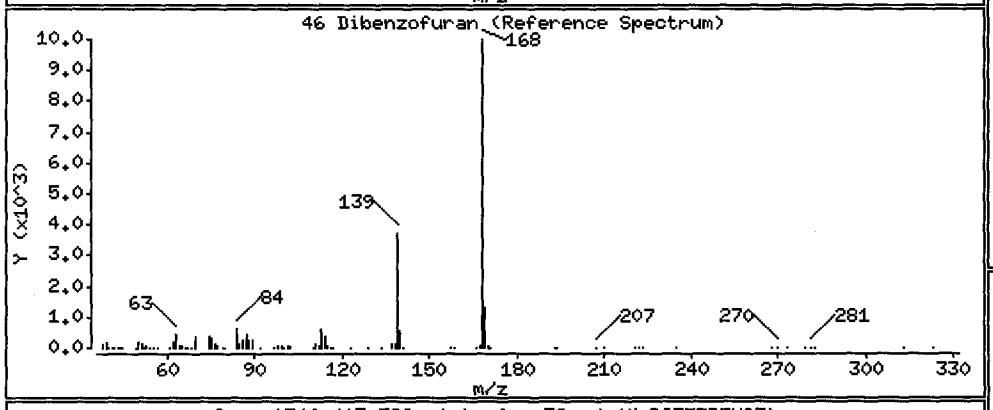
Column diameter: 0.25

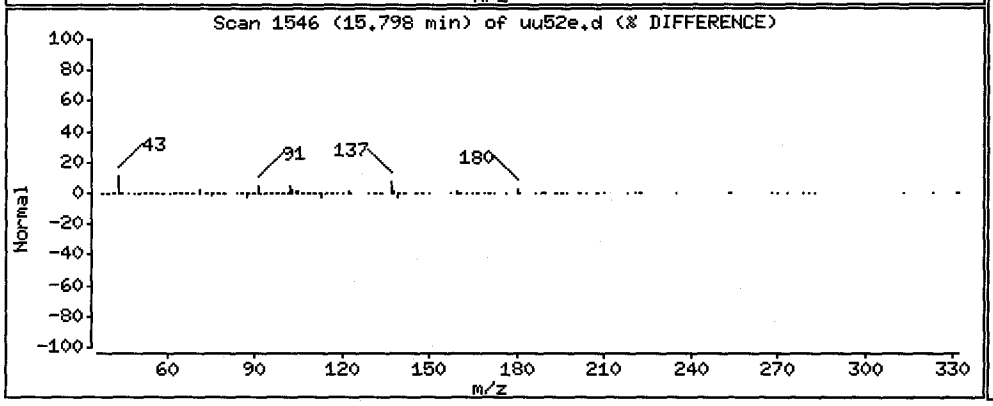
46 Dibenzofuran

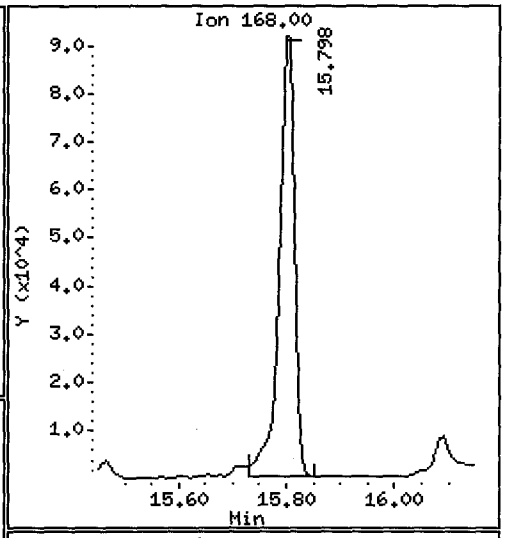
Concentration: 304.3 ug/kg

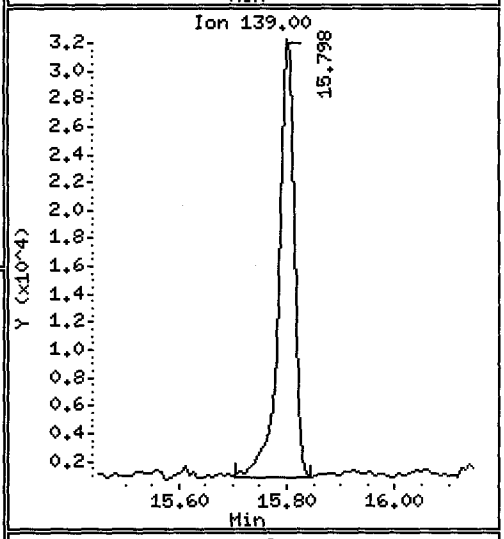


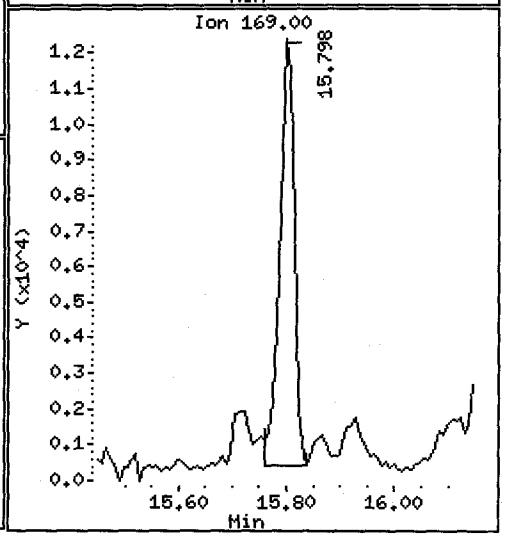



Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

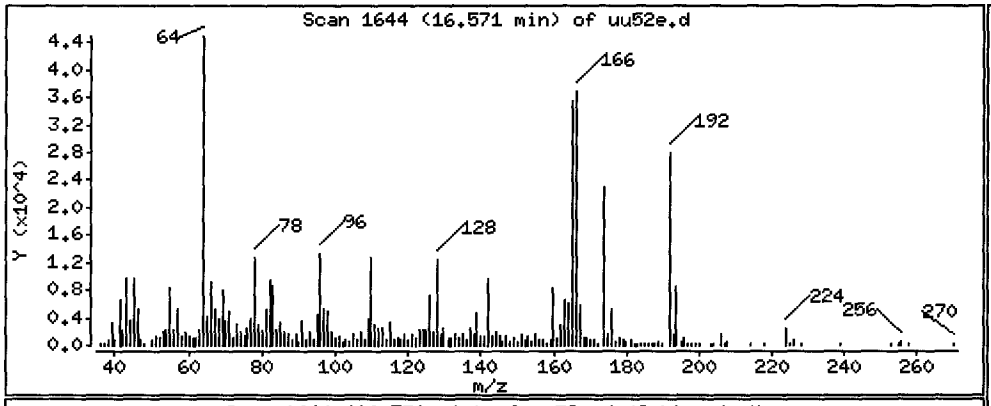
Operator: VTS/YZ

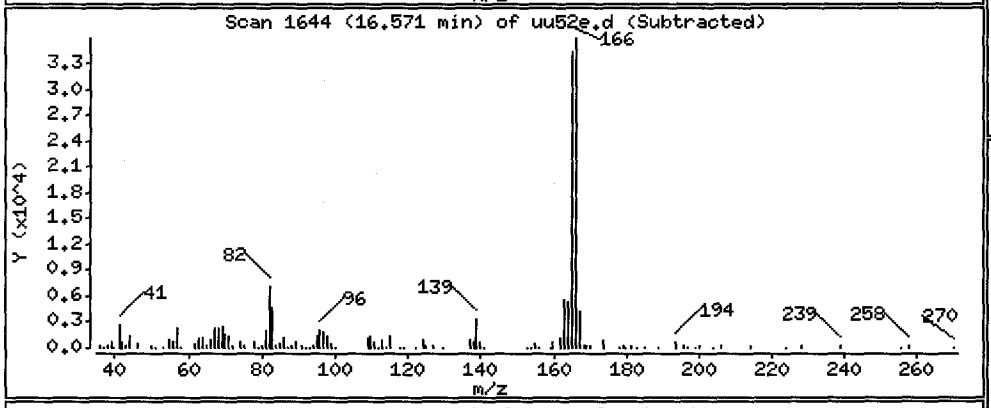
Column phase: ZB-5msi

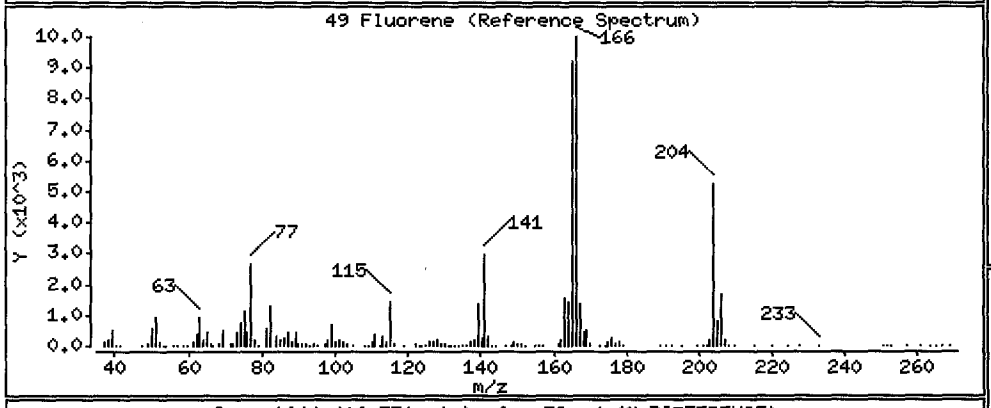
Column diameter: 0.25

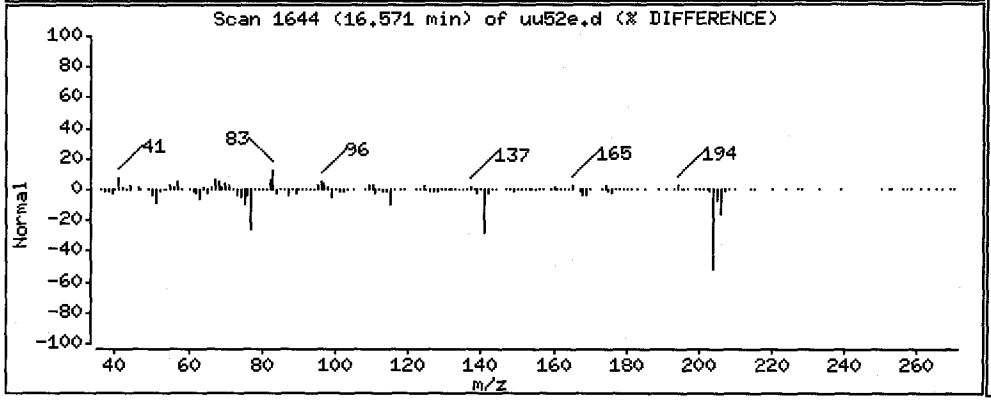
49 Fluorene

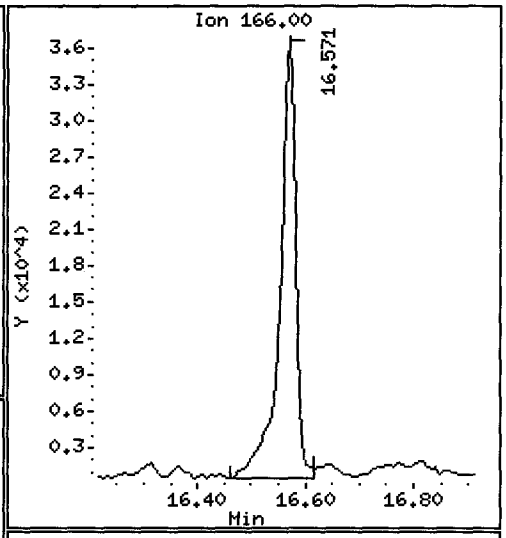
Concentration: 170.0 ug/kg

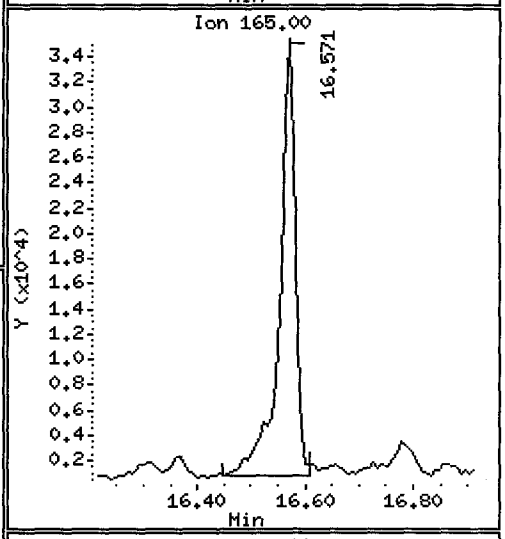


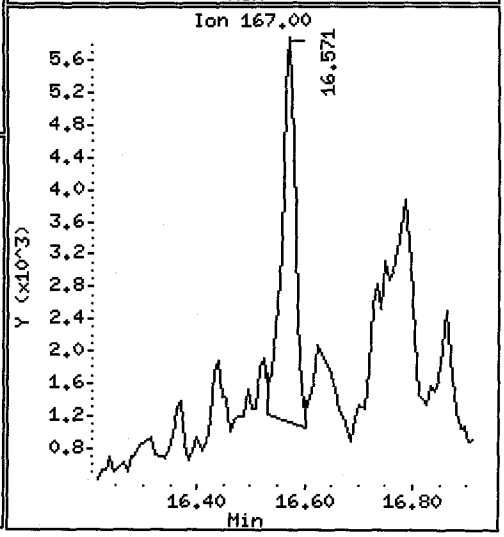



Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

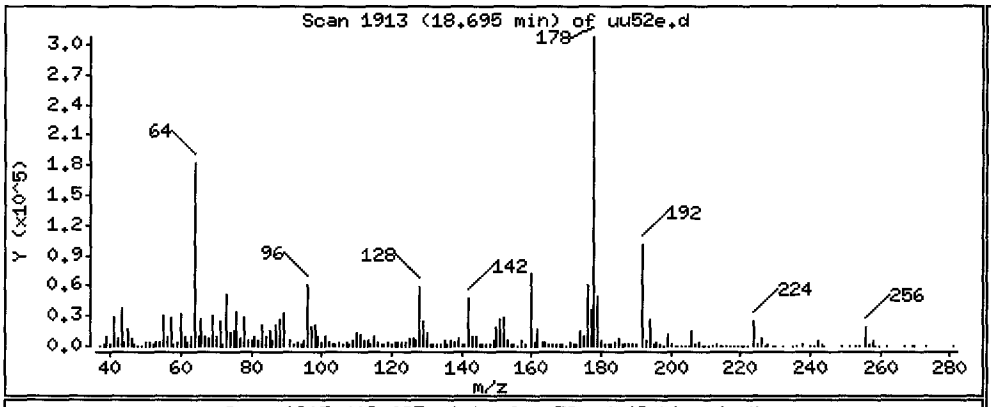
Client ID: MS004-SS-120515 Instrument: nt10.i

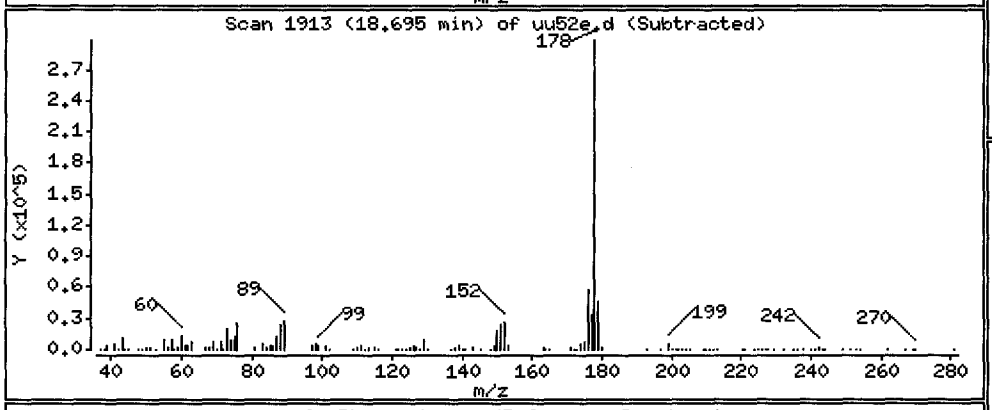
Sample Info: UU52E,3

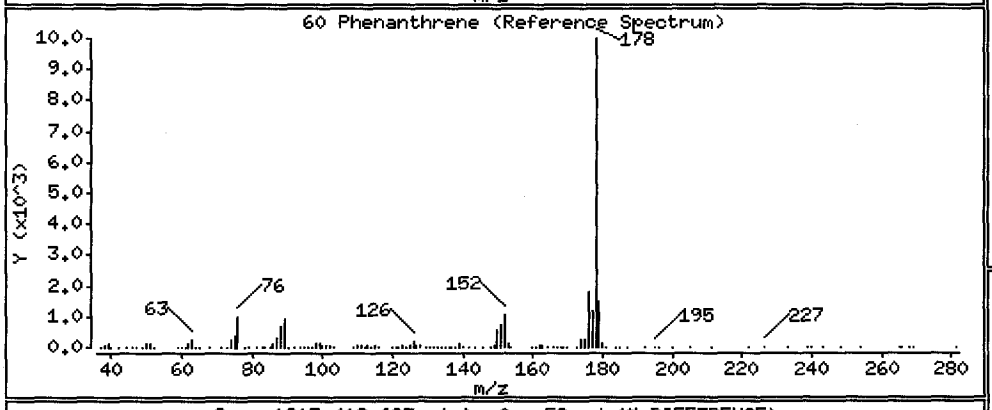
Volume Injected (uL): 1.0 Operator: VTS/YZ

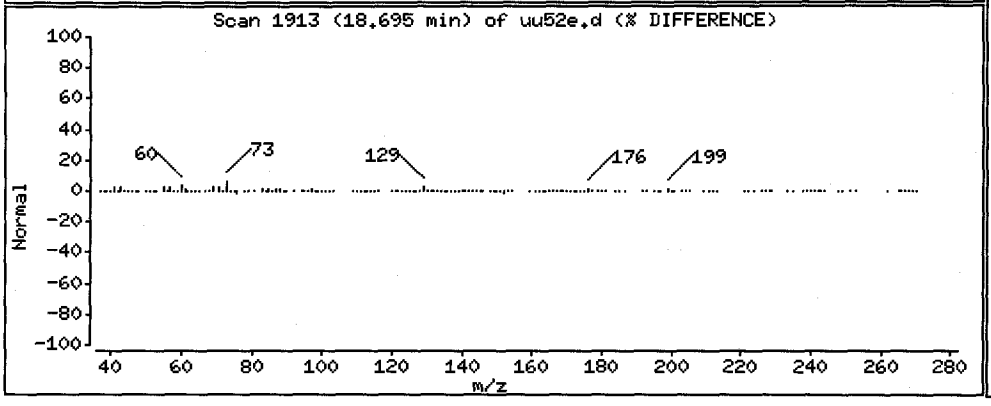
Column phase: ZB-5msi Column diameter: 0.25

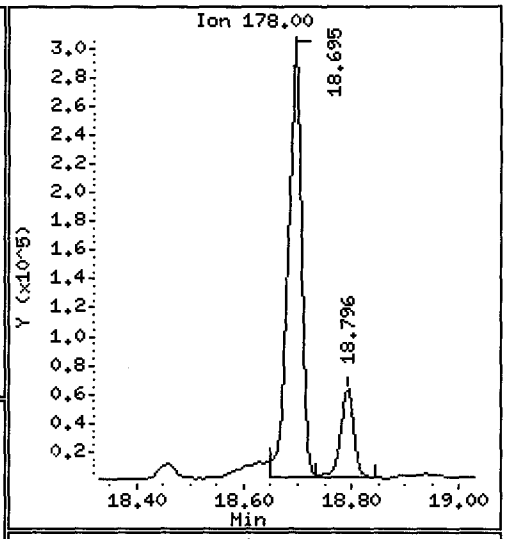
60 Phenanthrene Concentration: 883.3 ug/kg

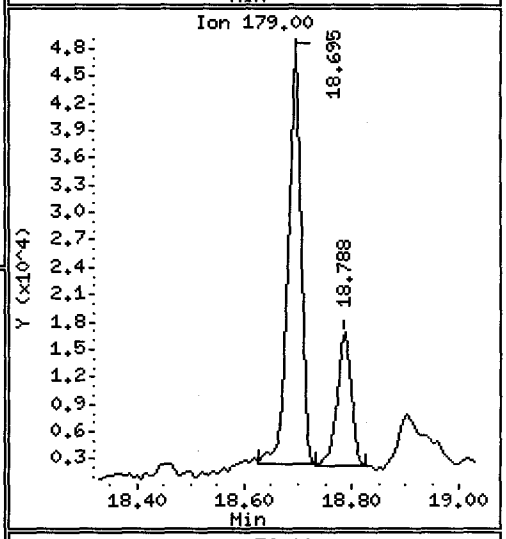


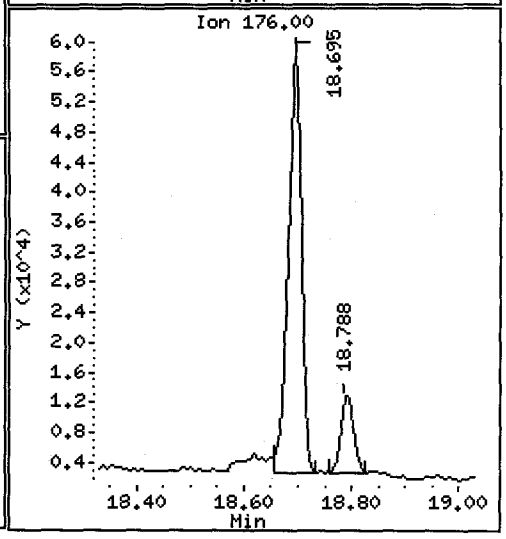



Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

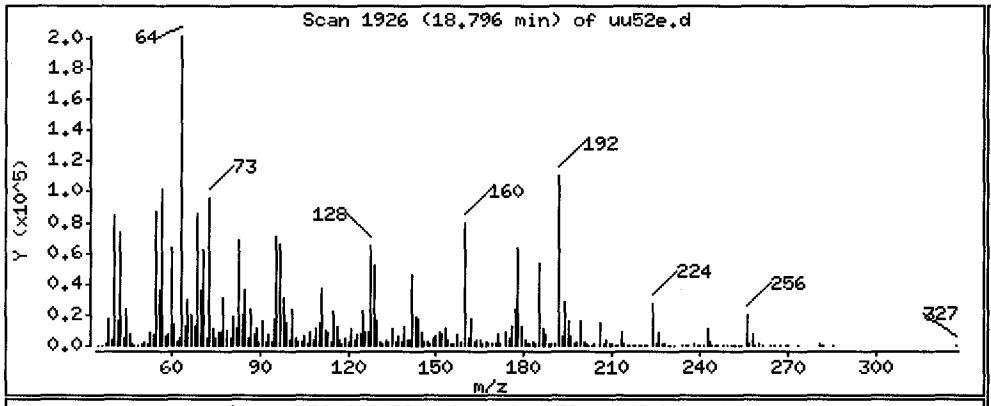
Operator: VTS/YZ

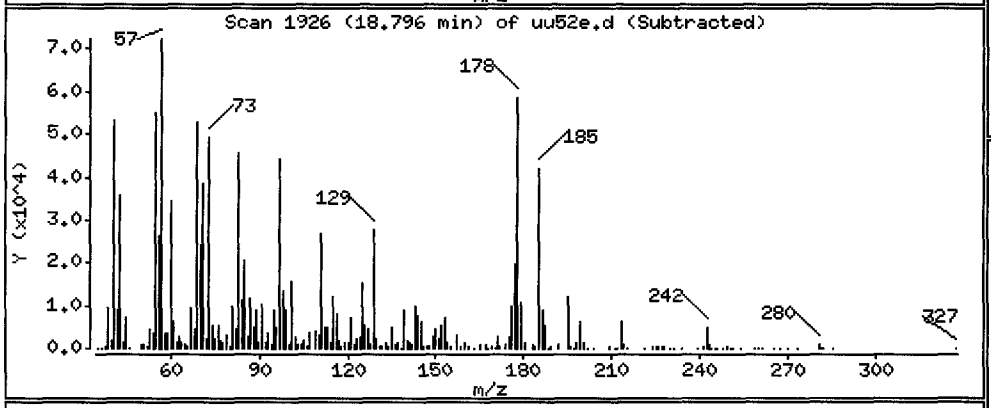
Column phase: ZB-5msi

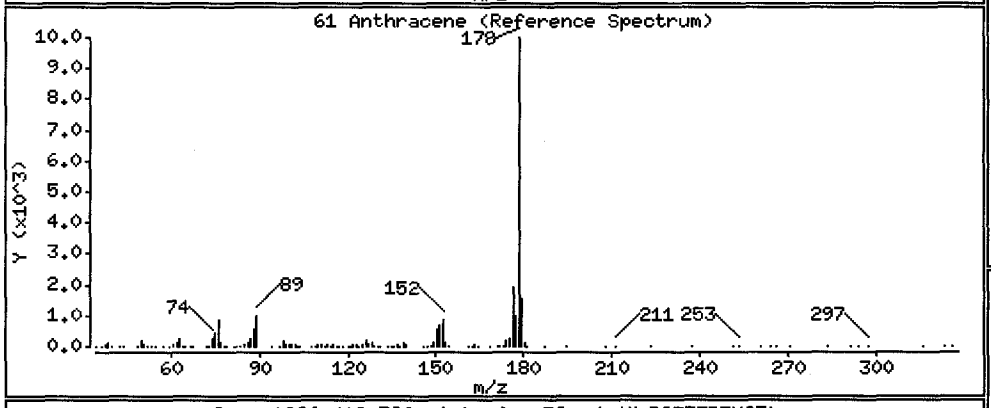
Column diameter: 0.25

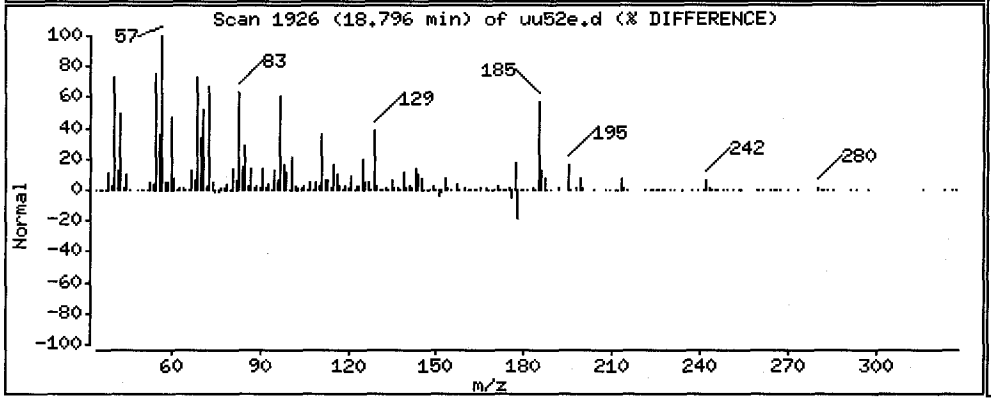
61 Anthracene

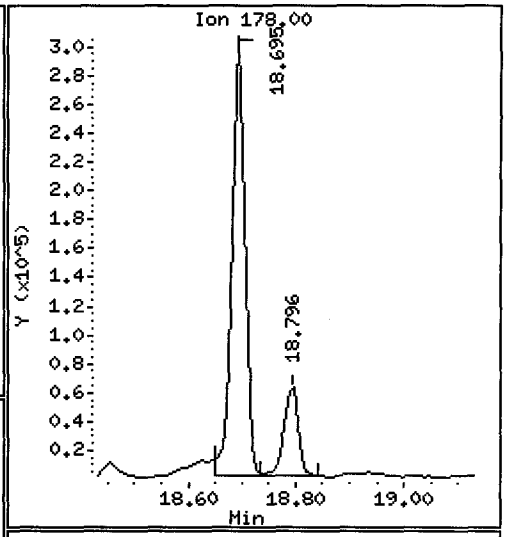
Concentration: 182.1 ug/kg

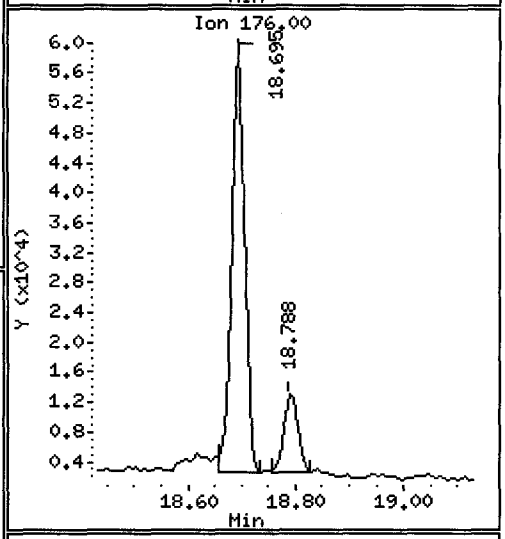


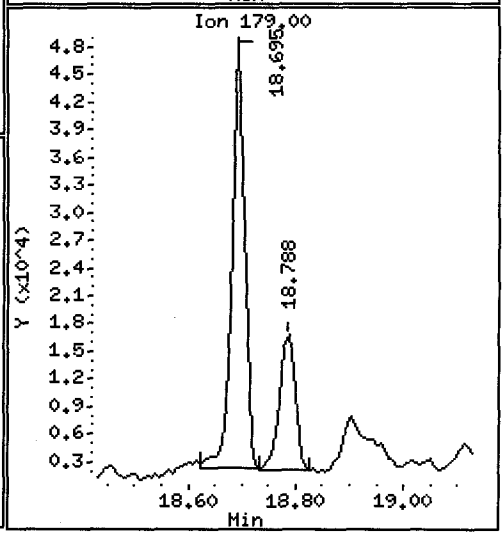



Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

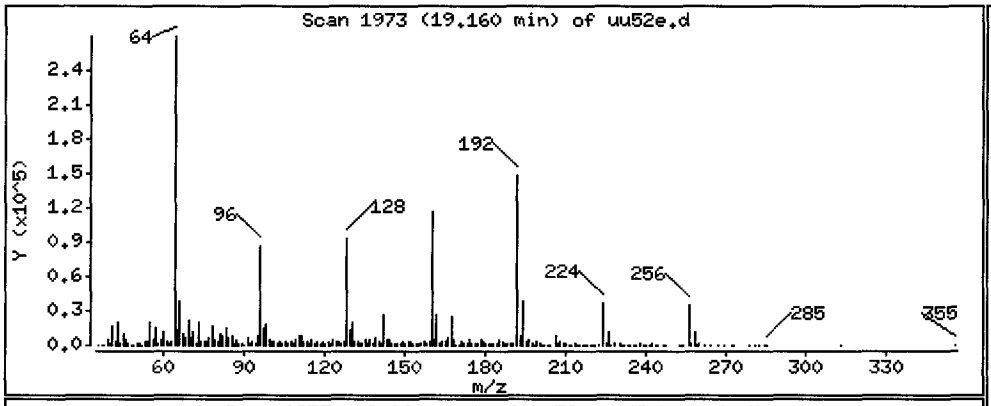
Operator: VTS/YZ

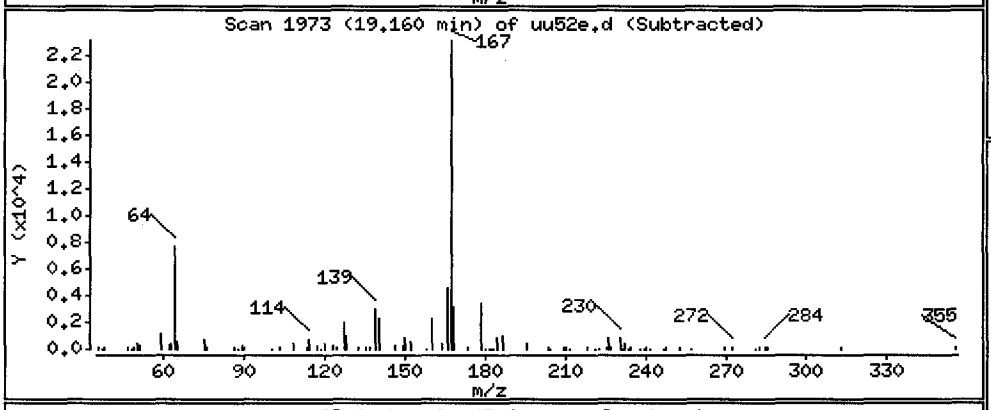
Column phase: ZB-5msi

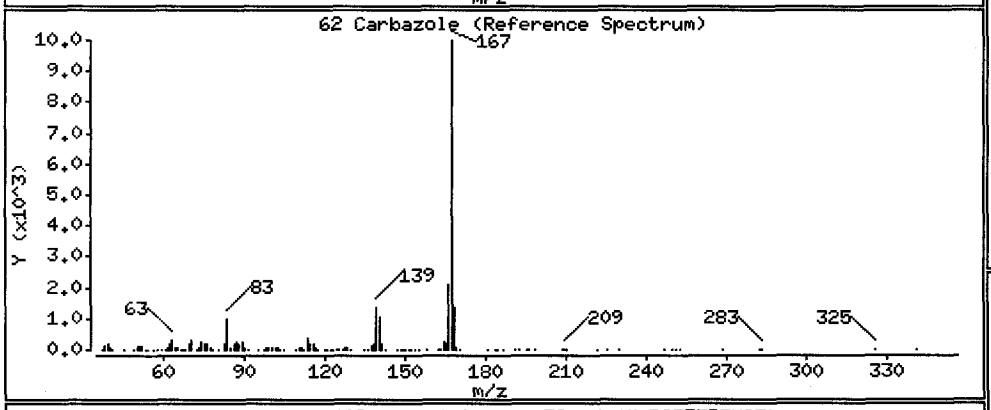
Column diameter: 0.25

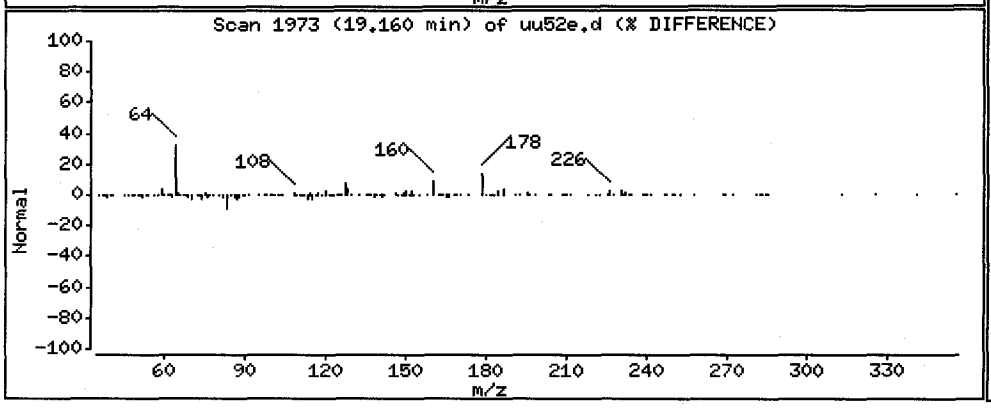
62 Carbazole

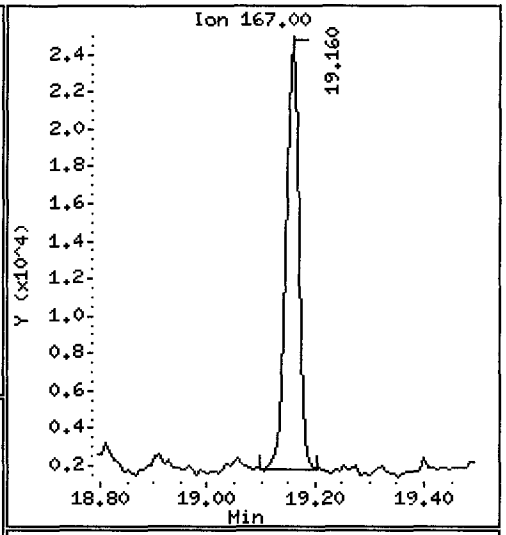
Concentration: 67.16 ug/kg

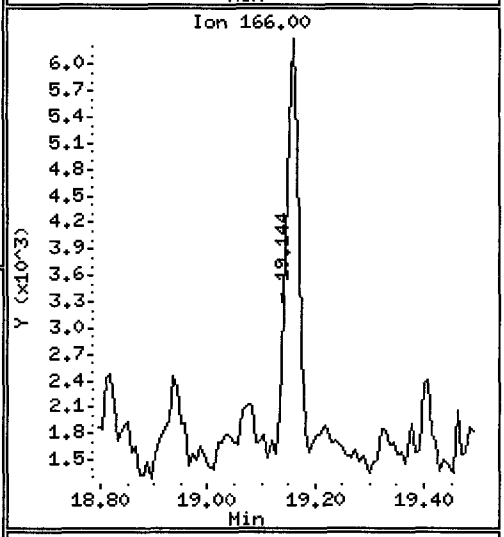


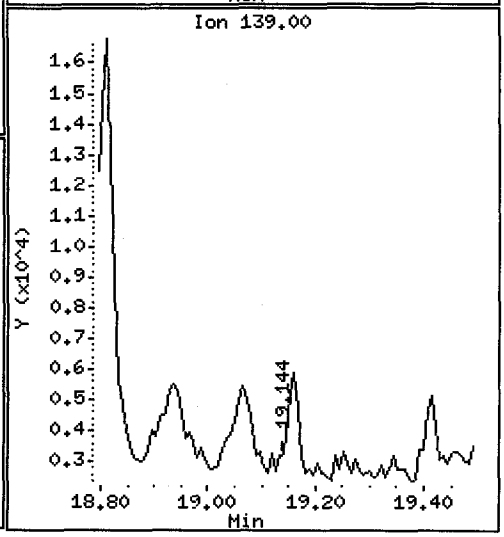



Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

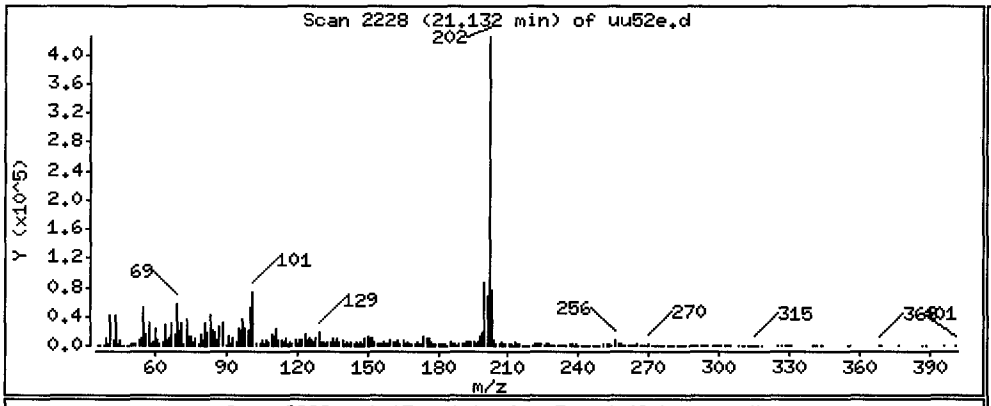
Operator: VTS/YZ

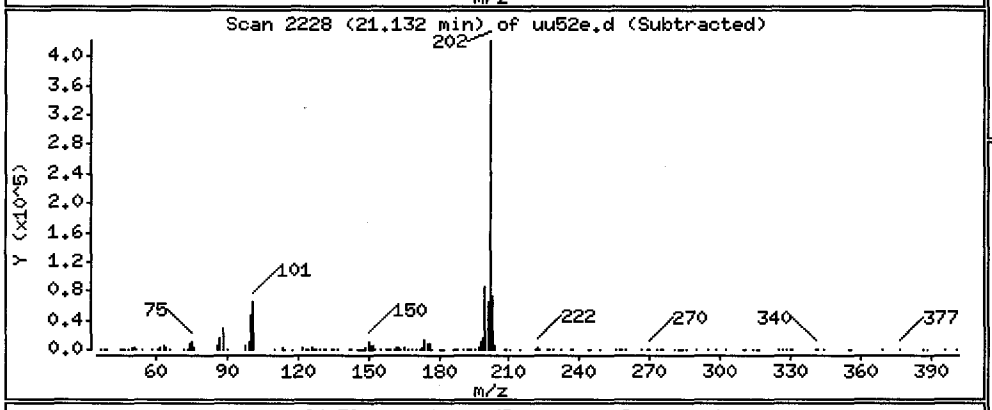
Column phase: ZB-5msi

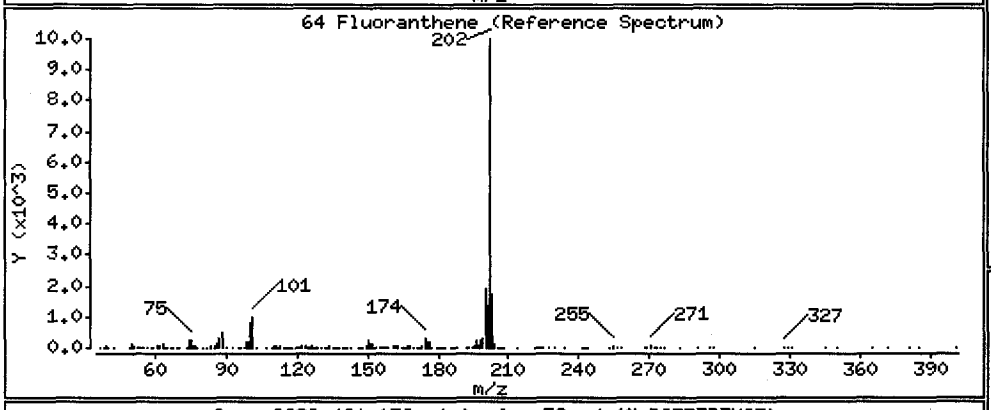
Column diameter: 0.25

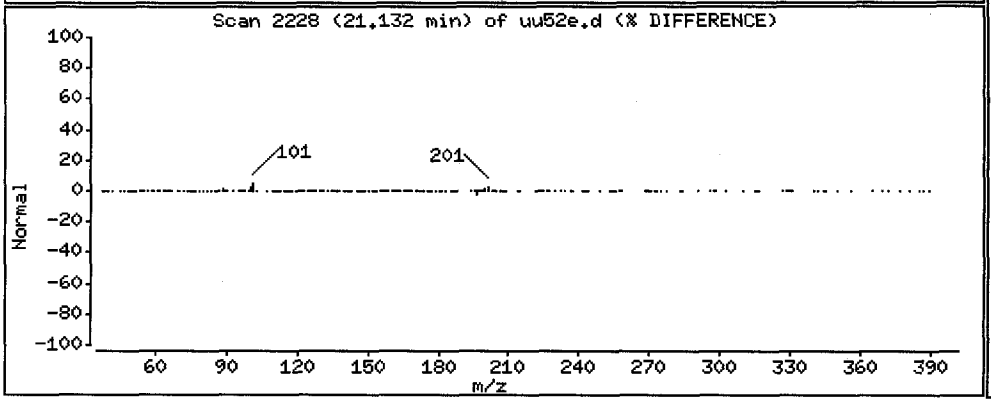
64 Fluoranthene

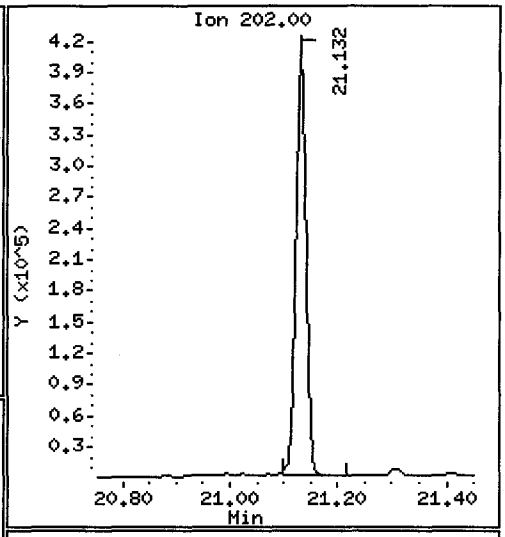
Concentration: 865.6 ug/kg

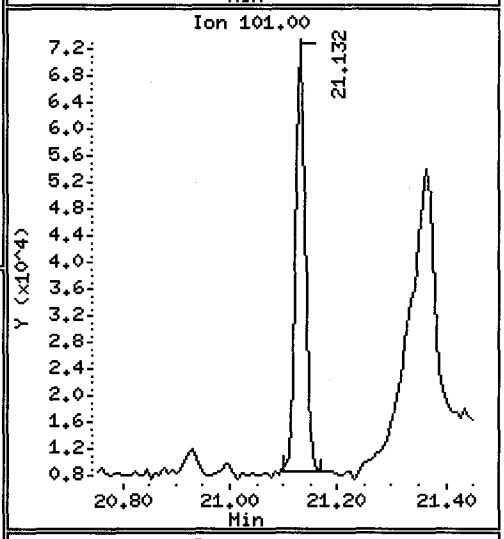


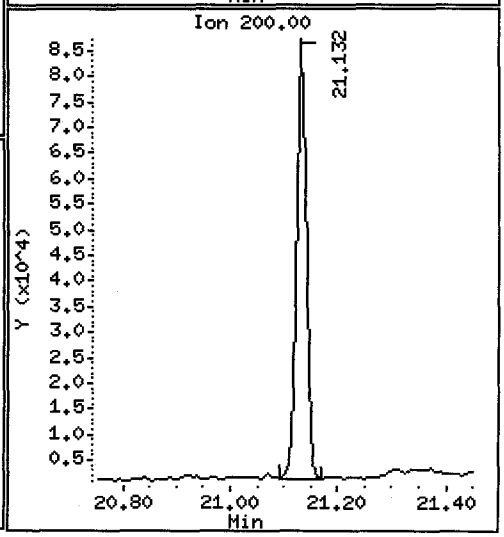



Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

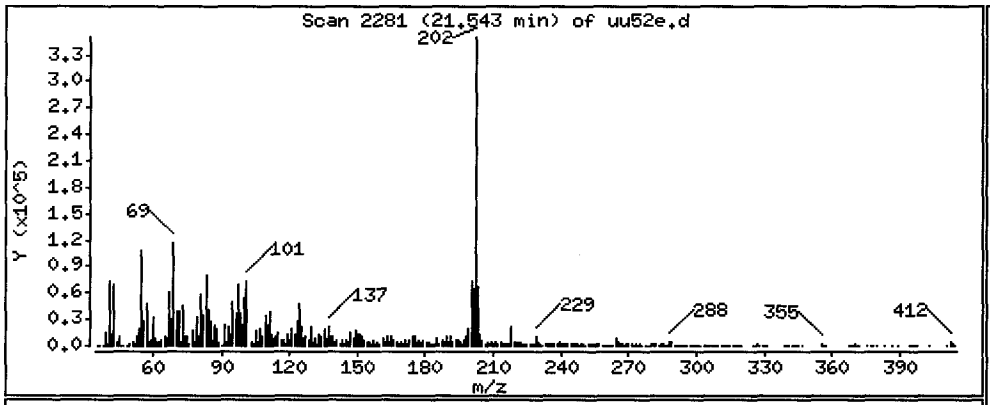
Operator: VTS/YZ

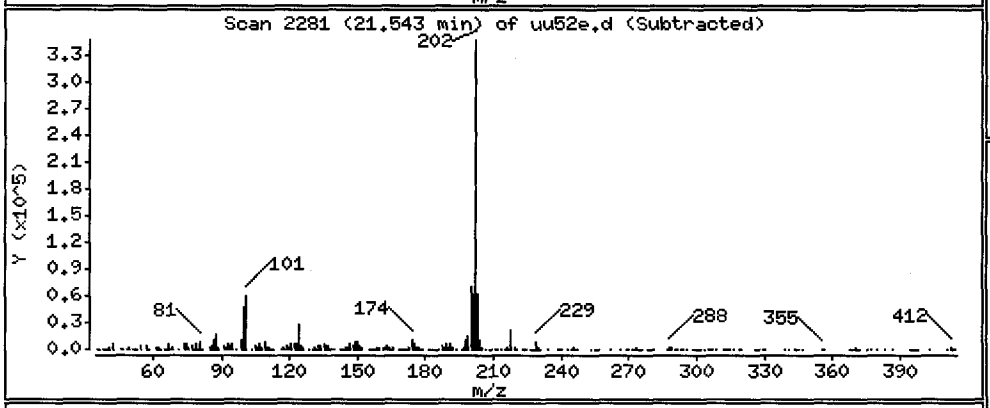
Column phase: ZB-5msi

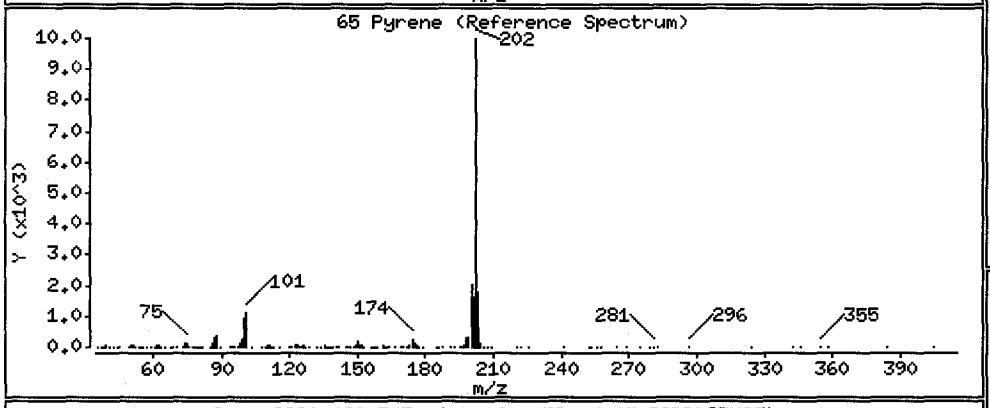
Column diameter: 0.25

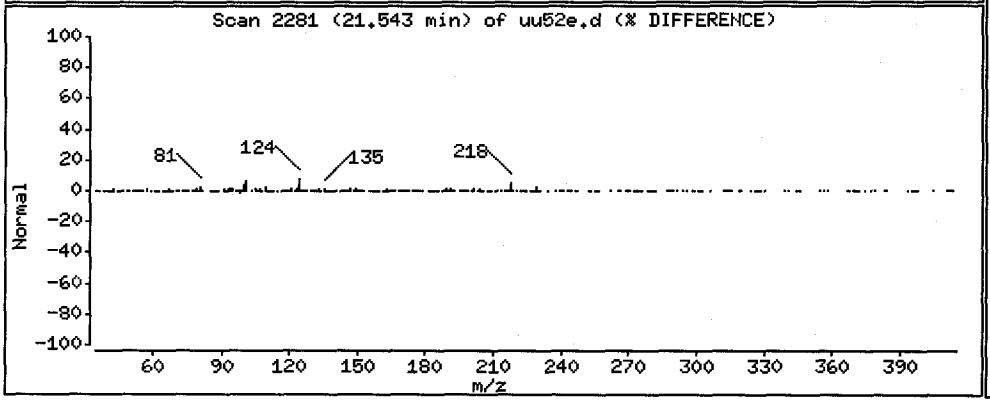
65 Pyrene

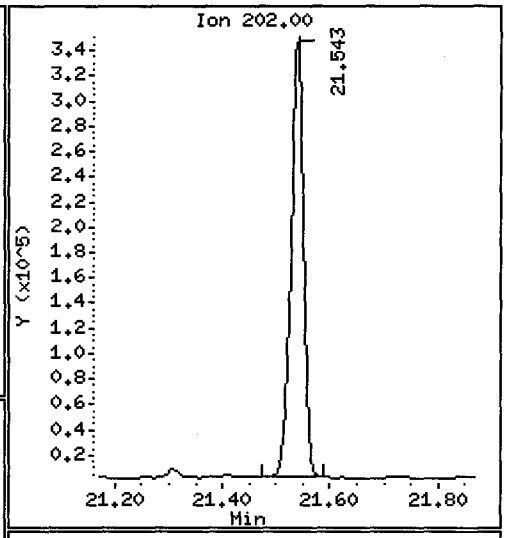
Concentration: 787.7 ug/kg

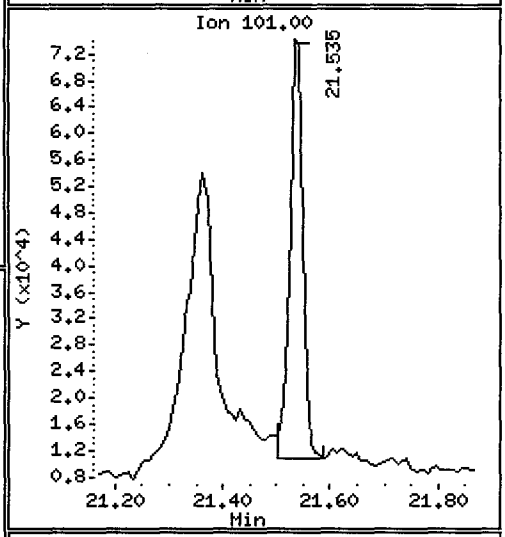


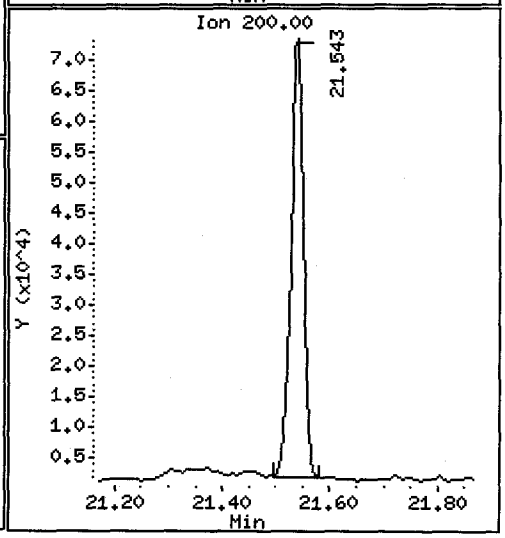



Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

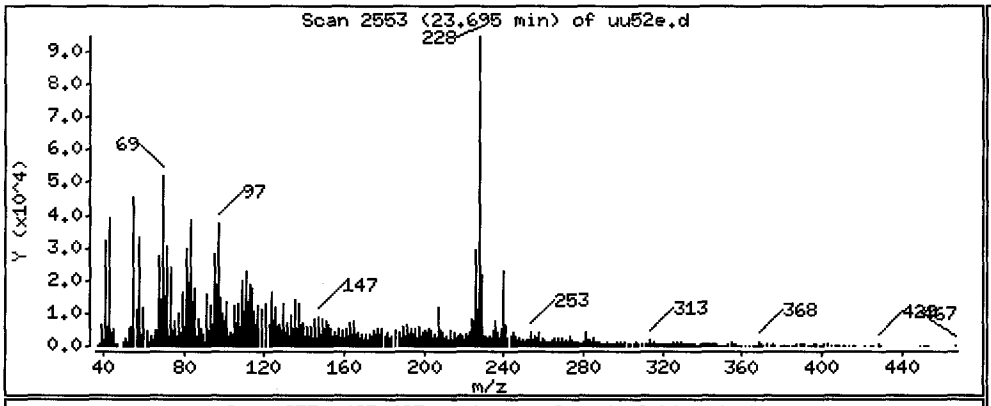
Operator: VTS/YZ

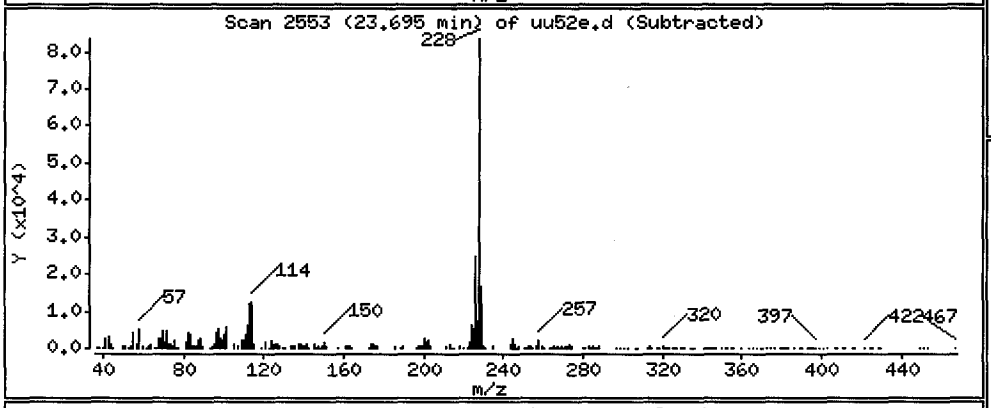
Column phase: ZB-5msi

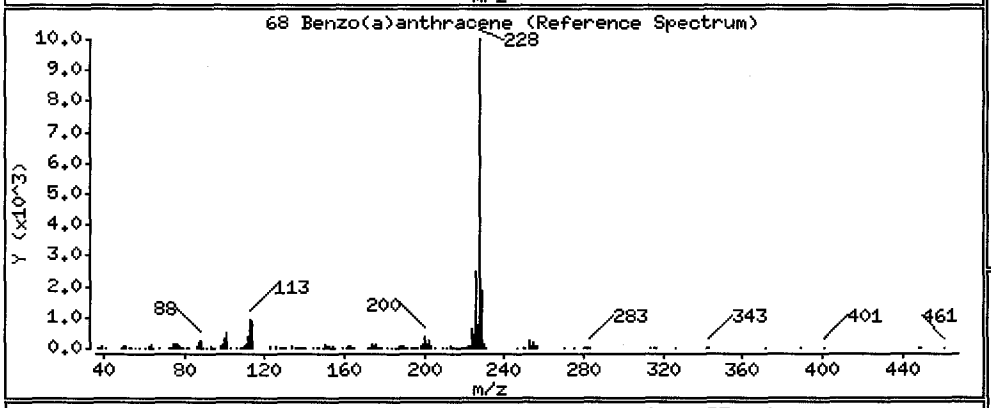
Column diameter: 0.25

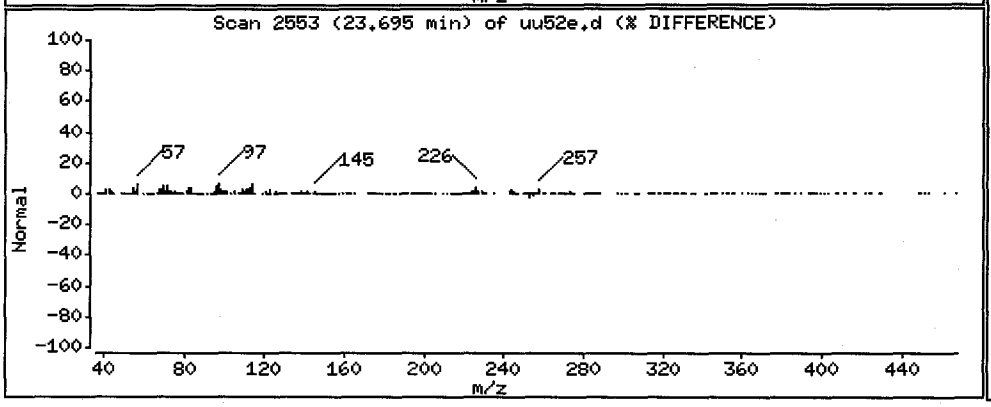
68 Benzo(a)anthracene

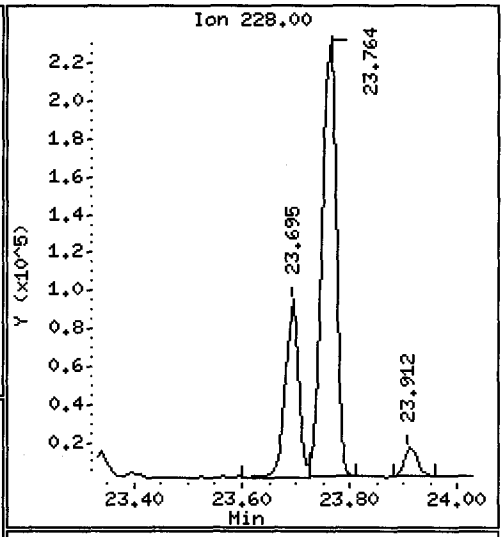
Concentration: 236.4 ug/kg

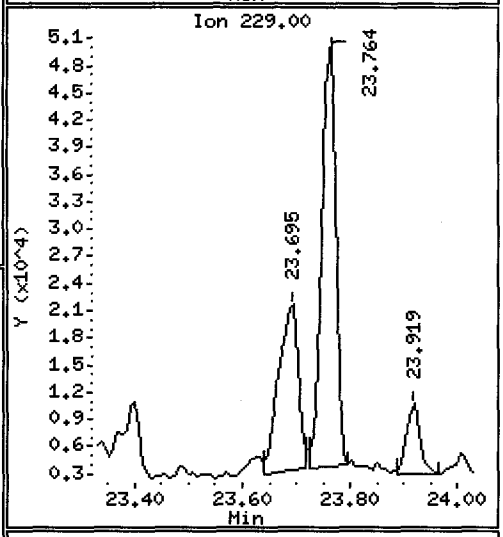


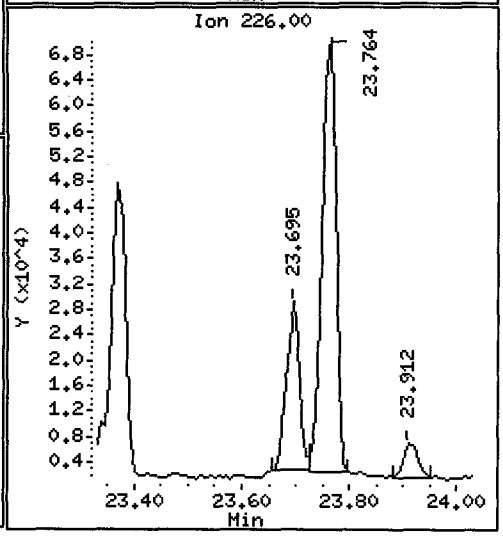



Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

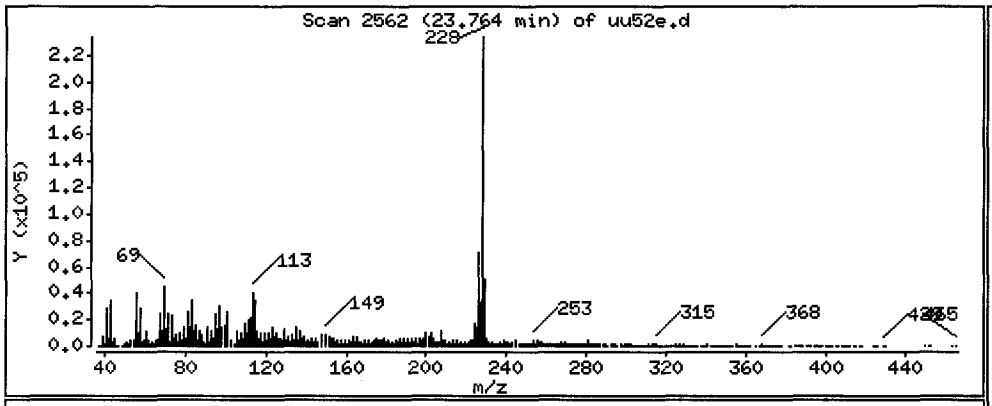
Operator: VTS/YZ

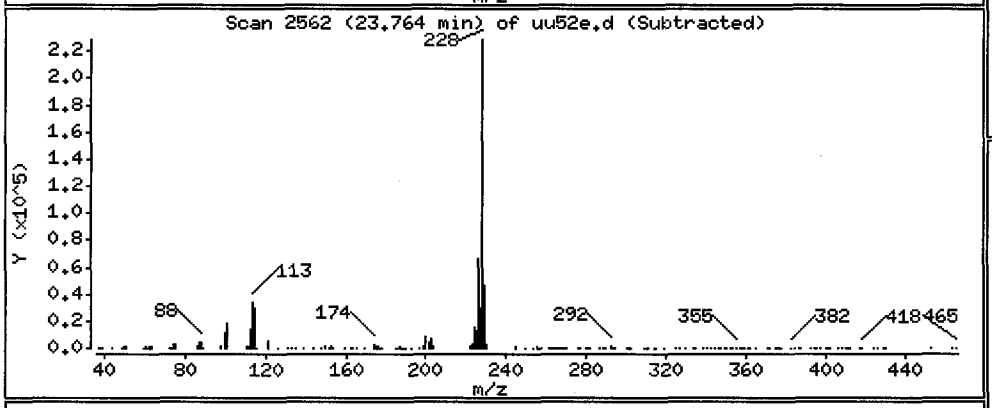
Column phase: ZB-5msi

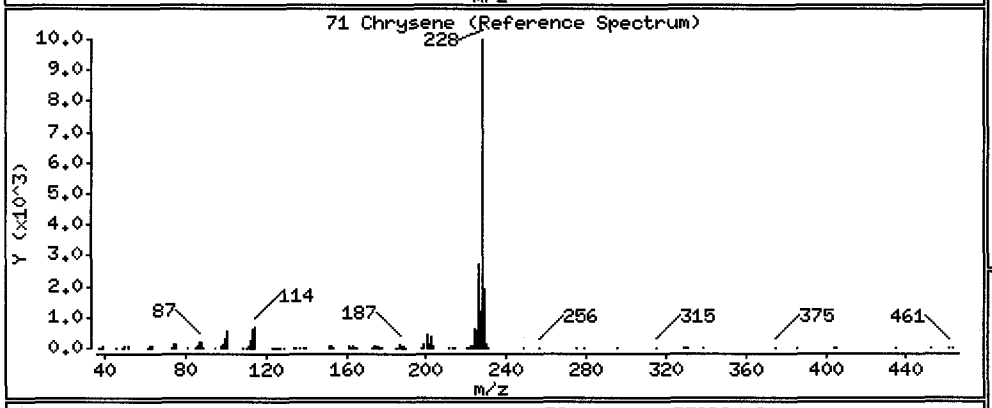
Column diameter: 0.25

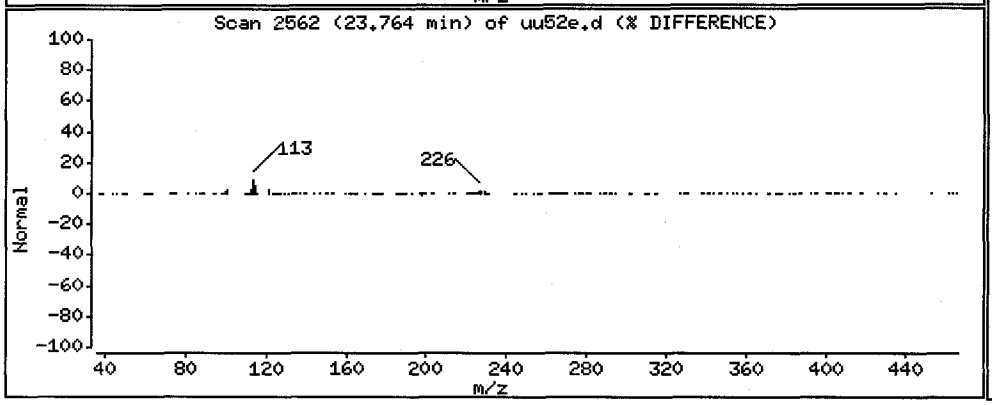
71 Chrysene

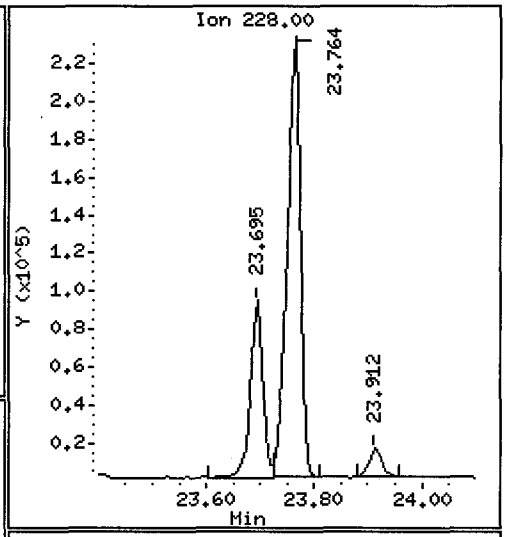
Concentration: 678.0 ug/kg

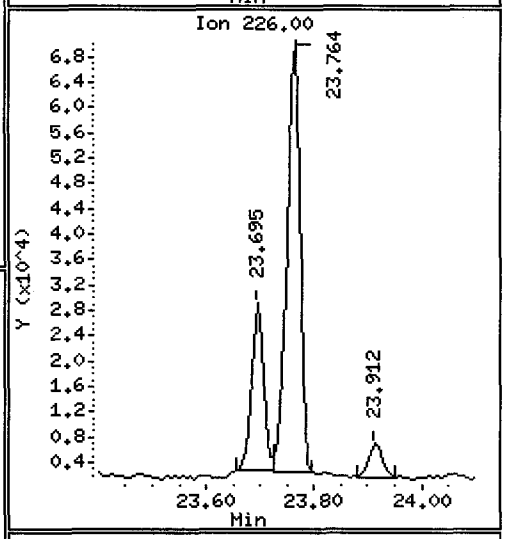


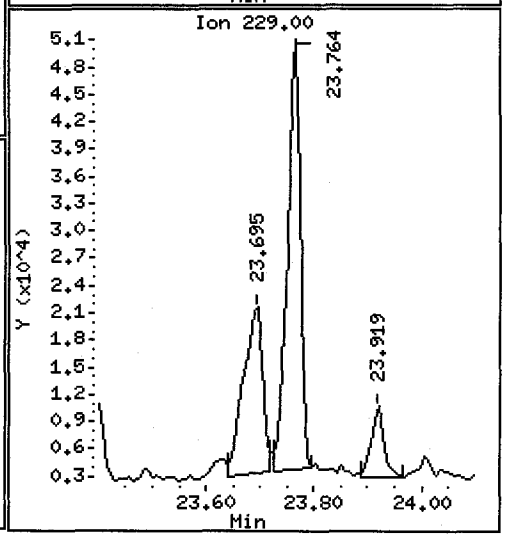



Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

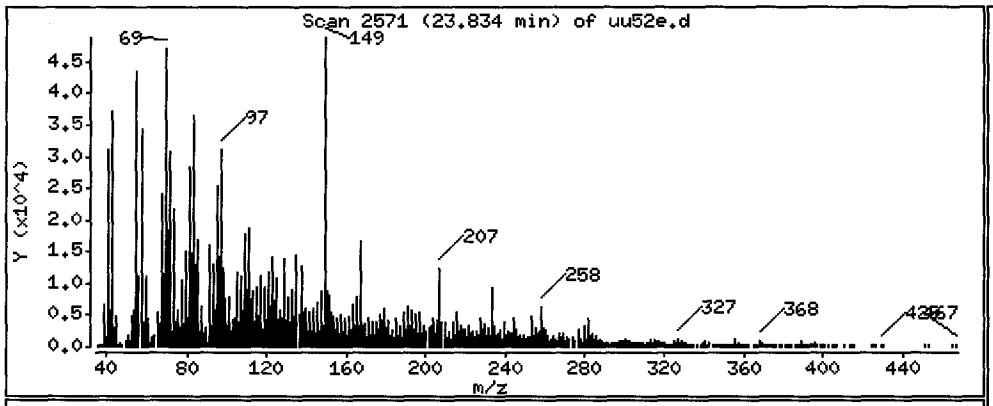
Client ID: MS004-SS-120515 Instrument: nt10.i

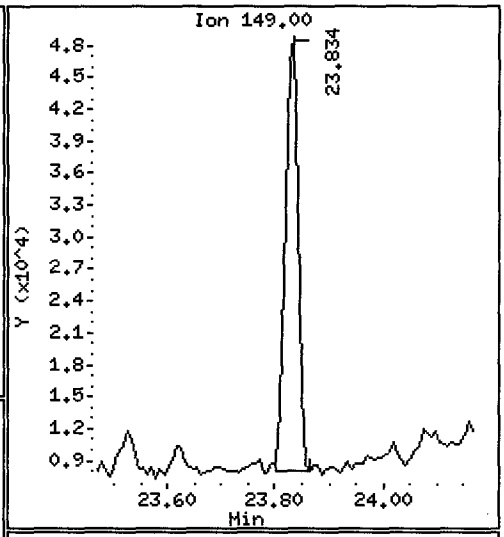
Sample Info: UU52E,3

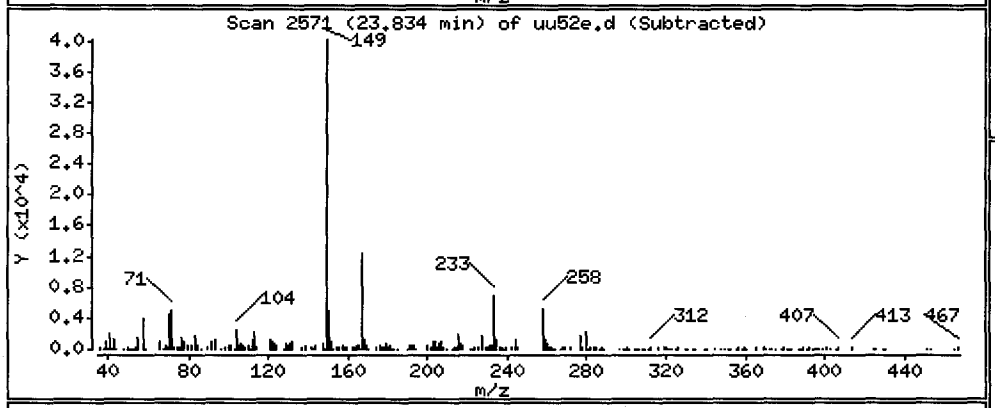
Volume Injected (uL): 1.0 Operator: VTS/YZ

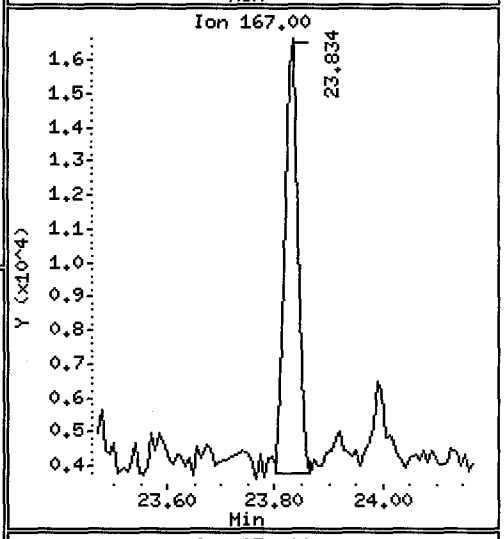
Column phase: ZB-5msi Column diameter: 0.25

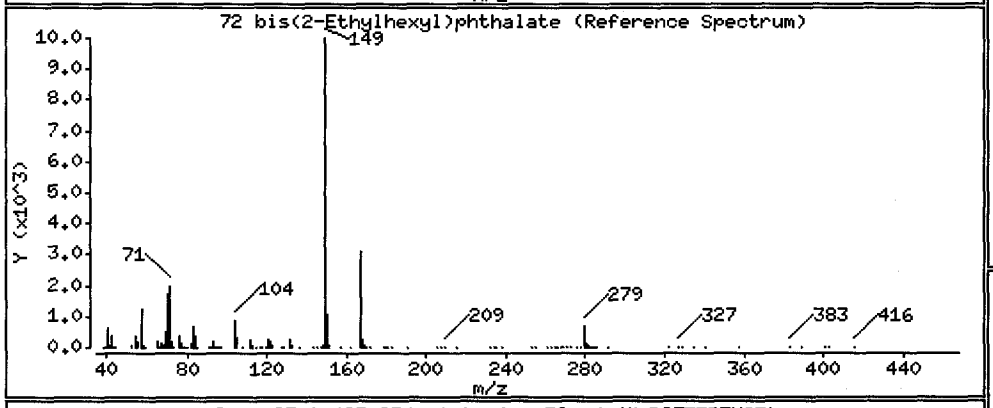
72 bis(2-Ethylhexyl)phthalate Concentration: 124.2 ug/kg

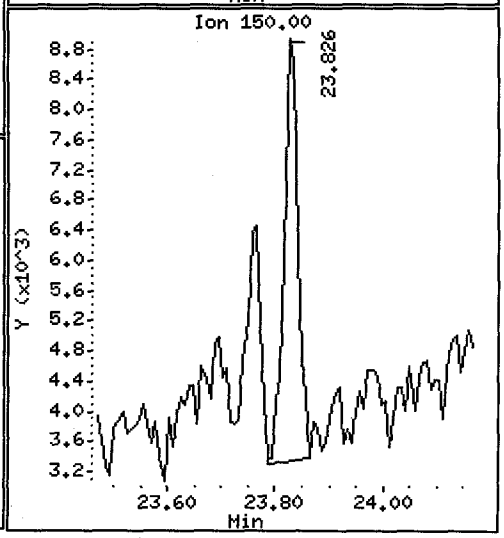


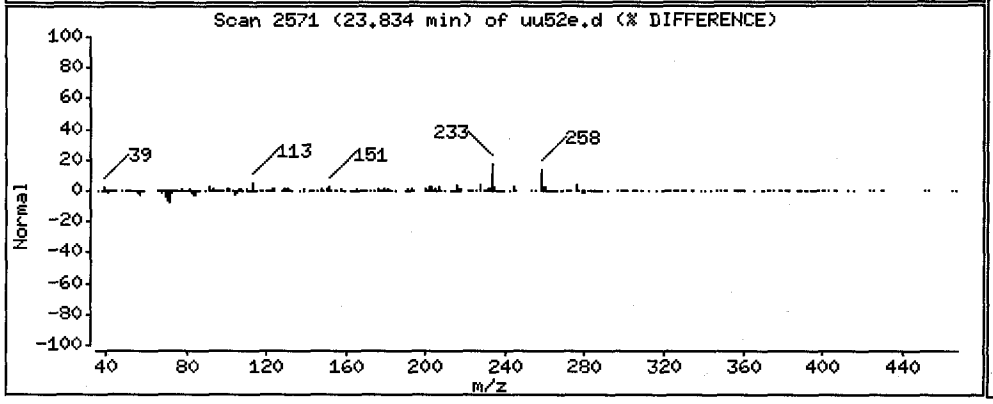



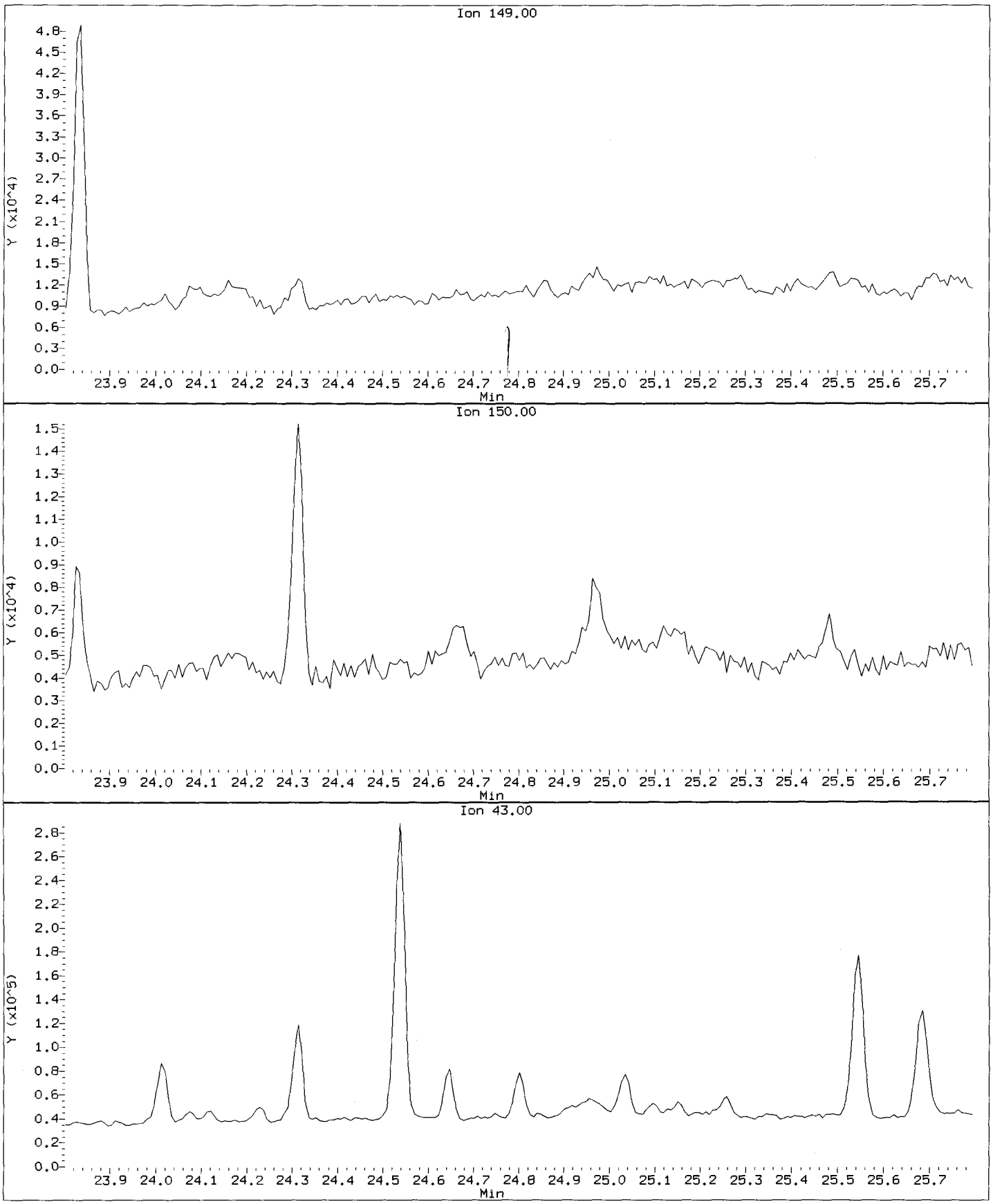



Data File: /chem1/nt10.i/20120526.b/uu52e.d
Injection Date: 26-MAY-2012 19:39
Instrument: nt10.i
Client Sample ID: MS004-SS-120515

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

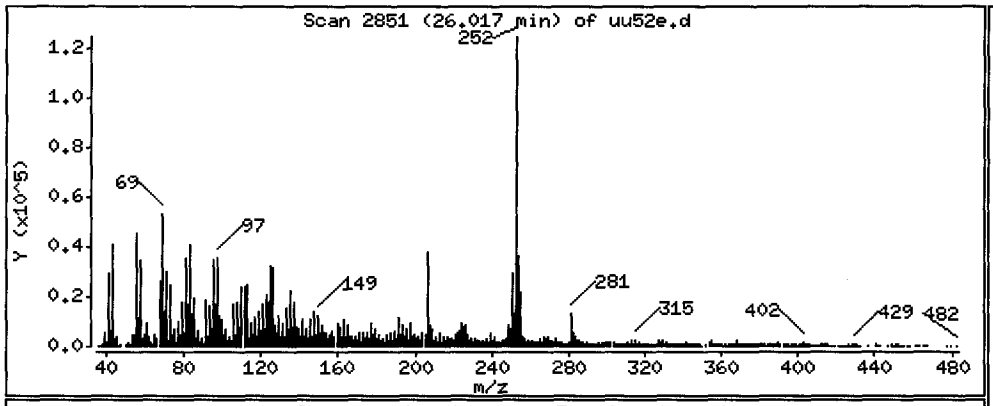
Operator: VTS/YZ

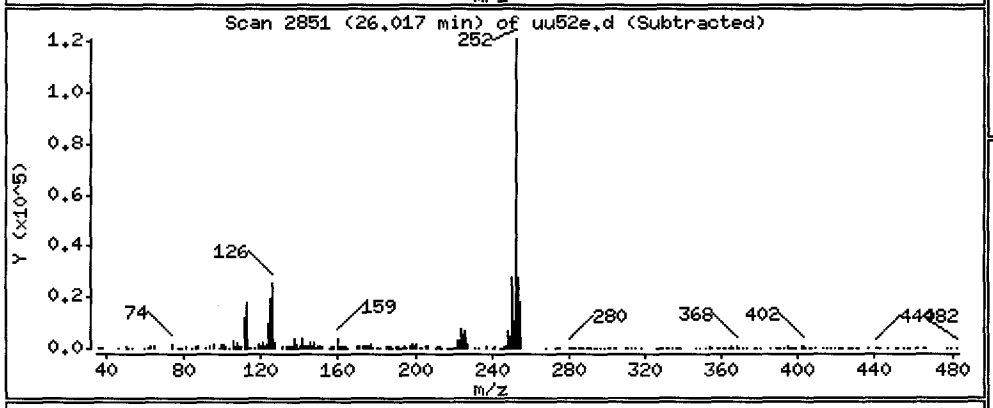
Column phase: ZB-5msi

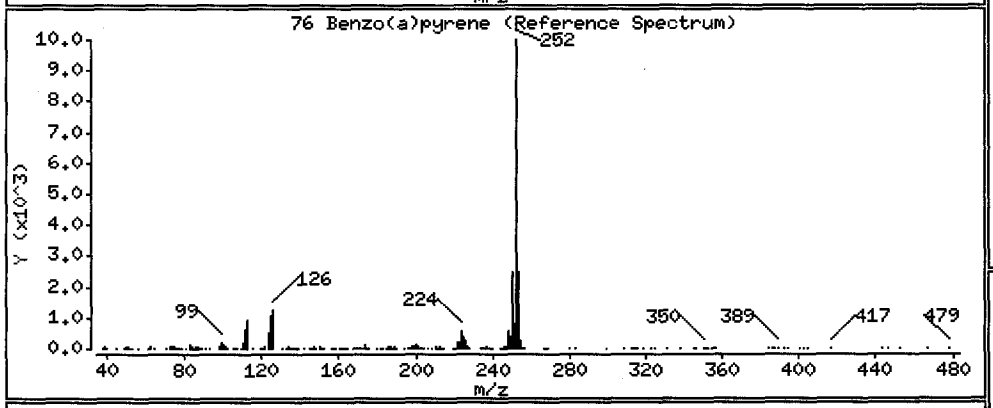
Column diameter: 0.25

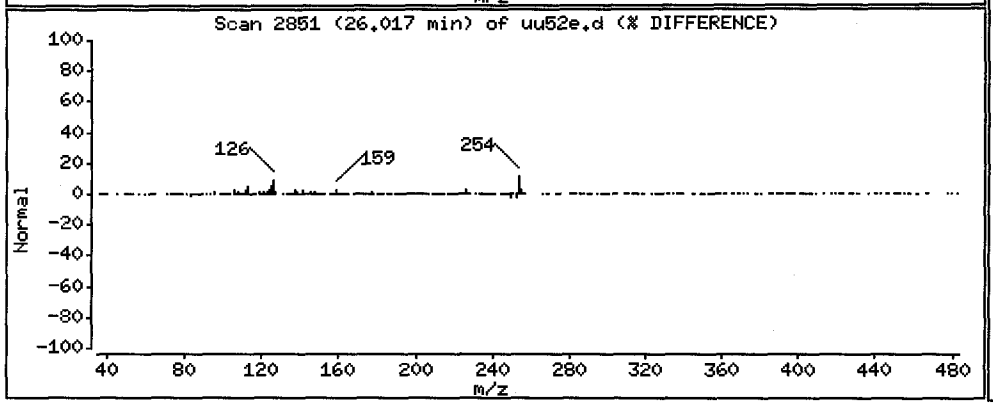
76 Benzo(a)pyrene

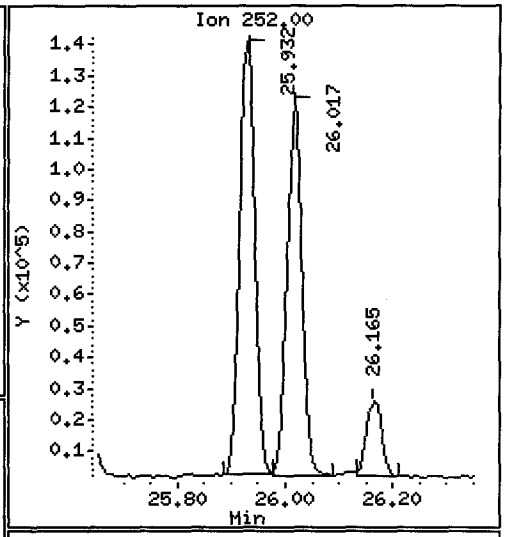
Concentration: 374.2 ug/kg

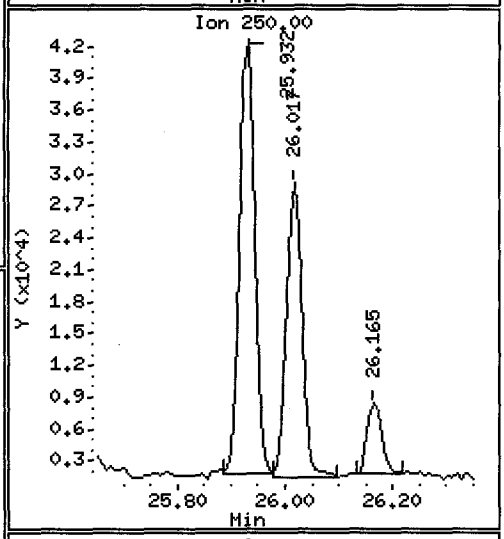


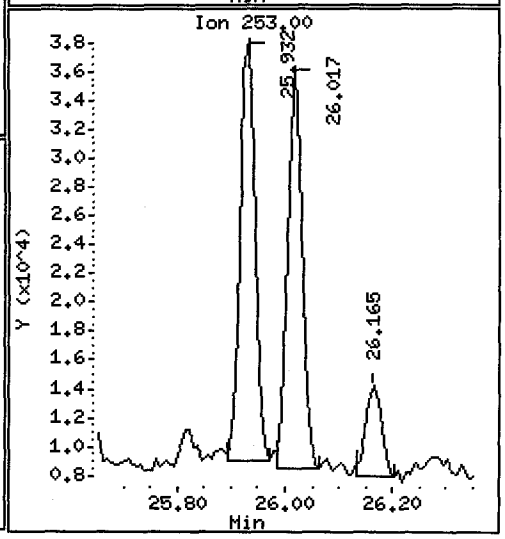



Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

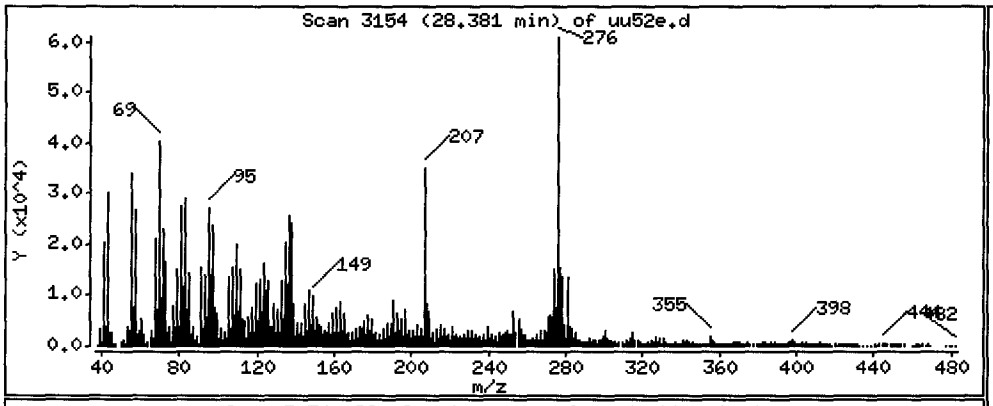
Client ID: MS004-SS-120515 Instrument: nt10.i

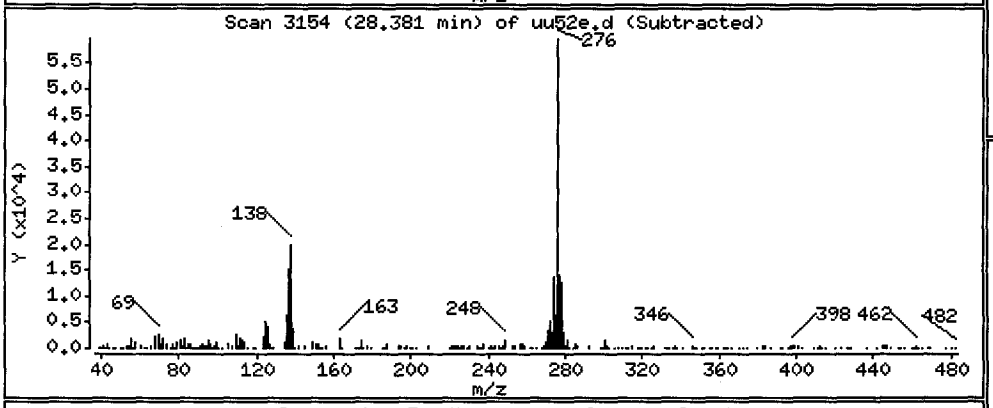
Sample Info: UU52E,3

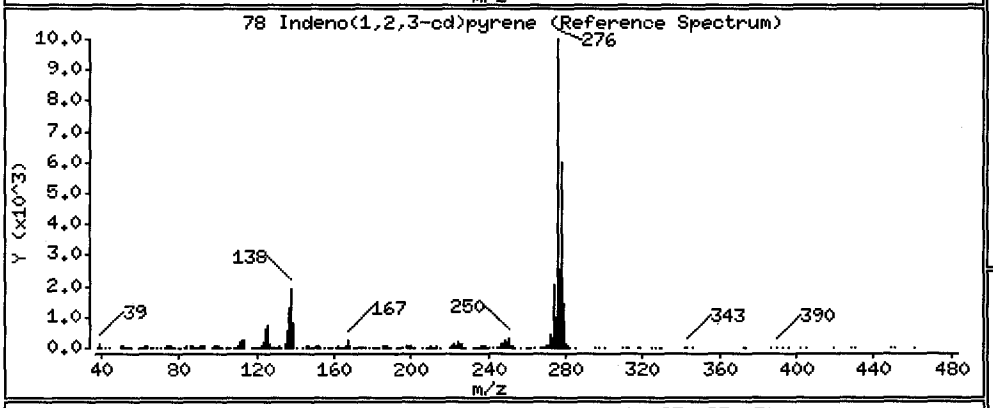
Volume Injected (uL): 1.0 Operator: VTS/YZ

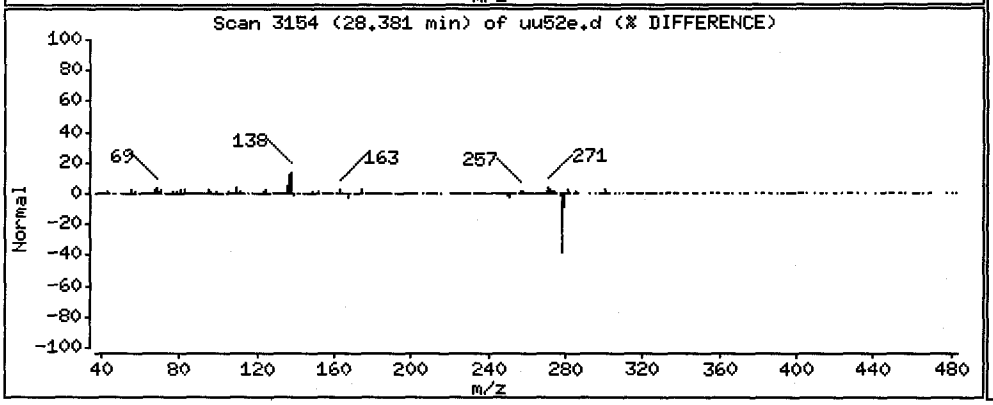
Column phase: ZB-5msi Column diameter: 0.25

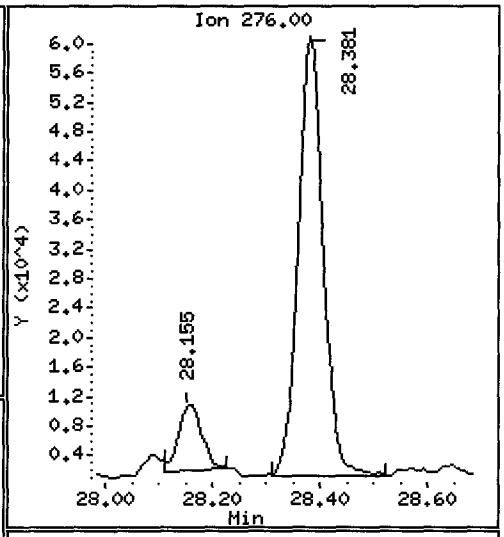
78 Indeno(1,2,3-cd)pyrene Concentration: 283.0 ug/kg

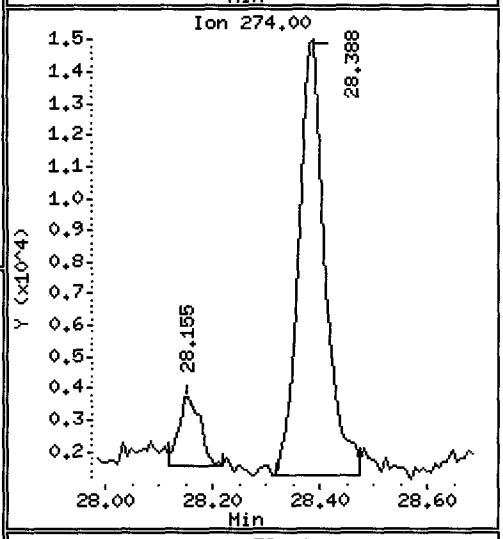


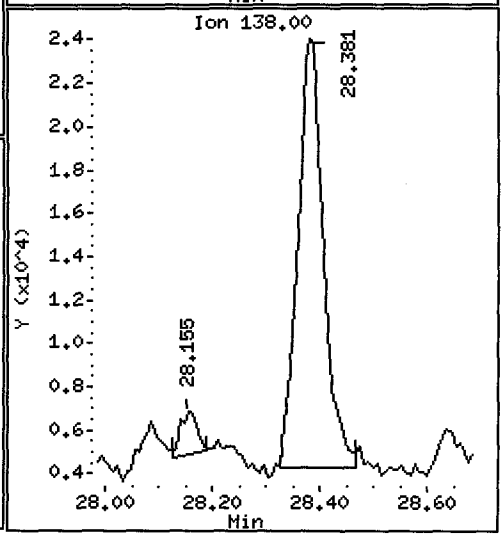



Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

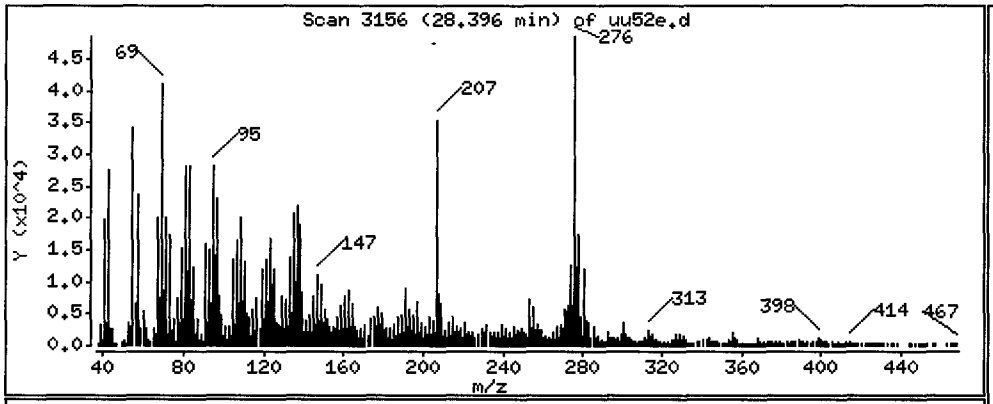
Operator: VTS/YZ

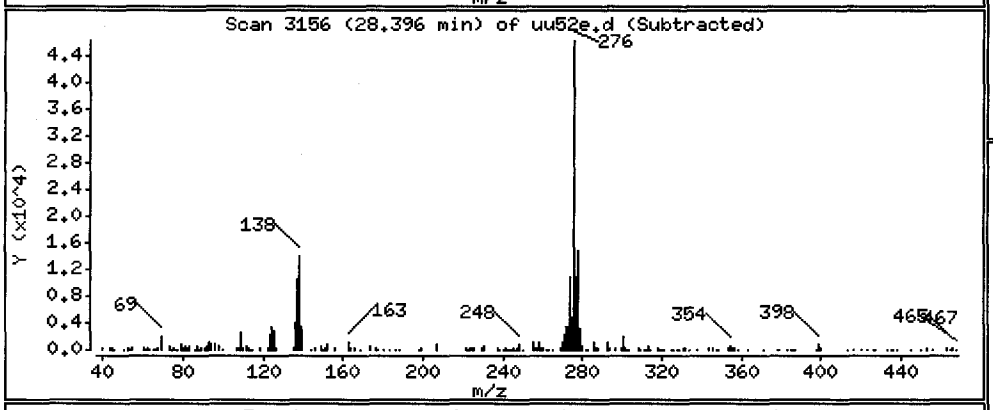
Column phase: ZB-5msi

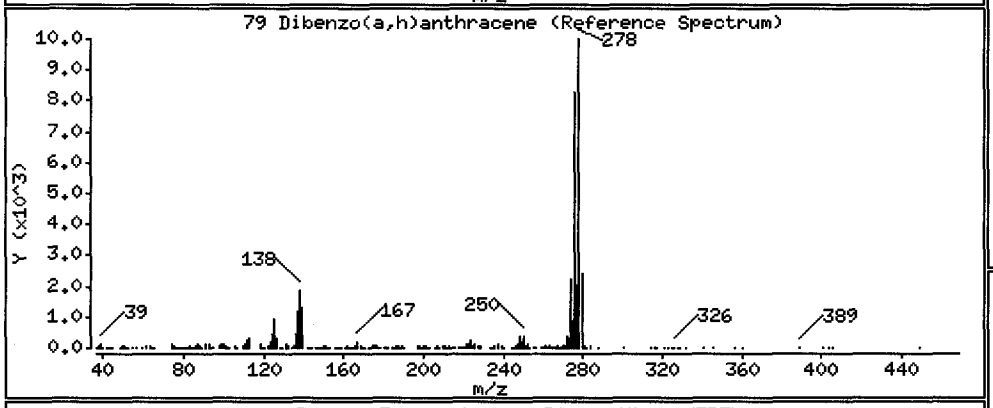
Column diameter: 0.25

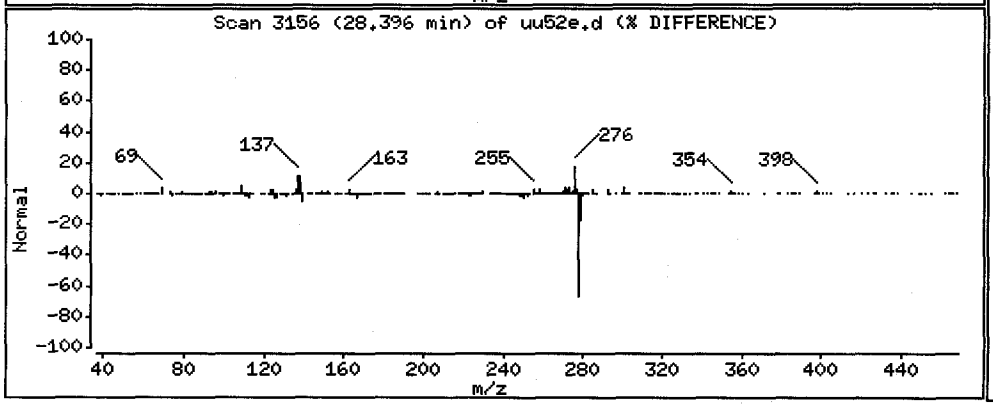
79 Dibenzo(a,h)anthracene

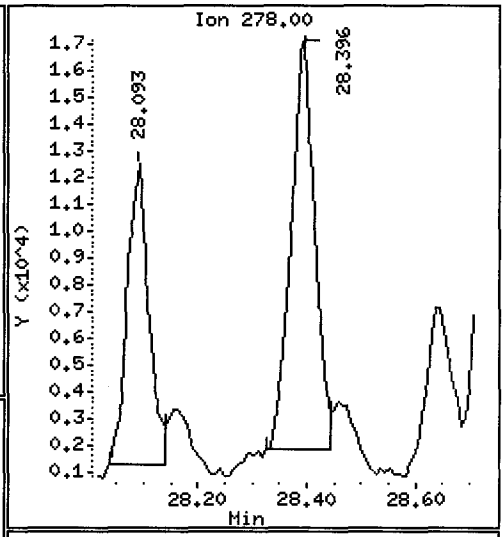
Concentration: 86.90 ug/kg

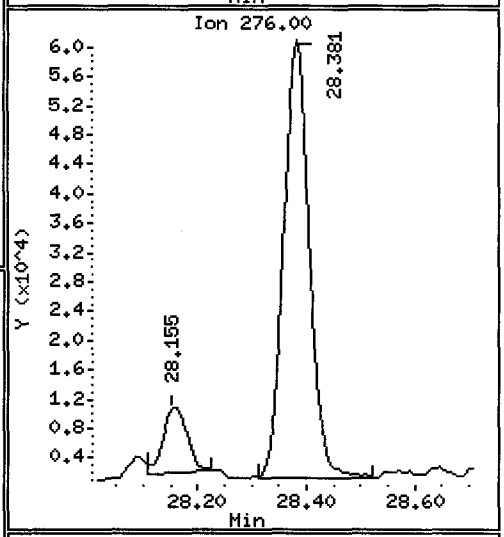


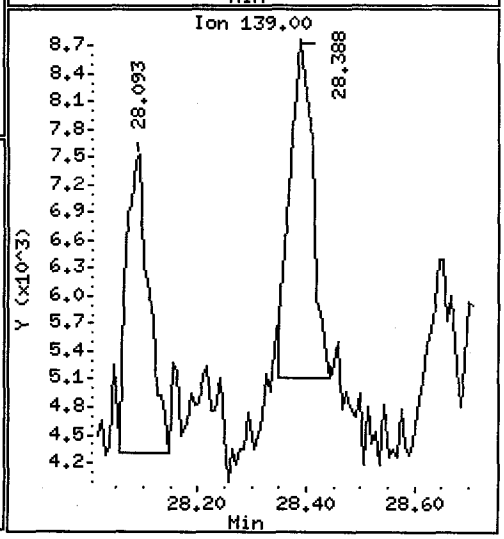



Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

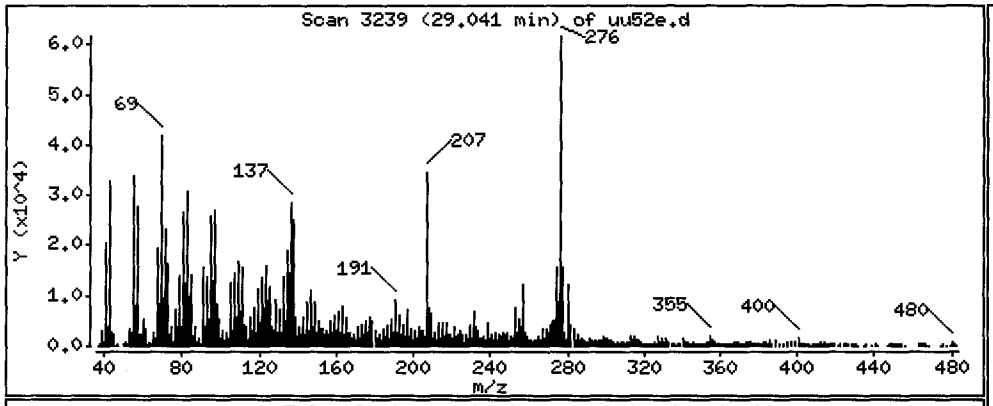
Client ID: MS004-SS-120515 Instrument: nt10.i

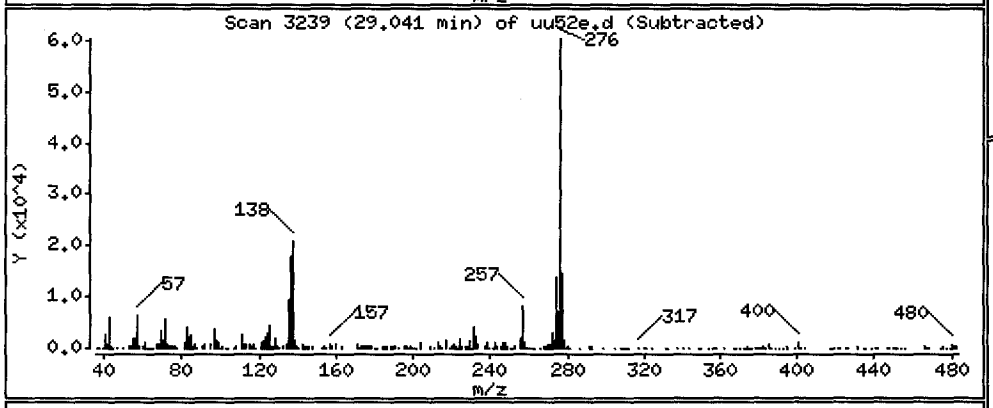
Sample Info: UU52E,3

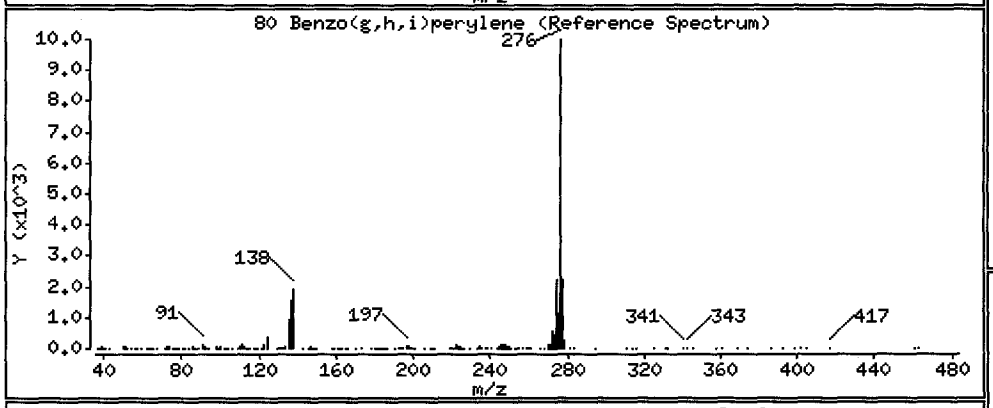
Volume Injected (uL): 1.0 Operator: VTS/YZ

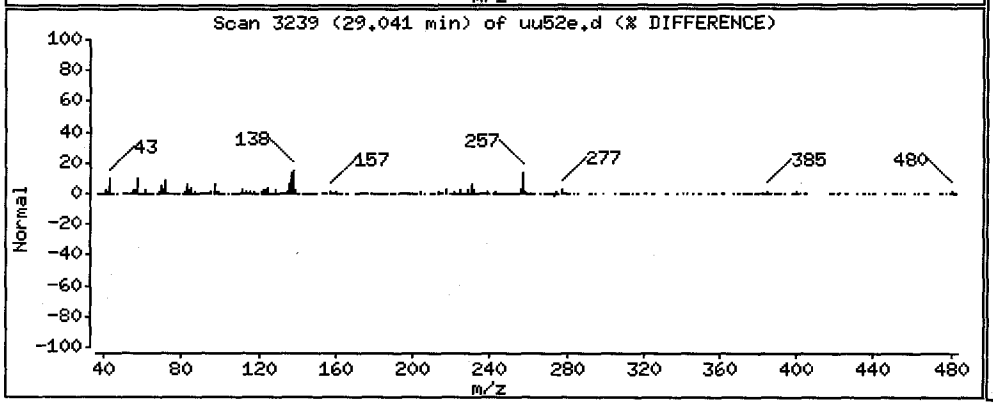
Column phase: ZB-5msi Column diameter: 0.25

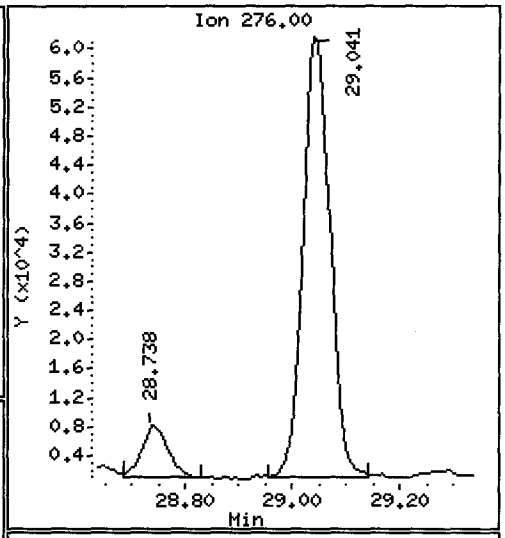
80 Benzo(g,h,i)perylene Concentration: 359.2 ug/kg

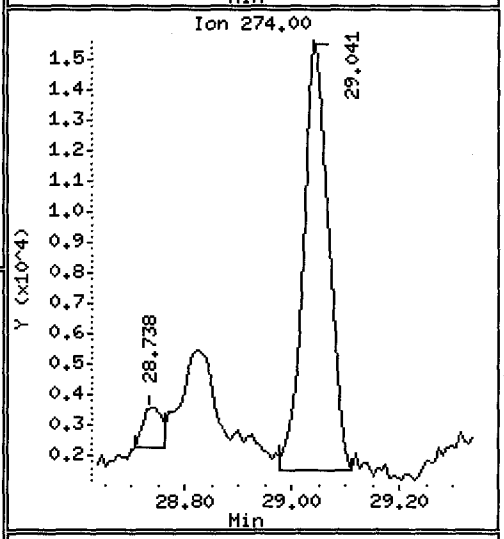


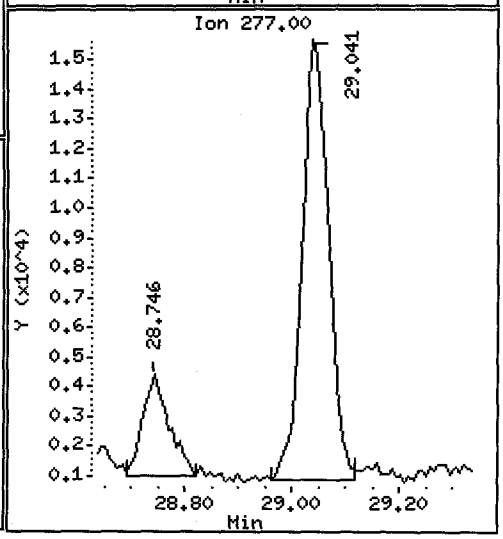



Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

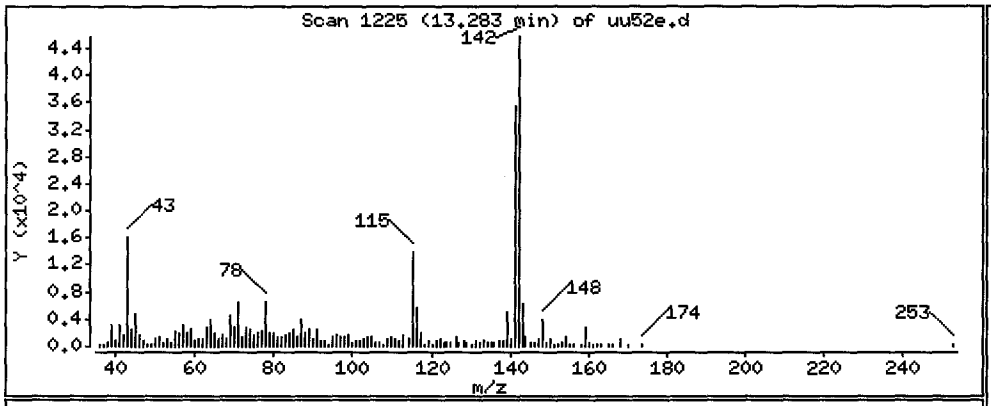
Client ID: MS004-SS-120515 Instrument: nt10.i

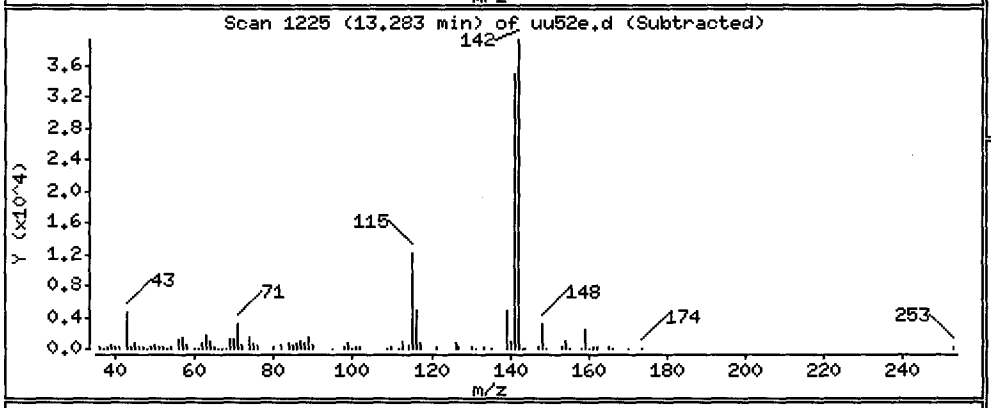
Sample Info: UU52E,3

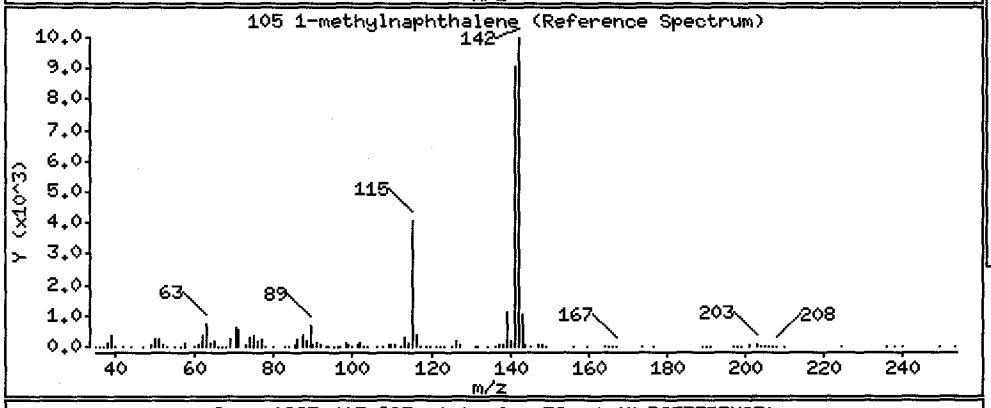
Volume Injected (uL): 1.0 Operator: VTS/YZ

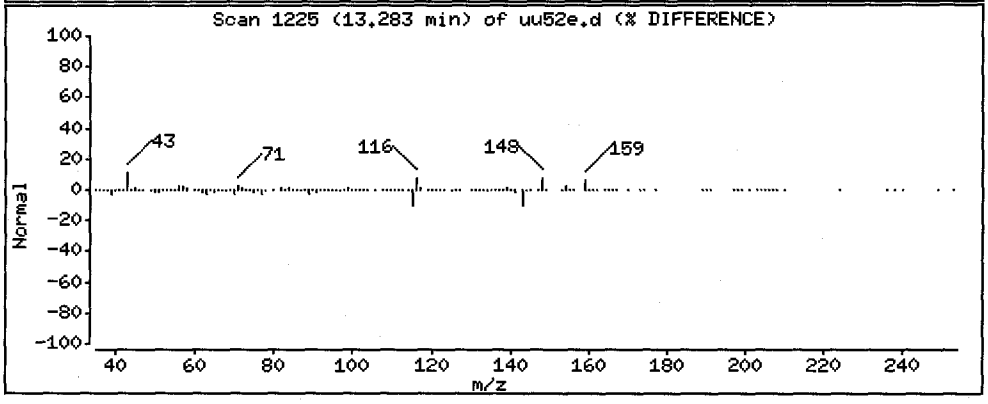
Column phase: ZB-5msi Column diameter: 0.25

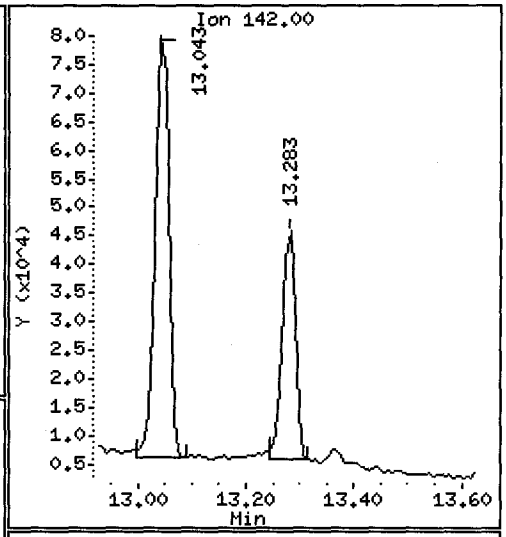
105 1-methylnaphthalene Concentration: 138.1 ug/kg

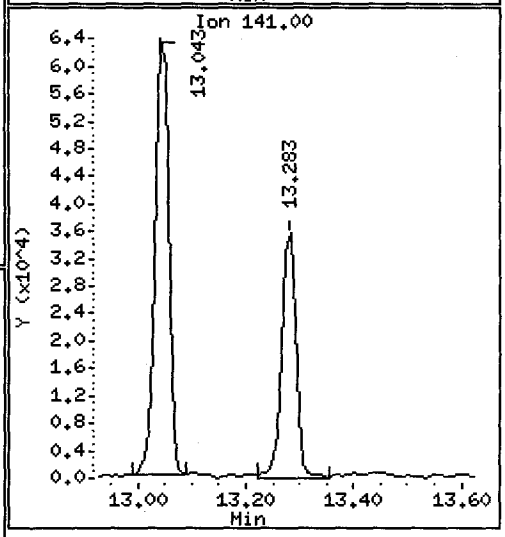


Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

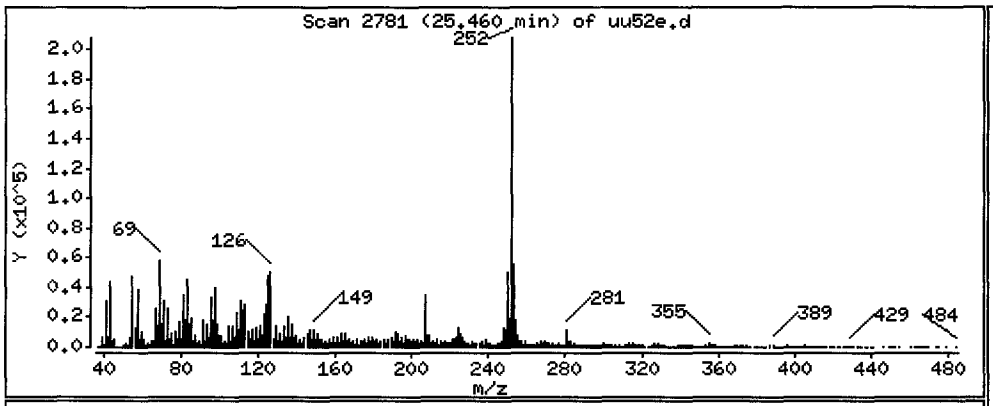
Client ID: MS004-SS-120515 Instrument: nt10.i

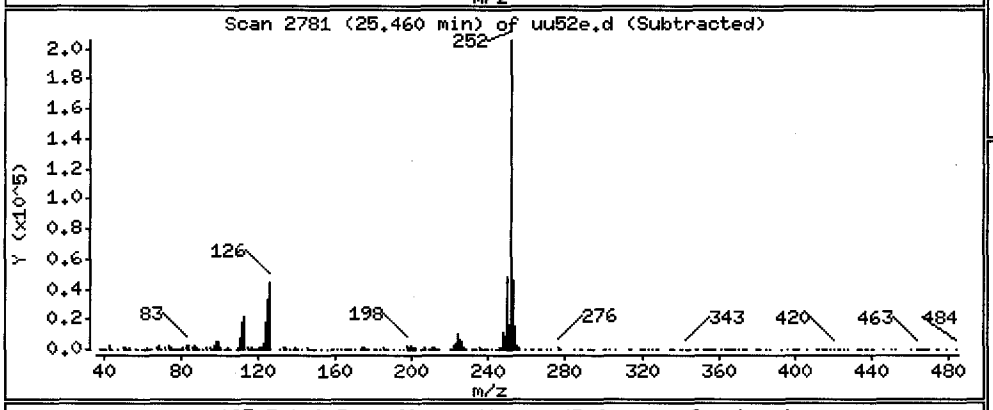
Sample Info: UU52E,3

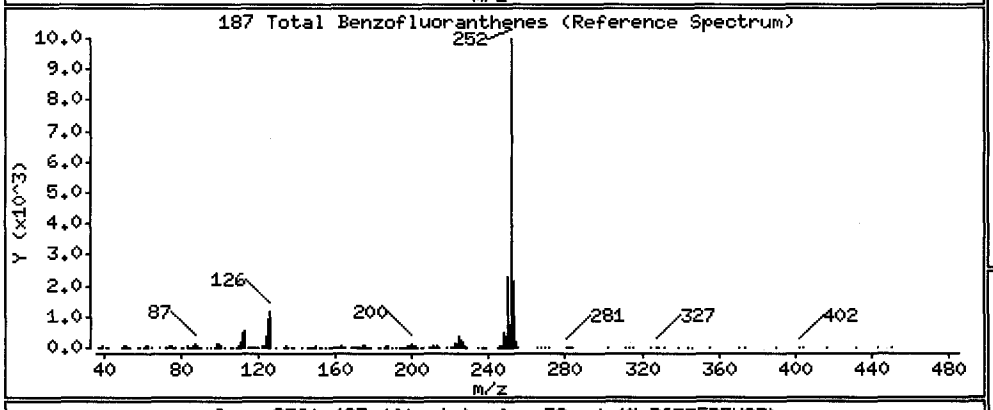
Volume Injected (uL): 1.0 Operator: VTS/YZ

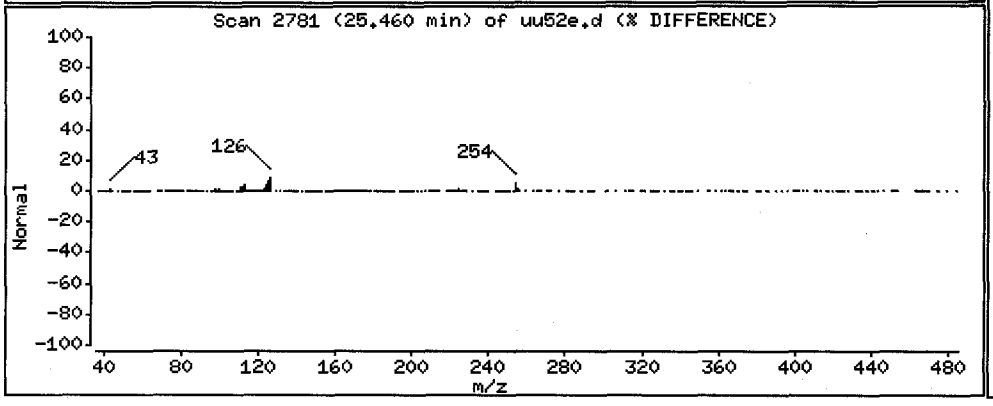
Column phase: ZB-5msi Column diameter: 0.25

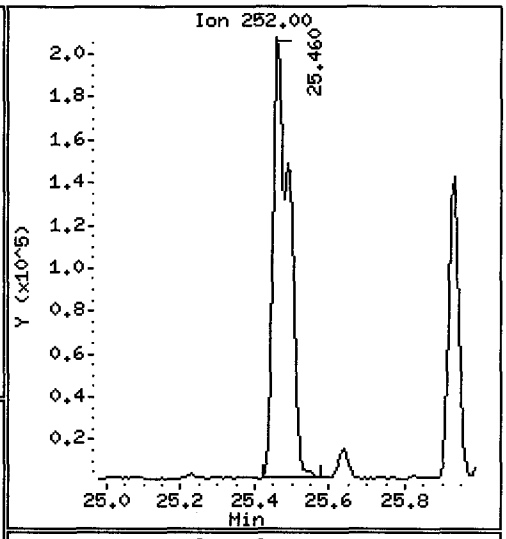
187 Total Benzofluoranthenes Concentration: 970.5 ug/kg

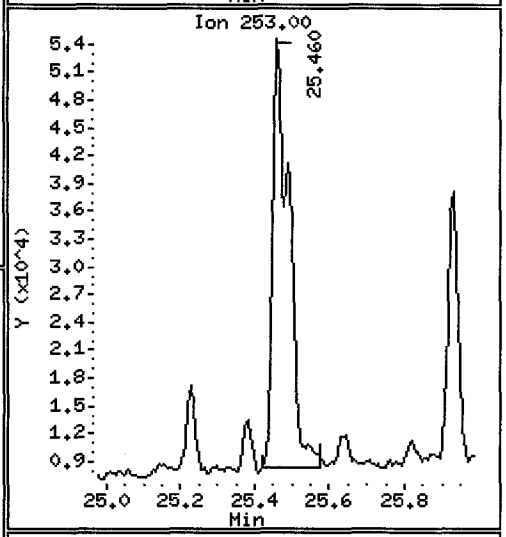


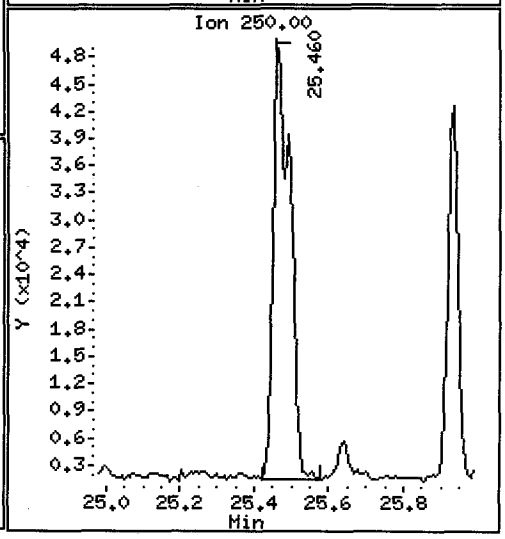



Data File: /chem1/nt10.i/20120526.b/uu52e.d

Date : 26-MAY-2012 19:39

Client ID: MS004-SS-120515

Instrument: nt10.i

Sample Info: UU52E,3

Volume Injected (uL): 1.0

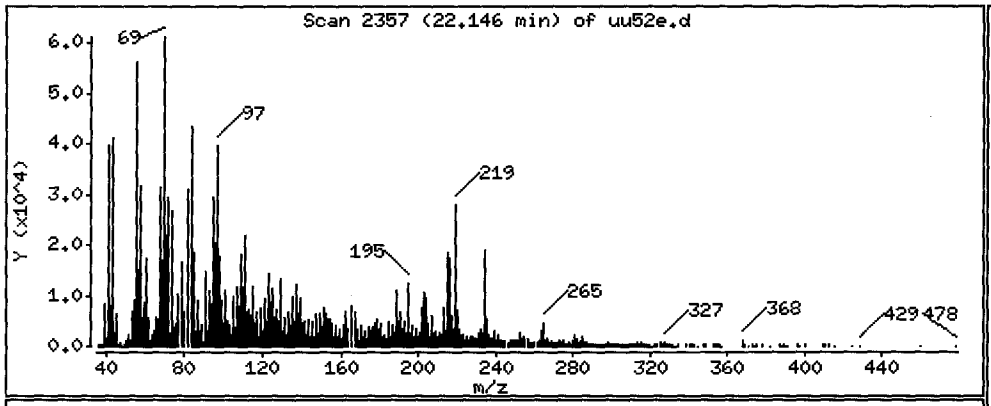
Operator: VTS/YZ

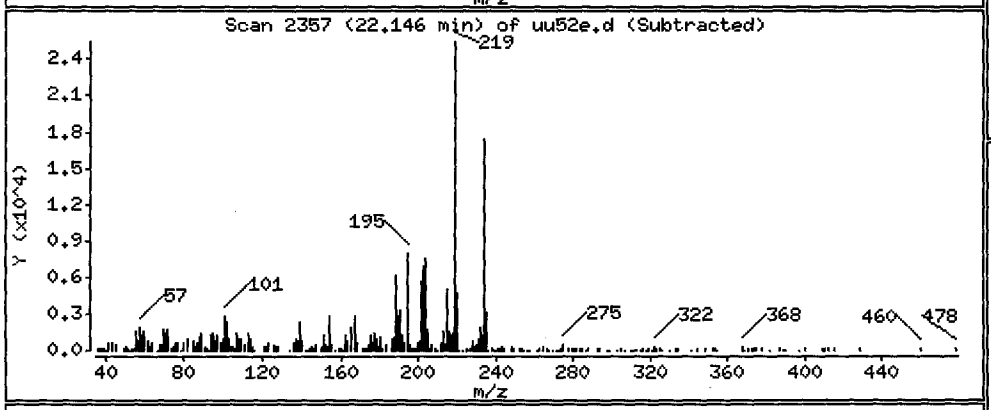
Column phase: ZB-5msi

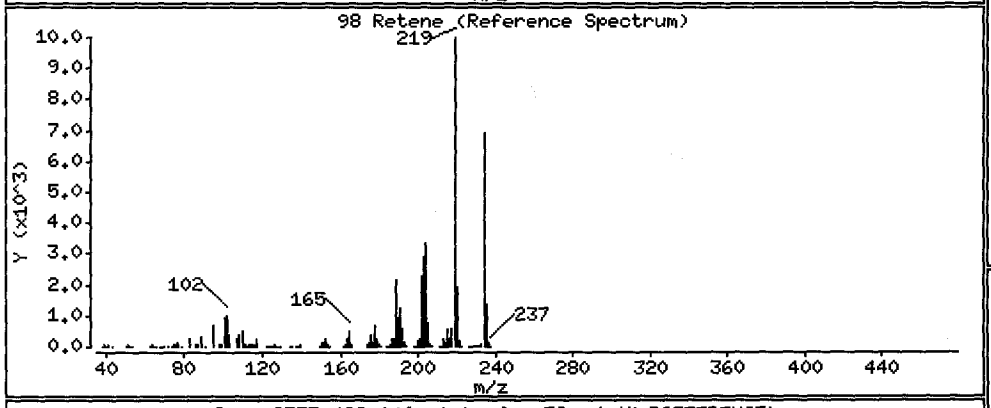
Column diameter: 0.25

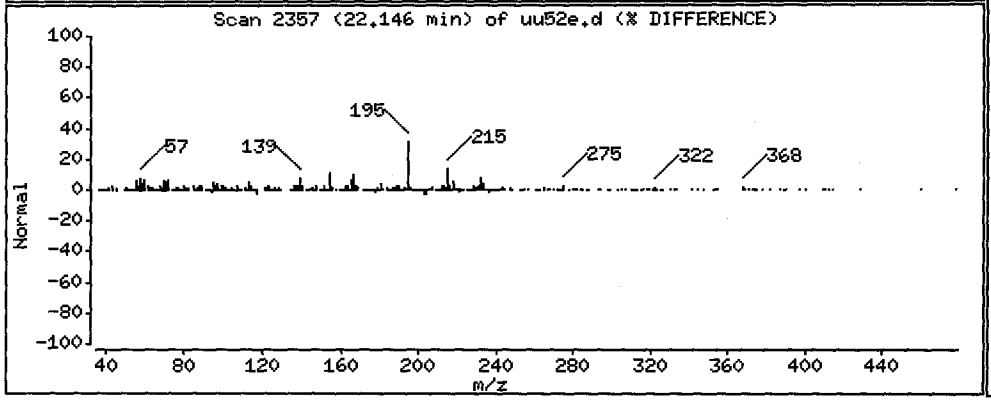
98 Retene

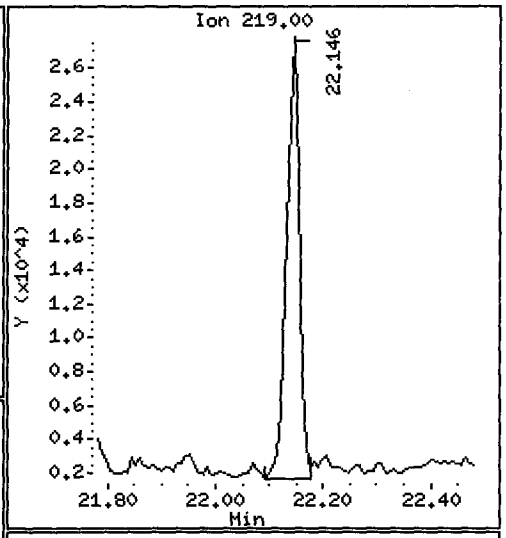
Concentration: 126.4 ug/kg

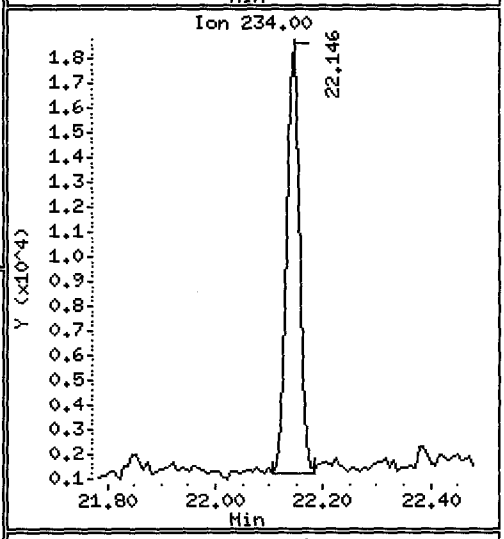


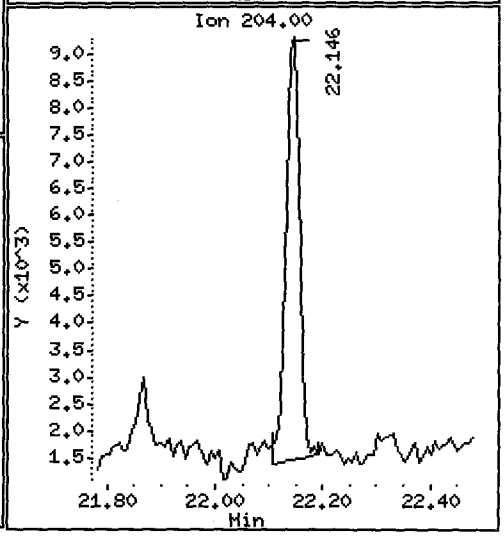



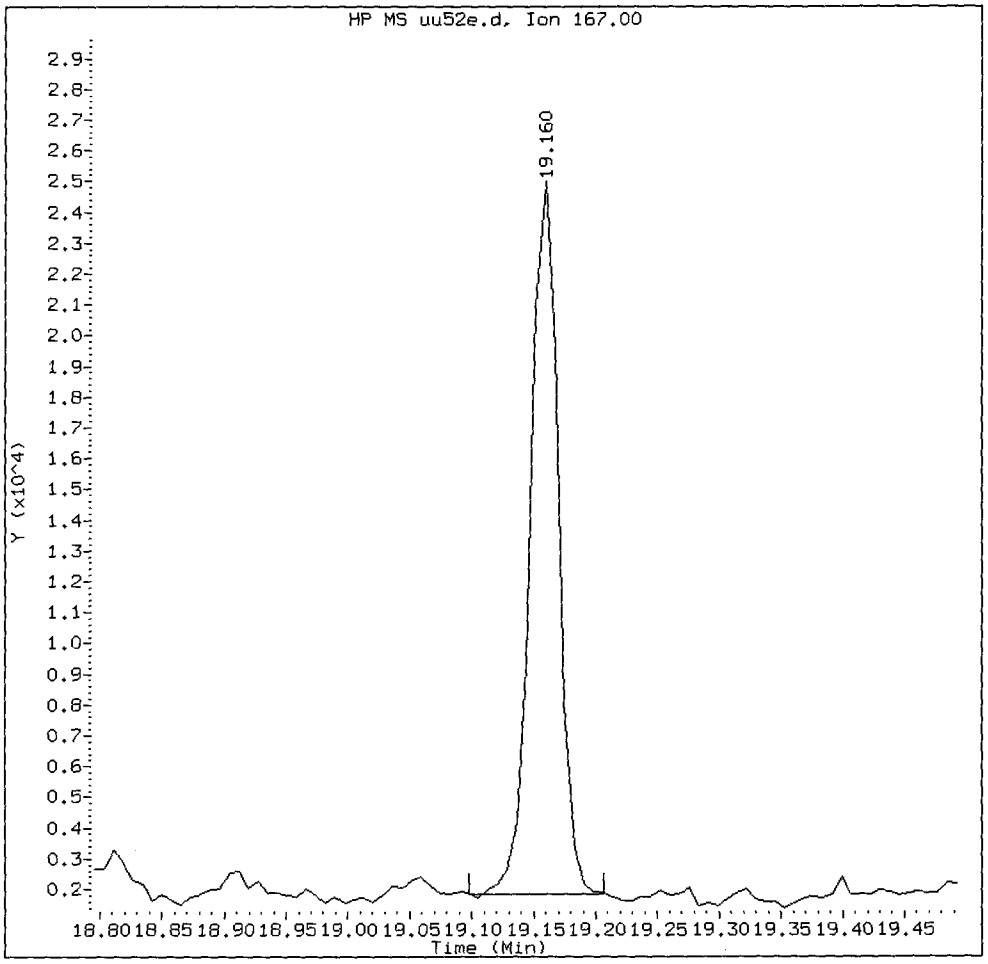



UU52E, /chem1/nt10.i/20120526.b/uu52e.d

Carbazole Amount: 0.23 Area: 37142




MANUAL INTEGRATION for Carbazole

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 6/4/12

CO-ELUTION SUMMARY FOR FILE - uu52e.d

Lab ID: UU52E, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 6/4/12

Data file : /chem1/nt10.i/20120526.b/uu52f.d
Lab Smp Id: UU52F  Client Smp ID: MS005-SS-120515
Inj Date : 26-MAY-2012 20:16
Operator : VTS/YZ  Inst ID: nt10.i
Smp Info : UU52F,3
Misc Info : 12-8898
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 04-Jun-2012 10:50 yev  Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42  Cal File: ic0526g.d
Als bottle: 8
Dil Factor: 3.00000
Integrator: HP RTE  Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 3.00000 | Dilution Factor |
| Vt | 1000.00000 | Volume of final extract (uL) |
| Ws | 114.00000 | Weight of sample extracted (g) |
| M | 91.10000 | % Moisture |

Cpnd Variable  Local Compound Variable

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| $ 1 | 2-Fluorophenol | 112 | 6.598 | 6.537 | (0.744) | 117561 | 1.76594 | 522.2 |
| $ 2 | Phenol-d5 | 99 | 8.283 | 8.237 | (0.935) | 170773 | 2.05934 | 608.9 |
| 3 | Phenol | 94 | 8.314 | 8.260 | (0.938) | 322267 | 3.64593 | 1078 |
| $ 5 | 2-Chlorophenol-d4 | 132 | 8.507 | 8.476 | (0.960) | 123002 | 1.69302 | 500.6 |
| 4 | Bis(2-Chloroethyl)ether | 93 | Compound Not Detected. | | | | | |
| 6 | 2-Chlorophenol | 128 | Compound Not Detected. | | | | | |
| 7 | 1,3-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| * 8 | 1,4-Dichlorobenzene-d4 | 152 | 8.863 | 8.855 | (1.000) | 190373 | 4.00000 | |
| 9 | 1,4-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| $ 10 | 1,2-Dichlorobenzene-d4 | 152 | 9.243 | 9.236 | (1.043) | 47567 | 0.99803 | 295.1 |
| 12 | 1,2-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| 11 | Benzyl alcohol | 108 | Compound Not Detected. | | | | | |
| 14 | 2,2'-oxybis(1-Chloropropane) | 121 | Compound Not Detected. | | | | | |
| 13 | 2-Methylphenol | 108 | 9.476 | 9.430 | (1.069) | 15496 | 0.22243 | 65.77(M) |
| 17 | Hexachloroethane | 117 | Compound Not Detected. | | | | | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| | 16 N-Nitroso-di-n-propylamine | 70 | Compound Not Detected. | | | | | |
| | 15 4-Methylphenol | 108 | 9.771 | 9.725 | (1.102) | 812968 | 11.1853 | 3307 |
| $ | 18 Nitrobenzene-d5 | 82 | 10.043 | 10.027 | (0.872) | 70815 | 1.06492 | 314.9 |
| | 19 Nitrobenzene | 77 | Compound Not Detected. | | | | | |
| | 20 Isophorone | 82 | Compound Not Detected. | | | | | |
| | 21 2-Nitrophenol | 139 | Compound Not Detected. | | | | | |
| | 22 2,4-Dimethylphenol | 107 | 10.864 | 10.833 | (0.944) | 14654 | 0.22415 | 66.28 |
| | 23 Bis(2-Chloroethoxy)methane | 93 | Compound Not Detected. | | | | | |
| | 24 Benzoic acid | 105 | 11.187 | 11.087 | (0.972) | 460450 | 10.6097 | 3137 |
| | 25 2,4-Dichlorophenol | 162 | Compound Not Detected. | | | | | |
| | 26 1,2,4-Trichlorobenzene | 180 | Compound Not Detected. | | | | | |
| * | 27 Naphthalene-d8 | 136 | 11.511 | 11.504 | (1.000) | 742174 | 4.00000 | |
| | 28 Naphthalene | 128 | 11.558 | 11.542 | (1.004) | 2799633 | 14.9631 | 4424 |
| | 29 4-Chloroaniline | 127 | Compound Not Detected. | | | | | |
| | 30 Hexachlorobutadiene | 225 | Compound Not Detected. | | | | | |
| | 31 4-Chloro-3-methylphenol | 107 | Compound Not Detected. | | | | | |
| | 32 2-Methylnaphthalene | 142 | 13.051 | 13.043 | (1.134) | 263467 | 2.02556 | 598.9 |
| | 33 Hexachlorocyclopentadiene | 237 | Compound Not Detected. | | | | | |
| | 34 2,4,6-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| | 35 2,4,5-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| $ | 36 2-Fluorobiphenyl | 172 | 13.910 | 13.902 | (0.904) | 171045 | 1.14324 | 338.0 |
| | 37 2-Chloronaphthalene | 162 | Compound Not Detected. | | | | | |
| | 38 2-Nitroaniline | 65 | Compound Not Detected. | | | | | |
| | 39 Dimethylphthalate | 163 | Compound Not Detected. | | | | | |
| | 40 Acenaphthylene | 152 | 15.048 | 15.032 | (0.978) | 164674 | 0.84955 | 251.2(M) |
| | 41 2,6-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| * | 42 Acenaphthene-d10 | 164 | 15.388 | 15.373 | (1.000) | 431594 | 4.00000 | |
| | 43 3-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 44 Acenaphthene | 153 | 15.458 | 15.442 | (1.005) | 324964 | 2.77944 | 821.8 |
| | 45 2,4-Dinitrophenol | 184 | Compound Not Detected. | | | | | |
| | 46 Dibenzofuran | 168 | 15.813 | 15.798 | (1.028) | 382551 | 2.23338 | 660.4 |
| | 47 4-Nitrophenol | 109 | Compound Not Detected. | | | | | |
| | 48 2,4-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| | 50 Diethylphthalate | 149 | Compound Not Detected. | | | | | |
| | 49 Fluorene | 166 | 16.579 | 16.563 | (1.077) | 200855 | 1.53038 | 452.5 |
| | 51 4-Chlorophenyl-phenylether | 204 | Compound Not Detected. | | | | | |
| | 52 4-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 53 4,6-Dinitro-2-methylphenol | 198 | Compound Not Detected. | | | | | |
| | 54 N-Nitrosodiphenylamine | 169 | Compound Not Detected. | | | | | |
| $ | 55 2,4,6-Tribromophenol | 330 | 17.165 | 17.142 | (1.115) | 34086 | 1.91343 | 565.8 |
| | 56 4-Bromophenyl-phenylether | 248 | Compound Not Detected. | | | | | |
| | 57 Hexachlorobenzene | 284 | Compound Not Detected. | | | | | |
| | 58 Pentachlorophenol | 266 | 18.409 | 18.378 | (0.987) | 2810 | 0.13793 | 40.78 |
| * | 59 Phenanthrene-d10 | 188 | 18.656 | 18.633 | (1.000) | 643967 | 4.00000 | |
| | 60 Phenanthrene | 178 | 18.703 | 18.687 | (1.002) | 1024353 | 6.16880 | 1824 |
| | 61 Anthracene | 178 | 18.803 | 18.780 | (1.008) | 204716 | 1.18015 | 349.0 |
| | 62 Carbazole | 167 | 19.183 | 19.144 | (1.028) | 68755 | 0.42837 | 126.7(M) |
| | 63 Di-n-butylphthalate | 149 | Compound Not Detected. | | | | | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| | 64 Fluoranthene | 202 | 21.155 | 21.101 | (1.134) | 1237166 | 6.56187 | 1940 |
| | 65 Pyrene | 202 | 21.550 | 21.519 | (0.908) | 1184633 | 5.39910 | 1596 |
| $ | 66 Terphenyl-d14 | 244 | 21.860 | 21.844 | (0.921) | 161332 | 1.17375 | 347.1 |
| | 67 Butylbenzylphthalate | 149 | Compound Not Detected. | | | | | |
| | 68 Benzo(a)anthracene | 228 | 23.702 | 23.679 | (0.999) | 202680 | 0.99919 | 295.4 |
| * | 69 Chrysene-d12 | 240 | 23.726 | 23.710 | (1.000) | 721119 | 4.00000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | Compound Not Detected. | | | | | |
| | 71 Chrysene | 228 | 23.772 | 23.749 | (1.002) | 346391 | 1.94120 | 574.0 |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 23.842 | 23.818 | (0.961) | 85390 | 0.56162 | 166.1 |
| * | 134 Di-n-octylphthalate-d4 | 153 | 24.809 | 24.794 | (1.000) | 1107167 | 4.00000 | |
| | 73 Di-n-octylphthalate | 149 | Compound Not Detected. | | | | | |
| | 74 Benzo(b)fluoranthene | 252 | Compound Not Detected. | | | | | |
| | 75 Benzo(k)fluoranthene | 252 | Compound Not Detected. | | | | | |
| | 76 Benzo(a)pyrene | 252 | 26.033 | 26.002 | (0.996) | 195880 | 1.13164 | 334.6 |
| * | 77 Perylene-d12 | 264 | 26.141 | 26.102 | (1.000) | 669438 | 4.00000 | |
| | 78 Indeno(1,2,3-cd)pyrene | 276 | 28.412 | 28.342 | (1.087) | 164459 | 0.82137 | 242.9 |
| | 79 Dibenzo(a,h)anthracene | 278 | 28.419 | 28.365 | (1.087) | 50459 | 0.31992 | 94.60(M) |
| | 80 Benzo(g,h,i)perylene | 276 | 29.087 | 29.002 | (1.113) | 187724 | 1.09336 | 323.3 |
| | 90 N-Nitrosodimethylamine | 74 | Compound Not Detected. | | | | | |
| | 91 Aniline | 93 | Compound Not Detected. | | | | | |
| | 93 Benzidine | 184 | Compound Not Detected. | | | | | |
| | 103 Pyridine | 79 | Compound Not Detected. | | | | | |
| | 105 1-methylnaphthalene | 142 | 13.291 | 13.275 | (1.155) | 179332 | 1.35190 | 399.7 |
| | 111 Azobenzene (1,2-DP-Hydrazine) | 77 | Compound Not Detected. | | | | | |
| | 187 Total Benzofluoranthenes | 252 | 25.475 | 25.483 | (0.975) | 607007 | 3.26786 | 966.3 |
| | 99 Perylene | 252 | Compound Not Detected. | | | | | |
| | 98 Retene | 219 | 22.146 | 22.131 | (0.933) | 48533 | 0.47501 | 140.5 |

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52f.d
Lab Smp Id: UU52F
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8898

Calibration Date: 26-MAY-2012
Calibration Time: 10:59
Client Smp ID: MS005-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 190373 | 0.45 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 742174 | 1.54 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 431594 | 2.59 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 643967 | 0.79 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 721119 | 11.79 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 1107167 | 8.96 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 669438 | 2.99 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.86 | 0.09 |
| 27 Naphthalene-d8 | 11.50 | 11.00 | 12.00 | 11.51 | 0.07 |
| 42 Acenaphthene-d10 | 15.37 | 14.87 | 15.87 | 15.39 | 0.10 |
| 59 Phenanthrene-d10 | 18.63 | 18.13 | 19.13 | 18.66 | 0.12 |
| 69 Chrysene-d12 | 23.71 | 23.21 | 24.21 | 23.73 | 0.06 |
| 134 Di-n-octylphthala | 24.79 | 24.29 | 25.29 | 24.81 | 0.06 |
| 77 Perylene-d12 | 26.10 | 25.60 | 26.60 | 26.14 | 0.15 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

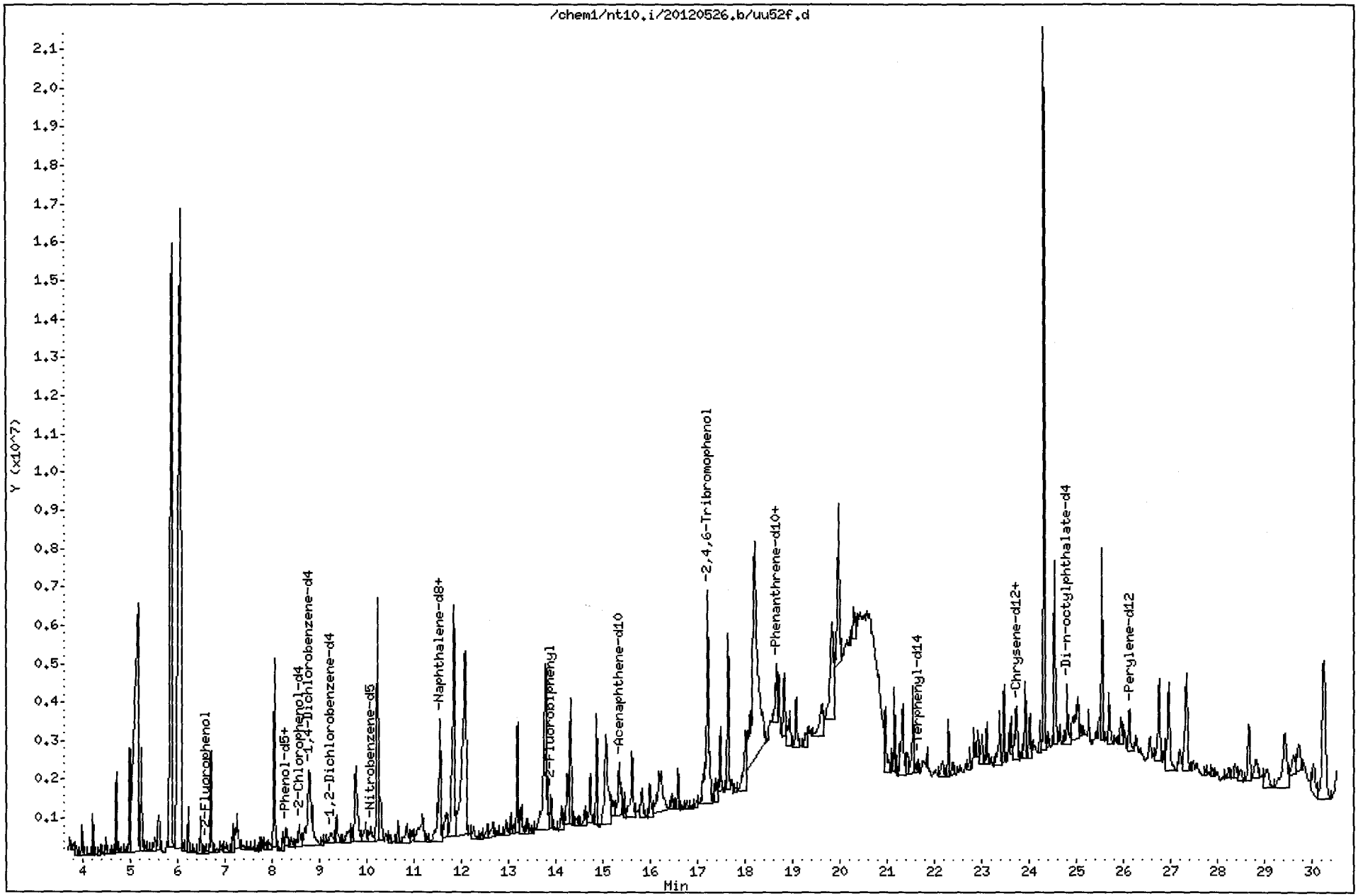
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52F Client Smp ID: MS005-SS-120515
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8898

| SURROGATE COMPOUND | CONC ADDED ug/kg | CONC RECOVERED ug/kg | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 1 2-Fluorophenol | 739.2 | 522.2 | 70.64 | 30-160 |
| $ 2 Phenol-d5 | 739.2 | 608.9 | 82.37 | 30-160 |
| $ 5 2-Chlorophenol-d4 | 739.2 | 500.6 | 67.72 | 30-160 |
| $ 10 1,2-Dichlorobenzen | 492.8 | 295.1 | 59.88 | 30-160 |
| $ 18 Nitrobenzene-d5 | 492.8 | 314.9 | 63.89 | 30-160 |
| $ 36 2-Fluorobiphenyl | 492.8 | 338.0 | 68.59 | 30-160 |
| $ 55 2,4,6-Tribromophen | 739.2 | 565.8 | 76.54 | 30-160 |
| $ 66 Terphenyl-d14 | 492.8 | 347.1 | 70.43 | 30-160 |

Data File: /chem1/nt10.i/20120526.b/uu52f.d
Date : 26-MAY-2012 20:16
Client ID: MS005-SS-120515
Sample Info: UU52F,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25




UU52:00853

Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

Client ID: MS005-SS-120515

Instrument: nt10.i

Sample Info: UU52F,3

Volume Injected (uL): 1.0

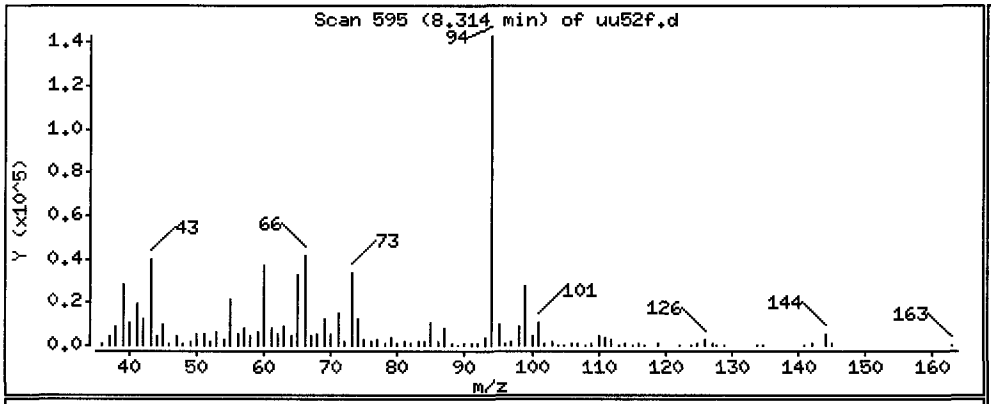
Operator: VTS/YZ

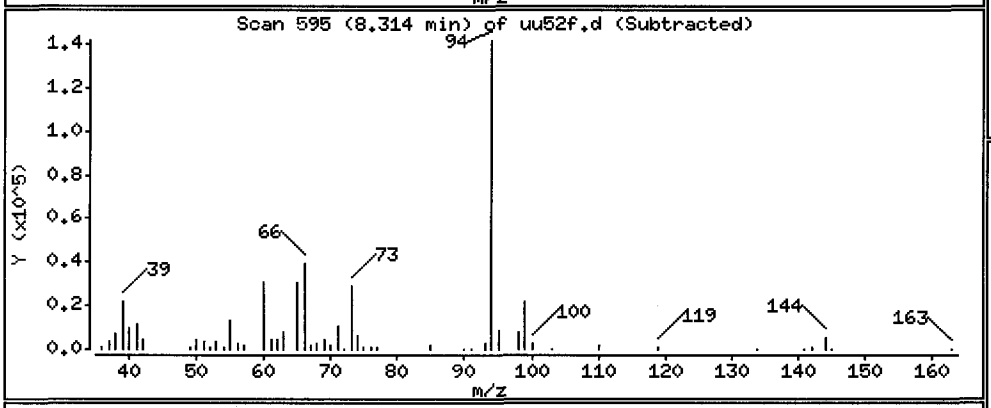
Column phase: ZB-5msi

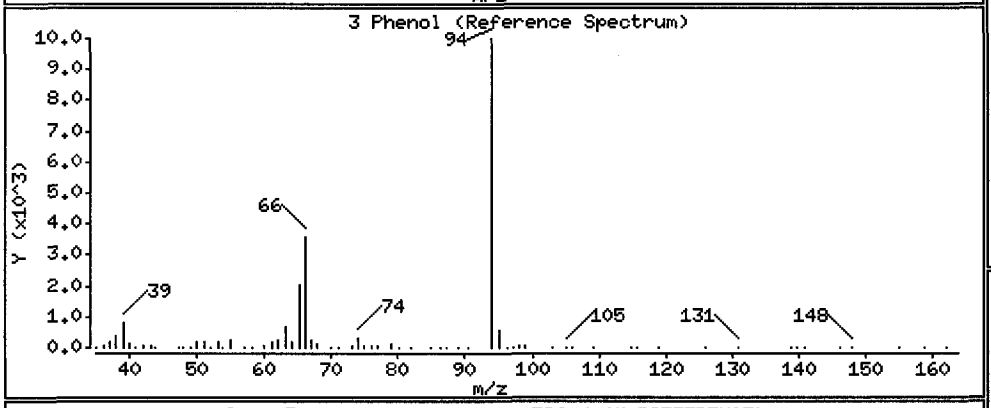
Column diameter: 0.25

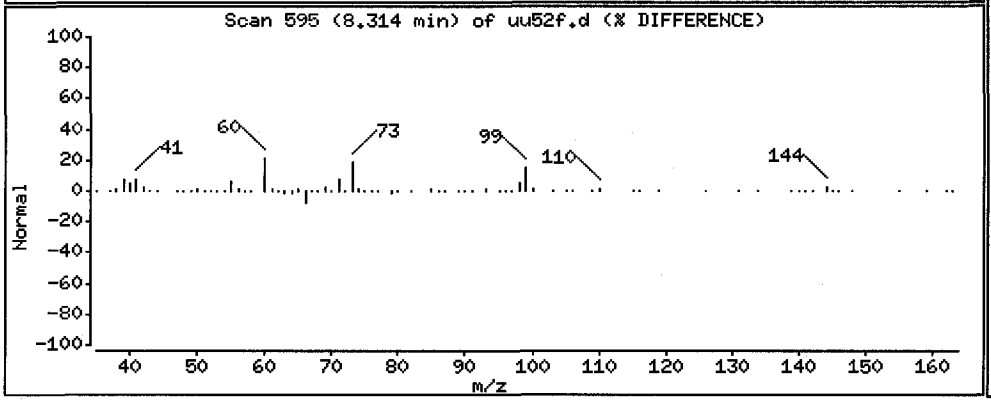
3 Phenol

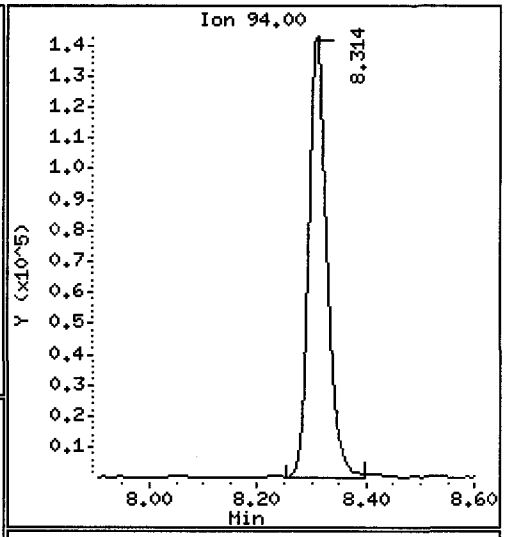
Concentration: 1078 ug/kg

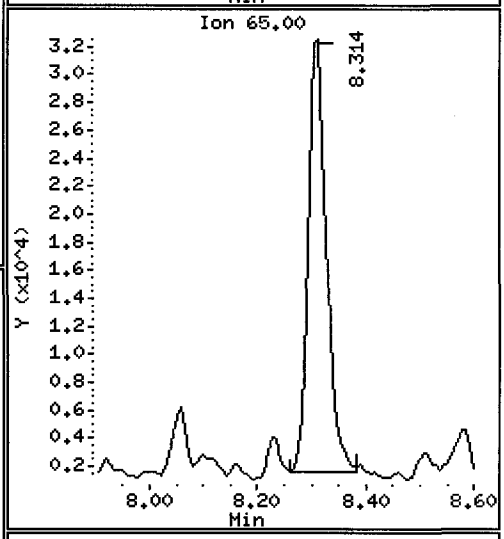


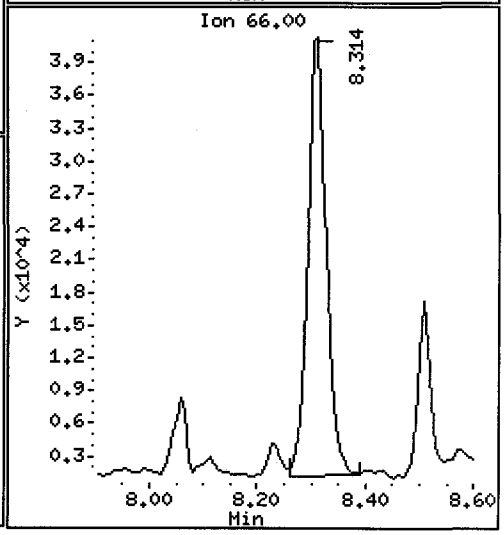



Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

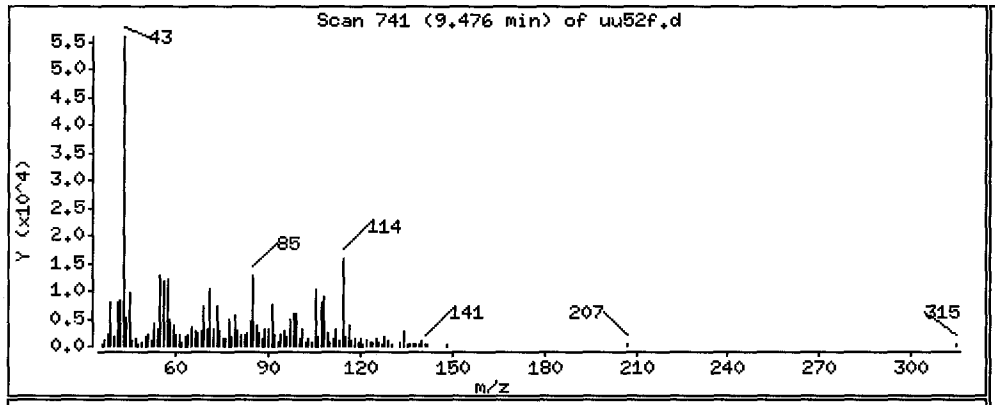
Client ID: MS005-SS-120515 Instrument: nt10.i

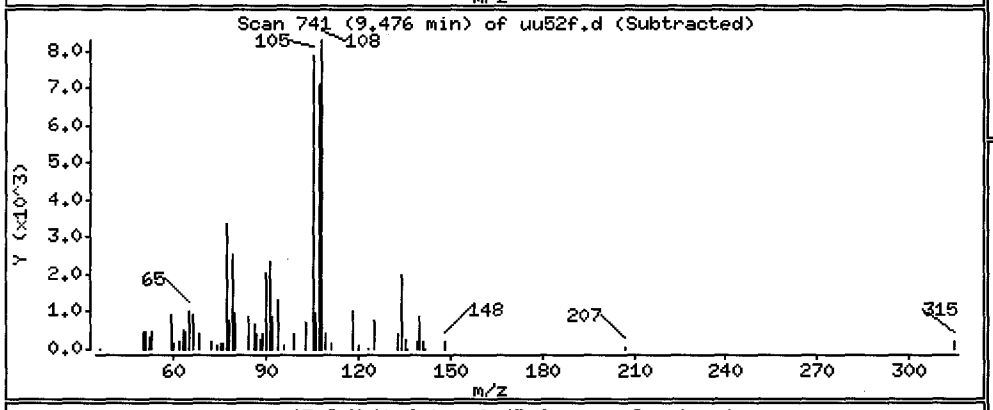
Sample Info: UU52F,3

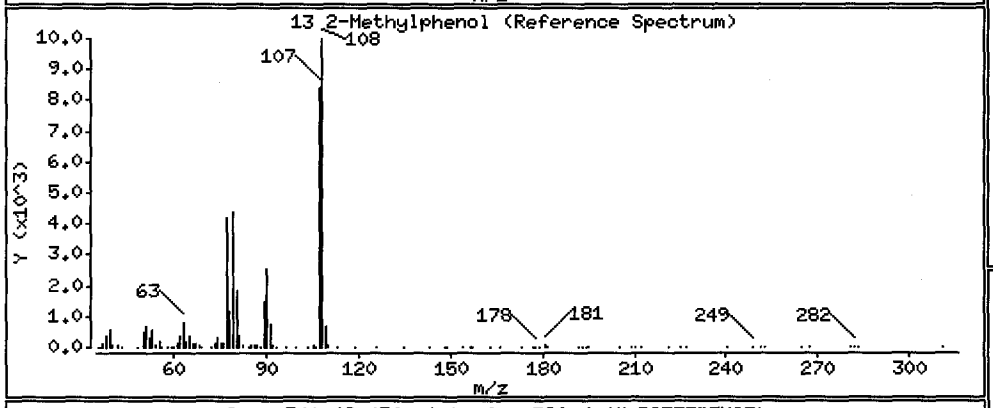
Volume Injected (uL): 1.0 Operator: VTS/YZ

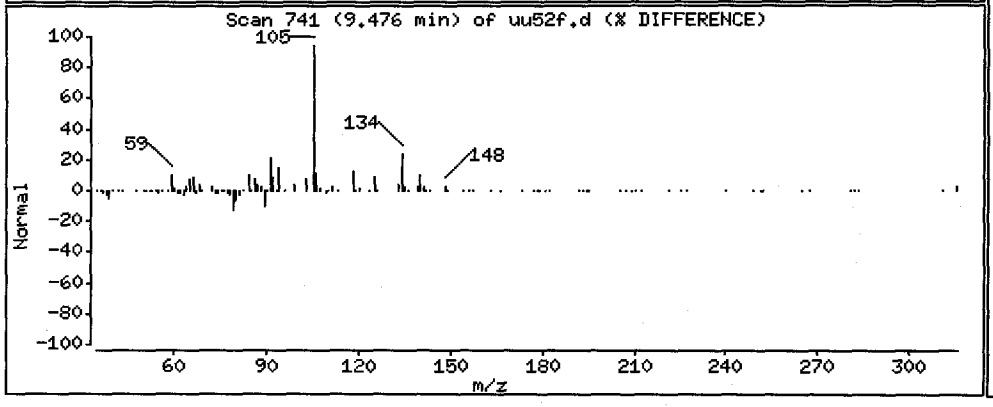
Column phase: ZB-5msi Column diameter: 0.25

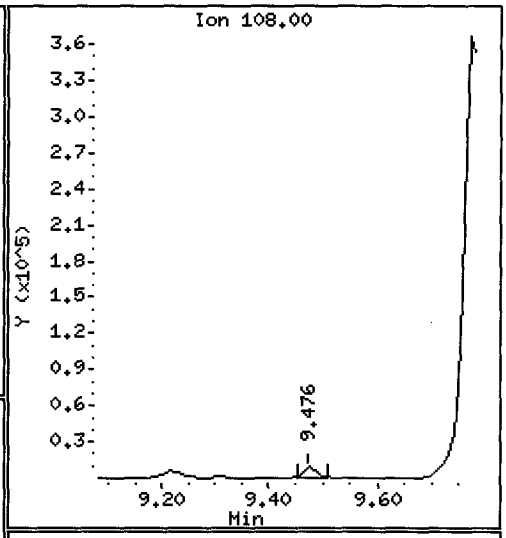
13 2-Methylphenol Concentration: 65.77 ug/kg

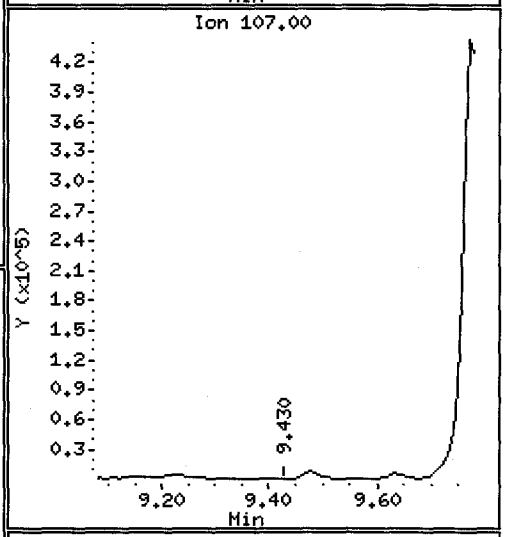


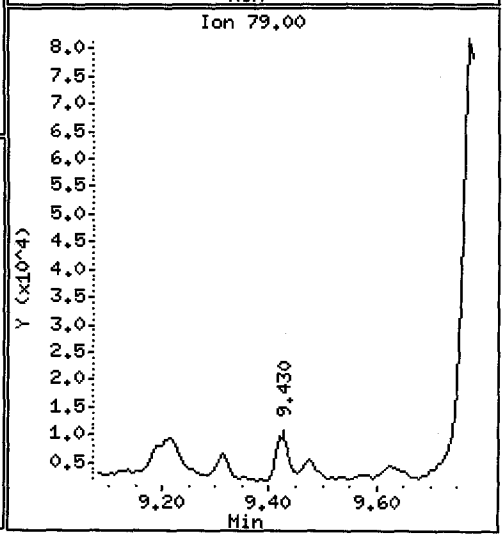



Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

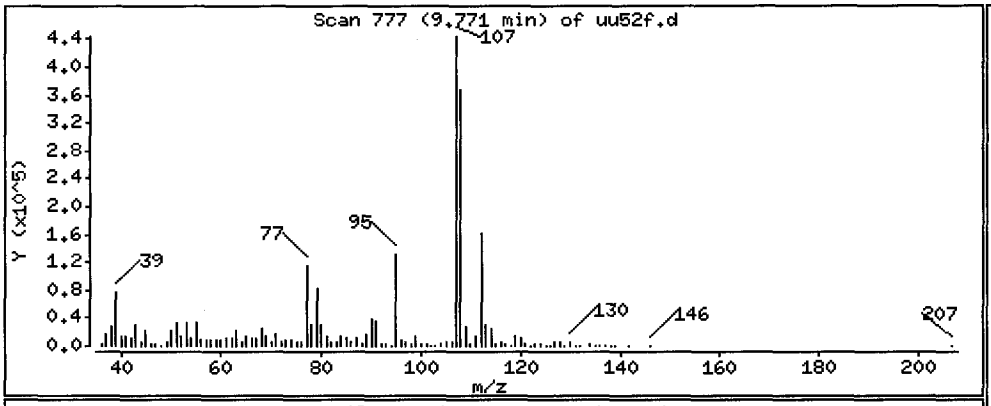
Client ID: MS005-SS-120515 Instrument: nt10.i

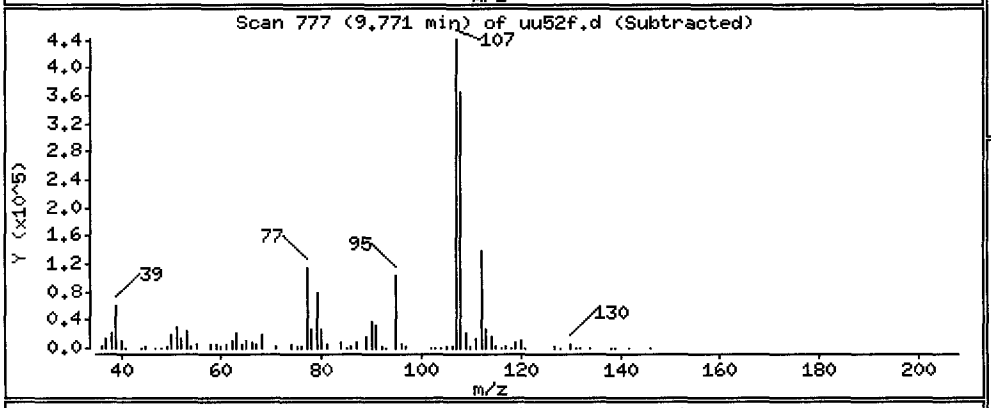
Sample Info: UU52F,3

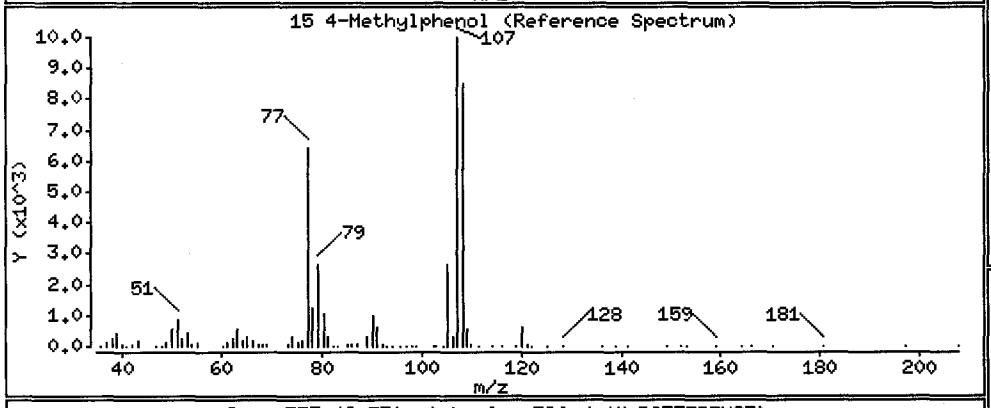
Volume Injected (uL): 1.0 Operator: VTS/YZ

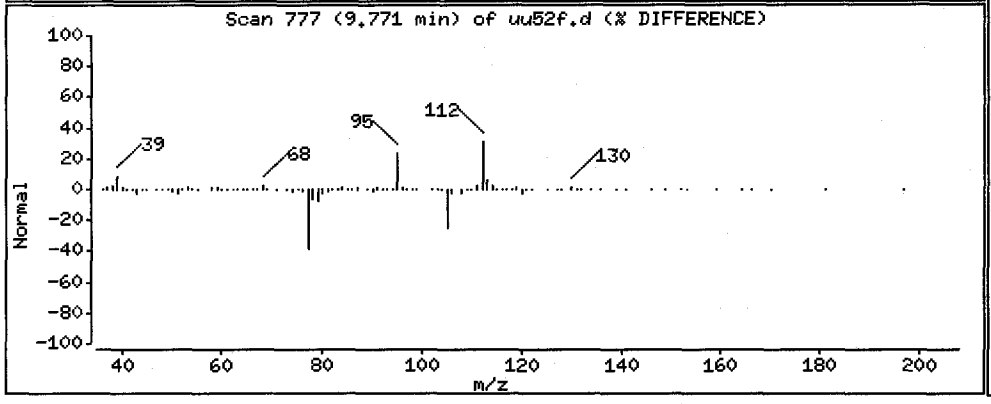
Column phase: ZB-5msi Column diameter: 0.25

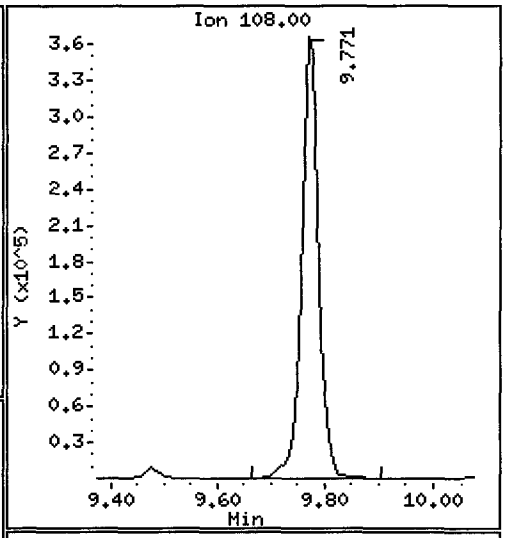
15 4-Methylphenol Concentration: 3307 ug/kg

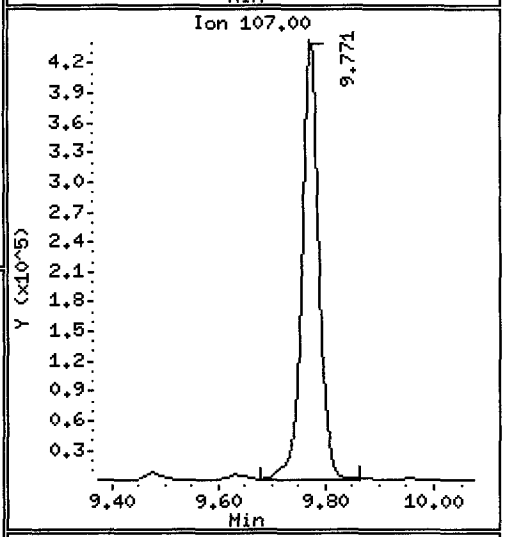


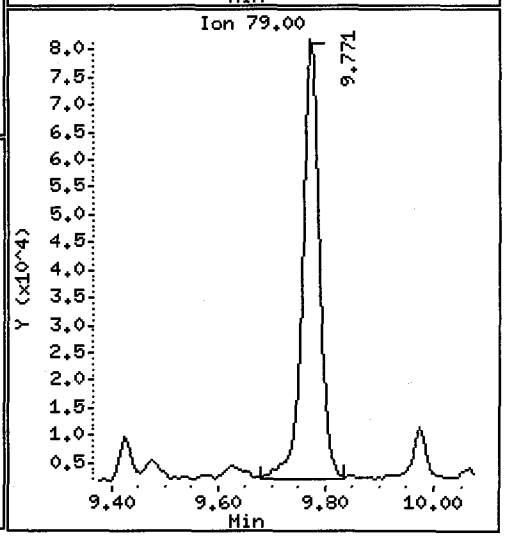



Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

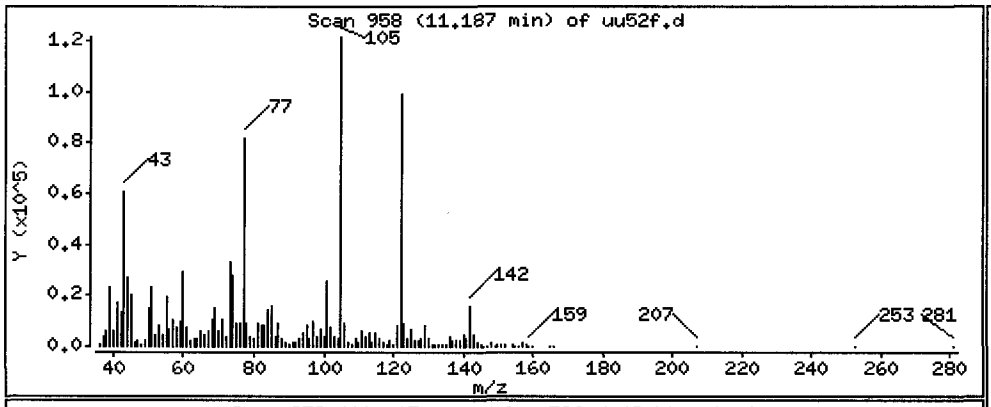
Client ID: MS005-SS-120515 Instrument: nt10.i

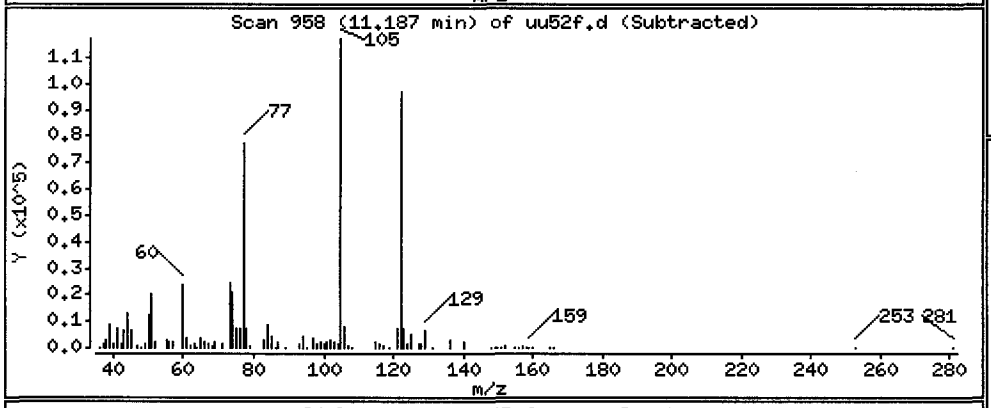
Sample Info: UU52F,3

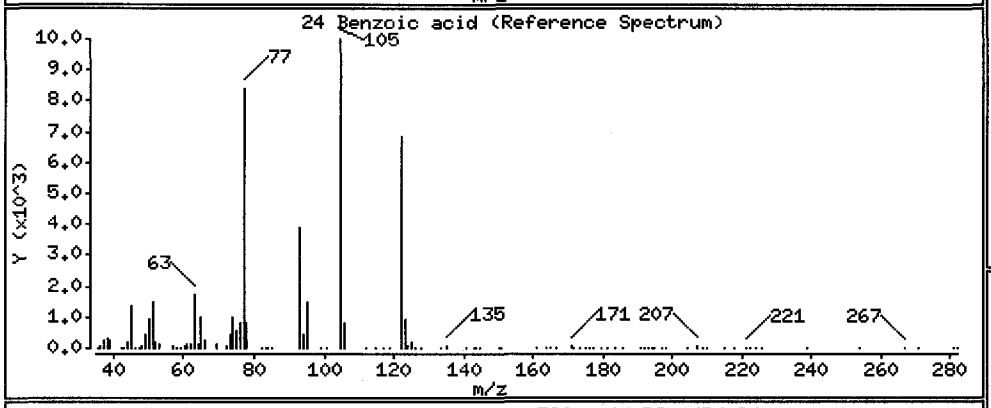
Volume Injected (uL): 1.0 Operator: VTS/YZ

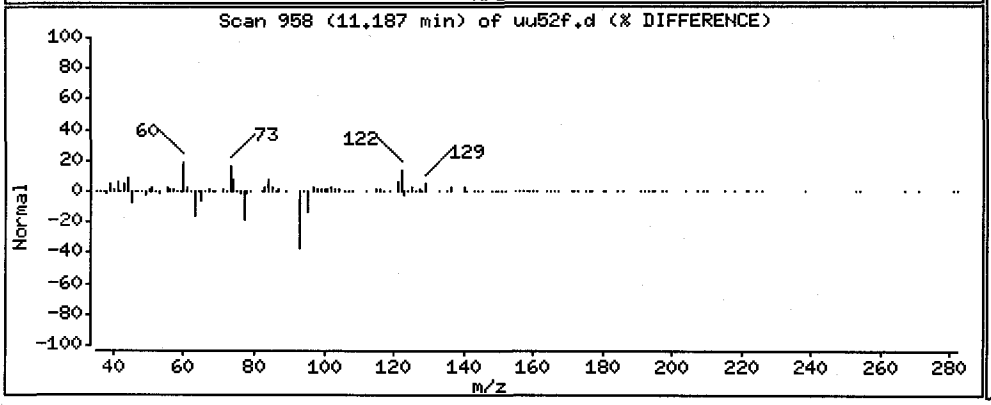
Column phase: ZB-5msi Column diameter: 0.25

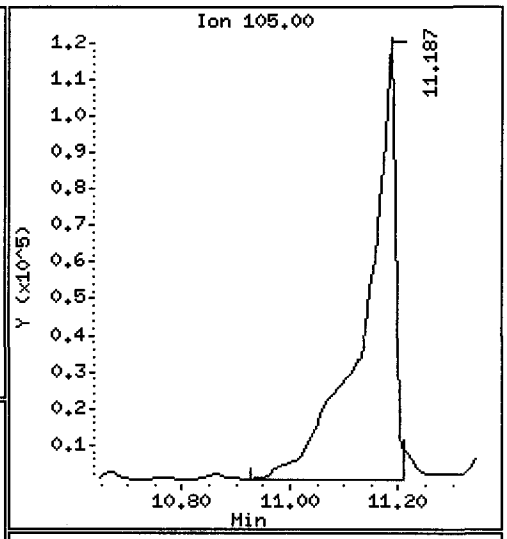
24 Benzoic acid Concentration: 3137 ug/kg

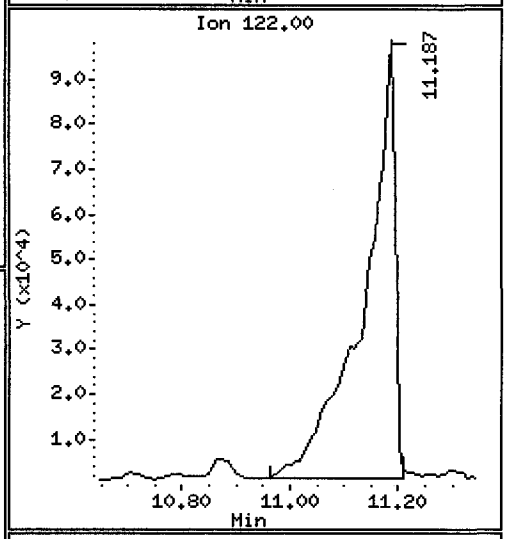


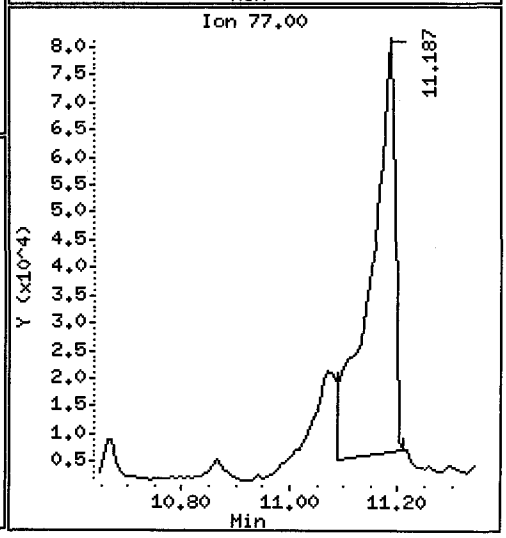



Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

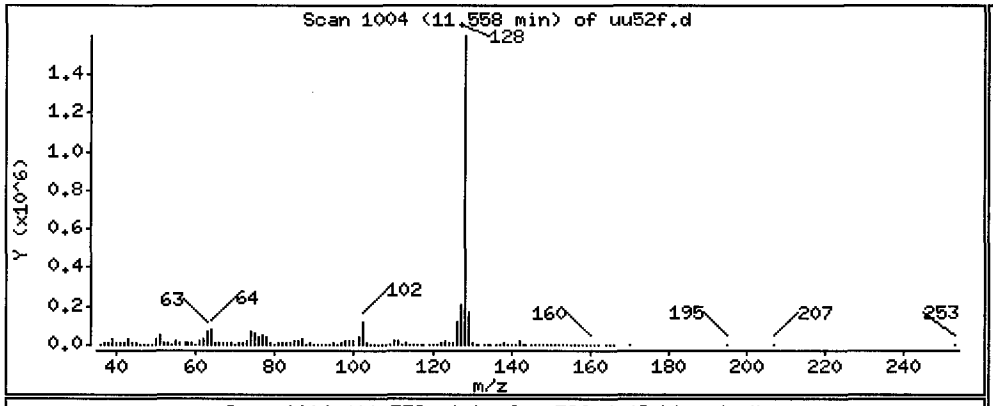
Client ID: MS005-SS-120515 Instrument: nt10.i

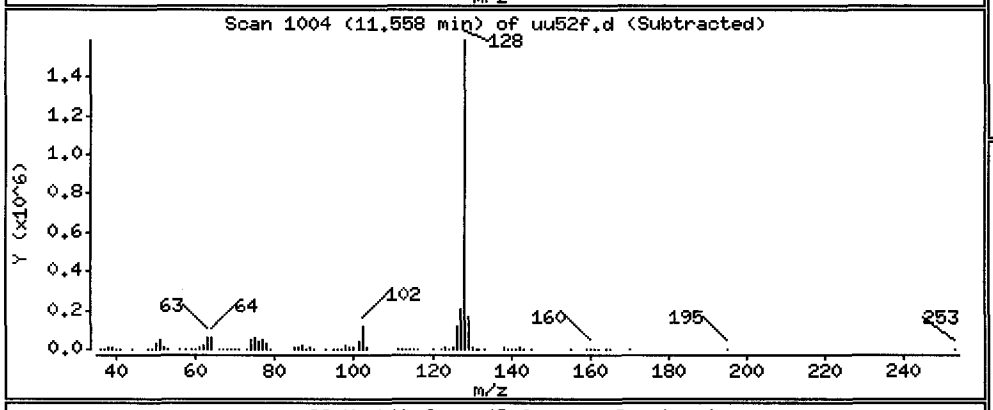
Sample Info: UU52F,3

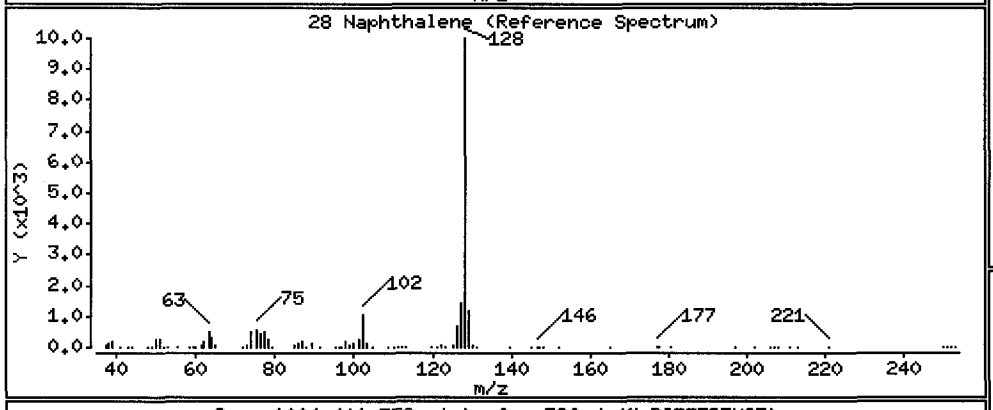
Volume Injected (uL): 1.0 Operator: VTS/YZ

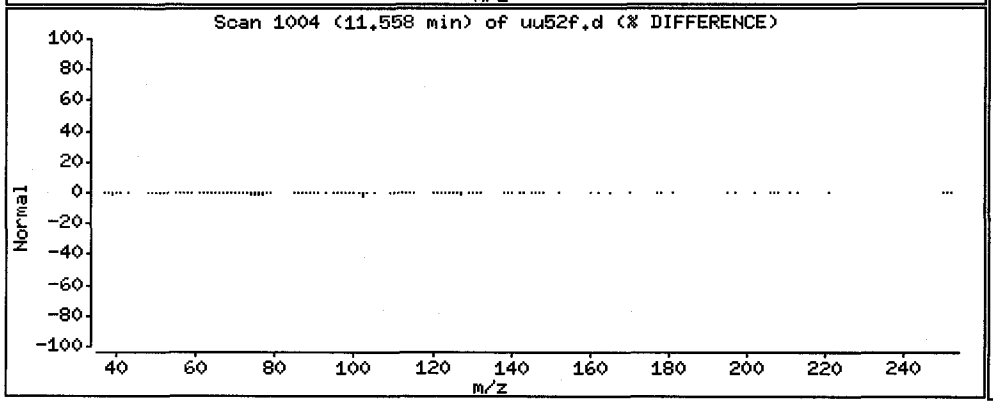
Column phase: ZB-5msi Column diameter: 0.25

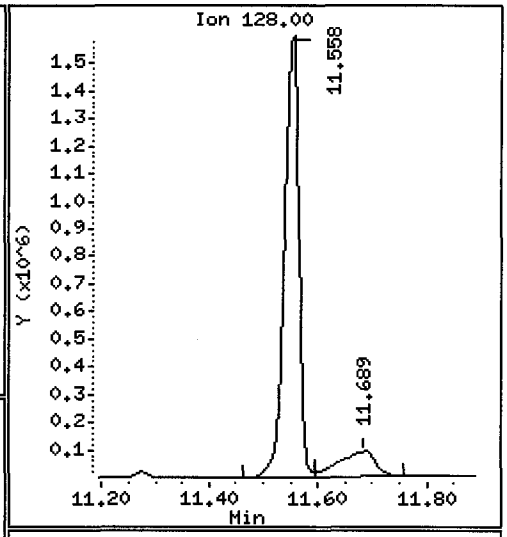
28 Naphthalene Concentration: 4424 ug/kg

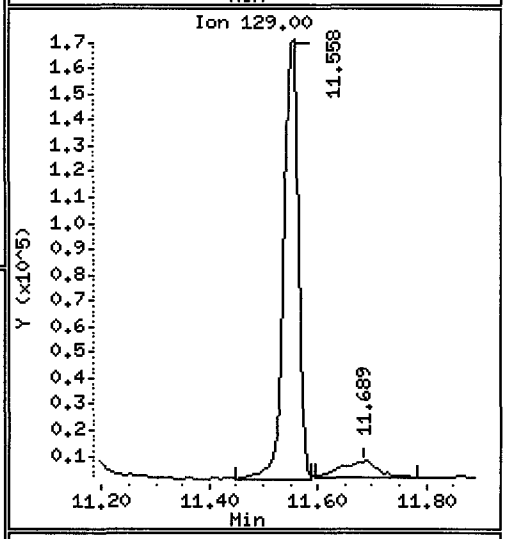


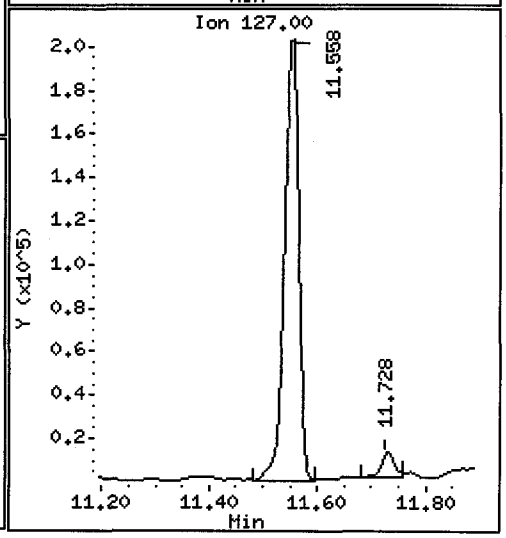



Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

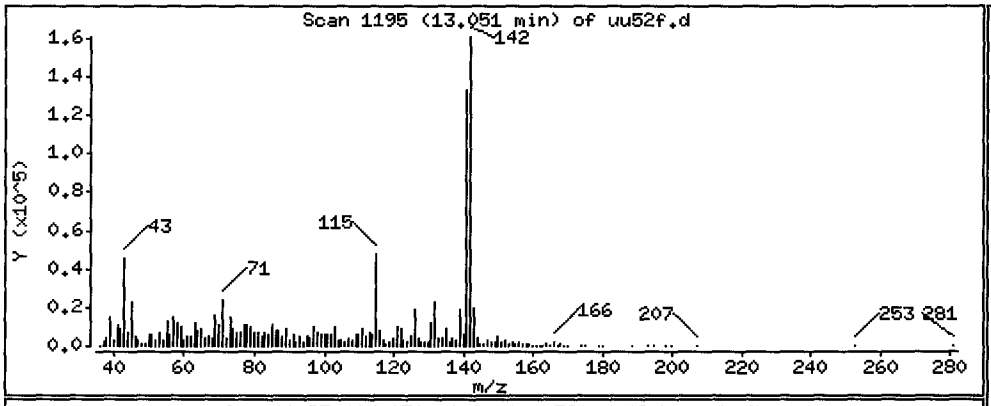
Client ID: MS005-SS-120515 Instrument: nt10.i

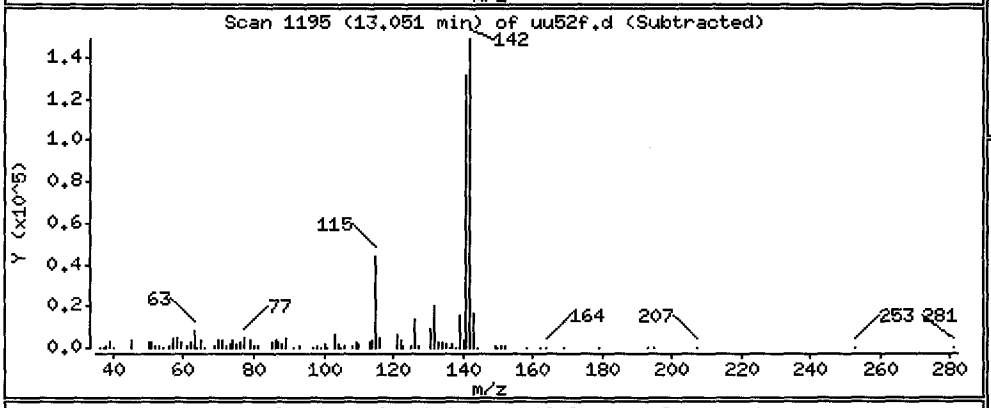
Sample Info: UU52F,3

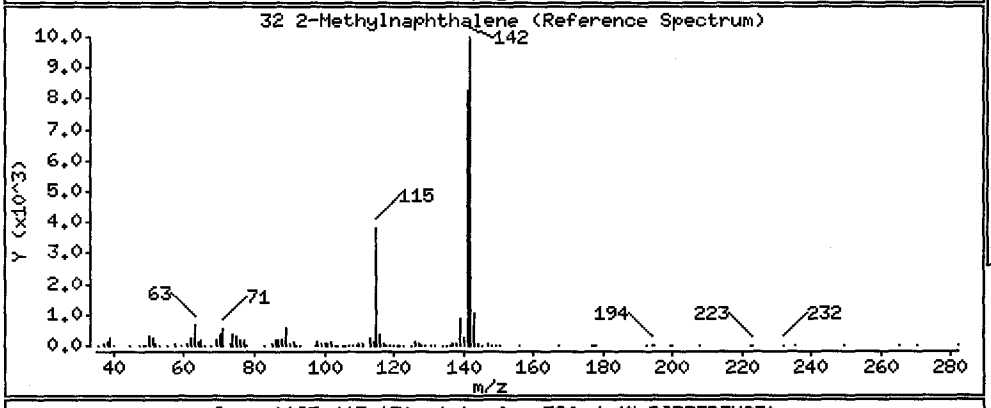
Volume Injected (uL): 1.0 Operator: VTS/YZ

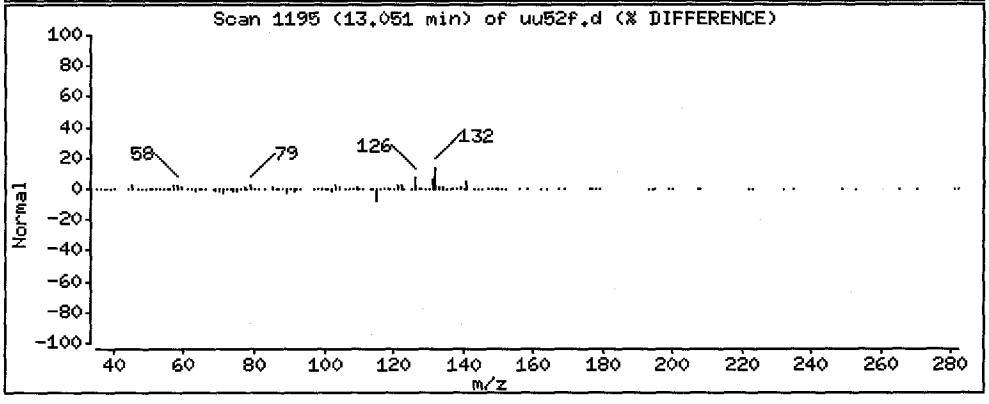
Column phase: ZB-5msi Column diameter: 0.25

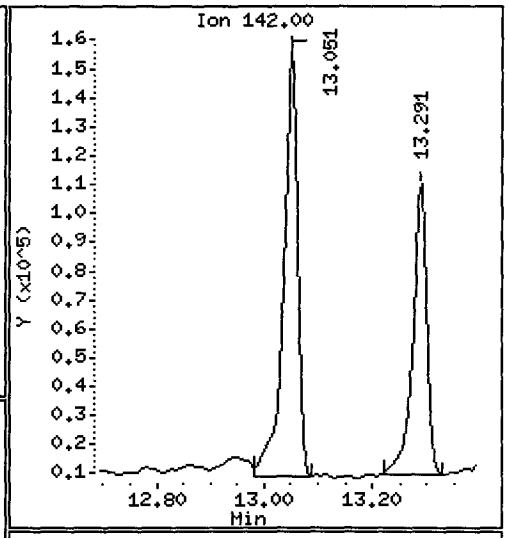
32 2-Methylnaphthalene Concentration: 598.9 ug/kg

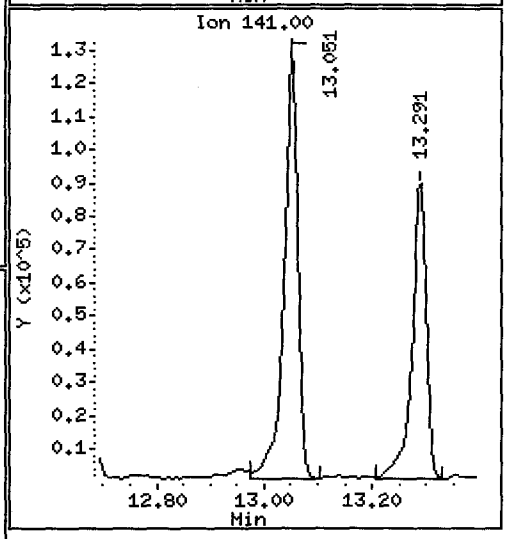


Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

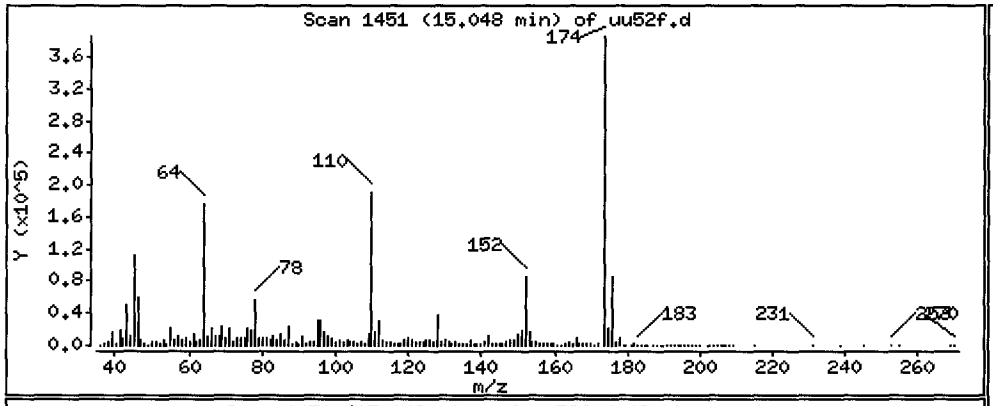
Client ID: MS005-SS-120515 Instrument: nt10.i

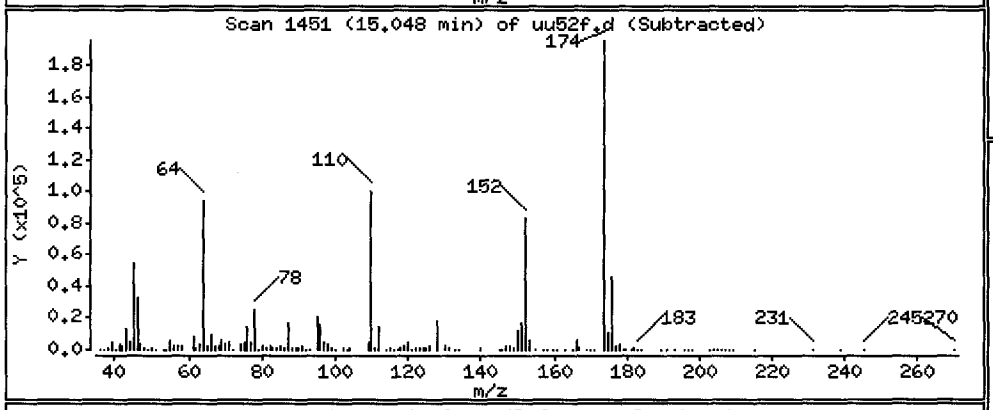
Sample Info: UU52F,3

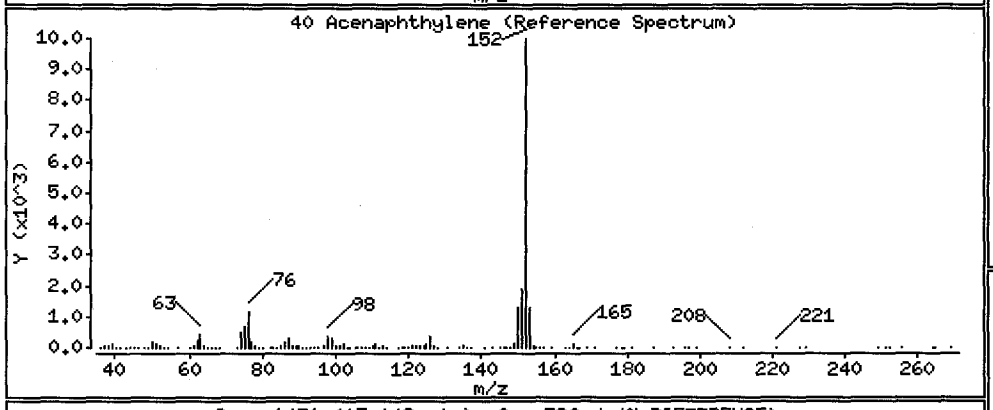
Volume Injected (uL): 1.0 Operator: VTS/YZ

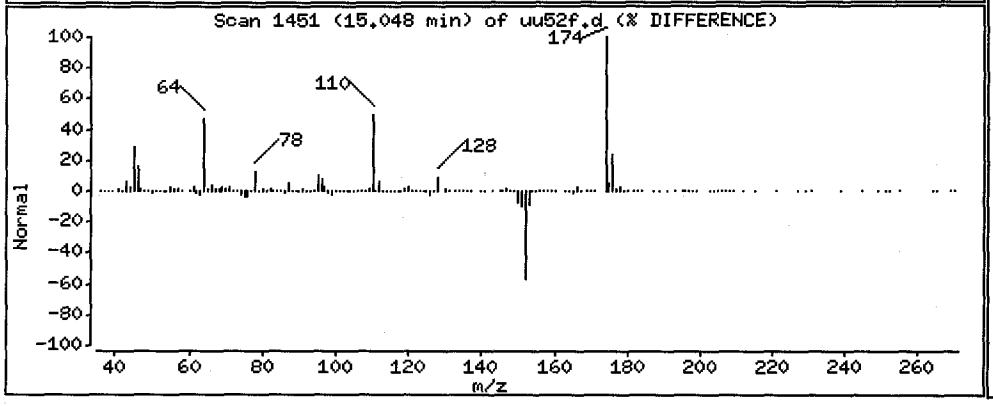
Column phase: ZB-5msi Column diameter: 0.25

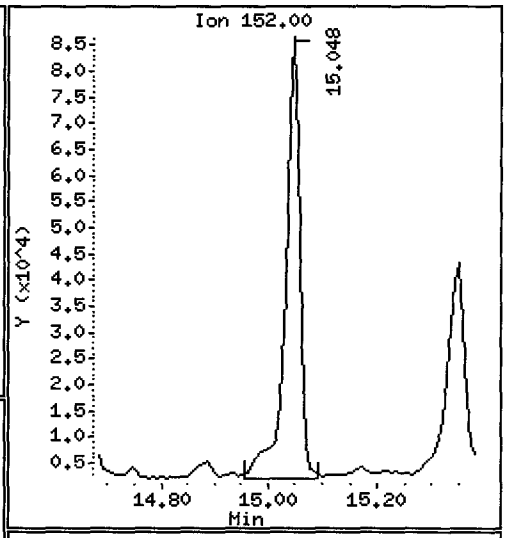
40 Acenaphthylene Concentration: 251.2 ug/kg

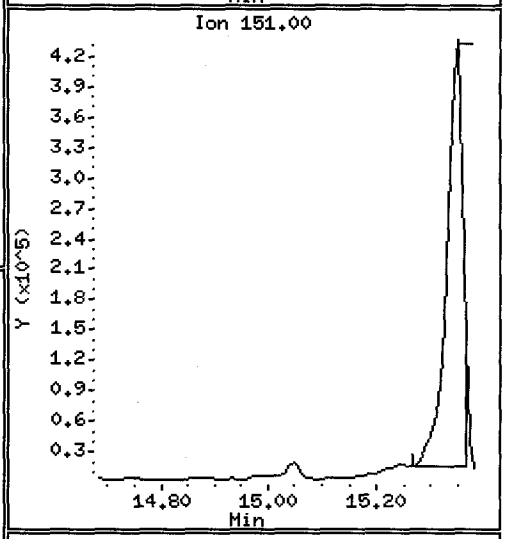


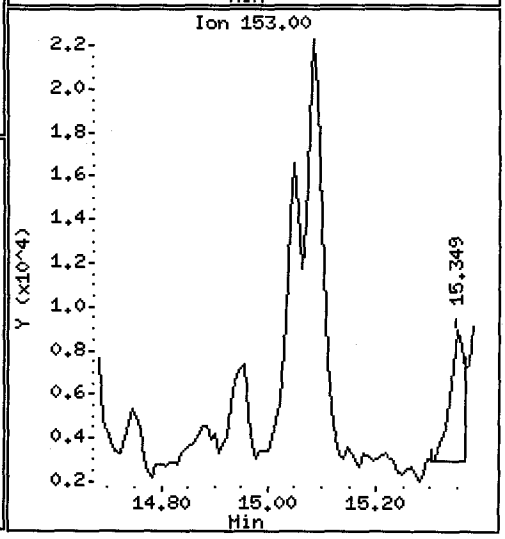



Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

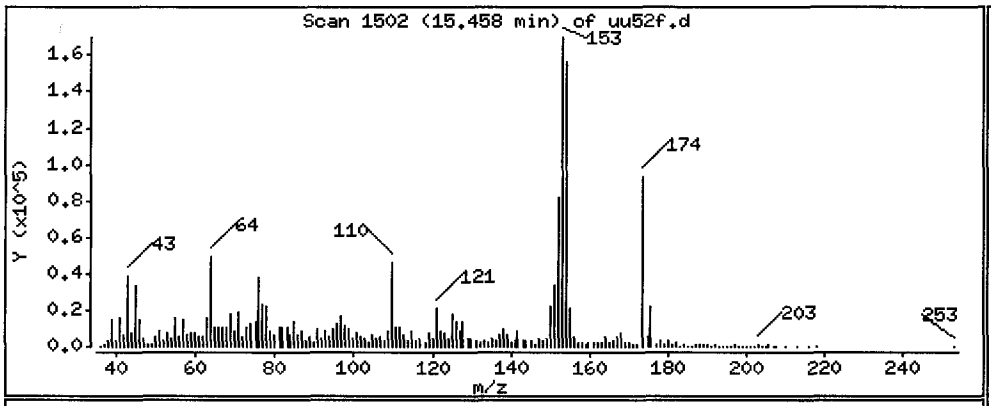
Client ID: MS005-SS-120515 Instrument: nt10.i

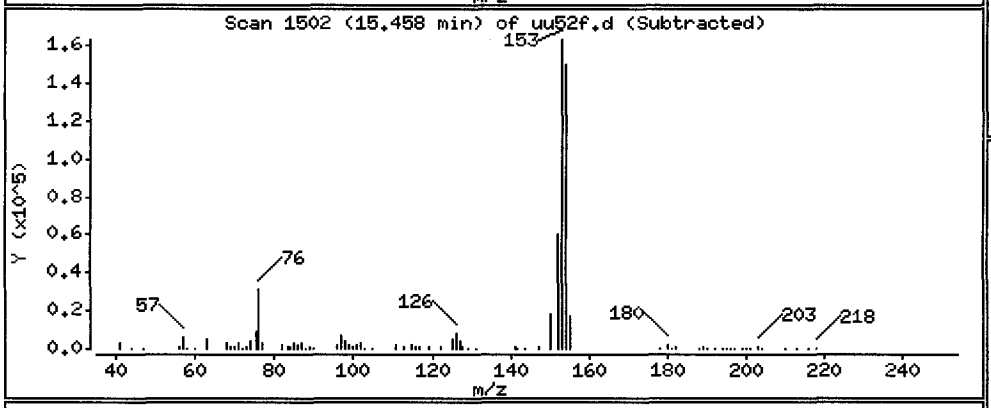
Sample Info: UU52F,3

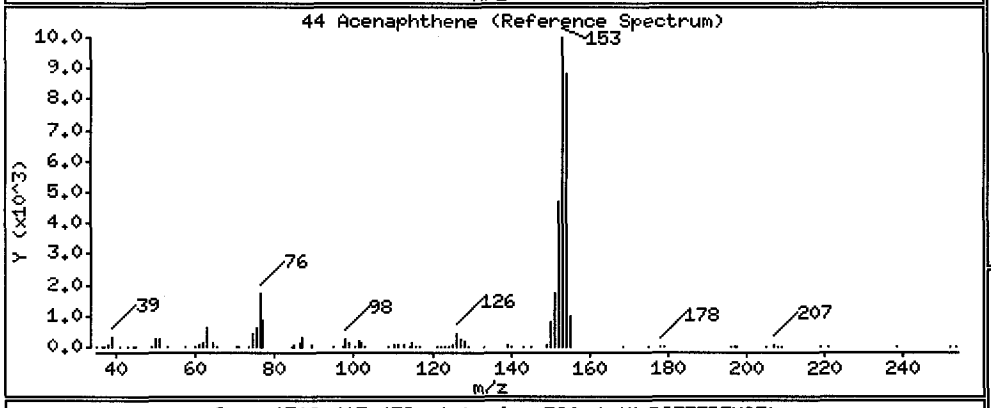
Volume Injected (uL): 1.0 Operator: VTS/YZ

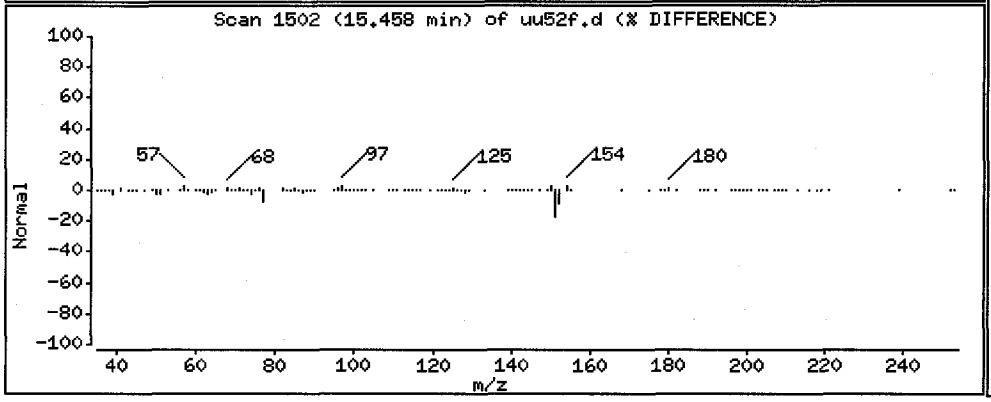
Column phase: ZB-5msi Column diameter: 0.25

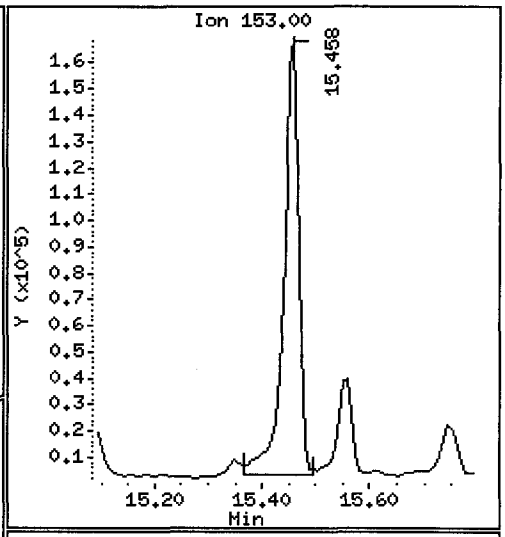
44 Acenaphthene Concentration: 821.8 ug/kg

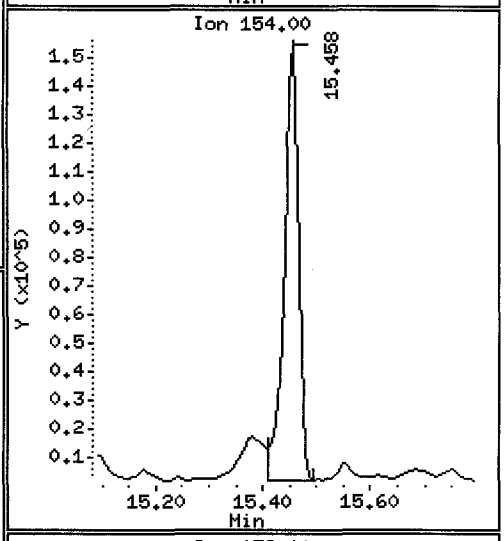


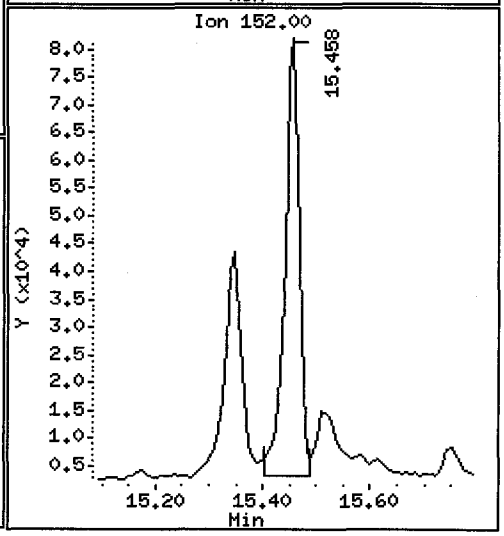



Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

Client ID: MS005-SS-120515

Instrument: nt10.i

Sample Info: UU52F,3

Volume Injected (uL): 1.0

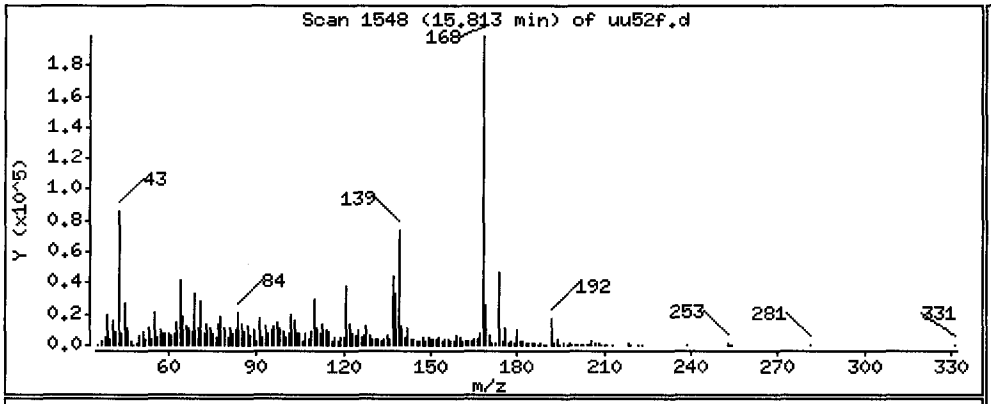
Operator: VTS/YZ

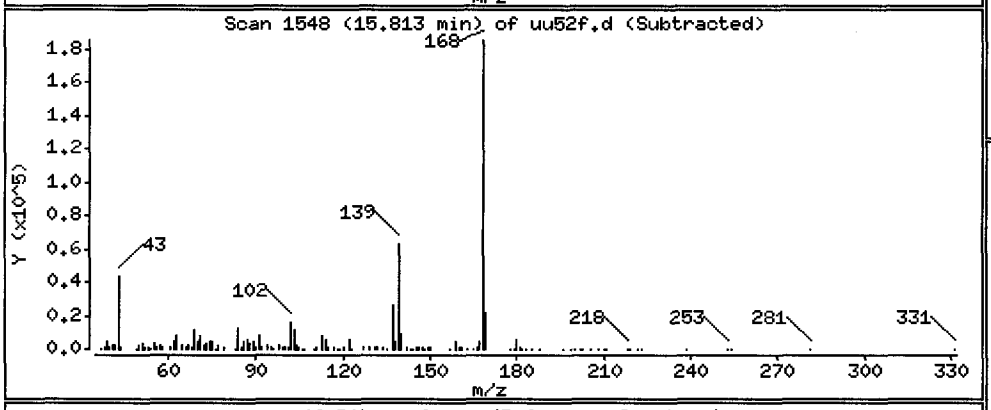
Column phase: ZB-5msi

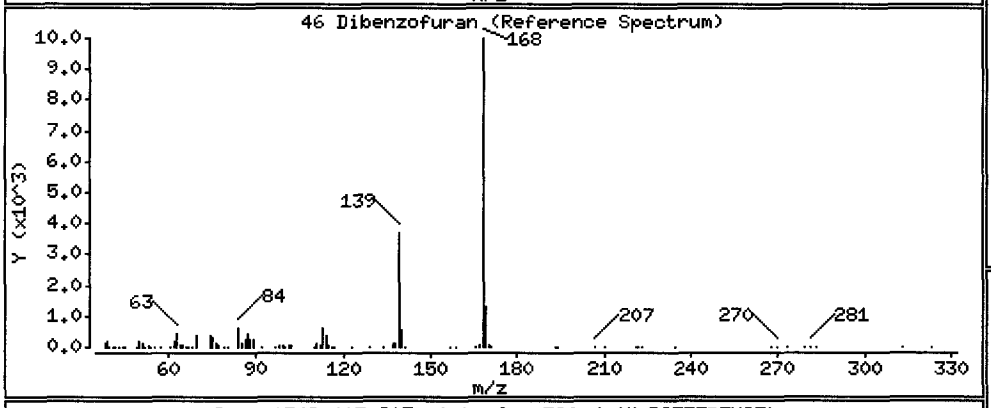
Column diameter: 0.25

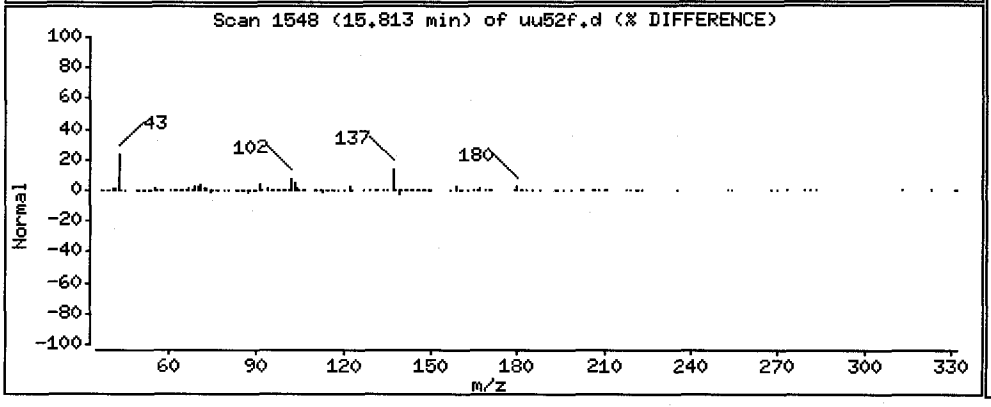
46 Dibenzofuran

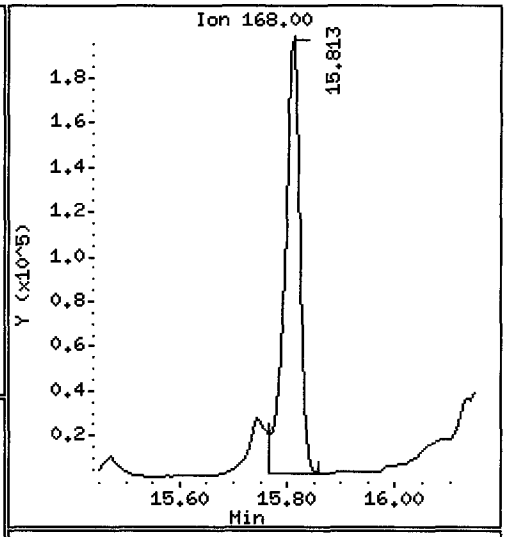
Concentration: 660.4 ug/kg

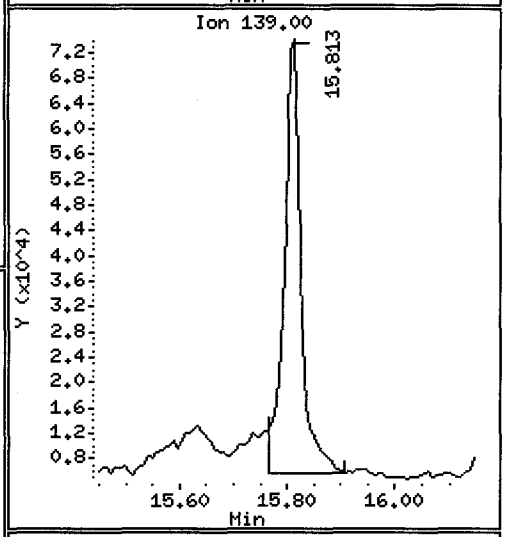


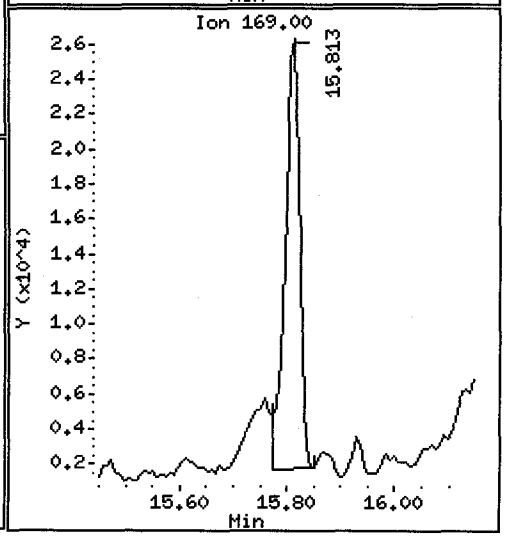



Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

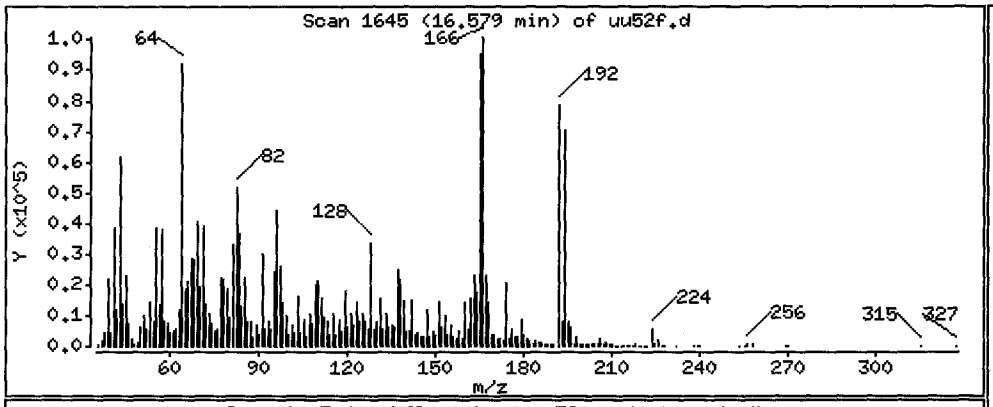
Client ID: MS005-SS-120515 Instrument: nt10.i

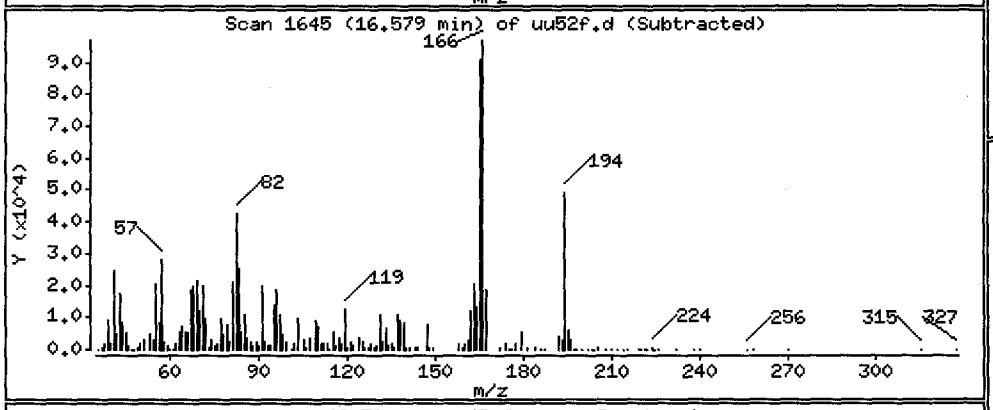
Sample Info: UU52F,3

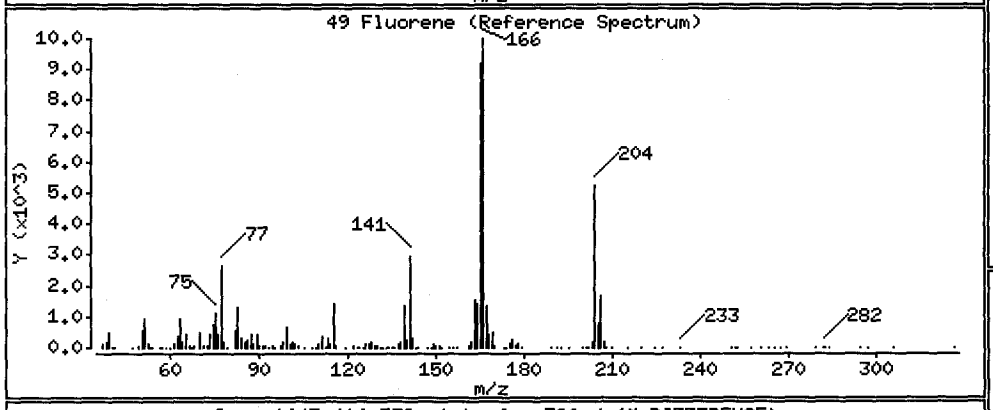
Volume Injected (uL): 1.0 Operator: VTS/YZ

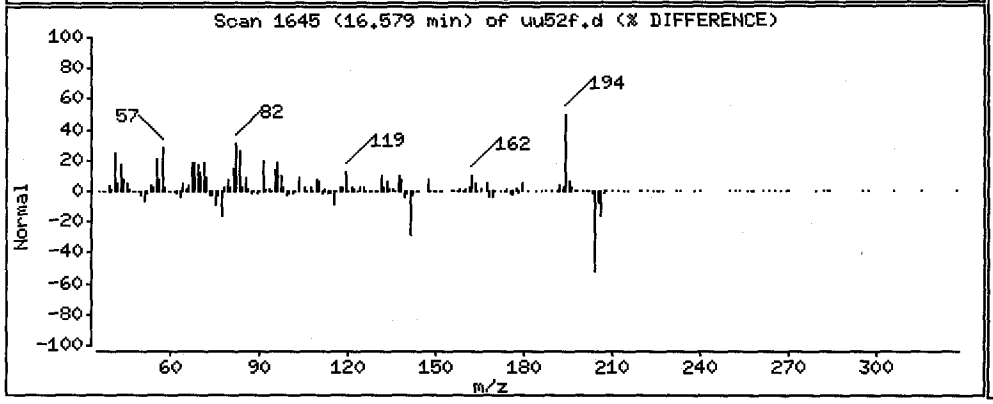
Column phase: ZB-5msi Column diameter: 0.25

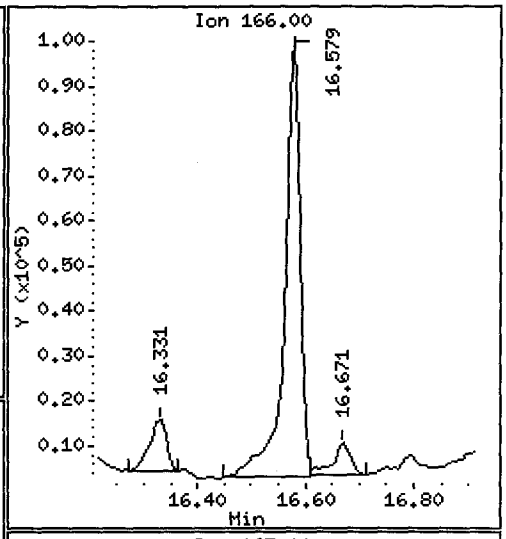
49 Fluorene Concentration: 452.5 ug/kg

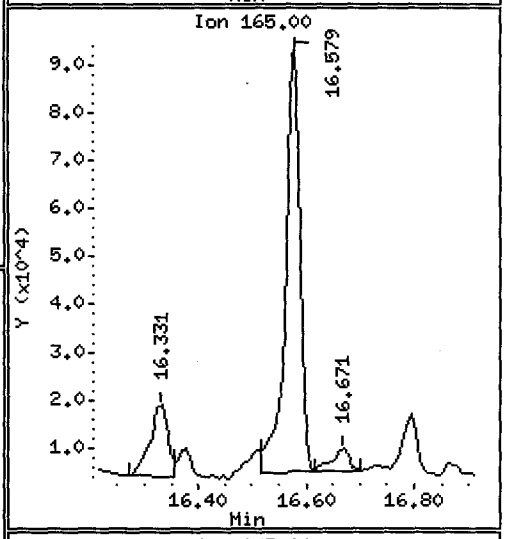


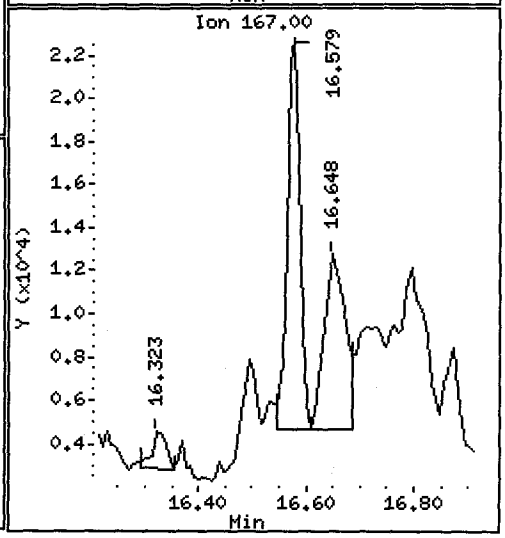



Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

Client ID: MS005-SS-120515

Instrument: nt10.i

Sample Info: UU52F,3

Volume Injected (uL): 1.0

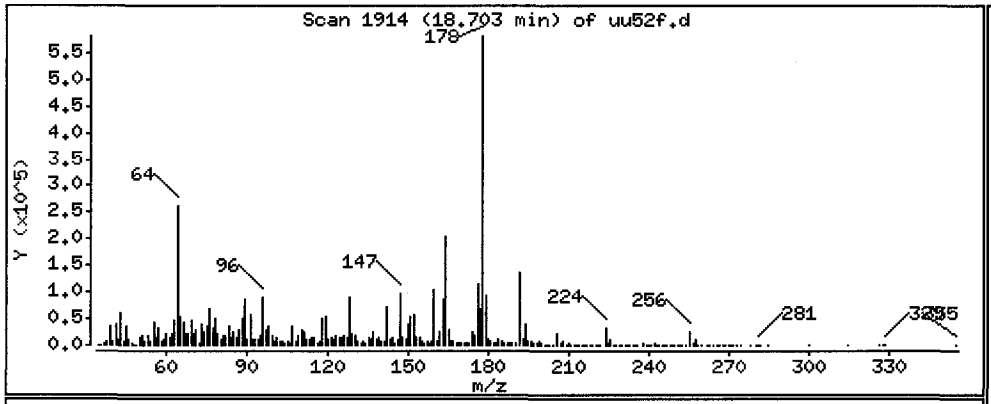
Operator: VTS/YZ

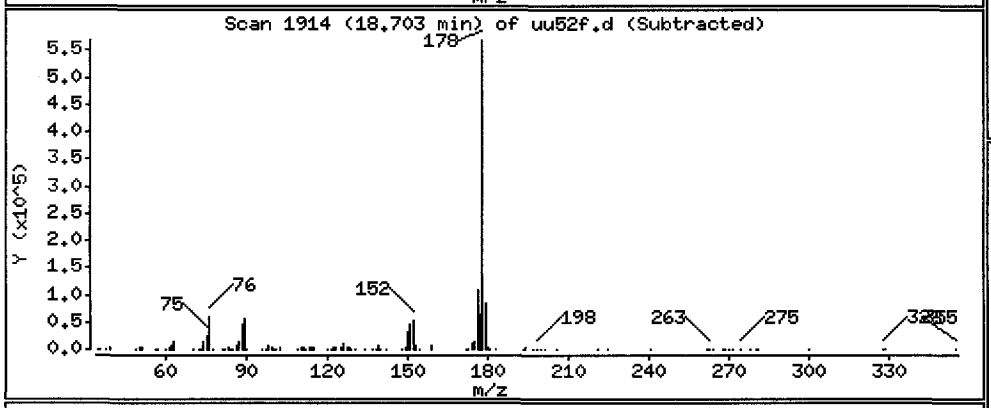
Column phase: ZB-5msi

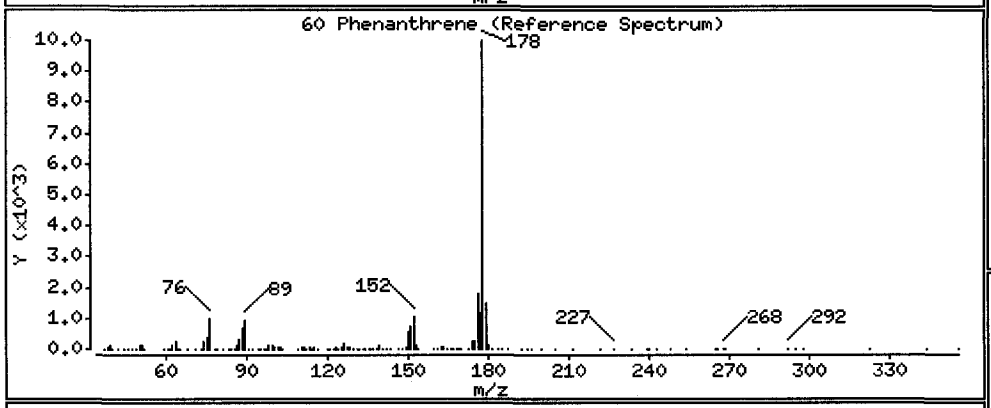
Column diameter: 0.25

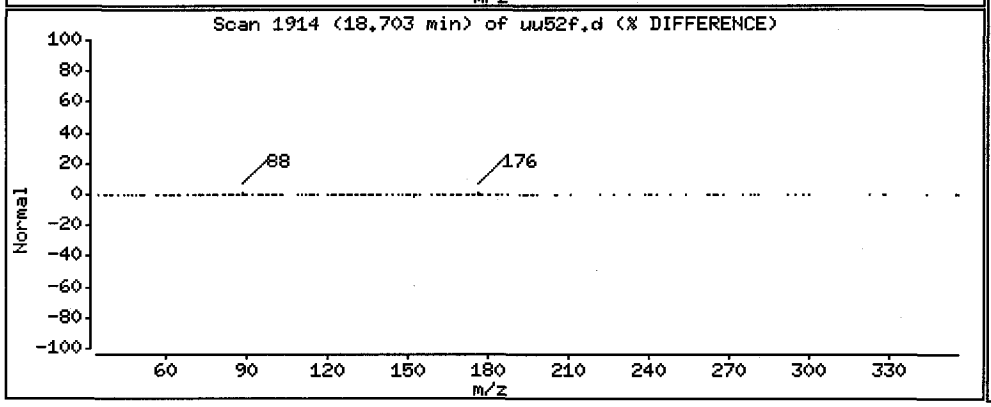
60 Phenanthrene

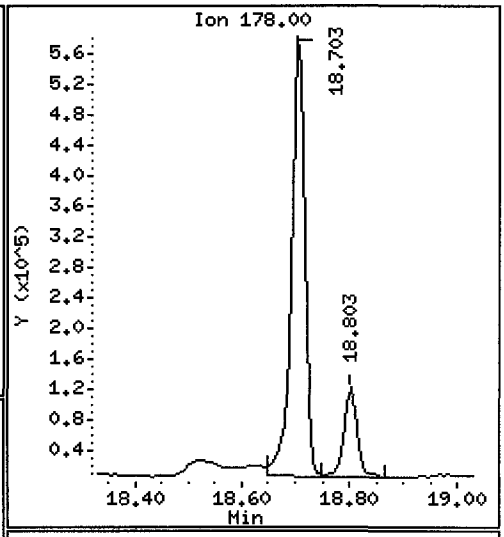
Concentration: 1824 ug/kg

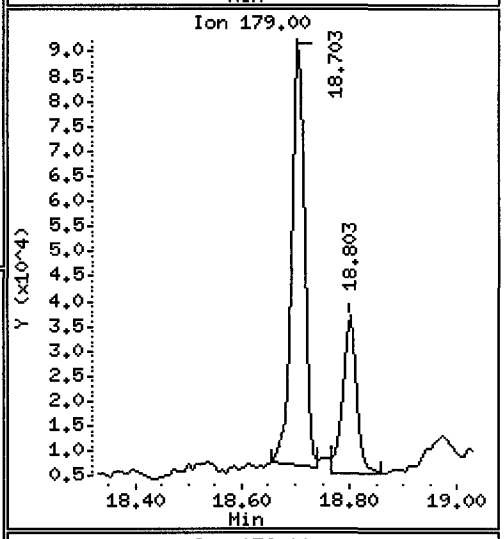


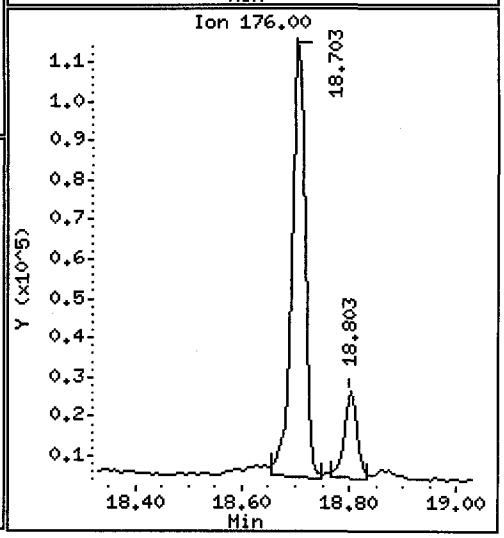



Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

Client ID: MS005-SS-120515

Instrument: nt10.i

Sample Info: UU52F,3

Volume Injected (uL): 1.0

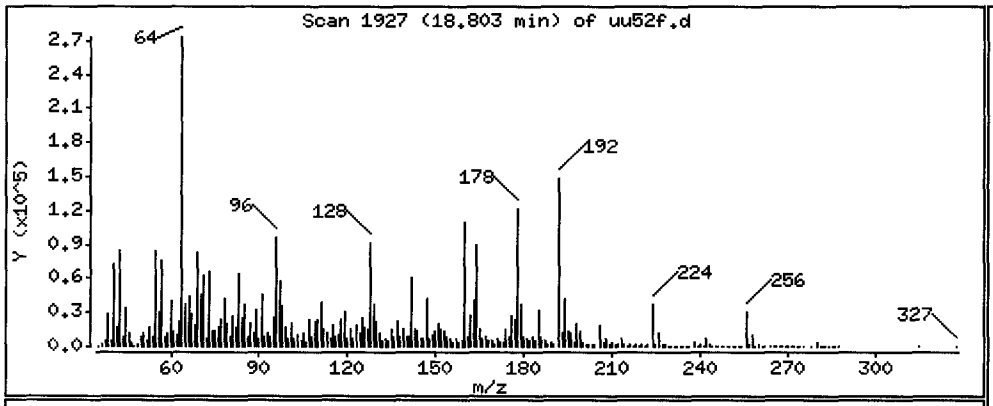
Operator: VTS/YZ

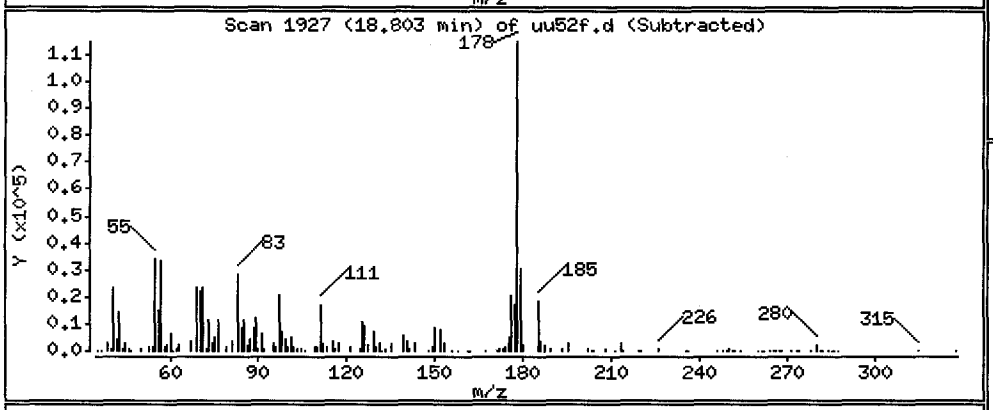
Column phase: ZB-5msi

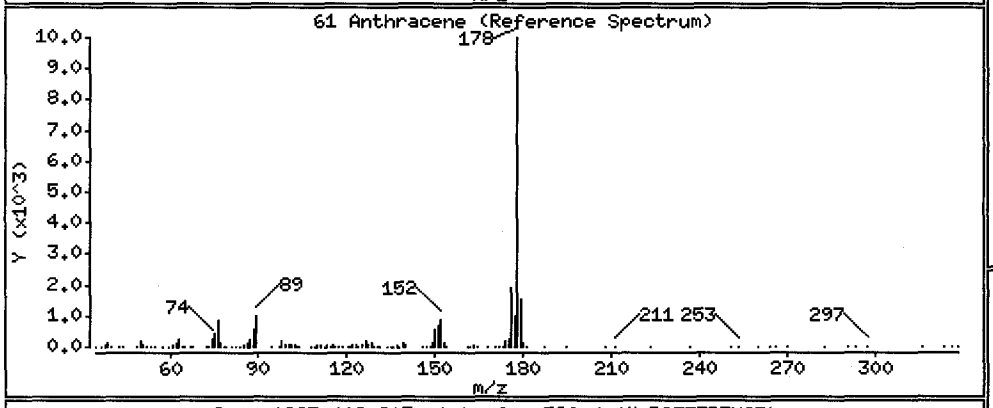
Column diameter: 0.25

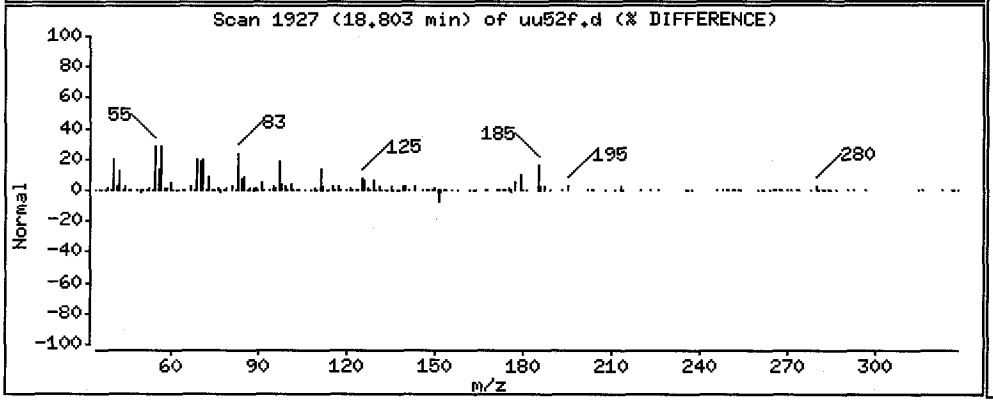
61 Anthracene

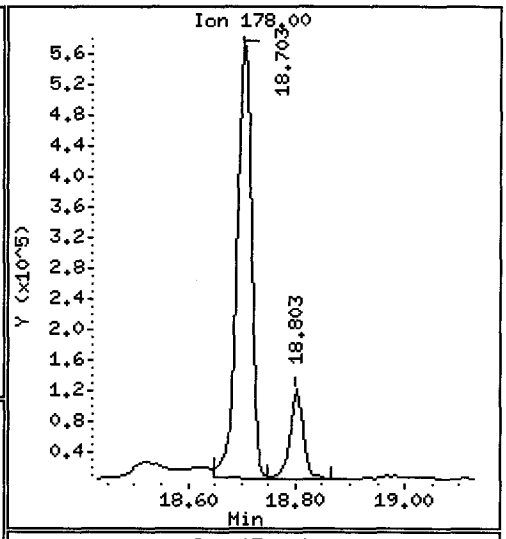
Concentration: 349.0 ug/kg

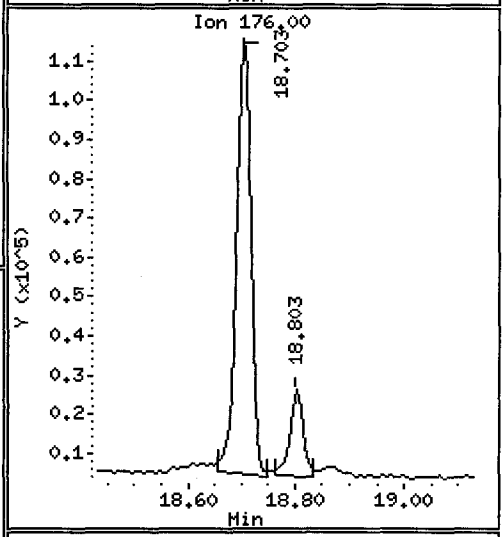


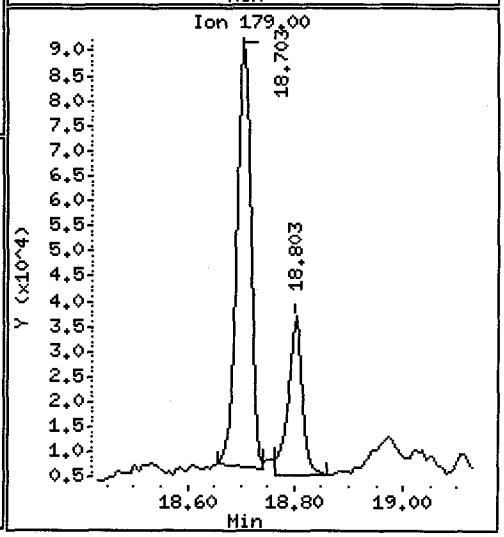



Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

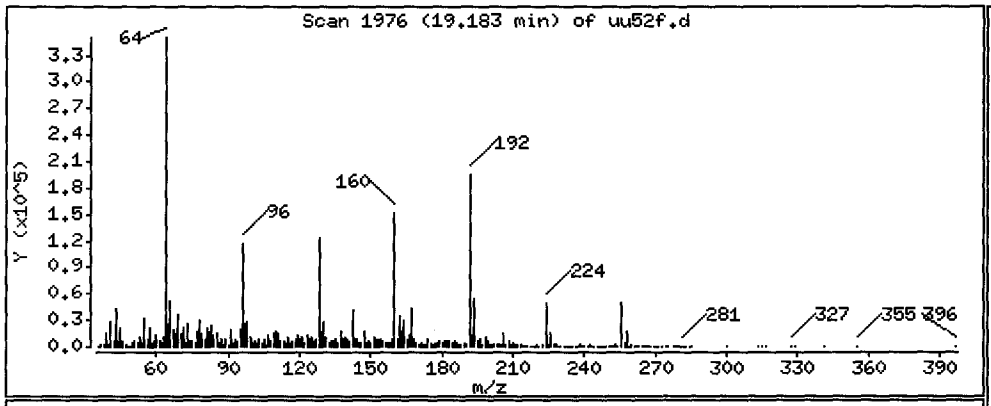
Client ID: MS005-SS-120515 Instrument: nt10.i

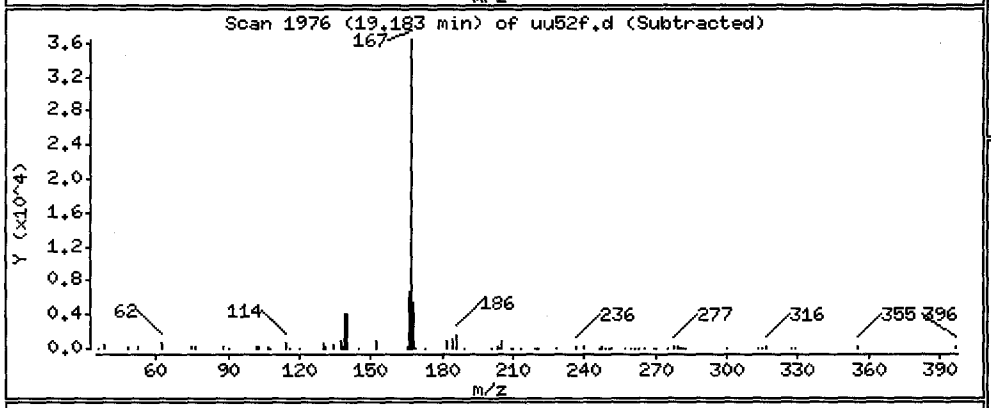
Sample Info: UU52F,3

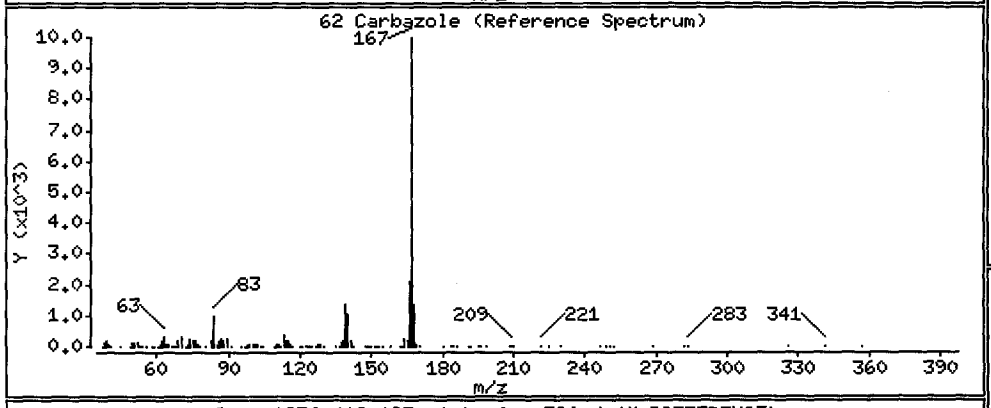
Volume Injected (uL): 1.0 Operator: VTS/YZ

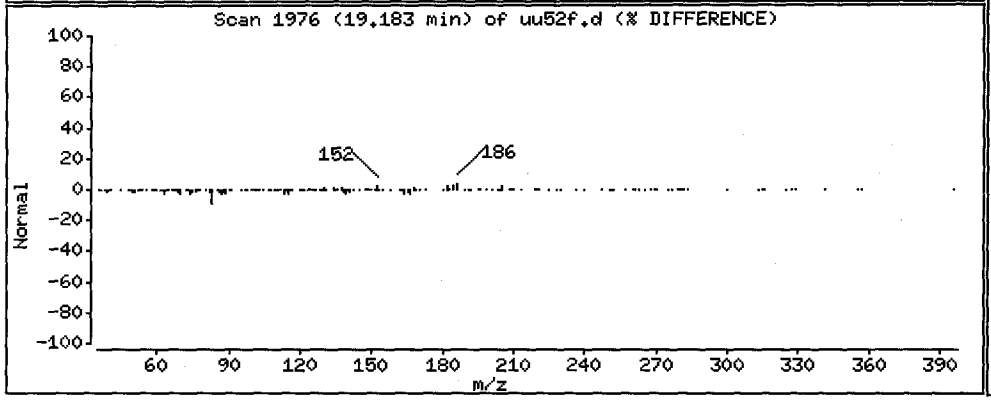
Column phase: ZB-5msi Column diameter: 0.25

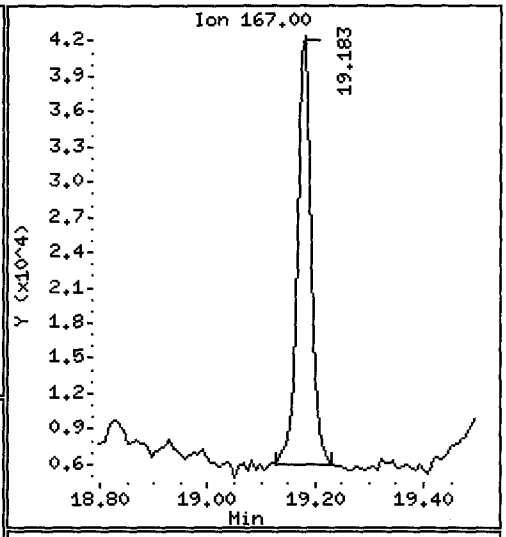
62 Carbazole Concentration: 126.7 ug/kg

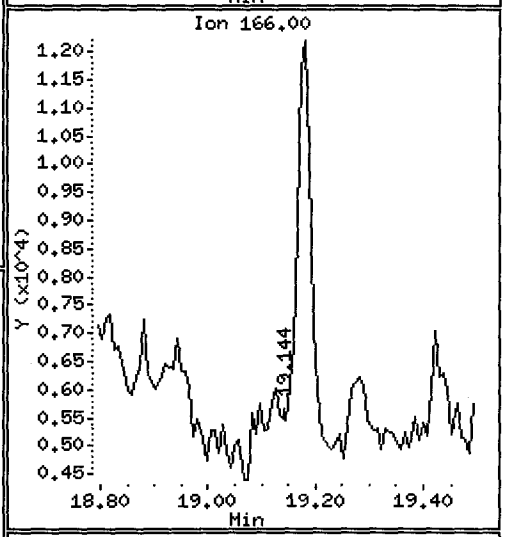


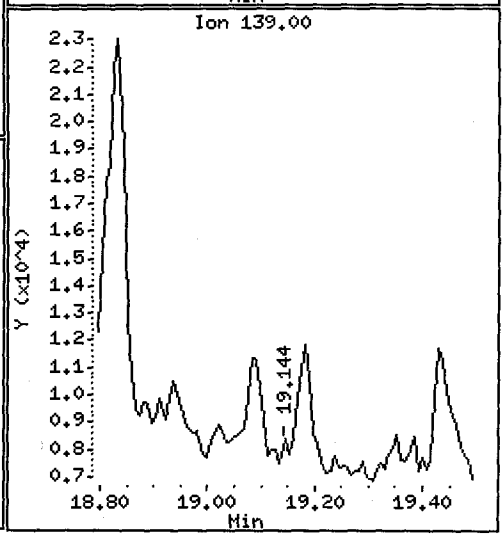



Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

Client ID: MS005-SS-120515

Instrument: nt10.i

Sample Info: UU52F,3

Volume Injected (uL): 1.0

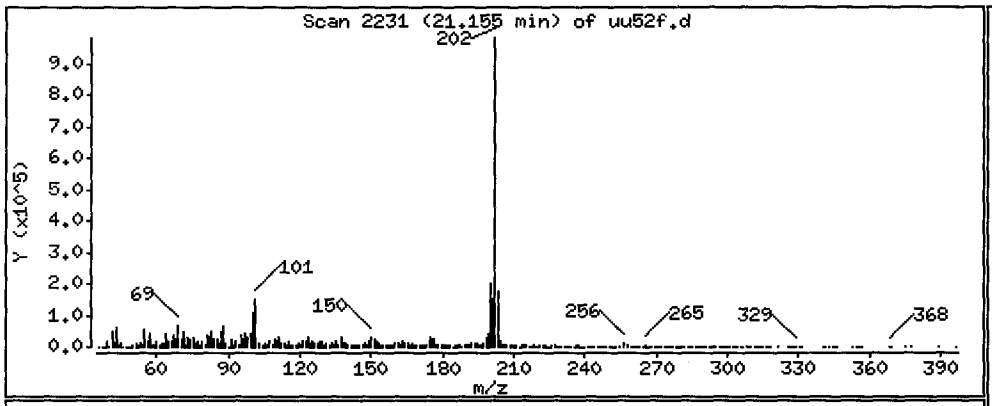
Operator: VTS/YZ

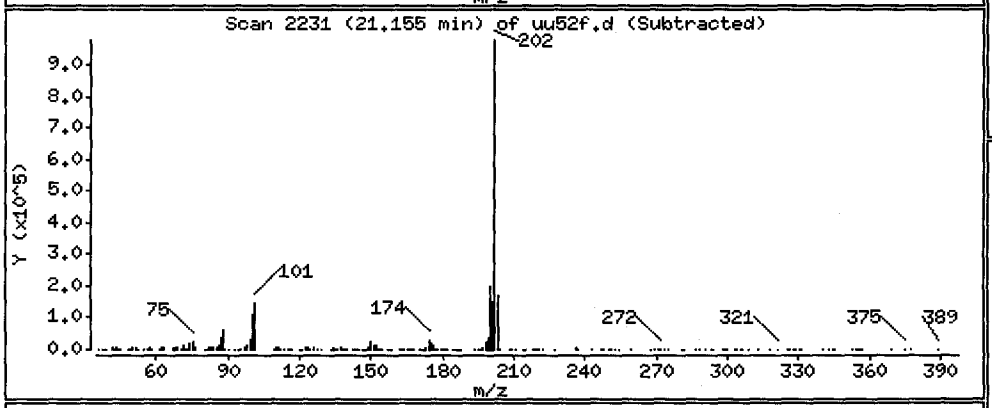
Column phase: ZB-5msi

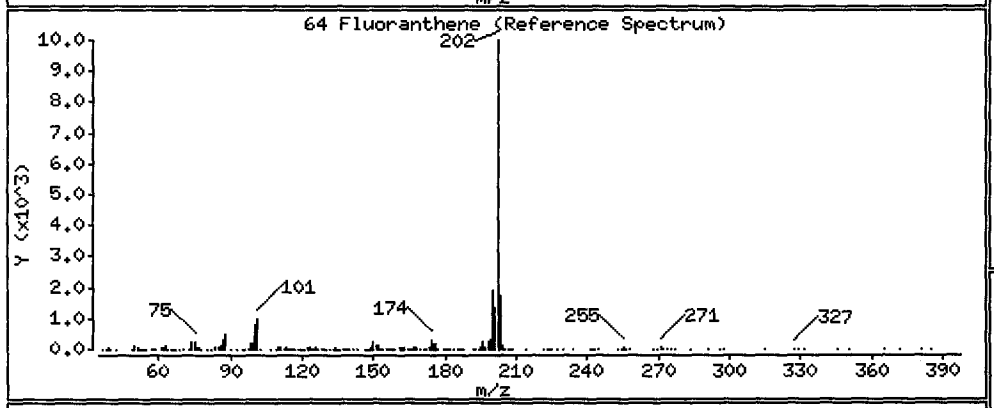
Column diameter: 0.25

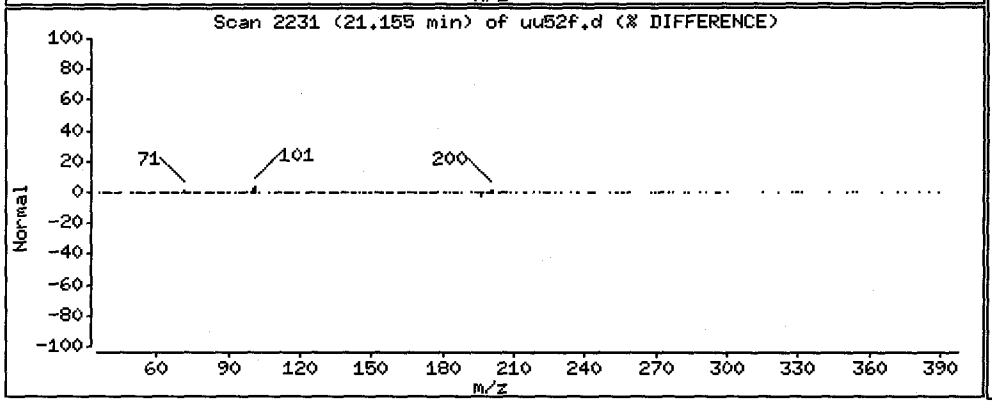
64 Fluoranthene

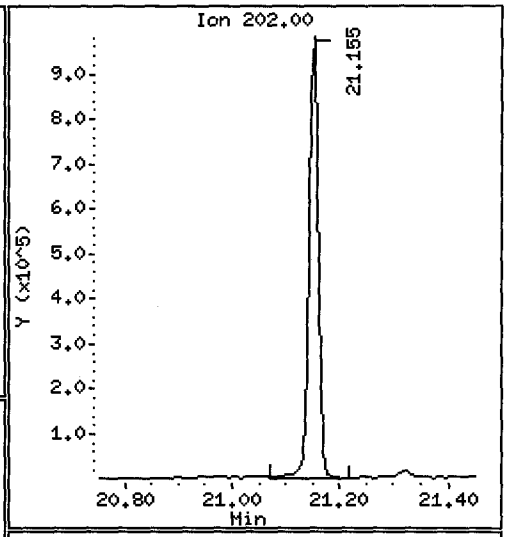
Concentration: 1940 ug/kg

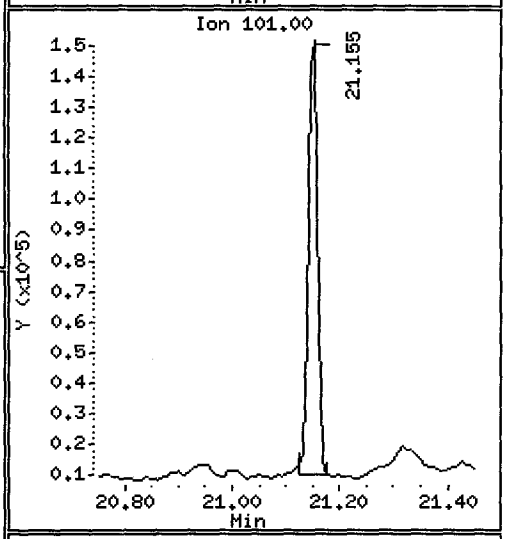


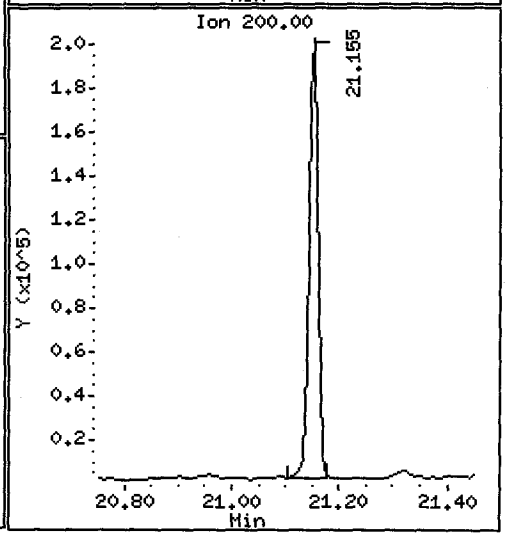



Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

Client ID: MS005-SS-120515

Instrument: nt10.i

Sample Info: UU52F,3

Volume Injected (uL): 1.0

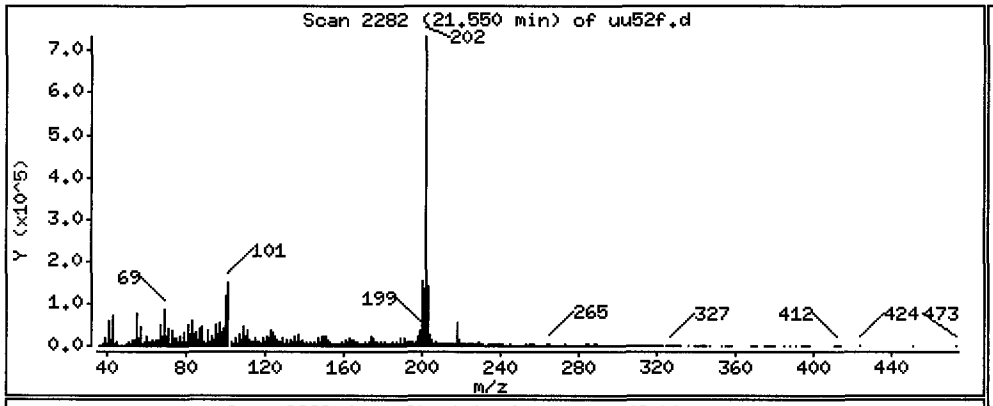
Operator: VTS/YZ

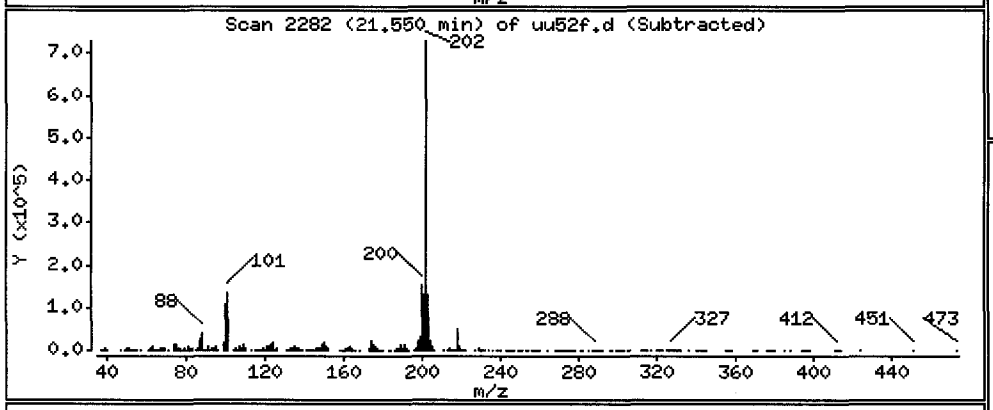
Column phase: ZB-5msi

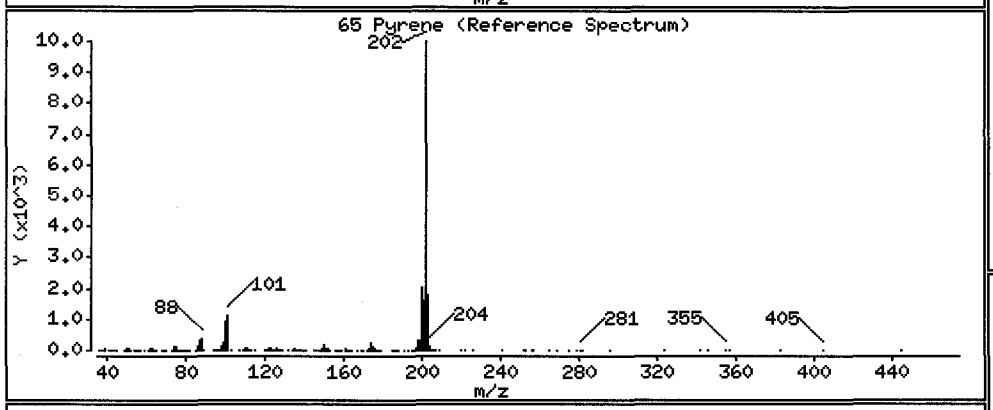
Column diameter: 0.25

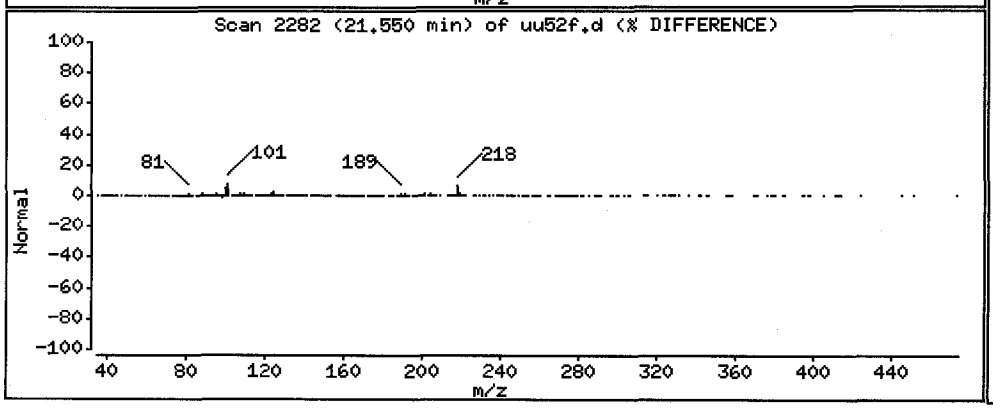
65 Pyrene

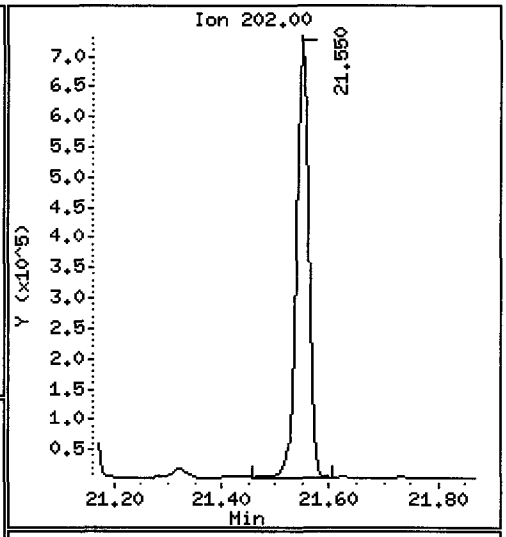
Concentration: 1596 ug/kg

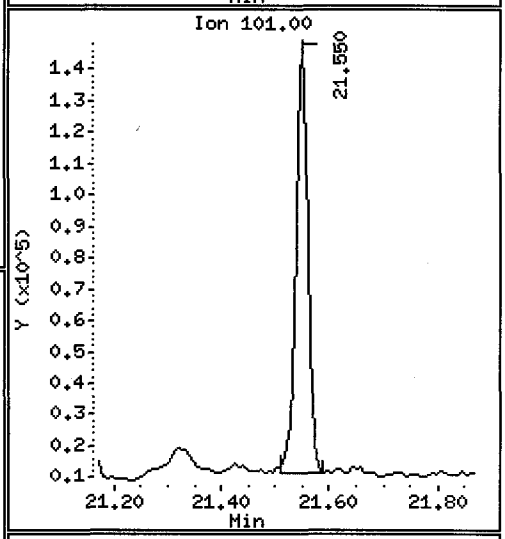


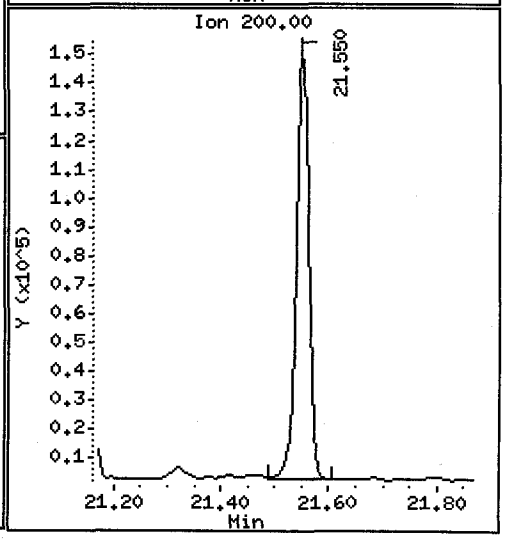



Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

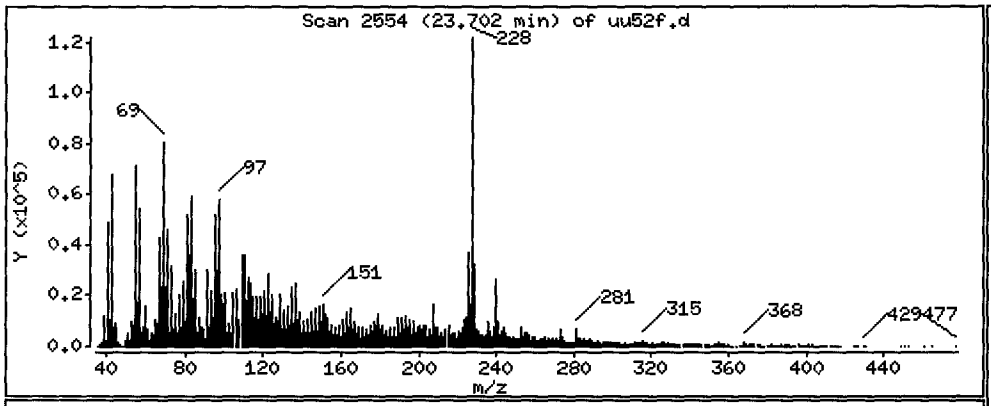
Client ID: MS005-SS-120515 Instrument: nt10.i

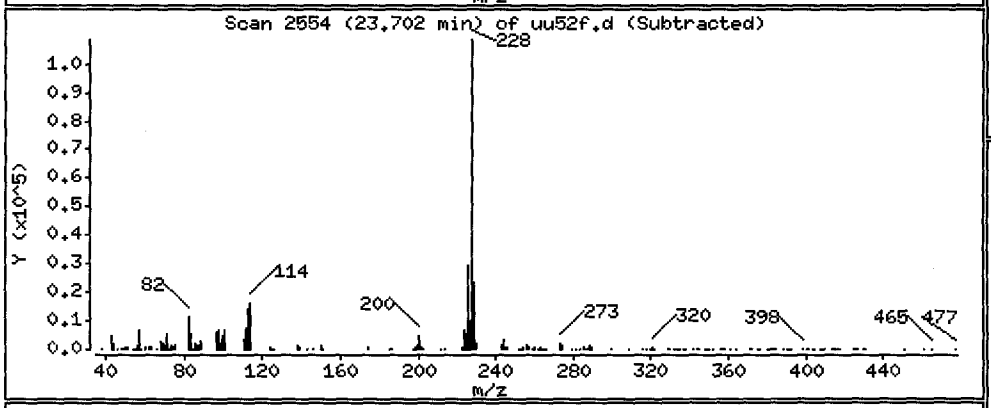
Sample Info: UU52F,3

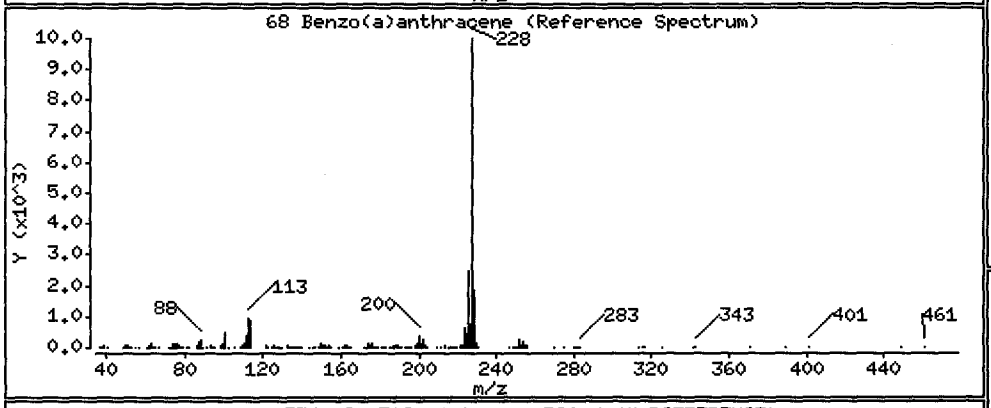
Volume Injected (uL): 1.0 Operator: VTS/YZ

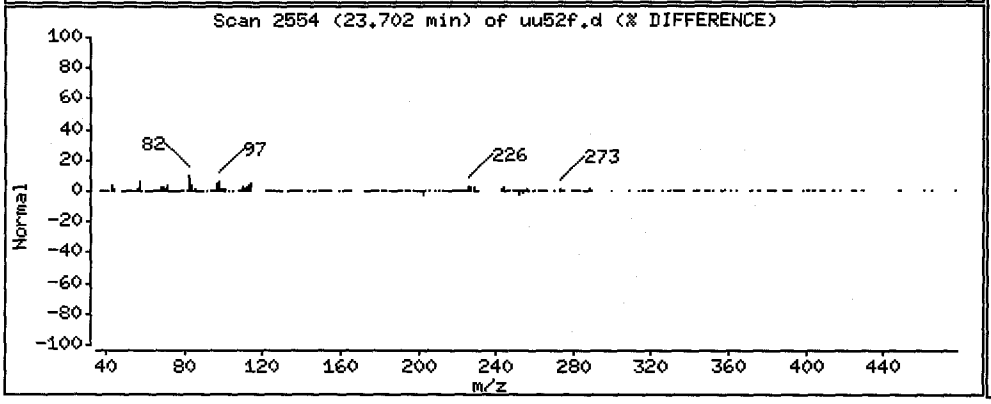
Column phase: ZB-5msi Column diameter: 0.25

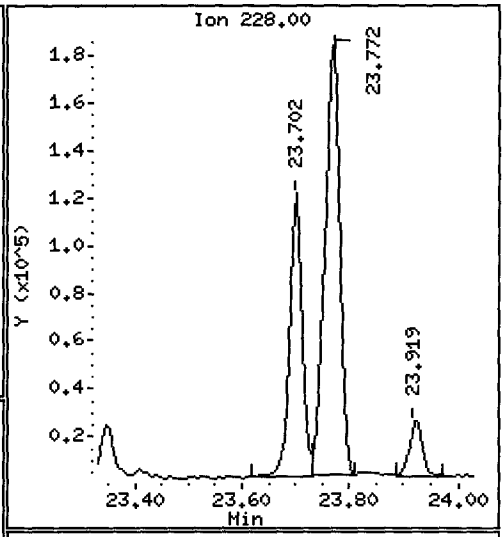
68 Benzo(a)anthracene Concentration: 295.4 ug/kg

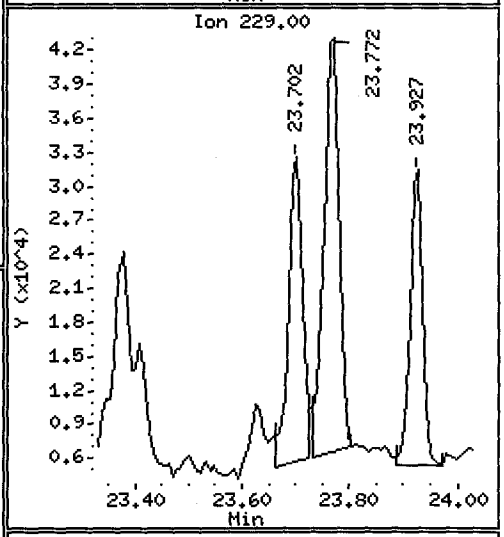


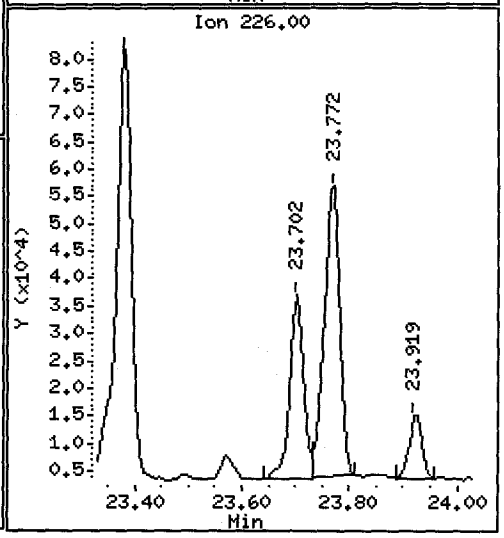



Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

Client ID: MS005-SS-120515

Instrument: nt10.i

Sample Info: UU52F,3

Volume Injected (uL): 1.0

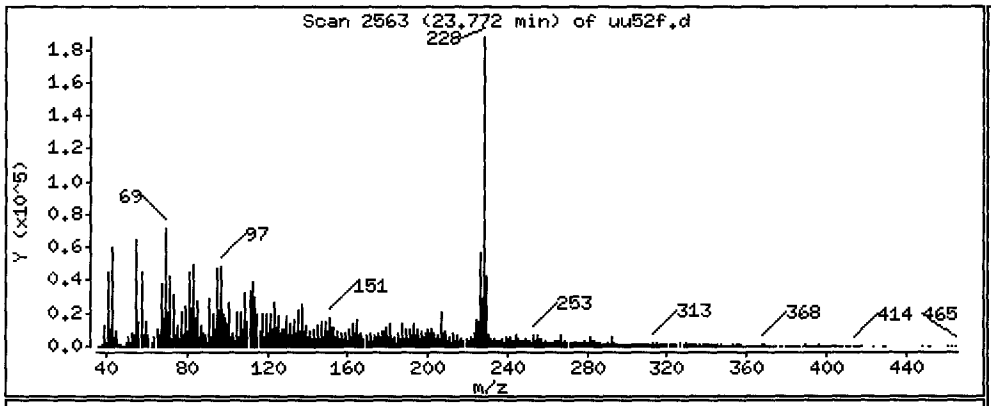
Operator: VTS/YZ

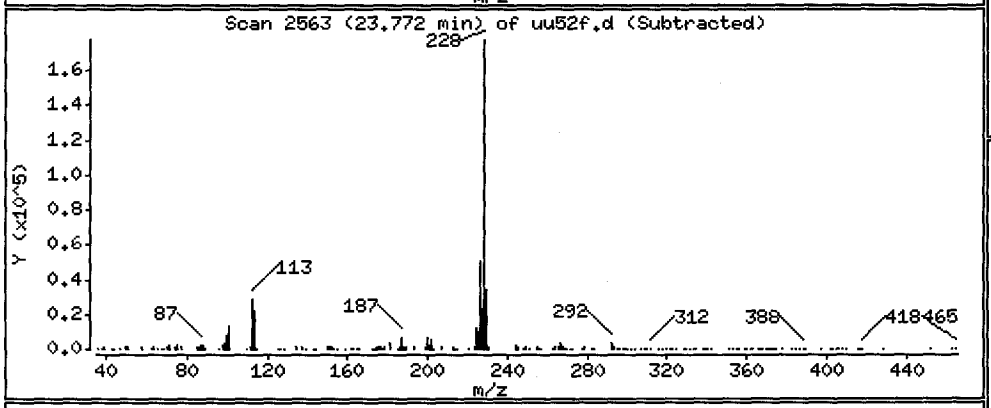
Column phase: ZB-5msi

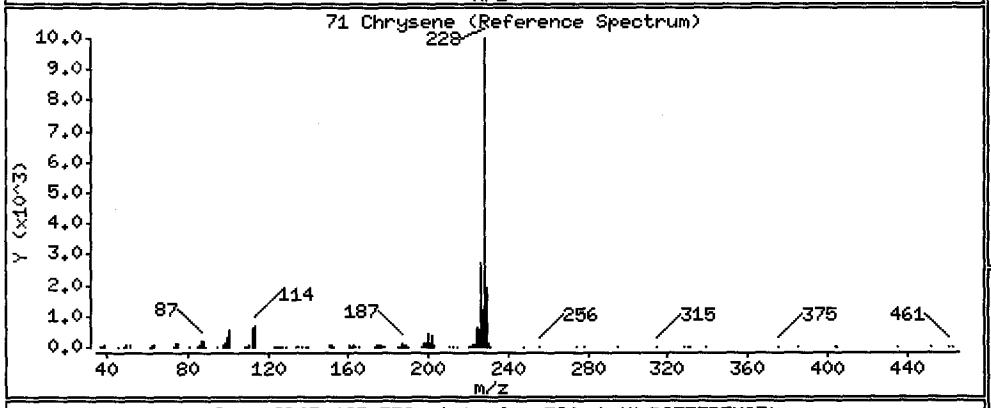
Column diameter: 0.25

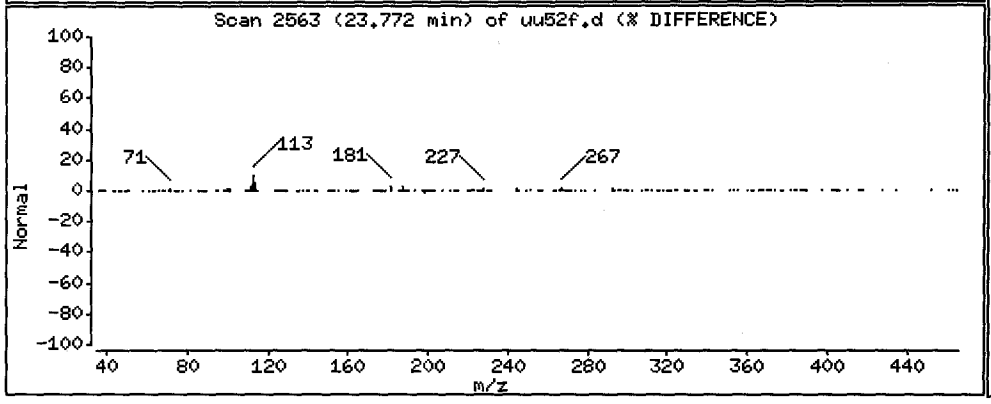
71 Chrysene

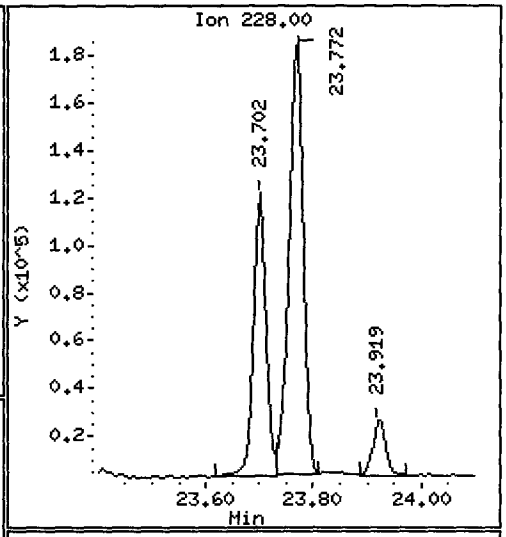
Concentration: 574.0 ug/kg

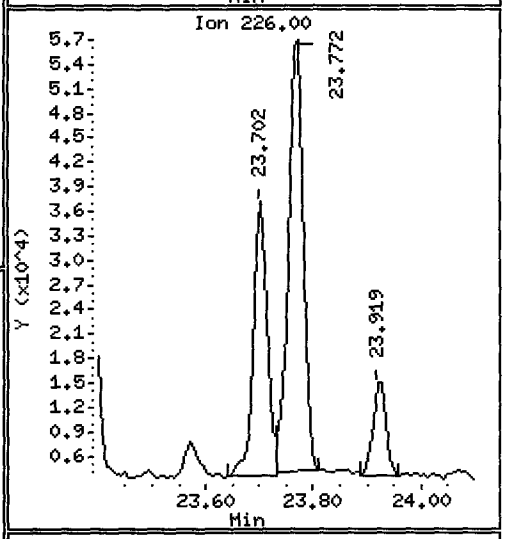


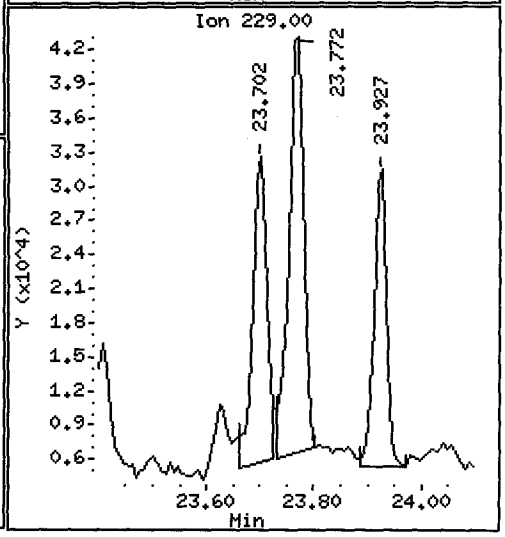



Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

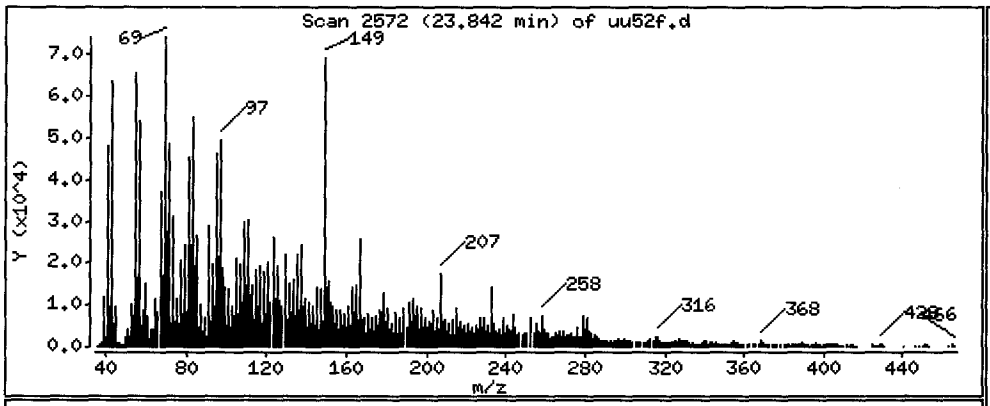
Client ID: MS005-SS-120515 Instrument: nt10.i

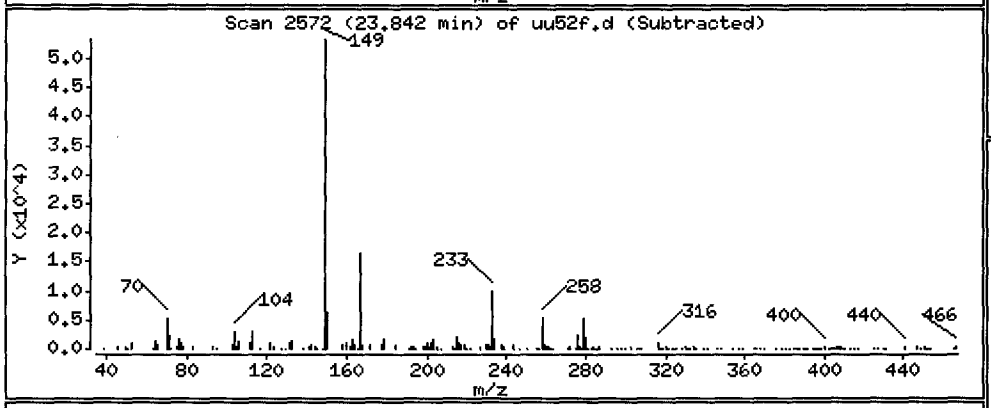
Sample Info: UU52F,3

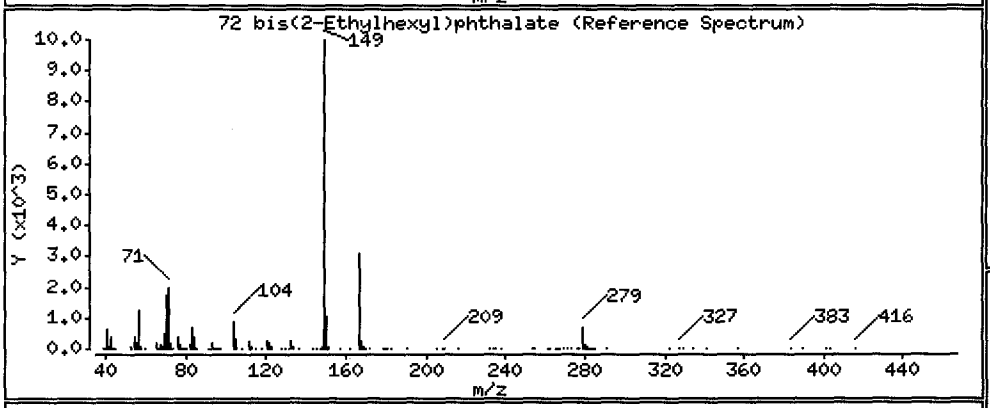
Volume Injected (uL): 1.0 Operator: VTS/YZ

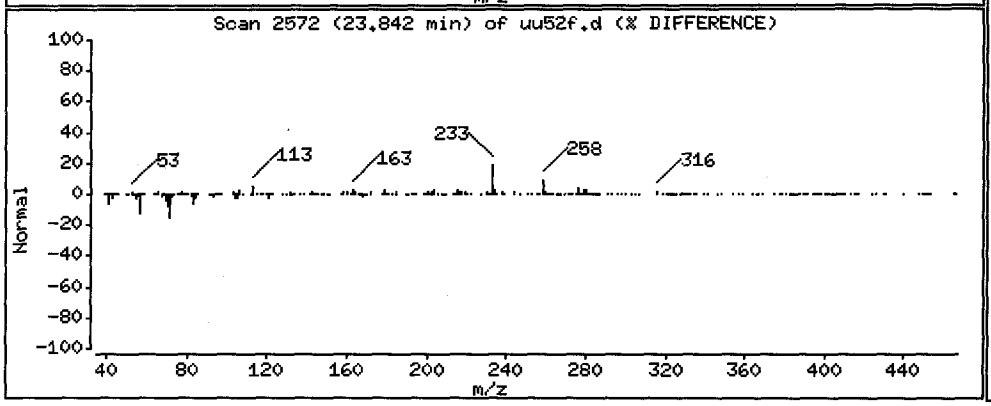
Column phase: ZB-5msi Column diameter: 0.25

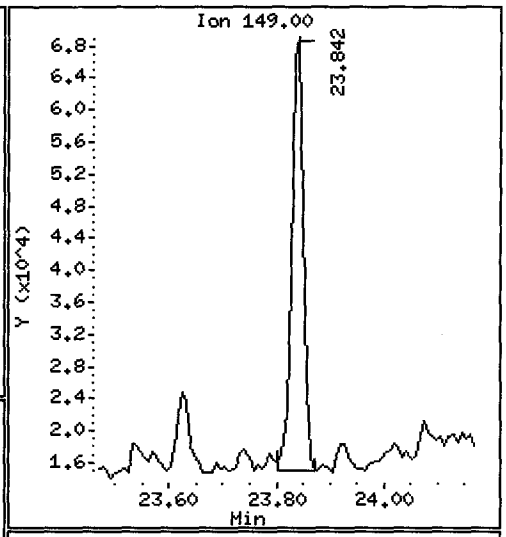
72 bis(2-Ethylhexyl)phthalate Concentration: 166.1 ug/kg

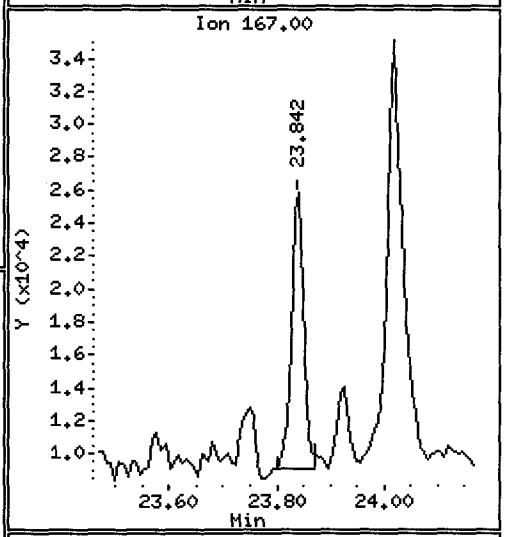


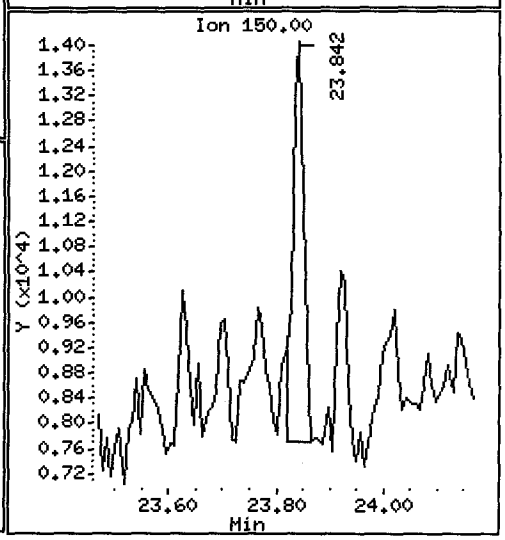



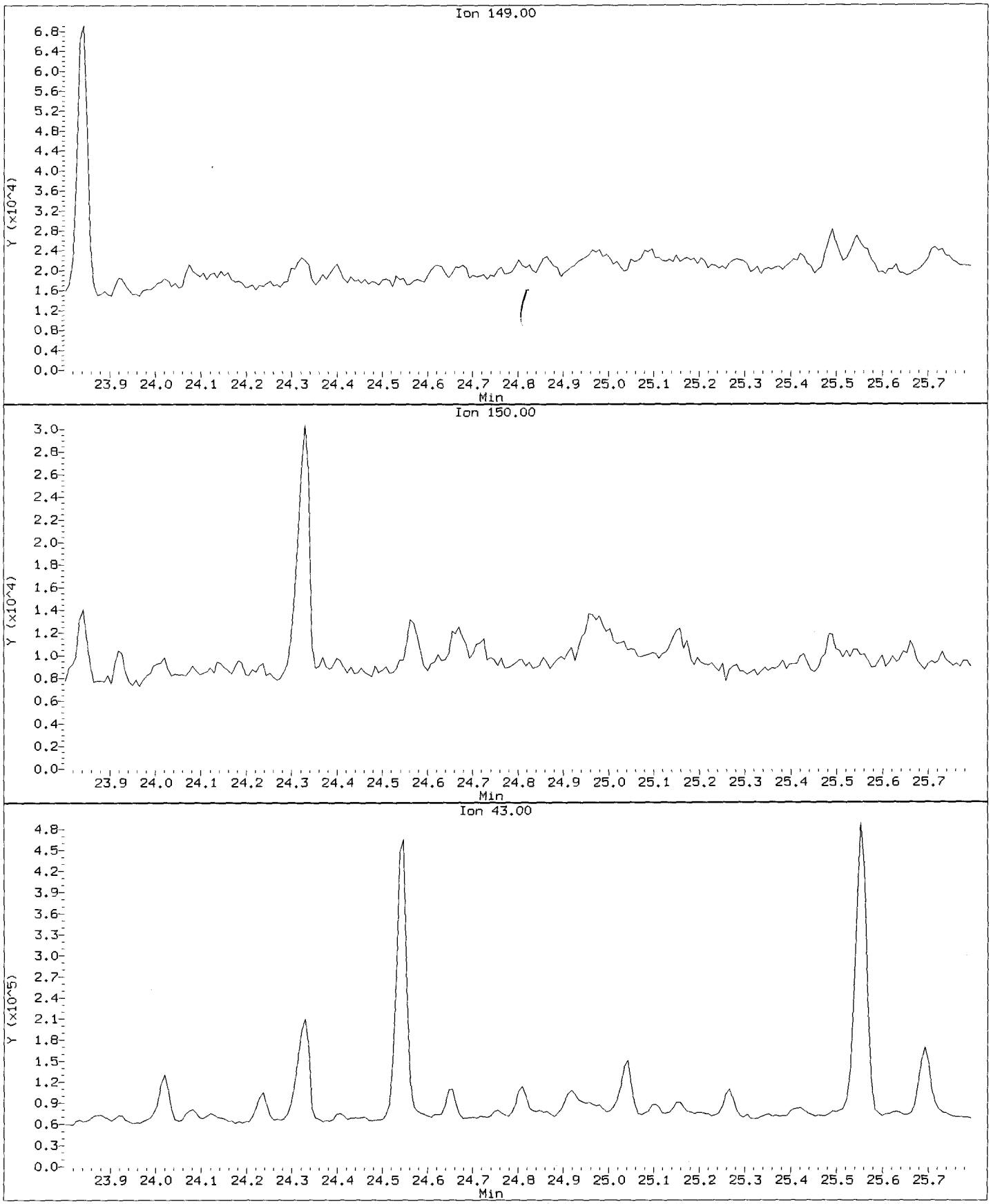



Data File: /chem1/nt10.i/20120526.b/uu52f.d
Injection Date: 26-MAY-2012 20:16
Instrument: nt10.i
Client Sample ID: MS005-SS-120515

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

Client ID: MS005-SS-120515

Instrument: nt10.i

Sample Info: UU52F,3

Volume Injected (uL): 1.0

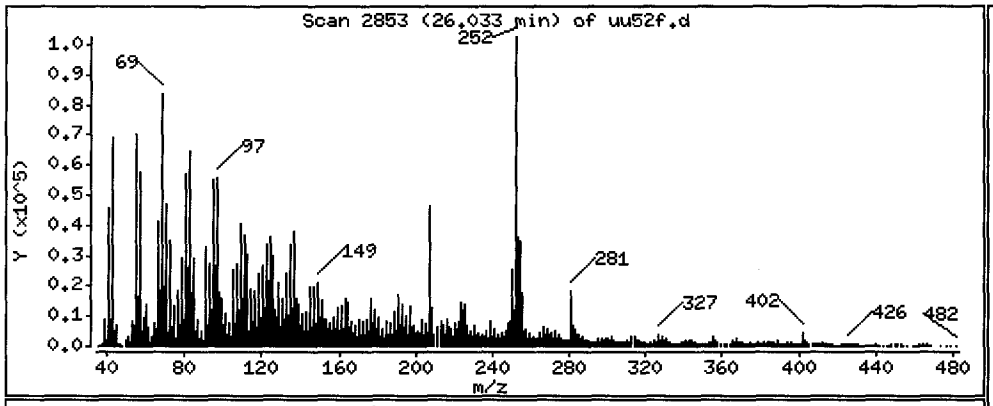
Operator: VTS/YZ

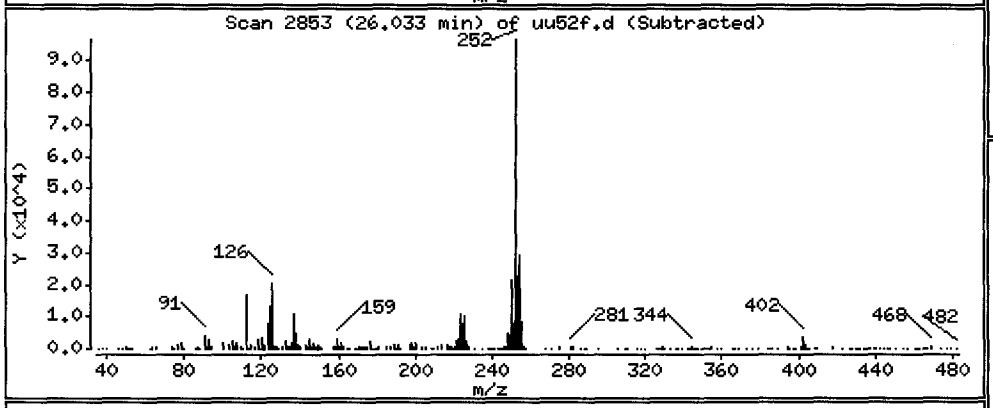
Column phase: ZB-5msi

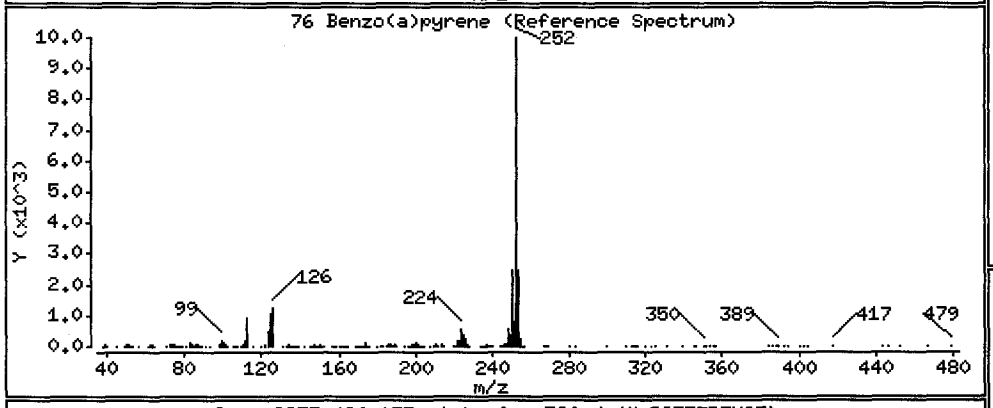
Column diameter: 0.25

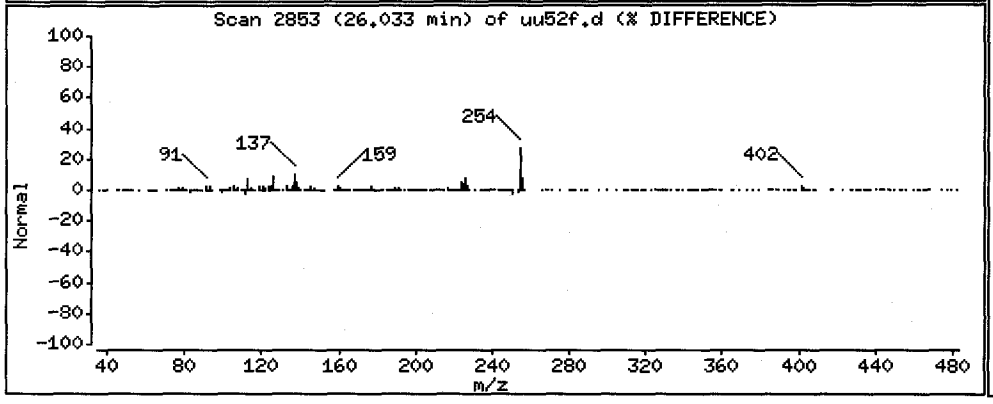
76 Benzo(a)pyrene

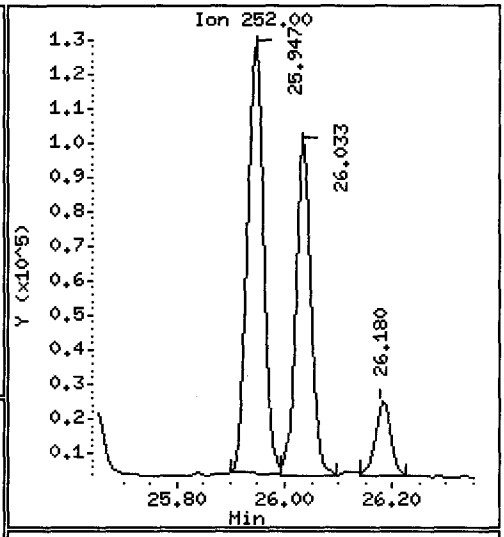
Concentration: 334.6 ug/kg

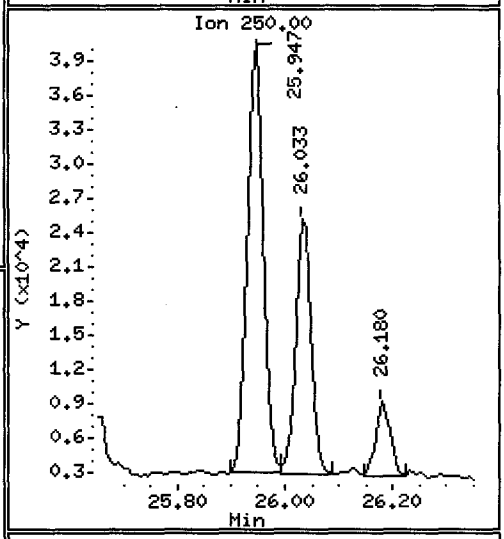


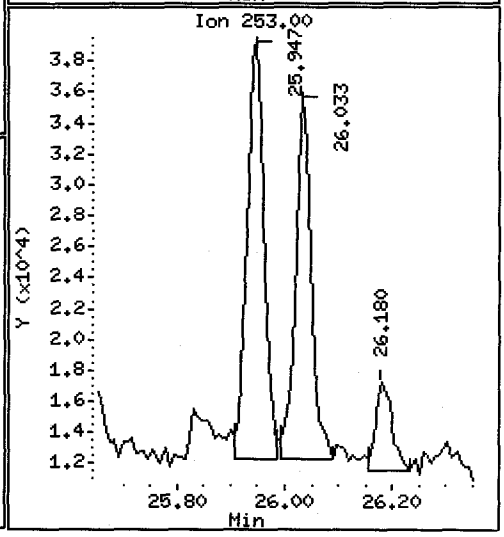



Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

Client ID: MS005-SS-120515

Instrument: nt10.i

Sample Info: UU52F,3

Volume Injected (uL): 1.0

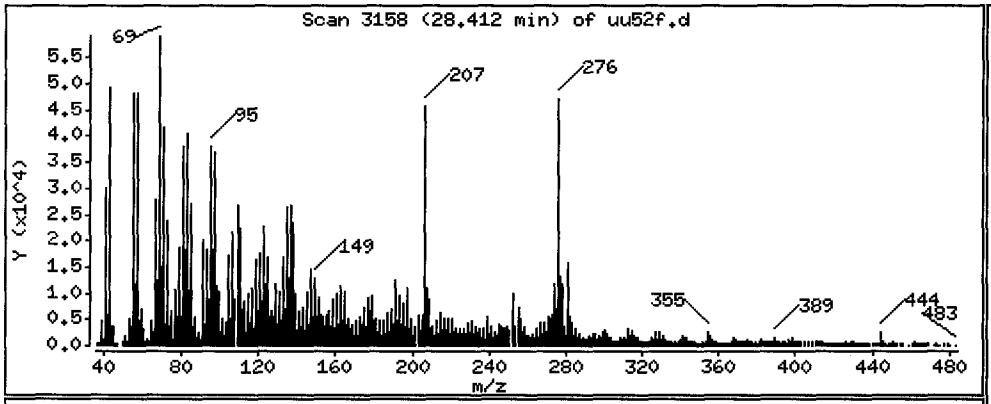
Operator: VTS/YZ

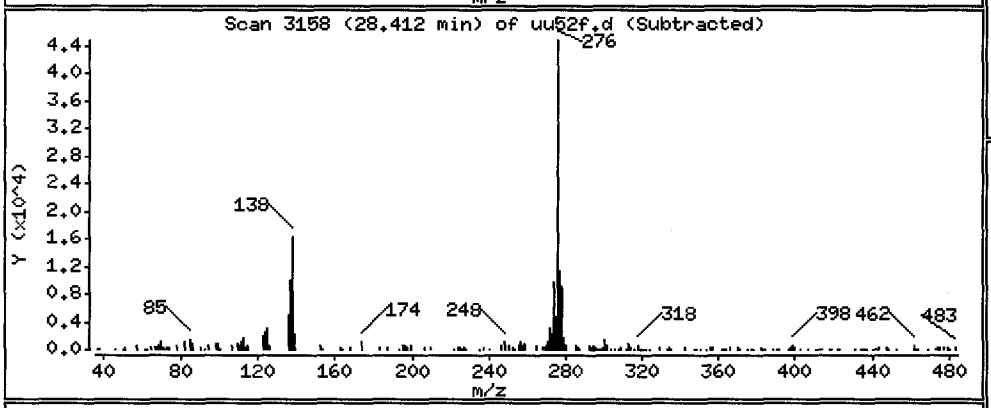
Column phase: ZB-5msi

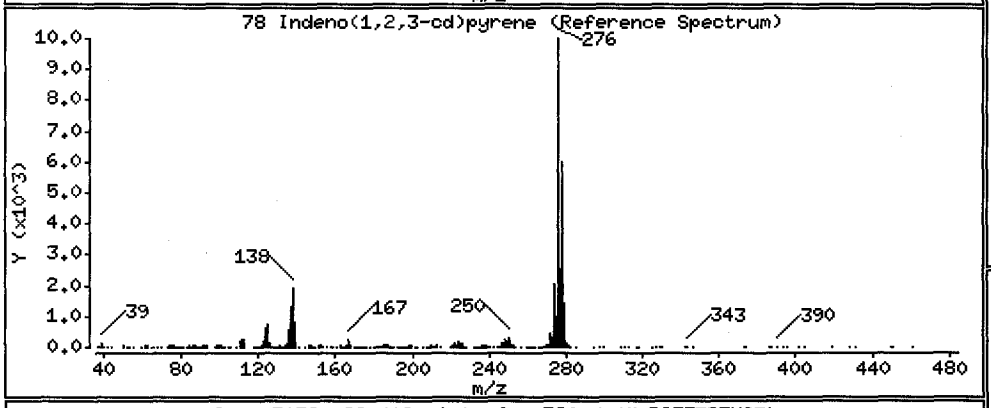
Column diameter: 0.25

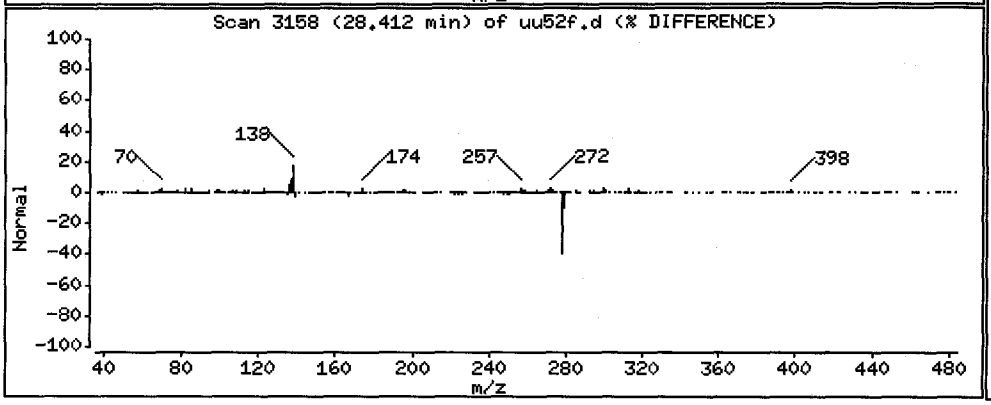
78 Indeno(1,2,3-cd)pyrene

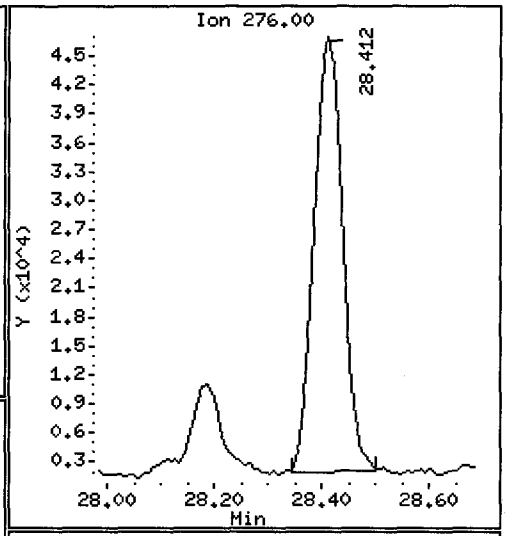
Concentration: 242.9 ug/kg

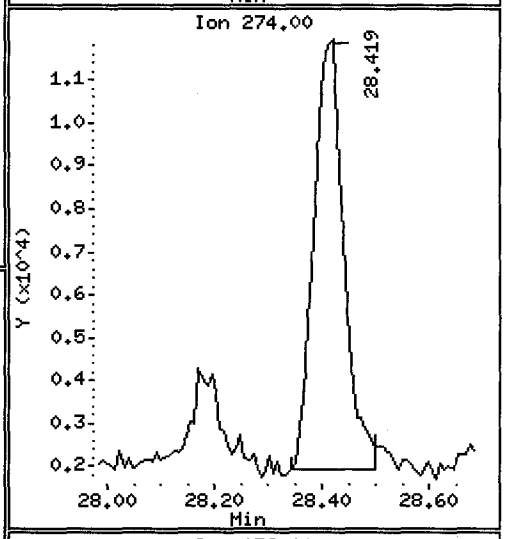


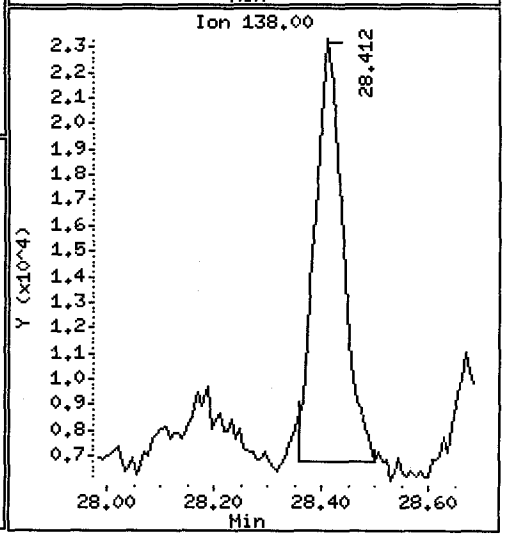



Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

Client ID: MS005-SS-120515

Instrument: nt10.i

Sample Info: UU52F,3

Volume Injected (uL): 1.0

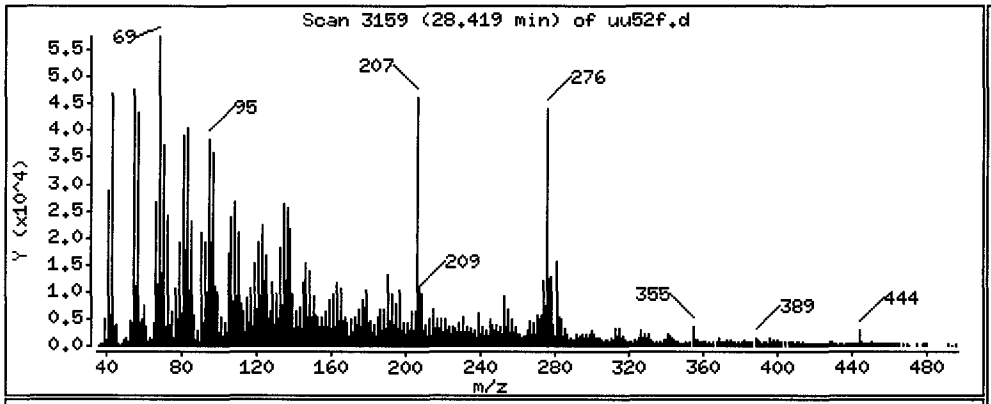
Operator: VTS/YZ

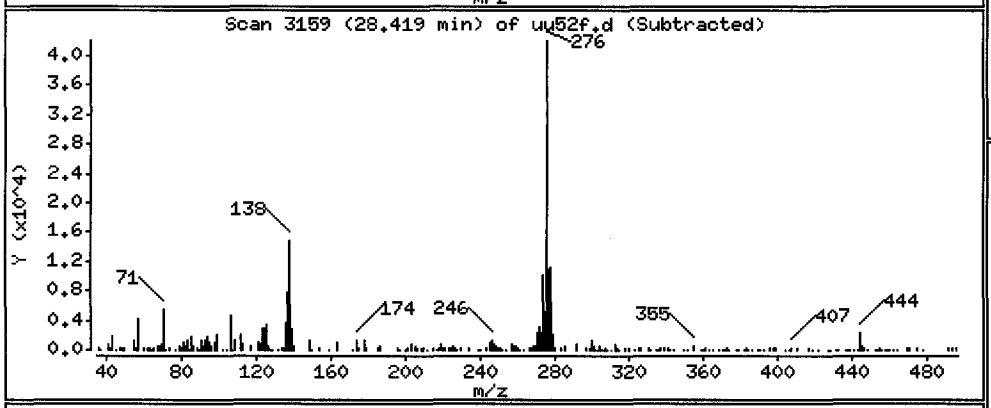
Column phase: ZB-5msi

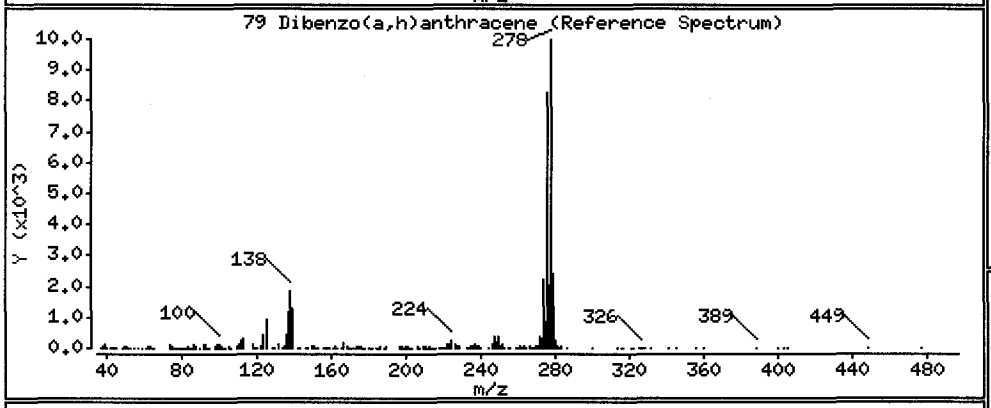
Column diameter: 0.25

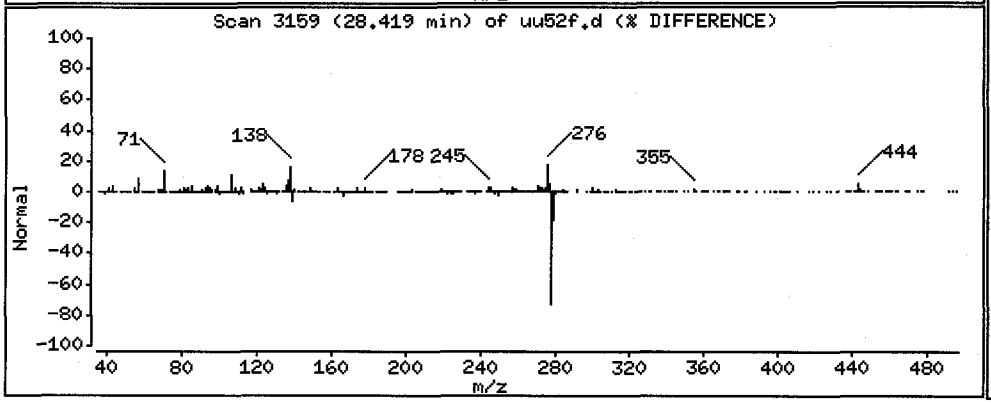
79 Dibenzo(a,h)anthracene

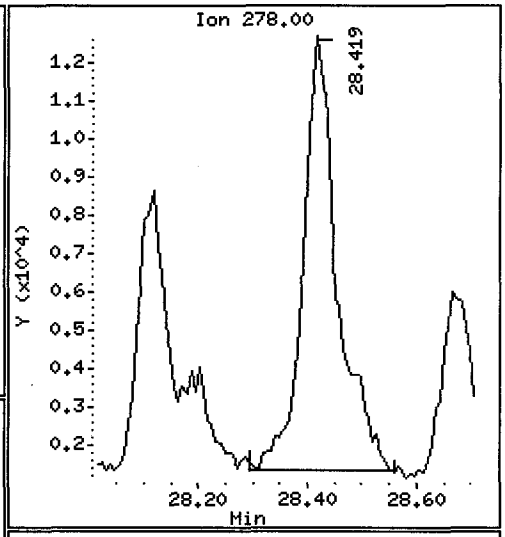
Concentration: 94.60 ug/kg

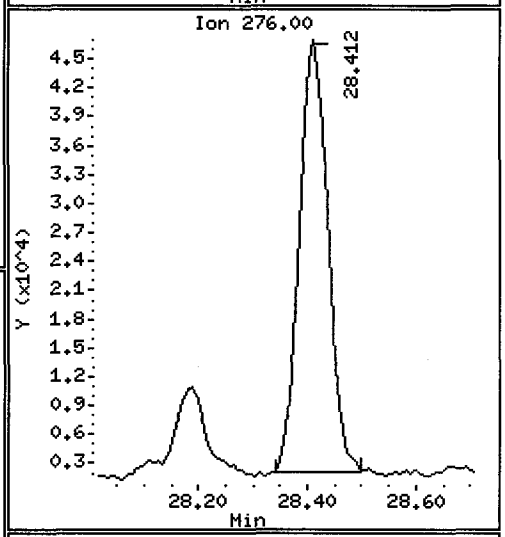


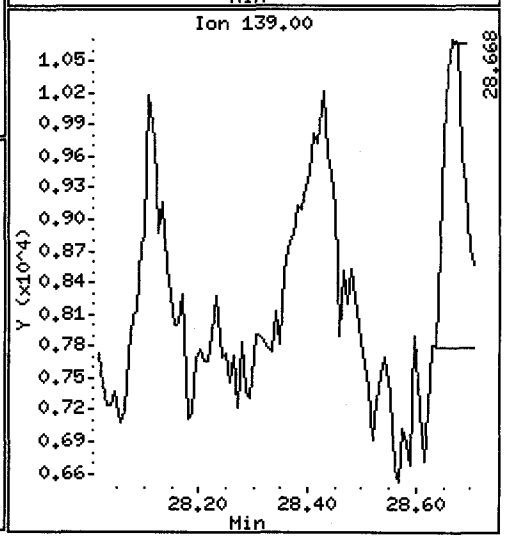



Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

Client ID: MS005-SS-120515

Instrument: nt10.i

Sample Info: UU52F,3

Volume Injected (uL): 1.0

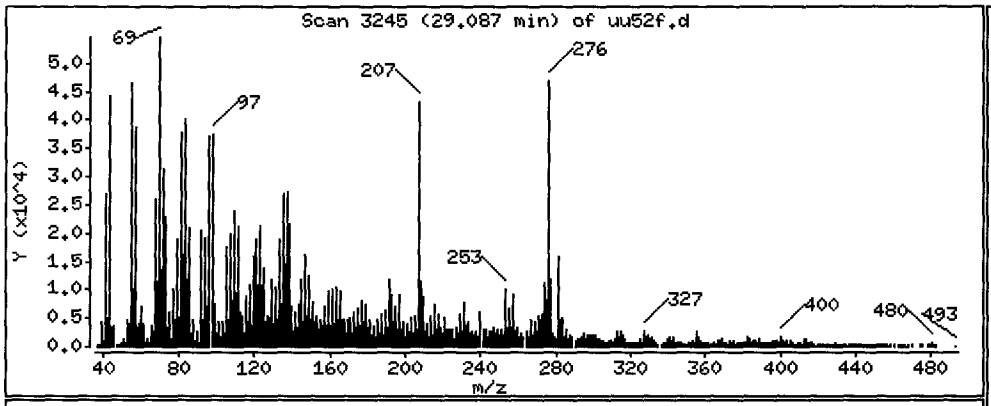
Operator: VTS/YZ

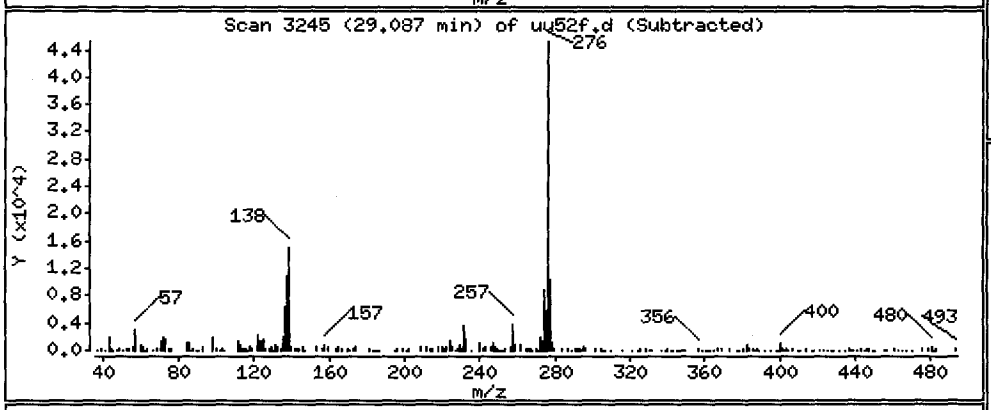
Column phase: ZB-5msi

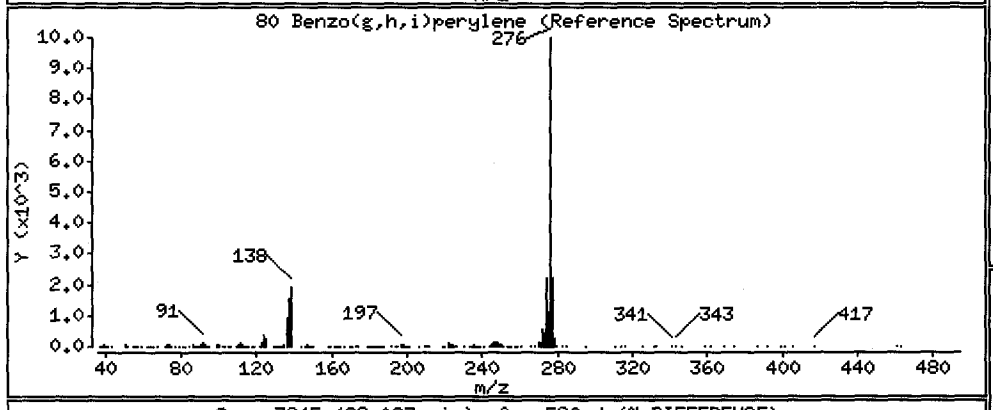
Column diameter: 0.25

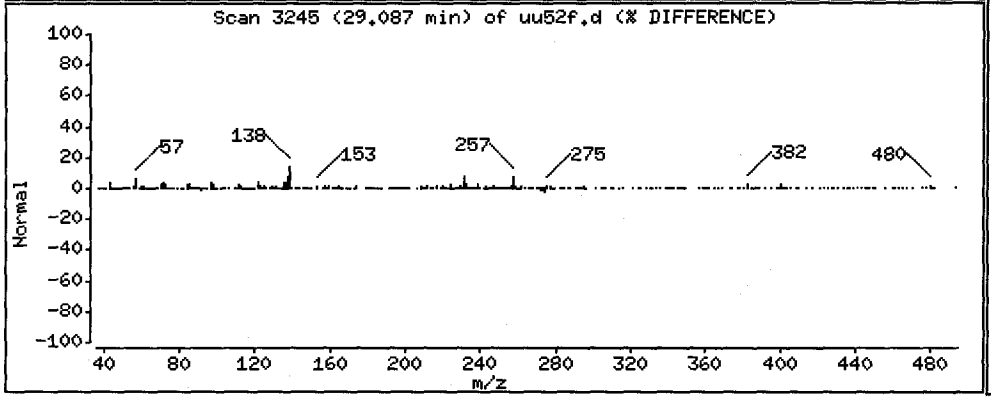
80 Benzo(g,h,i)perylene

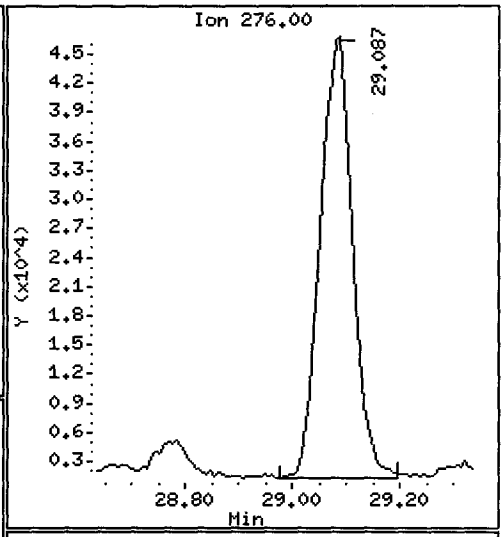
Concentration: 323.3 ug/kg

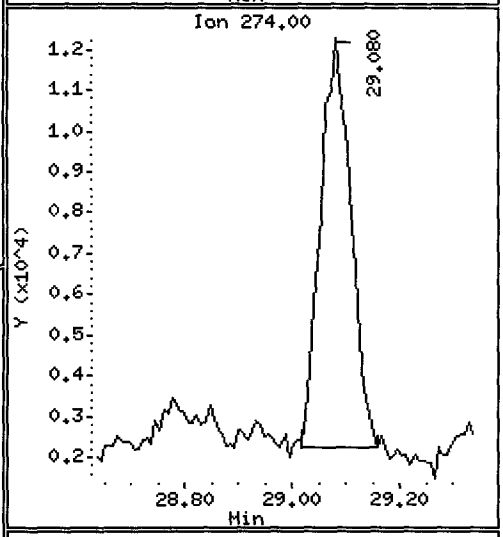


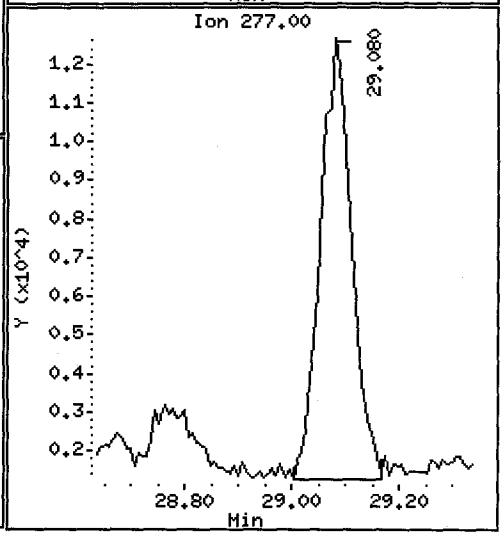



Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

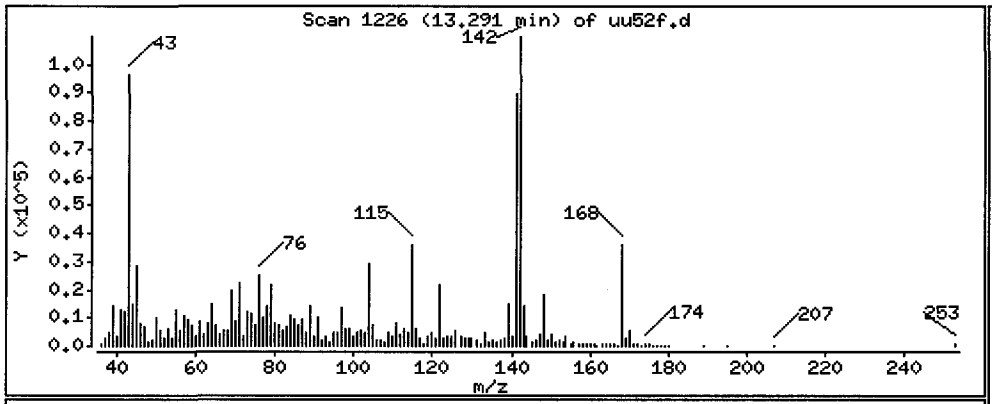
Client ID: MS005-SS-120515 Instrument: nt10.i

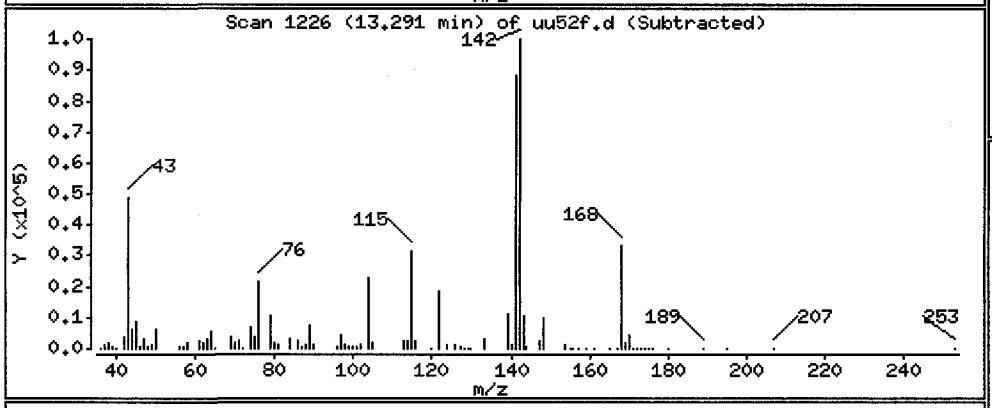
Sample Info: UU52F,3

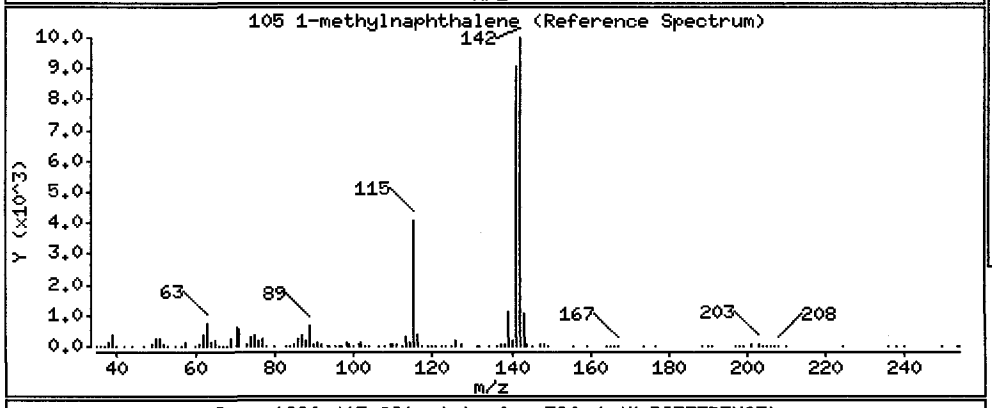
Volume Injected (uL): 1.0 Operator: VTS/YZ

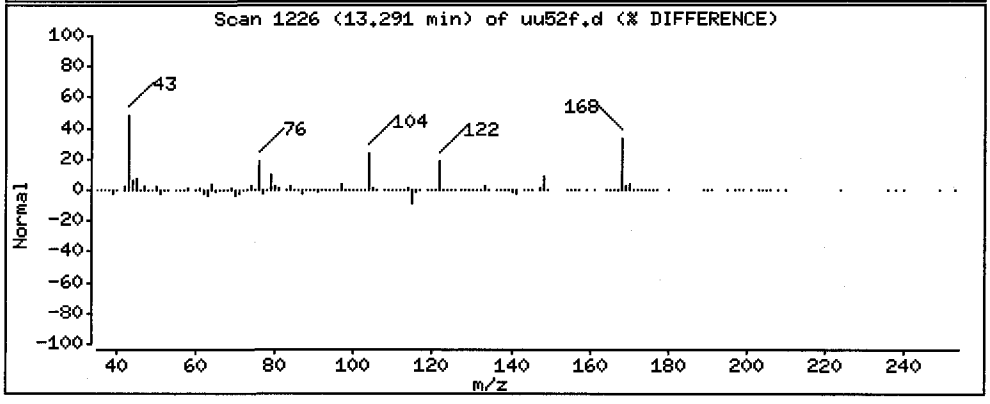
Column phase: ZB-5msi Column diameter: 0.25

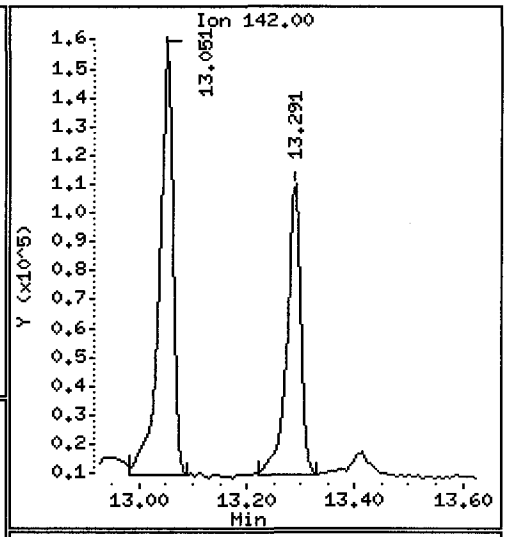
105 1-methylnaphthalene Concentration: 399.7 ug/kg

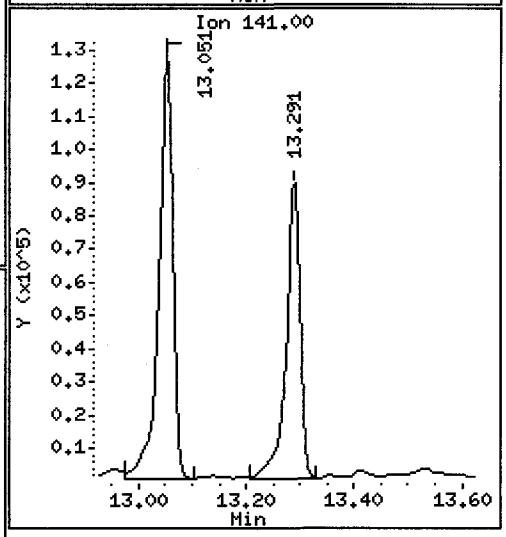


Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

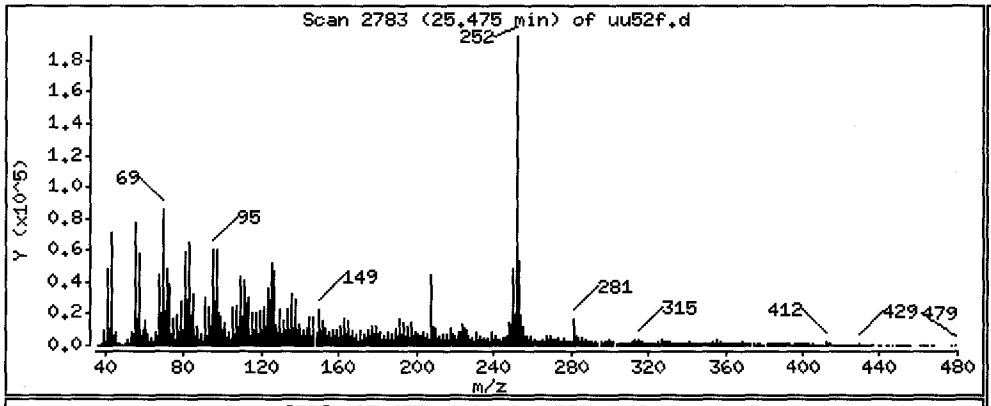
Client ID: MS005-SS-120515 Instrument: nt10.i

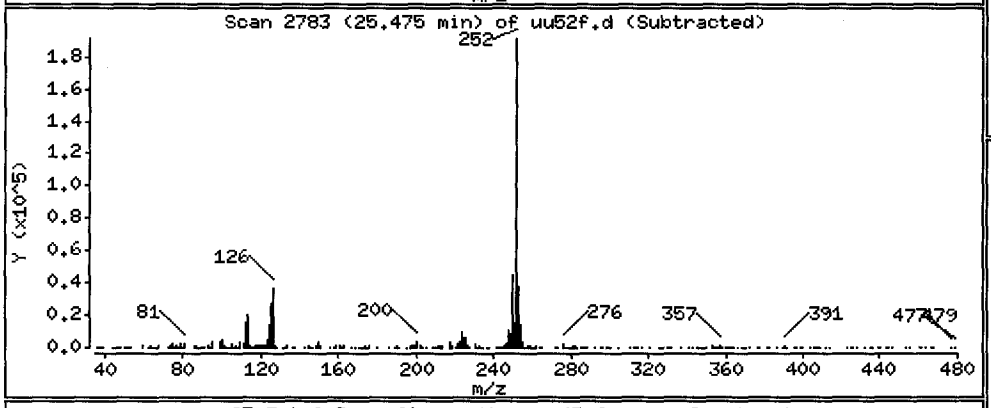
Sample Info: UU52F,3

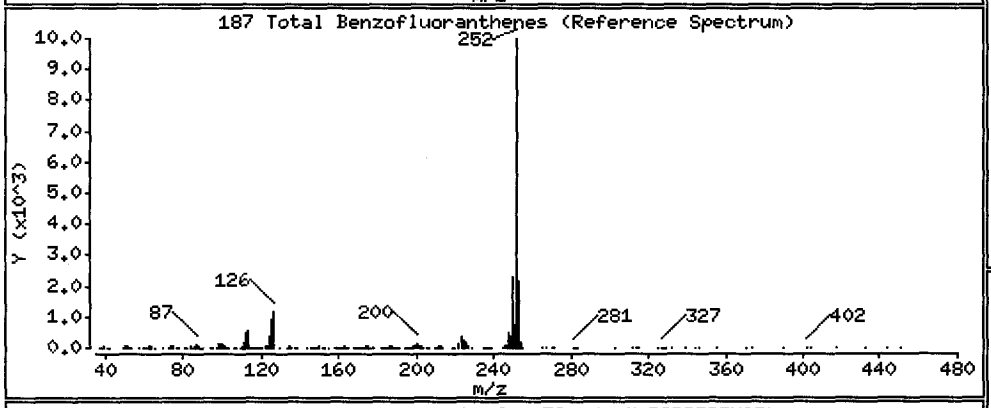
Volume Injected (uL): 1.0 Operator: VTS/YZ

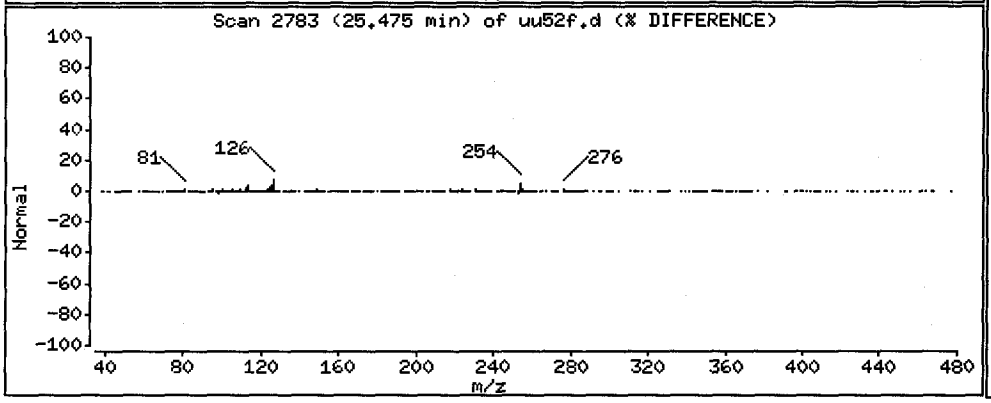
Column phase: ZB-5msi Column diameter: 0.25

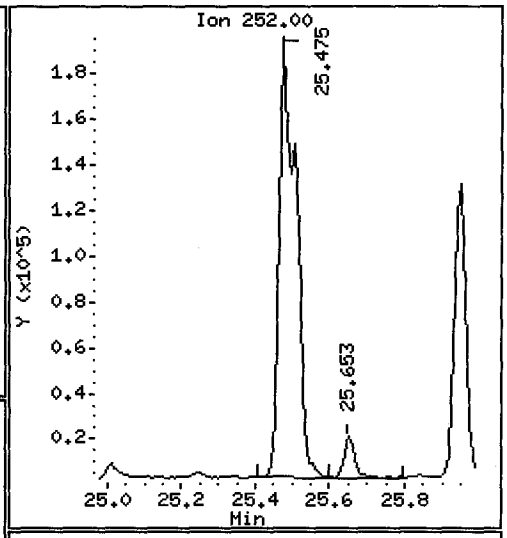
187 Total Benzofluoranthenes Concentration: 966.3 ug/kg

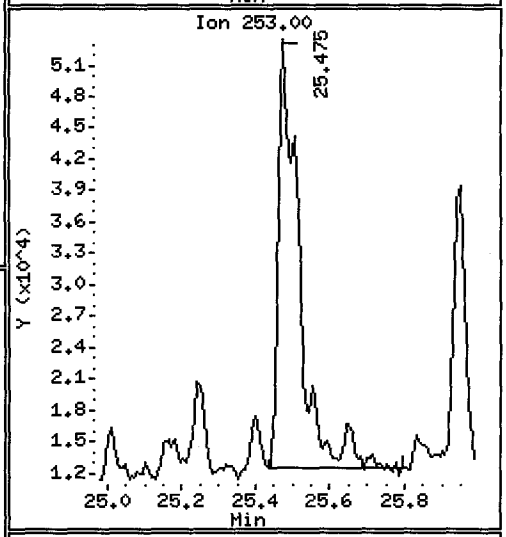


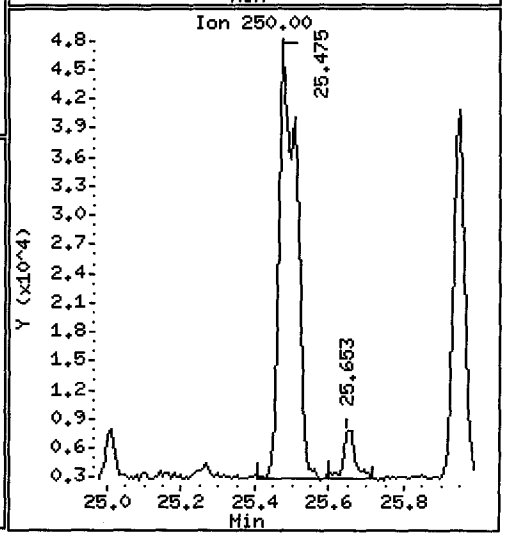



Data File: /chem1/nt10.i/20120526.b/uu52f.d

Date : 26-MAY-2012 20:16

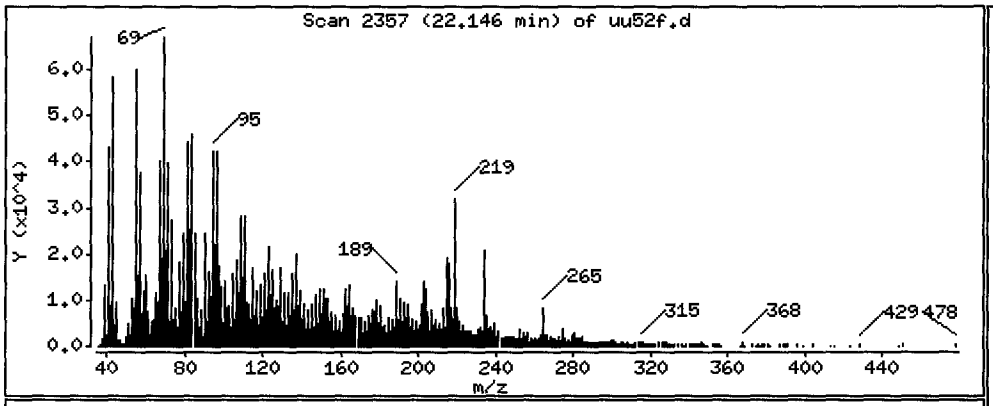
Client ID: MS005-SS-120515 Instrument: nt10.i

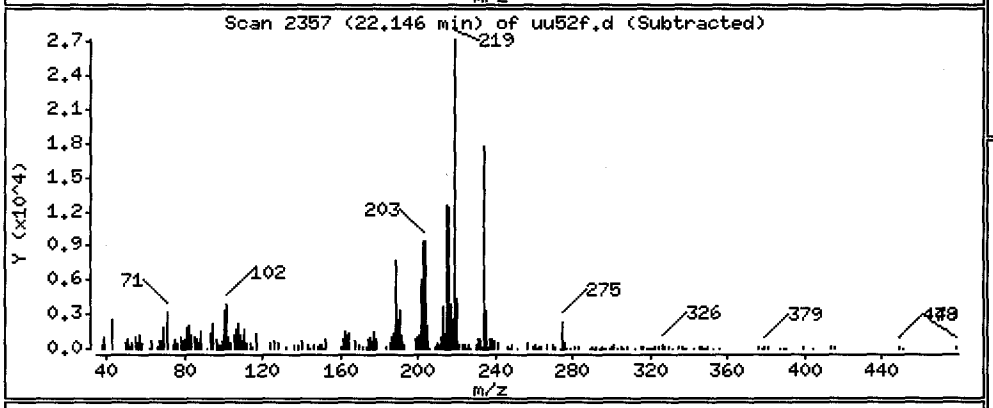
Sample Info: UU52F,3

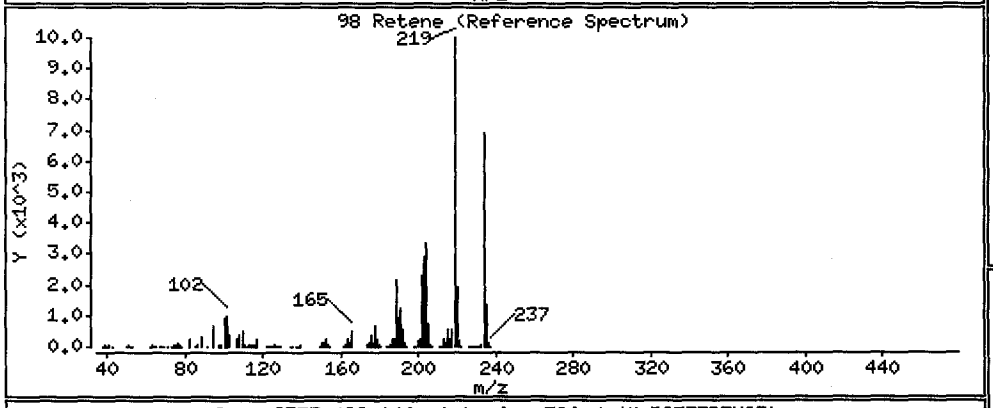
Volume Injected (uL): 1.0 Operator: VTS/YZ

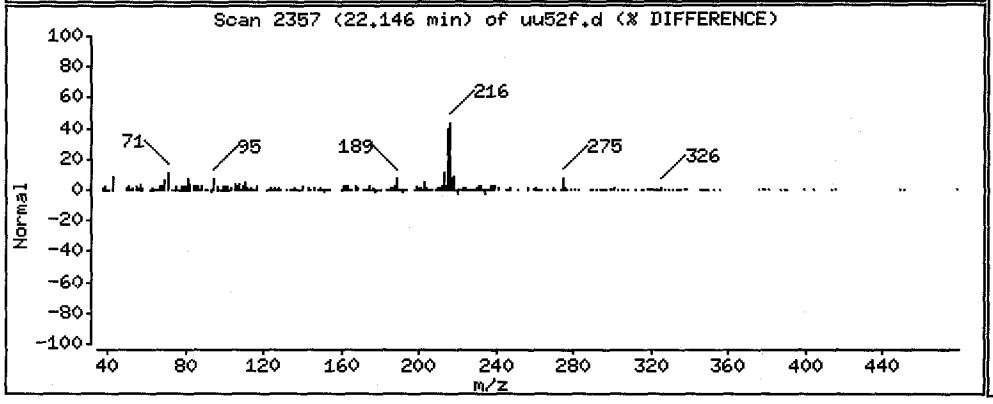
Column phase: ZB-5msi Column diameter: 0.25

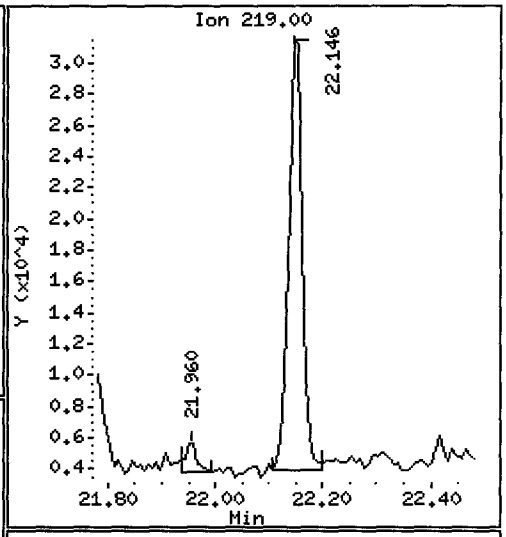
98 Retene Concentration: 140.5 ug/kg

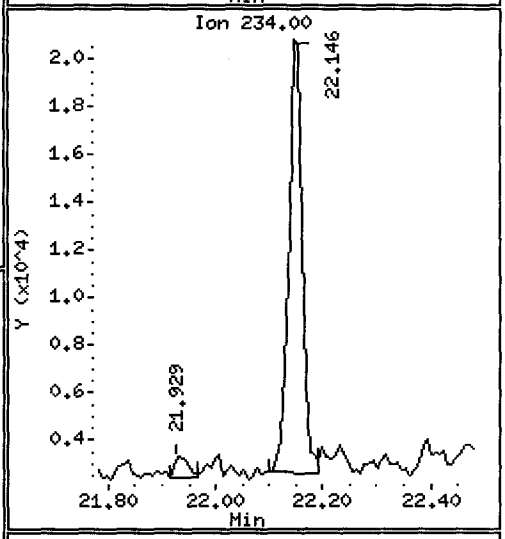


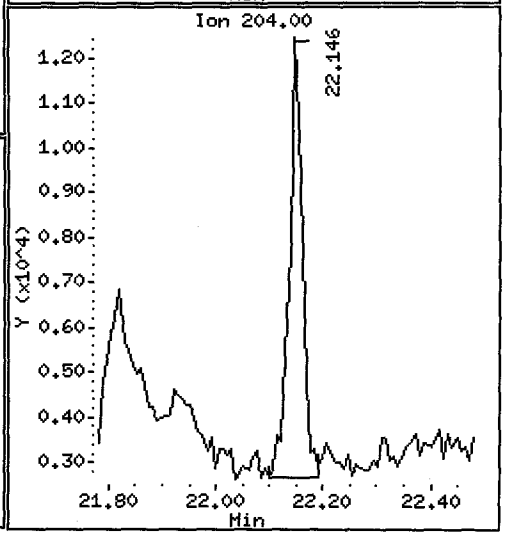



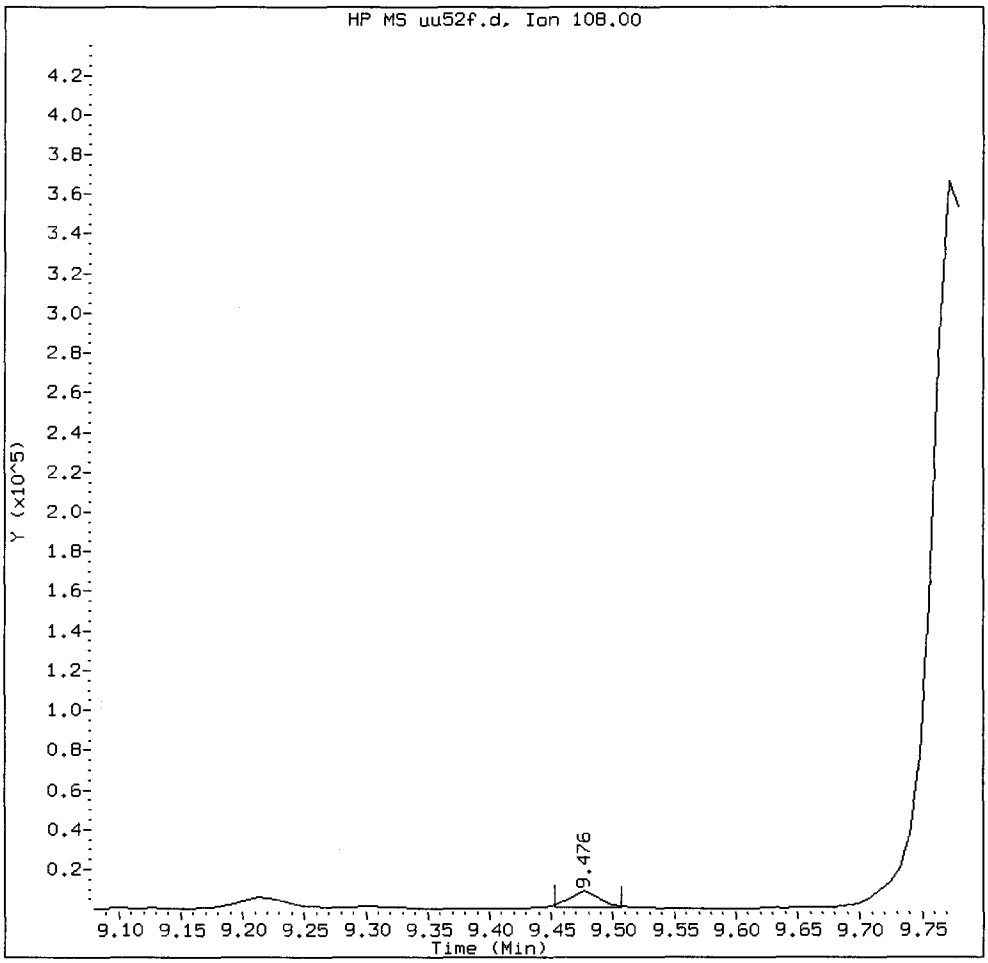



UU52F, /chem1/nt10.i/20120526.b/uu52f.d

2-Methylphenol  Amount: 0.22  Area: 15496




MANUAL INTEGRATION for 2-Methylphenol

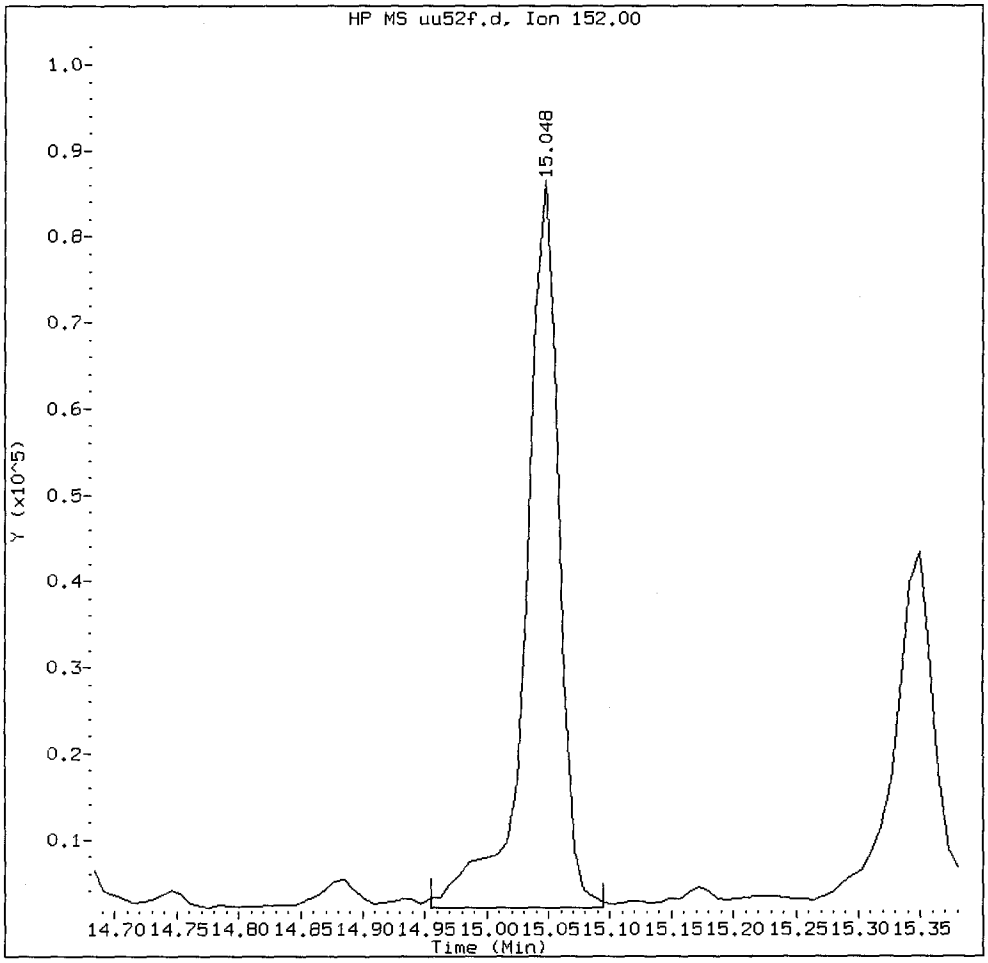
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VZ  Date: 5/30/12

UU52F, /chem1/nt10.i/20120526.b/uu52f.d

Acenaphthylene Amount: 0.85 Area: 164674




MANUAL INTEGRATION for Acenaphthylene

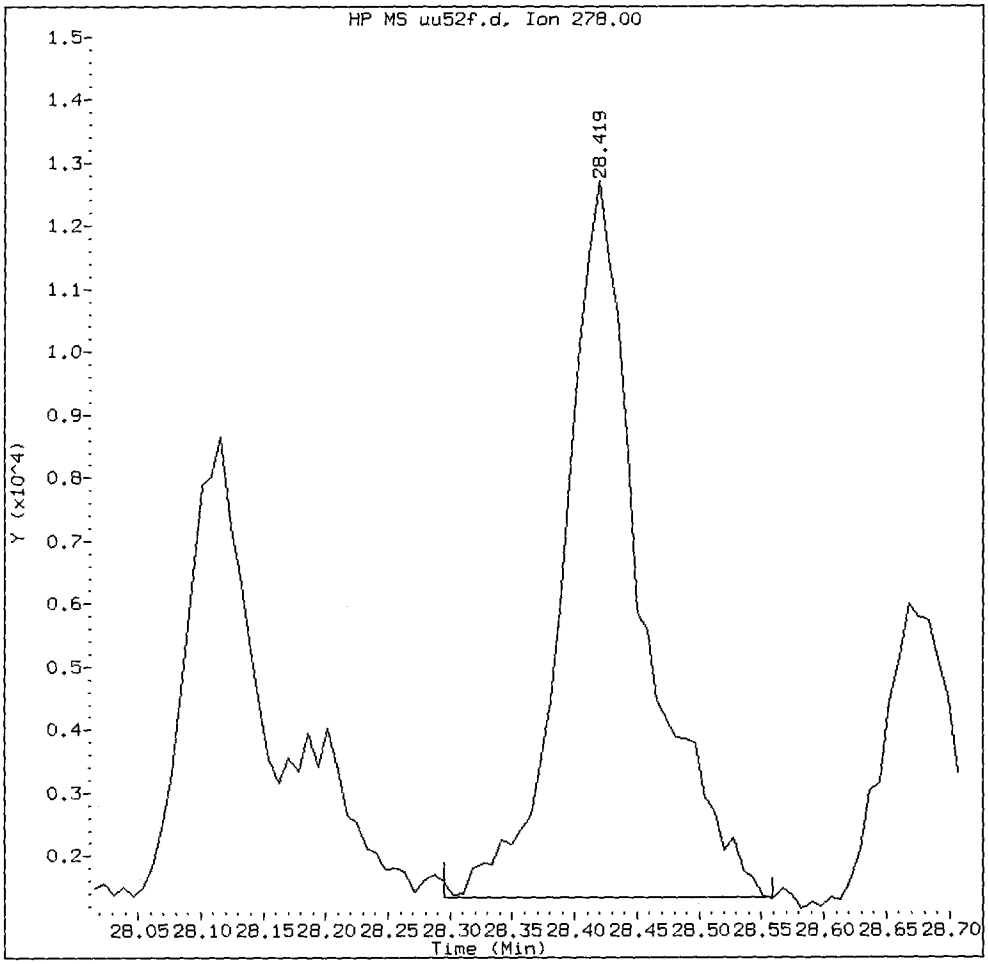
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YR Date: 5/30/12

UU52F, /chem1/nt10.i/20120526.b/uu52f.d

Dibenzo(a,h)anthracene  Amount: 0.32  Area: 50459




MANUAL INTEGRATION for Dibenzo(a,h)anthracene

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ  Date: 5/31/12

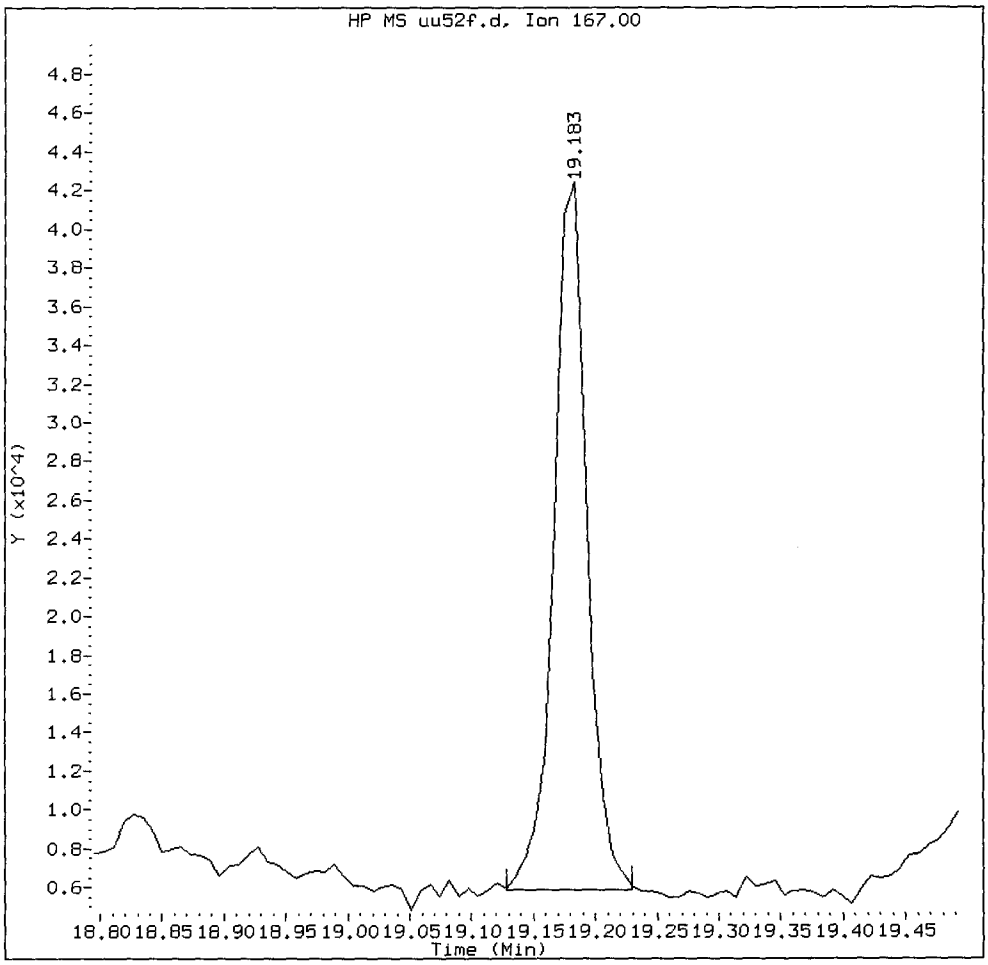
CO-ELUTION SUMMARY FOR FILE - uu52f.d

Lab ID: UU52F, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

UU52F, /chem1/nt10.i/20120526.b/uu52f.d

Carbazole Amount: 0.43 Area: 68755




MANUAL INTEGRATION for Carbazole

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 6/4/12

CO-ELUTION SUMMARY FOR FILE - uu52f.d

Lab ID: UU52F, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120526.b/uu52g.d
Lab Smp Id: UU52G Client Smp ID: MS006-SS-120515
Inj Date : 26-MAY-2012 20:54
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52G,3
Misc Info : 12-8899
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 04-Jun-2012 10:50 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 9
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 3.00000 | Dilution Factor |
| Vt | 1000.00000 | Volume of final extract (uL) |
| Ws | 109.00000 | Weight of sample extracted (g) |
| M | 90.80000 | % Moisture |

Cpnd Variable Local Compound Variable

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| $ | 1 2-Fluorophenol | 112 | 6.575 | 6.537 | (0.742) | 105057 | 1.58443 | 474.0 |
| $ | 2 Phenol-d5 | 99 | 8.268 | 8.237 | (0.933) | 138513 | 1.67701 | 501.7 |
| | 3 Phenol | 94 | 8.291 | 8.260 | (0.935) | 113384 | 1.28789 | 385.3 |
| $ | 5 2-Chlorophenol-d4 | 132 | 8.499 | 8.476 | (0.959) | 125526 | 1.73468 | 519.0 |
| | 4 Bis(2-Chloroethyl)ether | 93 | Compound Not Detected. | | | | | |
| | 6 2-Chlorophenol | 128 | Compound Not Detected. | | | | | |
| | 7 1,3-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| * | 8 1,4-Dichlorobenzene-d4 | 152 | 8.863 | 8.855 | (1.000) | 189614 | 4.00000 | |
| | 9 1,4-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| $ | 10 1,2-Dichlorobenzene-d4 | 152 | 9.244 | 9.236 | (1.043) | 51412 | 1.08303 | 324.0 |
| | 12 1,2-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| | 11 Benzyl alcohol | 108 | 9.197 | 9.166 | (1.038) | 13856 | 0.37461 | 112.1 |
| | 14 2,2'-oxybis(1-Chloropropane) | 121 | Compound Not Detected. | | | | | |
| | 13 2-Methylphenol | 108 | 9.461 | 9.430 | (1.067) | 8624 | 0.12429 | 37.18 |
| | 17 Hexachloroethane | 117 | Compound Not Detected. | | | | | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| 16 | N-Nitroso-di-n-propylamine | 70 | Compound Not Detected. | | | | | |
| 15 | 4-Methylphenol | 108 | 9.756 | 9.725 | (1.101) | 66646 | 0.92063 | 275.4 |
| $ 18 | Nitrobenzene-d5 | 82 | 10.035 | 10.027 | (0.872) | 74039 | 1.12236 | 335.8 |
| 19 | Nitrobenzene | 77 | Compound Not Detected. | | | | | |
| 20 | Isophorone | 82 | Compound Not Detected. | | | | | |
| 21 | 2-Nitrophenol | 139 | Compound Not Detected. | | | | | |
| 22 | 2,4-Dimethylphenol | 107 | Compound Not Detected. | | | | | |
| 23 | Bis(2-Chloroethoxy)methane | 93 | Compound Not Detected. | | | | | |
| 24 | Benzoic acid | 105 | 11.142 | 11.087 | (0.968) | 446325 | 10.3712 | 3103 |
| 25 | 2,4-Dichlorophenol | 162 | Compound Not Detected. | | | | | |
| 26 | 1,2,4-Trichlorobenzene | 180 | Compound Not Detected. | | | | | |
| * 27 | Naphthalene-d8 | 136 | 11.512 | 11.504 | (1.000) | 736251 | 4.00000 | |
| 28 | Naphthalene | 128 | 11.550 | 11.542 | (1.003) | 3899177 | 21.0075 E | 6285 |
| 29 | 4-Chloroaniline | 127 | Compound Not Detected. | | | | | |
| 30 | Hexachlorobutadiene | 225 | Compound Not Detected. | | | | | |
| 31 | 4-Chloro-3-methylphenol | 107 | Compound Not Detected. | | | | | |
| 32 | 2-Methylnaphthalene | 142 | 13.051 | 13.043 | (1.134) | 257956 | 1.99915 | 598.1 |
| 33 | Hexachlorocyclopentadiene | 237 | Compound Not Detected. | | | | | |
| 34 | 2,4,6-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| 35 | 2,4,5-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| $ 36 | 2-Fluorobiphenyl | 172 | 13.910 | 13.902 | (0.904) | 175818 | 1.18865 | 355.6 |
| 37 | 2-Chloronaphthalene | 162 | Compound Not Detected. | | | | | |
| 38 | 2-Nitroaniline | 65 | Compound Not Detected. | | | | | |
| 39 | Dimethylphthalate | 163 | Compound Not Detected. | | | | | |
| 40 | Acenaphthylene | 152 | 15.040 | 15.032 | (0.978) | 143385 | 0.74822 | 223.8(M) |
| 41 | 2,6-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| * 42 | Acenaphthene-d10 | 164 | 15.380 | 15.373 | (1.000) | 426687 | 4.00000 | |
| 43 | 3-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| 44 | Acenaphthene | 153 | 15.450 | 15.442 | (1.005) | 43851 | 0.37937 | 113.5 |
| 45 | 2,4-Dinitrophenol | 184 | Compound Not Detected. | | | | | |
| 46 | Dibenzofuran | 168 | 15.806 | 15.798 | (1.028) | 274573 | 1.62142 | 485.1 |
| 47 | 4-Nitrophenol | 109 | Compound Not Detected. | | | | | |
| 48 | 2,4-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| 50 | Diethylphthalate | 149 | Compound Not Detected. | | | | | |
| 49 | Fluorene | 166 | 16.579 | 16.563 | (1.078) | 57199 | 0.44083 | 131.9 |
| 51 | 4-Chlorophenyl-phenylether | 204 | Compound Not Detected. | | | | | |
| 52 | 4-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| 53 | 4,6-Dinitro-2-methylphenol | 198 | Compound Not Detected. | | | | | |
| 54 | N-Nitrosodiphenylamine | 169 | Compound Not Detected. | | | | | |
| $ 55 | 2,4,6-Tribromophenol | 330 | 17.157 | 17.142 | (1.116) | 38566 | 2.18981 | 655.1 |
| 56 | 4-Bromophenyl-phenylether | 248 | Compound Not Detected. | | | | | |
| 57 | Hexachlorobenzene | 284 | Compound Not Detected. | | | | | |
| 58 | Pentachlorophenol | 266 | Compound Not Detected. | | | | | |
| * 59 | Phenanthrene-d10 | 188 | 18.649 | 18.633 | (1.000) | 605251 | 4.00000 | |
| 60 | Phenanthrene | 178 | 18.703 | 18.687 | (1.003) | 1146010 | 7.34289 | 2197(M) |
| 61 | Anthracene | 178 | 18.796 | 18.780 | (1.008) | 122937 | 0.75404 | 225.6 |
| 62 | Carbazole | 167 | 19.167 | 19.144 | (1.028) | 48791 | 0.32343 | 96.76(M) |
| 63 | Di-n-butylphthalate | 149 | Compound Not Detected. | | | | | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| 64 | Fluoranthene | 202 | 21.117 | 21.101 | (1.132) | 1034302 | 5.83681 | 1746 |
| 65 | Pyrene | 202 | 21.535 | 21.519 | (0.908) | 969610 | 4.57760 | 1369 |
| $ 66 | Terphenyl-d14 | 244 | 21.852 | 21.844 | (0.921) | 163934 | 1.23546 | 369.6 |
| 67 | Butylbenzylphthalate | 149 | Compound Not Detected. | | | | | |
| 68 | Benzo(a)anthracene | 228 | 23.695 | 23.679 | (0.999) | 150488 | 0.76850 | 229.9 |
| * 69 | Chrysene-d12 | 240 | 23.718 | 23.710 | (1.000) | 696152 | 4.00000 | |
| 70 | 3,3'-Dichlorobenzidine | 252 | Compound Not Detected. | | | | | |
| 71 | Chrysene | 228 | 23.764 | 23.749 | (1.002) | 238255 | 1.38308 | 413.8 |
| 72 | bis(2-Ethylhexyl)phthalate | 149 | 23.834 | 23.818 | (0.961) | 61323 | 0.41293 | 123.5 |
| * 134 | Di-n-octylphthalate-d4 | 153 | 24.810 | 24.794 | (1.000) | 1081407 | 4.00000 | |
| 73 | Di-n-octylphthalate | 149 | Compound Not Detected. | | | | | |
| 74 | Benzo(b)fluoranthene | 252 | Compound Not Detected. | | | | | |
| 75 | Benzo(k)fluoranthene | 252 | Compound Not Detected. | | | | | |
| 76 | Benzo(a)pyrene | 252 | 26.025 | 26.002 | (0.996) | 141417 | 0.83008 | 248.3 |
| * 77 | Perylene-d12 | 264 | 26.134 | 26.102 | (1.000) | 658886 | 4.00000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | 28.388 | 28.342 | (1.086) | 145103 | 0.73631 | 220.3 |
| 79 | Dibenzo(a,h)anthracene | 278 | 28.404 | 28.365 | (1.087) | 28561 | 0.18398 | 55.04(M) |
| 80 | Benzo(g,h,i)perylene | 276 | 29.056 | 29.002 | (1.112) | 177007 | 1.04745 | 313.4 |
| 90 | N-Nitrosodimethylamine | 74 | Compound Not Detected. | | | | | |
| 91 | Aniline | 93 | Compound Not Detected. | | | | | |
| 93 | Benzidine | 184 | Compound Not Detected. | | | | | |
| 103 | Pyridine | 79 | Compound Not Detected. | | | | | |
| 105 | 1-methylnaphthalene | 142 | 13.283 | 13.275 | (1.154) | 147277 | 1.11919 | 334.8 |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | Compound Not Detected. | | | | | |
| 187 | Total Benzofluoranthenes | 252 | 25.468 | 25.483 | (0.975) | 398082 | 2.17742 | 651.4 |
| 99 | Perylene | 252 | Compound Not Detected. | | | | | |
| 98 | Retene | 219 | 22.139 | 22.131 | (0.933) | 91096 | 0.92357 | 276.3 |

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52g.d
Lab Smp Id: UU52G
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8899

Calibration Date: 26-MAY-2012
Calibration Time: 10:59
Client Smp ID: MS006-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 189614 | 0.05 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 736251 | 0.73 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 426687 | 1.42 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 605251 | -5.27 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 696152 | 7.92 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 1081407 | 6.43 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 658886 | 1.36 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.86 | 0.09 |
| 27 Naphthalene-d8 | 11.50 | 11.00 | 12.00 | 11.51 | 0.07 |
| 42 Acenaphthene-d10 | 15.37 | 14.87 | 15.87 | 15.38 | 0.05 |
| 59 Phenanthrene-d10 | 18.63 | 18.13 | 19.13 | 18.65 | 0.08 |
| 69 Chrysene-d12 | 23.71 | 23.21 | 24.21 | 23.72 | 0.03 |
| 134 Di-n-octylphthala | 24.79 | 24.29 | 25.29 | 24.81 | 0.06 |
| 77 Perylene-d12 | 26.10 | 25.60 | 26.60 | 26.13 | 0.12 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52G Client Smp ID: MS006-SS-120515
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8899

| SURROGATE COMPOUND | CONC ADDED ug/kg | CONC RECOVERED ug/kg | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 1 2-Fluorophenol | 747.9 | 474.0 | 63.38 | 30-160 |
| $ 2 Phenol-d5 | 747.9 | 501.7 | 67.08 | 30-160 |
| $ 5 2-Chlorophenol-d4 | 747.9 | 519.0 | 69.39 | 30-160 |
| $ 10 1,2-Dichlorobenzen | 498.6 | 324.0 | 64.98 | 30-160 |
| $ 18 Nitrobenzene-d5 | 498.6 | 335.8 | 67.34 | 30-160 |
| $ 36 2-Fluorobiphenyl | 498.6 | 355.6 | 71.32 | 30-160 |
| $ 55 2,4,6-Tribromophen | 747.9 | 655.1 | 87.59 | 30-160 |
| $ 66 Terphenyl-d14 | 498.6 | 369.6 | 74.13 | 30-160 |

Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Sample Info: UU52G,3

Volume Injected (uL): 1.0

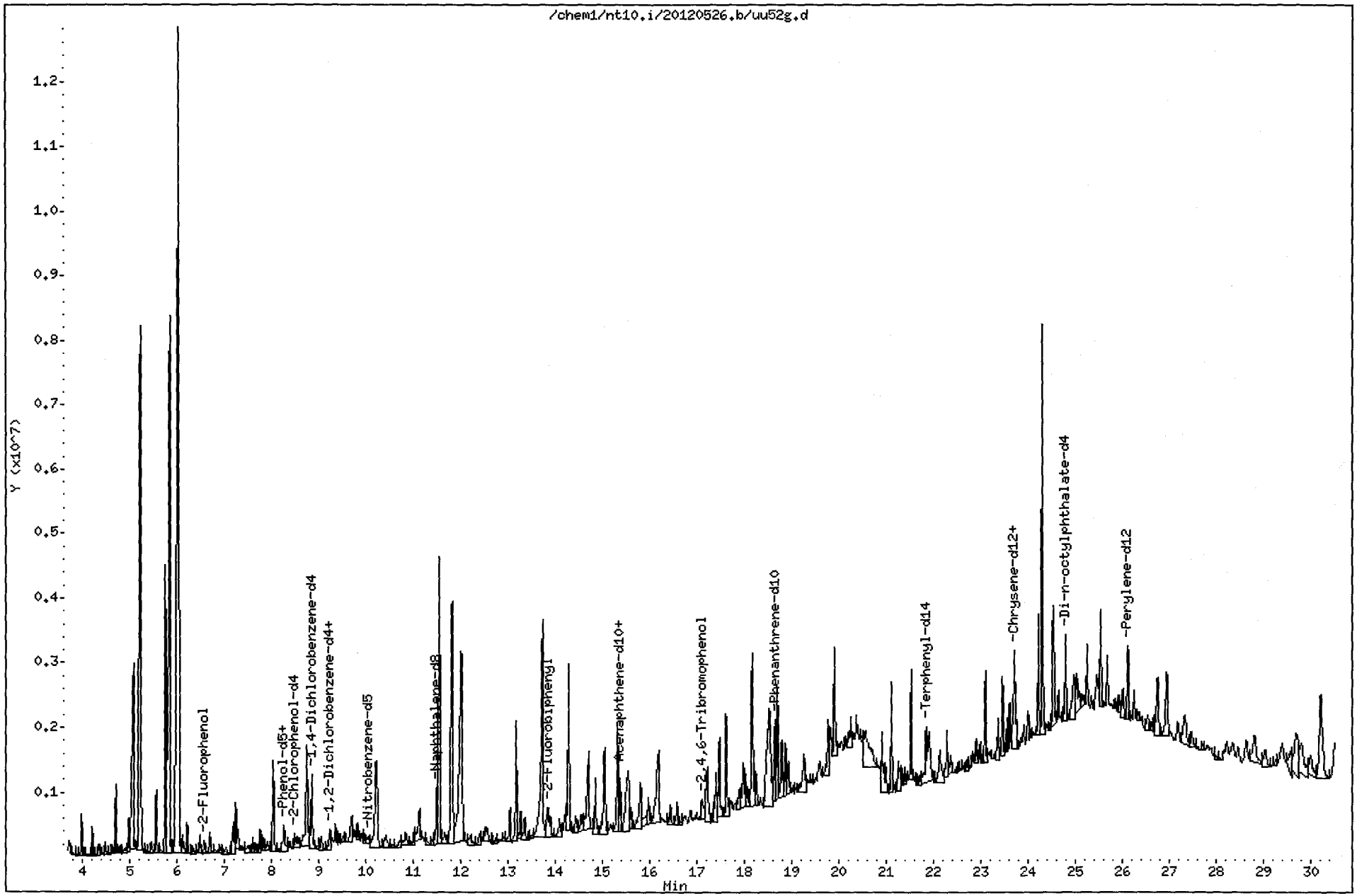
Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ

Column diameter: 0.25






UU52:00901

Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

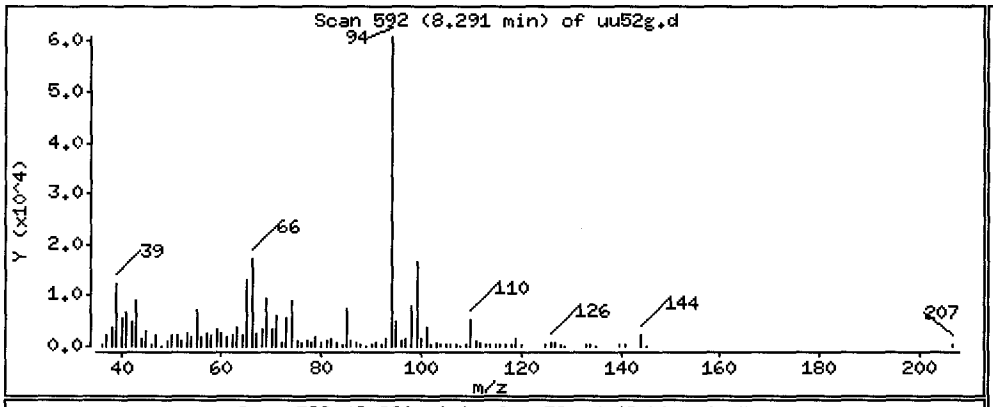
Operator: VTS/YZ

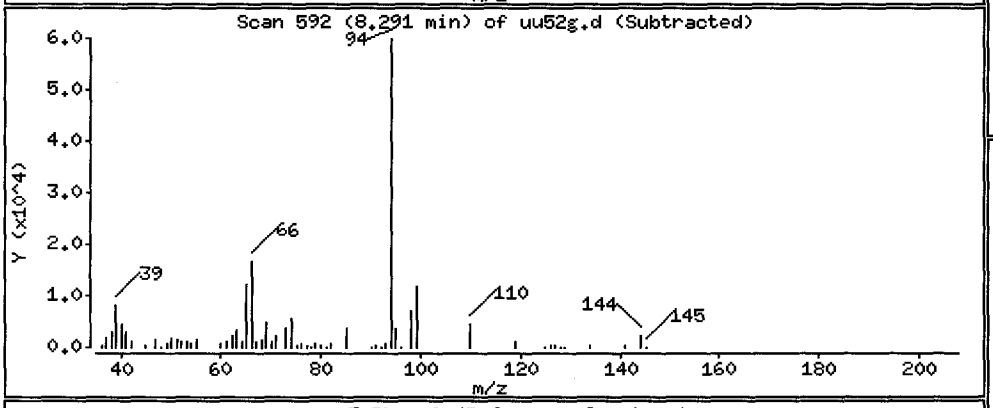
Column phase: ZB-5msi

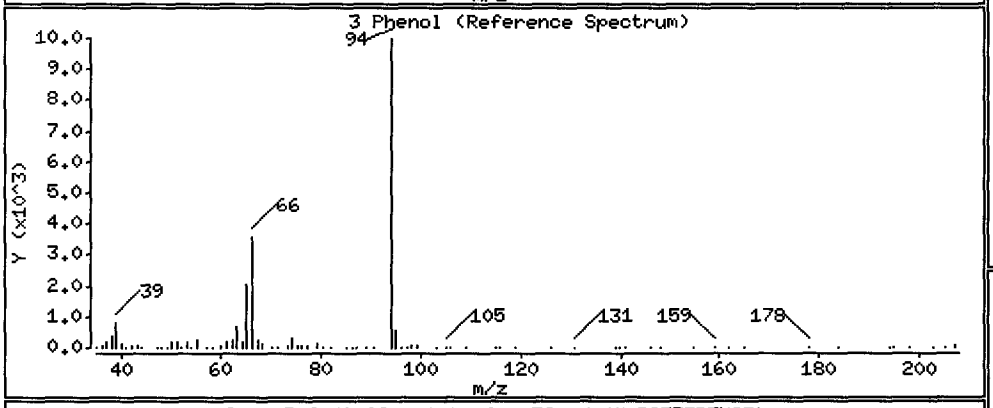
Column diameter: 0.25

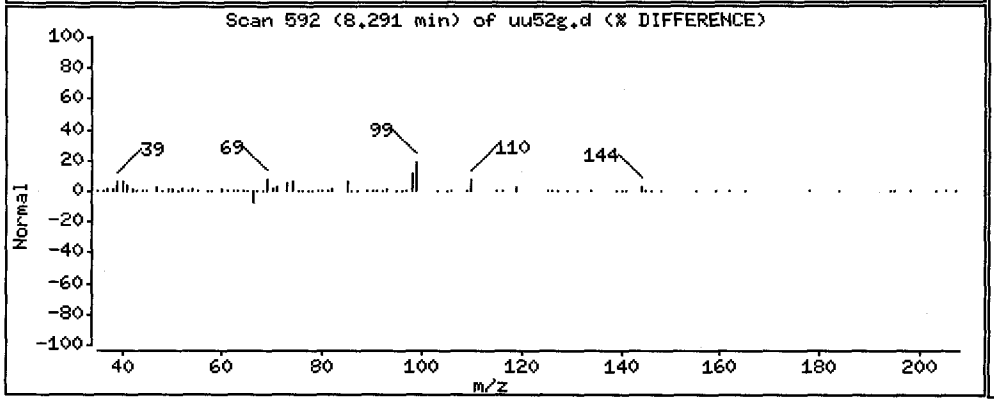
3 Phenol

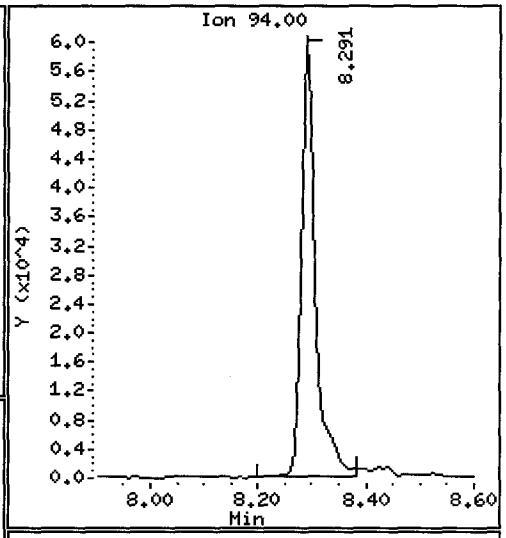
Concentration: 385.3 ug/kg

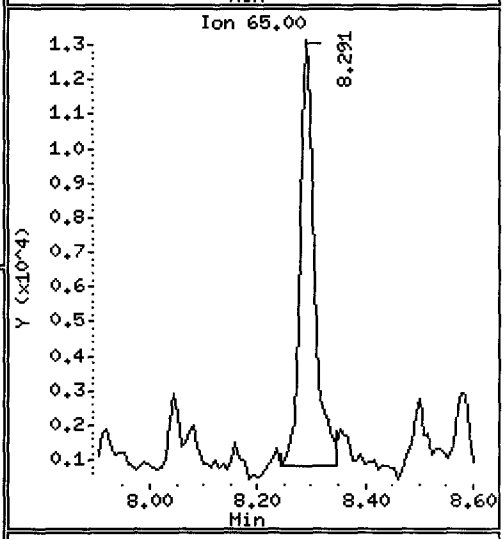


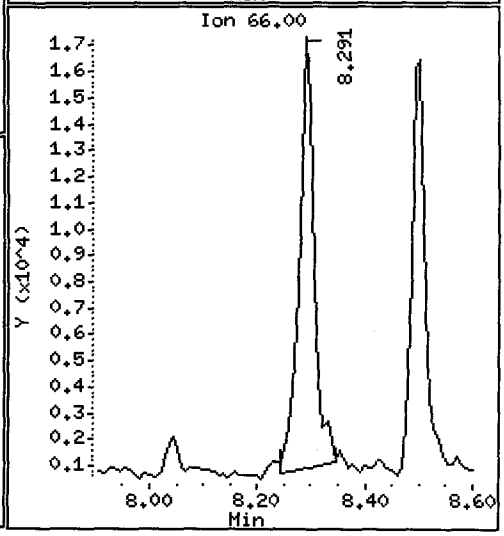



Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

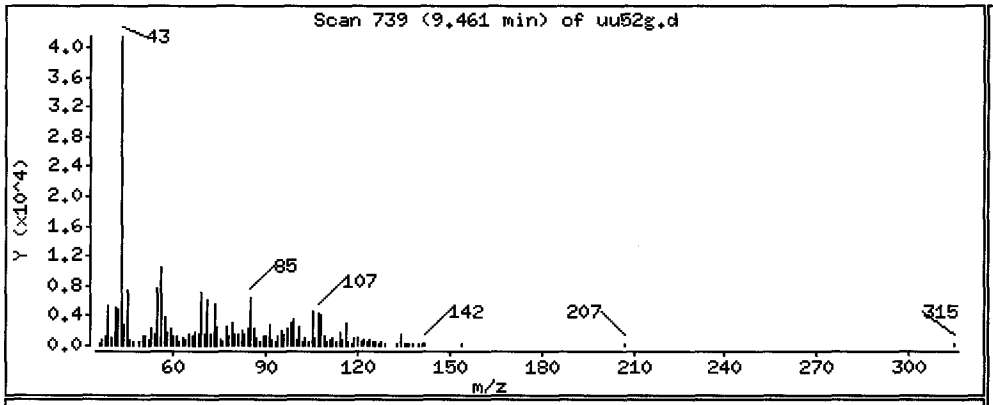
Client ID: MS006-SS-120515 Instrument: nt10.i

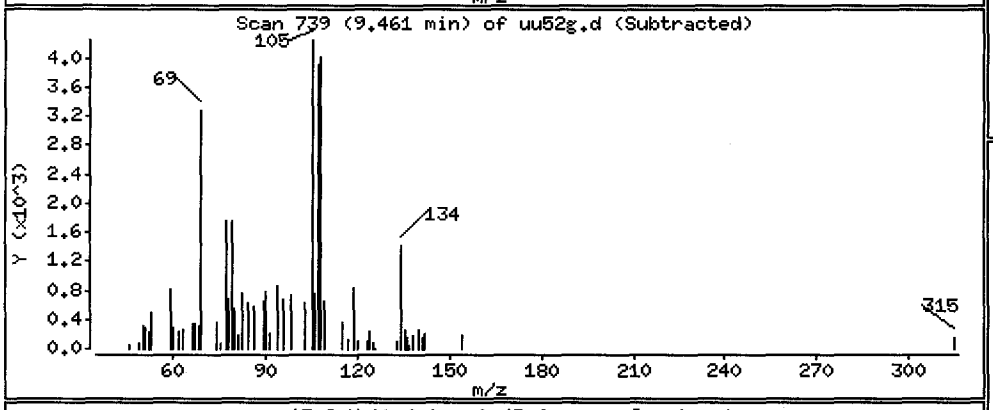
Sample Info: UU52G,3

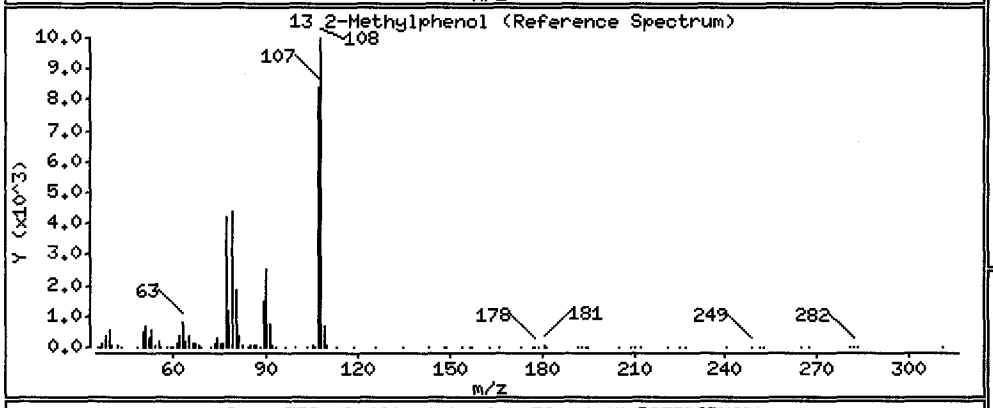
Volume Injected (uL): 1.0 Operator: VTS/YZ

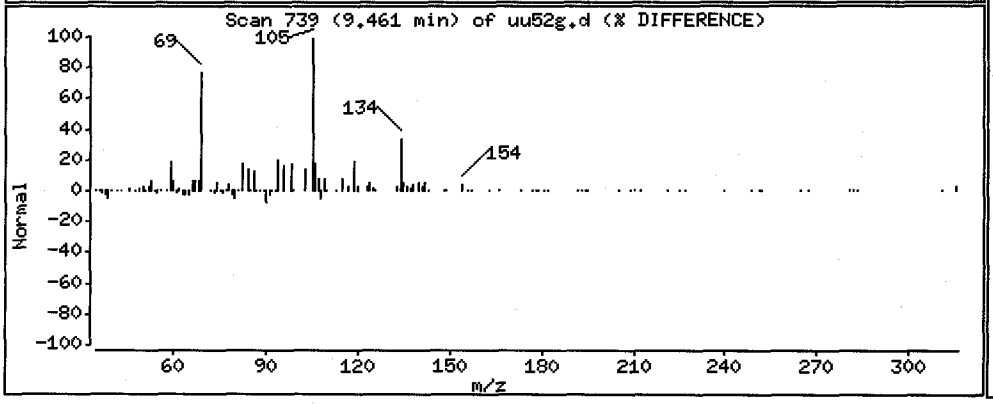
Column phase: ZB-5msi Column diameter: 0.25

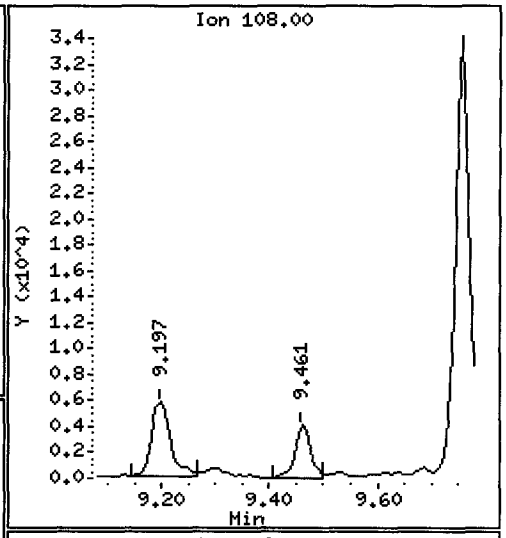
13 2-Methylphenol Concentration: 37.18 ug/kg

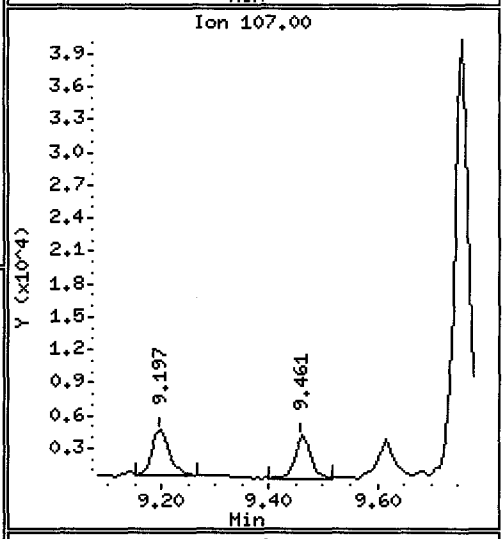


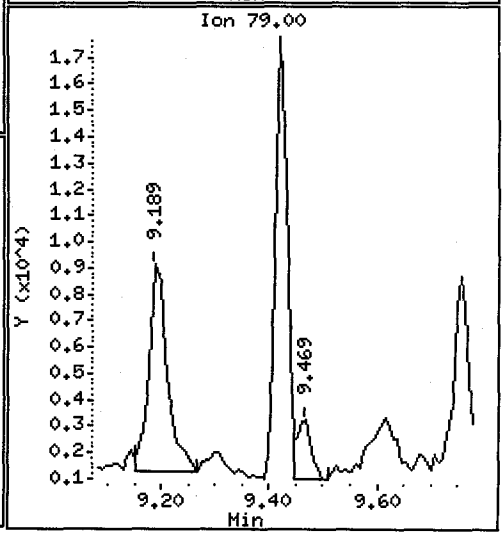



Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

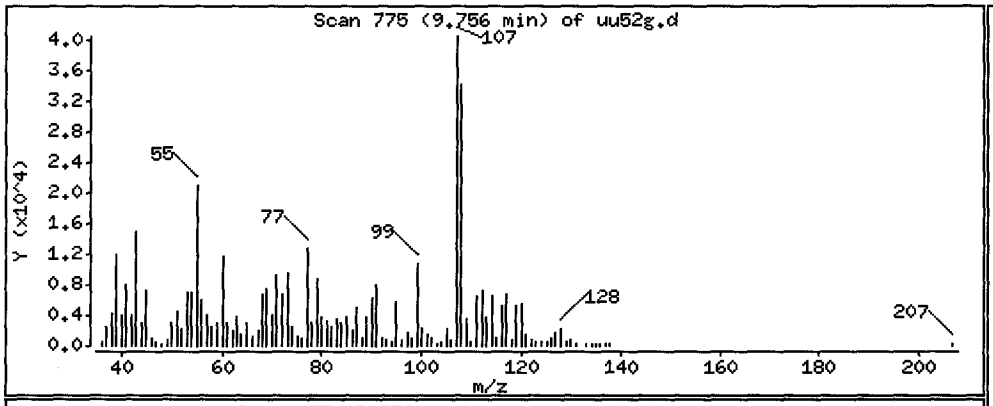
Operator: VTS/YZ

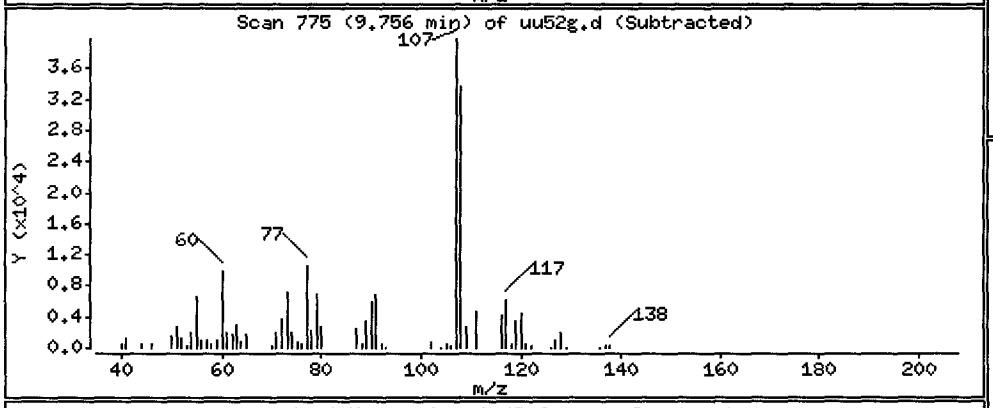
Column phase: ZB-5msi

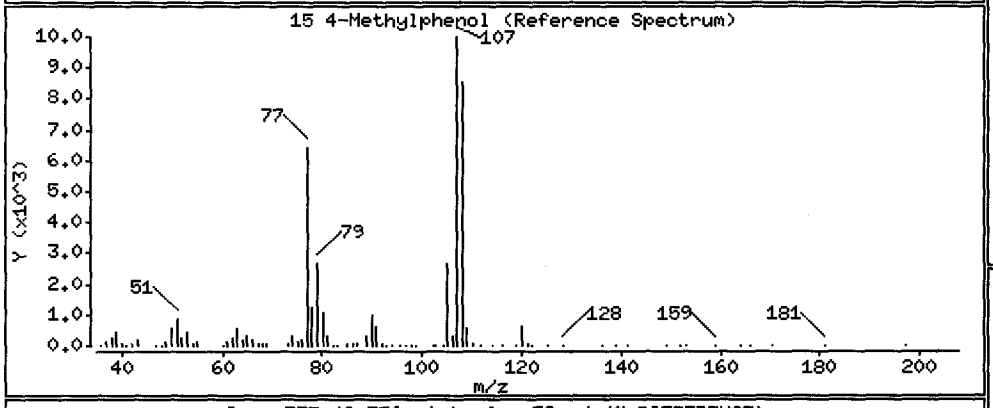
Column diameter: 0.25

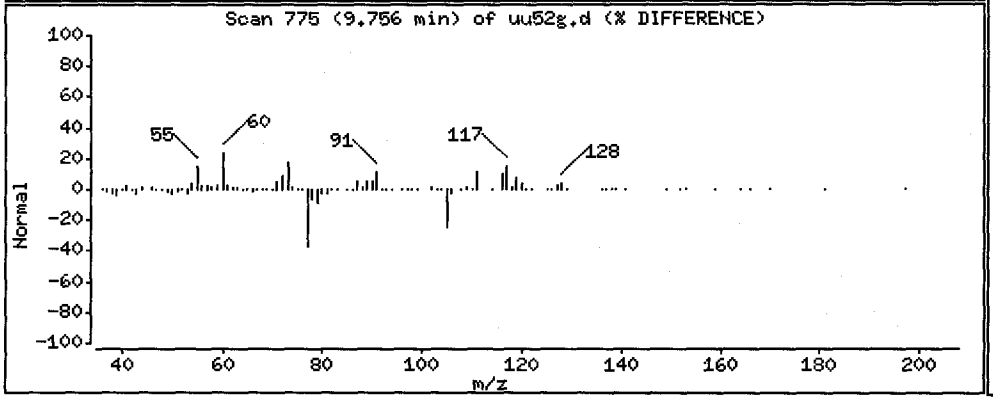
15 4-Methylphenol

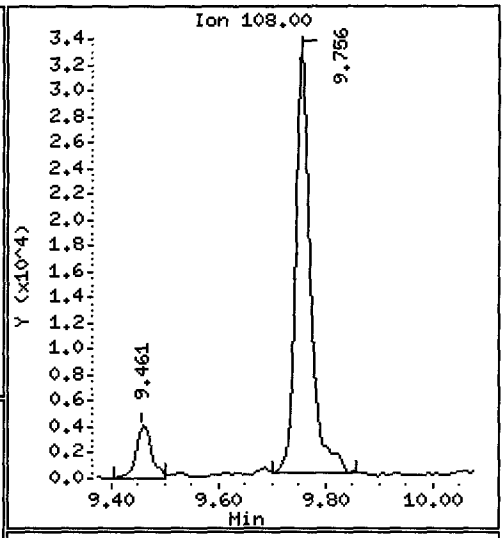
Concentration: 275.4 ug/kg

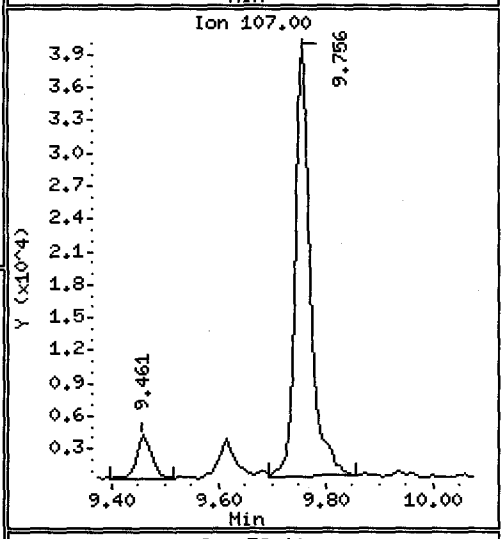


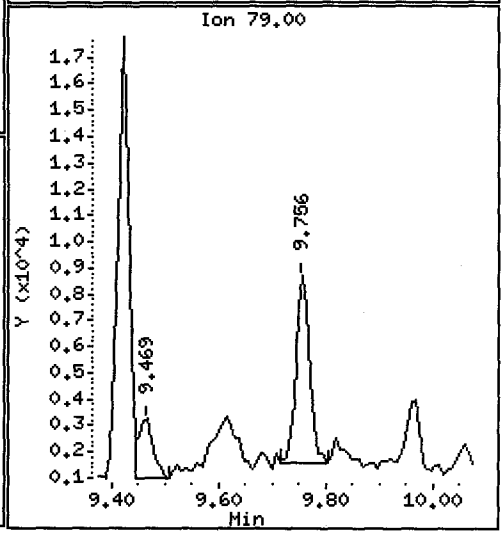



Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

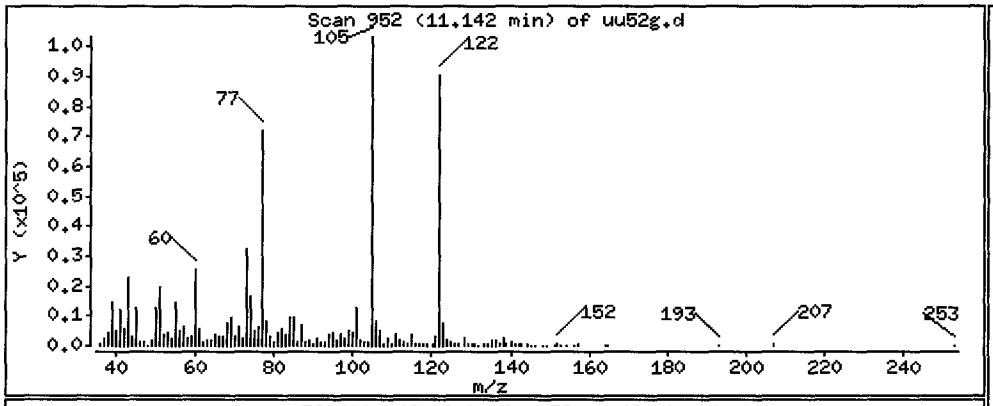
Operator: VTS/YZ

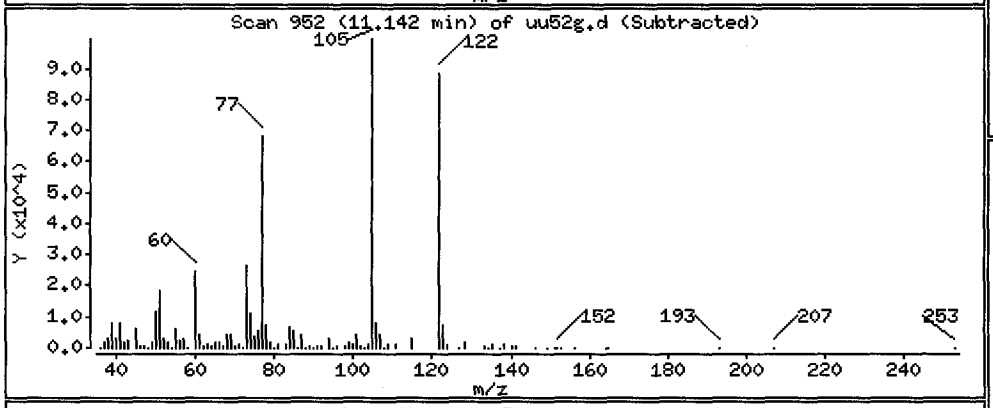
Column phase: ZB-5msi

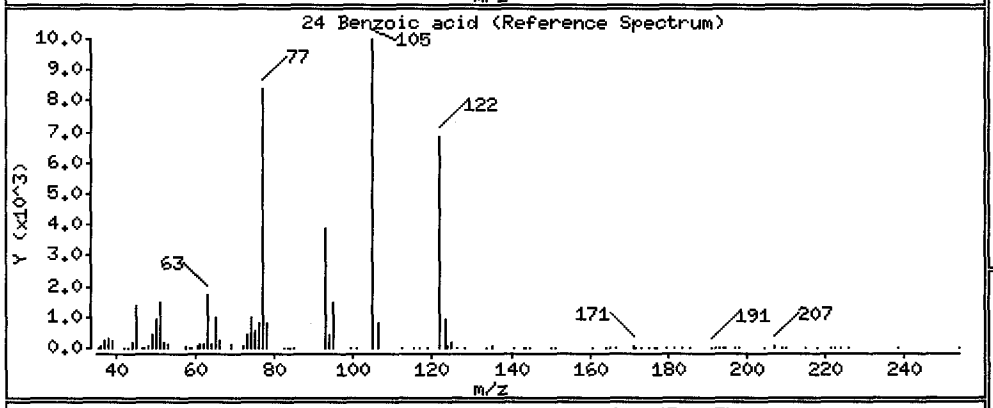
Column diameter: 0.25

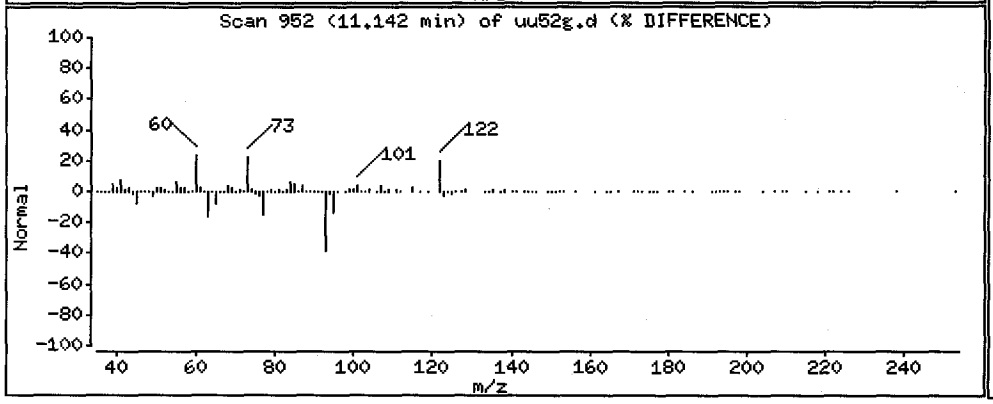
24 Benzoic acid

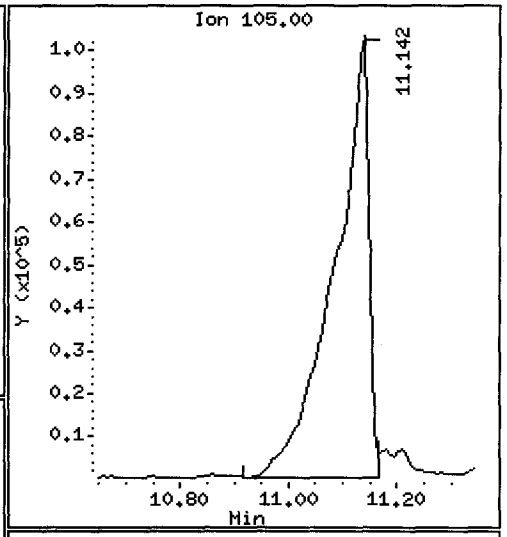
Concentration: 3103 ug/kg

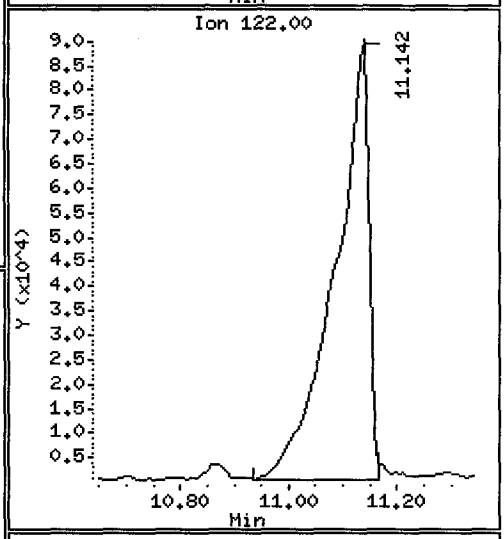


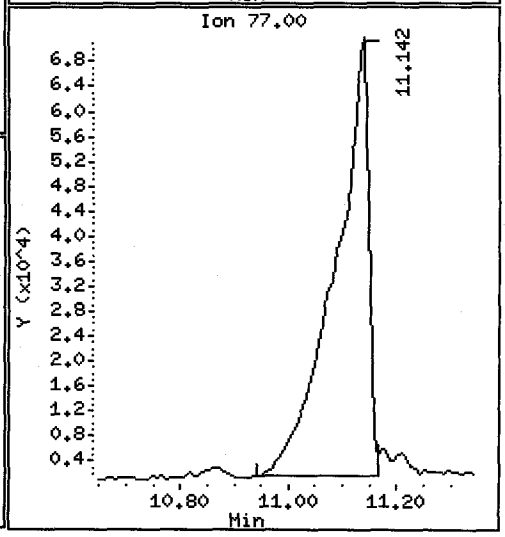



Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

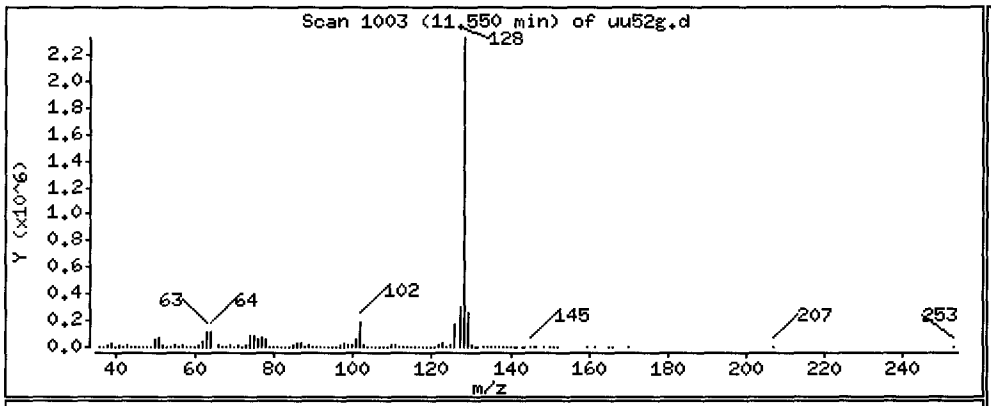
Client ID: MS006-SS-120515 Instrument: nt10.i

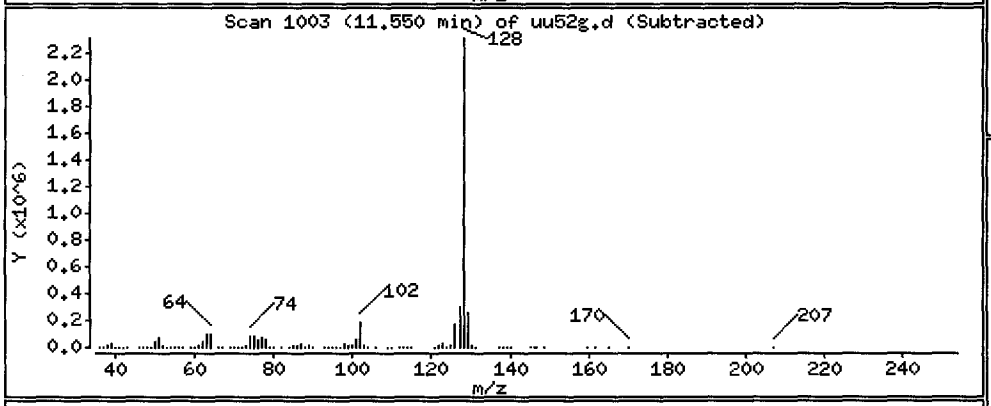
Sample Info: UU52G,3

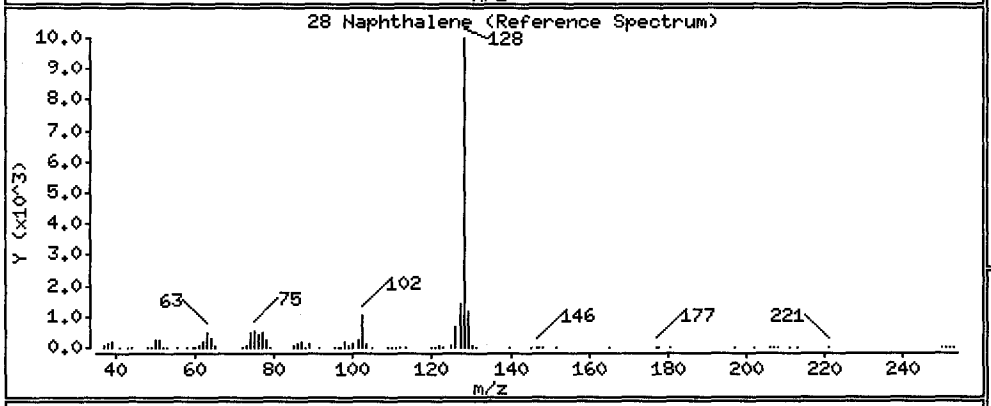
Volume Injected (uL): 1.0 Operator: VTS/YZ

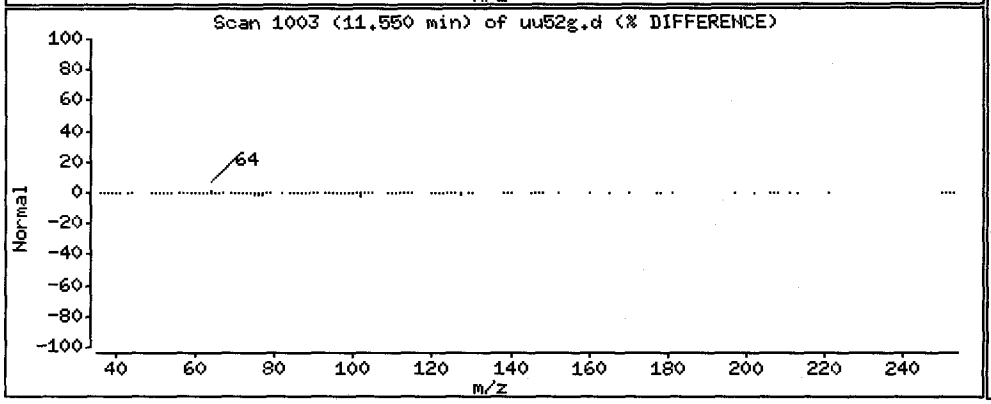
Column phase: ZB-5msi Column diameter: 0.25

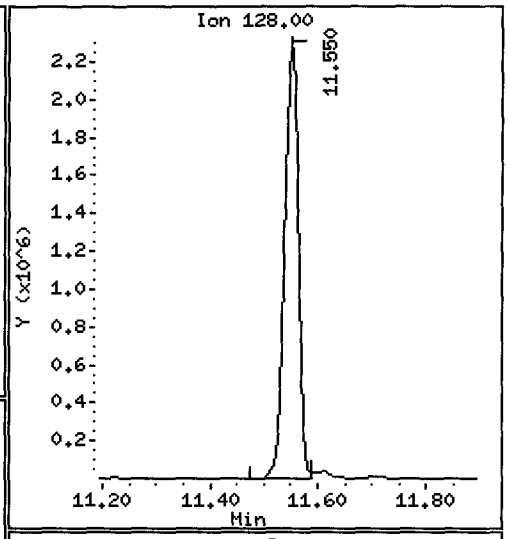
28 Naphthalene Concentration: 6285 ug/kg

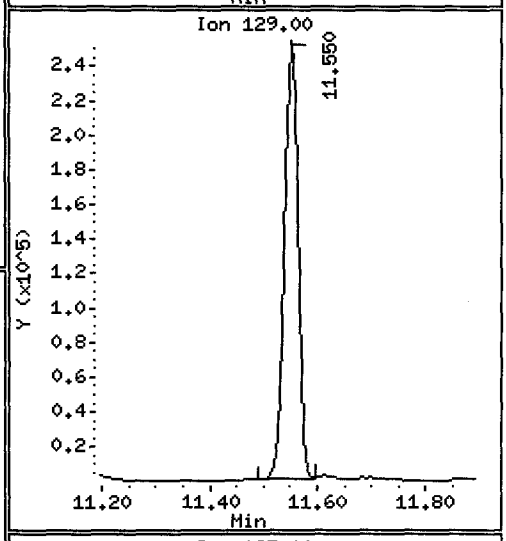


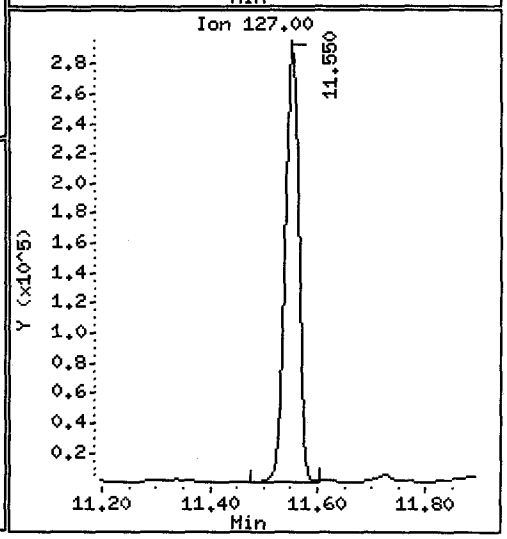



Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

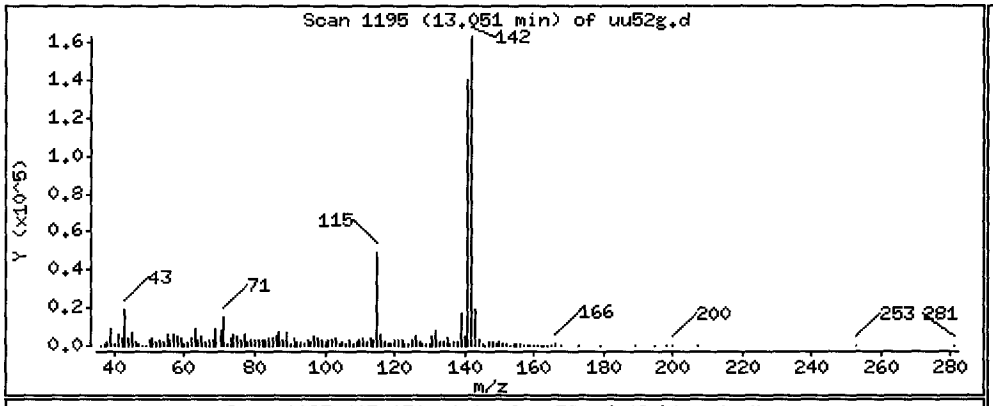
Client ID: MS006-SS-120515 Instrument: nt10.i

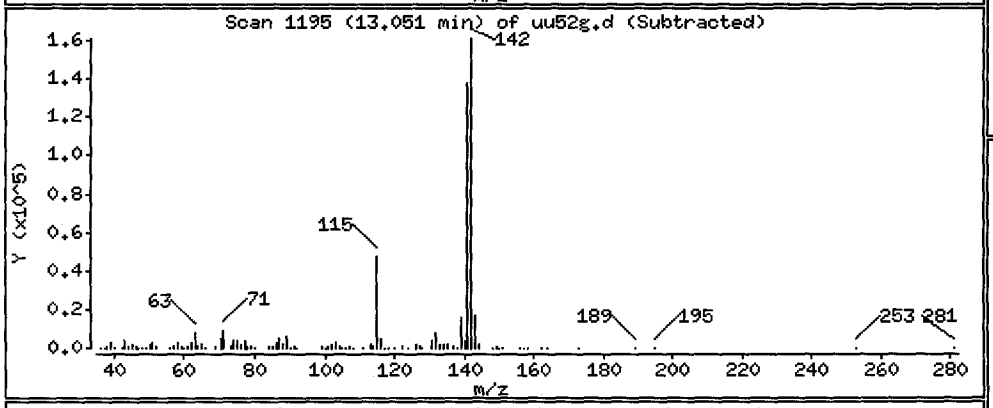
Sample Info: UU52G,3

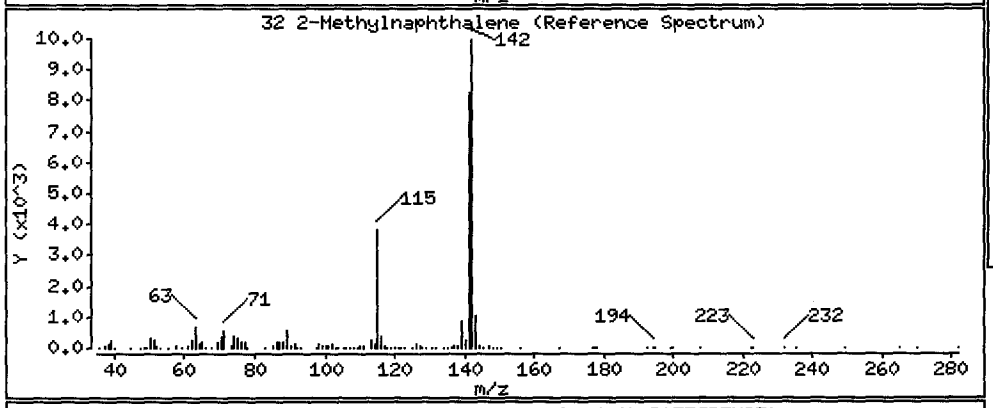
Volume Injected (uL): 1.0 Operator: VTS/YZ

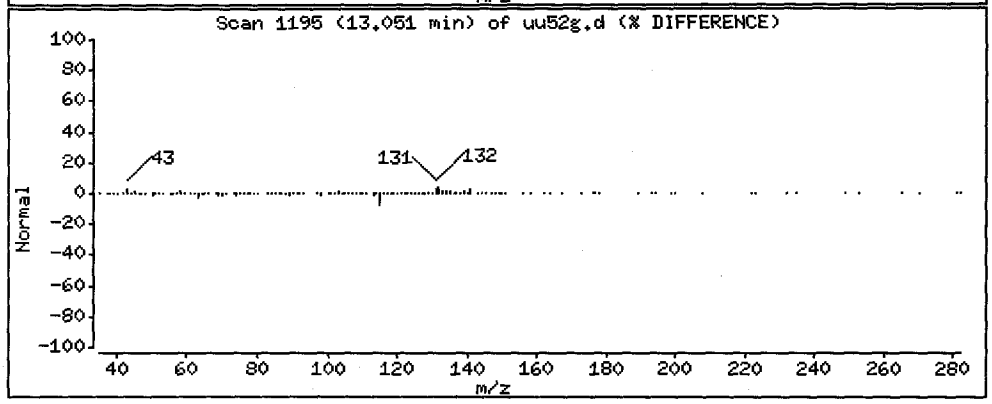
Column phase: ZB-5msi Column diameter: 0.25

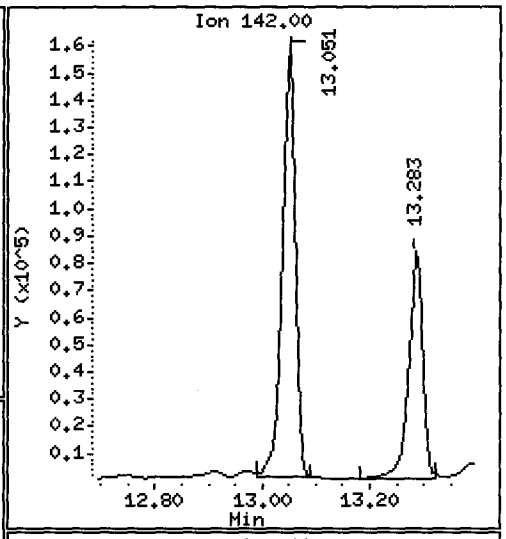
32 2-Methylnaphthalene Concentration: 598.1 ug/kg

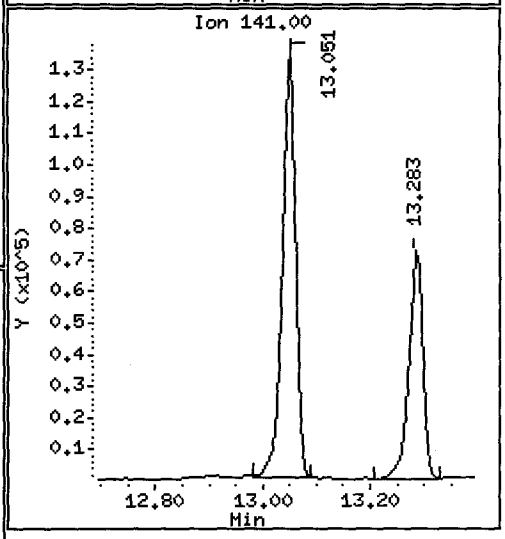


Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

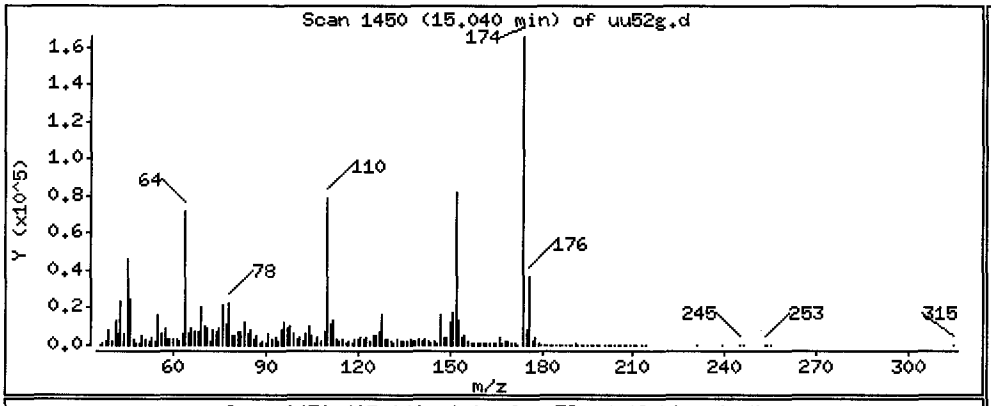
Operator: VTS/YZ

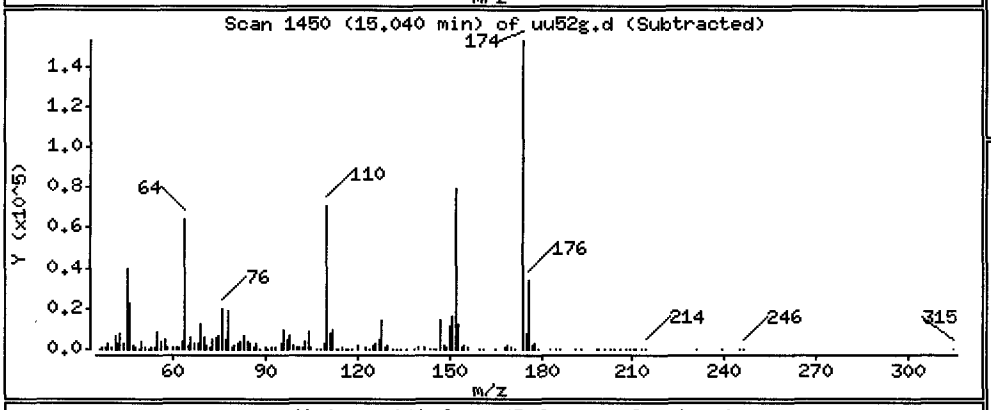
Column phase: ZB-5msi

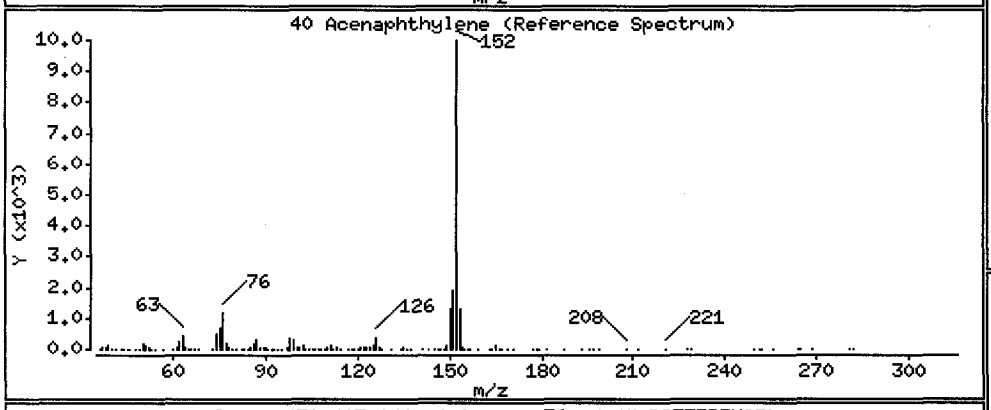
Column diameter: 0.25

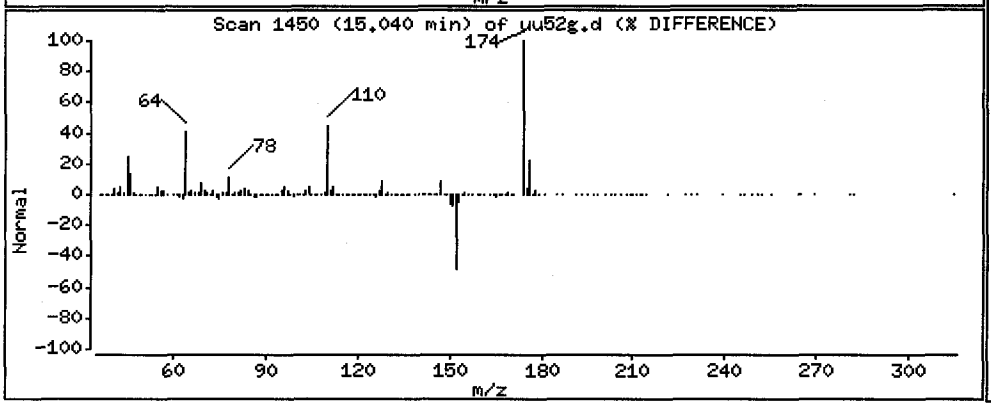
40 Acenaphthylene

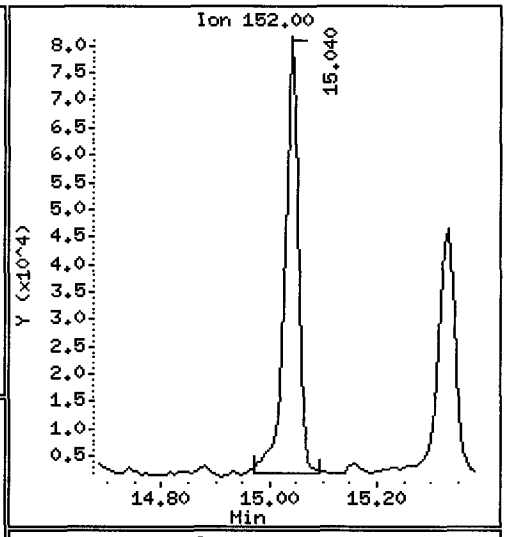
Concentration: 223.8 ug/kg

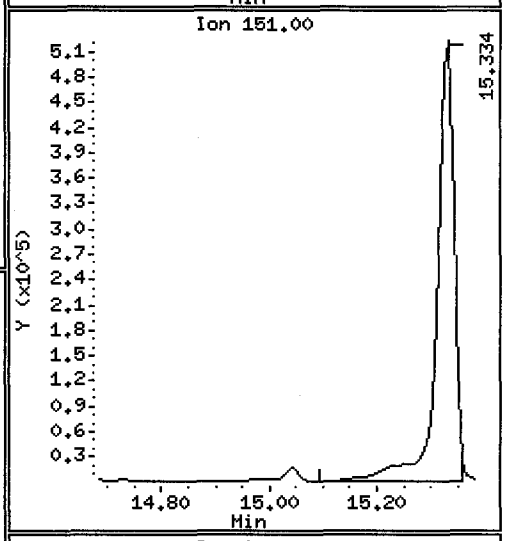


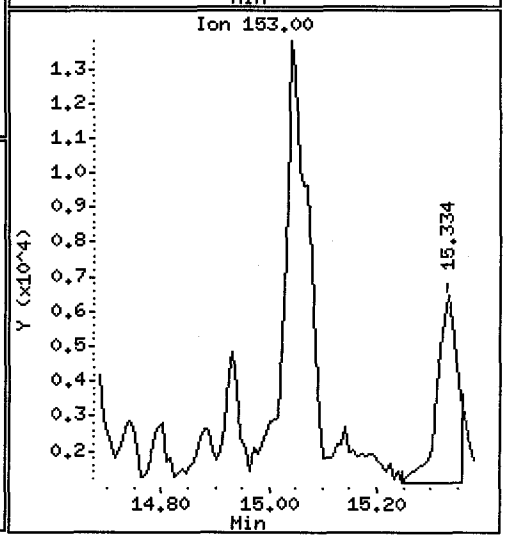



Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

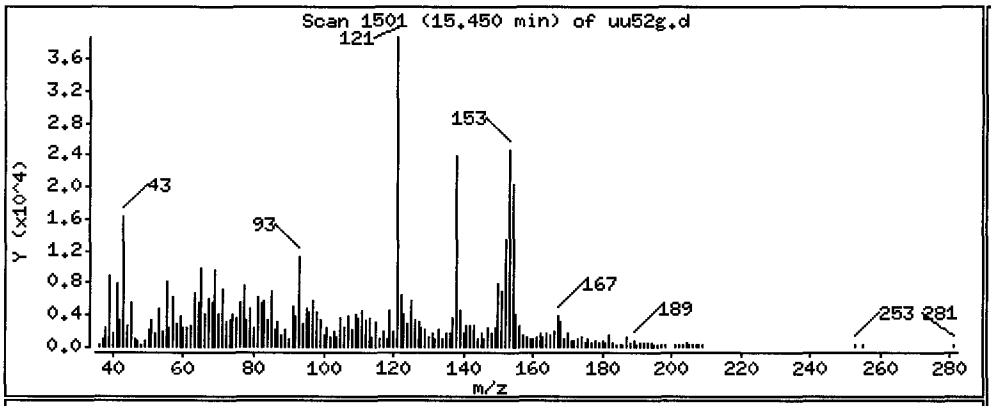
Operator: VTS/YZ

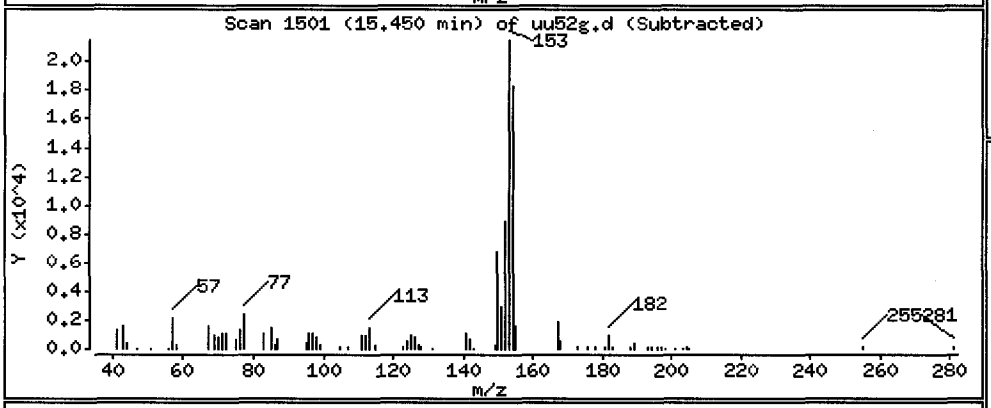
Column phase: ZB-5msi

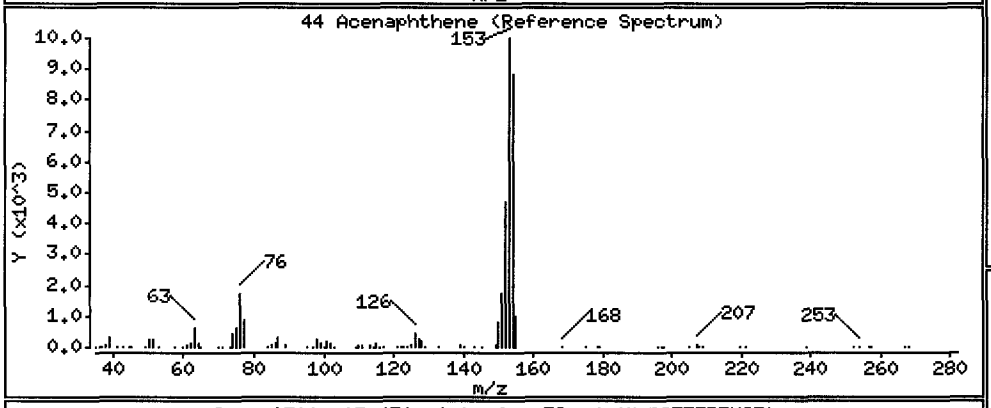
Column diameter: 0.25

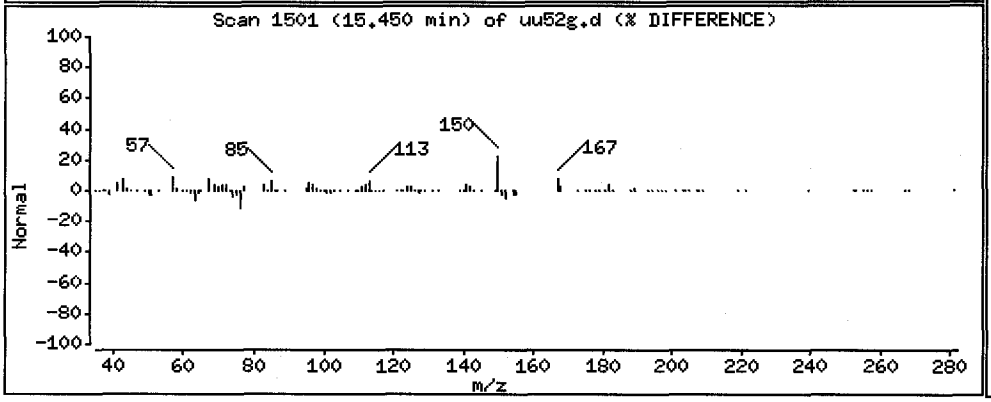
44 Acenaphthene

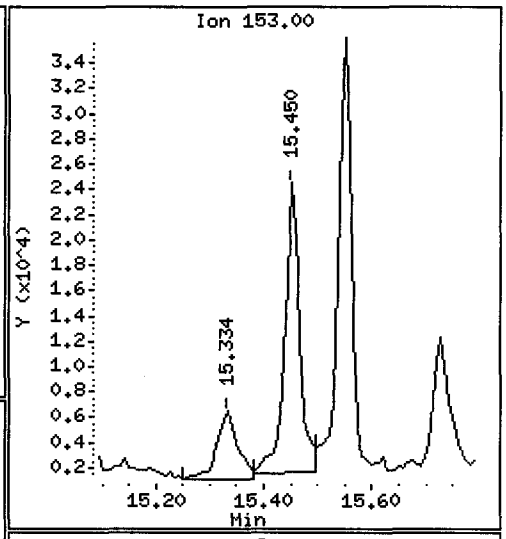
Concentration: 113.5 ug/kg

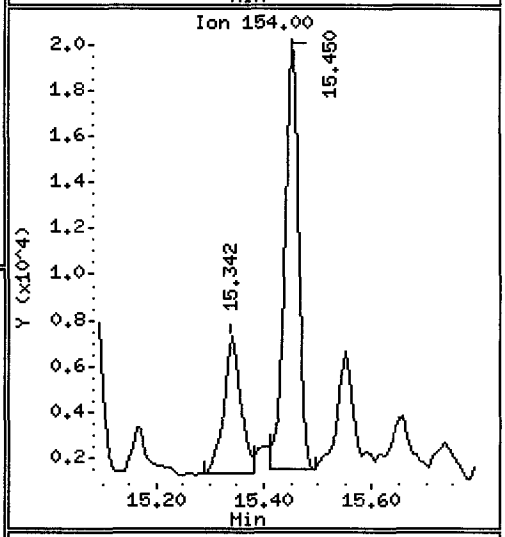


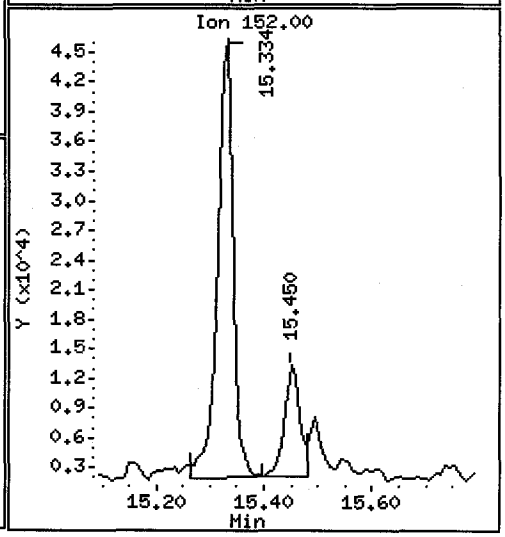



Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

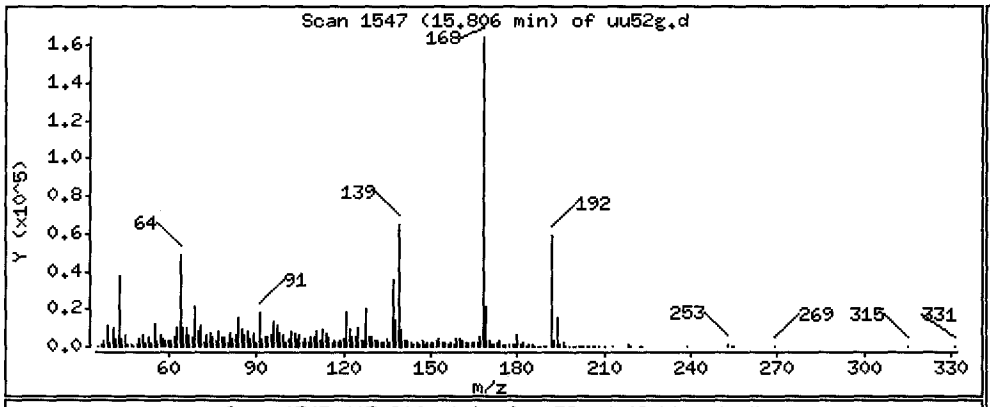
Operator: VTS/YZ

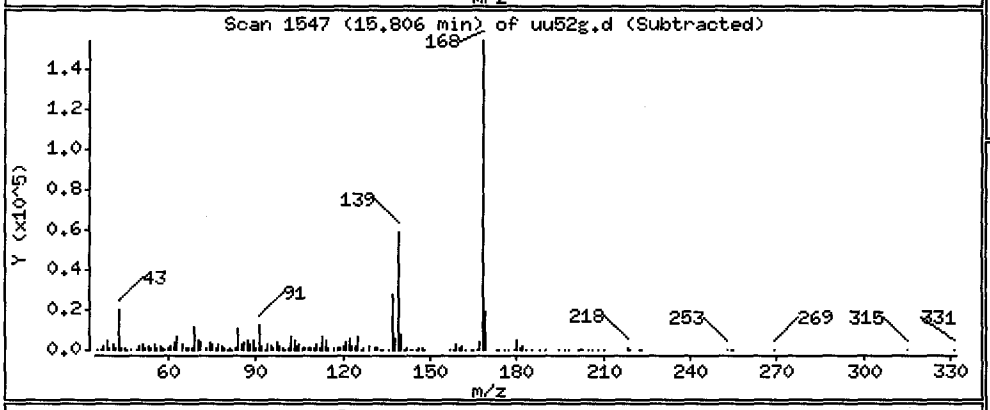
Column phase: ZB-5msi

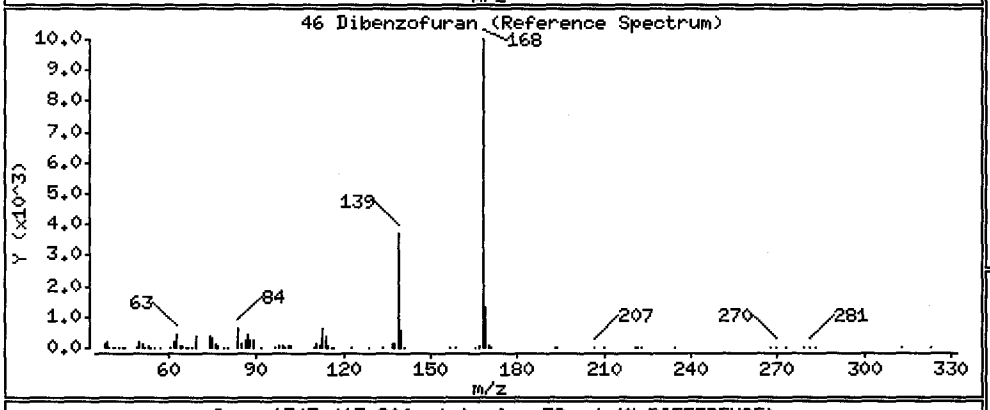
Column diameter: 0.25

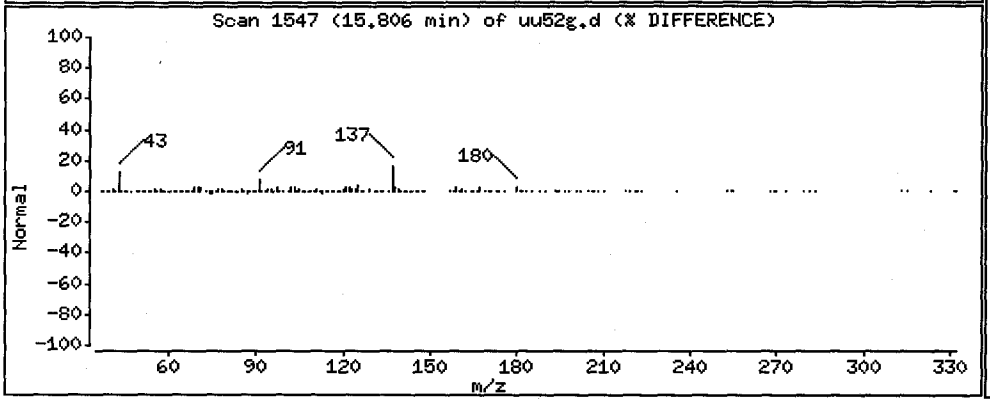
46 Dibenzofuran

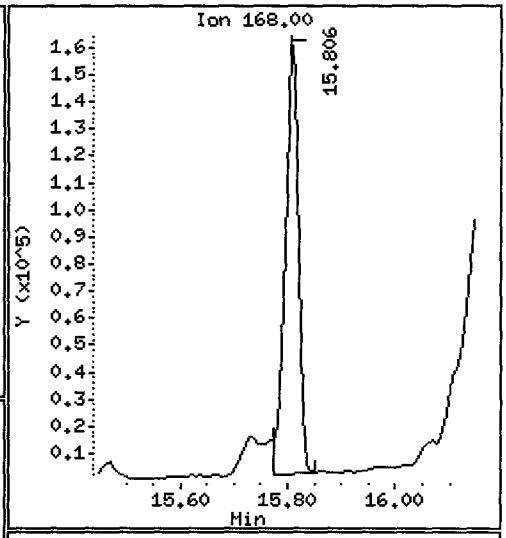
Concentration: 485.1 ug/kg

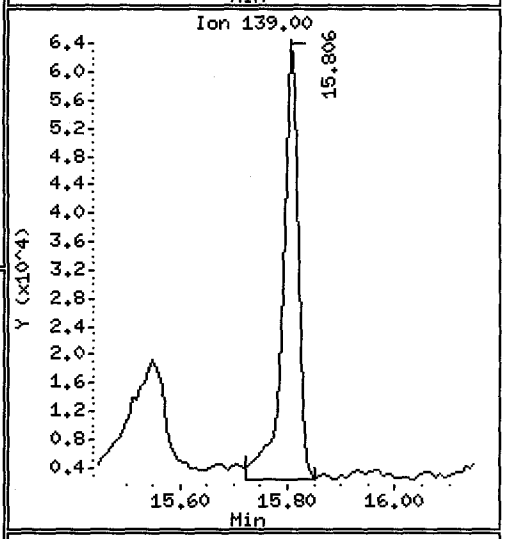


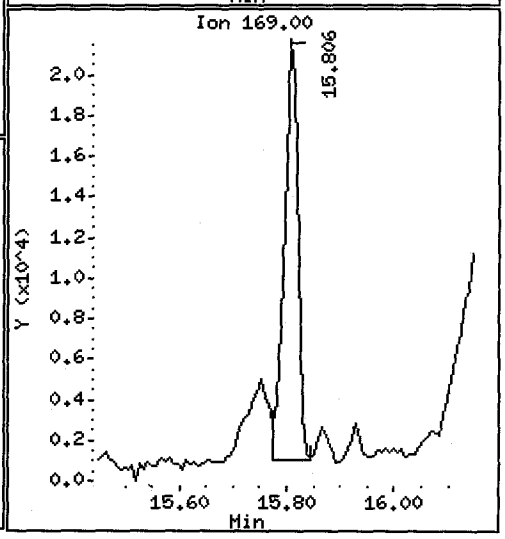



Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

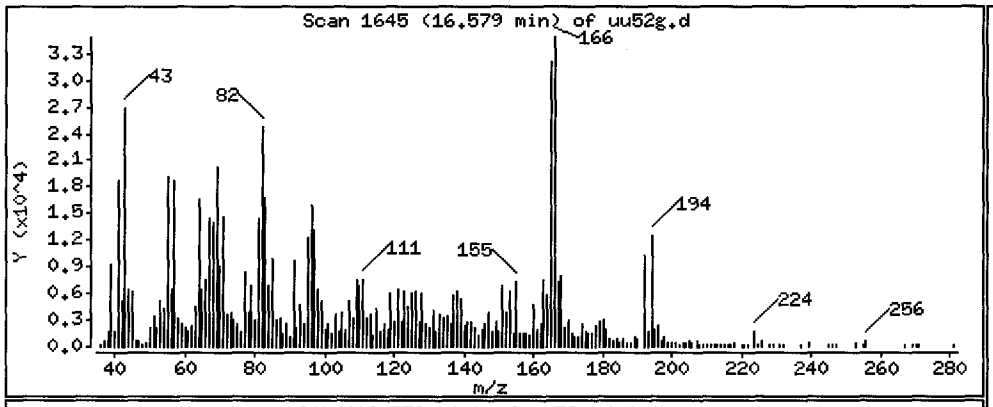
Operator: VTS/YZ

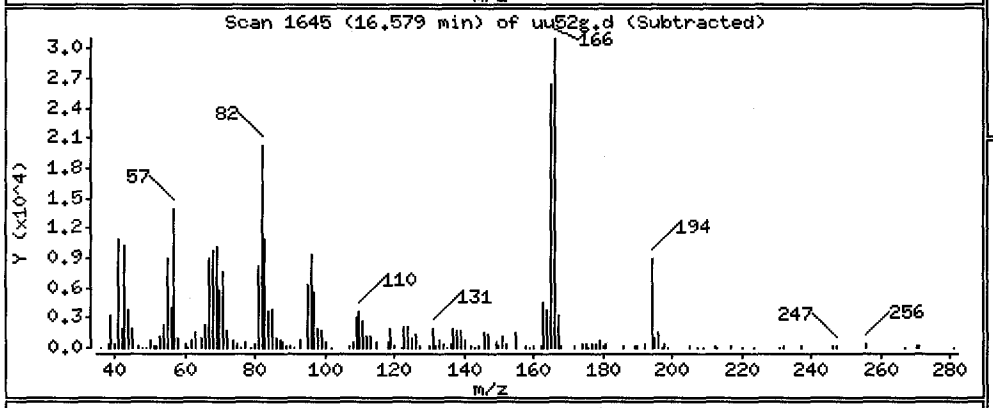
Column phase: ZB-5msi

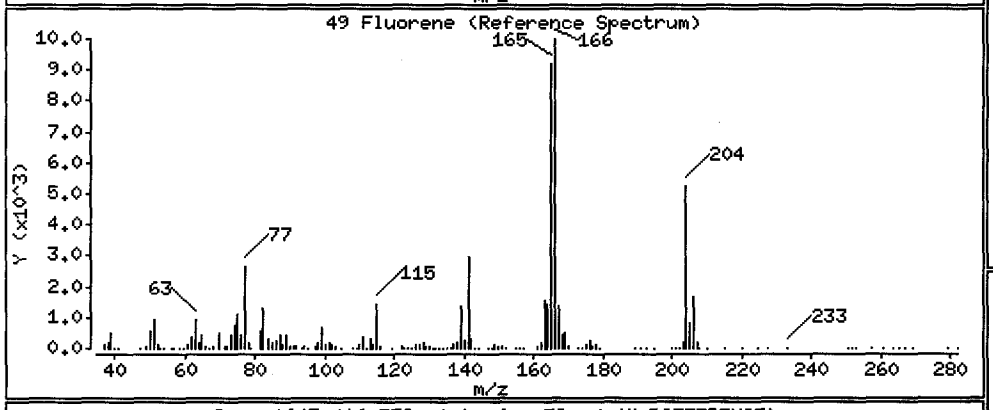
Column diameter: 0.25

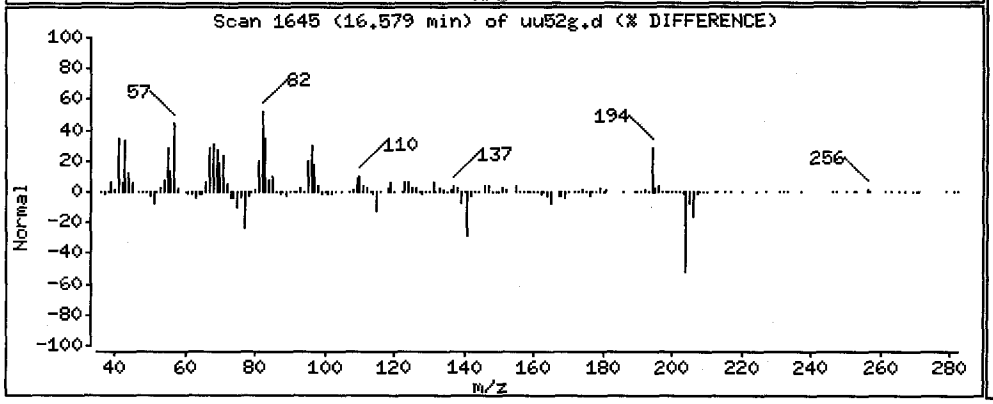
49 Fluorene

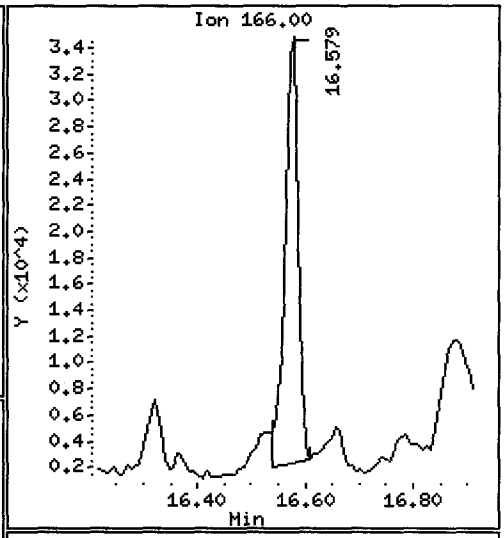
Concentration: 131.9 ug/kg

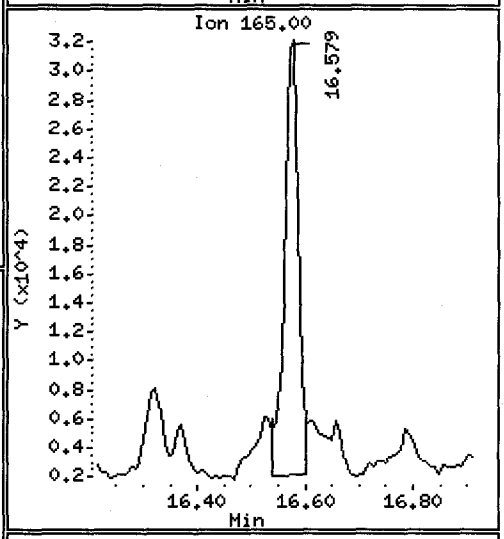


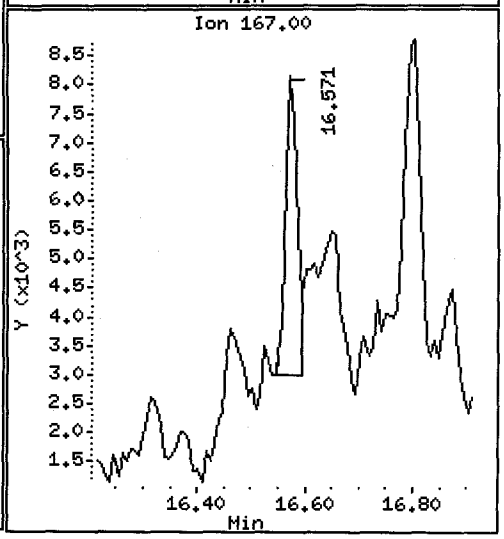



Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

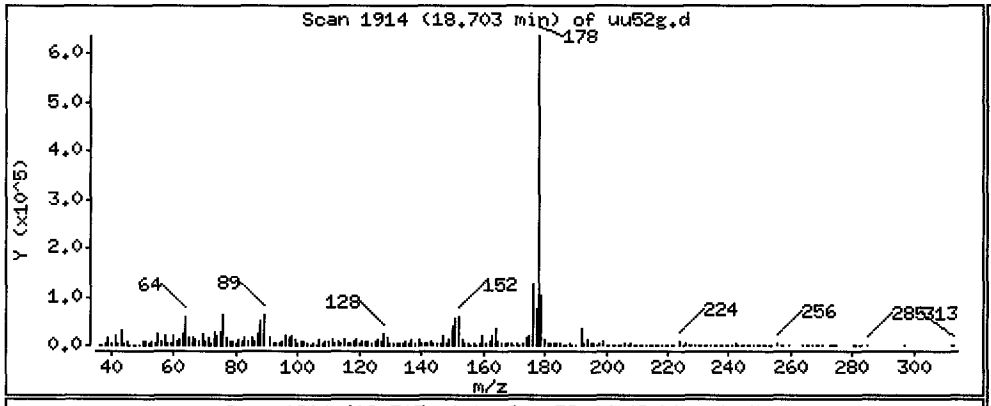
Operator: VTS/YZ

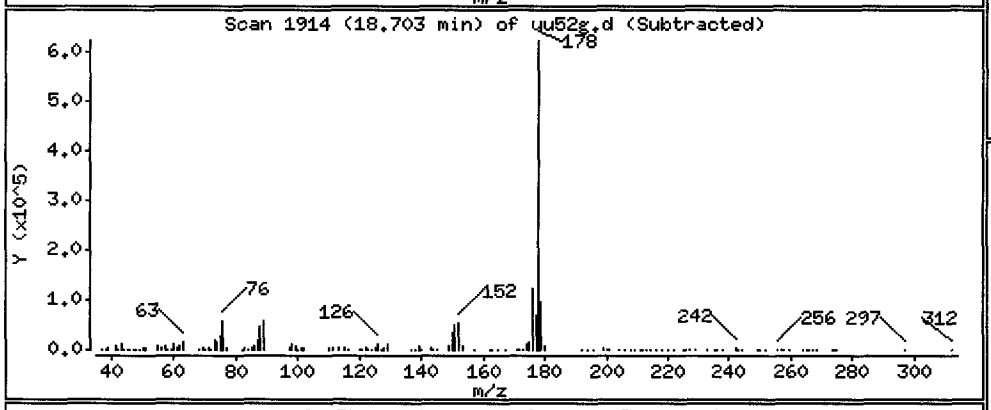
Column phase: ZB-5msi

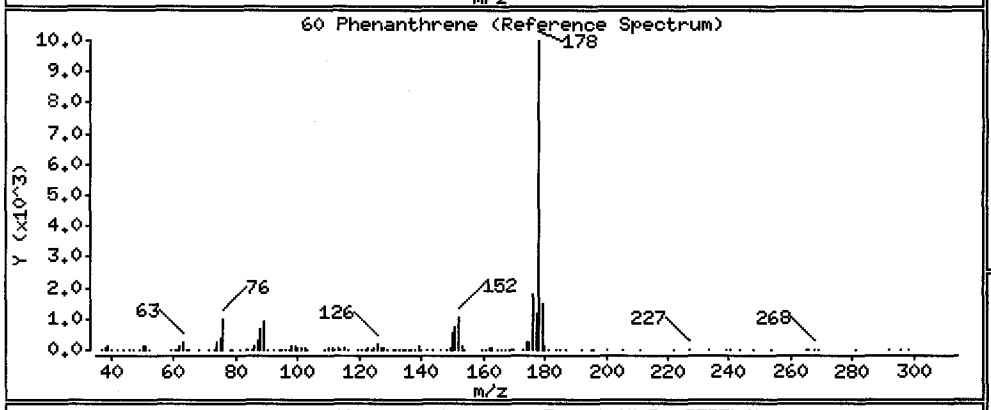
Column diameter: 0.25

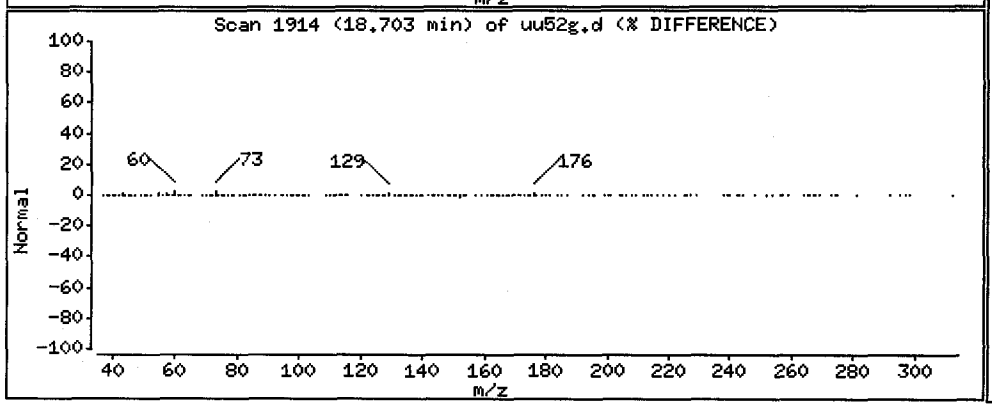
60 Phenanthrene

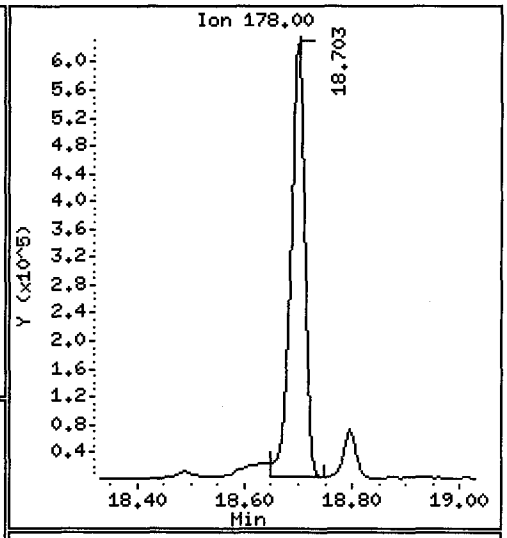
Concentration: 2197 ug/kg

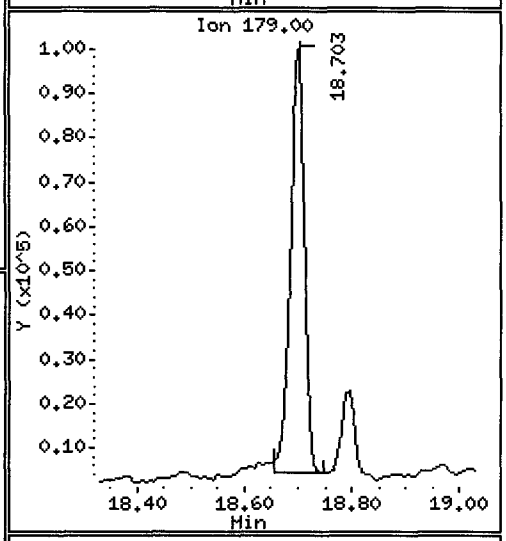


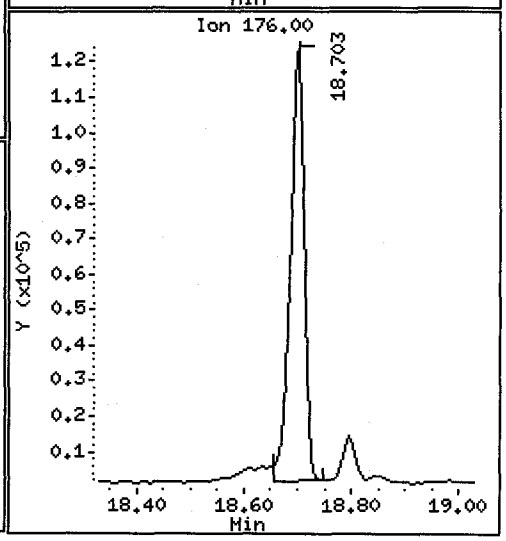



Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

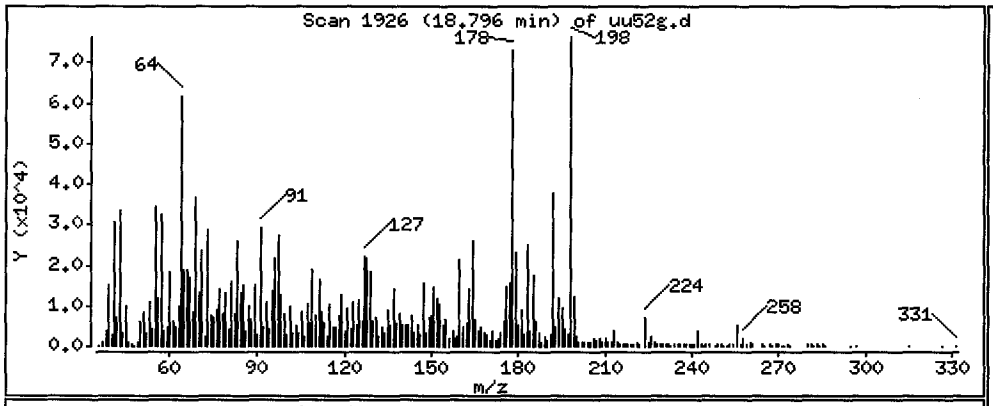
Operator: VTS/YZ

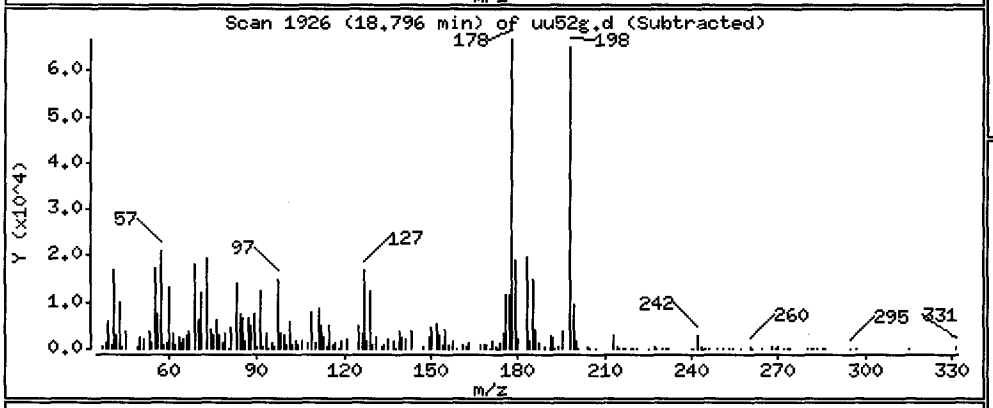
Column phase: ZB-5msi

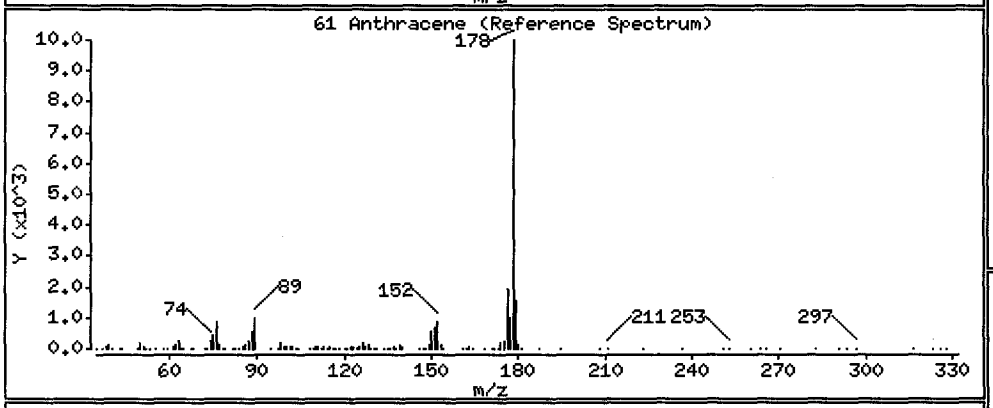
Column diameter: 0.25

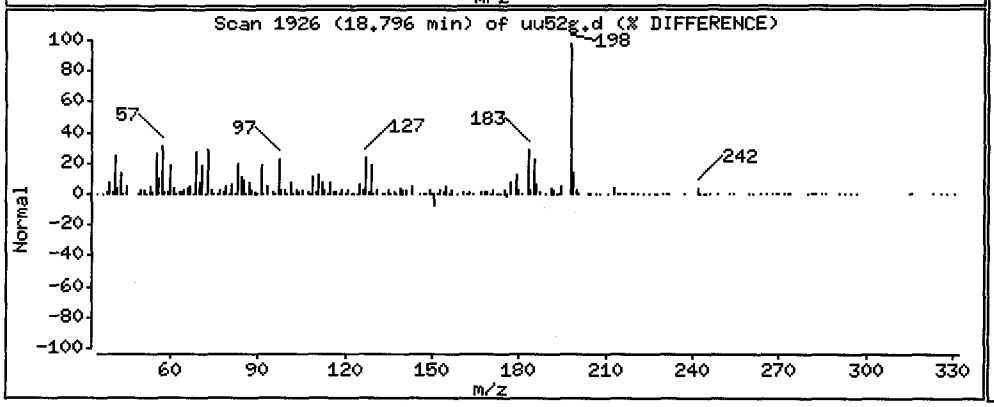
61 Anthracene

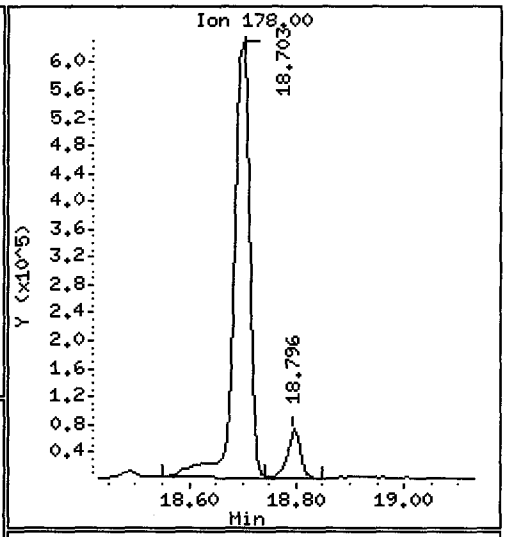
Concentration: 225.6 ug/kg

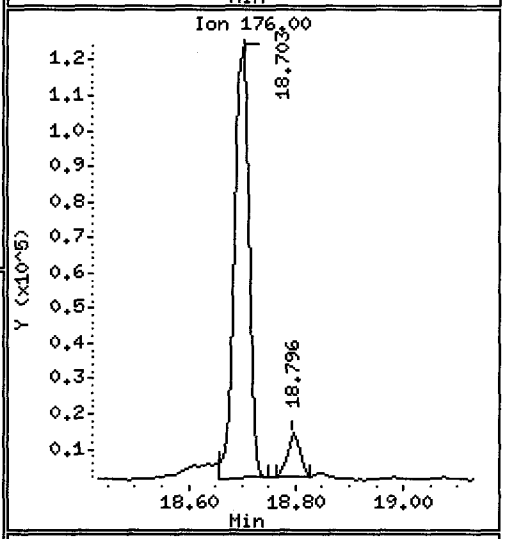


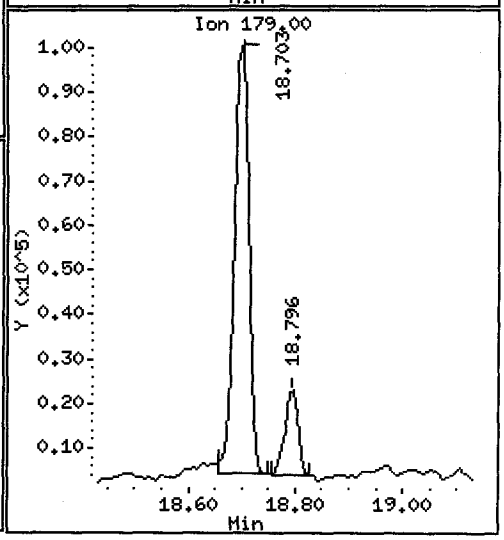



Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

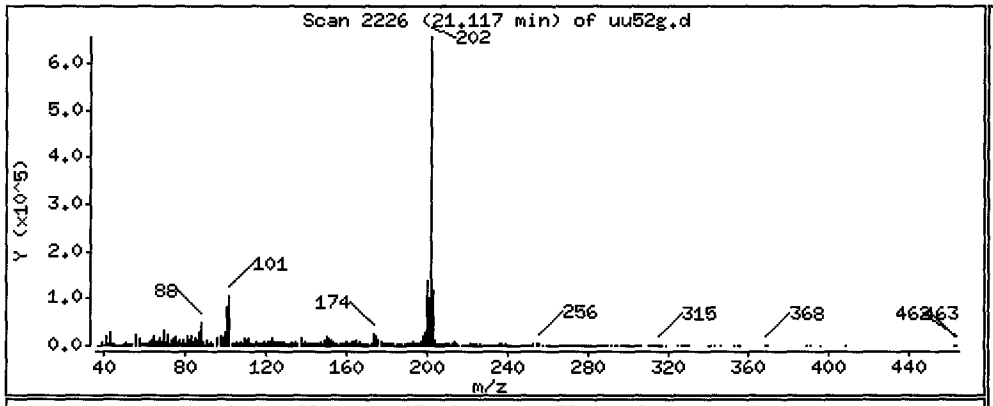
Client ID: MS006-SS-120515 Instrument: nt10.i

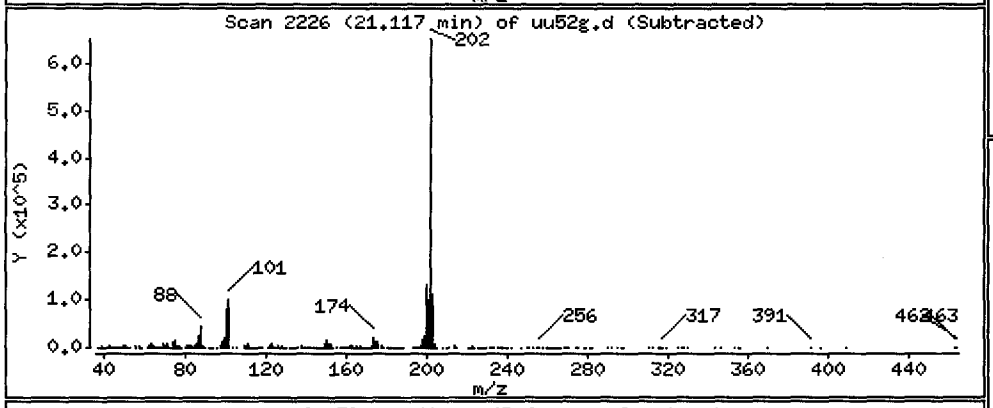
Sample Info: UU52G,3

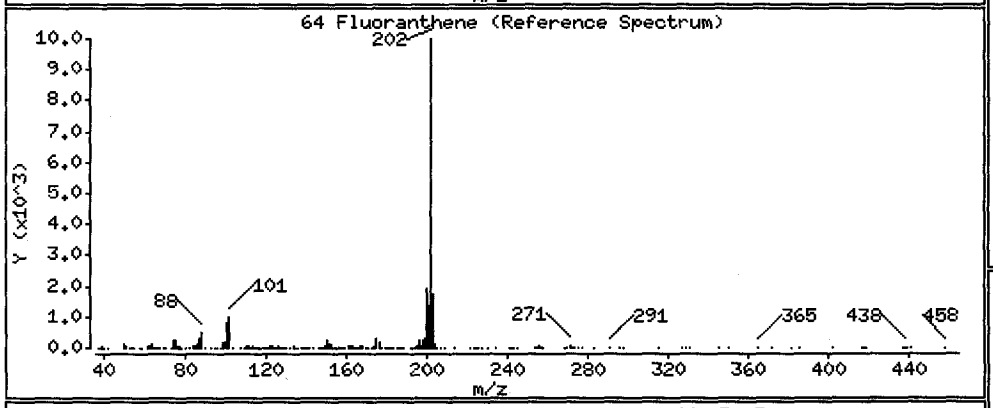
Volume Injected (uL): 1.0 Operator: VTS/YZ

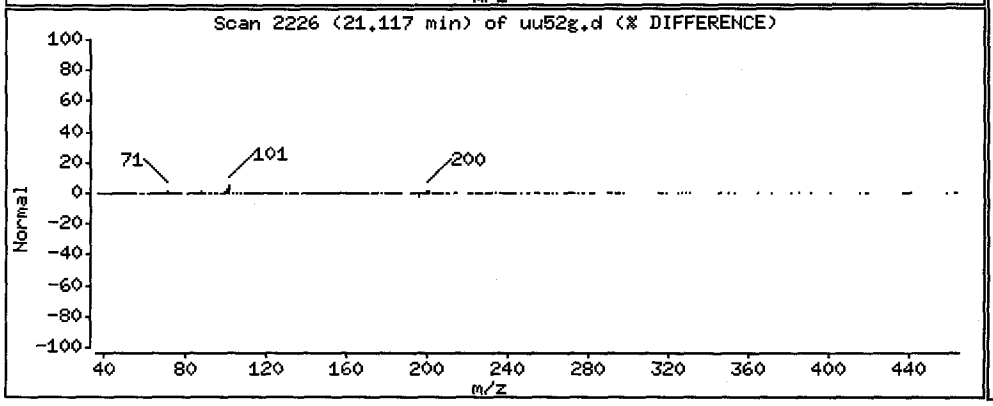
Column phase: ZB-5msi Column diameter: 0.25

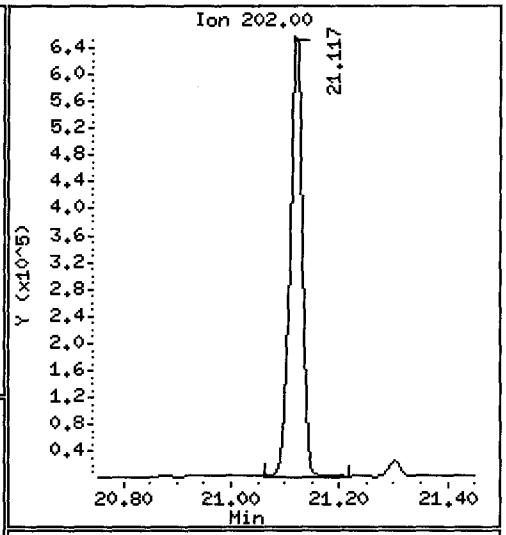
64 Fluoranthene Concentration: 1746 ug/kg

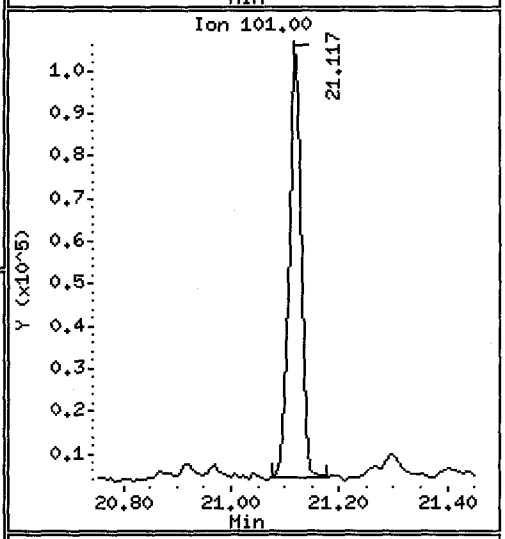


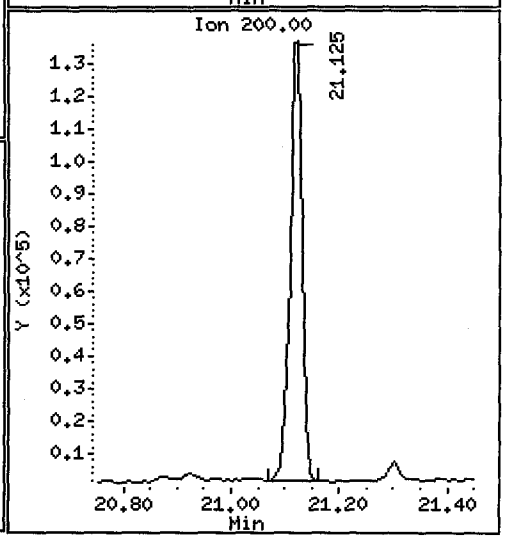



Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

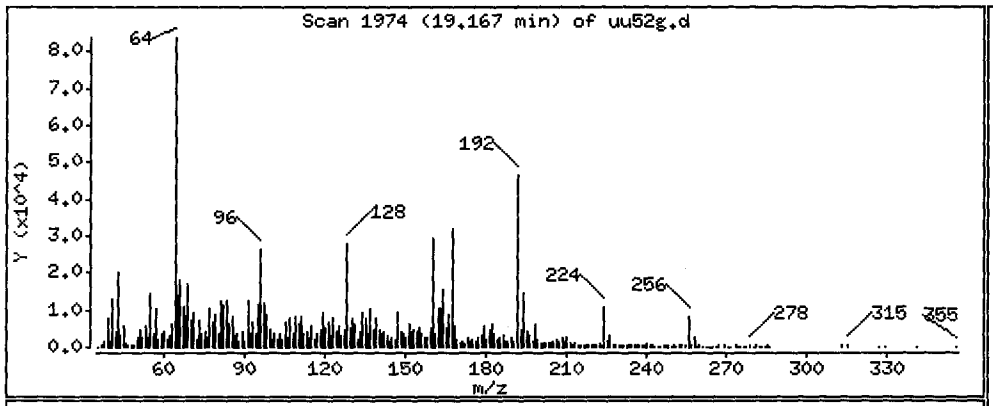
Client ID: MS006-SS-120515 Instrument: nt10.i

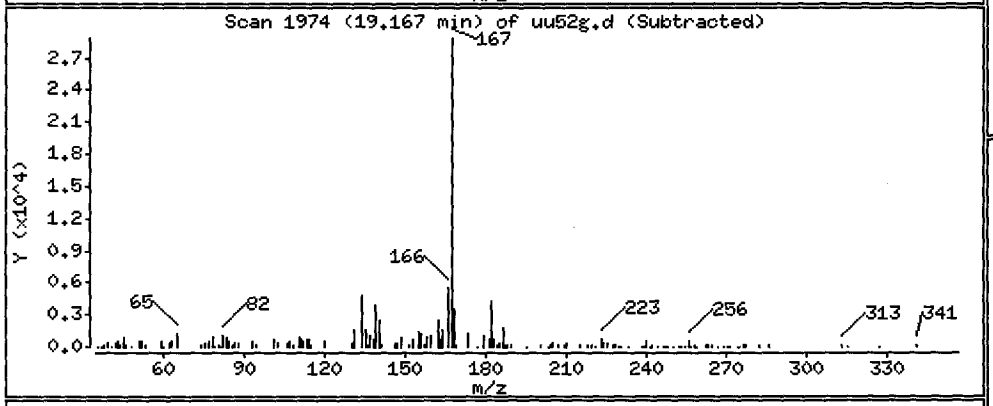
Sample Info: UU52G,3

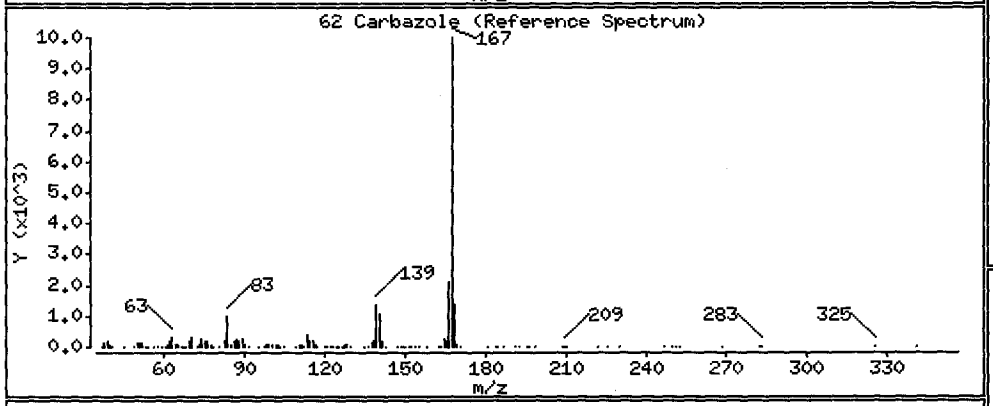
Volume Injected (uL): 1.0 Operator: VTS/YZ

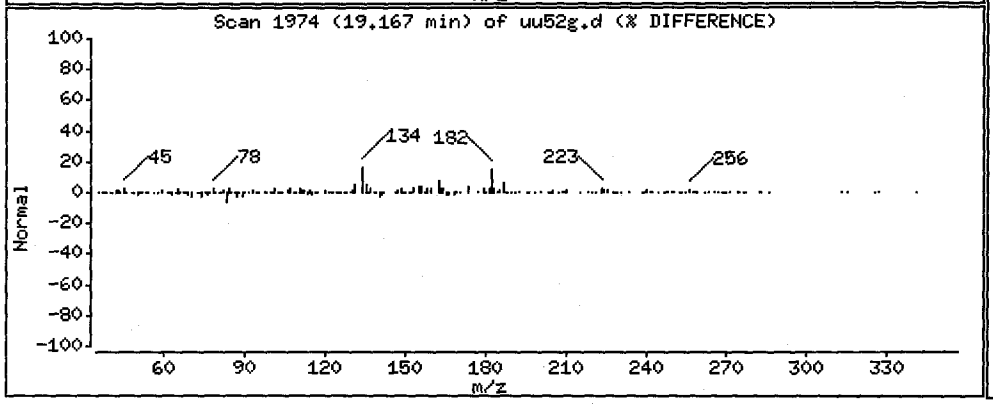
Column phase: ZB-5msi Column diameter: 0.25

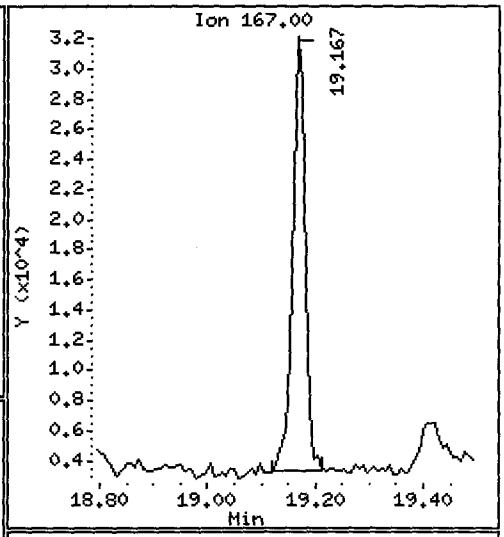
62 Carbazole Concentration: 96.76 ug/kg

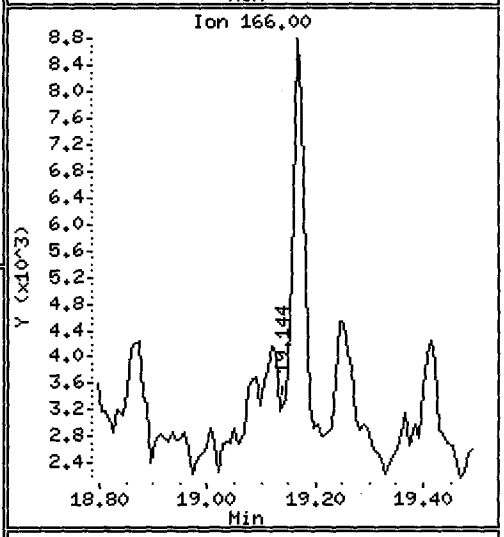


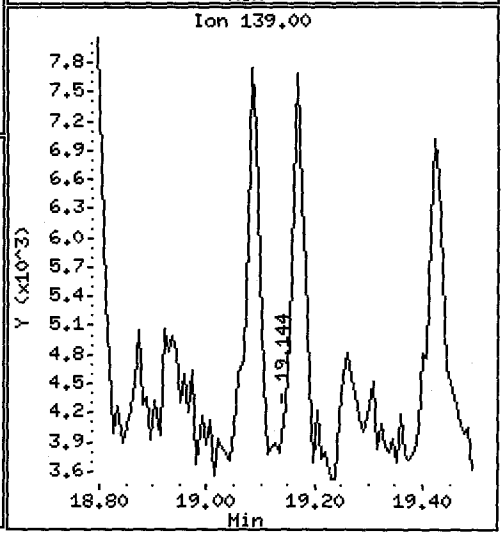



Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

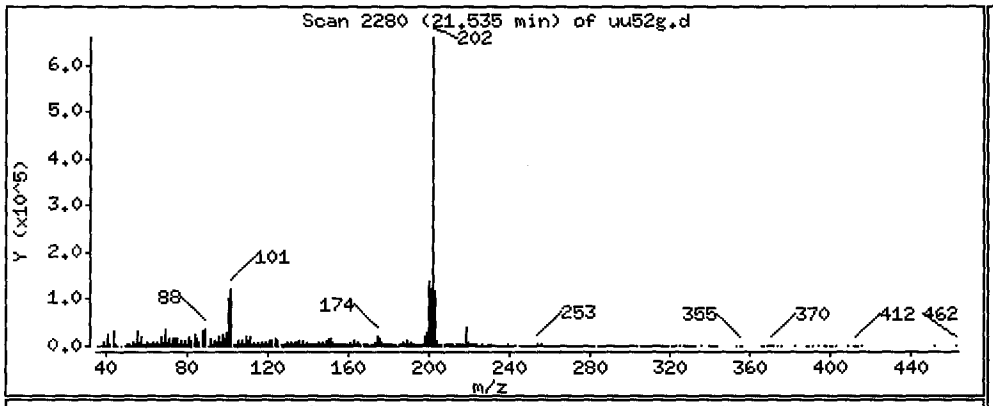
Client ID: MS006-SS-120515 Instrument: nt10.i

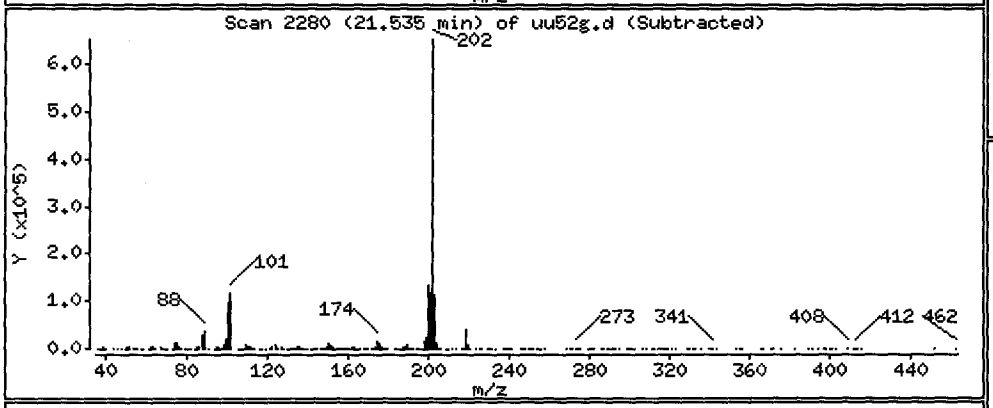
Sample Info: UU52G,3

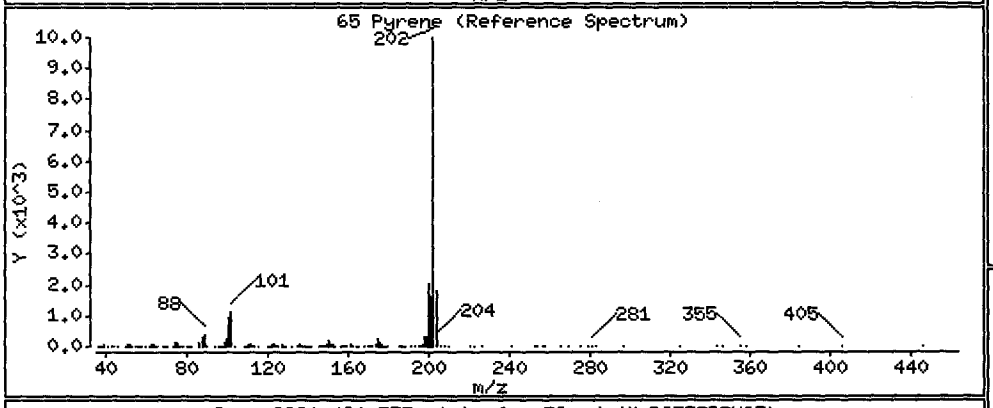
Volume Injected (uL): 1.0 Operator: VTS/YZ

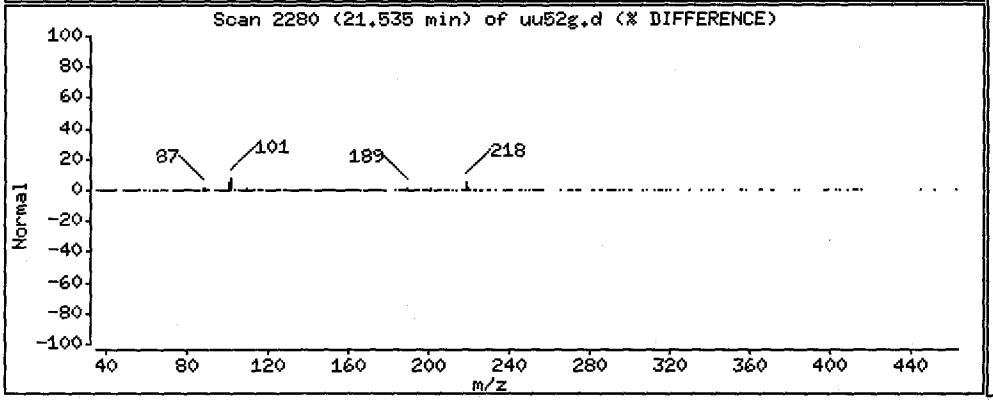
Column phase: ZB-5msi Column diameter: 0.25

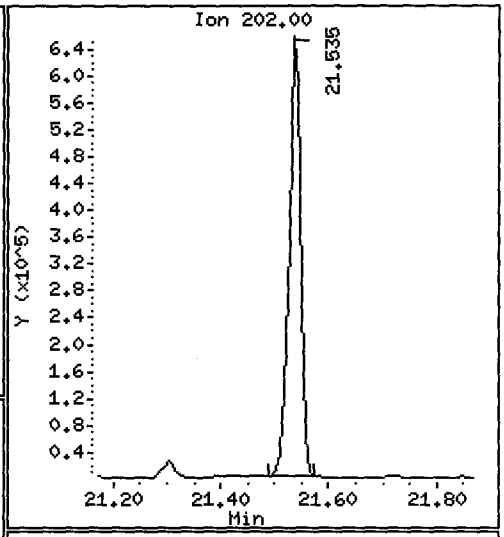
65 Pyrene Concentration: 1369 ug/kg

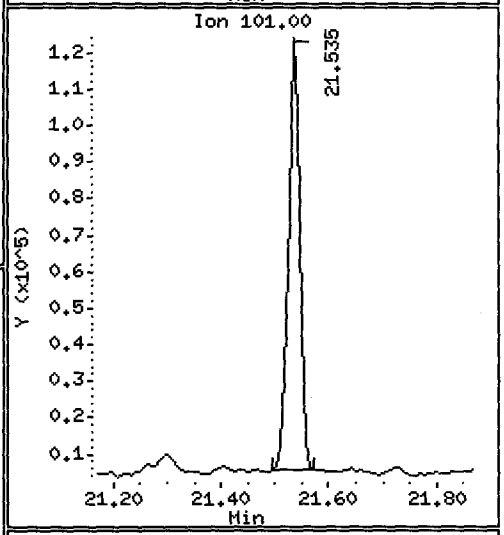


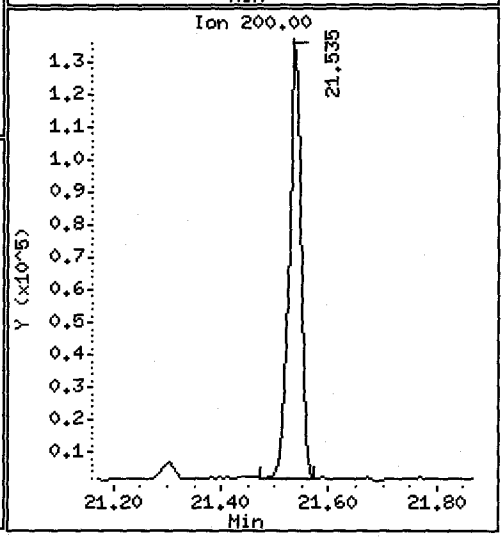



Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

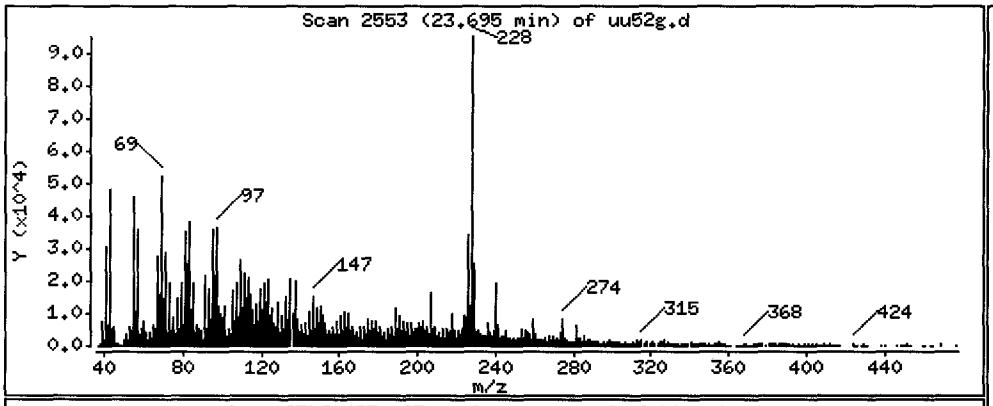
Operator: VTS/YZ

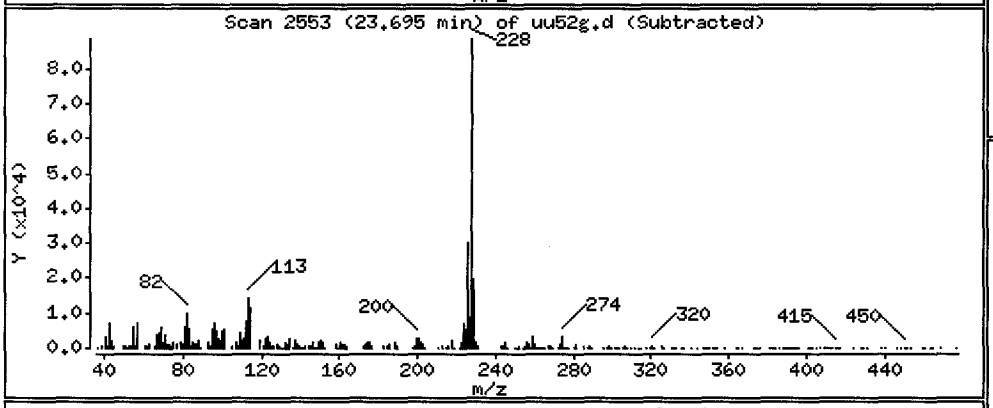
Column phase: ZB-5msi

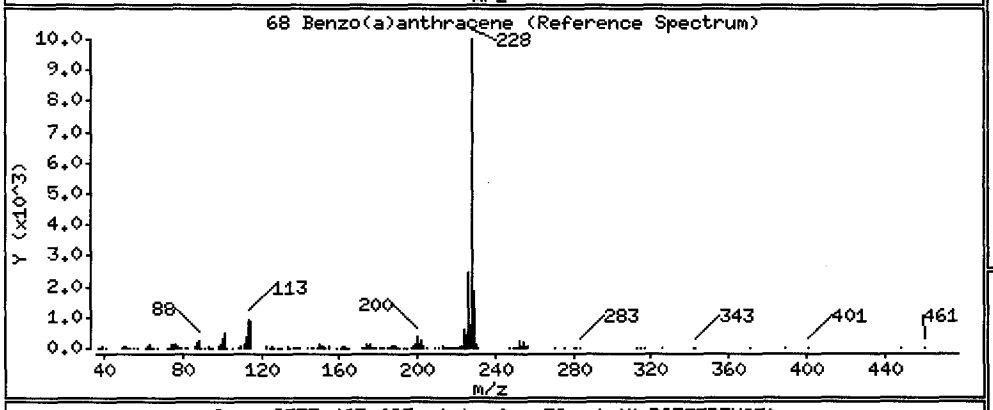
Column diameter: 0.25

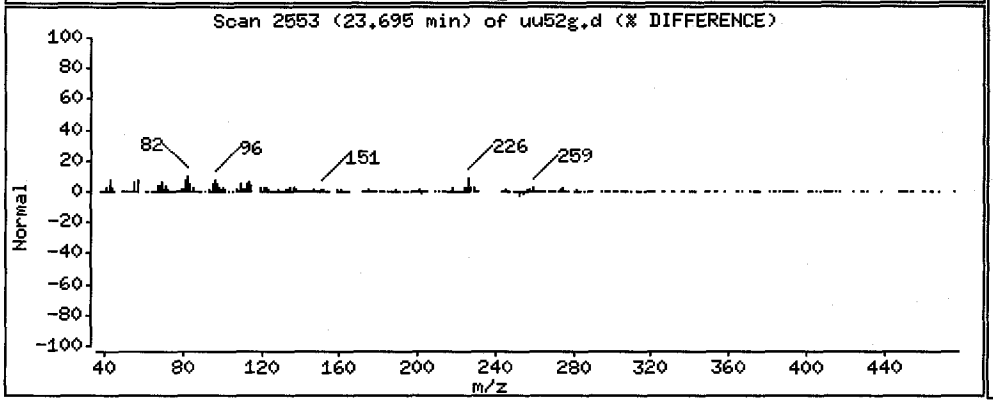
68 Benzo(a)anthracene

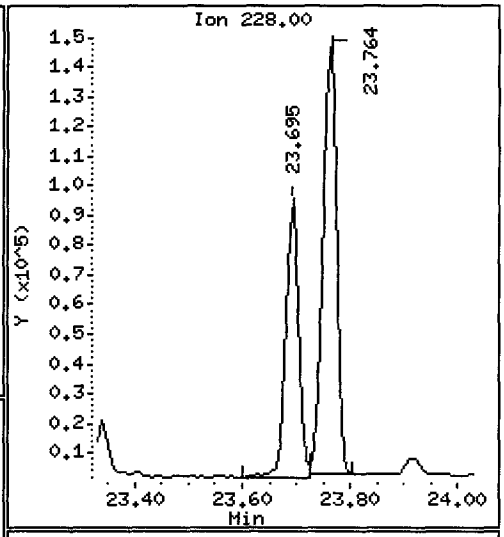
Concentration: 229.9 ug/kg

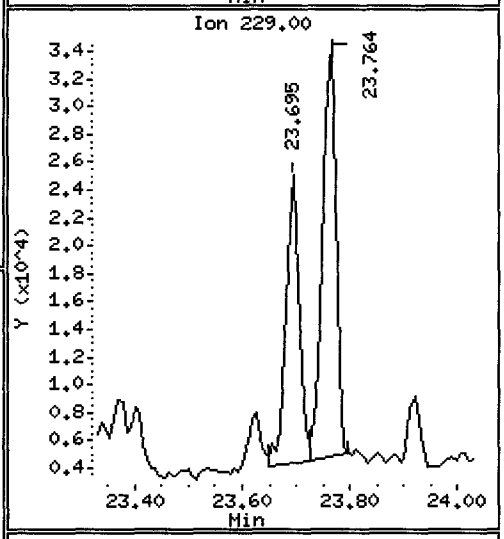


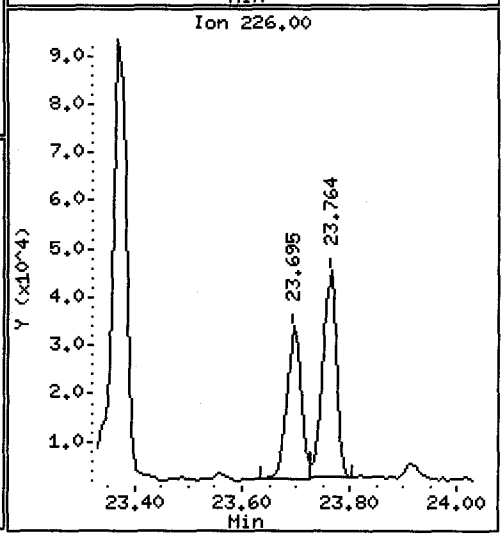



Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

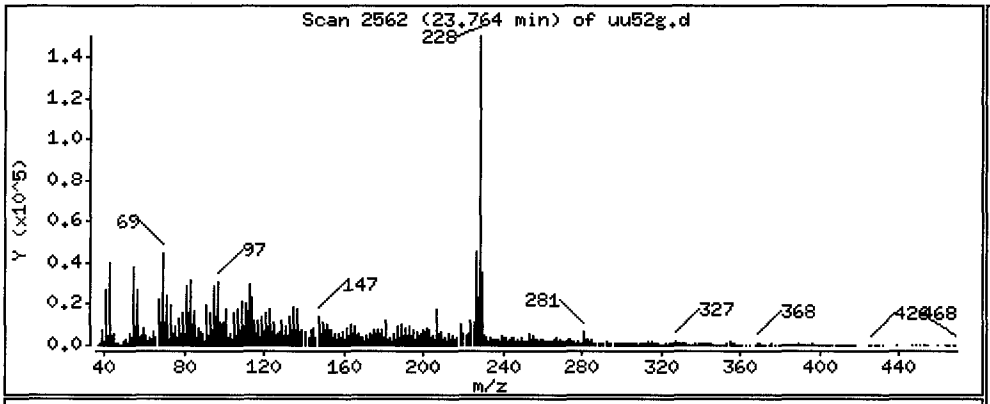
Operator: VTS/YZ

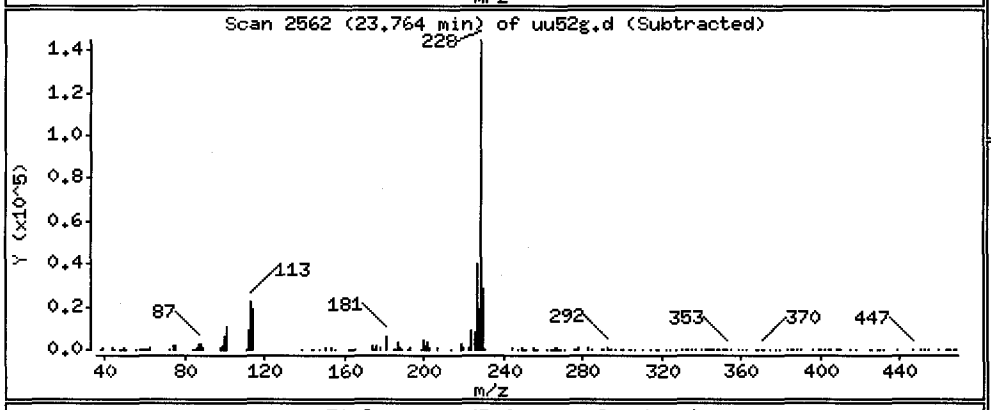
Column phase: ZB-5msi

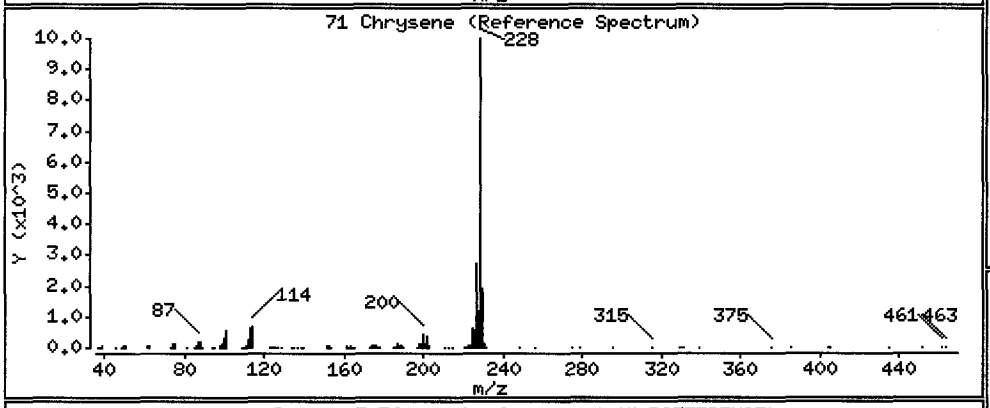
Column diameter: 0.25

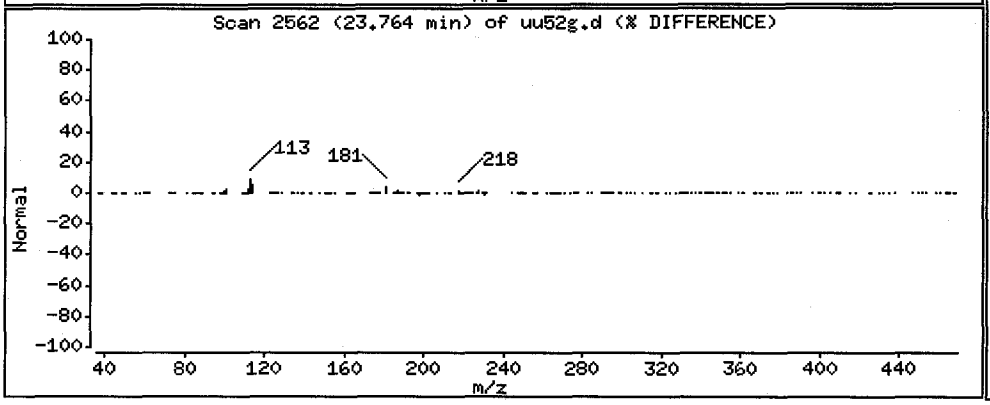
71 Chrysene

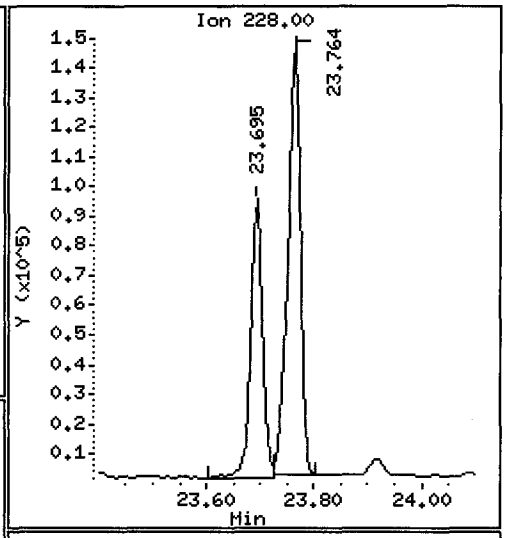
Concentration: 413.8 ug/kg

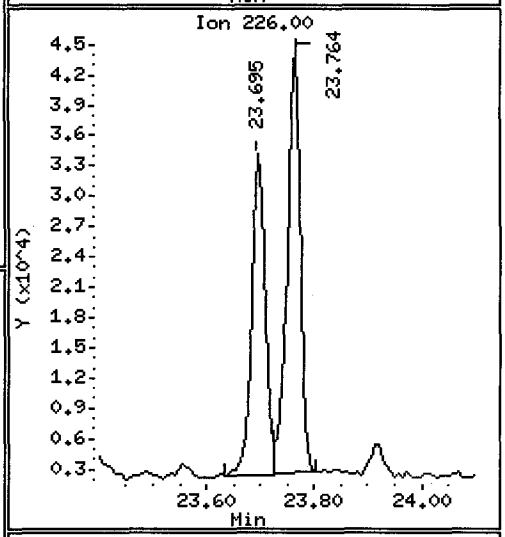


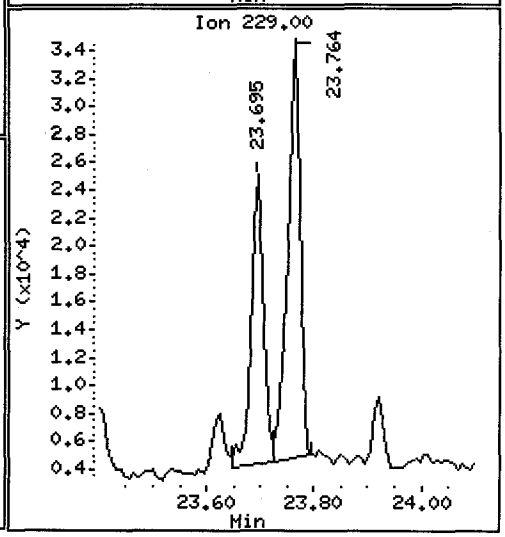



Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

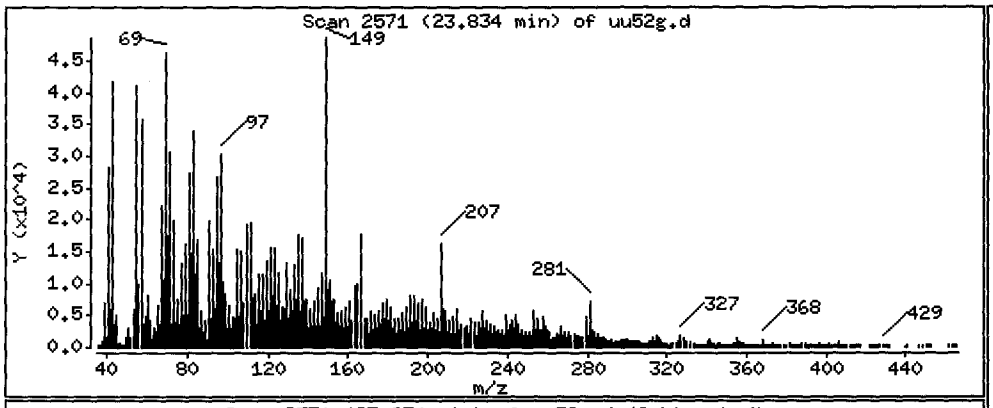
Operator: VTS/YZ

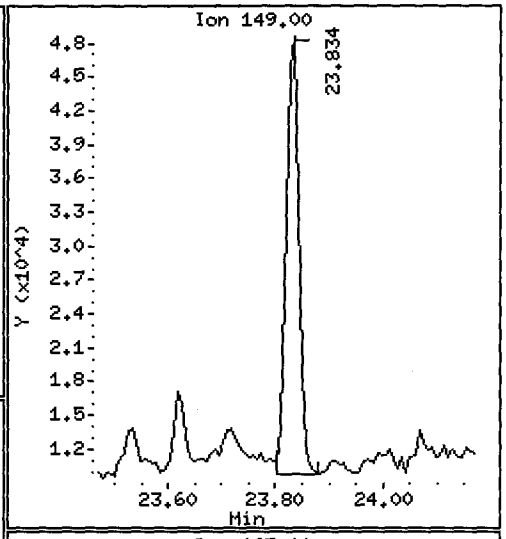
Column phase: ZB-5msi

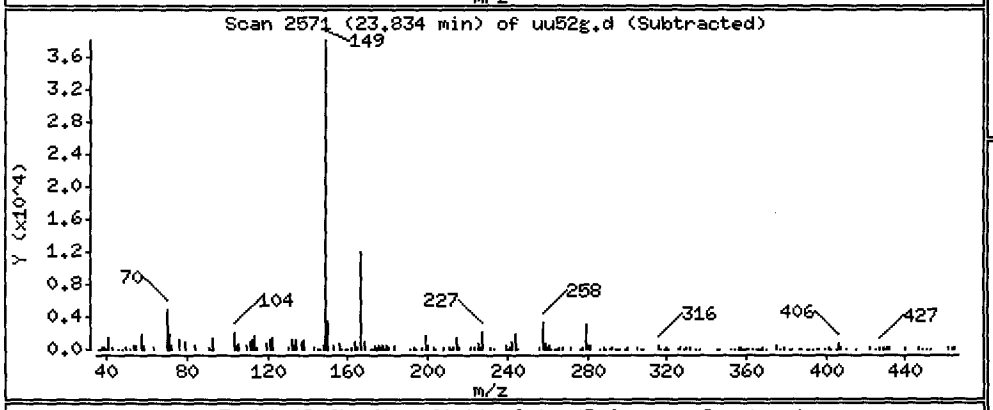
Column diameter: 0.25

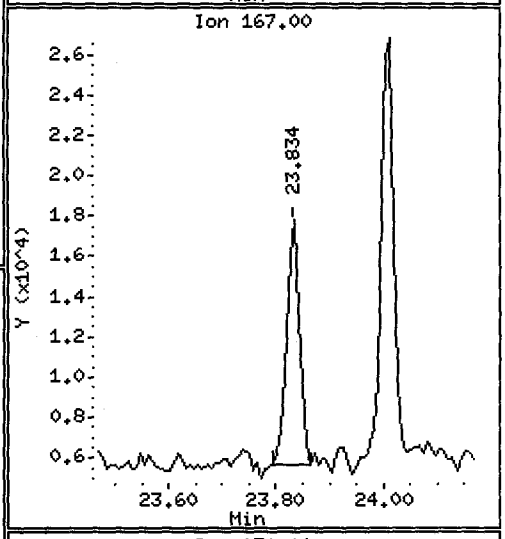
72 bis(2-Ethylhexyl)phthalate

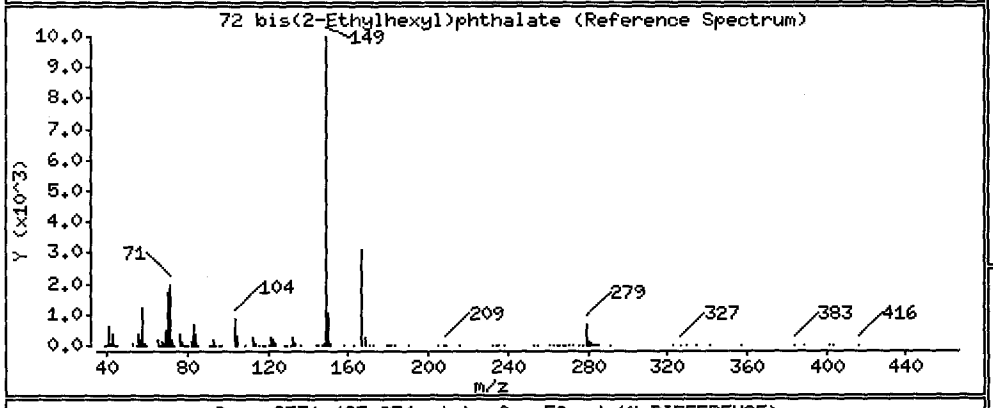
Concentration: 123.5 ug/kg

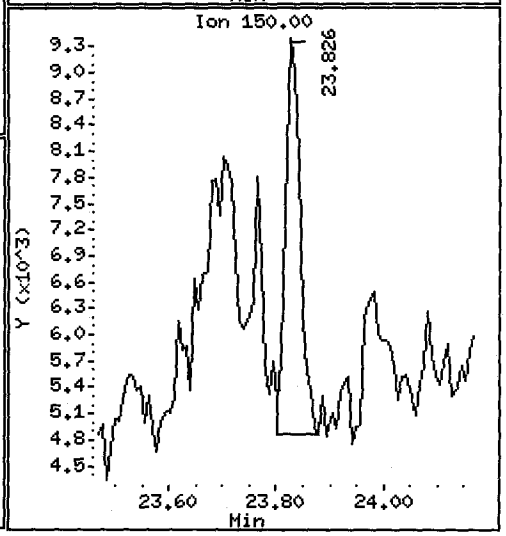


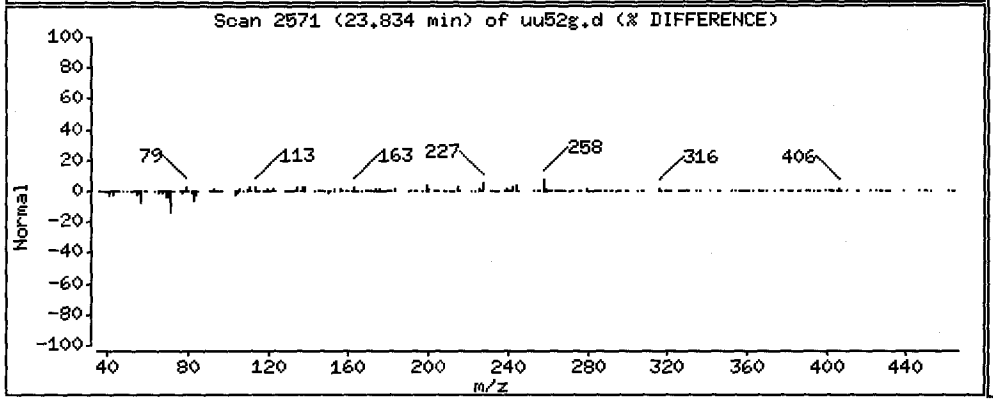



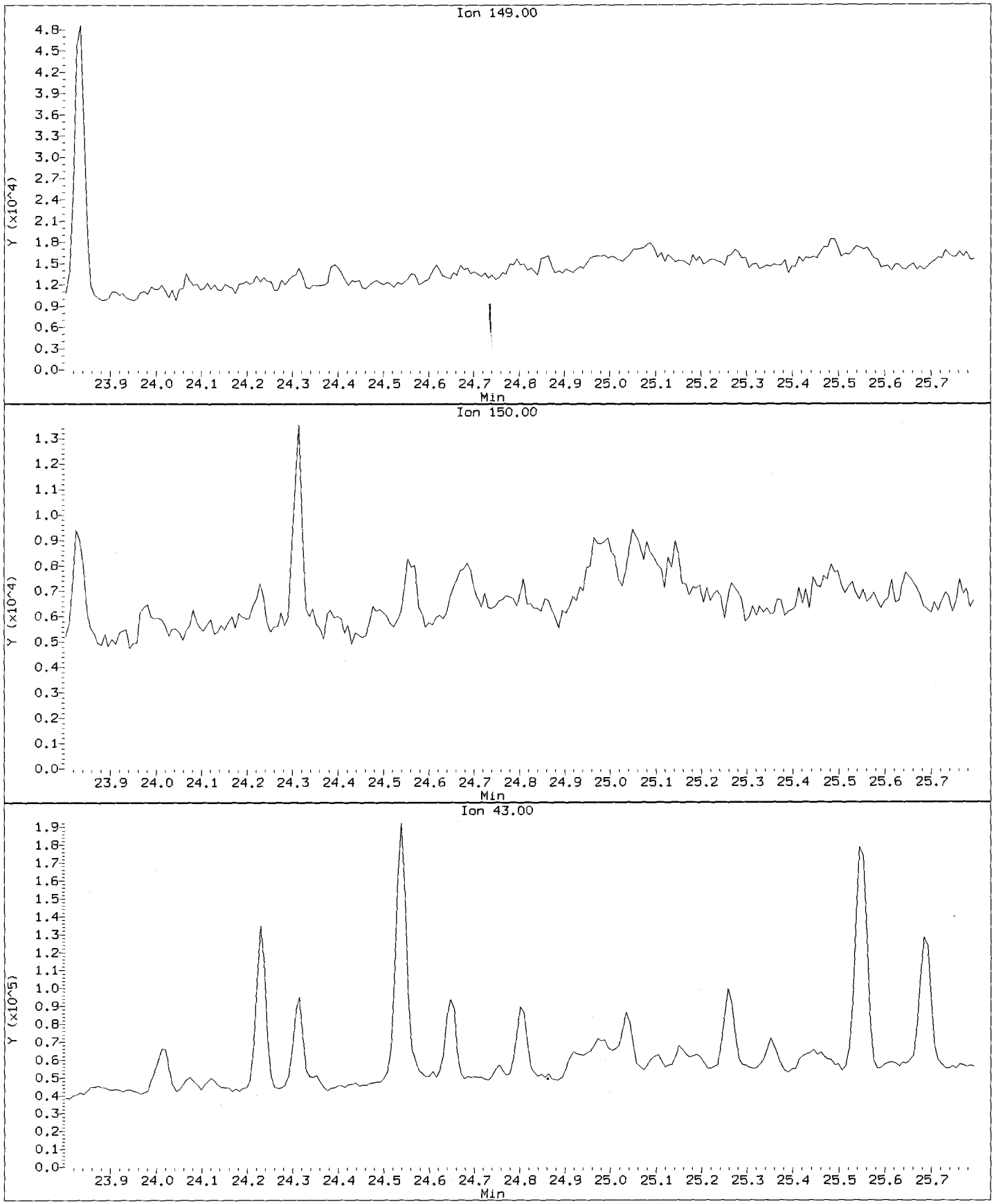



Data File: /chem1/nt10.i/20120526.b/uu52g.d
Injection Date: 26-MAY-2012 20:54
Instrument: nt10.i
Client Sample ID: MS006-SS-120515

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

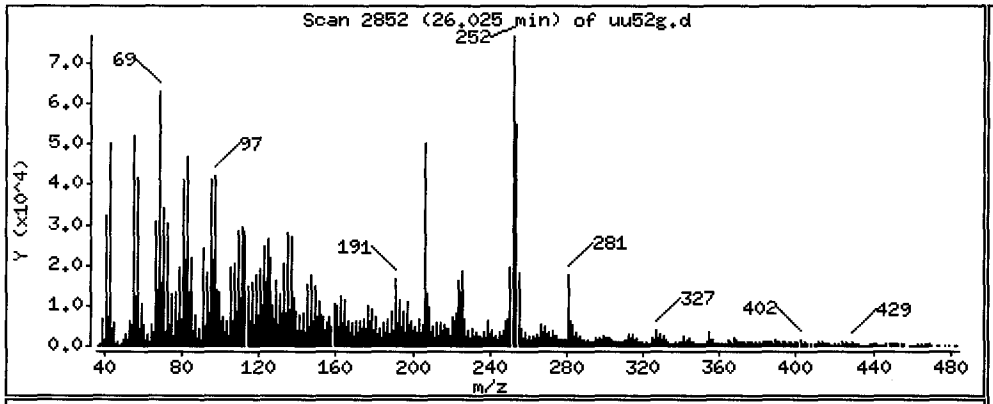
Operator: VTS/YZ

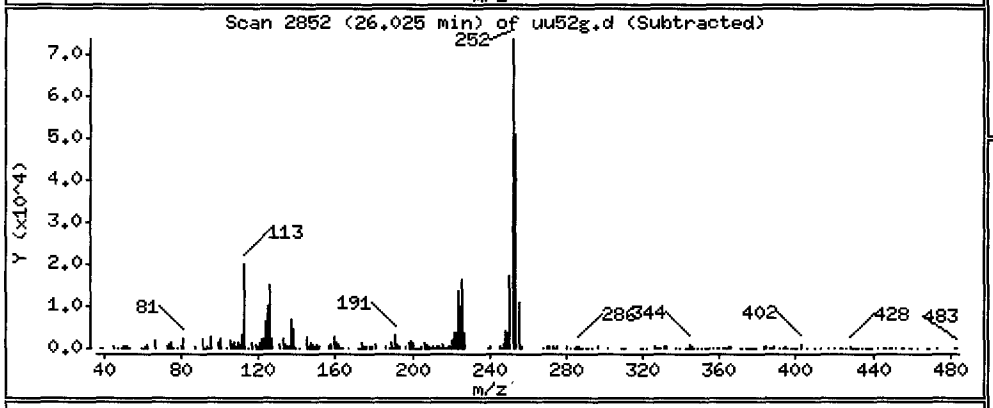
Column phase: ZB-5msi

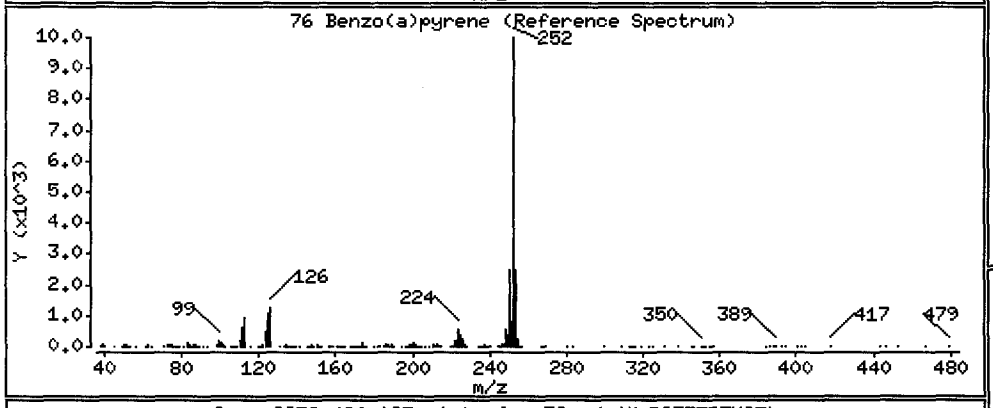
Column diameter: 0.25

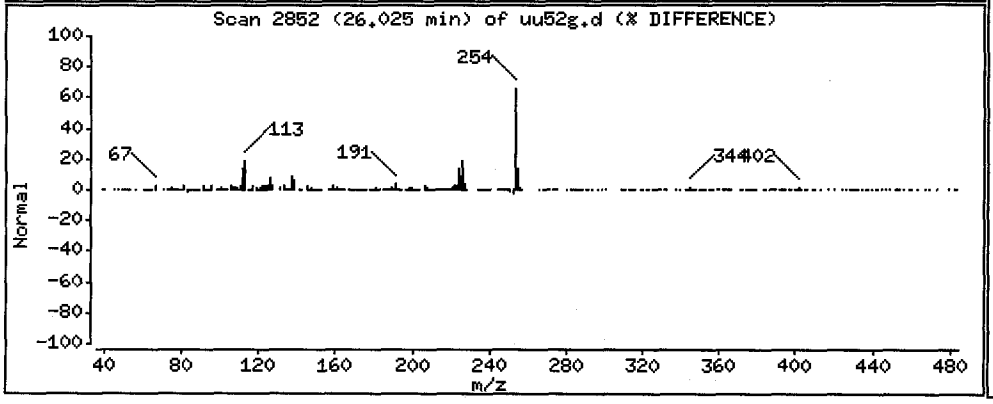
76 Benzo(a)pyrene

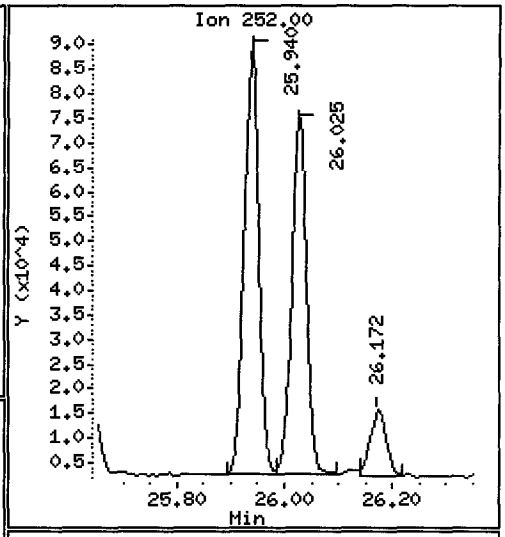
Concentration: 248.3 ug/kg

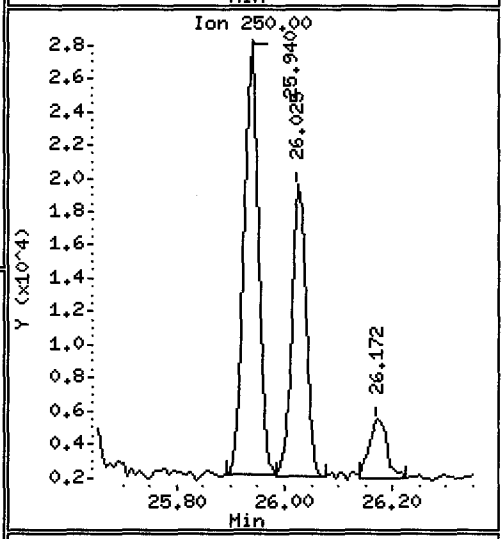


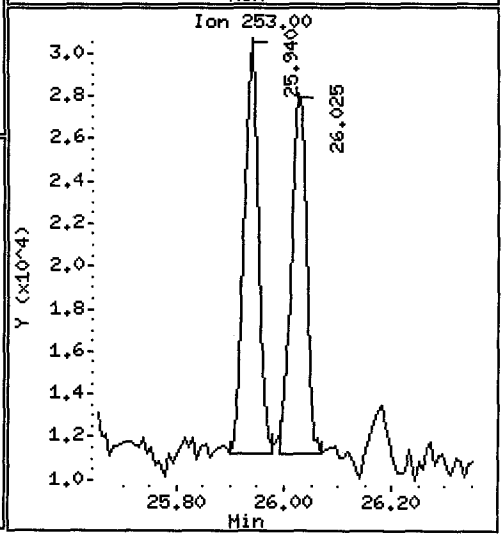



Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

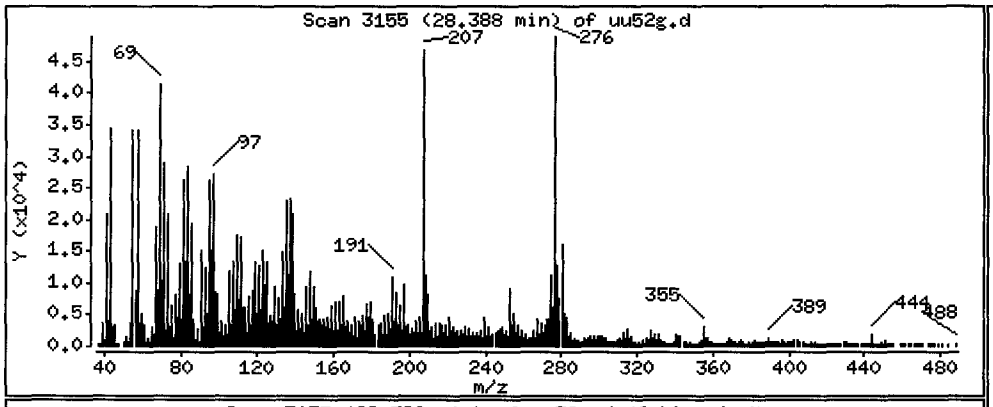
Client ID: MS006-SS-120515 Instrument: nt10.i

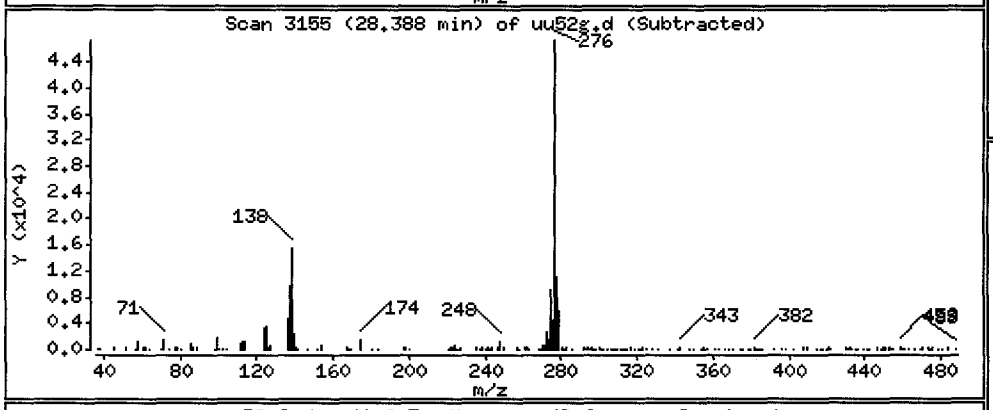
Sample Info: UU52G,3

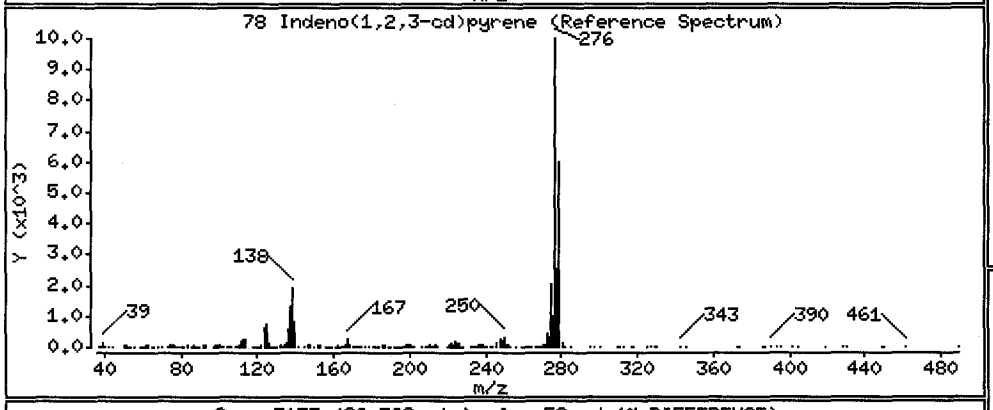
Volume Injected (uL): 1.0 Operator: VTS/YZ

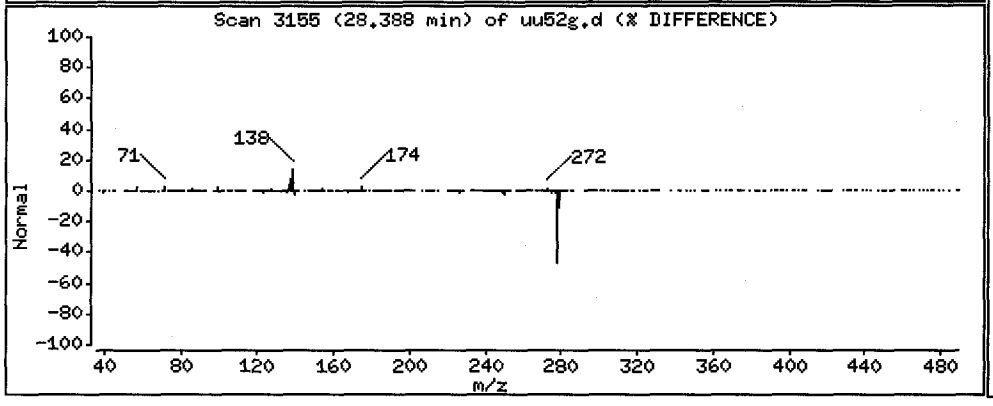
Column phase: ZB-5msi Column diameter: 0.25

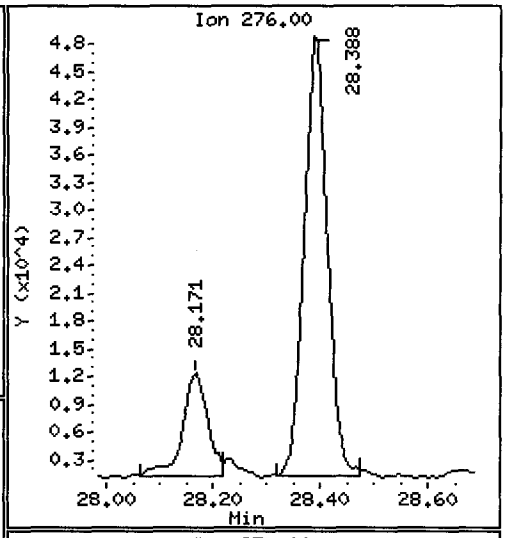
78 Indeno(1,2,3-cd)pyrene Concentration: 220.3 ug/kg

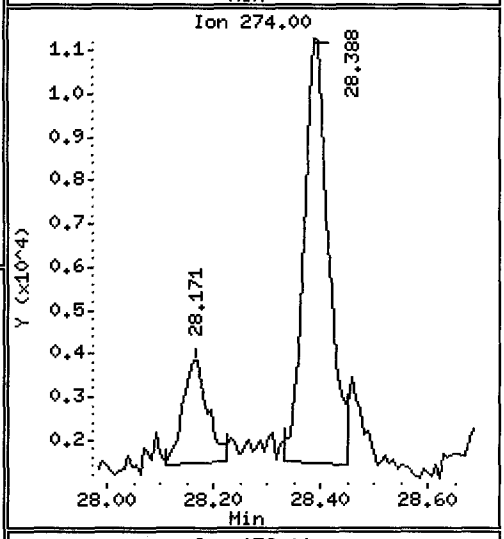


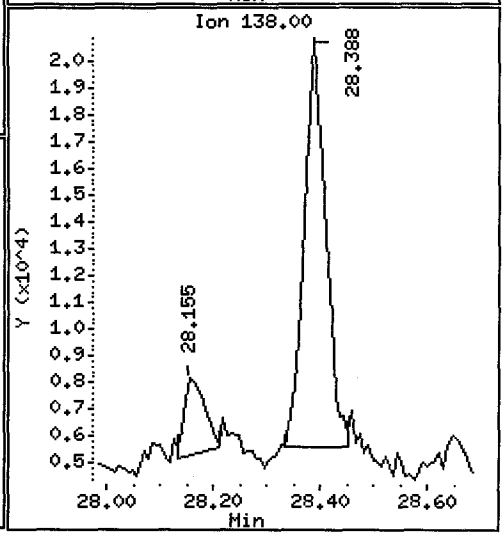



Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

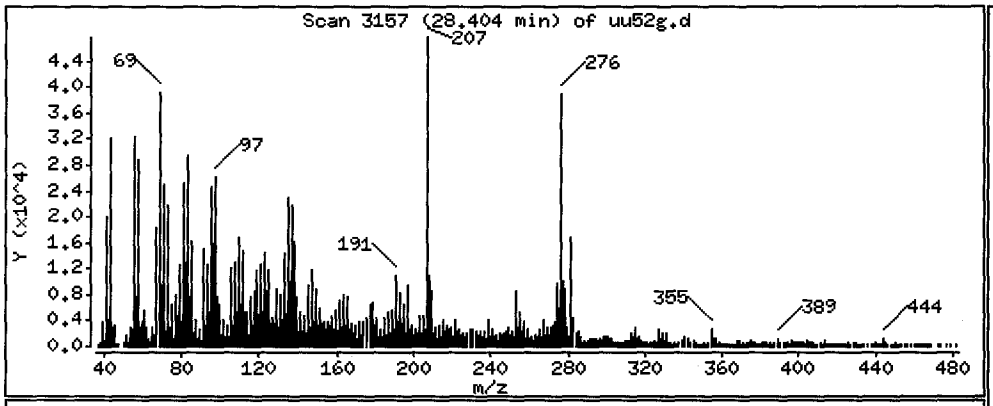
Operator: VTS/YZ

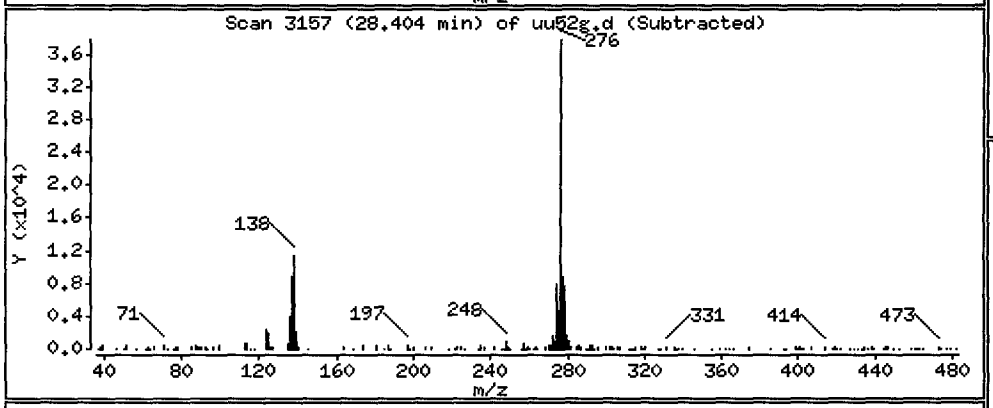
Column phase: ZB-5msi

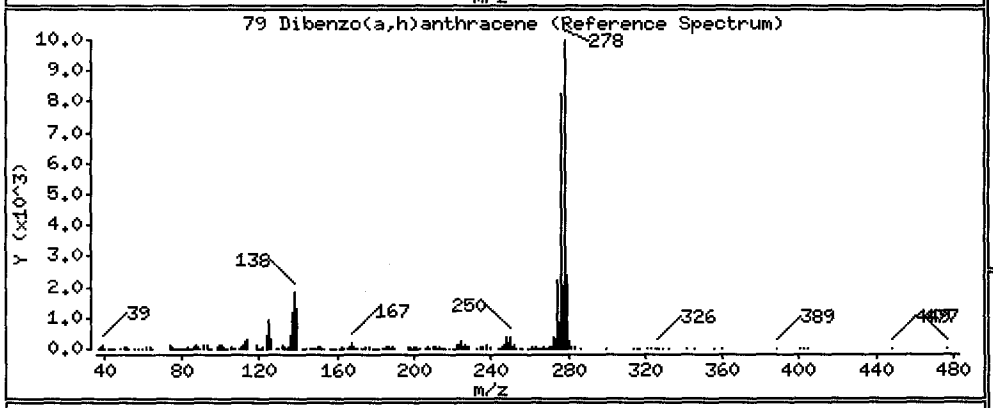
Column diameter: 0.25

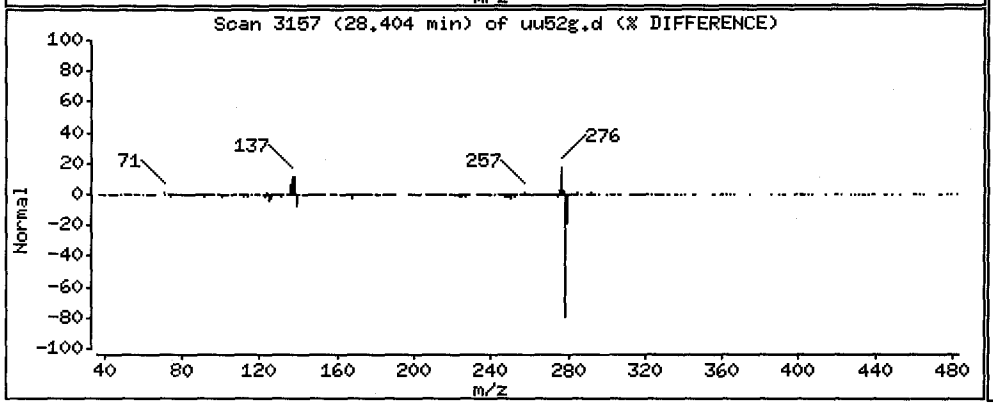
79 Dibenzo(a,h)anthracene

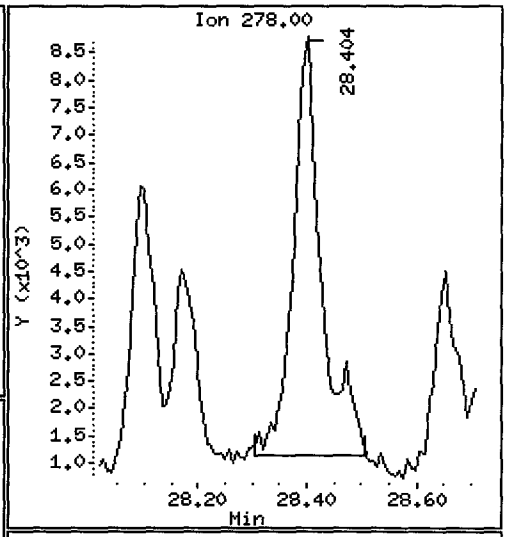
Concentration: 55.04 ug/kg

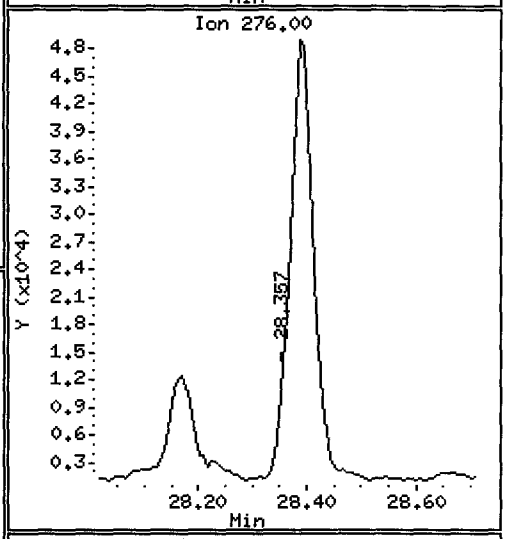


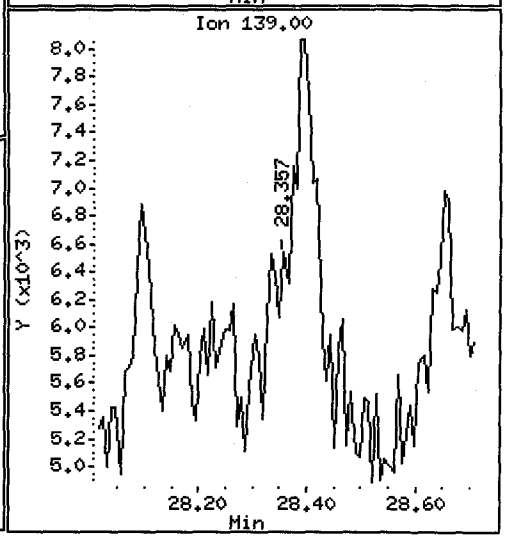



Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

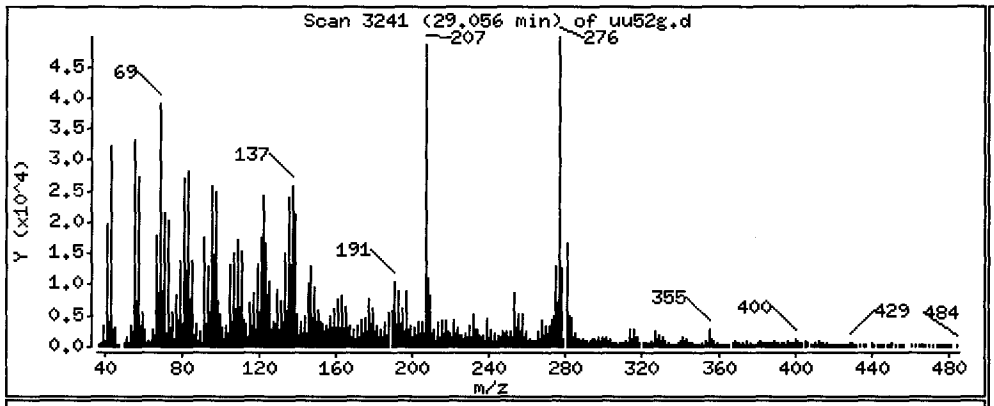
Operator: VTS/YZ

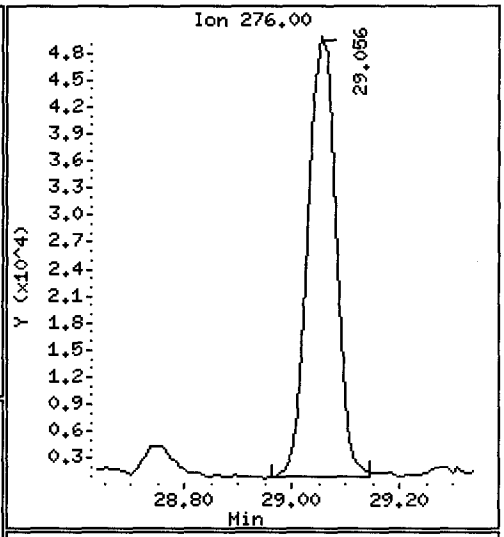
Column phase: ZB-5msi

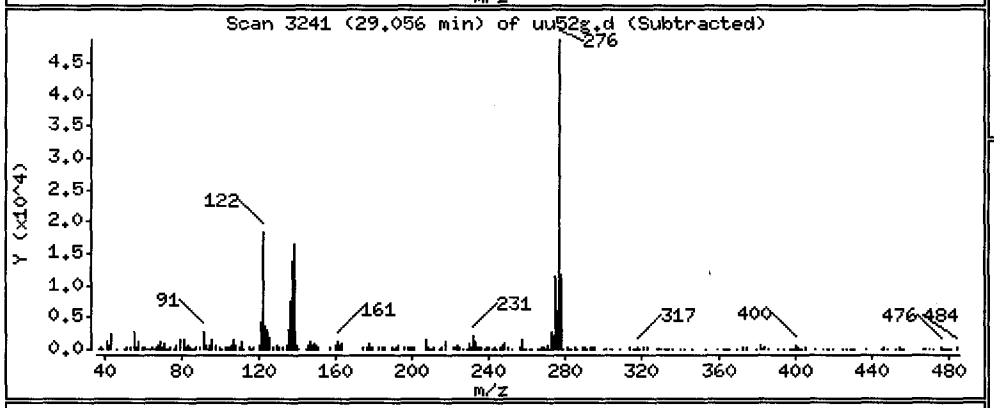
Column diameter: 0.25

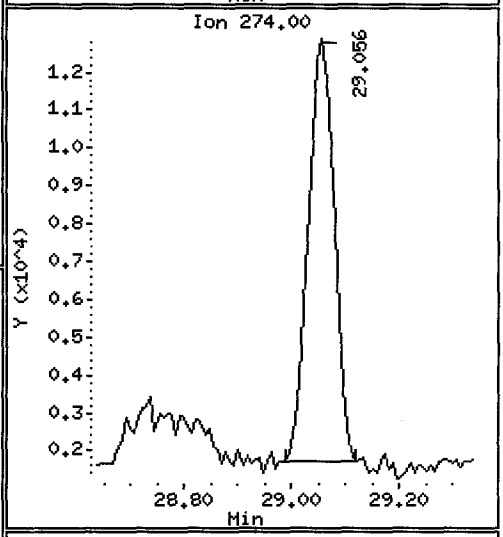
80 Benzo(g,h,i)perylene

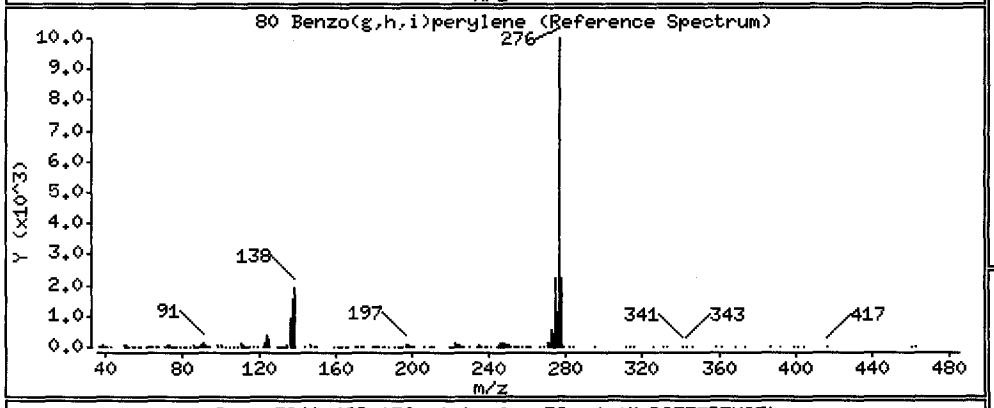
Concentration: 313.4 ug/kg

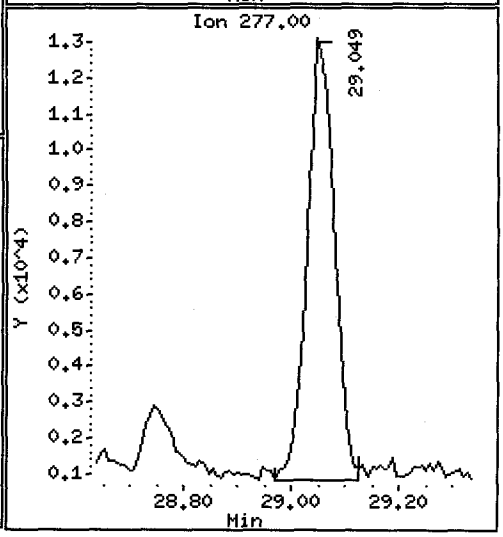


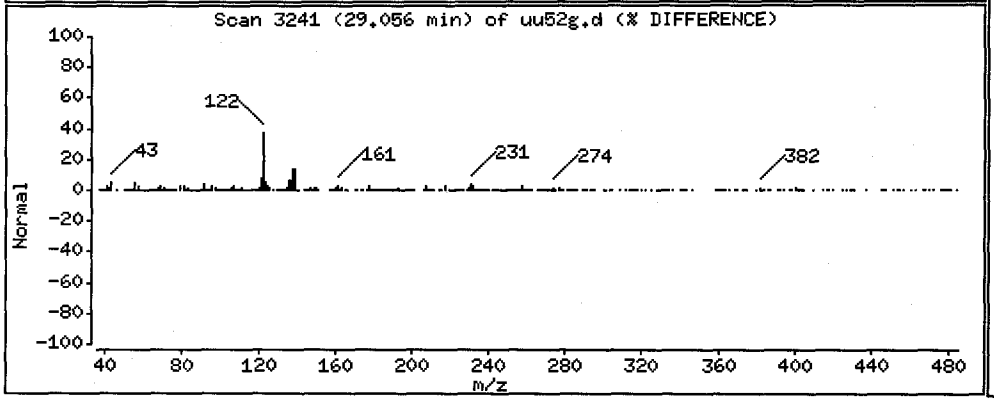



Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

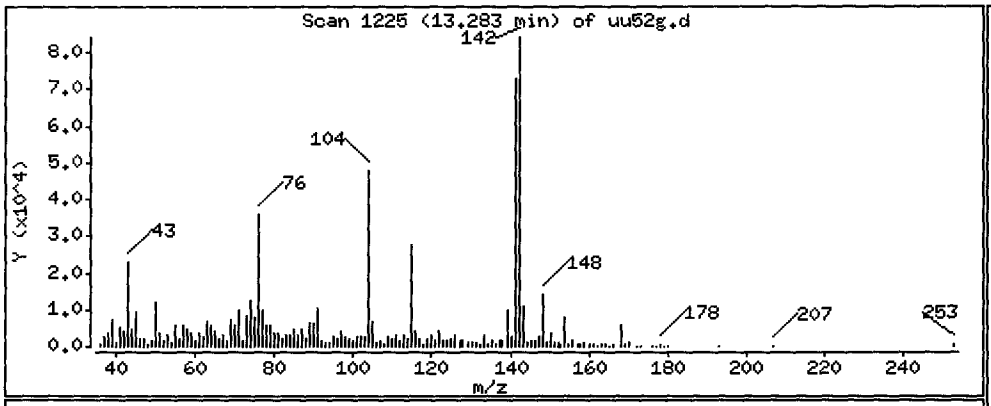
Operator: VTS/YZ

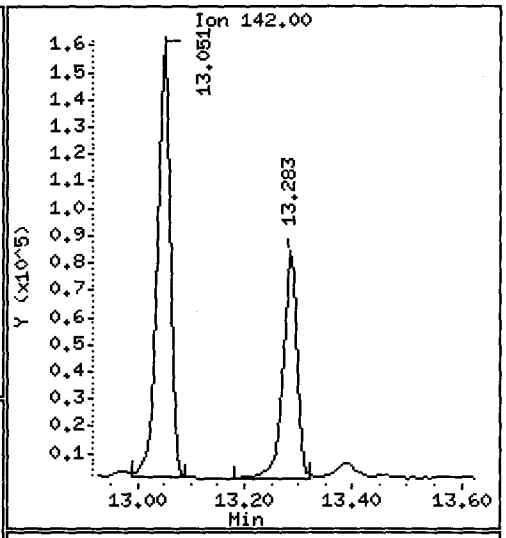
Column phase: ZB-5msi

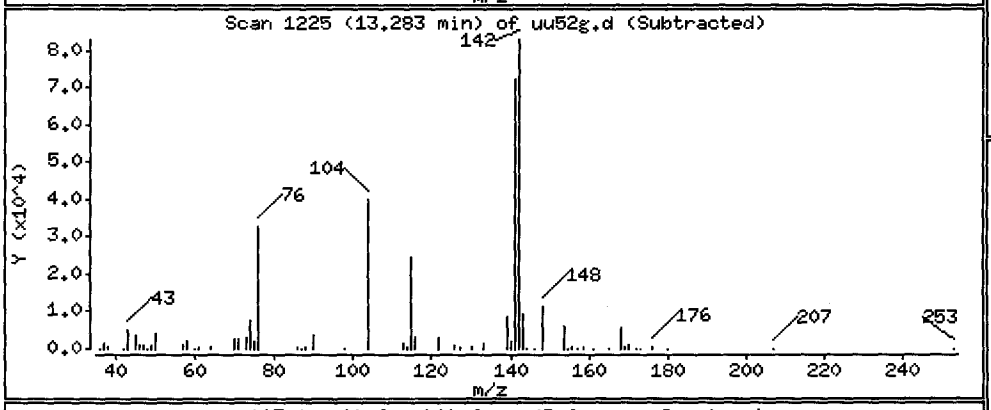
Column diameter: 0.25

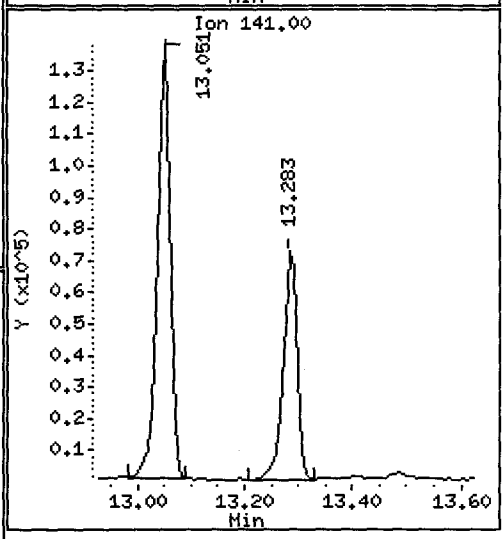
105 1-methylnaphthalene

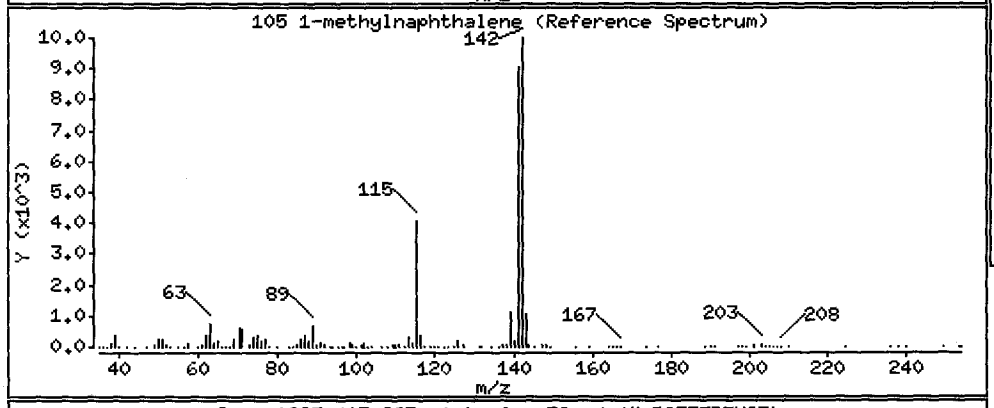
Concentration: 334.8 ug/kg

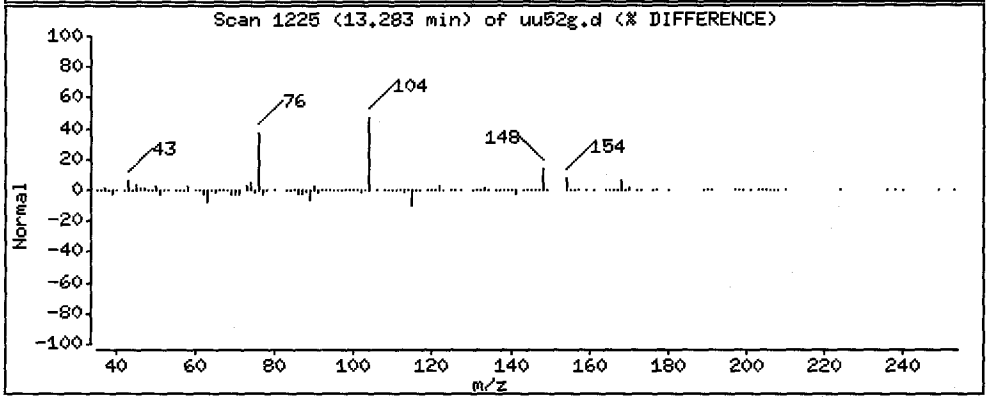


Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,3

Volume Injected (uL): 1.0

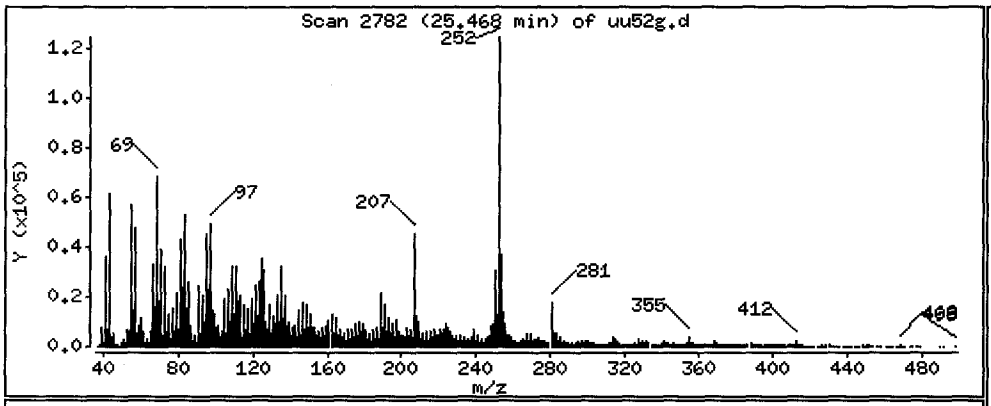
Operator: VTS/YZ

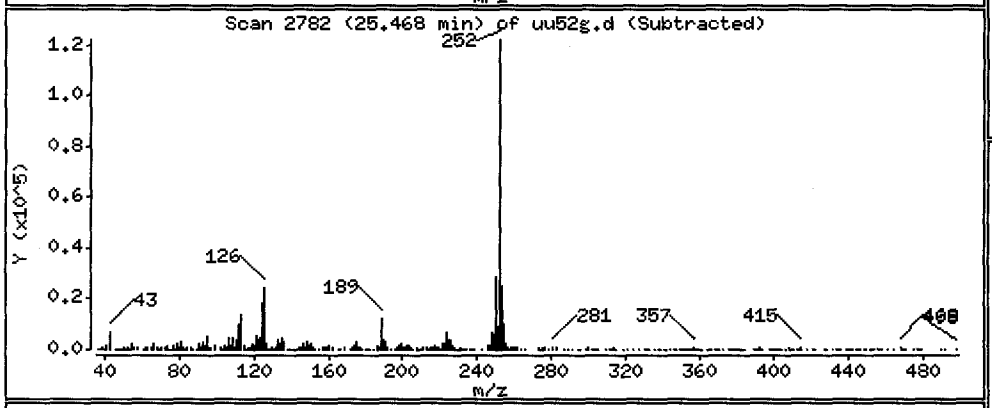
Column phase: ZB-5msi

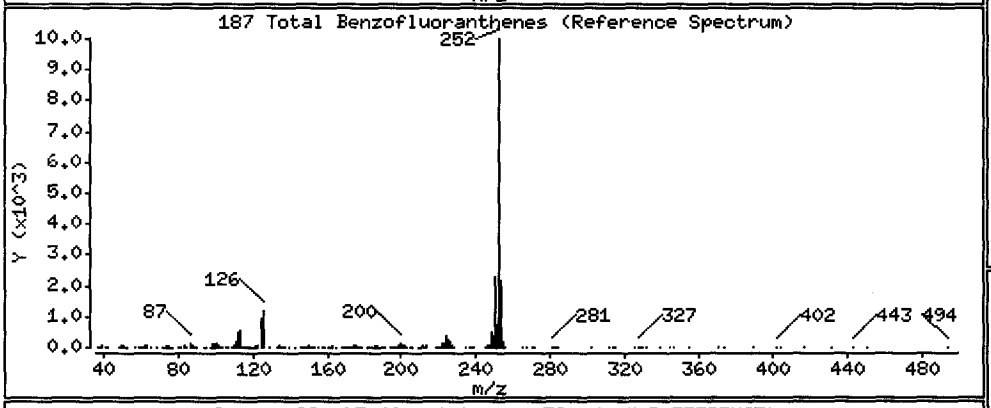
Column diameter: 0.25

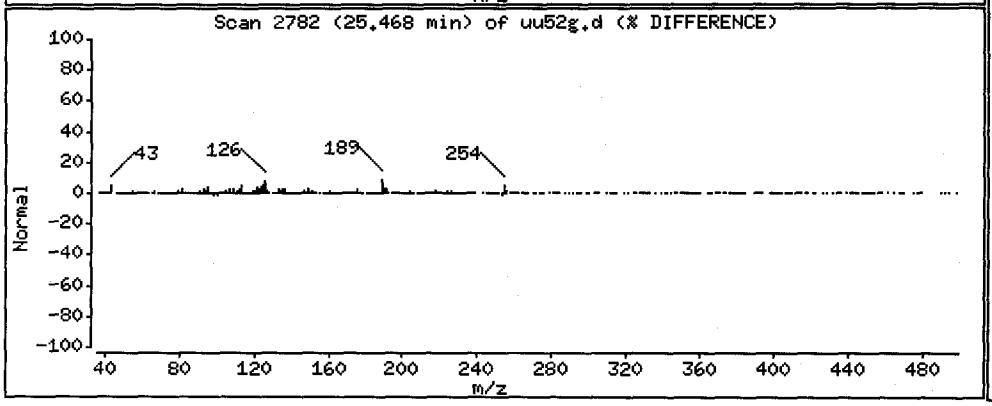
187 Total Benzofluoranthenes

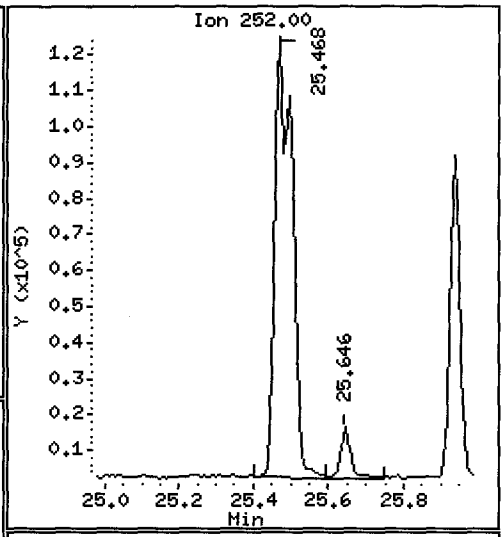
Concentration: 651.4 ug/kg

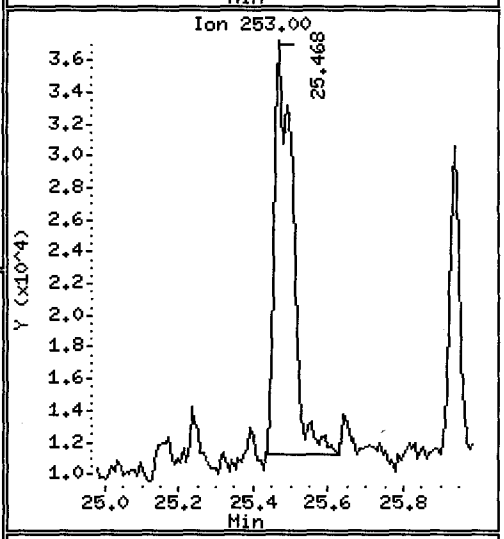


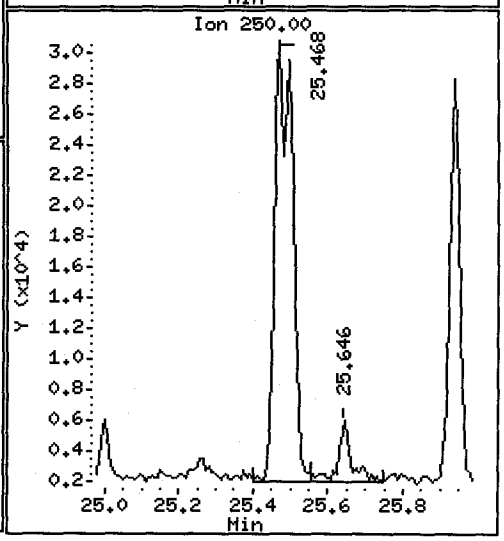



Data File: /chem1/nt10.i/20120526.b/uu52g.d

Date : 26-MAY-2012 20:54

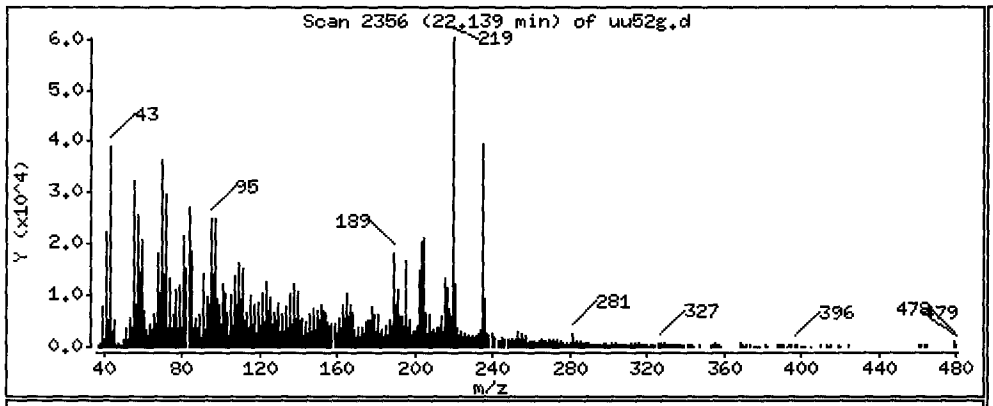
Client ID: MS006-SS-120515 Instrument: nt10.i

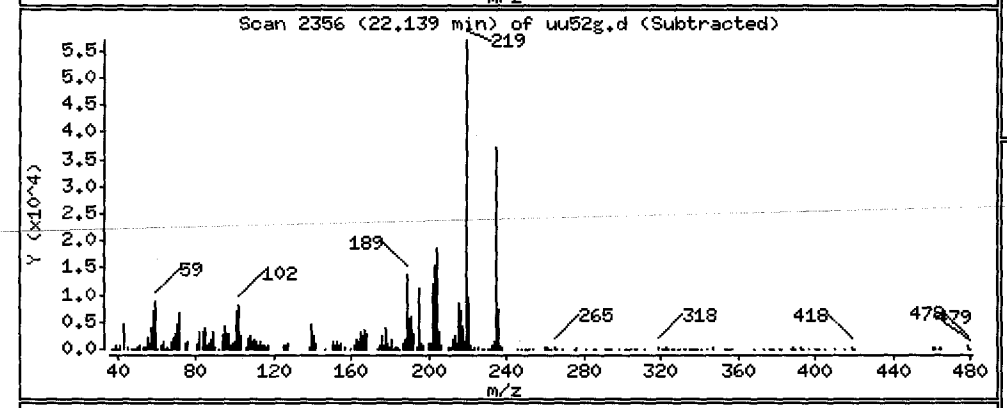
Sample Info: UU52G,3

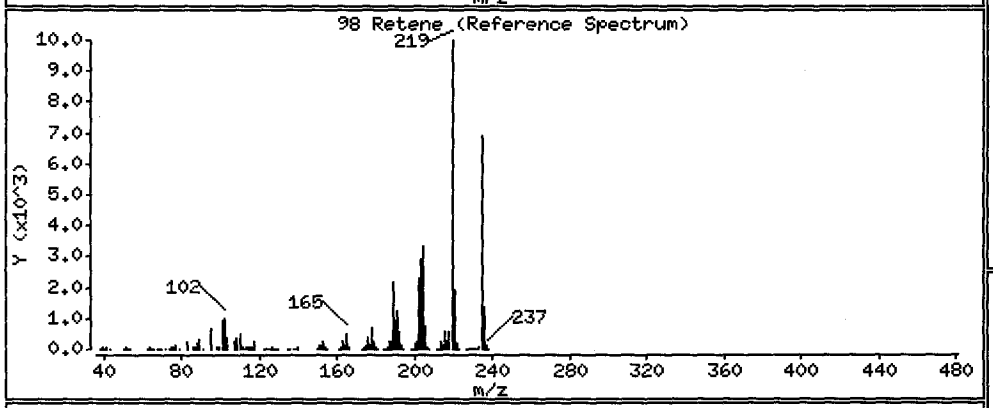
Volume Injected (uL): 1.0 Operator: VTS/YZ

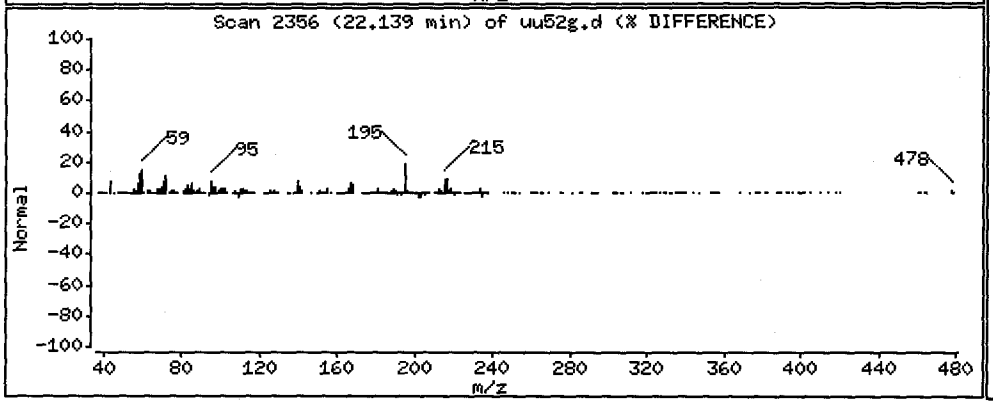
Column phase: ZB-5msi Column diameter: 0.25

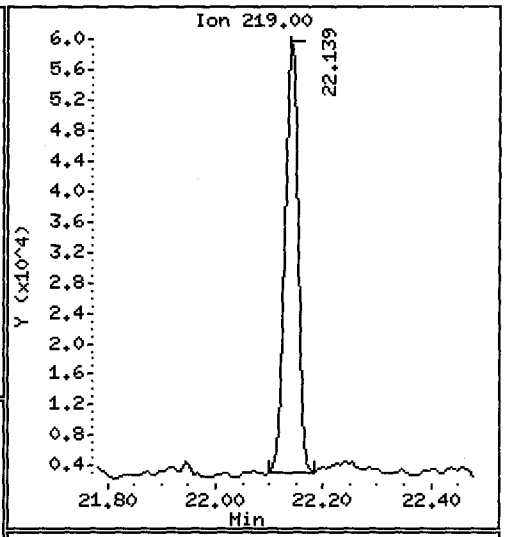
98 Retene Concentration: 276.3 ug/kg

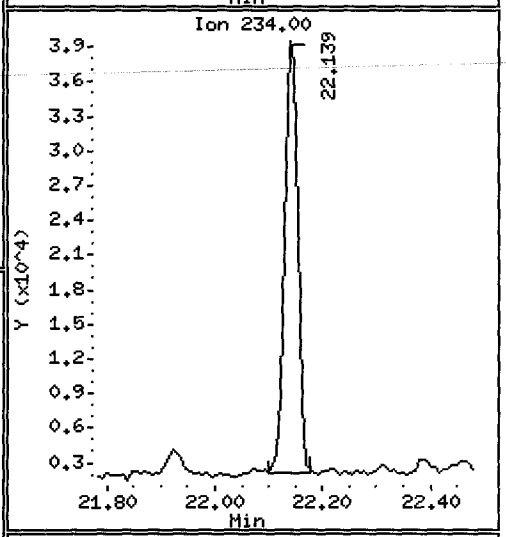


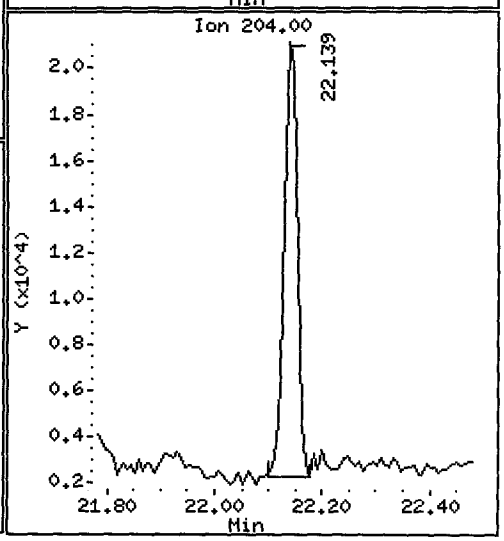



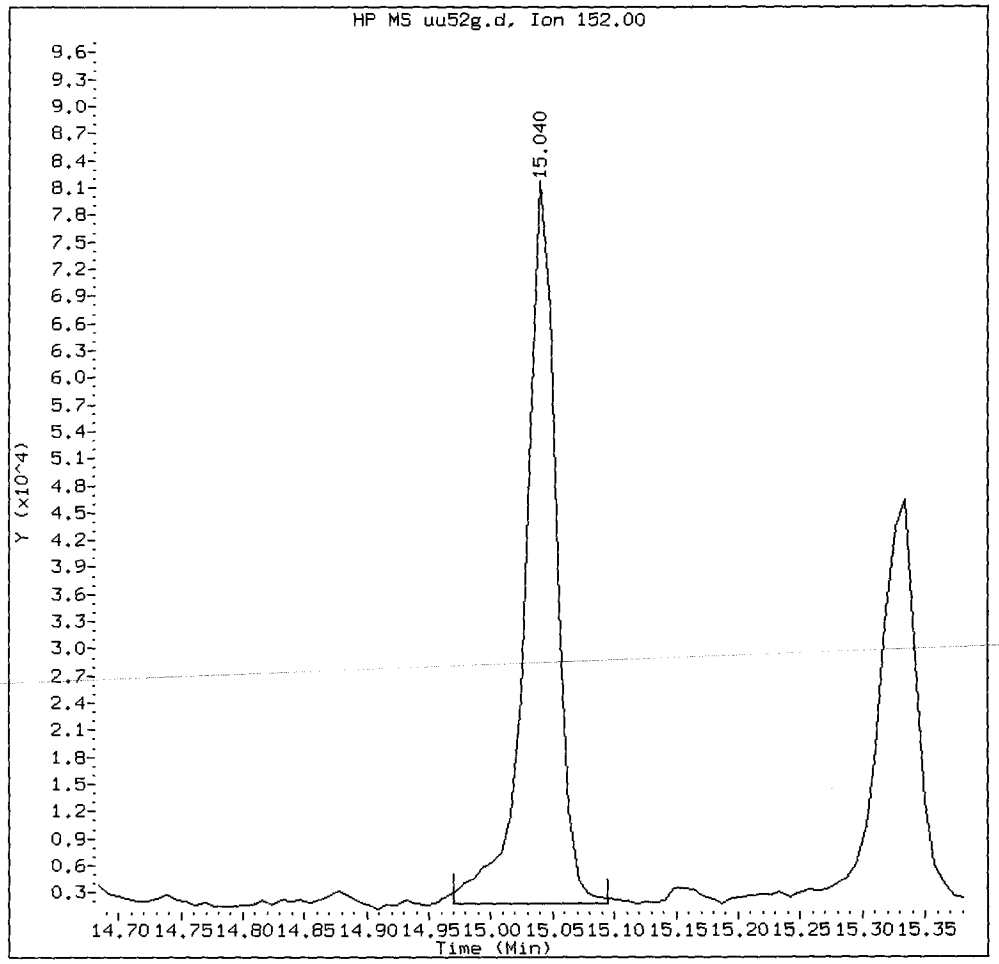



UU52G, /chem1/nt10.i/20120526.b/uu52g.d

Acenaphthylene Amount: 0.75 Area: 143385




MANUAL INTEGRATION for Acenaphthylene

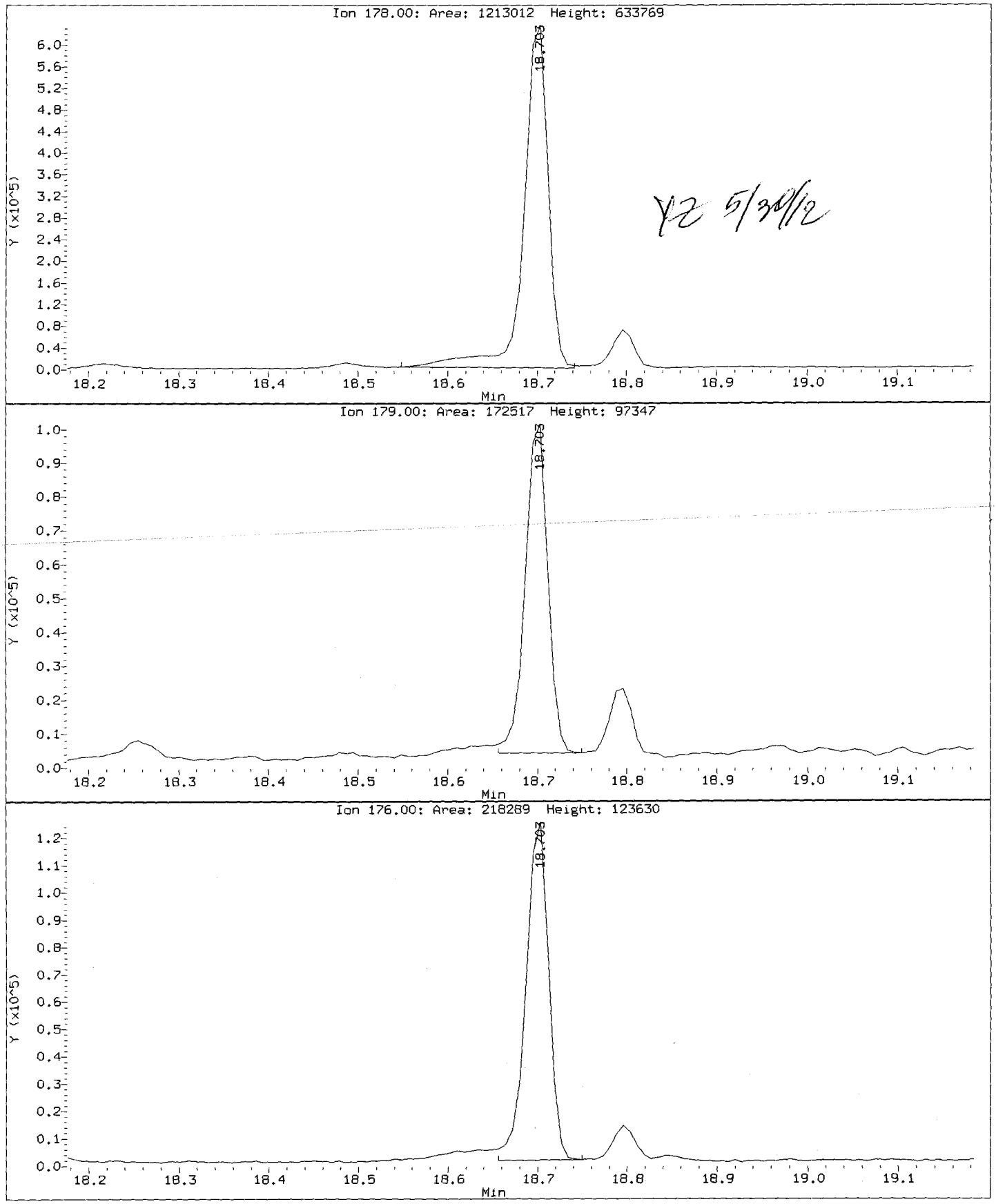
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 5/30/12

Data File: /chem1/nt10.i/20120526.b/uu52g.d
Injection Date: 26-MAY-2012 20:54
Instrument: nt10.i
Client Sample ID: MS006-SS-120515

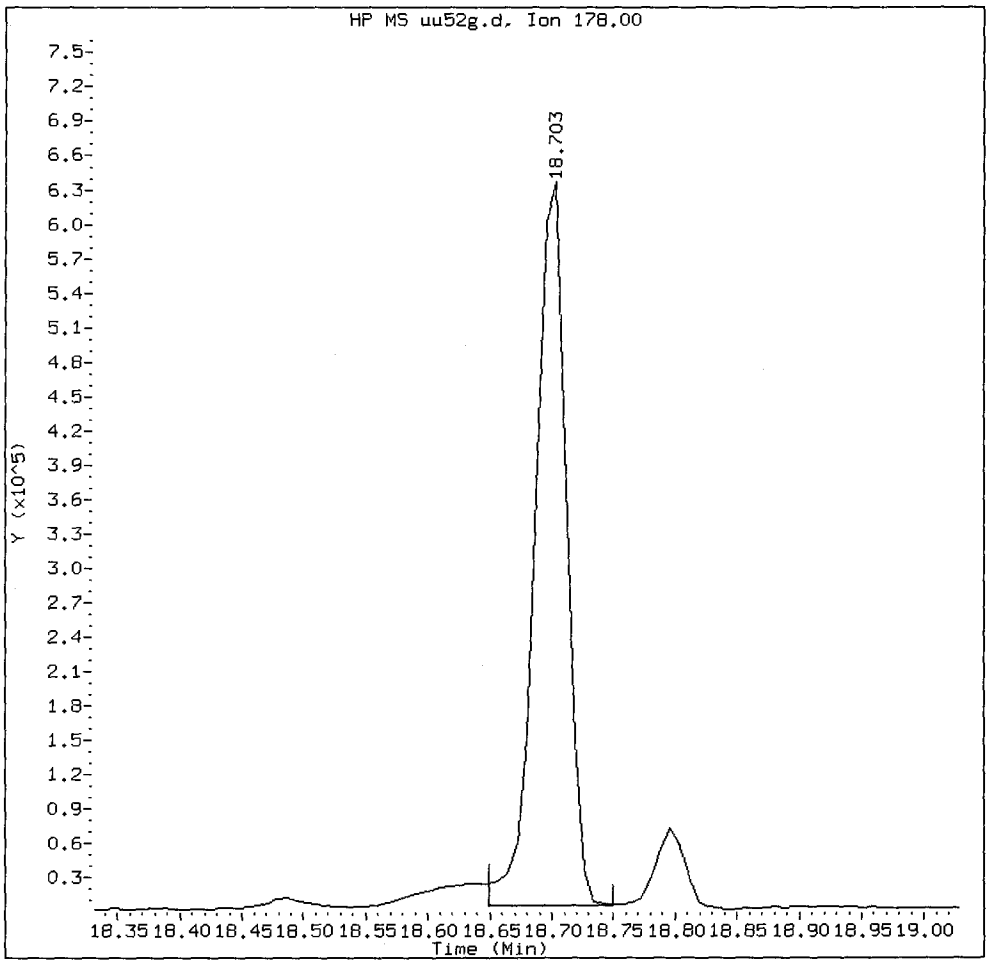
Compound: Phenanthrene
CAS Number: 85-01-8




YZ 5/30/12

UU52G, /chem1/nt10.i/20120526.b/uu52g.d

Phenanthrene Amount: 7.34 Area: 1146010




MANUAL INTEGRATION for Phenanthrene

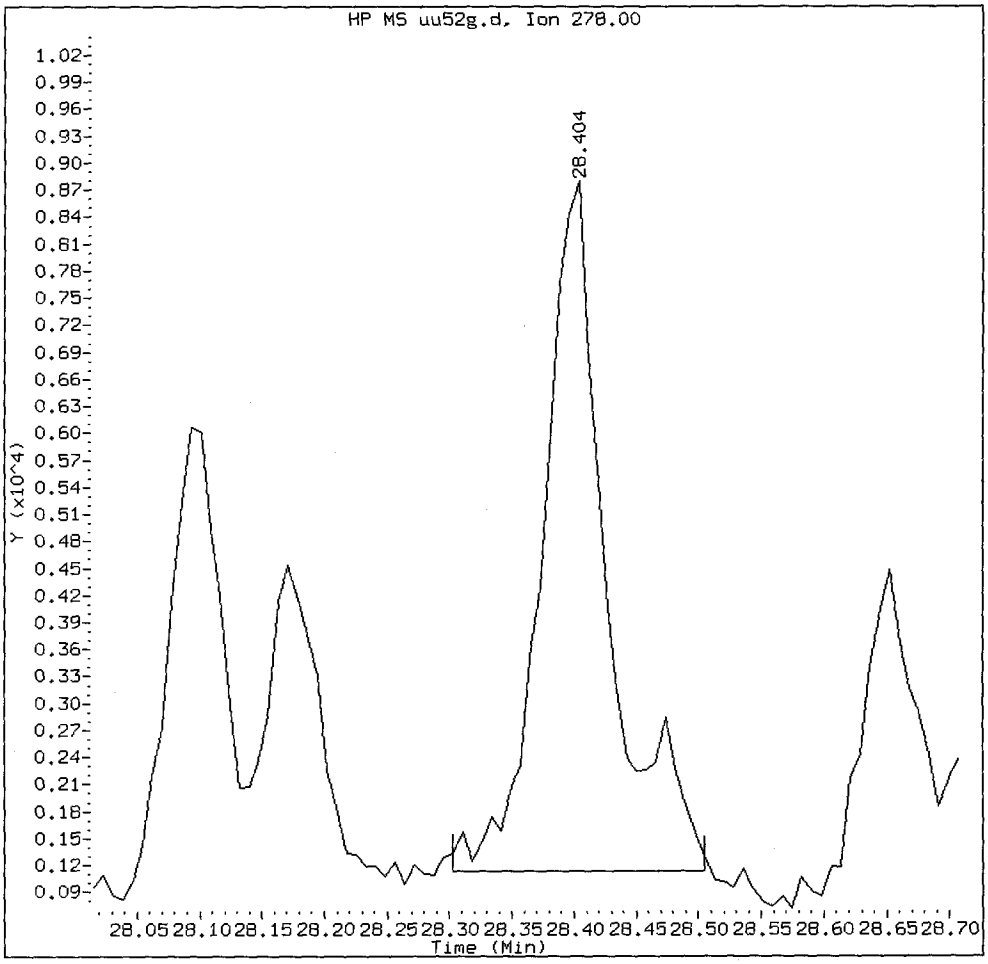
1. Baseline correction /
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: JZ Date: 5/30/12

UU52G, /chem1/nt10.i/20120526.b/uu52g.d

Dibenzo(a,h)anthracene  Amount: 0.18  Area: 28561




MANUAL INTEGRATION for Dibenzo(a,h)anthracene

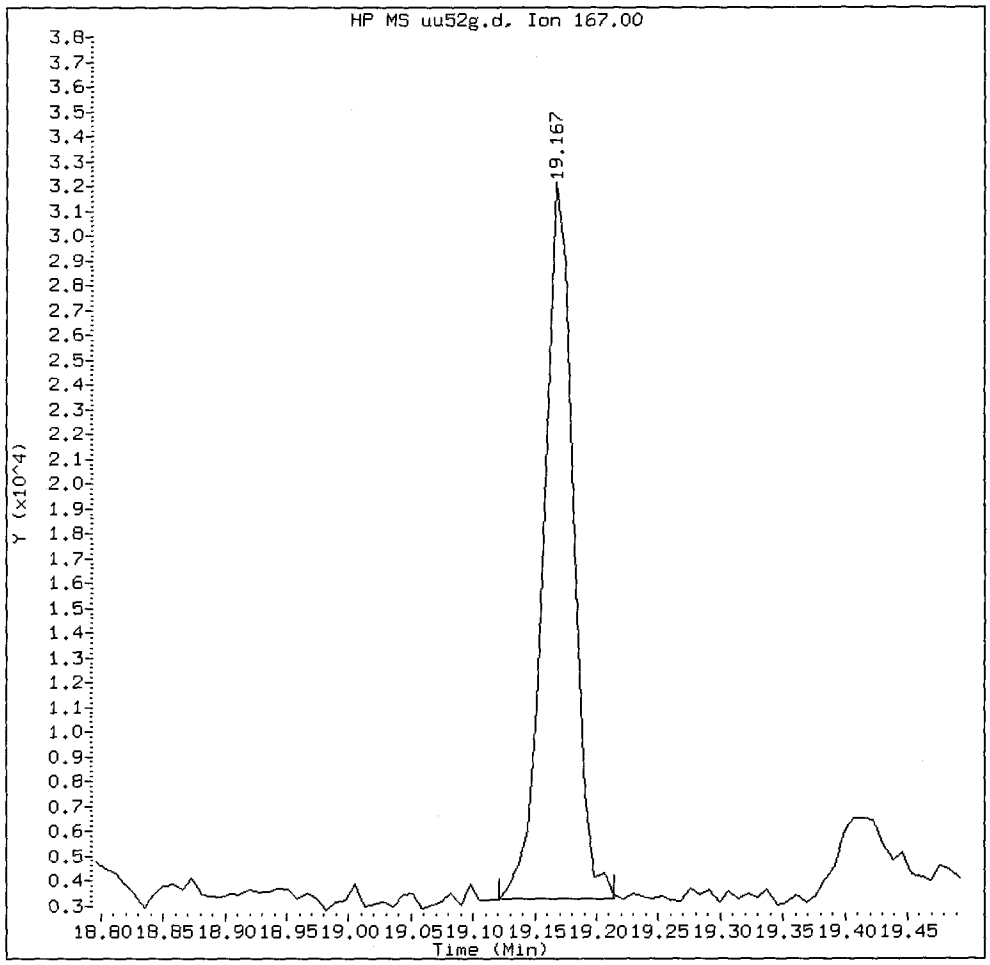
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ  Date: 5/30/12

UU52G, /chem1/nt10.i/20120526.b/uu52g.d

Carbazole Amount: 0.32 Area: 48791




MANUAL INTEGRATION for Carbazole

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 6/9/12

CO-ELUTION SUMMARY FOR FILE - uu52g.d

Lab ID: UU52G, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

YZ 6/4/12

Data file : /chem1/nt10.i/20120526.b/uu52h.d
Lab Smp Id: UU52H Client Smp ID: MS007-SS-120515
Inj Date : 26-MAY-2012 21:31
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52H,3
Misc Info : 12-8900
Comment : 1ul Injection
Method : /chem1/nt10.i/20120526.b/ABN.m
Meth Date : 04-Jun-2012 10:50 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 10
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 3.00000 | Dilution Factor |
| Vt | 1000.00000 | Volume of final extract (uL) |
| Ws | 63.40000 | Weight of sample extracted (g) |
| M | 83.90000 | % Moisture |

Cpnd Variable Local Compound Variable

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| $ 1 | 2-Fluorophenol | 112 | 6.583 | 6.537 | (0.743) | 106219 | 1.56391 | 459.6 |
| $ 2 | Phenol-d5 | 99 | 8.275 | 8.237 | (0.934) | 139107 | 1.64420 | 483.2 |
| 3 | Phenol | 94 | 8.299 | 8.260 | (0.936) | 132785 | 1.47244 | 432.8 |
| $ 5 | 2-Chlorophenol-d4 | 132 | 8.499 | 8.476 | (0.959) | 125929 | 1.69892 | 499.3 |
| 4 | Bis(2-Chloroethyl)ether | 93 | Compound Not Detected. | | | | | |
| 6 | 2-Chlorophenol | 128 | Compound Not Detected. | | | | | |
| 7 | 1,3-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| * 8 | 1,4-Dichlorobenzene-d4 | 152 | 8.863 | 8.855 | (1.000) | 194227 | 4.00000 | |
| 9 | 1,4-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| $ 10 | 1,2-Dichlorobenzene-d4 | 152 | 9.243 | 9.236 | (1.043) | 50496 | 1.03847 | 305.2 |
| 12 | 1,2-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| 11 | Benzyl alcohol | 108 | 9.197 | 9.166 | (1.038) | 15191 | 0.40095 | 117.8 |
| 14 | 2,2'-oxybis(1-Chloropropane) | 121 | Compound Not Detected. | | | | | |
| 13 | 2-Methylphenol | 108 | Compound Not Detected. | | | | | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| | 17 Hexachloroethane | 117 | Compound Not Detected. | | | | | |
| | 16 N-Nitroso-di-n-propylamine | 70 | Compound Not Detected. | | | | | |
| | 15 4-Methylphenol | 108 | 9.764 | 9.725 | (1.102) | 446673 | 6.02365 | 1770 |
| $ | 18 Nitrobenzene-d5 | 82 | 10.043 | 10.027 | (0.872) | 72052 | 1.06323 | 312.5 |
| | 19 Nitrobenzene | 77 | Compound Not Detected. | | | | | |
| | 20 Isophorone | 82 | Compound Not Detected. | | | | | |
| | 21 2-Nitrophenol | 139 | Compound Not Detected. | | | | | |
| | 22 2,4-Dimethylphenol | 107 | Compound Not Detected. | | | | | |
| | 23 Bis(2-Chloroethoxy)methane | 93 | Compound Not Detected. | | | | | |
| | 24 Benzoic acid | 105 | 11.103 | 11.087 | (0.964) | 190648 | 4.35579 | 1280 |
| | 25 2,4-Dichlorophenol | 162 | Compound Not Detected. | | | | | |
| | 26 1,2,4-Trichlorobenzene | 180 | Compound Not Detected. | | | | | |
| * | 27 Naphthalene-d8 | 136 | 11.512 | 11.504 | (1.000) | 756334 | 4.00000 | |
| | 28 Naphthalene | 128 | 11.550 | 11.542 | (1.003) | 1444452 | 7.57560 | 2227 |
| | 29 4-Chloroaniline | 127 | Compound Not Detected. | | | | | |
| | 30 Hexachlorobutadiene | 225 | Compound Not Detected. | | | | | |
| | 31 4-Chloro-3-methylphenol | 107 | Compound Not Detected. | | | | | |
| | 32 2-Methylnaphthalene | 142 | 13.051 | 13.043 | (1.134) | 131540 | 0.99236 | 291.7 |
| | 33 Hexachlorocyclopentadiene | 237 | Compound Not Detected. | | | | | |
| | 34 2,4,6-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| | 35 2,4,5-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| $ | 36 2-Fluorobiphenyl | 172 | 13.910 | 13.902 | (0.904) | 171038 | 1.12673 | 331.1 |
| | 37 2-Chloronaphthalene | 162 | Compound Not Detected. | | | | | |
| | 38 2-Nitroaniline | 65 | Compound Not Detected. | | | | | |
| | 39 Dimethylphthalate | 163 | Compound Not Detected. | | | | | |
| | 40 Acenaphthylene | 152 | 15.048 | 15.032 | (0.978) | 95237 | 0.48425 | 142.3(M) |
| | 41 2,6-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| * | 42 Acenaphthene-d10 | 164 | 15.388 | 15.373 | (1.000) | 437900 | 4.00000 | |
| | 43 3-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 44 Acenaphthene | 153 | 15.458 | 15.442 | (1.005) | 50993 | 0.42987 | 126.3 |
| | 45 2,4-Dinitrophenol | 184 | Compound Not Detected. | | | | | |
| | 46 Dibenzofuran | 168 | 15.806 | 15.798 | (1.027) | 123523 | 0.71076 | 208.9 |
| | 47 4-Nitrophenol | 109 | Compound Not Detected. | | | | | |
| | 48 2,4-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| | 50 Diethylphthalate | 149 | 16.486 | 16.470 | (1.071) | 17562 | 0.13389 | 39.35 |
| | 49 Fluorene | 166 | 16.579 | 16.563 | (1.077) | 54703 | 0.41080 | 120.7 |
| | 51 4-Chlorophenyl-phenylether | 204 | Compound Not Detected. | | | | | |
| | 52 4-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 53 4,6-Dinitro-2-methylphenol | 198 | Compound Not Detected. | | | | | |
| | 54 N-Nitrosodiphenylamine | 169 | Compound Not Detected. | | | | | |
| $ | 55 2,4,6-Tribromophenol | 330 | 17.165 | 17.142 | (1.115) | 33708 | 1.86496 | 548.1 |
| | 56 4-Bromophenyl-phenylether | 248 | Compound Not Detected. | | | | | |
| | 57 Hexachlorobenzene | 284 | Compound Not Detected. | | | | | |
| | 58 Pentachlorophenol | 266 | Compound Not Detected. | | | | | |
| * | 59 Phenanthrene-d10 | 188 | 18.657 | 18.633 | (1.000) | 626572 | 4.00000 | |
| | 60 Phenanthrene | 178 | 18.703 | 18.687 | (1.002) | 583528 | 3.61164 | 1061 |
| | 61 Anthracene | 178 | 18.804 | 18.780 | (1.008) | 97353 | 0.57680 | 169.5 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| 62 | Carbazole | 167 | 19.175 | 19.144 | (1.028) | 32390 | 0.20741 | 60.96(M) |
| 63 | Di-n-butylphthalate | 149 | Compound Not Detected. | | | | | |
| 64 | Fluoranthene | 202 | 21.140 | 21.101 | (1.133) | 665243 | 3.62638 | 1066 |
| 65 | Pyrene | 202 | 21.542 | 21.519 | (0.908) | 700309 | 3.27112 | 961.4 |
| $ 66 | Terphenyl-d14 | 244 | 21.860 | 21.844 | (0.921) | 158571 | 1.18236 | 347.5 |
| 67 | Butylbenzylphthalate | 149 | Compound Not Detected. | | | | | |
| 68 | Benzo(a)anthracene | 228 | 23.695 | 23.679 | (0.999) | 125213 | 0.63264 | 185.9 |
| * 69 | Chrysene-d12 | 240 | 23.726 | 23.710 | (1.000) | 703620 | 4.00000 | |
| 70 | 3,3'-Dichlorobenzidine | 252 | Compound Not Detected. | | | | | |
| 71 | Chrysene | 228 | 23.764 | 23.749 | (1.002) | 169876 | 0.97567 | 286.8 |
| 72 | bis(2-Ethylhexyl)phthalate | 149 | 23.834 | 23.818 | (0.961) | 61208 | 0.39738 | 116.8 |
| * 134 | Di-n-octylphthalate-d4 | 153 | 24.809 | 24.794 | (1.000) | 1121633 | 4.00000 | |
| 73 | Di-n-octylphthalate | 149 | Compound Not Detected. | | | | | |
| 74 | Benzo(b)fluoranthene | 252 | Compound Not Detected. | | | | | |
| 75 | Benzo(k)fluoranthene | 252 | Compound Not Detected. | | | | | |
| 76 | Benzo(a)pyrene | 252 | 26.025 | 26.002 | (0.996) | 158903 | 0.92290 | 271.2 |
| * 77 | Perylene-d12 | 264 | 26.133 | 26.102 | (1.000) | 665896 | 4.00000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | 28.396 | 28.342 | (1.087) | 132436 | 0.66496 | 195.4 |
| 79 | Dibenzo(a,h)anthracene | 278 | 28.404 | 28.365 | (1.087) | 31302 | 0.19952 | 58.64(M) |
| 80 | Benzo(g,h,i)perylene | 276 | 29.049 | 29.002 | (1.112) | 144624 | 0.84681 | 248.9 |
| 90 | N-Nitrosodimethylamine | 74 | Compound Not Detected. | | | | | |
| 91 | Aniline | 93 | Compound Not Detected. | | | | | |
| 93 | Benzidine | 184 | Compound Not Detected. | | | | | |
| 103 | Pyridine | 79 | Compound Not Detected. | | | | | |
| 105 | 1-methylnaphthalene | 142 | 13.291 | 13.275 | (1.155) | 75342 | 0.55734 | 163.8 |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | Compound Not Detected. | | | | | |
| 187 | Total Benzofluoranthenes | 252 | 25.467 | 25.483 | (0.975) | 339079 | 1.83516 | 539.4 |
| 99 | Perylene | 252 | Compound Not Detected. | | | | | |
| 98 | Retene | 219 | 22.146 | 22.131 | (0.933) | 28665 | 0.28753 | 84.51 |

## QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52h.d
Lab Smp Id: UU52H
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8900

Calibration Date: 26-MAY-2012
Calibration Time: 10:59
Client Smp ID: MS007-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 194227 | 2.49 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 756334 | 3.48 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 437900 | 4.09 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 626572 | -1.94 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 703620 | 9.08 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 1121633 | 10.38 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 665896 | 2.44 |

| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.86 | 0.09 |
| 27 Naphthalene-d8 | 11.50 | 11.00 | 12.00 | 11.51 | 0.07 |
| 42 Acenaphthene-d10 | 15.37 | 14.87 | 15.87 | 15.39 | 0.10 |
| 59 Phenanthrene-d10 | 18.63 | 18.13 | 19.13 | 18.66 | 0.12 |
| 69 Chrysene-d12 | 23.71 | 23.21 | 24.21 | 23.73 | 0.07 |
| 134 Di-n-octylphthala | 24.79 | 24.29 | 25.29 | 24.81 | 0.06 |
| 77 Perylene-d12 | 26.10 | 25.60 | 26.60 | 26.13 | 0.12 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

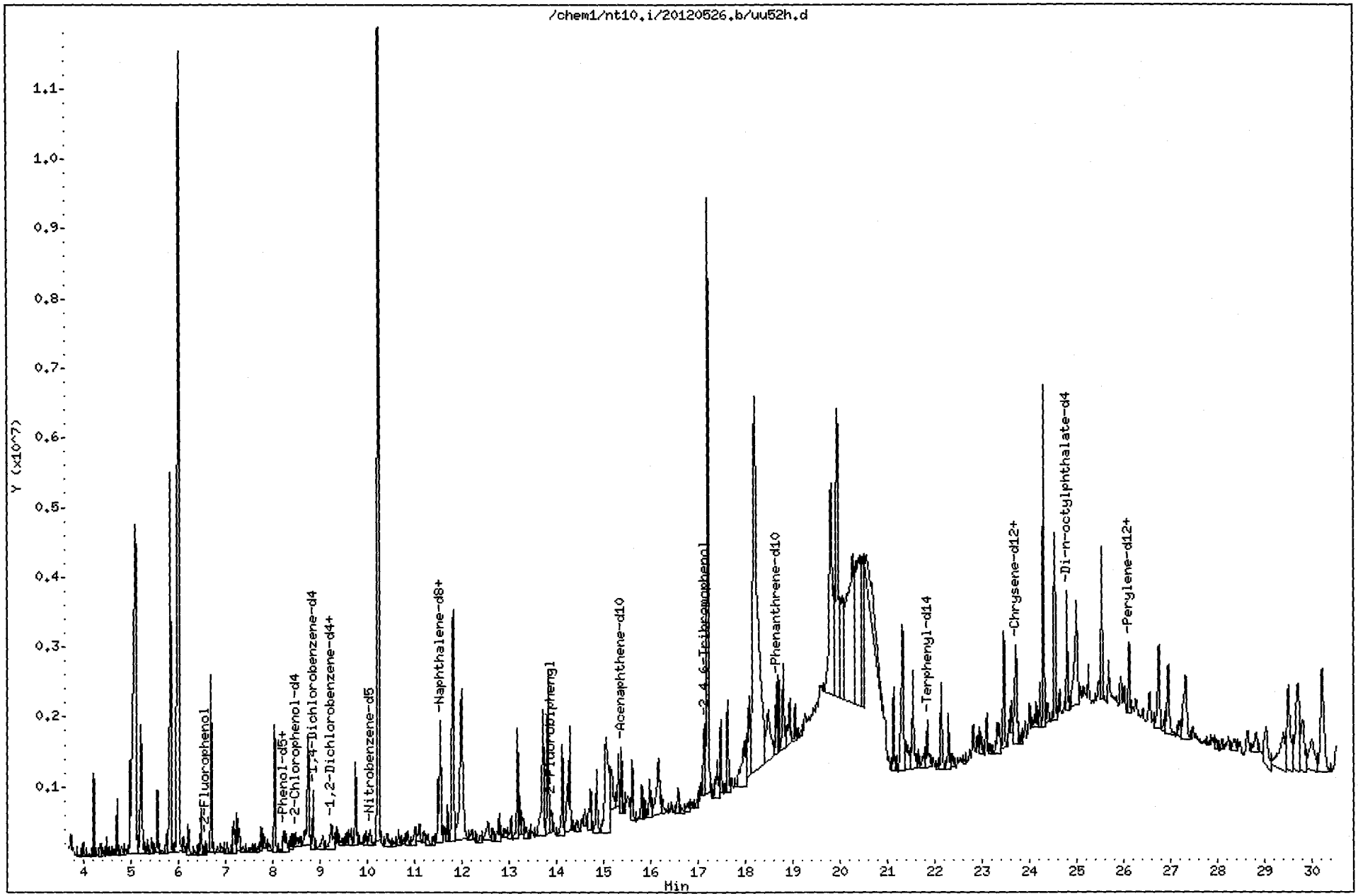
Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52H Client Smp ID: MS007-SS-120515
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120526.b/ABN.m
Misc Info: 12-8900

| SURROGATE COMPOUND | CONC ADDED ug/kg | CONC RECOVERED ug/kg | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 1 2-Fluorophenol | 734.8 | 459.6 | 62.56 | 30-160 |
| $ 2 Phenol-d5 | 734.8 | 483.2 | 65.77 | 30-160 |
| $ 5 2-Chlorophenol-d4 | 734.8 | 499.3 | 67.96 | 30-160 |
| $ 10 1,2-Dichlorobenzen | 489.8 | 305.2 | 62.31 | 30-160 |
| $ 18 Nitrobenzene-d5 | 489.8 | 312.5 | 63.79 | 30-160 |
| $ 36 2-Fluorobiphenyl | 489.8 | 331.1 | 67.60 | 30-160 |
| $ 55 2,4,6-Tribromophen | 734.8 | 548.1 | 74.60 | 30-160 |
| $ 66 Terphenyl-d14 | 489.8 | 347.5 | 70.94 | 30-160 |

Data File: /chem1/nt10.i/20120526.b/uu52h.d
Date : 26-MAY-2012 21:31
Client ID: MS007-SS-120515
Sample Info: UU52H,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25

UU52:55933



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

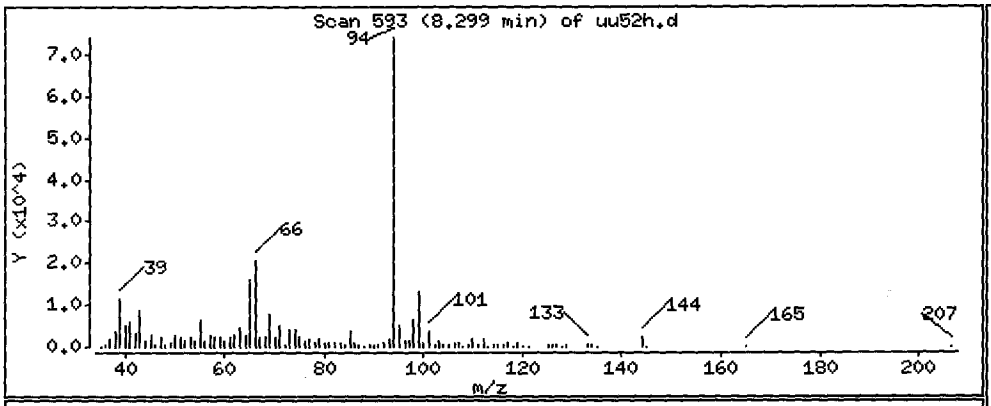
Client ID: MS007-SS-120515 Instrument: nt10.i

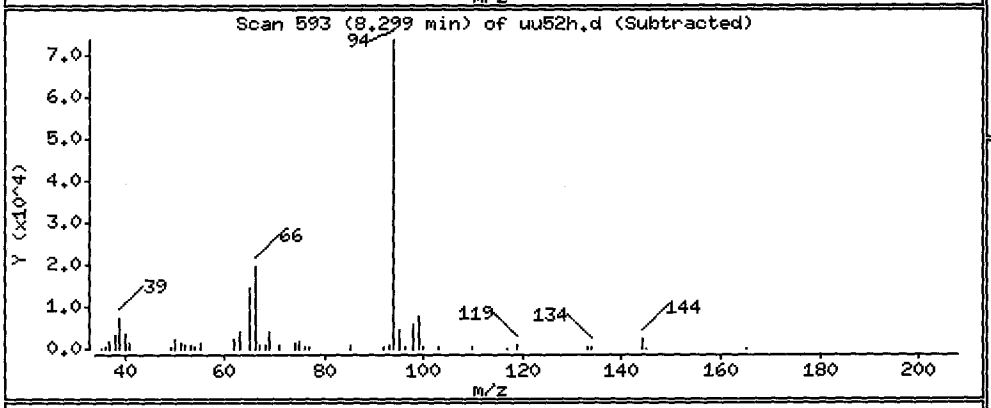
Sample Info: UU52H,3

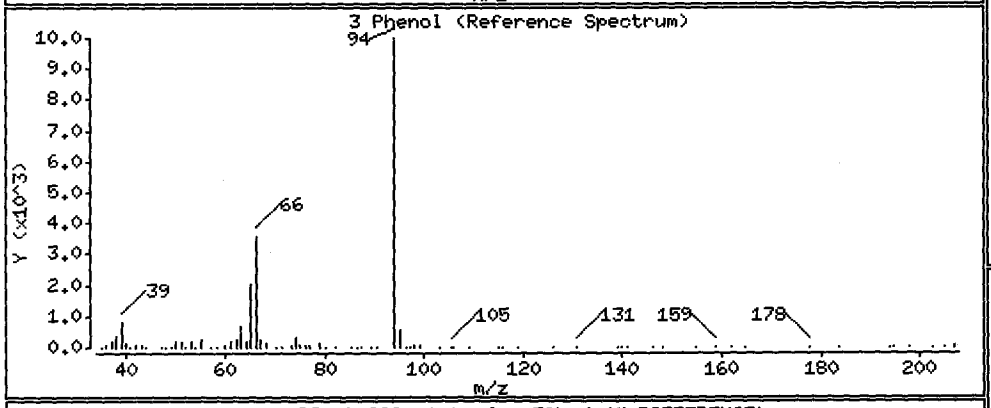
Volume Injected (uL): 1.0 Operator: VTS/YZ

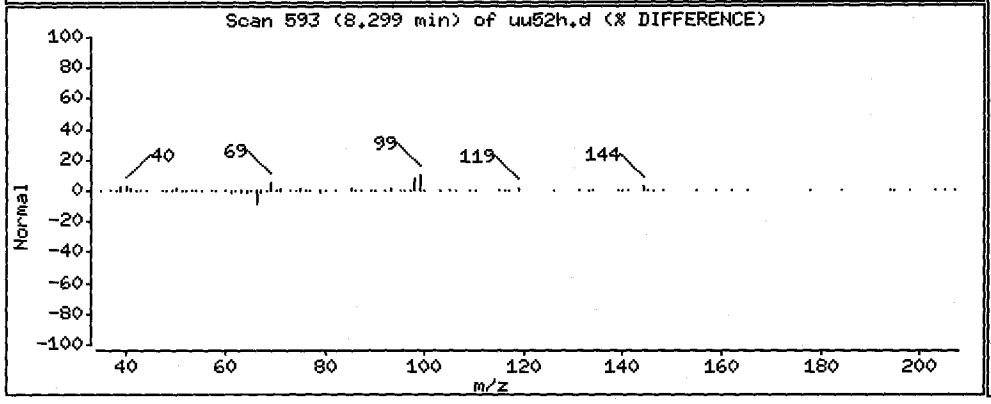
Column phase: ZB-5msi Column diameter: 0.25

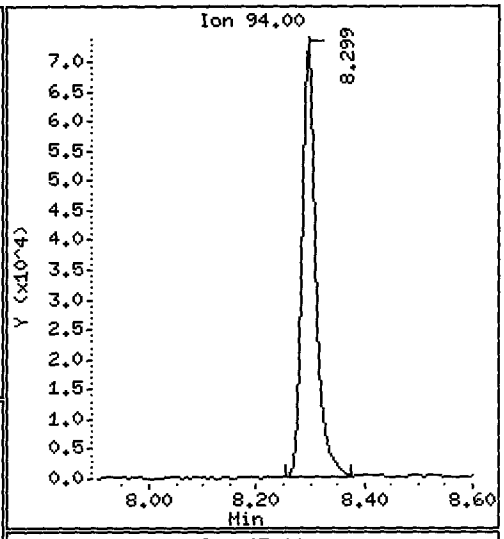
3 Phenol Concentration: 432.8 ug/kg

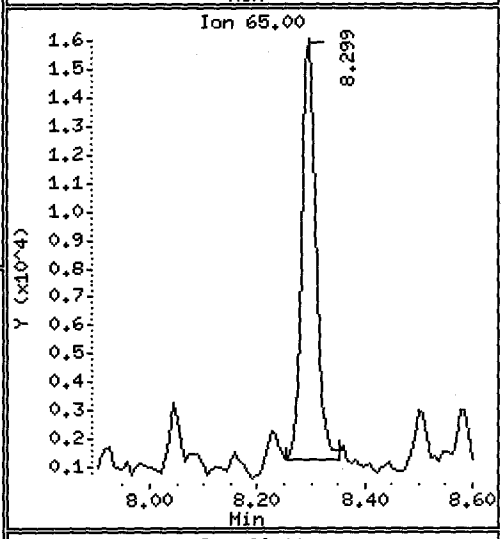


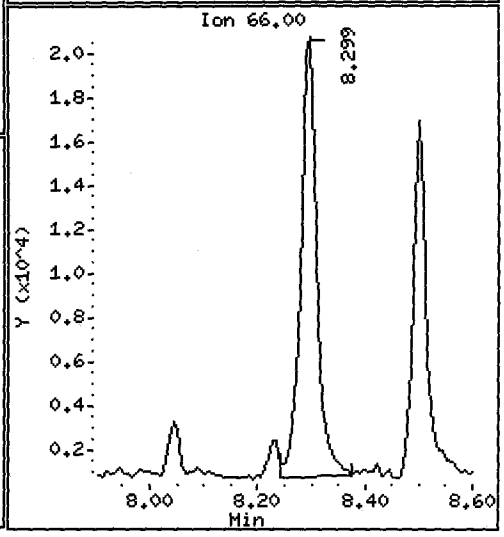



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

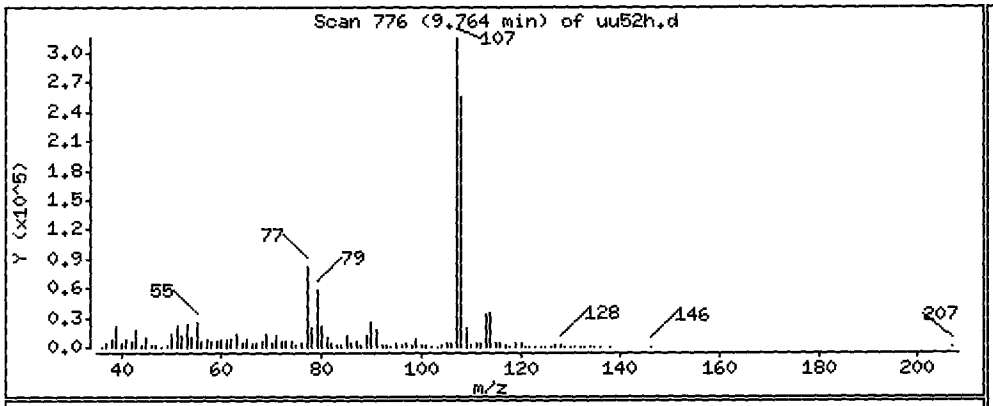
Operator: VTS/YZ

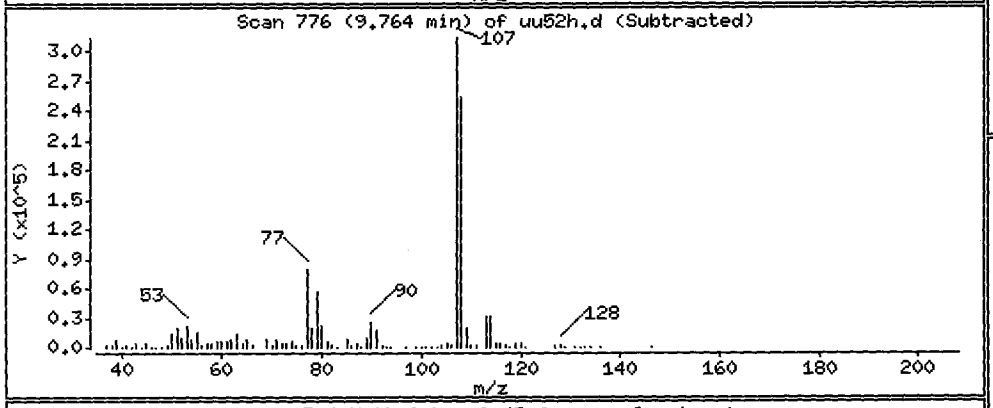
Column phase: ZB-5msi

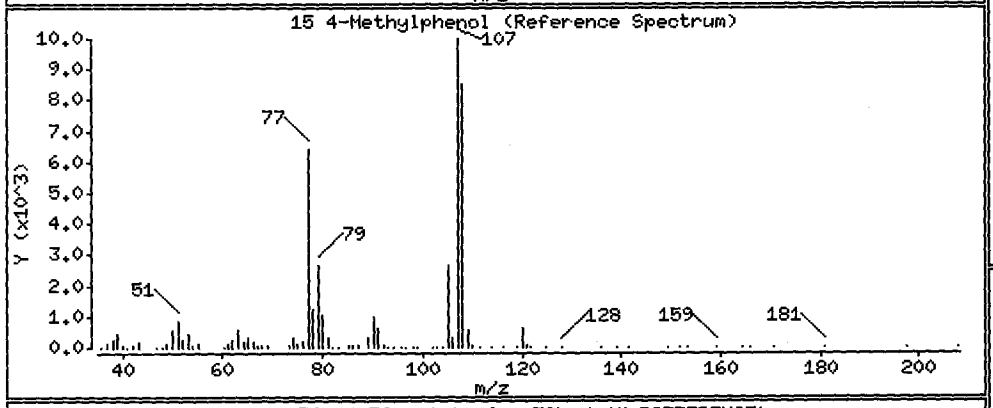
Column diameter: 0.25

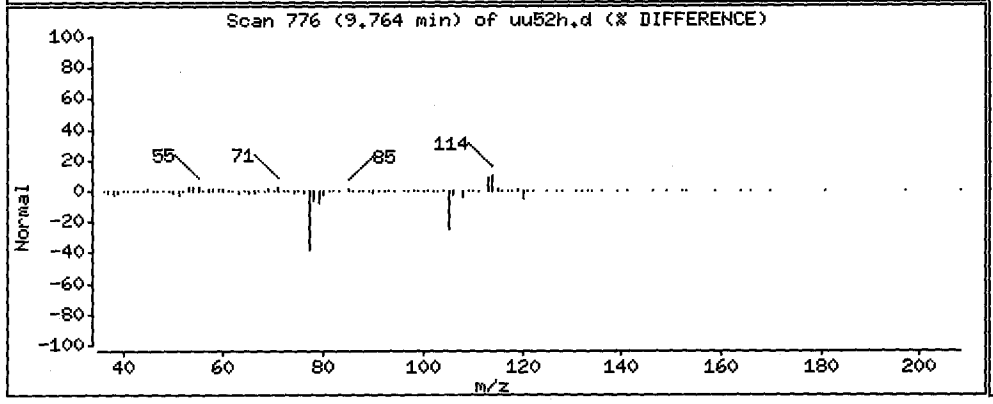
15 4-Methylphenol

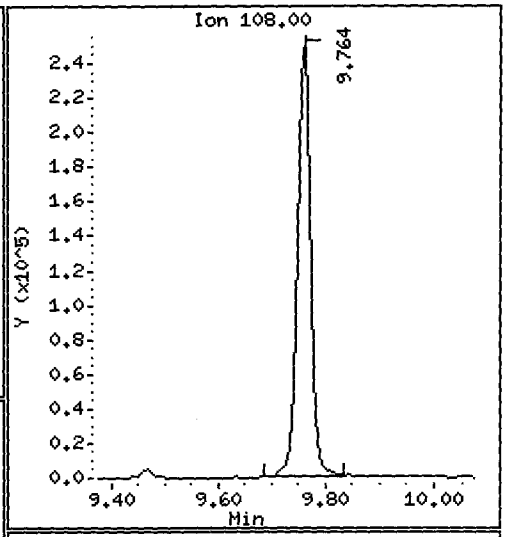
Concentration: 1770 ug/kg

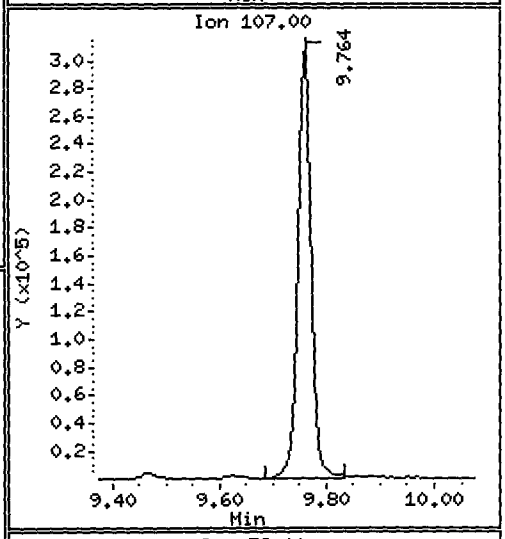


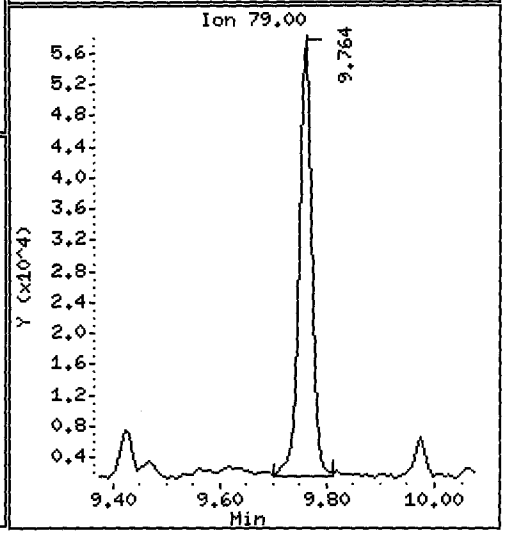



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

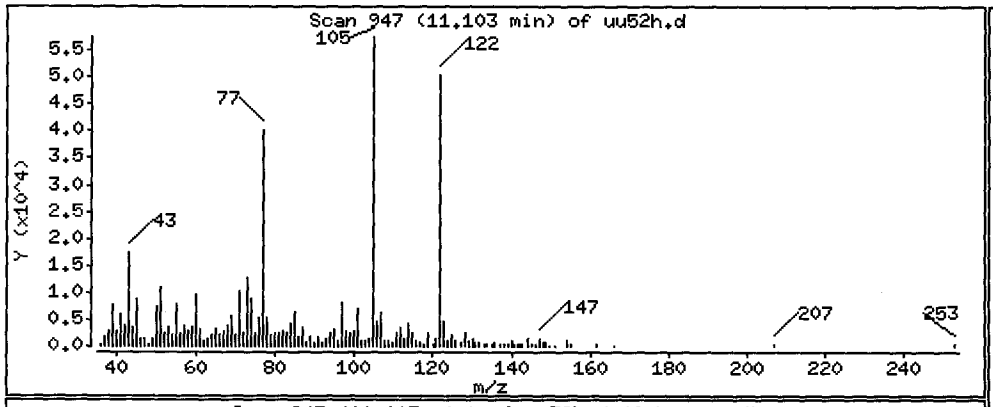
Operator: VTS/YZ

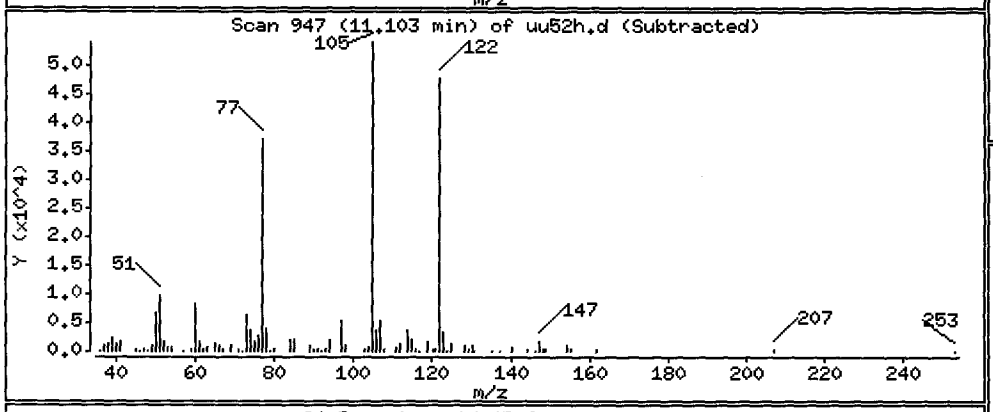
Column phase: ZB-5msi

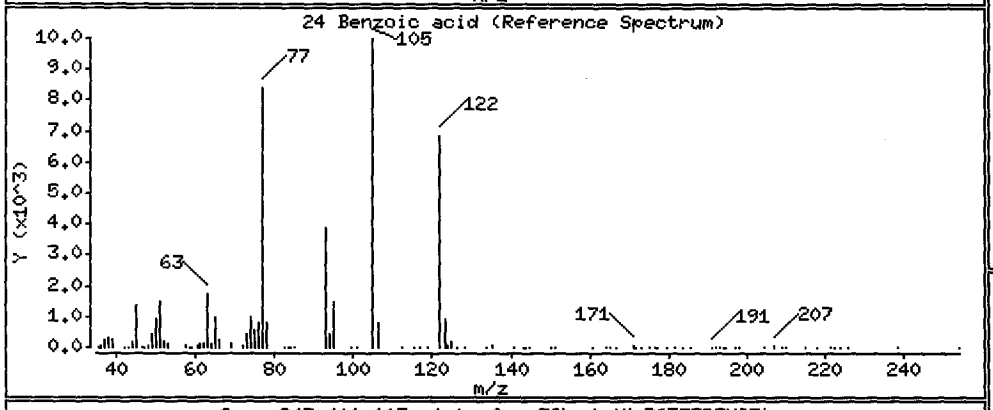
Column diameter: 0.25

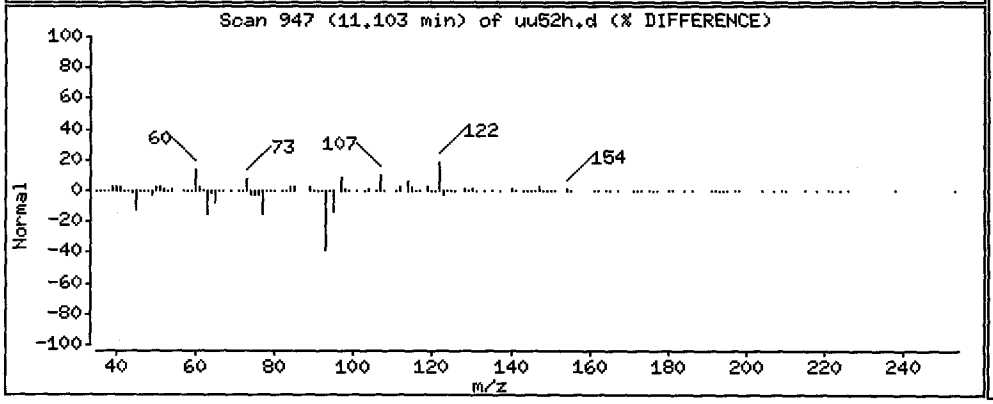
24 Benzoic acid

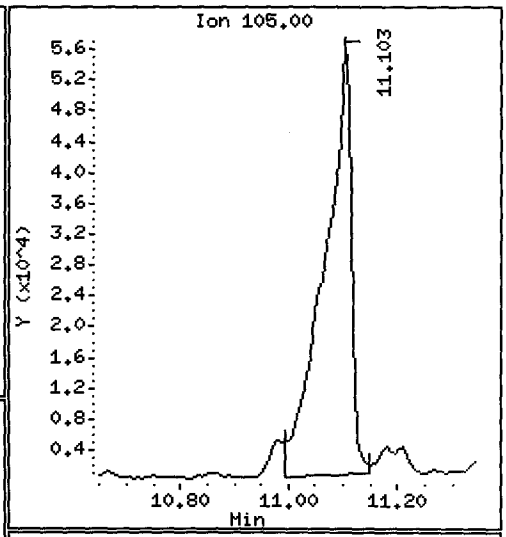
Concentration: 1280 ug/kg

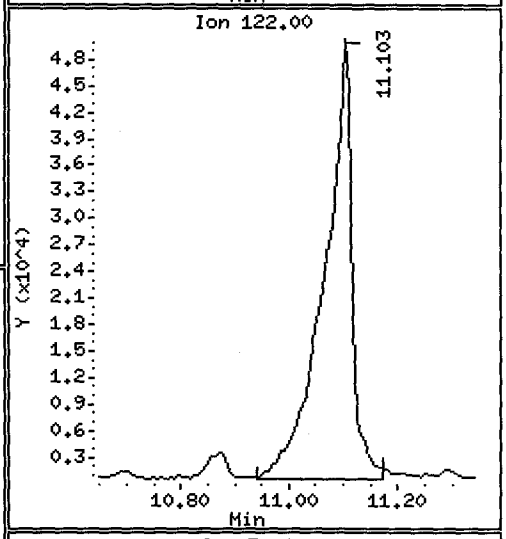


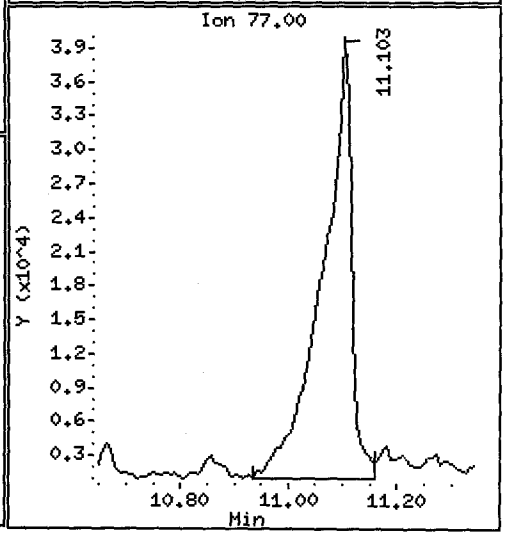



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

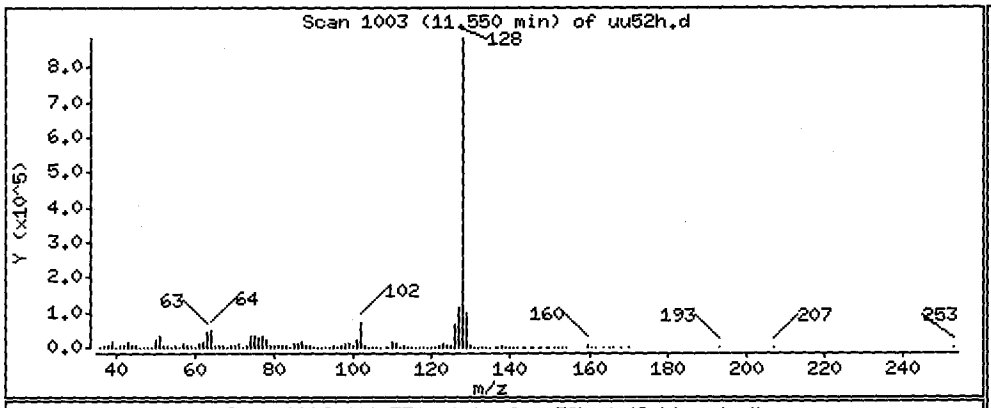
Operator: VTS/YZ

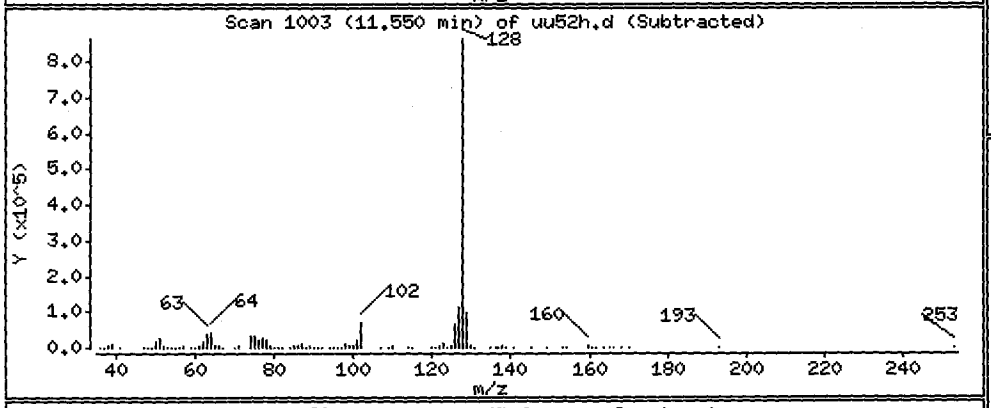
Column phase: ZB-5msi

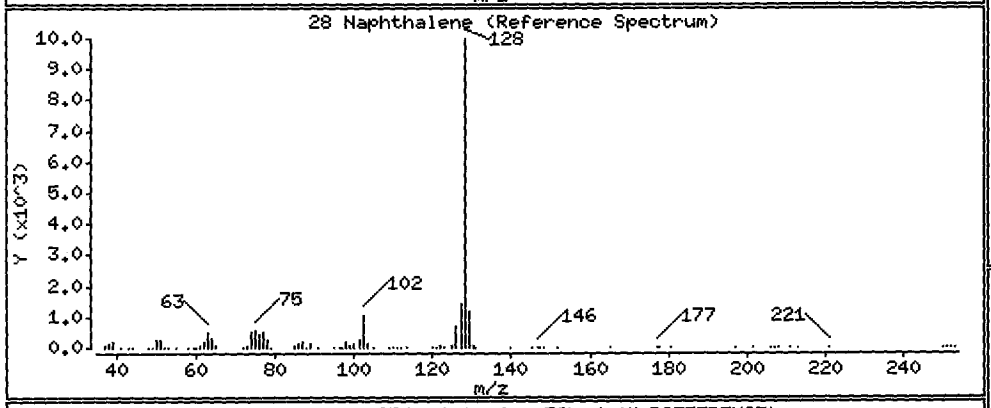
Column diameter: 0.25

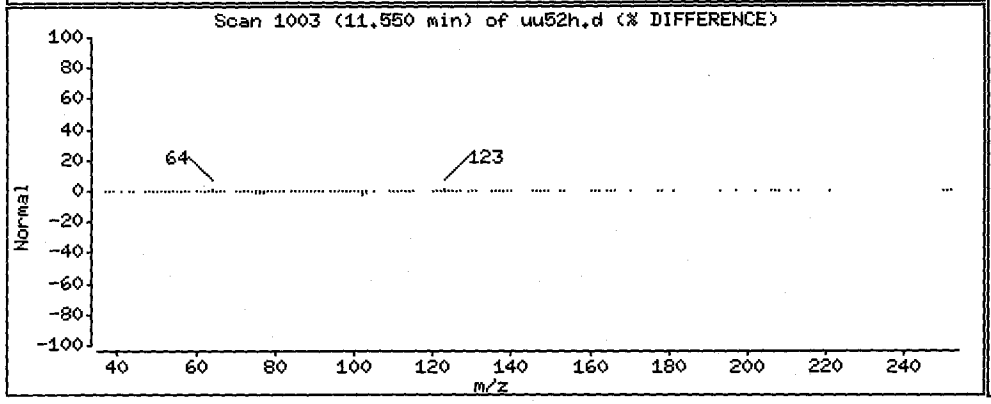
28 Naphthalene

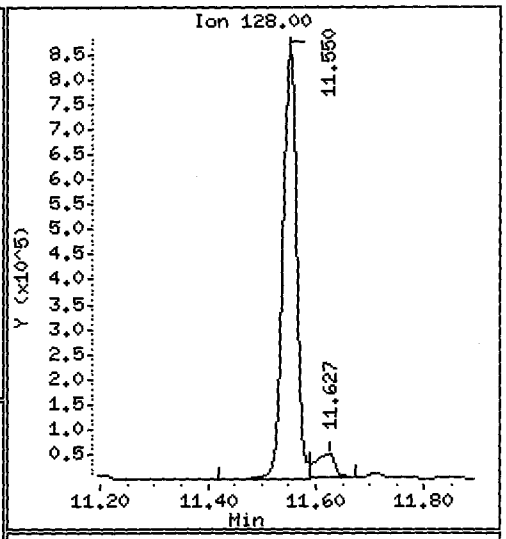
Concentration: 2227 ug/kg

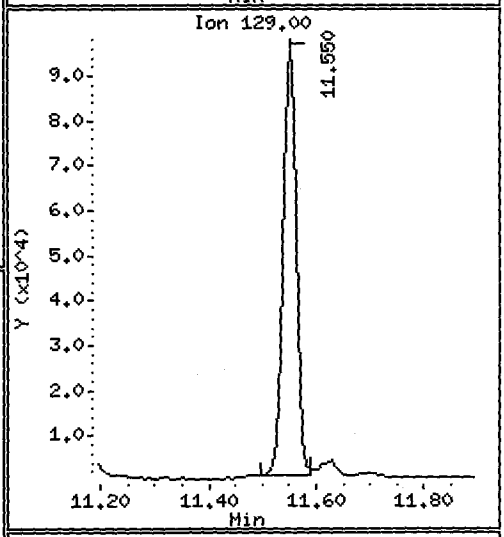


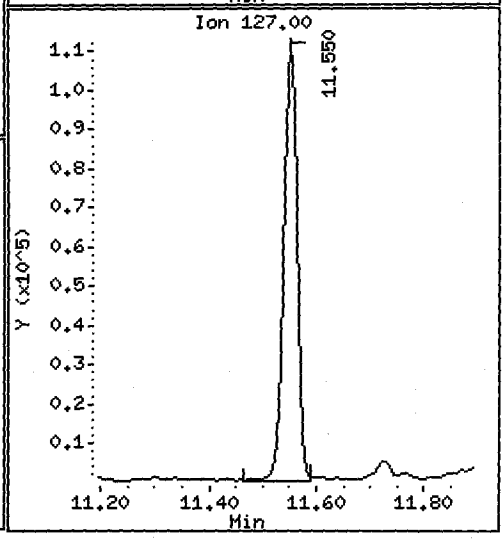



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

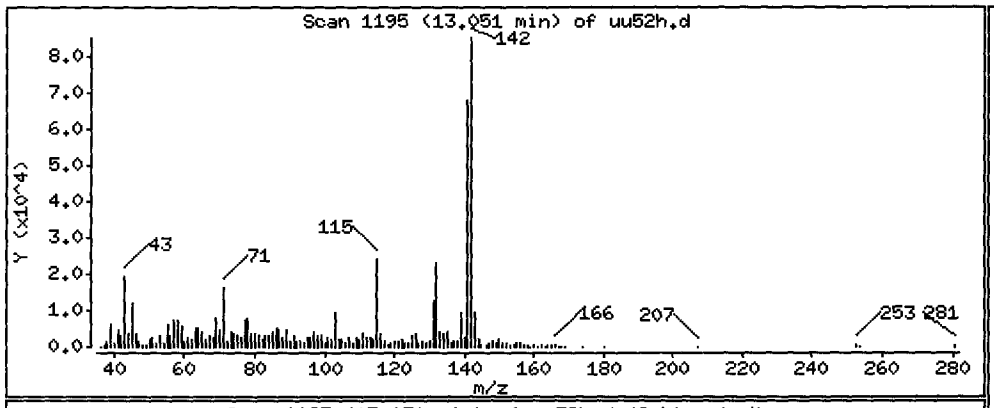
Client ID: MS007-SS-120515 Instrument: nt10.i

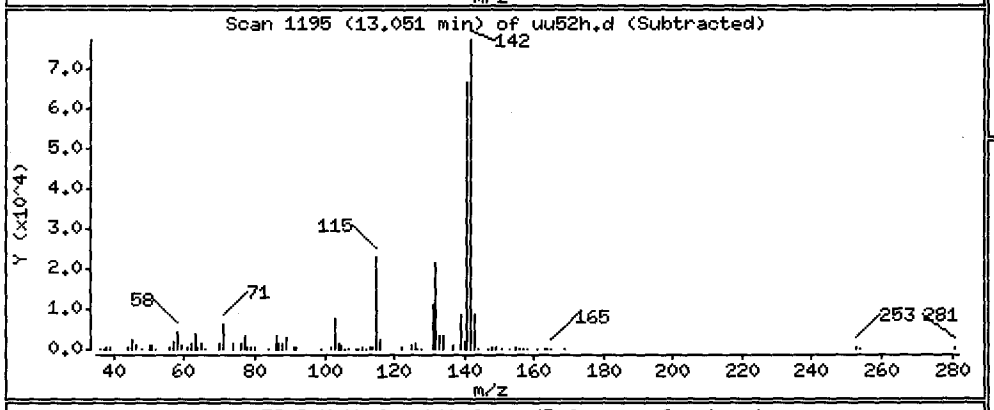
Sample Info: UU52H,3

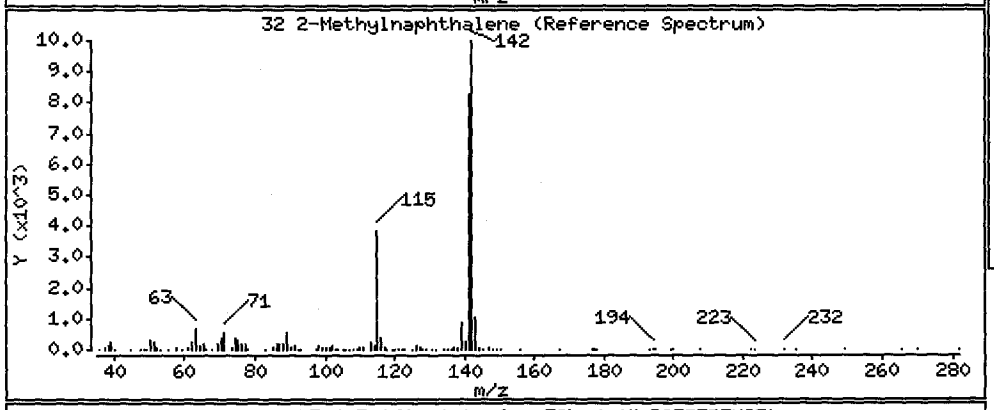
Volume Injected (uL): 1.0 Operator: VTS/YZ

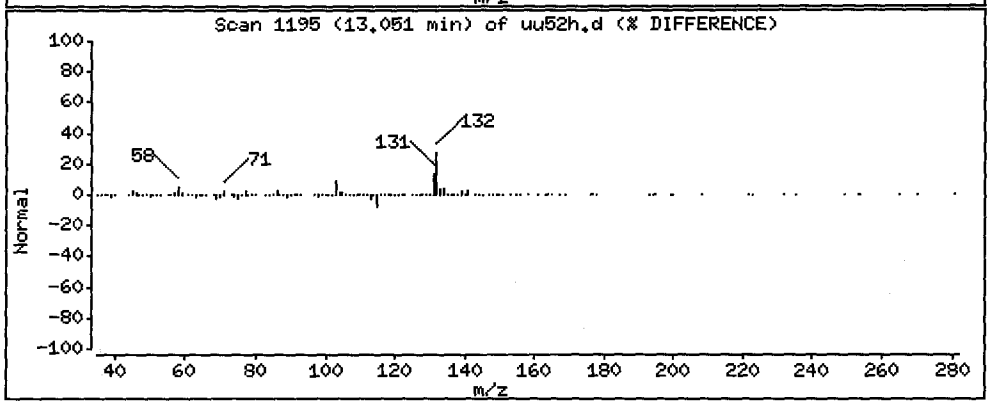
Column phase: ZB-5msi Column diameter: 0.25

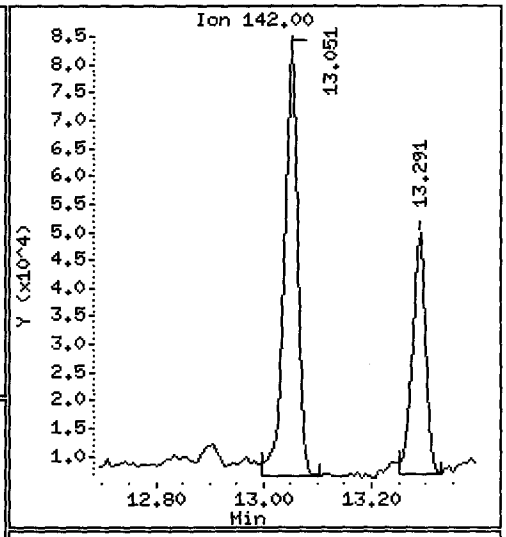
32 2-Methylnaphthalene Concentration: 291.7 ug/kg

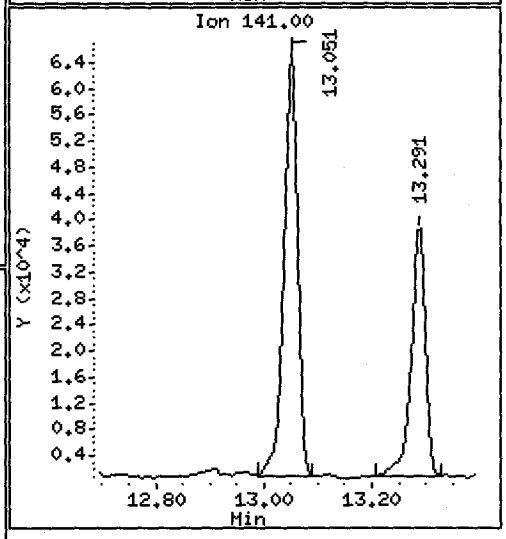


Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

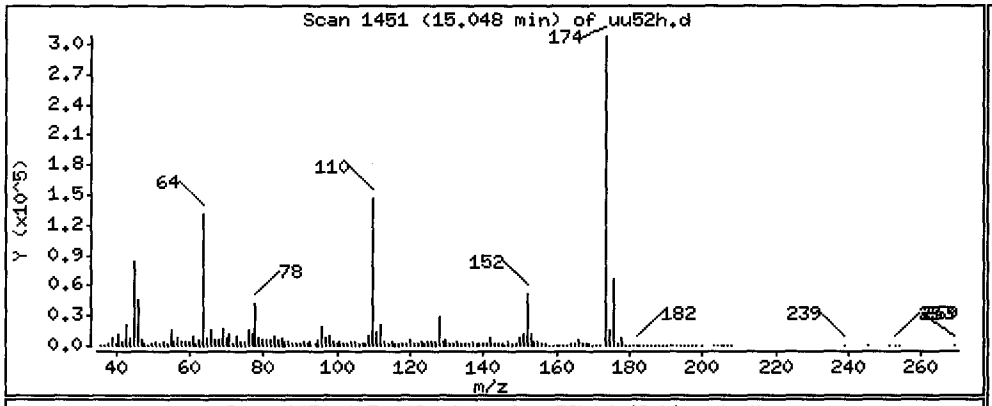
Client ID: MS007-SS-120515 Instrument: nt10.i

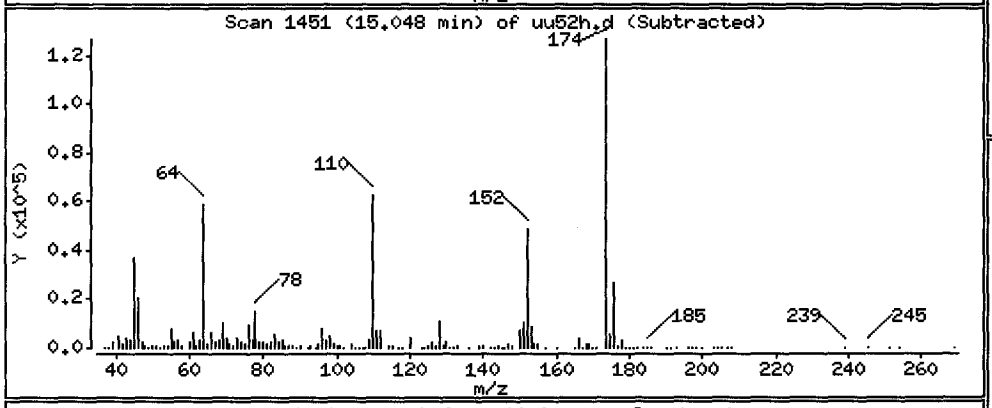
Sample Info: UU52H,3

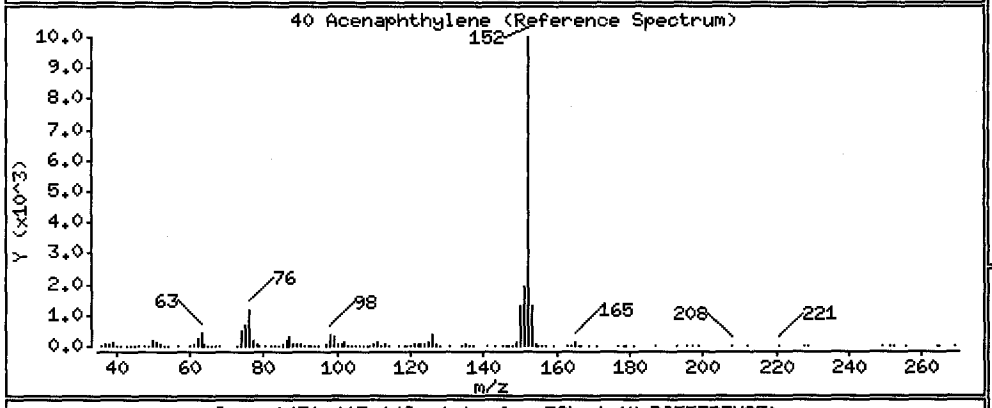
Volume Injected (uL): 1.0 Operator: VTS/YZ

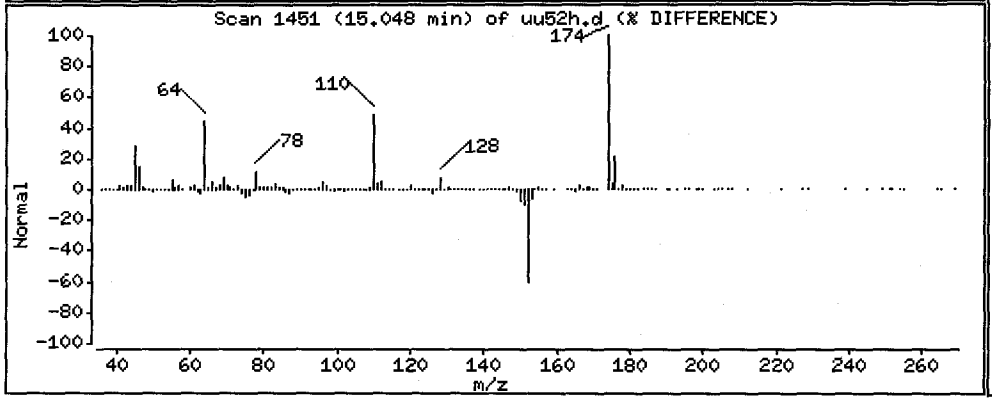
Column phase: ZB-5msi Column diameter: 0.25

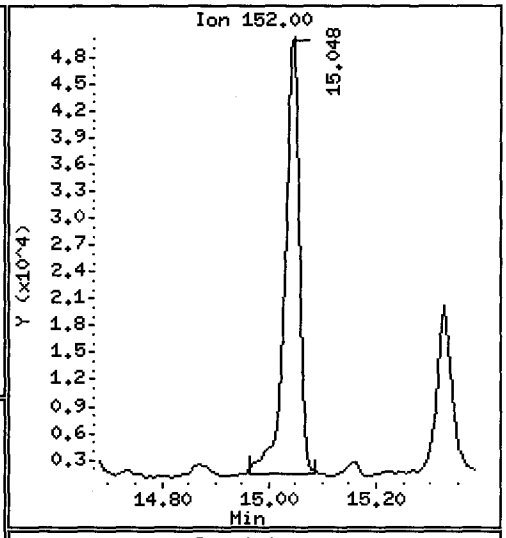
40 Acenaphthylene Concentration: 142.3 ug/kg

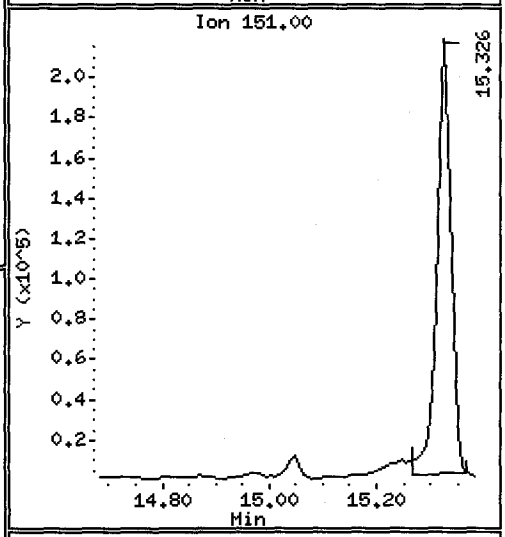


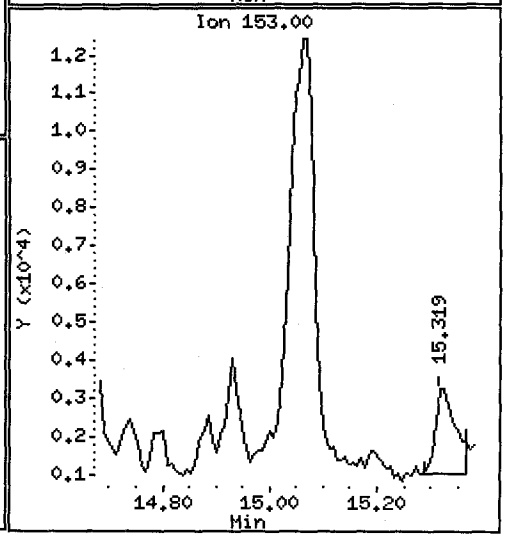



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

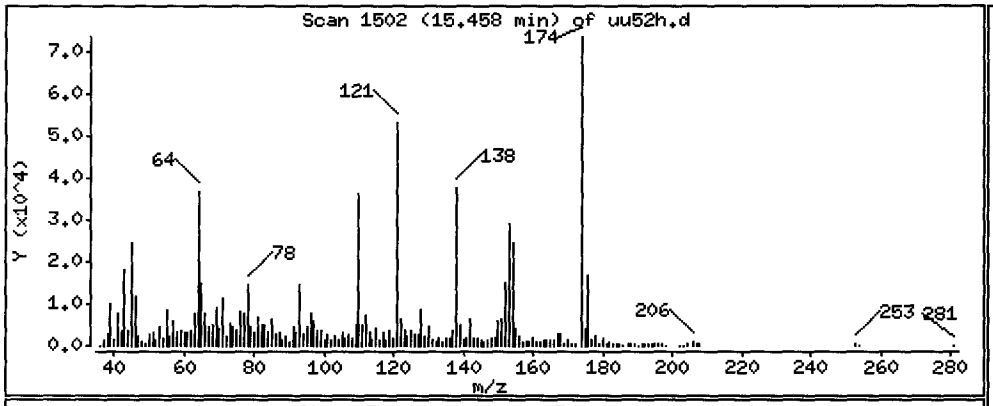
Operator: VTS/YZ

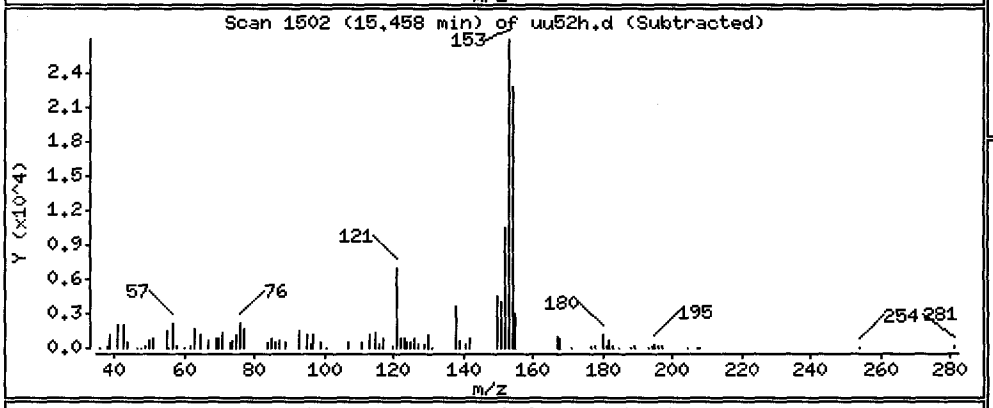
Column phase: ZB-5msi

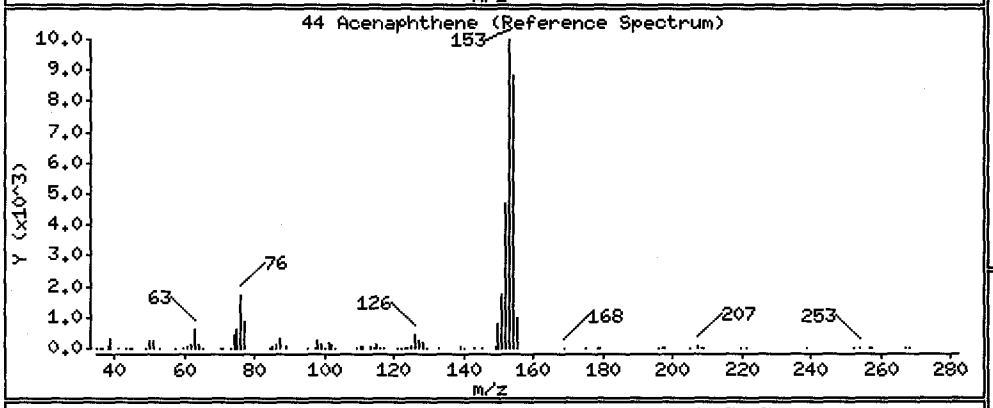
Column diameter: 0.25

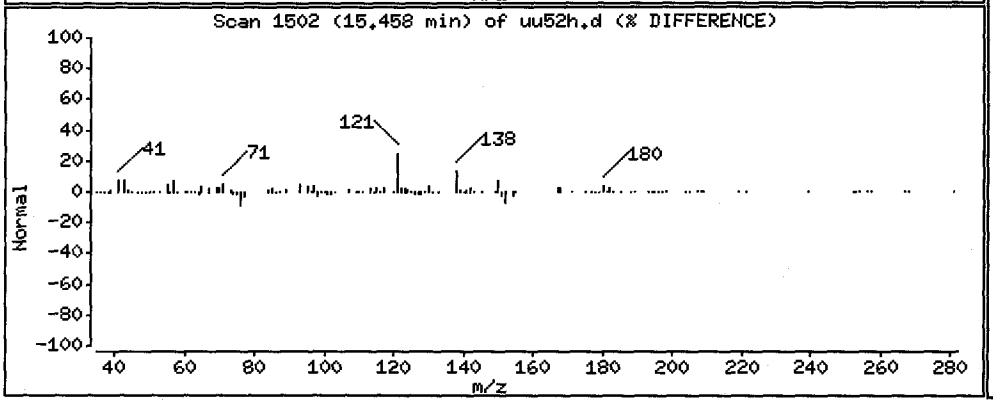
44 Acenaphthene

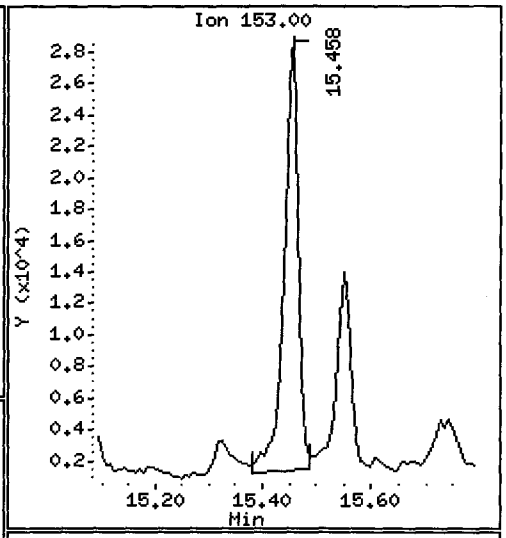
Concentration: 126.3 ug/kg

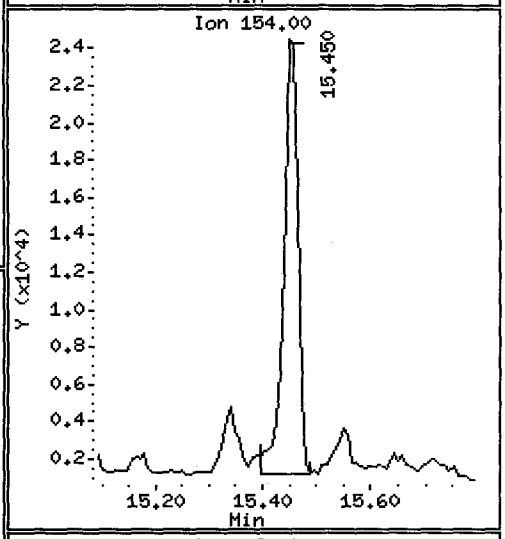


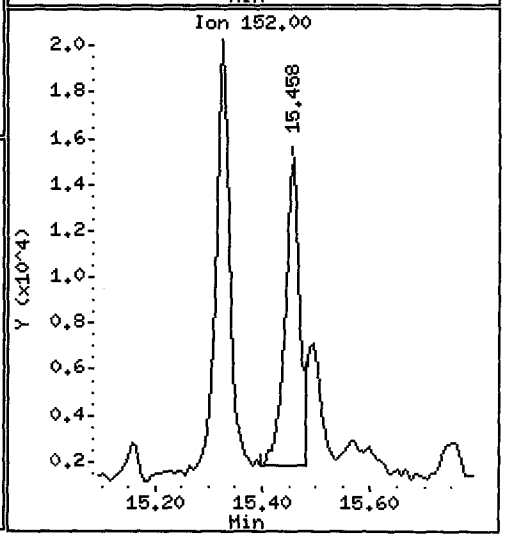



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

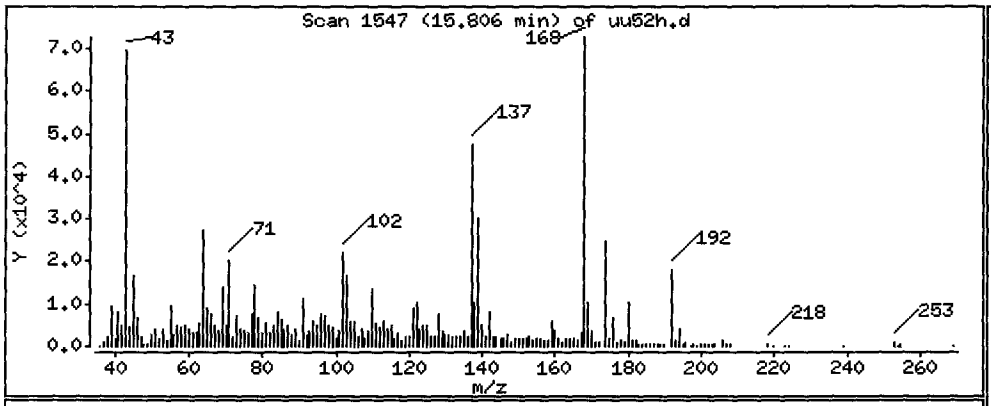
Operator: VTS/YZ

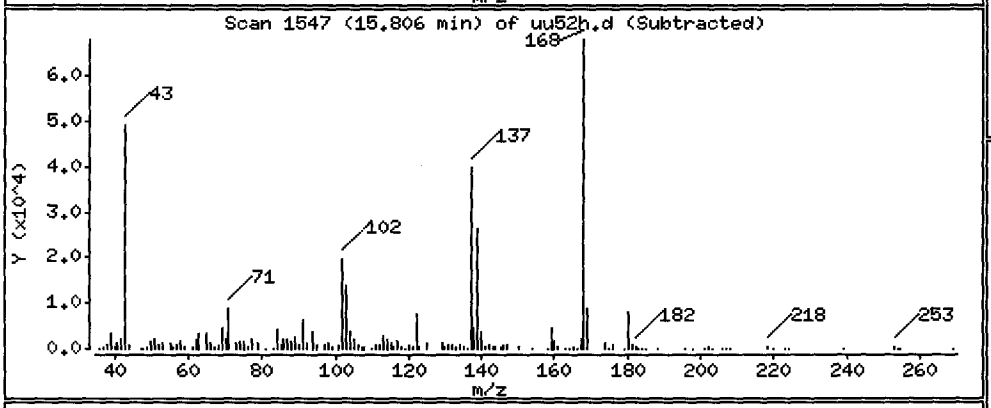
Column phase: ZB-5msi

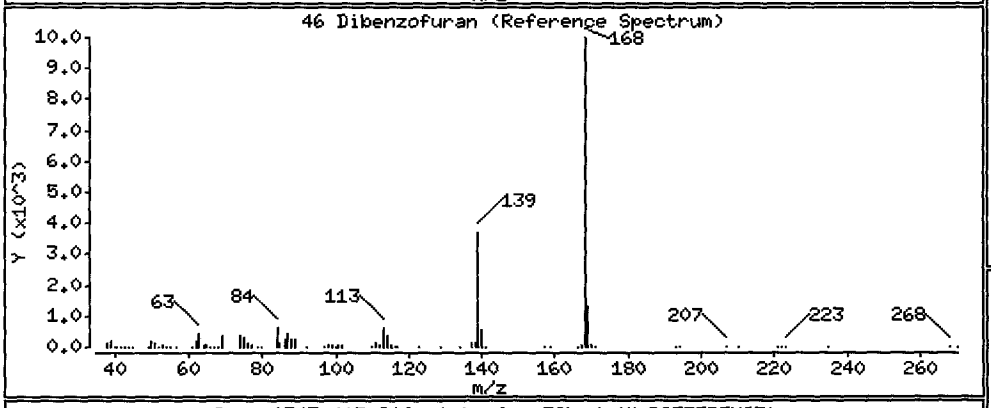
Column diameter: 0.25

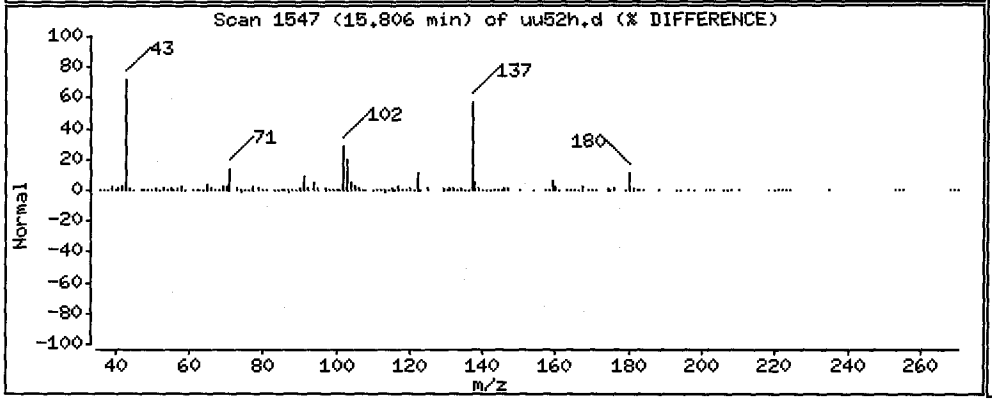
46 Dibenzofuran

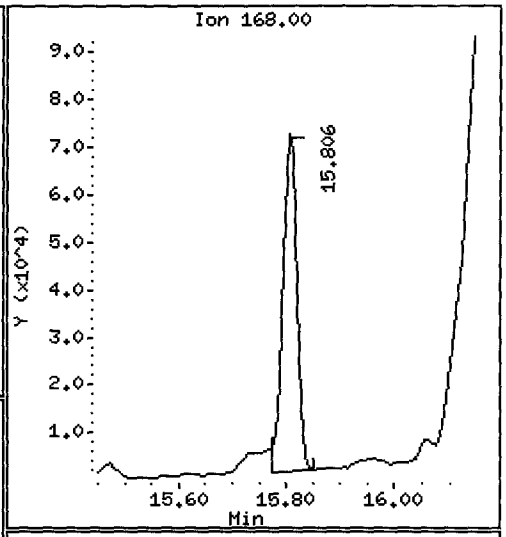
Concentration: 208.9 ug/kg

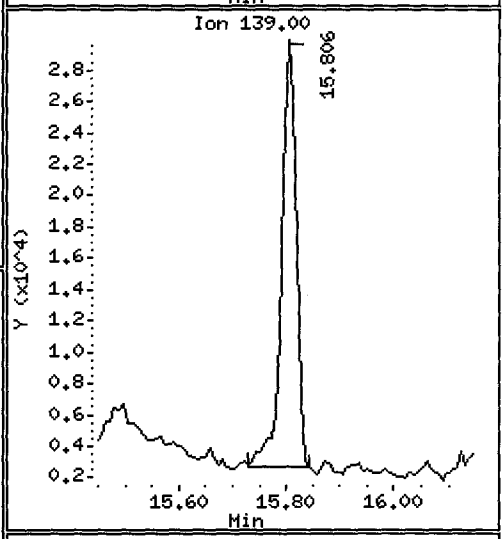


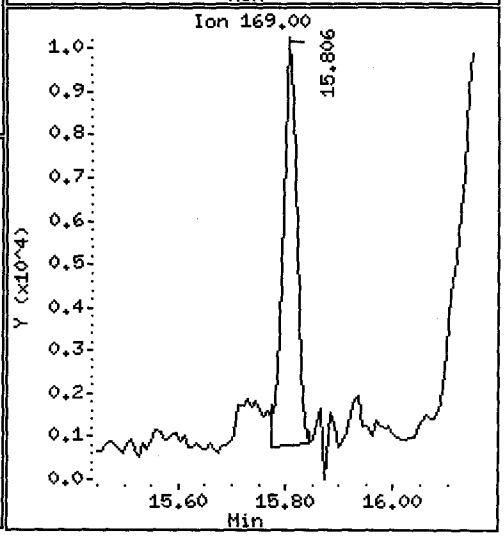



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

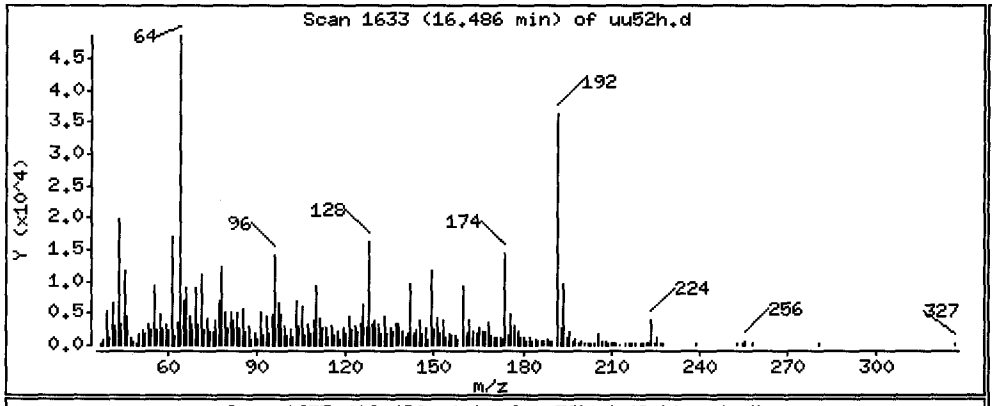
Operator: VTS/YZ

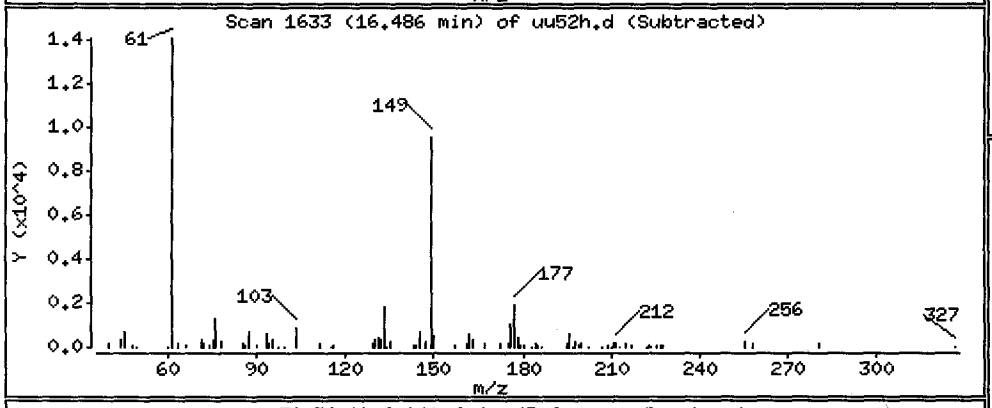
Column phase: ZB-5msi

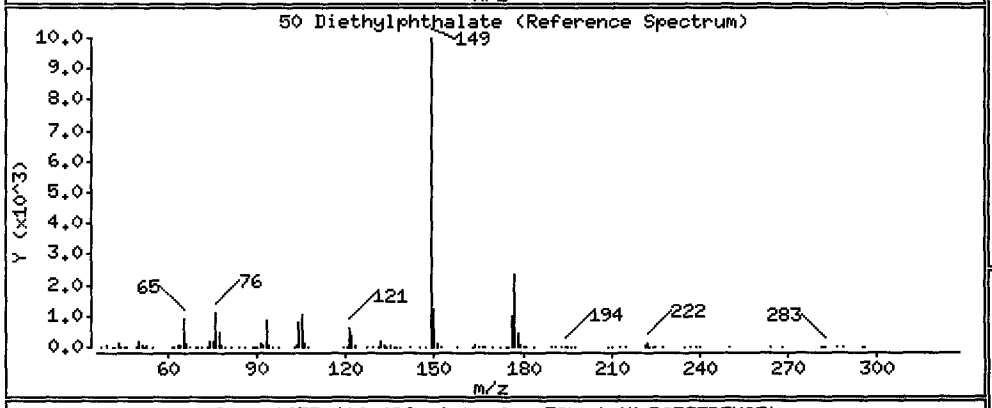
Column diameter: 0.25

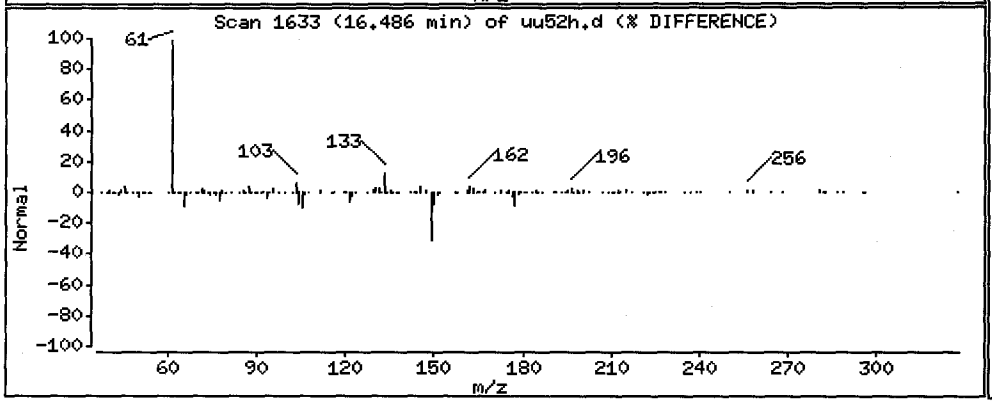
50 Diethylphthalate

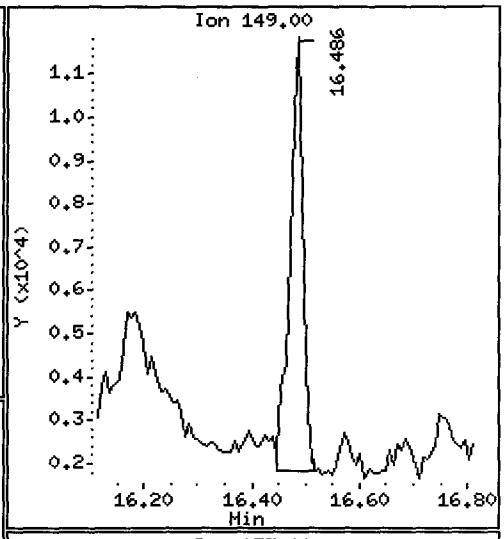
Concentration: 39.35 ug/kg

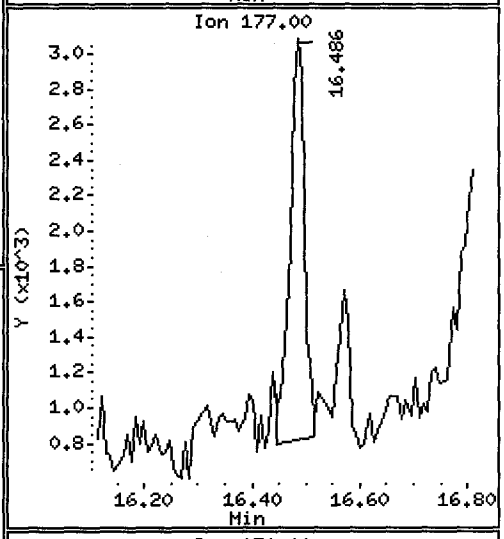


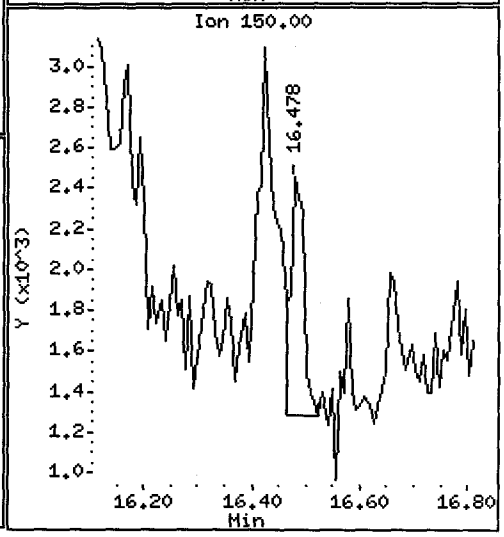



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

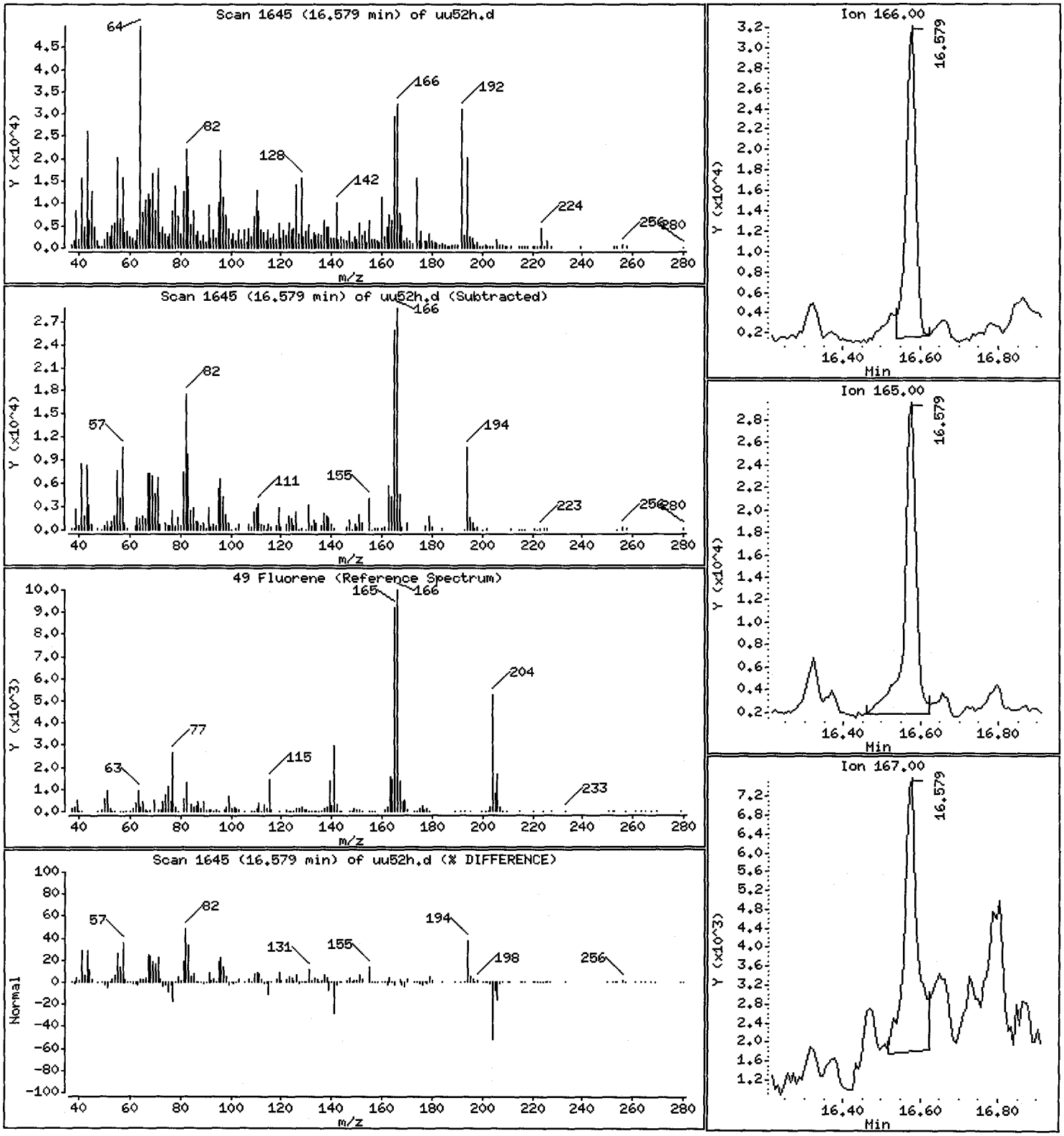
Operator: VTS/YZ

Column phase: ZB-5msi

Column diameter: 0.25

49 Fluorene

Concentration: 120.7 ug/kg



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

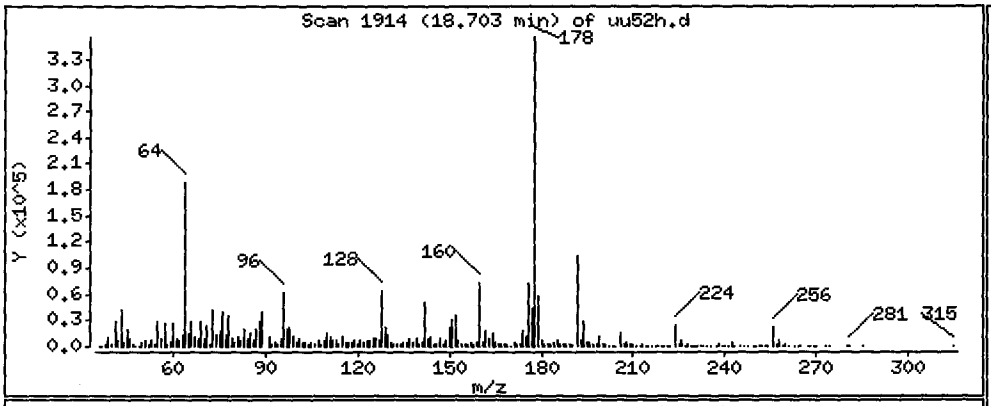
Operator: VTS/YZ

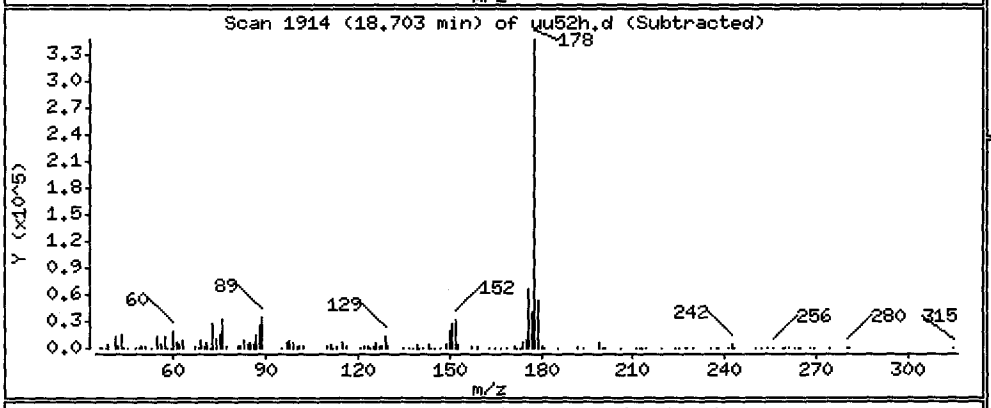
Column phase: ZB-5msi

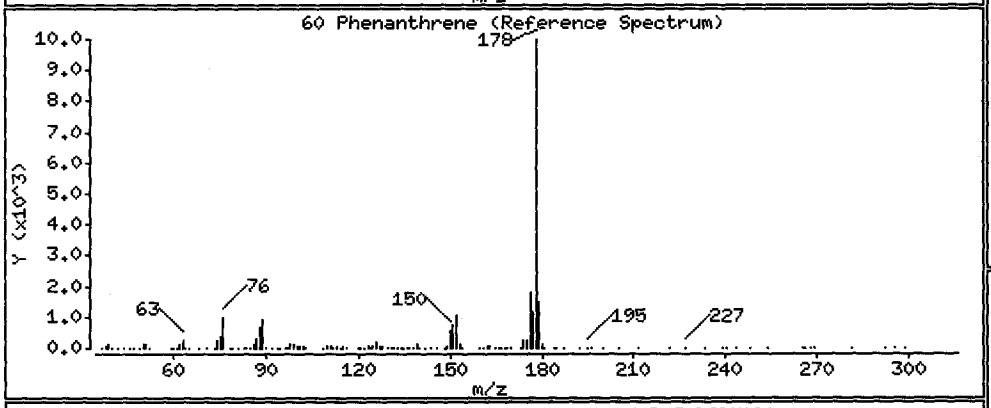
Column diameter: 0.25

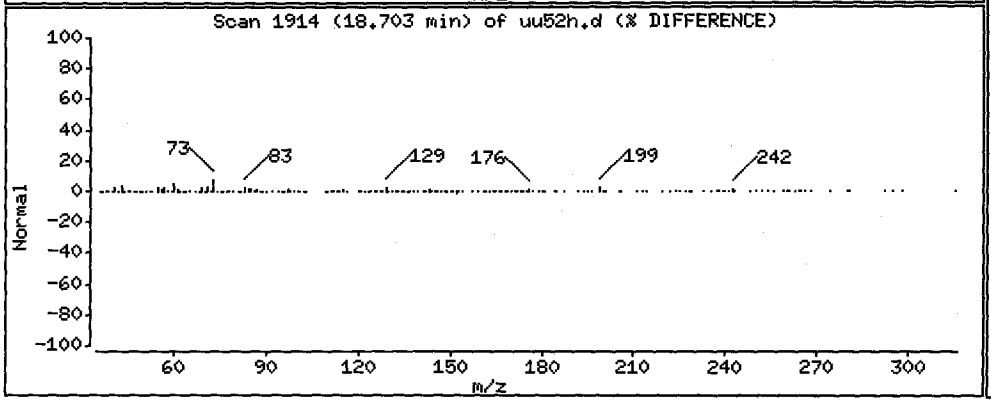
60 Phenanthrene

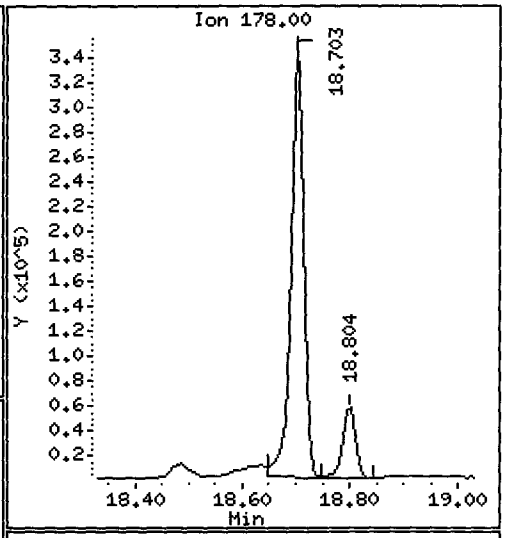
Concentration: 1061 ug/kg

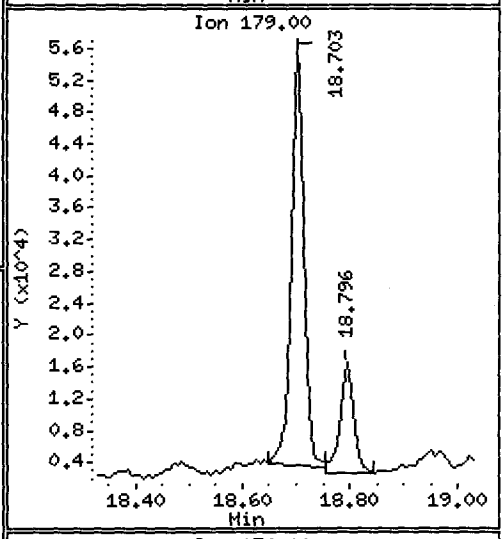


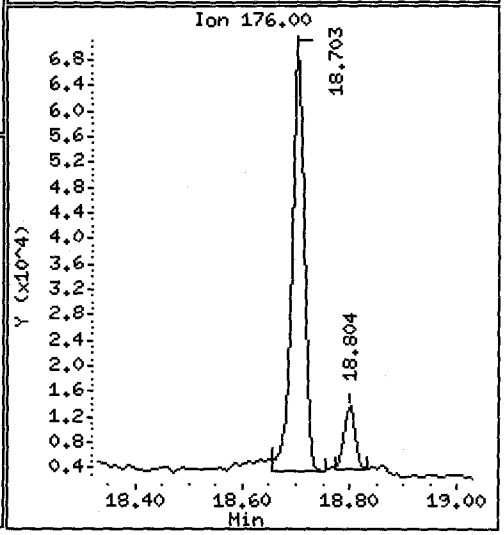



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

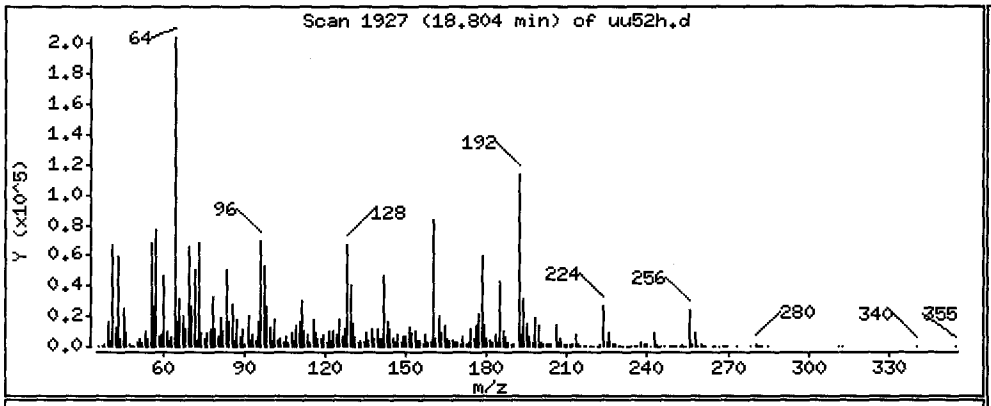
Client ID: MS007-SS-120515 Instrument: nt10.i

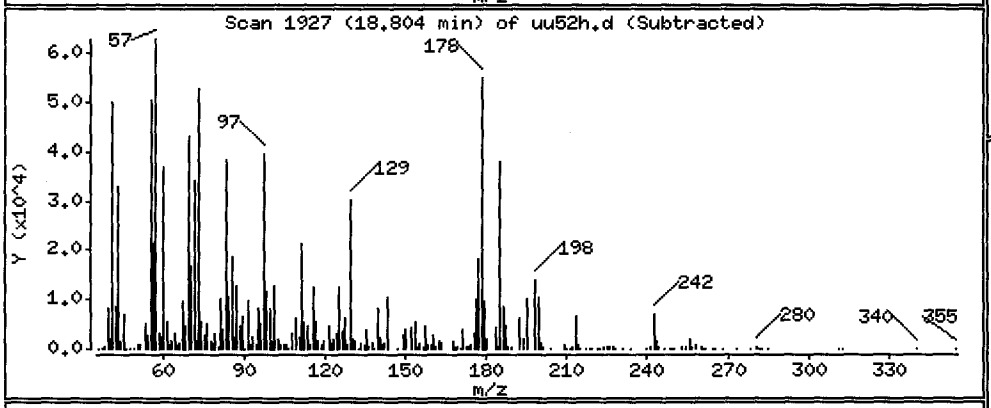
Sample Info: UU52H,3

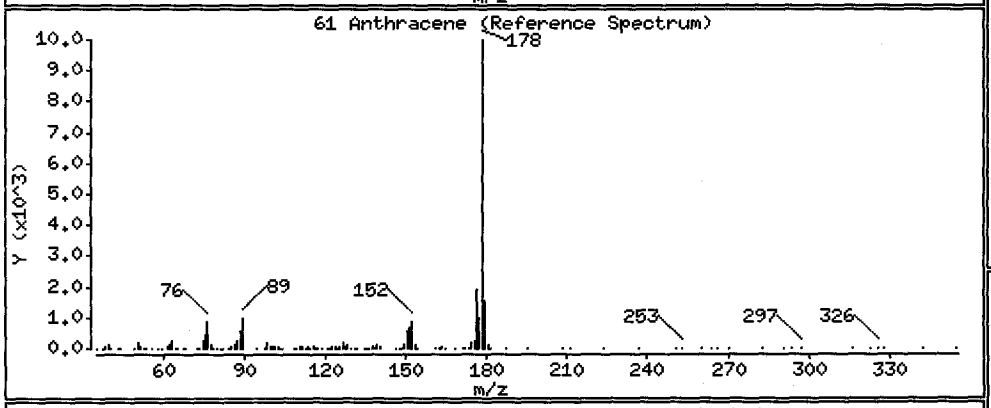
Volume Injected (uL): 1.0 Operator: VTS/YZ

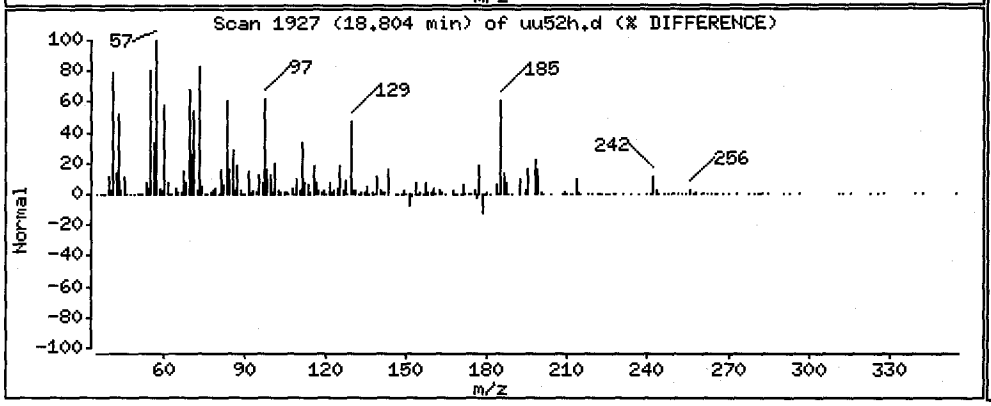
Column phase: ZB-5msi Column diameter: 0.25

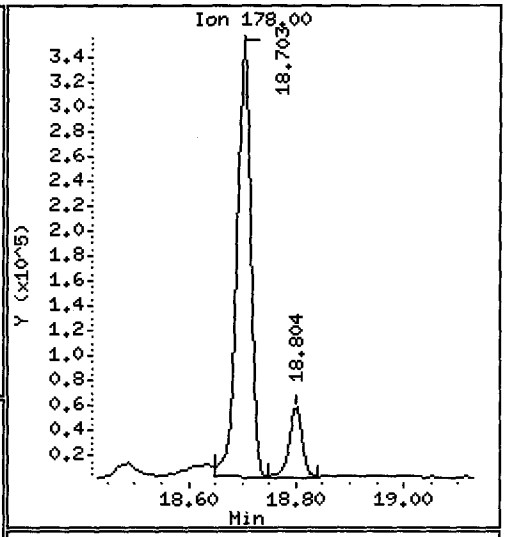
61 Anthracene Concentration: 169.5 ug/kg

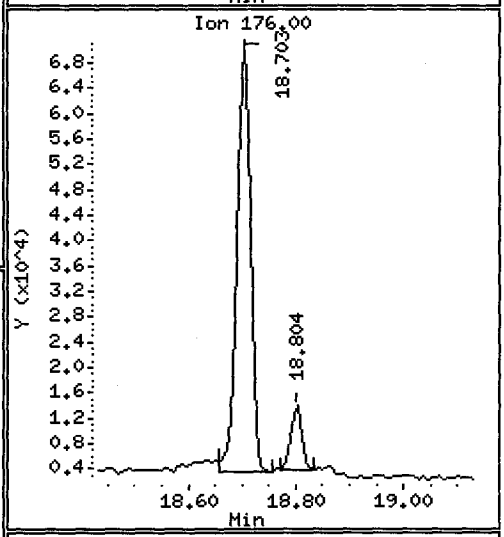


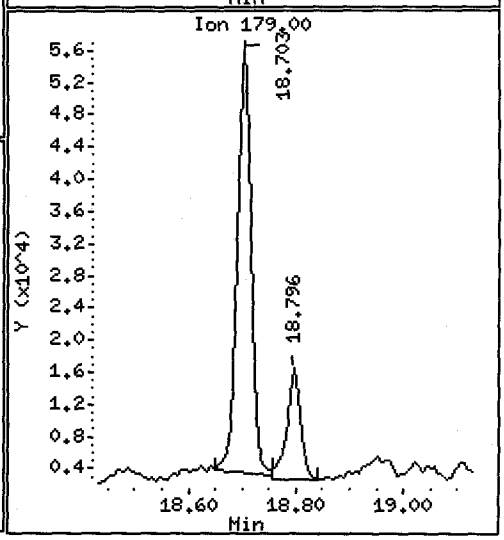



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

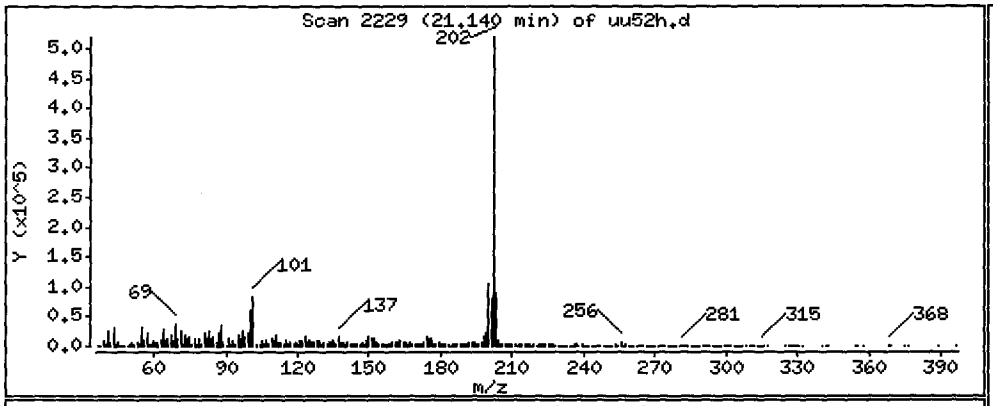
Client ID: MS007-SS-120515 Instrument: nt10.i

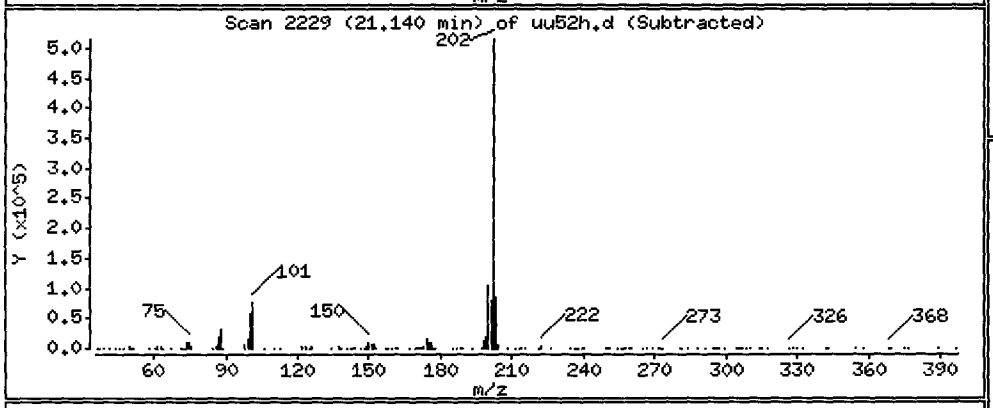
Sample Info: UU52H,3

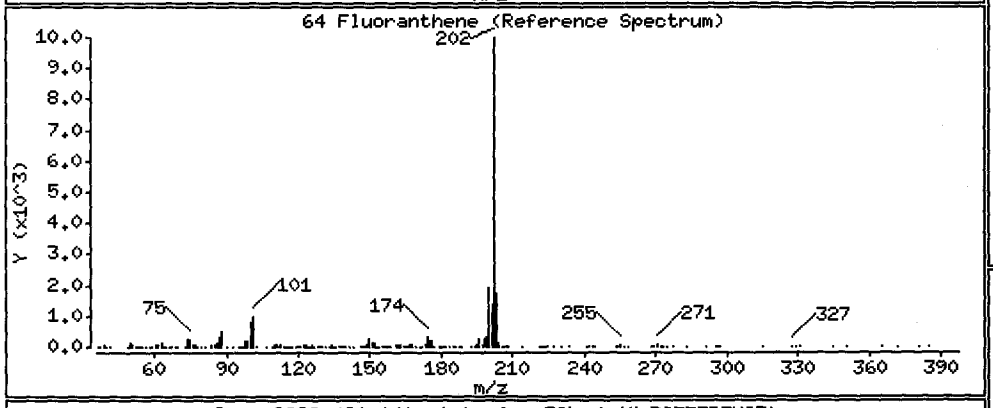
Volume Injected (uL): 1.0 Operator: VTS/YZ

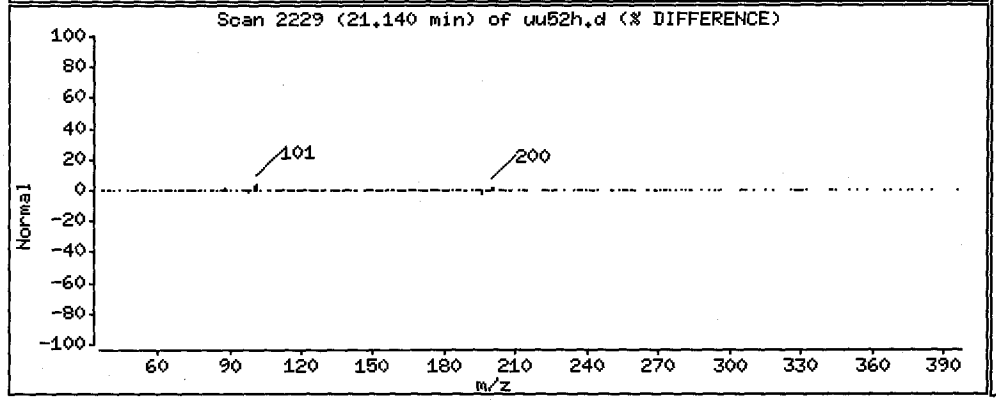
Column phase: ZB-5msi Column diameter: 0.25

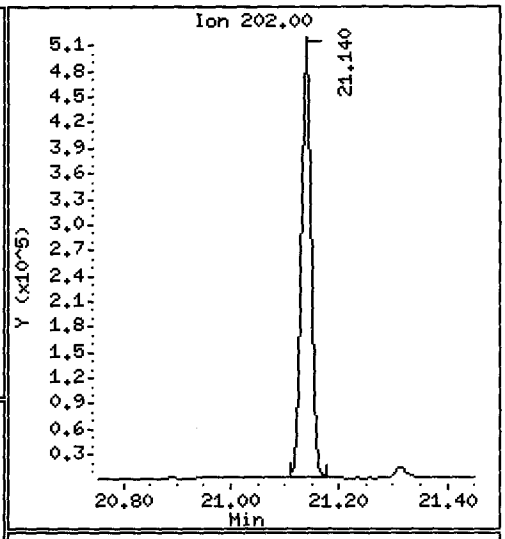
64 Fluoranthene Concentration: 1066 ug/kg

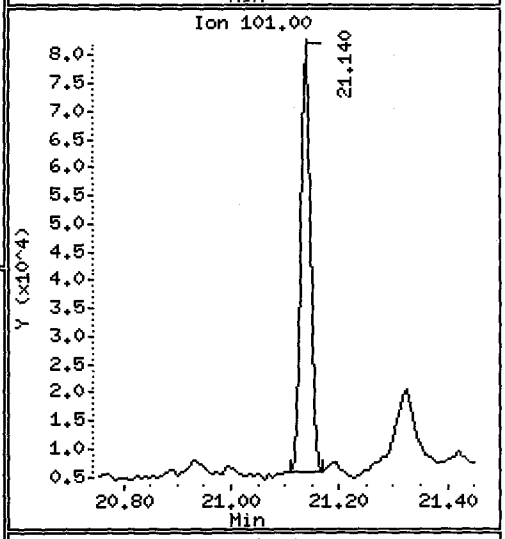


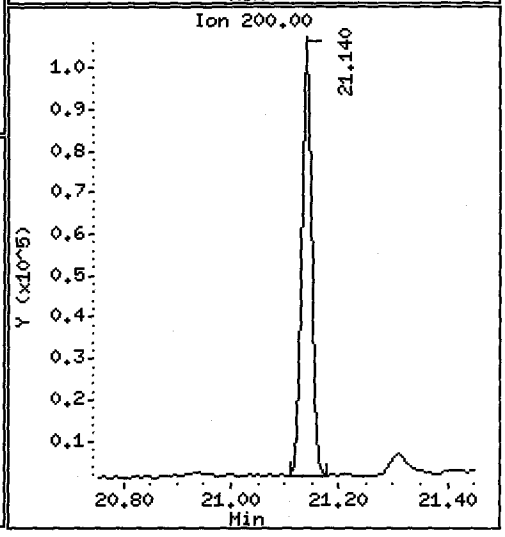



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

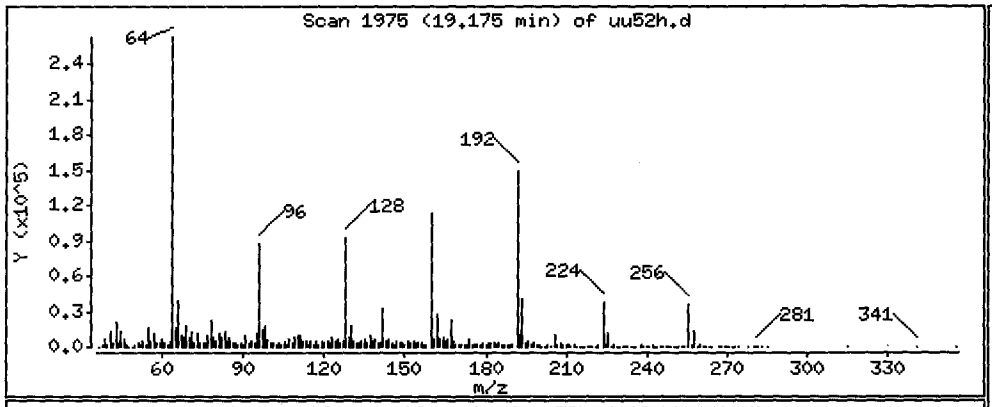
Operator: VTS/YZ

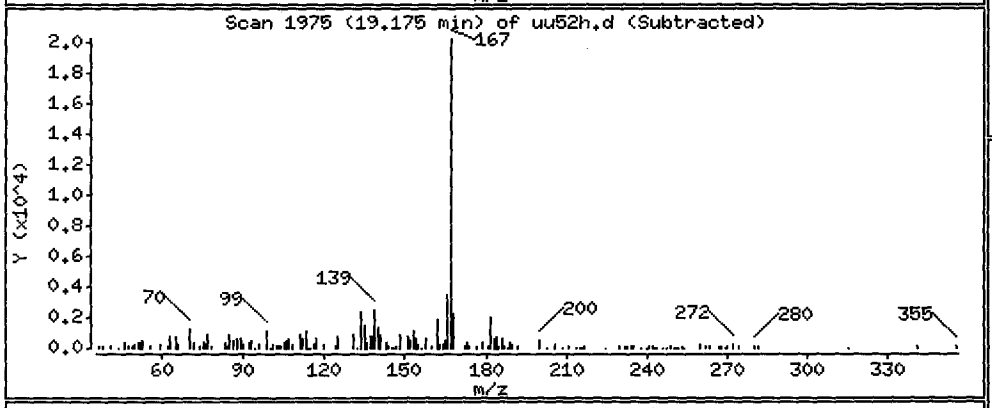
Column phase: ZB-5msi

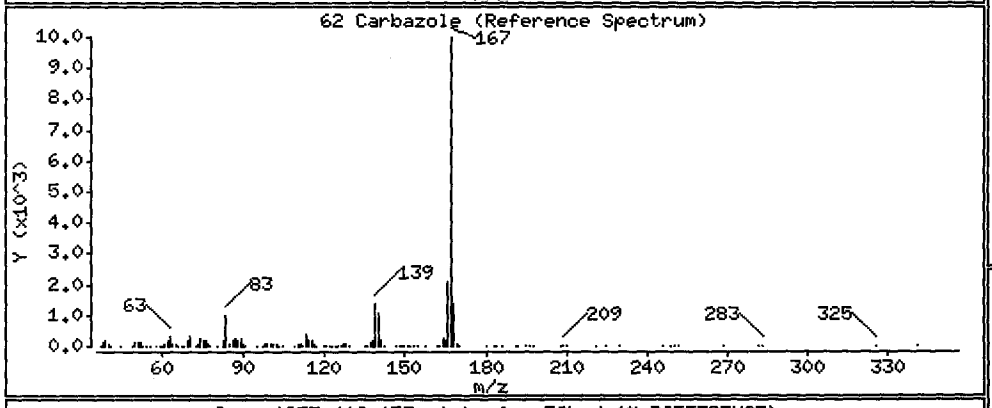
Column diameter: 0.25

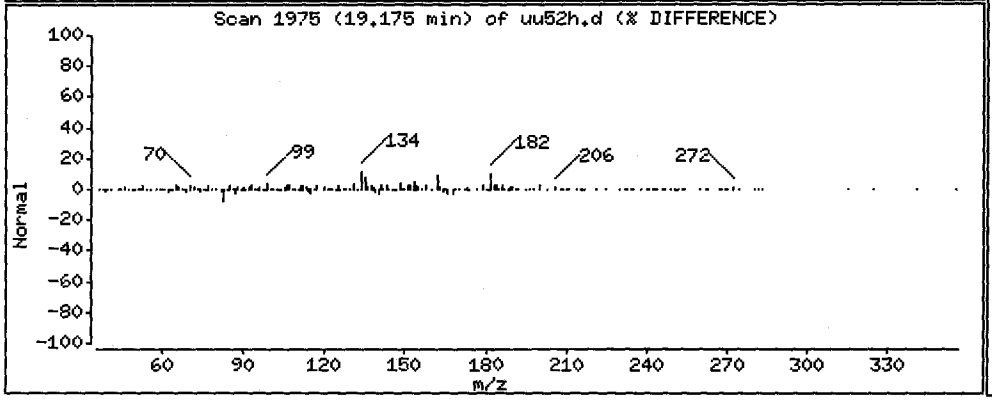
62 Carbazole

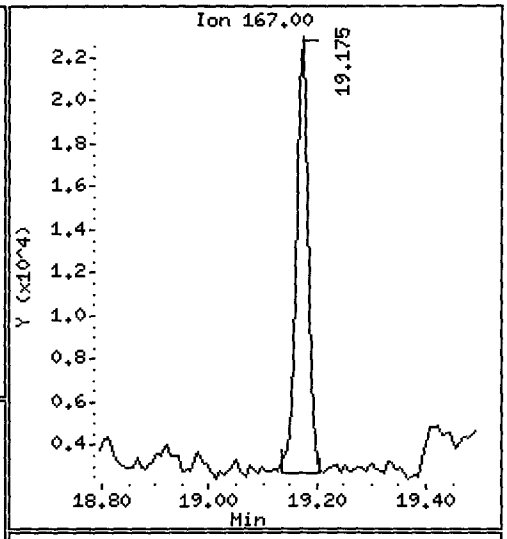
Concentration: 60.96 ug/kg

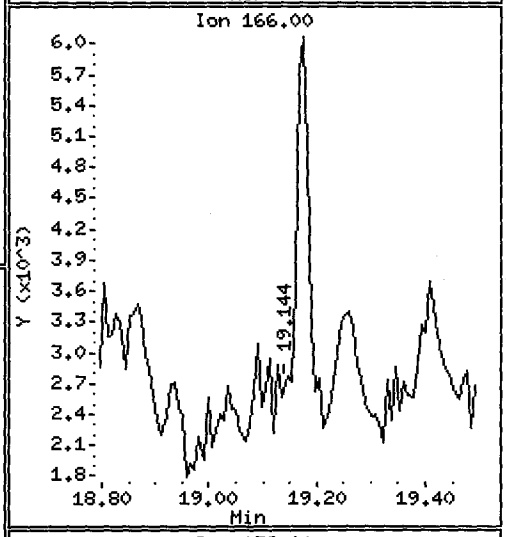


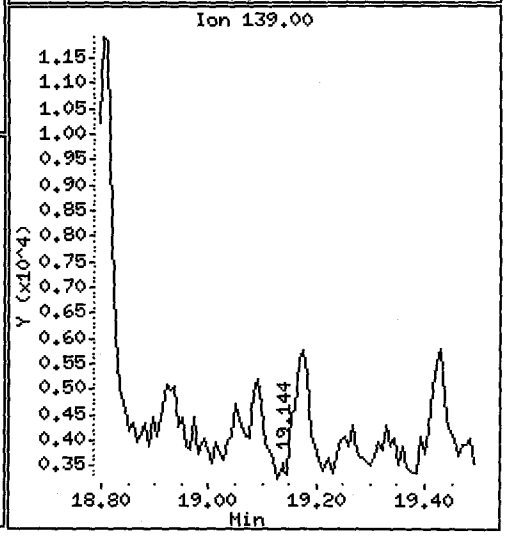



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

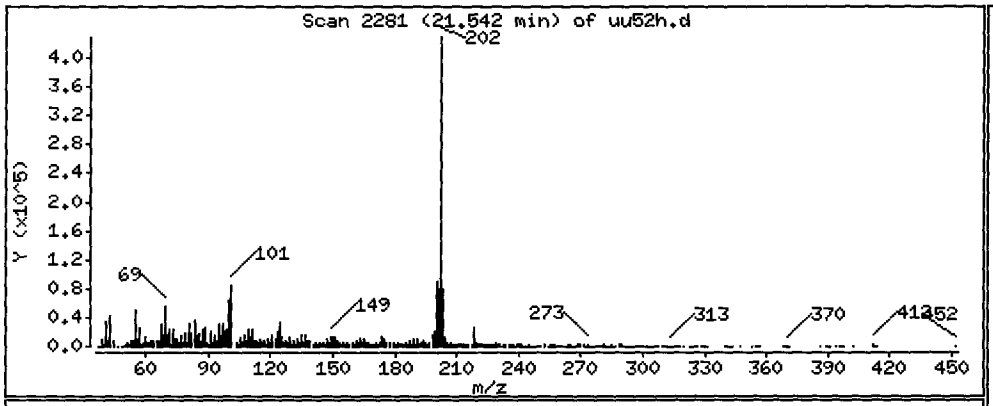
Client ID: MS007-SS-120515 Instrument: nt10.i

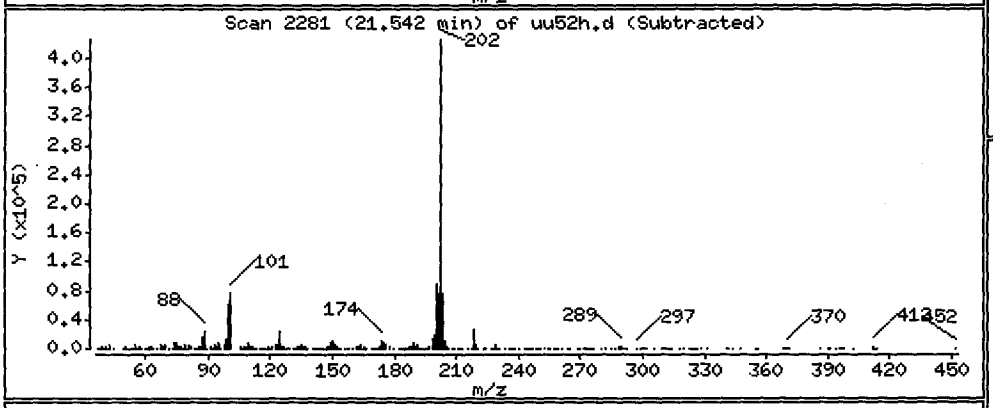
Sample Info: UU52H,3

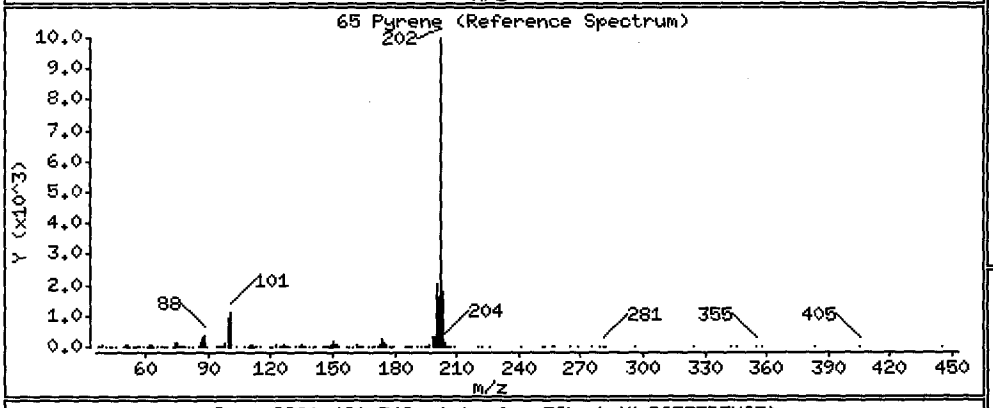
Volume Injected (uL): 1.0 Operator: VTS/YZ

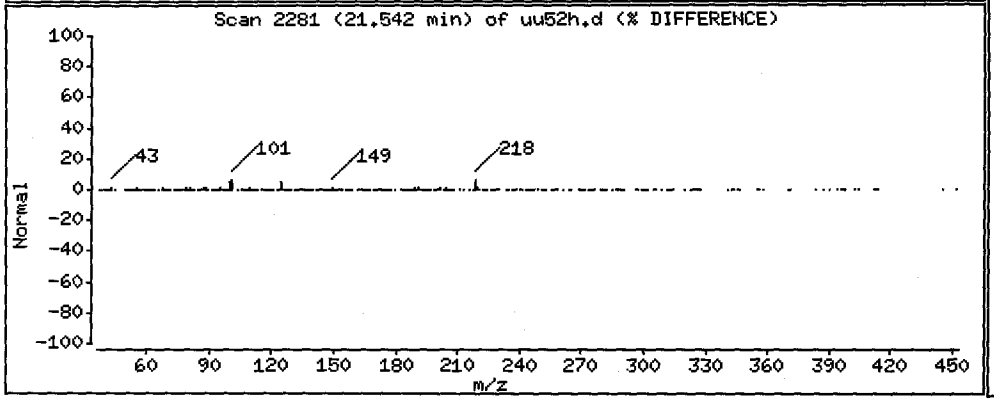
Column phase: ZB-5msi Column diameter: 0.25

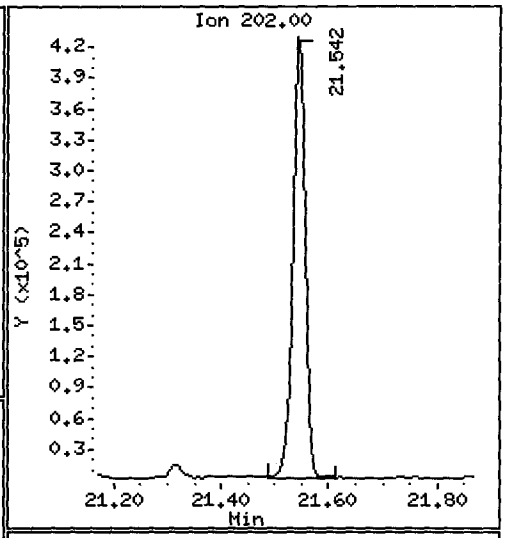
65 Pyrene Concentration: 961.4 ug/kg

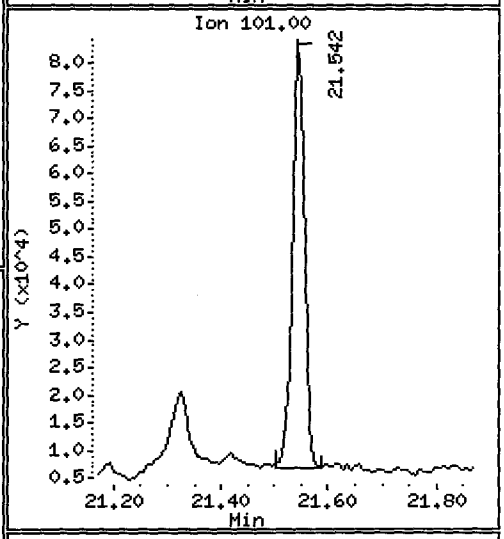


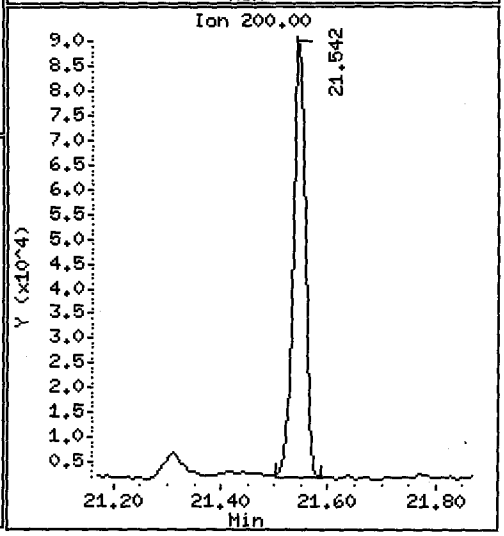



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

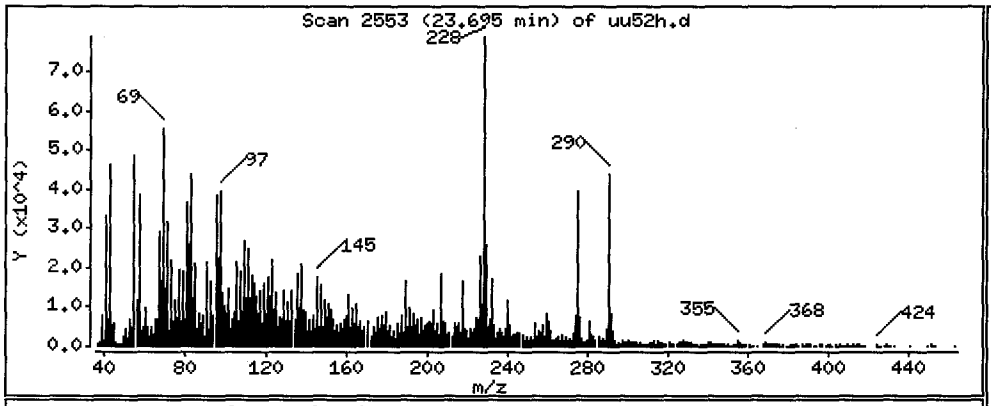
Client ID: MS007-SS-120515 Instrument: nt10.i

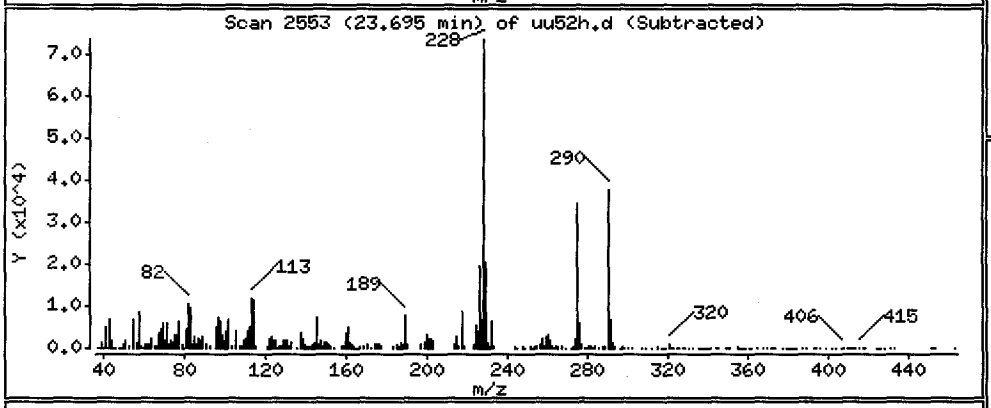
Sample Info: UU52H,3

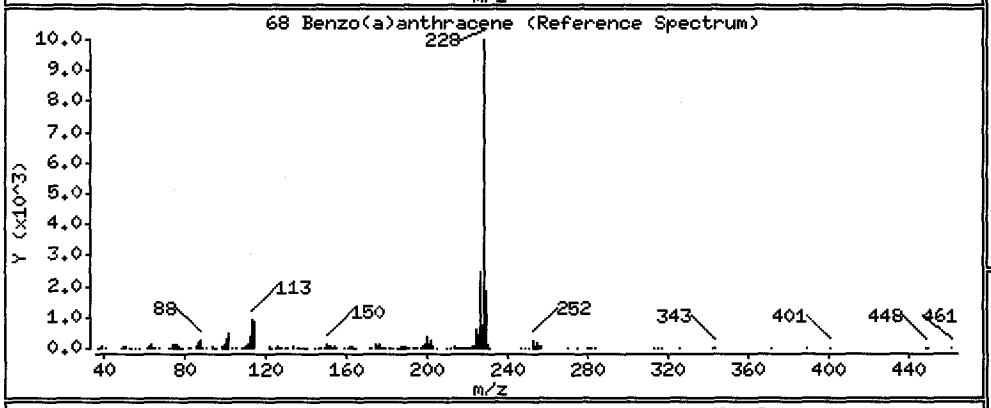
Volume Injected (uL): 1.0 Operator: VTS/YZ

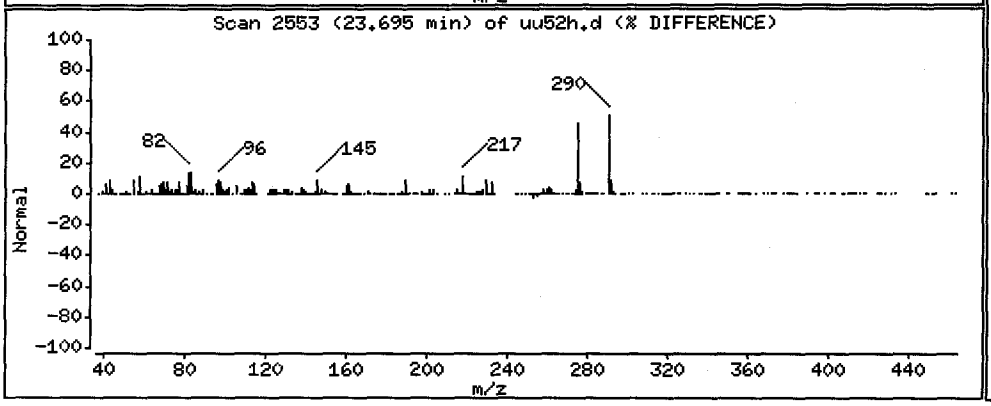
Column phase: ZB-5msi Column diameter: 0.25

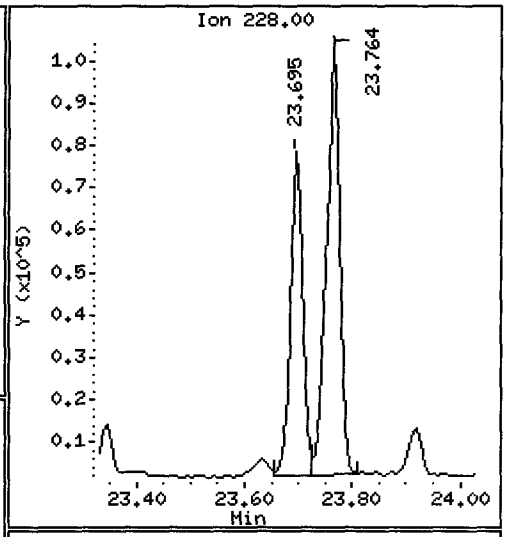
68 Benzo(a)anthracene Concentration: 185.9 ug/kg

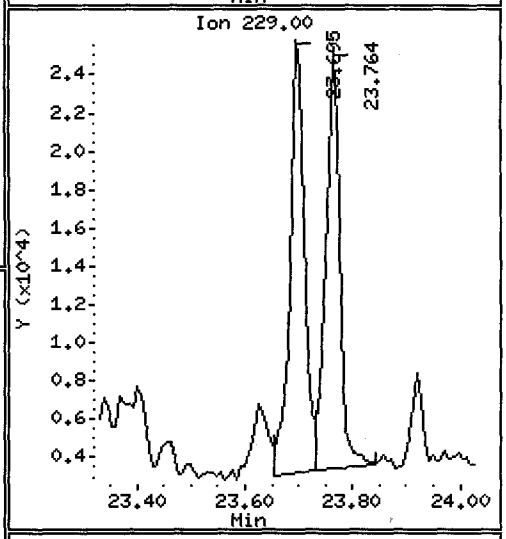


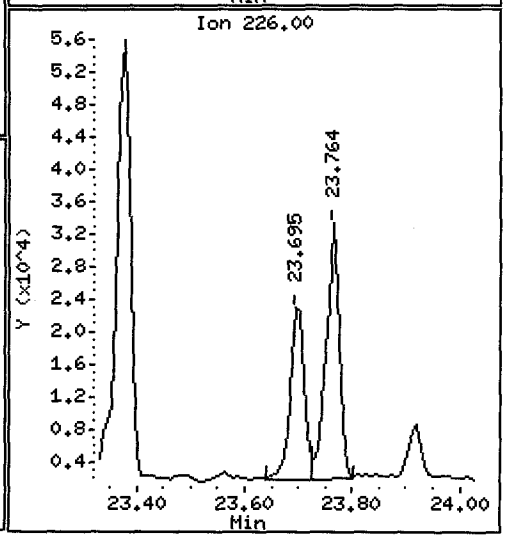



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

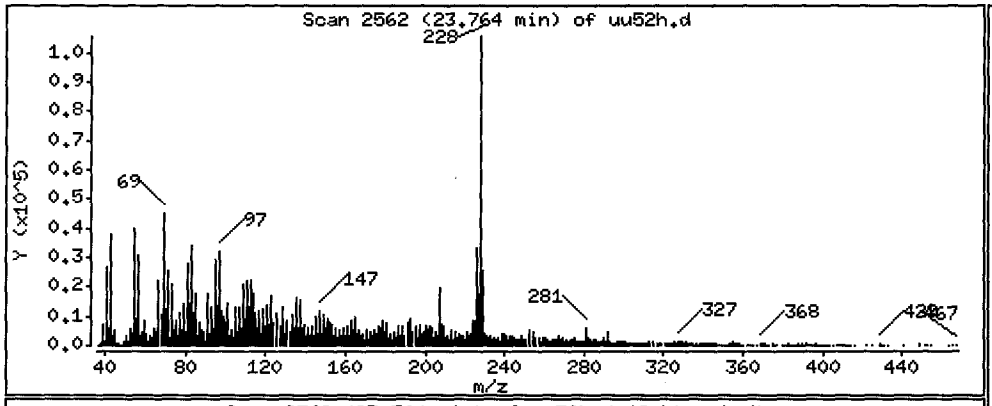
Operator: VTS/YZ

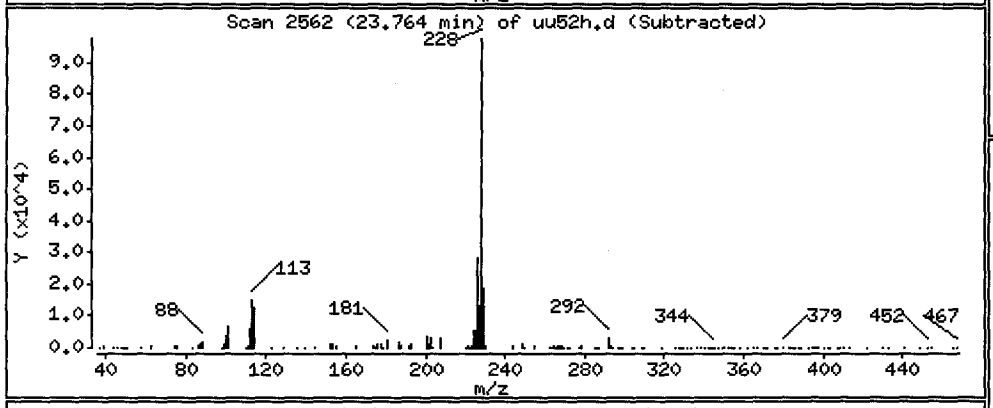
Column phase: ZB-5msi

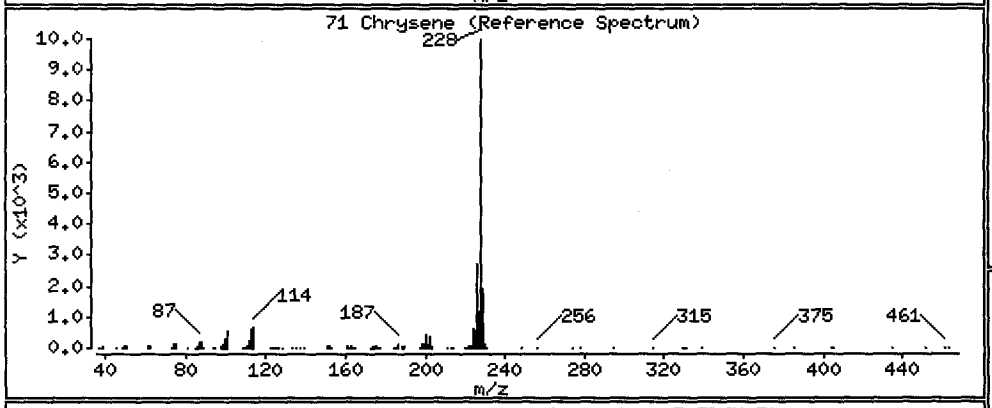
Column diameter: 0.25

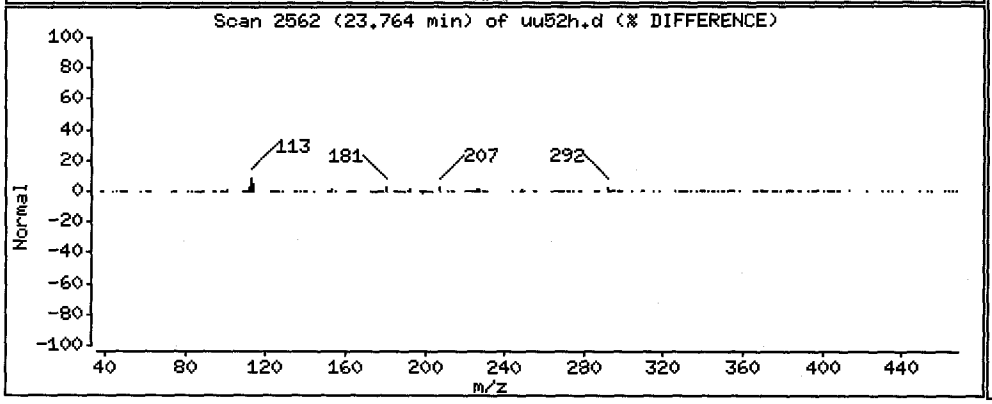
71 Chrysene

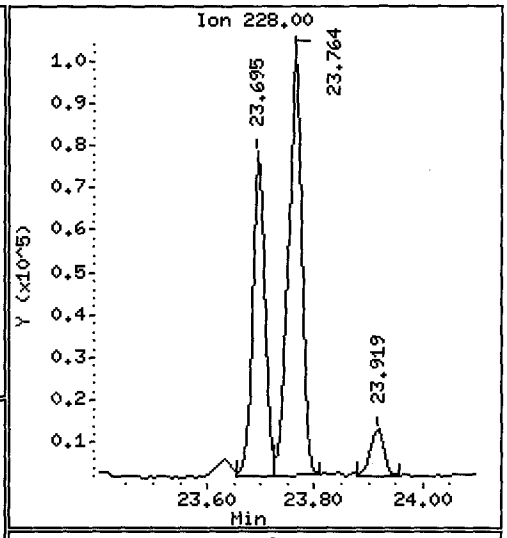
Concentration: 286.8 ug/kg

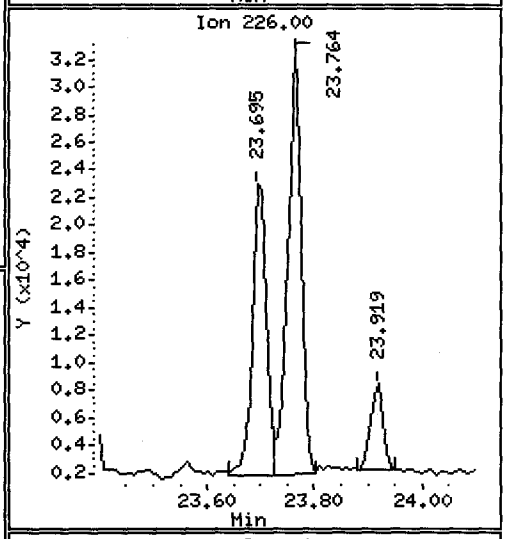


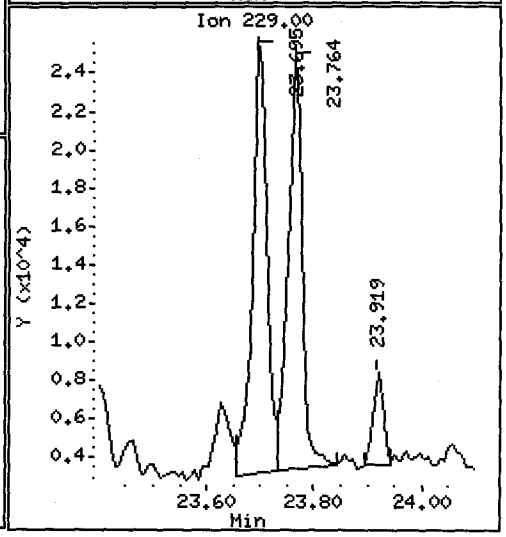



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

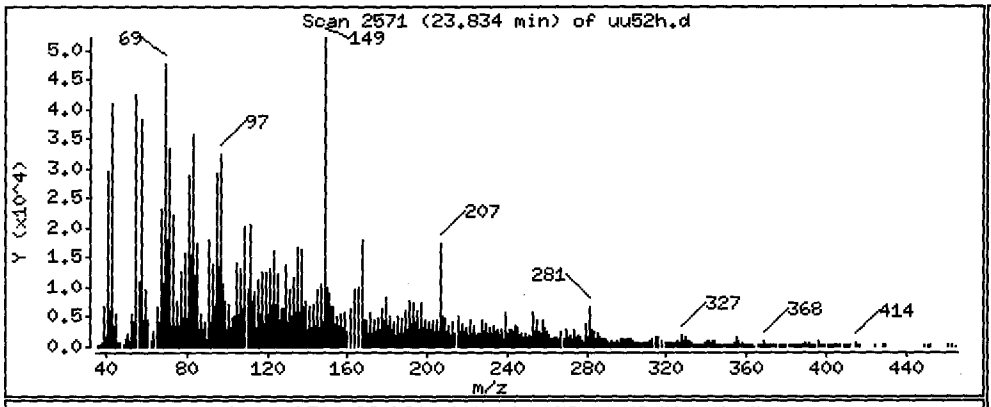
Client ID: MS007-SS-120515 Instrument: nt10.i

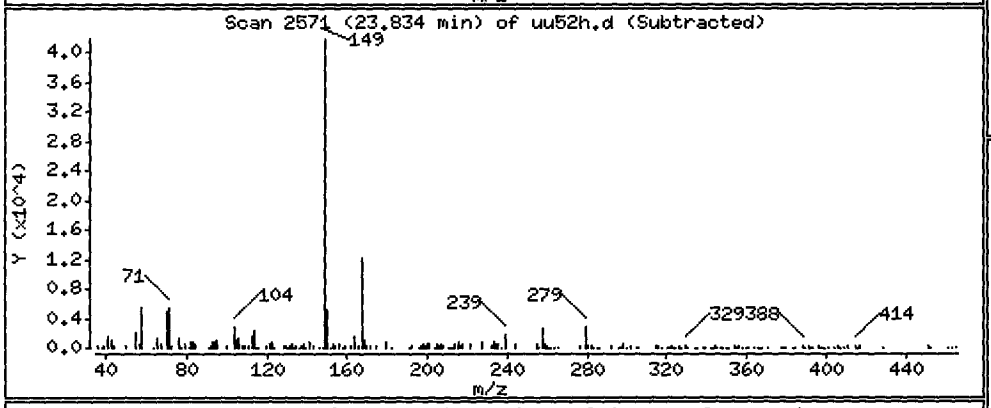
Sample Info: UU52H,3

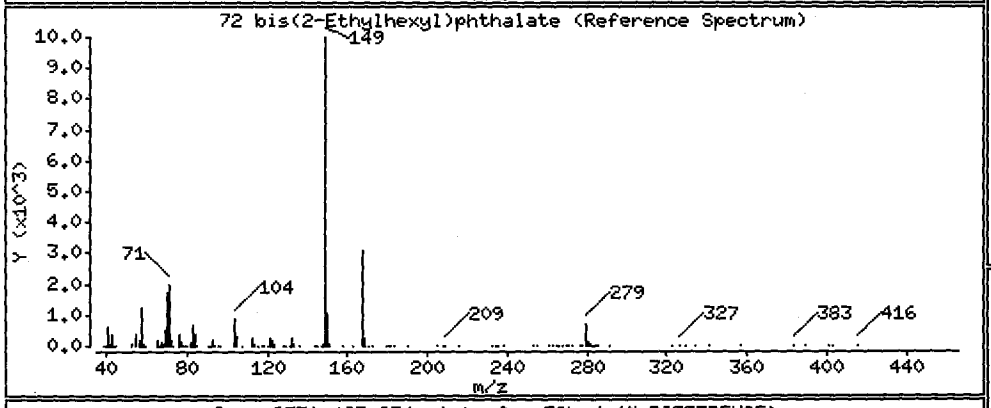
Volume Injected (uL): 1.0 Operator: VTS/YZ

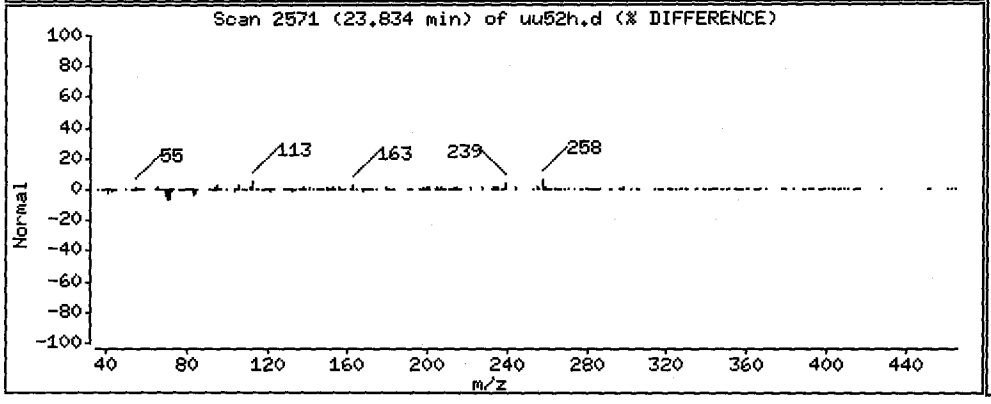
Column phase: ZB-5msi Column diameter: 0.25

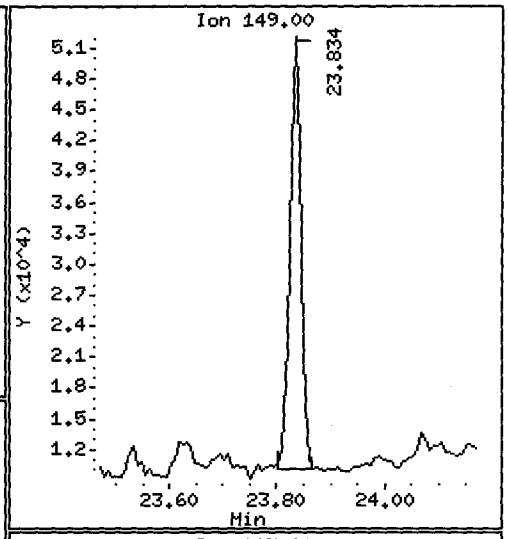
72 bis(2-Ethylhexyl)phthalate Concentration: 116.8 ug/kg

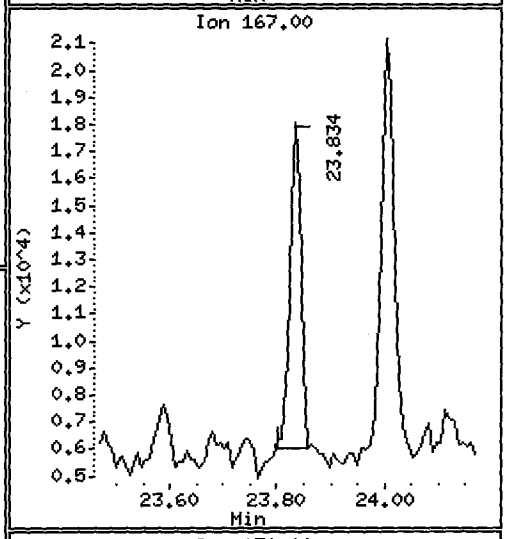


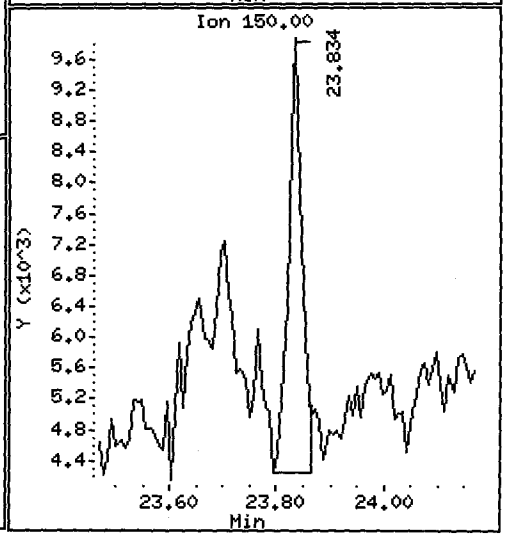



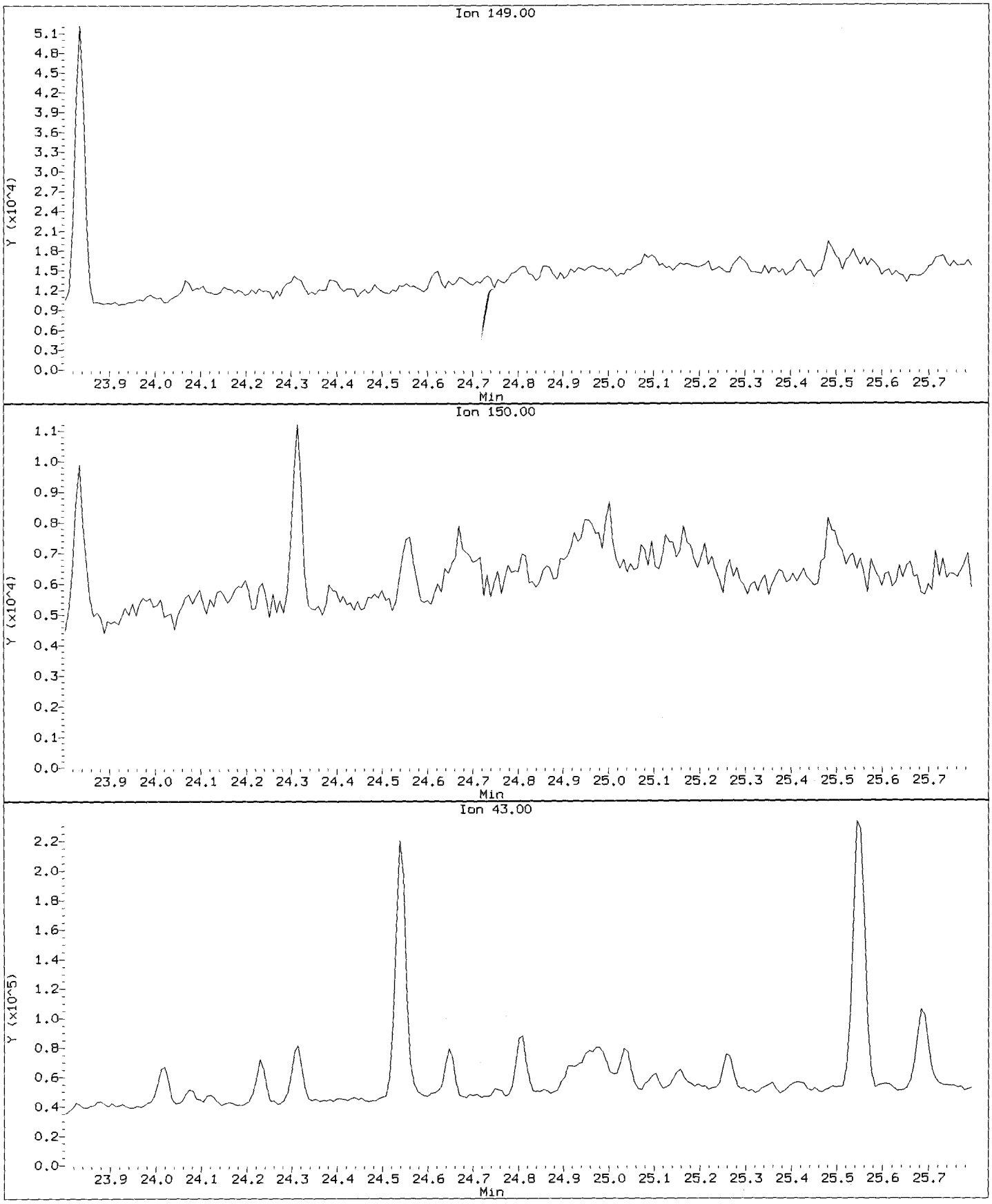



Data File: /chem1/nt10.i/20120526.b/uu52h.d
Injection Date: 26-MAY-2012 21:31
Instrument: nt10.i
Client Sample ID: MS007-SS-120515

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

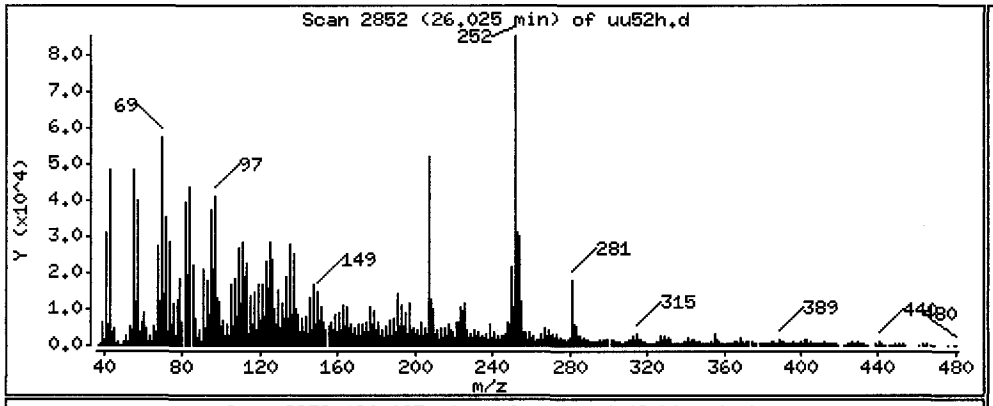
Operator: VTS/YZ

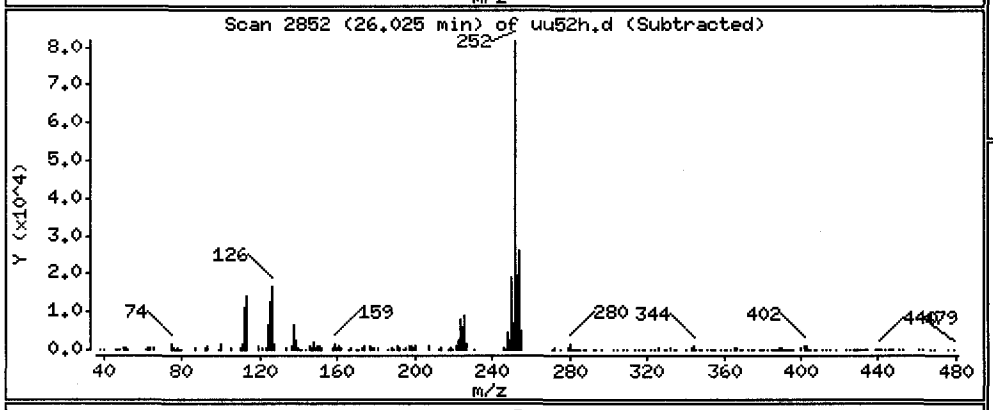
Column phase: ZB-5msi

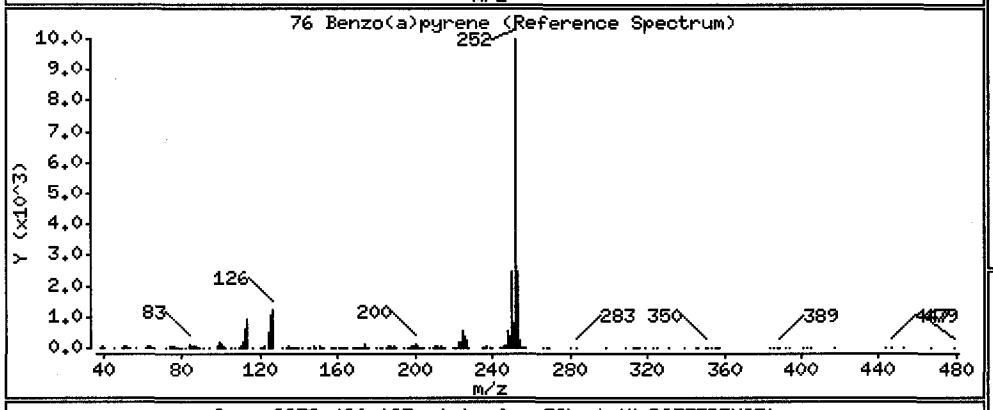
Column diameter: 0.25

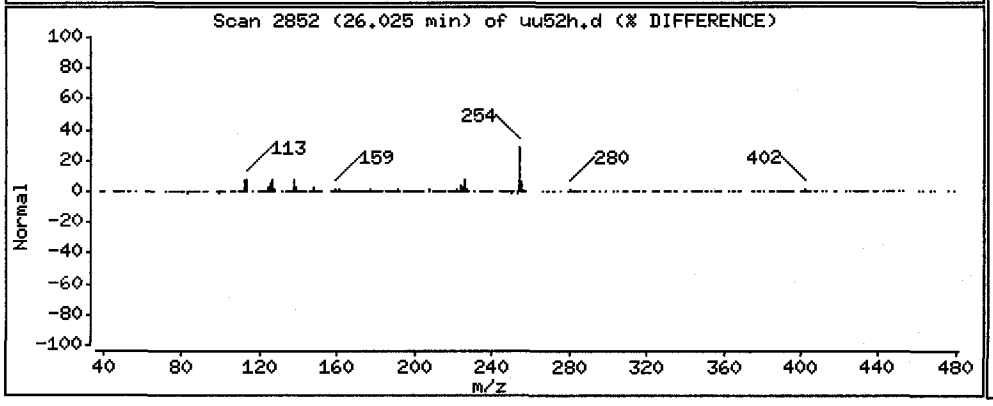
76 Benzo(a)pyrene

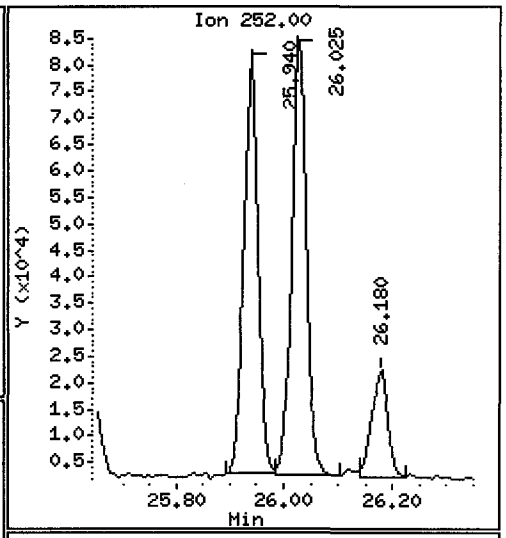
Concentration: 271.2 ug/kg

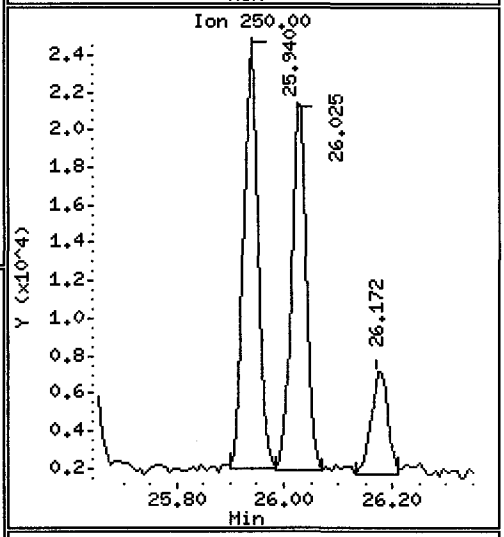


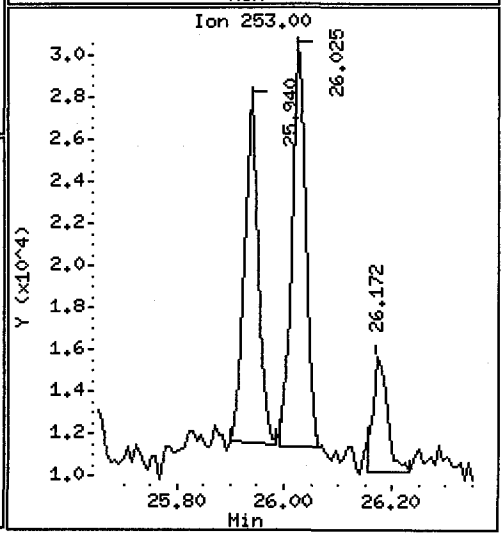



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

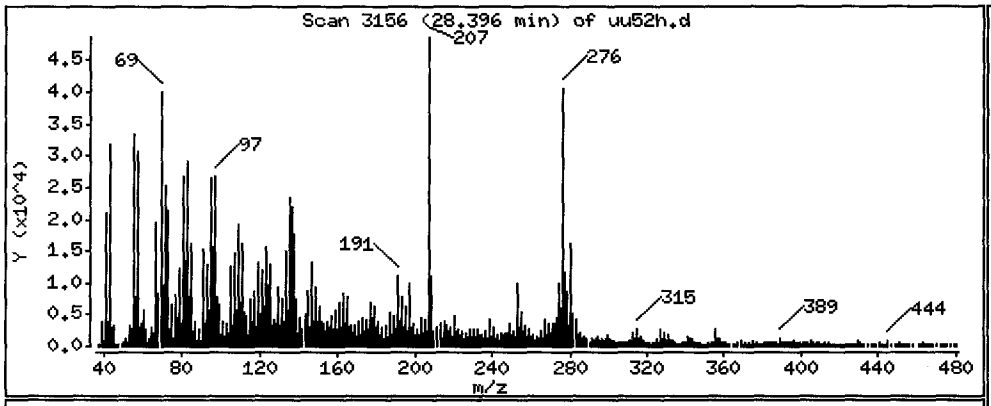
Operator: VTS/YZ

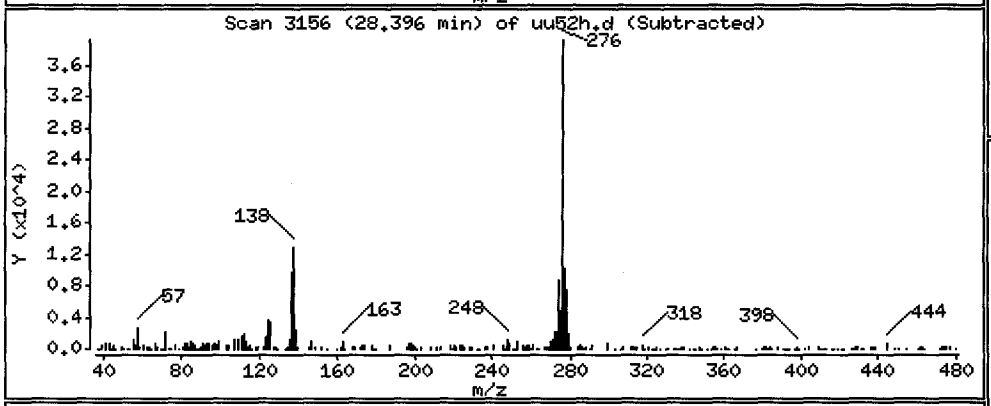
Column phase: ZB-5msi

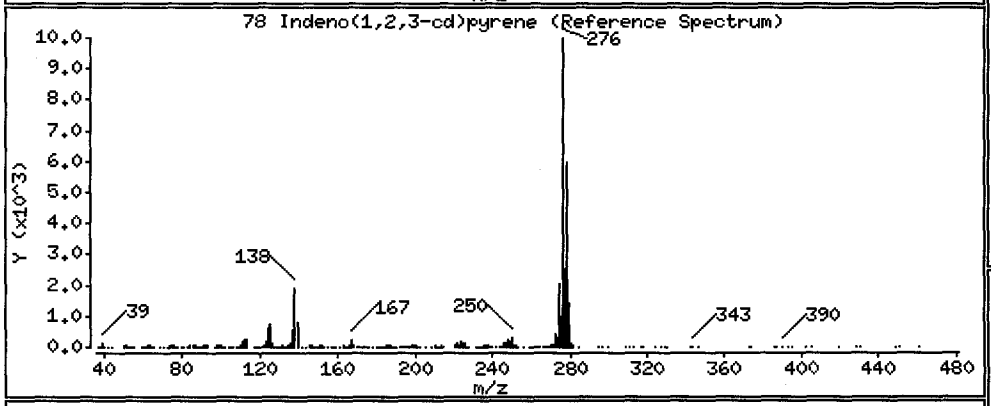
Column diameter: 0.25

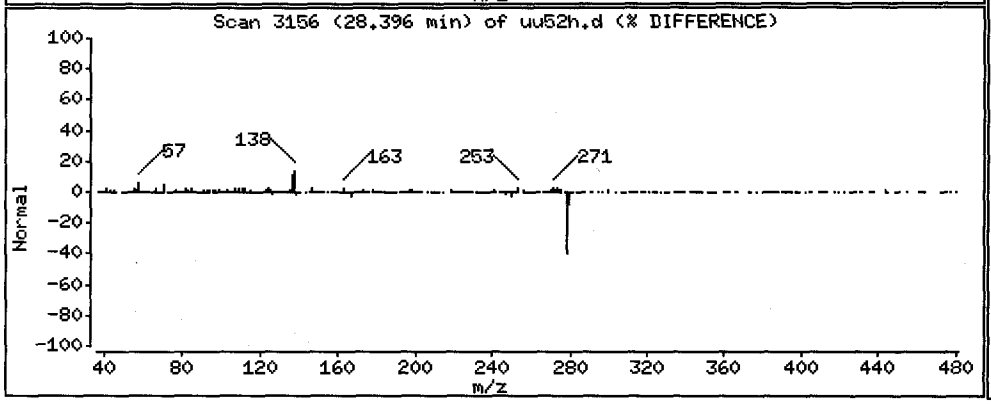
78 Indeno(1,2,3-cd)pyrene

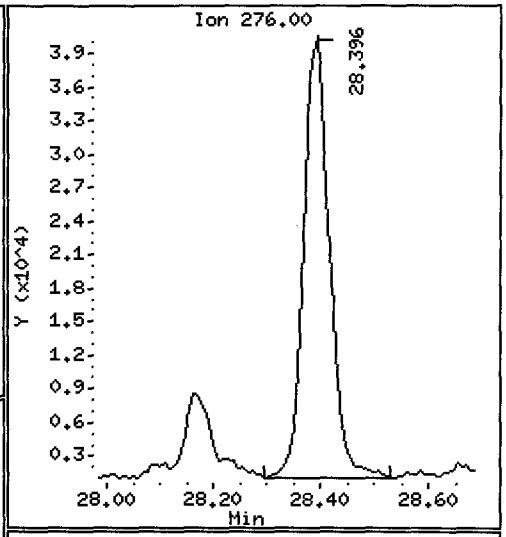
Concentration: 195.4 ug/kg

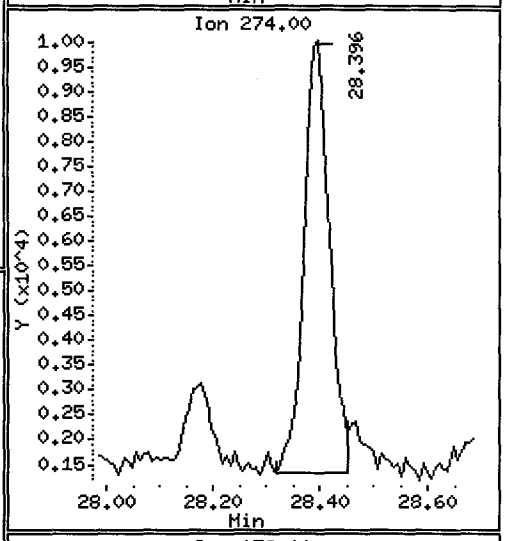


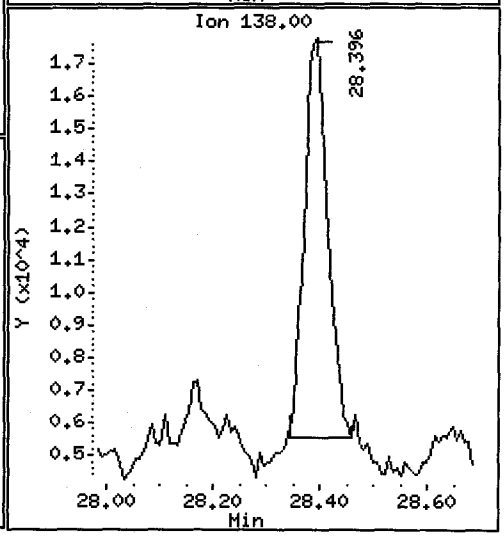



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

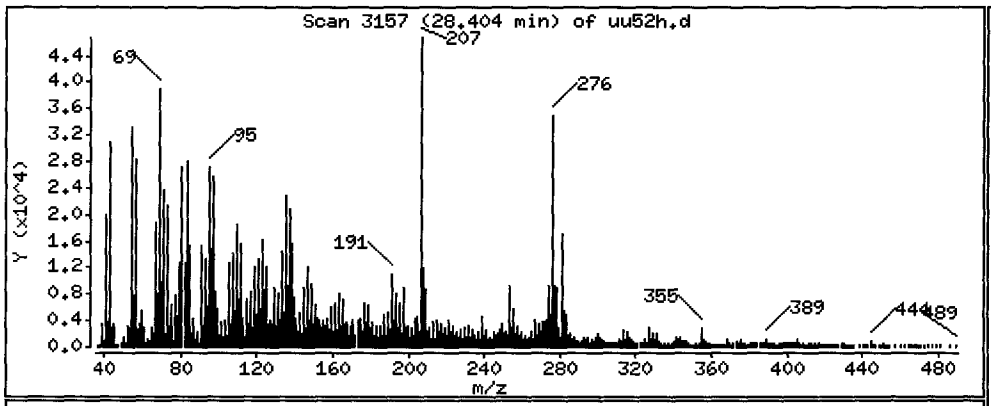
Operator: VTS/YZ

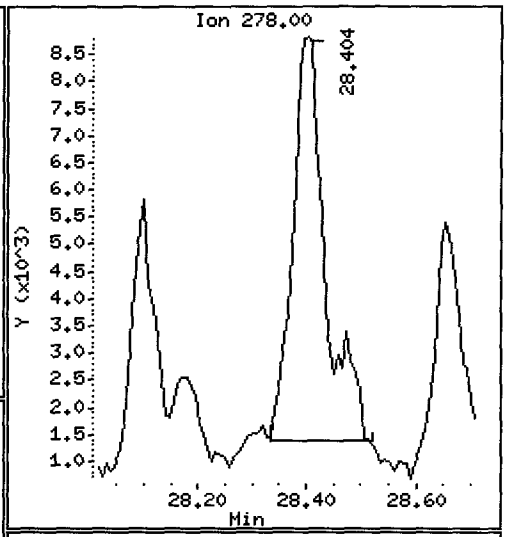
Column phase: ZB-5msi

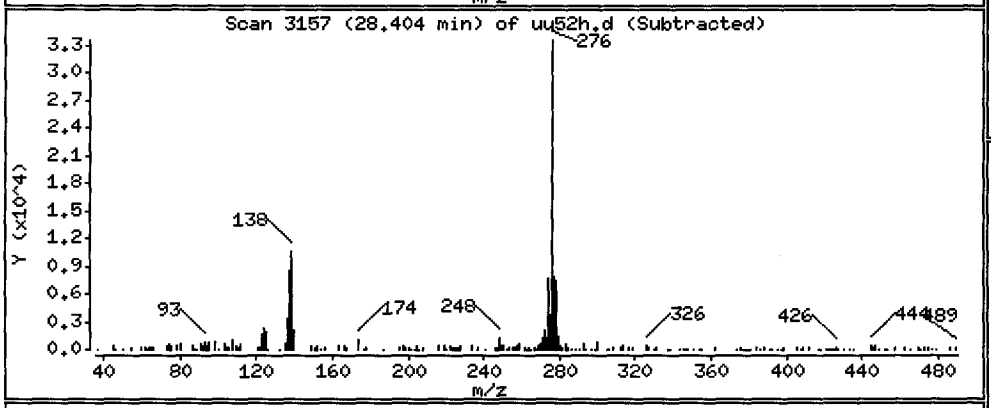
Column diameter: 0.25

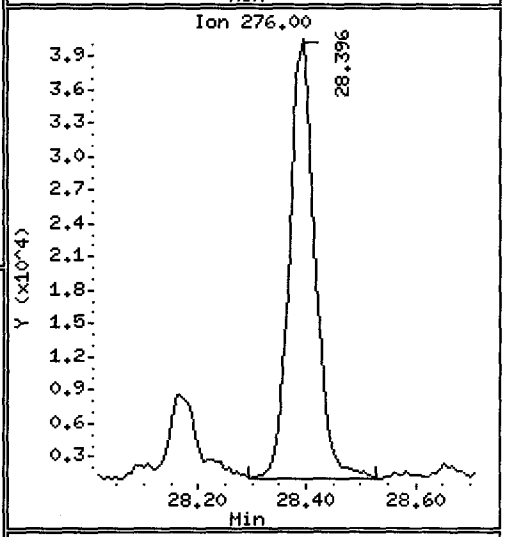
79 Dibenzo(a,h)anthracene

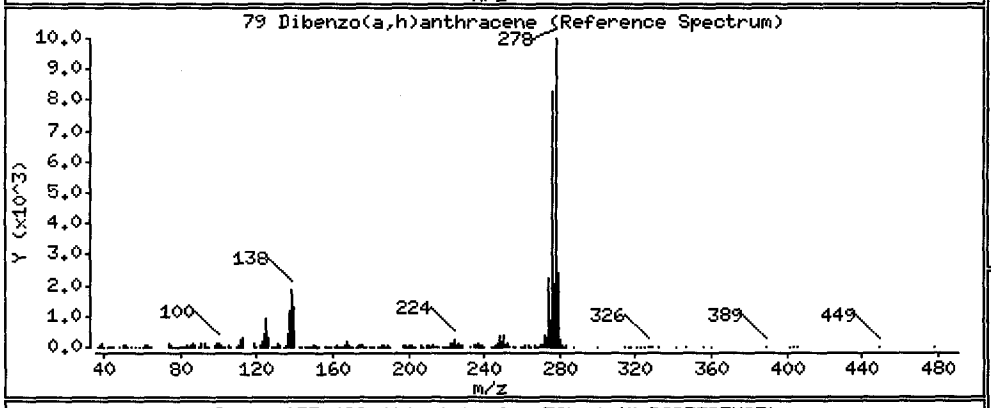
Concentration: 58.64 ug/kg

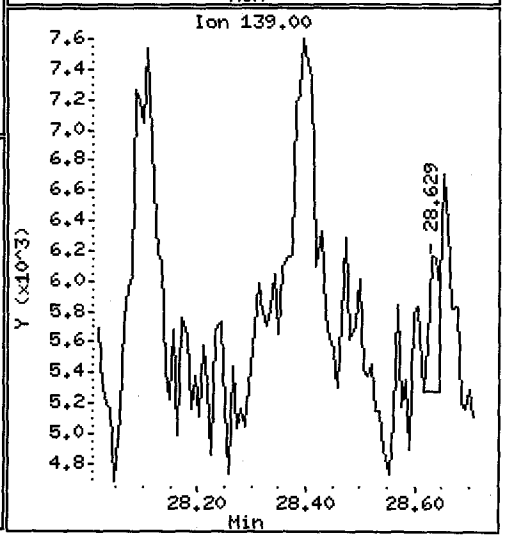


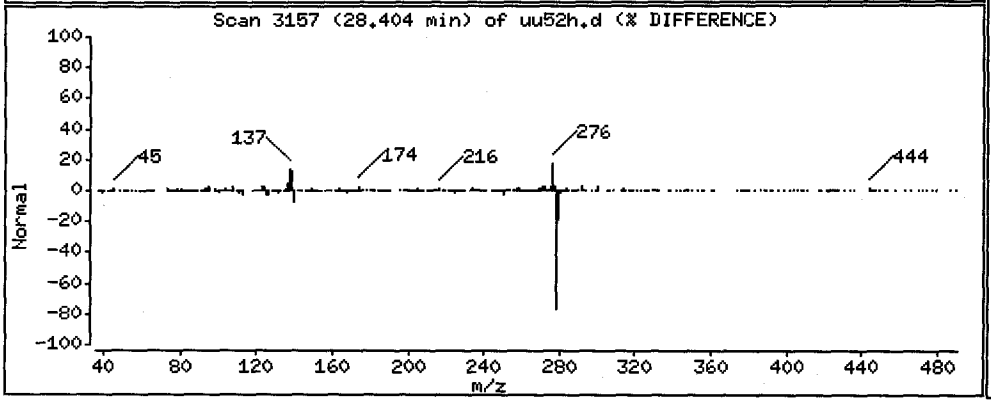



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

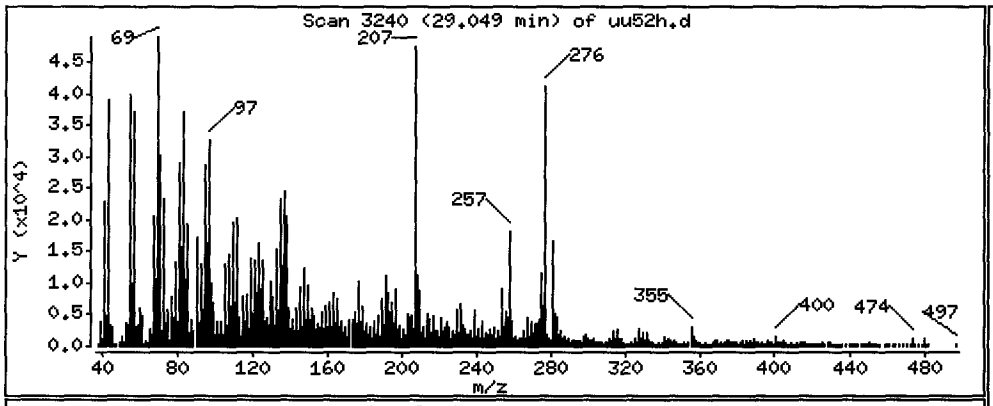
Operator: VTS/YZ

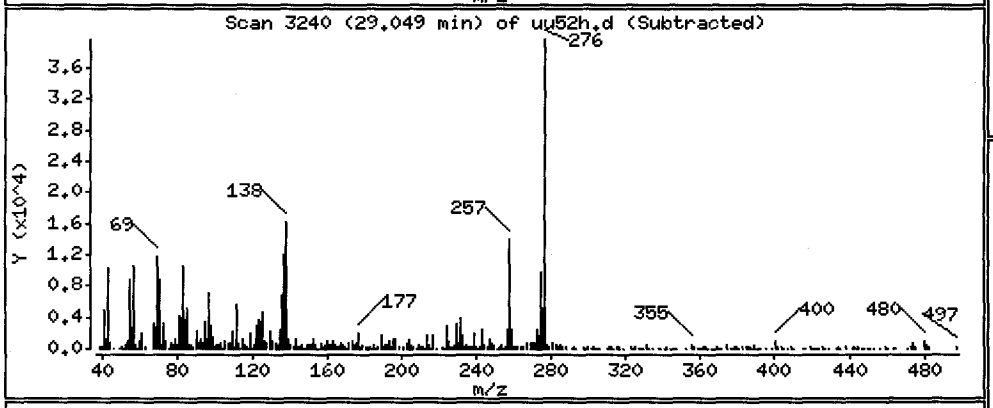
Column phase: ZB-5msi

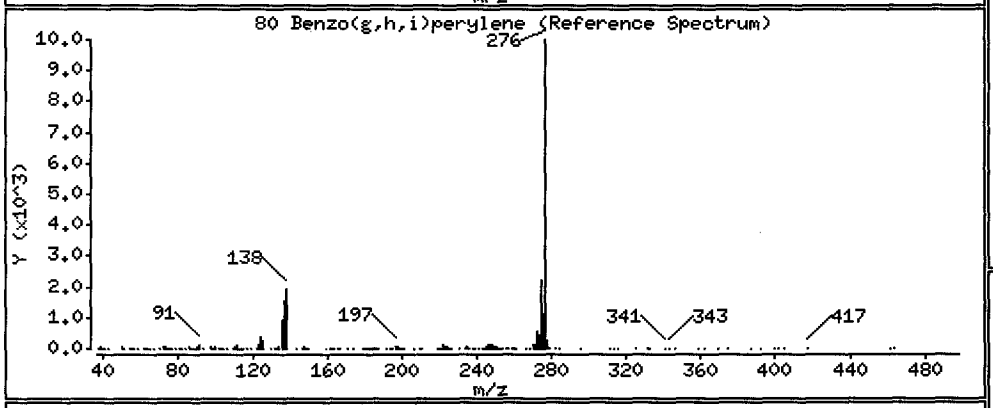
Column diameter: 0.25

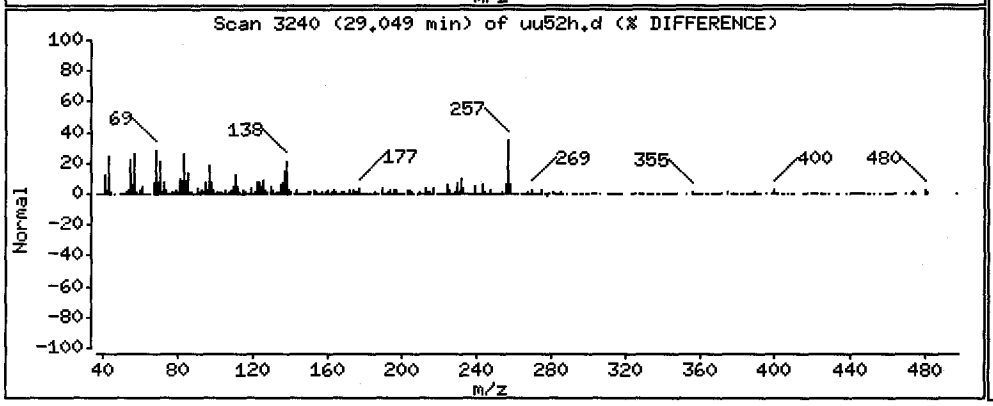
80 Benzo(g,h,i)perylene

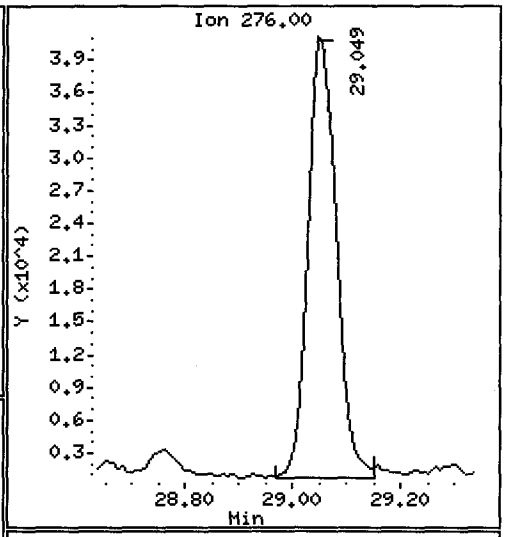
Concentration: 248.9 ug/kg

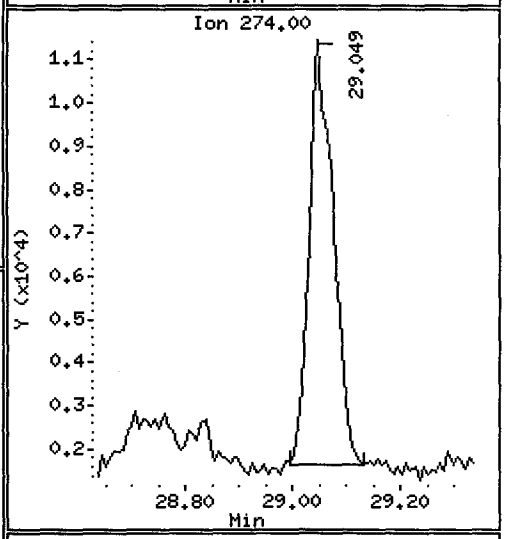


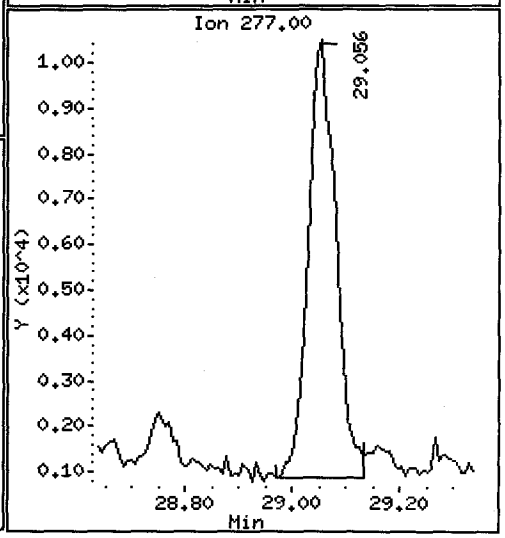



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

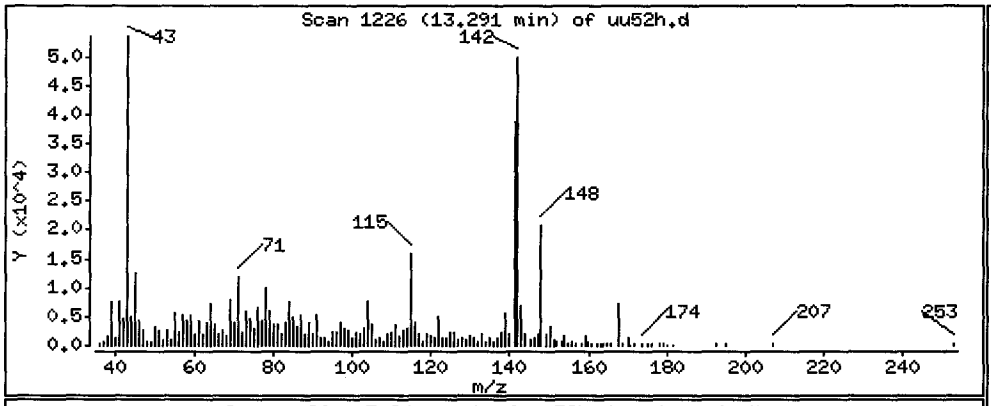
Client ID: MS007-SS-120515 Instrument: nt10.i

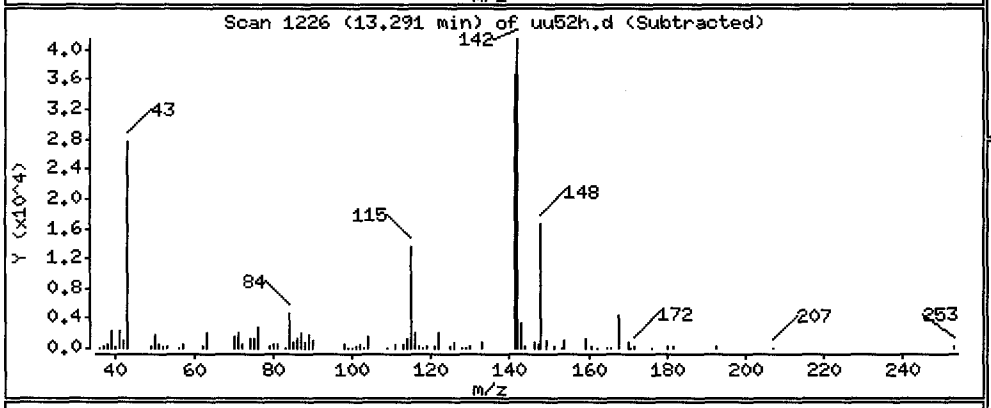
Sample Info: UU52H,3

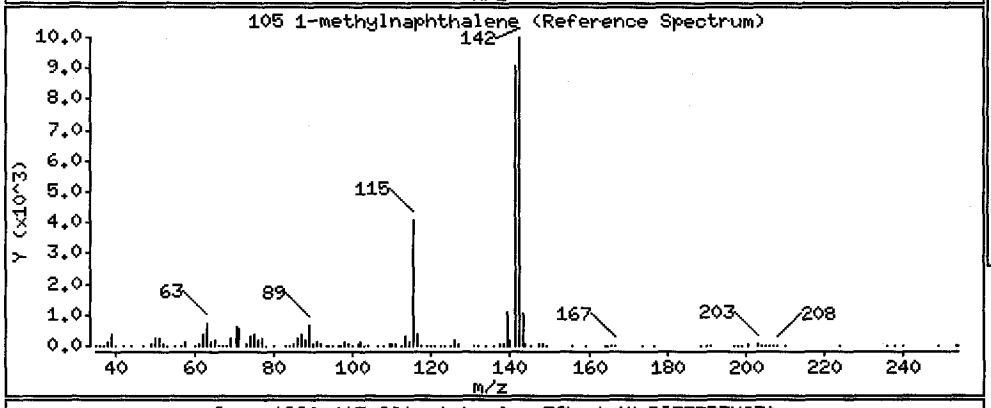
Volume Injected (uL): 1.0 Operator: VTS/YZ

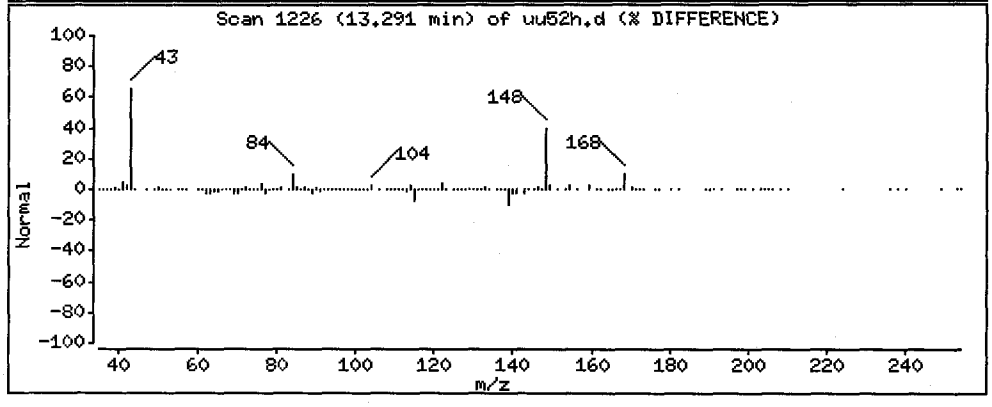
Column phase: ZB-5msi Column diameter: 0.25

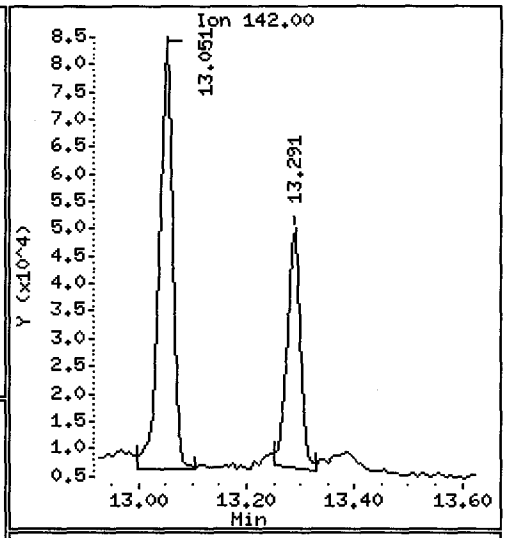
105 1-methylnaphthalene Concentration: 163.8 ug/kg

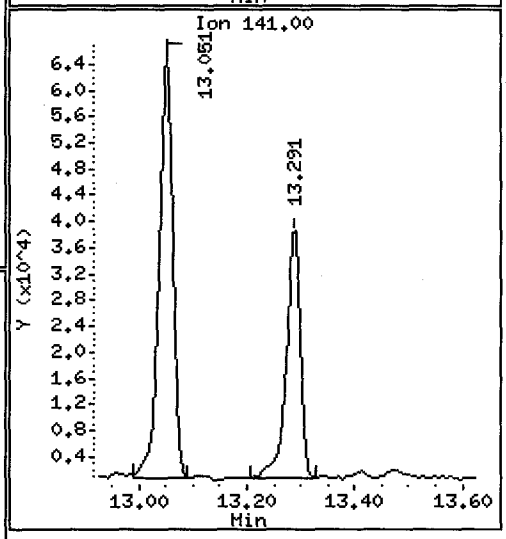


Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

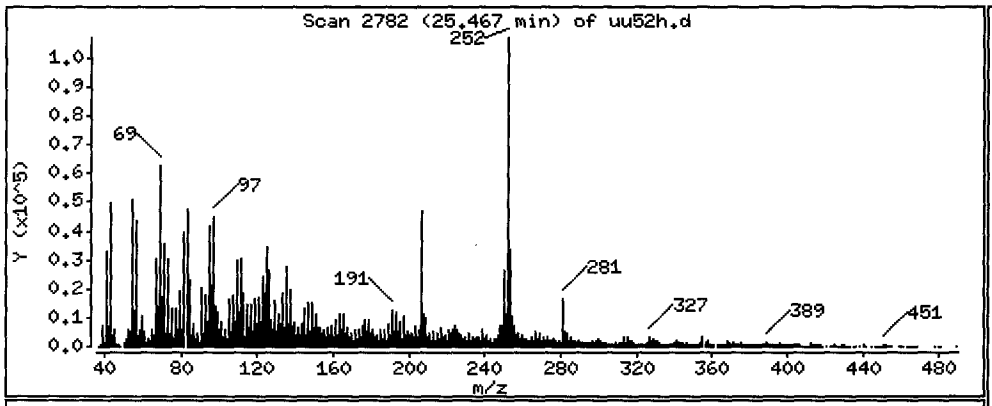
Operator: VTS/YZ

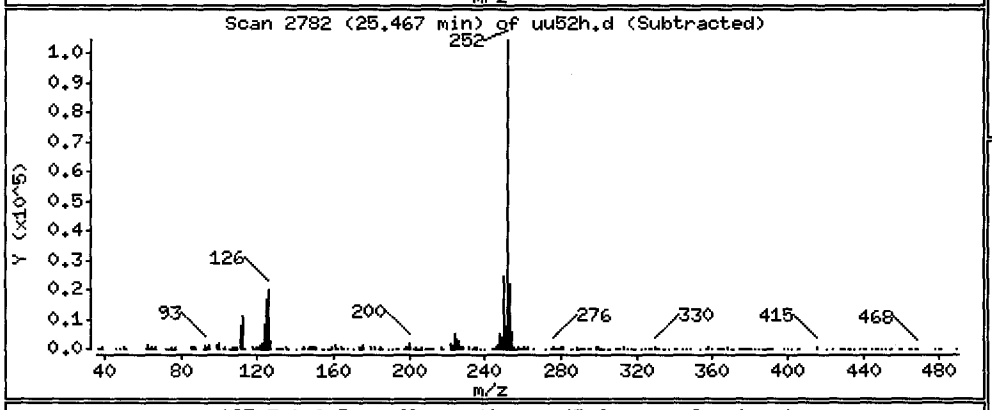
Column phase: ZB-5msi

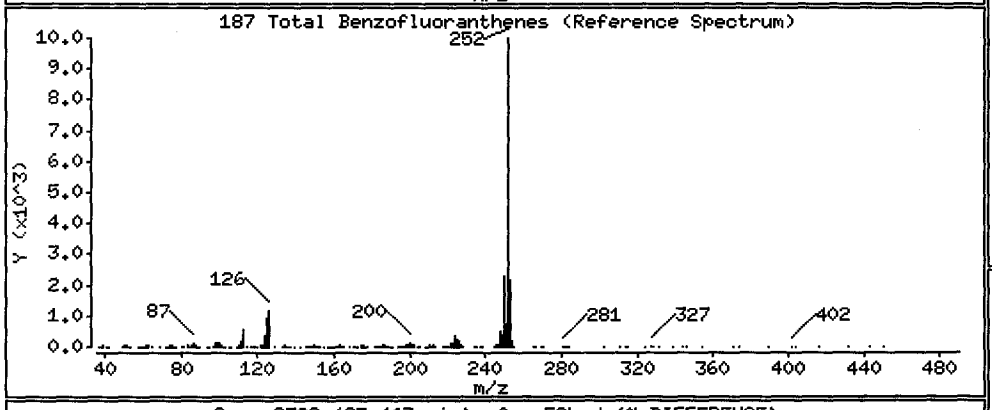
Column diameter: 0.25

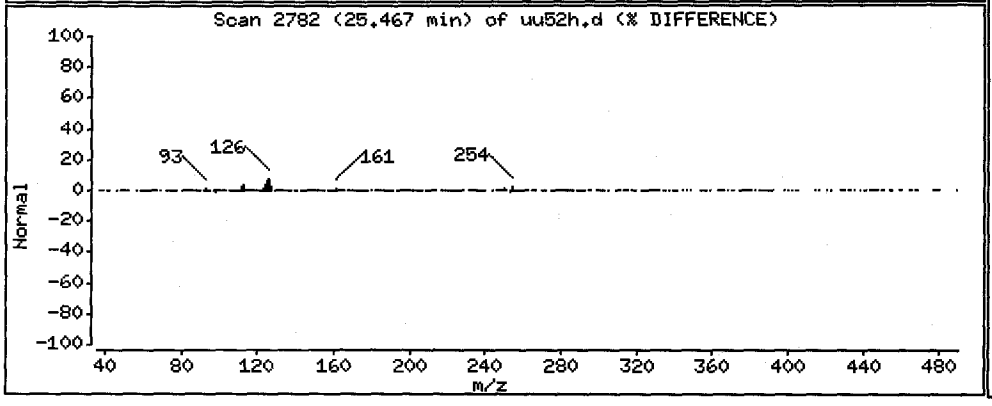
187 Total Benzofluoranthenes

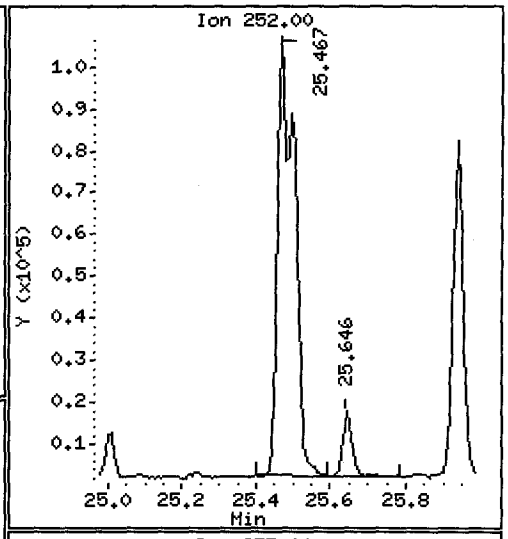
Concentration: 539.4 ug/kg

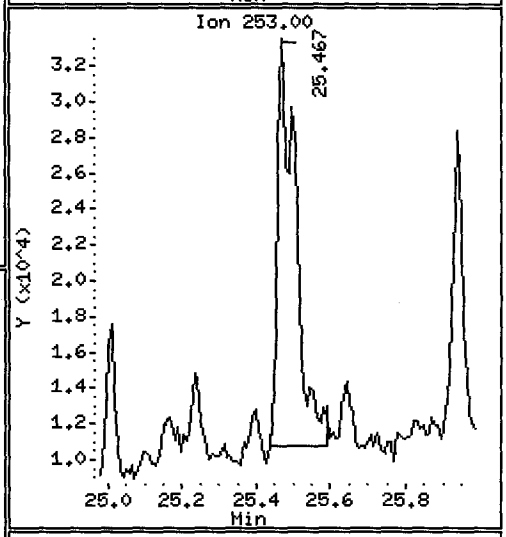


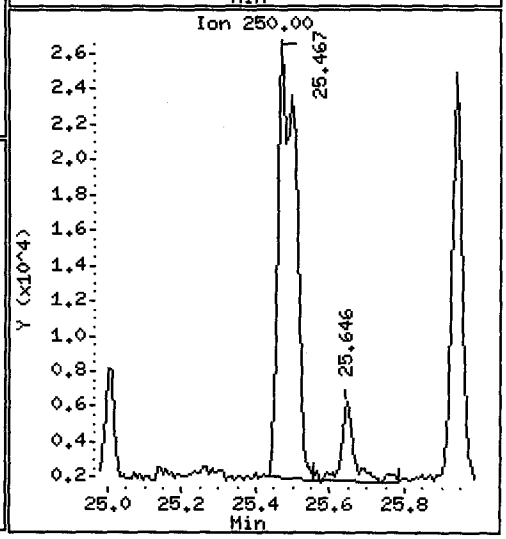



Data File: /chem1/nt10.i/20120526.b/uu52h.d

Date : 26-MAY-2012 21:31

Client ID: MS007-SS-120515

Instrument: nt10.i

Sample Info: UU52H,3

Volume Injected (uL): 1.0

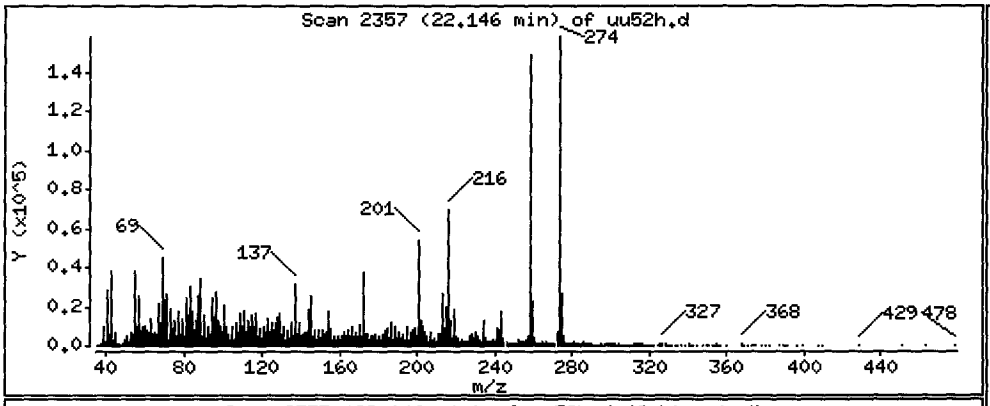
Operator: VTS/YZ

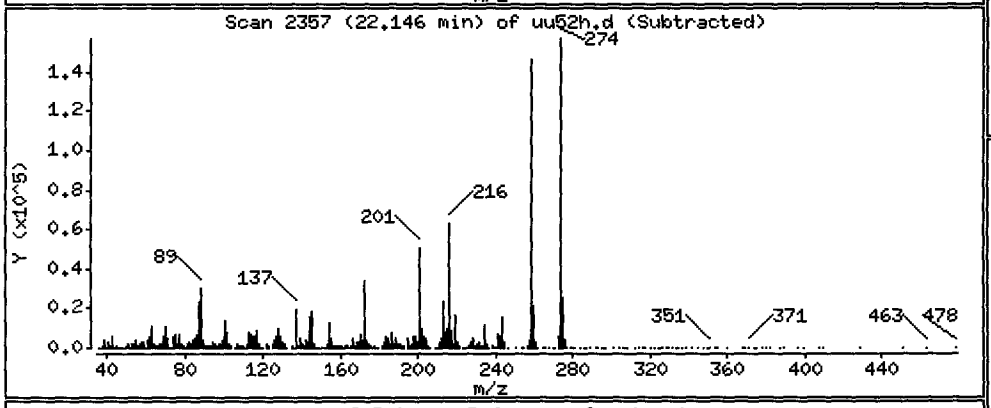
Column phase: ZB-5msi

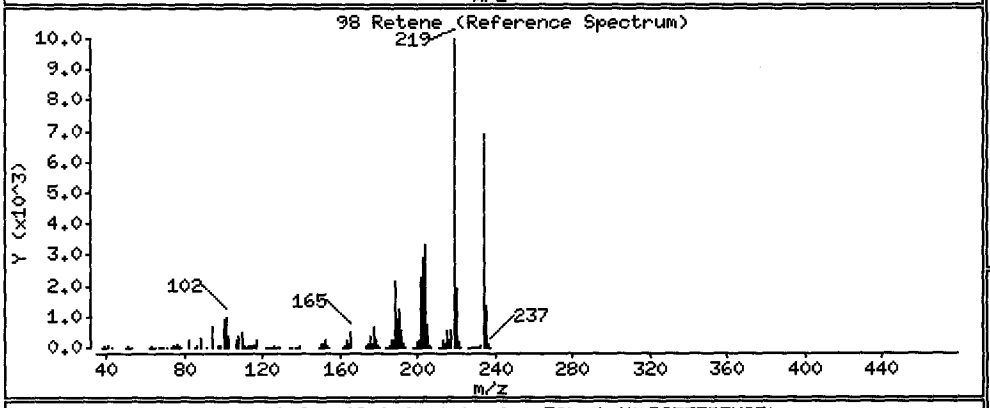
Column diameter: 0.25

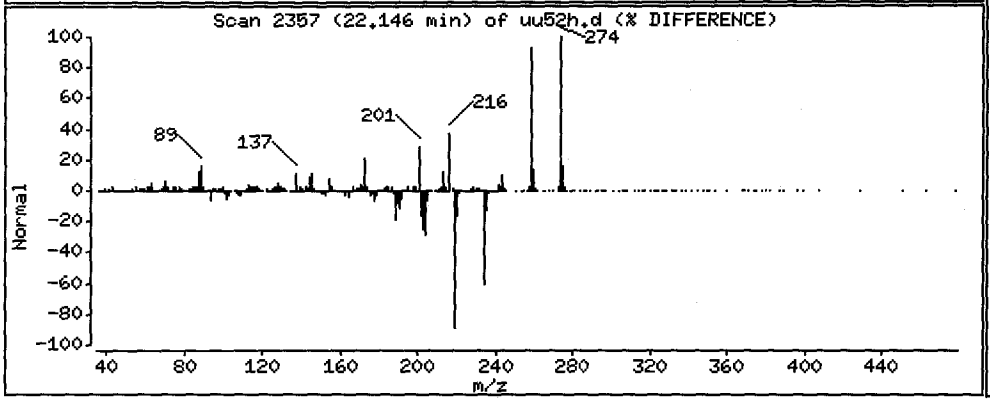
98 Retene

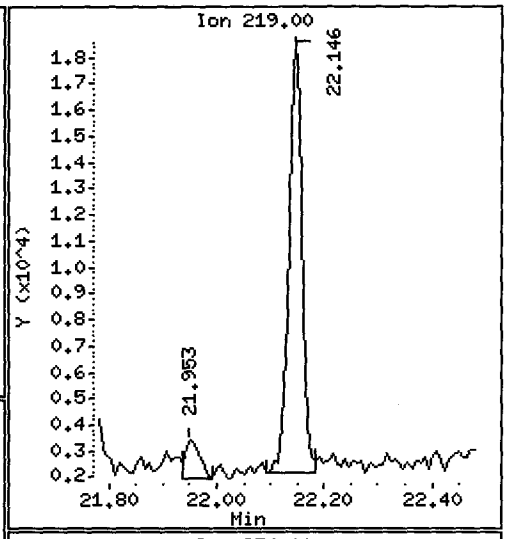
Concentration: 84.51 ug/kg

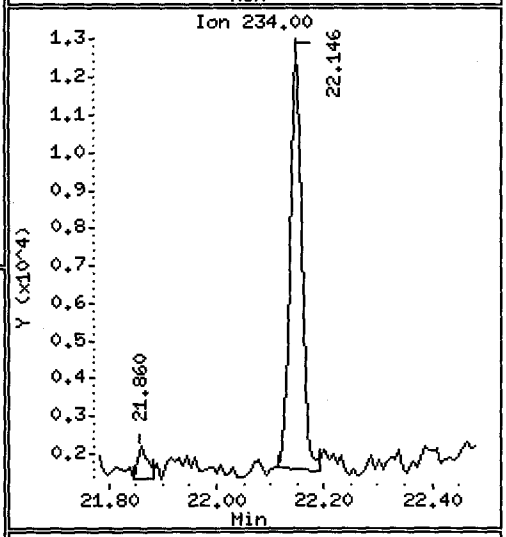


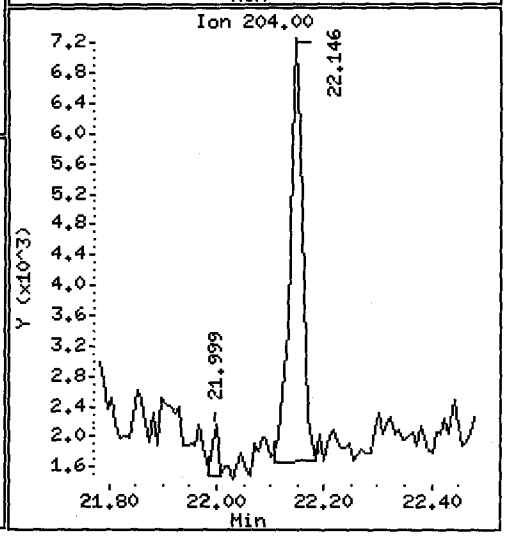



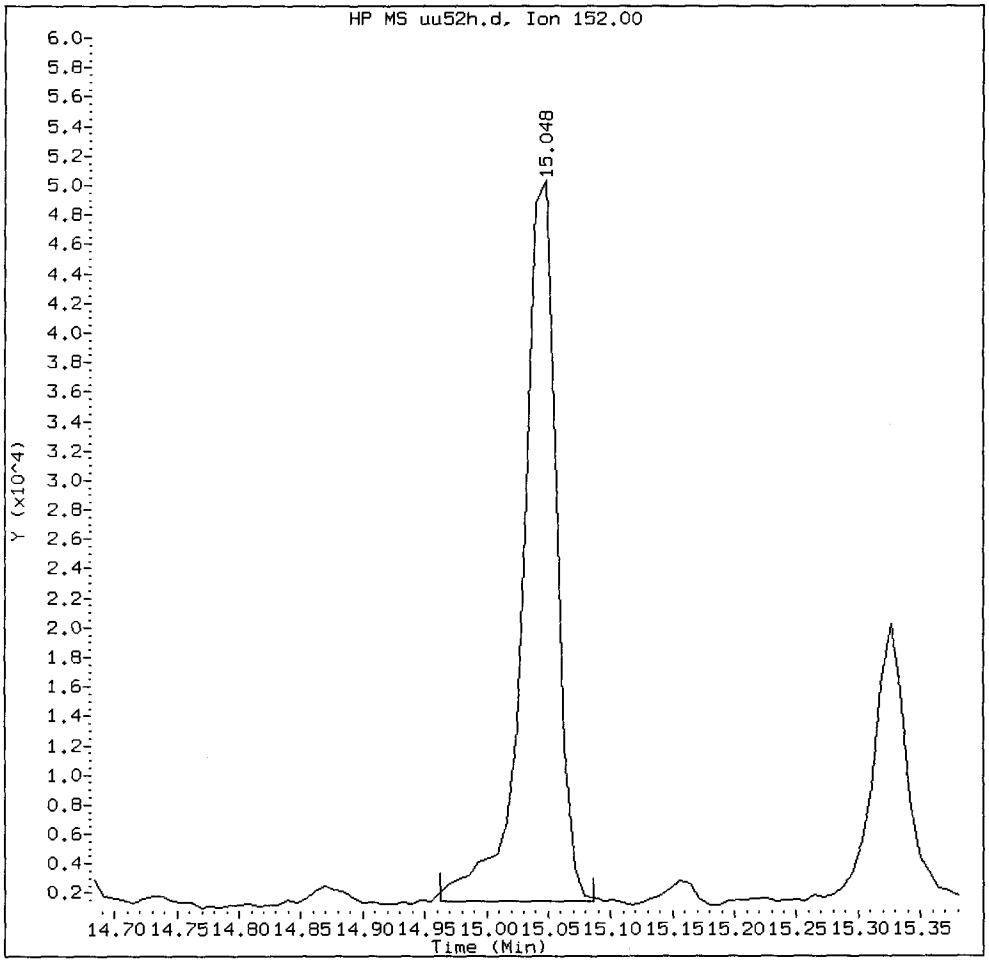



UU52H, /chem1/nt10.i/20120526.b/uu52h.d

Acenaphthylene  Amount: 0.48  Area: 95237




MANUAL INTEGRATION for Acenaphthylene

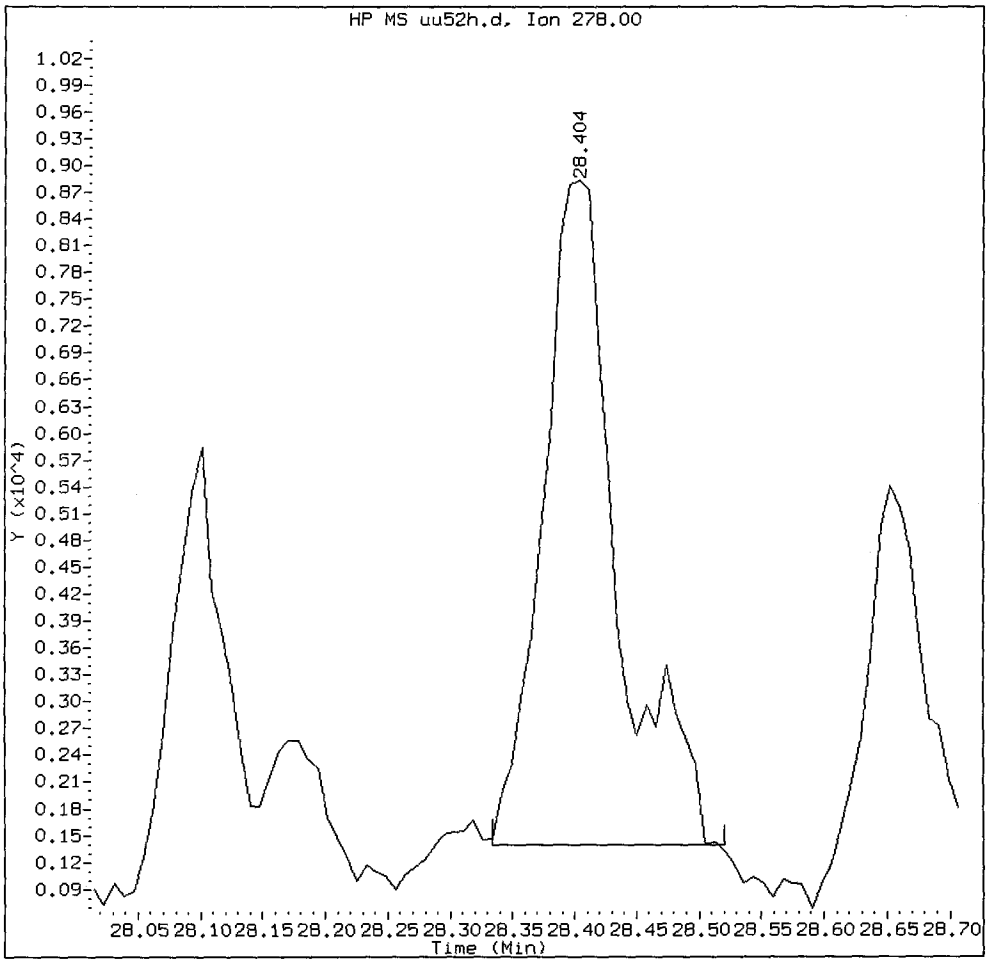
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VZ  Date: 5/30/12

UU52H, /chem1/nt10.i/20120526.b/uu52h.d

Dibenzo(a,h)anthracene  Amount: 0.20  Area: 31302




MANUAL INTEGRATION for Dibenzo(a,h)anthracene

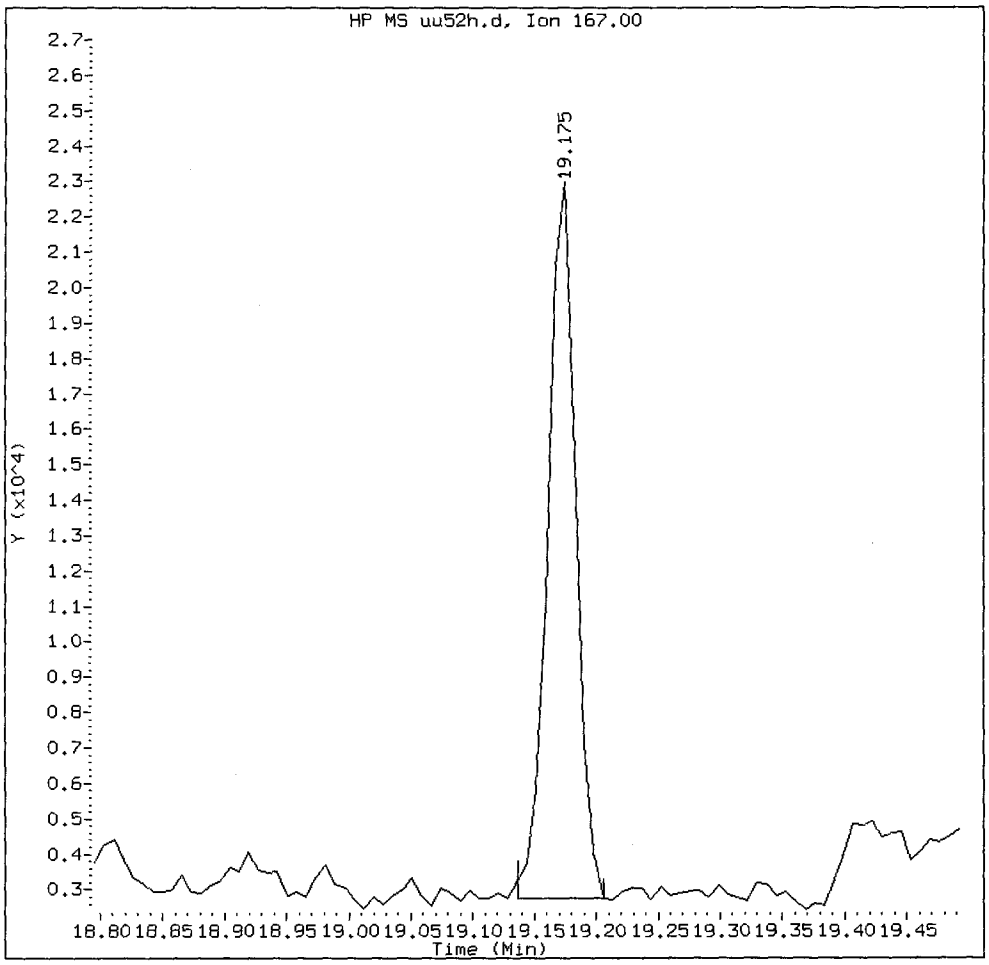
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: VR  Date: 5/30/12

UU52H, /chem1/nt10.i/20120526.b/uu52h.d

Carbazole Amount: 0.21 Area: 32390




MANUAL INTEGRATION for Carbazole

1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ Date: 6/4/12

CO-ELUTION SUMMARY FOR FILE - uu52h.d

Lab ID: UU52H, Method: ABN.m, Instrument: nt10.i, Date: 26-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

Analytical Resources, Inc. YZ 6/4/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120529.b/uu52hms.d
Lab Smp Id: UU52HMS Client Smp ID: MS007-SS-120515 MS
Inj Date : 29-MAY-2012 11:41
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52HMS
Misc Info : 12-8900
Comment : 1ul Injection
Method : /chem1/nt10.i/20120529.b/ABN.m
Meth Date : 30-May-2012 12:34 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 1 QC Sample: MS
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 3.00000 | Dilution Factor |
| Vt | 1000.00000 | Volume of final extract (uL) |
| Ws | 63.10000 | Weight of sample extracted (g) |
| M | 83.90000 | % Moisture |

Cpnd Variable Local Compound Variable

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| $ 1 | 2-Fluorophenol | 112 | 6.583 | 6.560 | (0.742) | 101244 | 1.49213 | 440.6 |
| $ 2 | Phenol-d5 | 99 | 8.275 | 8.260 | (0.933) | 127108 | 1.50385 | 444.1 |
| 3 | Phenol | 94 | 8.299 | 8.283 | (0.935) | 172409 | 1.91371 | 565.1 |
| $ 5 | 2-Chlorophenol-d4 | 132 | 8.499 | 8.492 | (0.958) | 116564 | 1.57412 | 464.8 |
| 4 | Bis(2-Chloroethyl)ether | 93 | 8.415 | 8.399 | (0.949) | 66833 | 0.99632 | 294.2 |
| 6 | 2-Chlorophenol | 128 | 8.530 | 8.507 | (0.962) | 76783 | 0.96513 | 285.0 |
| 7 | 1,3-Dichlorobenzene | 146 | 8.801 | 8.794 | (0.992) | 73928 | 0.92812 | 274.1 |
| * 8 | 1,4-Dichlorobenzene-d4 | 152 | 8.871 | 8.863 | (1.000) | 194036 | 4.00000 | |
| 9 | 1,4-Dichlorobenzene | 146 | 8.902 | 8.894 | (1.003) | 75383 | 0.96961 | 286.3 |
| $ 10 | 1,2-Dichlorobenzene-d4 | 152 | 9.251 | 9.244 | (1.043) | 47260 | 0.97287 | 287.3 |
| 12 | 1,2-Dichlorobenzene | 146 | 9.275 | 9.275 | (1.045) | 73190 | 0.96481 | 284.9 |
| 11 | Benzyl alcohol | 108 | 9.197 | 9.182 | (1.037) | 55657 | 1.47046 | 434.2 |
| 14 | 2,2'-oxybis(1-Chloropropane) | 121 | 9.500 | 9.492 | (1.071) | 25332 | 1.02579 | 302.9 |
| 13 | 2-Methylphenol | 108 | 9.461 | 9.453 | (1.066) | 70923 | 0.99882 | 295.0 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| | 17 Hexachloroethane | 117 | 9.896 | 9.896 | (1.115) | 16906 | 0.55970 | 165.3 |
| | 16 N-Nitroso-di-n-propylamine | 70 | 9.779 | 9.756 | (1.102) | 43991 | 1.05136 | 310.5 |
| | 15 4-Methylphenol | 108 | 9.764 | 9.748 | (1.101) | 462677 | 6.24562 | 1844(R) |
| $ | 18 Nitrobenzene-d5 | 82 | 10.043 | 10.035 | (0.872) | 65762 | 0.98310 | 290.3 |
| | 19 Nitrobenzene | 77 | 10.074 | 10.059 | (0.875) | 68080 | 1.03410 | 305.4 |
| | 20 Isophorone | 82 | 10.571 | 10.540 | (0.918) | 128239 | 1.03327 | 305.1 |
| | 21 2-Nitrophenol | 139 | 10.749 | 10.733 | (0.934) | 39891 | 0.96092 | 283.8 |
| | 22 2,4-Dimethylphenol | 107 | 10.856 | 10.857 | (0.943) | 220951 | 3.35970 | 992.1 |
| | 23 Bis(2-Chloroethoxy)methane | 93 | 11.041 | 11.034 | (0.959) | 81494 | 1.10256 | 325.6 |
| | 24 Benzoic acid | 105 | 11.095 | 11.126 | (0.964) | 428637 | 9.83134 | 2903 |
| | 25 2,4-Dichlorophenol | 162 | 11.257 | 11.226 | (0.978) | 219916 | 3.47654 | 1027 |
| | 26 1,2,4-Trichlorobenzene | 180 | 11.427 | 11.427 | (0.993) | 64102 | 1.06445 | 314.3 |
| * | 27 Naphthalene-d8 | 136 | 11.512 | 11.512 | (1.000) | 746578 | 4.00000 | |
| | 28 Naphthalene | 128 | 11.558 | 11.550 | (1.004) | 1229770 | 6.53395 | 1929(R) |
| | 29 4-Chloroaniline | 127 | 11.558 | 11.705 | (1.004) | 154500 | 1.84249 | 544.1 |
| | 30 Hexachlorobutadiene | 225 | 11.952 | 11.952 | (1.038) | 34653 | 1.07012 | 316.0 |
| | 31 4-Chloro-3-methylphenol | 107 | 12.811 | 12.772 | (1.113) | 201937 | 3.55781 | 1051 |
| | 32 2-Methylnaphthalene | 142 | 13.051 | 13.051 | (1.134) | 233582 | 1.78521 | 527.2 |
| | 33 Hexachlorocyclopentadiene | 237 | Compound Not Detected. | | | | | |
| | 34 2,4,6-Trichlorophenol | 196 | 13.748 | 13.724 | (0.893) | 148535 | 3.50391 | 1035 |
| | 35 2,4,5-Trichlorophenol | 196 | 13.840 | 13.809 | (0.899) | 165113 | 3.63850 | 1074 |
| $ | 36 2-Fluorobiphenyl | 172 | 13.910 | 13.910 | (0.904) | 159234 | 1.06782 | 315.3 |
| | 37 2-Chloronaphthalene | 162 | 14.111 | 14.104 | (0.917) | 140323 | 1.10077 | 325.1 |
| | 38 2-Nitroaniline | 65 | 14.382 | 14.398 | (0.935) | 9450 | 0.30995 | 91.53 |
| | 39 Dimethylphthalate | 163 | 14.909 | 14.909 | (0.969) | 150279 | 1.13699 | 335.8 |
| | 40 Acenaphthylene | 152 | 15.048 | 15.048 | (0.978) | 291348 | 1.50803 | 445.3 |
| | 41 2,6-Dinitrotoluene | 165 | 15.040 | 15.025 | (0.977) | 118419 | 3.67744 | 1086 |
| * | 42 Acenaphthene-d10 | 164 | 15.388 | 15.388 | (1.000) | 430169 | 4.00000 | |
| | 43 3-Nitroaniline | 138 | 15.458 | 15.319 | (1.005) | 193639 | 5.32606 | 1573 |
| | 44 Acenaphthene | 153 | 15.458 | 15.458 | (1.005) | 180825 | 1.55173 | 458.2 |
| | 45 2,4-Dinitrophenol | 184 | 15.574 | 15.558 | (1.012) | 25162 | 1.20910 | 357.0 |
| | 46 Dibenzofuran | 168 | 15.813 | 15.813 | (1.028) | 299092 | 1.75192 | 517.3 |
| | 47 4-Nitrophenol | 109 | 15.798 | 15.736 | (1.027) | 49645 | 3.54810 | 1048 |
| | 48 2,4-Dinitrotoluene | 165 | 15.914 | 15.891 | (1.034) | 134060 | 3.22684 | 952.9 |
| | 50 Diethylphthalate | 149 | 16.486 | 16.478 | (1.071) | 165739 | 1.28626 | 379.8 |
| | 49 Fluorene | 166 | 16.579 | 16.579 | (1.077) | 212646 | 1.62559 | 480.0 |
| | 51 4-Chlorophenyl-phenylether | 204 | 16.594 | 16.579 | (1.078) | 80584 | 1.29736 | 383.1 |
| | 52 4-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 53 4,6-Dinitro-2-methylphenol | 198 | 16.810 | 16.795 | (0.901) | 71647 | 2.78565 | 822.6 |
| | 54 N-Nitrosodiphenylamine | 169 | 16.872 | 16.872 | (0.904) | 35929 | 0.41204 | 121.7(R) |
| $ | 55 2,4,6-Tribromophenol | 330 | 17.165 | 17.157 | (1.115) | 31329 | 1.76449 | 521.1 |
| | 56 4-Bromophenyl-phenylether | 248 | 17.674 | 17.659 | (0.947) | 38264 | 1.10269 | 325.6 |
| | 57 Hexachlorobenzene | 284 | 17.999 | 17.991 | (0.965) | 44453 | 1.11106 | 328.1 |
| | 58 Pentachlorophenol | 266 | 18.401 | 18.394 | (0.986) | 76477 | 3.69386 | 1091 |
| * | 59 Phenanthrene-d10 | 188 | 18.657 | 18.649 | (1.000) | 648205 | 4.00000 | |
| | 60 Phenanthrene | 178 | 18.703 | 18.703 | (1.002) | 747122 | 4.46986 | 1320(R) |
| | 61 Anthracene | 178 | 18.804 | 18.796 | (1.008) | 289577 | 1.65844 | 489.7 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| 62 | Carbazole | 167 | 19.175 | 19.144 | (1.028) | 228173 | 1.41232 | 417.1 |
| 63 | Di-n-butylphthalate | 149 | 20.034 | 20.018 | (1.074) | 313544 | 1.37897 | 407.2 |
| 64 | Fluoranthene | 202 | 21.140 | 21.117 | (1.133) | 864441 | 4.55498 | 1345(R) |
| 65 | Pyrene | 202 | 21.550 | 21.535 | (0.908) | 867459 | 4.10425 | 1212(R) |
| $ 66 | Terphenyl-d14 | 244 | 21.860 | 21.852 | (0.921) | 144084 | 1.08823 | 321.4 |
| 67 | Butylbenzylphthalate | 149 | 22.804 | 22.797 | (0.961) | 137056 | 1.39792 | 412.8 |
| 68 | Benzo(a)anthracene | 228 | 23.703 | 23.695 | (0.999) | 376148 | 1.92505 | 568.5 |
| * 69 | Chrysene-d12 | 240 | 23.726 | 23.726 | (1.000) | 694641 | 4.00000 | |
| 70 | 3,3'-Dichlorobenzidine | 252 | Compound Not Detected. | | | | | |
| 71 | Chrysene | 228 | 23.772 | 23.765 | (1.002) | 400588 | 2.33049 | 688.2 |
| 72 | bis(2-Ethylhexyl)phthalate | 149 | 23.834 | 23.834 | (0.961) | 248712 | 1.62995 | 481.3 |
| * 134 | Di-n-octylphthalate-d4 | 153 | 24.810 | 24.802 | (1.000) | 1111139 | 4.00000 | |
| 73 | Di-n-octylphthalate | 149 | 24.817 | 24.817 | (1.000) | 342824 | 1.26816 | 374.5 |
| 74 | Benzo(b)fluoranthene | 252 | 25.475 | 25.444 | (0.975) | 430059 | 2.22735 | 657.7 |
| 75 | Benzo(k)fluoranthene | 252 | 25.506 | 25.483 | (0.976) | 442671 | 2.08216 | 614.9(H) |
| 76 | Benzo(a)pyrene | 252 | 26.033 | 26.025 | (0.996) | 367101 | 2.06559 | 610.0 |
| * 77 | Perylene-d12 | 264 | 26.134 | 26.126 | (1.000) | 687334 | 4.00000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | 28.396 | 28.389 | (1.087) | 379406 | 1.84557 | 545.0 |
| 79 | Dibenzo(a,h)anthracene | 278 | 28.412 | 28.396 | (1.087) | 212193 | 1.31033 | 386.9 |
| 80 | Benzo(g,h,i)perylene | 276 | 29.064 | 29.041 | (1.112) | 380629 | 2.15917 | 637.6 |
| 90 | N-Nitrosodimethylamine | 74 | 4.297 | 4.266 | (0.484) | 112429 | 2.78683 | 823.0 |
| 91 | Aniline | 93 | Compound Not Detected. | | | | | |
| 93 | Benzidine | 184 | Compound Not Detected. | | | | | |
| 103 | Pyridine | 79 | 4.336 | 4.290 | (0.489) | 173597 | 4.98363 | 1472 |
| 105 | 1-methylnaphthalene | 142 | 13.291 | 13.291 | (1.155) | 199418 | 1.49446 | 441.3 |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | 16.941 | 16.926 | (1.101) | 118047 | 0.90417 | 267.0 |
| 187 | Total Benzofluoranthenes | 252 | 25.475 | 25.506 | (0.975) | 807627 | 4.23470 | 1251 |
| 99 | Perylene | 252 | 26.180 | 26.149 | (1.002) | 205240 | 1.14877 | 339.2 |
| 98 | Retene | 219 | 22.146 | 22.146 | (0.933) | 30149 | 0.30633 | 90.46 |

## QC Flag Legend

R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52hms.d
Lab Smp Id: UU52HMS
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120529.b/ABN.m
Misc Info: 12-8900

Calibration Date: 29-MAY-2012
Calibration Time: 11:01
Client Smp ID: MS007-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 194036 | 2.39 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 746578 | 2.14 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 430169 | 2.25 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 648205 | 1.45 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 694641 | 7.69 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 1111139 | 9.35 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 687334 | 5.74 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.87 | 0.09 |
| 27 Naphthalene-d8 | 11.51 | 11.01 | 12.01 | 11.51 | 0.00 |
| 42 Acenaphthene-d10 | 15.39 | 14.89 | 15.89 | 15.39 | 0.00 |
| 59 Phenanthrene-d10 | 18.65 | 18.15 | 19.15 | 18.66 | 0.04 |
| 69 Chrysene-d12 | 23.73 | 23.23 | 24.23 | 23.73 | 0.00 |
| 134 Di-n-octylphthala | 24.80 | 24.30 | 25.30 | 24.81 | 0.03 |
| 77 Perylene-d12 | 26.13 | 25.63 | 26.63 | 26.13 | 0.03 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA
Client SDG: UU52
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: UU52HMS
Client Smp ID: MS007-SS-120515 MS
Level: LOW
Operator: VTS/YZ
Data Type: MS DATA
SampleType: MS
SpikeList File: SHORTPSDDA.spk
Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120529.b/ABN.m
Misc Info: 12-8900

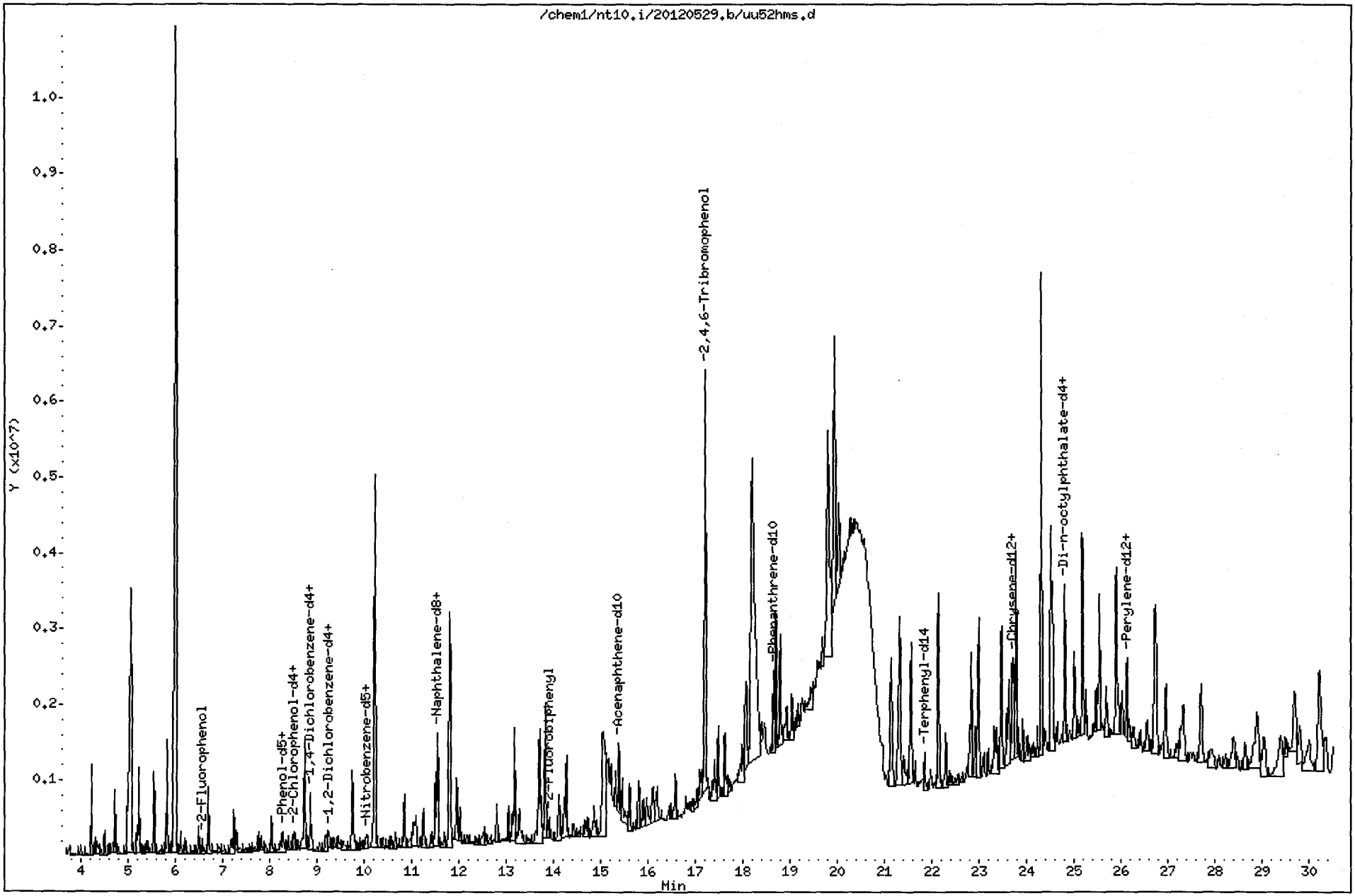
| SPIKE | COMPOUND | CONC ADDED ug/kg | CONC RECOVERED ug/kg | % RECOVERED | LIMITS |
|---|---|---|---|---|---|
| 3 | Phenol | 492.2 | 565.1 | 114.82 | 30-160 |
| 7 | 1,3-Dichlorobenzen | 492.2 | 274.1 | 55.69 | 30-160 |
| 9 | 1,4-Dichlorobenzen | 492.2 | 286.3 | 58.18 | 30-160 |
| 11 | Benzyl alcohol | 492.2 | 434.2 | 88.23 | 30-160 |
| 12 | 1,2-Dichlorobenzen | 492.2 | 284.9 | 57.89 | 30-160 |
| 13 | 2-Methylphenol | 492.2 | 295.0 | 59.93 | 30-160 |
| 15 | 4-Methylphenol | 984.3 | 1844 | 187.37* | 30-160 |
| 17 | Hexachloroethane | 492.2 | 165.3 | 33.58 | 30-160 |
| 22 | 2,4-Dimethylphenol | 1477 | 992.1 | 67.19 | 30-160 |
| 24 | Benzoic acid | 2707 | 2903 | 107.25 | 30-160 |
| 26 | 1,2,4-Trichloroben | 492.2 | 314.3 | 63.87 | 30-160 |
| 28 | Naphthalene | 492.2 | 1929 | 392.04* | 30-160 |
| 30 | Hexachlorobutadien | 492.2 | 316.0 | 64.21 | 30-160 |
| 32 | 2-Methylnaphthalen | 492.2 | 527.2 | 107.11 | 30-160 |
| 39 | Dimethylphthalate | 492.2 | 335.8 | 68.22 | 30-160 |
| 40 | Acenaphthylene | 492.2 | 445.3 | 90.48 | 30-160 |
| 44 | Acenaphthene | 492.2 | 458.2 | 93.10 | 30-160 |
| 46 | Dibenzofuran | 492.2 | 517.3 | 105.12 | 30-160 |
| 49 | Fluorene | 492.2 | 480.0 | 97.54 | 30-160 |
| 50 | Diethylphthalate | 492.2 | 379.8 | 77.18 | 30-160 |
| 54 | N-Nitrosodiphenyla | 492.2 | 121.7 | 24.72* | 30-160 |
| 57 | Hexachlorobenzene | 492.2 | 328.1 | 66.66 | 30-160 |
| 58 | Pentachlorophenol | 1477 | 1091 | 73.88 | 30-160 |
| 60 | Phenanthrene | 492.2 | 1320 | 268.19* | 30-160 |
| 61 | Anthracene | 492.2 | 489.7 | 99.51 | 30-160 |
| 63 | Di-n-butylphthalat | 492.2 | 407.2 | 82.74 | 30-160 |
| 64 | Fluoranthene | 492.2 | 1345 | 273.30* | 30-160 |
| 65 | Pyrene | 492.2 | 1212 | 246.25* | 30-160 |
| 67 | Butylbenzylphthala | 492.2 | 412.8 | 83.88 | 30-160 |
| 68 | Benzo(a)anthracene | 492.2 | 568.5 | 115.50 | 30-160 |
| 71 | Chrysene | 492.2 | 688.2 | 139.83 | 30-160 |
| 72 | bis(2-Ethylhexyl)p | 492.2 | 481.3 | 97.80 | 30-160 |
| 73 | Di-n-octylphthalat | 492.2 | 374.5 | 76.09 | 30-160 |

| SPIKE COMPOUND | CONC ADDED ug/kg | CONC RECOVERED ug/kg | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 76 Benzo(a)pyrene | 492.2 | 610.0 | 123.94 | 30-160 |
| 78 Indeno(1,2,3-cd)py | 492.2 | 545.0 | 110.73 | 30-160 |
| 79 Dibenzo(a,h)anthra | 492.2 | 386.9 | 78.62 | 30-160 |
| 80 Benzo(g,h,i)peryle | 492.2 | 637.6 | 129.55 | 30-160 |
| 105 1-methylnaphthalen | 492.2 | 441.3 | 89.67 | 30-160 |
| 187 Total Benzofluoran | 984.3 | 1251 | 127.04 | 30-160 |

| SURROGATE COMPOUND | CONC ADDED ug/kg | CONC RECOVERED ug/kg | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 1 2-Fluorophenol | 738.3 | 440.6 | 59.69 | 30-160 |
| $ 2 Phenol-d5 | 738.3 | 444.1 | 60.15 | 30-160 |
| $ 5 2-Chlorophenol-d4 | 738.3 | 464.8 | 62.96 | 30-160 |
| $ 10 1,2-Dichlorobenzen | 492.2 | 287.3 | 58.37 | 30-160 |
| $ 18 Nitrobenzene-d5 | 492.2 | 290.3 | 58.99 | 30-160 |
| $ 36 2-Fluorobiphenyl | 492.2 | 315.3 | 64.07 | 30-160 |
| $ 55 2,4,6-Tribromophen | 738.3 | 521.1 | 70.58 | 30-160 |
| $ 66 Terphenyl-d14 | 492.2 | 321.4 | 65.29 | 30-160 |

Data File: /chem1/nt10.i/20120529.b/uu52hms.d
Date : 29-MAY-2012 11:41
Client ID: MS007-SS-120515 MS
Instrument: nt10.i
Sample Info: UU52HMS
Volume Injected (uL): 1.0
Operator: VTS/YZ
Column phase: ZB-5msi
Column diameter: 0.25

UU52:09976



CO-ELUTION SUMMARY FOR FILE - uu52hms.d

Lab ID: UU52HMS, Method: ABN.m, Instrument: nt10.i, Date: 29-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|
| 15.458 | Acenaphthene and 3-Nitroaniline |

Analytical Resources, Inc. YZ 6/4/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120529.b/uu52hmsd.d
Lab Smp Id: UU52HMSD Client Smp ID: MS007-SS-120515 MSD
Inj Date : 29-MAY-2012 12:19
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52HMSD,3
Misc Info : 12-8900
Comment : 1ul Injection
Method : /chem1/nt10.i/20120529.b/ABN.m
Meth Date : 30-May-2012 12:34 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 2 QC Sample: MSD
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 3.00000 | Dilution Factor |
| Vt | 1000.00000 | Volume of final extract (uL) |
| Ws | 63.20000 | Weight of sample extracted (g) |
| M | 83.90000 | % Moisture |

Cpnd Variable Local Compound Variable

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| $ 1 | 2-Fluorophenol | 112 | 6.575 | 6.560 | (0.741) | 110832 | 1.59579 | 470.5 |
| $ 2 | Phenol-d5 | 99 | 8.268 | 8.260 | (0.932) | 141462 | 1.63511 | 482.1 |
| 3 | Phenol | 94 | 8.291 | 8.283 | (0.935) | 170430 | 1.84814 | 544.9 |
| $ 5 | 2-Chlorophenol-d4 | 132 | 8.499 | 8.492 | (0.958) | 125303 | 1.65314 | 487.4 |
| 4 | Bis(2-Chloroethyl)ether | 93 | 8.407 | 8.399 | (0.948) | 73510 | 1.07061 | 315.7 |
| 6 | 2-Chlorophenol | 128 | 8.530 | 8.507 | (0.962) | 86235 | 1.05895 | 312.2 |
| 7 | 1,3-Dichlorobenzene | 146 | 8.793 | 8.794 | (0.991) | 81422 | 0.99865 | 294.4 |
| * 8 | 1,4-Dichlorobenzene-d4 | 152 | 8.871 | 8.863 | (1.000) | 198613 | 4.00000 | |
| 9 | 1,4-Dichlorobenzene | 146 | 8.902 | 8.894 | (1.003) | 81307 | 1.02171 | 301.2 |
| $ 10 | 1,2-Dichlorobenzene-d4 | 152 | 9.243 | 9.244 | (1.042) | 50697 | 1.01958 | 300.6 |
| 12 | 1,2-Dichlorobenzene | 146 | 9.275 | 9.275 | (1.045) | 79683 | 1.02619 | 302.6 |
| 11 | Benzyl alcohol | 108 | 9.189 | 9.182 | (1.036) | 58988 | 1.52255 | 448.9 |
| 14 | 2,2'-oxybis(1-Chloropropane) | 121 | 9.500 | 9.492 | (1.071) | 27273 | 1.07894 | 318.1 |
| 13 | 2-Methylphenol | 108 | 9.461 | 9.453 | (1.066) | 78682 | 1.08256 | 319.2 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| 17 | Hexachloroethane | 117 | 9.896 | 9.896 | (1.115) | 24370 | 0.78821 | 232.4 |
| 16 | N-Nitroso-di-n-propylamine | 70 | 9.771 | 9.756 | (1.101) | 48611 | 1.13500 | 334.6 |
| 15 | 4-Methylphenol | 108 | 9.756 | 9.748 | (1.100) | 447575 | 5.90253 | 1740(R) |
| $ 18 | Nitrobenzene-d5 | 82 | 10.035 | 10.035 | (0.872) | 74989 | 1.08072 | 318.6 |
| 19 | Nitrobenzene | 77 | 10.074 | 10.059 | (0.875) | 72545 | 1.06229 | 313.2 |
| 20 | Isophorone | 82 | 10.563 | 10.540 | (0.918) | 139910 | 1.08676 | 320.4 |
| 21 | 2-Nitrophenol | 139 | 10.748 | 10.733 | (0.934) | 44934 | 1.04347 | 307.7 |
| 22 | 2,4-Dimethylphenol | 107 | 10.856 | 10.857 | (0.943) | 249149 | 3.65222 | 1077 |
| 23 | Bis(2-Chloroethoxy)methane | 93 | 11.041 | 11.034 | (0.959) | 90259 | 1.17722 | 347.1 |
| 24 | Benzoic acid | 105 | 11.080 | 11.126 | (0.962) | 389454 | 8.62877 | 2544 |
| 25 | 2,4-Dichlorophenol | 162 | 11.257 | 11.226 | (0.978) | 237172 | 3.61448 | 1066 |
| 26 | 1,2,4-Trichlorobenzene | 180 | 11.427 | 11.427 | (0.993) | 69580 | 1.11386 | 328.4 |
| * 27 | Naphthalene-d8 | 136 | 11.512 | 11.512 | (1.000) | 774430 | 4.00000 | |
| 28 | Naphthalene | 128 | 11.558 | 11.550 | (1.004) | 976870 | 5.00359 | 1475(R) |
| 29 | 4-Chloroaniline | 127 | 11.558 | 11.705 | (1.004) | 124139 | 1.42718 | 420.8 |
| 30 | Hexachlorobutadiene | 225 | 11.960 | 11.952 | (1.039) | 38164 | 1.13616 | 335.0 |
| 31 | 4-Chloro-3-methylphenol | 107 | 12.811 | 12.772 | (1.113) | 225570 | 3.83126 | 1130 |
| 32 | 2-Methylnaphthalene | 142 | 13.051 | 13.051 | (1.134) | 244879 | 1.80424 | 532.0 |
| 33 | Hexachlorocyclopentadiene | 237 | Compound Not Detected. | | | | | |
| 34 | 2,4,6-Trichlorophenol | 196 | 13.747 | 13.724 | (0.893) | 170648 | 3.88126 | 1144 |
| 35 | 2,4,5-Trichlorophenol | 196 | 13.840 | 13.809 | (0.899) | 182326 | 3.87380 | 1142 |
| $ 36 | 2-Fluorobiphenyl | 172 | 13.910 | 13.910 | (0.904) | 178662 | 1.15516 | 340.6 |
| 37 | 2-Chloronaphthalene | 162 | 14.111 | 14.104 | (0.917) | 157369 | 1.19024 | 350.9 |
| 38 | 2-Nitroaniline | 65 | 14.421 | 14.398 | (0.937) | 93699 | 2.96308 | 873.6 |
| 39 | Dimethylphthalate | 163 | 14.908 | 14.909 | (0.969) | 173458 | 1.26532 | 373.1 |
| 40 | Acenaphthylene | 152 | 15.048 | 15.048 | (0.978) | 311997 | 1.55703 | 459.1 |
| 41 | 2,6-Dinitrotoluene | 165 | 15.040 | 15.025 | (0.977) | 120902 | 3.61997 | 1067 |
| * 42 | Acenaphthene-d10 | 164 | 15.388 | 15.388 | (1.000) | 446161 | 4.00000 | |
| 43 | 3-Nitroaniline | 138 | 15.295 | 15.319 | (0.994) | 4529 | 0.12011 | 35.41 |
| 44 | Acenaphthene | 153 | 15.458 | 15.458 | (1.005) | 194073 | 1.60572 | 473.4 |
| 45 | 2,4-Dinitrophenol | 184 | 15.574 | 15.558 | (1.012) | 47113 | 2.17951 | 642.6 |
| 46 | Dibenzofuran | 168 | 15.813 | 15.813 | (1.028) | 322580 | 1.82177 | 537.1 |
| 47 | 4-Nitrophenol | 109 | 15.798 | 15.736 | (1.027) | 49409 | 3.40466 | 1004 |
| 48 | 2,4-Dinitrotoluene | 165 | 15.914 | 15.891 | (1.034) | 152879 | 3.54792 | 1046 |
| 50 | Diethylphthalate | 149 | 16.486 | 16.478 | (1.071) | 173074 | 1.29504 | 381.8 |
| 49 | Fluorene | 166 | 16.579 | 16.579 | (1.077) | 231739 | 1.70805 | 503.6 |
| 51 | 4-Chlorophenyl-phenylether | 204 | 16.594 | 16.579 | (1.078) | 95870 | 1.48813 | 438.8 |
| 52 | 4-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| 53 | 4,6-Dinitro-2-methylphenol | 198 | 16.810 | 16.795 | (0.901) | 110416 | 4.38035 | 1291 |
| 54 | N-Nitrosodiphenylamine | 169 | 16.872 | 16.872 | (0.904) | 74878 | 0.87618 | 258.3 |
| $ 55 | 2,4,6-Tribromophenol | 330 | 17.165 | 17.157 | (1.115) | 35081 | 1.90499 | 561.7 |
| 56 | 4-Bromophenyl-phenylether | 248 | 17.674 | 17.659 | (0.947) | 44525 | 1.30922 | 386.0 |
| 57 | Hexachlorobenzene | 284 | 17.999 | 17.991 | (0.965) | 51896 | 1.32348 | 390.2 |
| 58 | Pentachlorophenol | 266 | 18.401 | 18.394 | (0.986) | 84836 | 4.17548 | 1231 |
| * 59 | Phenanthrene-d10 | 188 | 18.657 | 18.649 | (1.000) | 635278 | 4.00000 | |
| 60 | Phenanthrene | 178 | 18.703 | 18.703 | (1.002) | 811532 | 4.95400 | 1461(R) |
| 61 | Anthracene | 178 | 18.804 | 18.796 | (1.008) | 320099 | 1.87055 | 551.5 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| 62 | Carbazole | 167 | 19.175 | 19.144 | (1.028) | 274089 | 1.73104 | 510.4 |
| 63 | Di-n-butylphthalate | 149 | 20.034 | 20.018 | (1.074) | 334562 | 1.50135 | 442.6 |
| 64 | Fluoranthene | 202 | 21.140 | 21.117 | (1.133) | 957834 | 5.14979 | 1518(R) |
| 65 | Pyrene | 202 | 21.550 | 21.535 | (0.908) | 977579 | 4.49857 | 1326(R) |
| $ 66 | Terphenyl-d14 | 244 | 21.860 | 21.852 | (0.921) | 166736 | 1.22482 | 361.1 |
| 67 | Butylbenzylphthalate | 149 | 22.804 | 22.797 | (0.961) | 148764 | 1.47577 | 435.1 |
| 68 | Benzo(a)anthracene | 228 | 23.702 | 23.695 | (0.999) | 436945 | 2.17495 | 641.2 |
| * 69 | Chrysene-d12 | 240 | 23.726 | 23.726 | (1.000) | 714204 | 4.00000 | |
| 70 | 3,3'-Dichlorobenzidine | 252 | Compound Not Detected. | | | | | |
| 71 | Chrysene | 228 | 23.772 | 23.765 | (1.002) | 485623 | 2.74781 | 810.1(R) |
| 72 | bis(2-Ethylhexyl)phthalate | 149 | 23.834 | 23.834 | (0.961) | 267342 | 1.73674 | 512.0 |
| * 134 | Di-n-octylphthalate-d4 | 153 | 24.809 | 24.802 | (1.000) | 1120932 | 4.00000 | |
| 73 | Di-n-octylphthalate | 149 | 24.817 | 24.817 | (1.000) | 384408 | 1.40956 | 415.6 |
| 74 | Benzo(b)fluoranthene | 252 | 25.475 | 25.444 | (0.975) | 525084 | 2.64706 | 780.4 |
| 75 | Benzo(k)fluoranthene | 252 | 25.506 | 25.483 | (0.976) | 542646 | 2.48441 | 732.5(H) |
| 76 | Benzo(a)pyrene | 252 | 26.033 | 26.025 | (0.996) | 482776 | 2.64411 | 779.6 |
| * 77 | Perylene-d12 | 264 | 26.133 | 26.126 | (1.000) | 706143 | 4.00000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | 28.396 | 28.389 | (1.087) | 469042 | 2.22081 | 654.8 |
| 79 | Dibenzo(a,h)anthracene | 278 | 28.419 | 28.396 | (1.087) | 274886 | 1.65226 | 487.1 |
| 80 | Benzo(g,h,i)perylene | 276 | 29.064 | 29.041 | (1.112) | 446533 | 2.46555 | 726.9 |
| 90 | N-Nitrosodimethylamine | 74 | 4.282 | 4.266 | (0.483) | 121010 | 2.93040 | 864.0 |
| 91 | Aniline | 93 | Compound Not Detected. | | | | | |
| 93 | Benzidine | 184 | Compound Not Detected. | | | | | |
| 103 | Pyridine | 79 | 4.313 | 4.290 | (0.486) | 167828 | 4.70698 | 1388 |
| 105 | 1-methylnaphthalene | 142 | 13.291 | 13.291 | (1.155) | 212617 | 1.53607 | 452.9 |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | 16.941 | 16.926 | (1.101) | 141445 | 1.04455 | 308.0 |
| 187 | Total Benzofluoranthenes | 252 | 25.475 | 25.506 | (0.975) | 986483 | 5.03474 | 1484 |
| 99 | Perylene | 252 | 26.180 | 26.149 | (1.002) | 245864 | 1.33949 | 394.9 |
| 98 | Retene | 219 | 22.146 | 22.146 | (0.933) | 32395 | 0.32013 | 94.39 |

## QC Flag Legend

R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52hmsd.d
Lab Smp Id: UU52HMSD
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120529.b/ABN.m
Misc Info: 12-8900

Calibration Date: 29-MAY-2012
Calibration Time: 11:01
Client Smp ID: MS007-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 198613 | 4.80 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 774430 | 5.95 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 446161 | 6.05 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 635278 | -0.57 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 714204 | 10.72 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 1120932 | 10.32 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 706143 | 8.63 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.87 | 0.08 |
| 27 Naphthalene-d8 | 11.51 | 11.01 | 12.01 | 11.51 | 0.00 |
| 42 Acenaphthene-d10 | 15.39 | 14.89 | 15.89 | 15.39 | 0.00 |
| 59 Phenanthrene-d10 | 18.65 | 18.15 | 19.15 | 18.66 | 0.04 |
| 69 Chrysene-d12 | 23.73 | 23.23 | 24.23 | 23.73 | 0.00 |
| 134 Di-n-octylphthala | 24.80 | 24.30 | 25.30 | 24.81 | 0.03 |
| 77 Perylene-d12 | 26.13 | 25.63 | 26.63 | 26.13 | 0.03 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA
Client SDG: UU52
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: UU52HMSD
Client Smp ID: MS007-SS-120515 MSD
Level: LOW
Operator: VTS/YZ
Data Type: MS DATA
SampleType: MSD
SpikeList File: SHORTPSDDA.spk
Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120529.b/ABN.m
Misc Info: 12-8900

| SPIKE | COMPOUND | CONC ADDED ug/kg | CONC RECOVERED ug/kg | % RECOVERED | LIMITS |
|---|---|---|---|---|---|
| 3 | Phenol | 491.4 | 544.9 | 110.89 | 30-160 |
| 7 | 1,3-Dichlorobenzen | 491.4 | 294.4 | 59.92 | 30-160 |
| 9 | 1,4-Dichlorobenzen | 491.4 | 301.2 | 61.30 | 30-160 |
| 11 | Benzyl alcohol | 491.4 | 448.9 | 91.35 | 30-160 |
| 12 | 1,2-Dichlorobenzen | 491.4 | 302.6 | 61.57 | 30-160 |
| 13 | 2-Methylphenol | 491.4 | 319.2 | 64.95 | 30-160 |
| 15 | 4-Methylphenol | 982.8 | 1740 | 177.08* | 30-160 |
| 17 | Hexachloroethane | 491.4 | 232.4 | 47.29 | 30-160 |
| 22 | 2,4-Dimethylphenol | 1474 | 1077 | 73.04 | 30-160 |
| 24 | Benzoic acid | 2703 | 2544 | 94.13 | 30-160 |
| 26 | 1,2,4-Trichloroben | 491.4 | 328.4 | 66.83 | 30-160 |
| 28 | Naphthalene | 491.4 | 1475 | 300.22* | 30-160 |
| 30 | Hexachlorobutadien | 491.4 | 335.0 | 68.17 | 30-160 |
| 32 | 2-Methylnaphthalen | 491.4 | 532.0 | 108.25 | 30-160 |
| 39 | Dimethylphthalate | 491.4 | 373.1 | 75.92 | 30-160 |
| 40 | Acenaphthylene | 491.4 | 459.1 | 93.42 | 30-160 |
| 44 | Acenaphthene | 491.4 | 473.4 | 96.34 | 30-160 |
| 46 | Dibenzofuran | 491.4 | 537.1 | 109.31 | 30-160 |
| 49 | Fluorene | 491.4 | 503.6 | 102.48 | 30-160 |
| 50 | Diethylphthalate | 491.4 | 381.8 | 77.70 | 30-160 |
| 54 | N-Nitrosodiphenyla | 491.4 | 258.3 | 52.57 | 30-160 |
| 57 | Hexachlorobenzene | 491.4 | 390.2 | 79.41 | 30-160 |
| 58 | Pentachlorophenol | 1474 | 1231 | 83.51 | 30-160 |
| 60 | Phenanthrene | 491.4 | 1461 | 297.24* | 30-160 |
| 61 | Anthracene | 491.4 | 551.5 | 112.23 | 30-160 |
| 63 | Di-n-butylphthalat | 491.4 | 442.6 | 90.08 | 30-160 |
| 64 | Fluoranthene | 491.4 | 1518 | 308.99* | 30-160 |
| 65 | Pyrene | 491.4 | 1326 | 269.91* | 30-160 |
| 67 | Butylbenzylphthala | 491.4 | 435.1 | 88.55 | 30-160 |
| 68 | Benzo(a)anthracene | 491.4 | 641.2 | 130.50 | 30-160 |
| 71 | Chrysene | 491.4 | 810.1 | 164.87* | 30-160 |
| 72 | bis(2-Ethylhexyl)p | 491.4 | 512.0 | 104.20 | 30-160 |
| 73 | Di-n-octylphthalat | 491.4 | 415.6 | 84.57 | 30-160 |

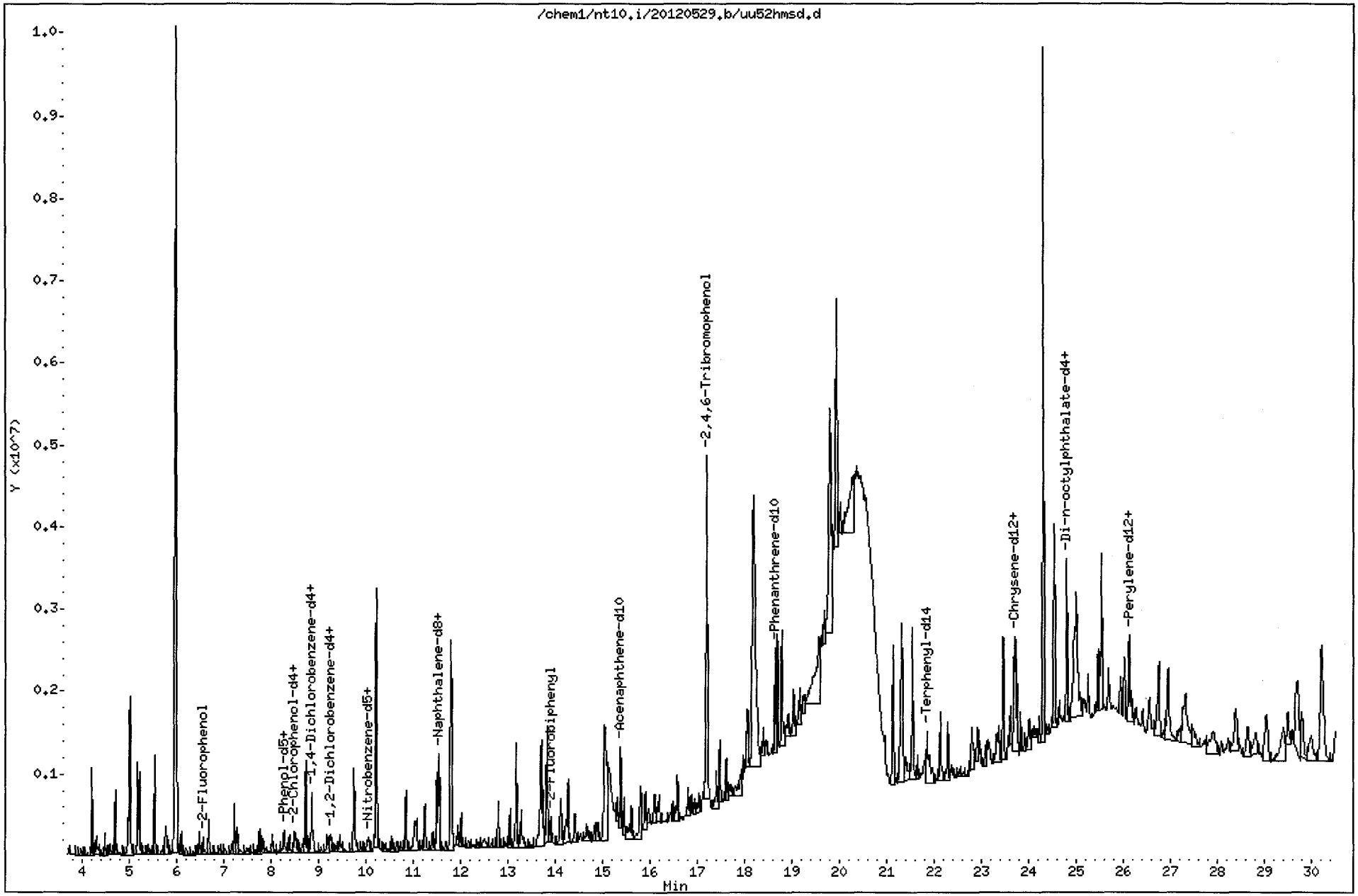
| SPIKE COMPOUND | CONC ADDED ug/kg | CONC RECOVERED ug/kg | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 76 Benzo(a)pyrene | 491.4 | 779.6 | 158.65 | 30-160 |
| 78 Indeno(1,2,3-cd)py | 491.4 | 654.8 | 133.25 | 30-160 |
| 79 Dibenzo(a,h)anthra | 491.4 | 487.1 | 99.14 | 30-160 |
| 80 Benzo(g,h,i)peryle | 491.4 | 726.9 | 147.93 | 30-160 |
| 105 1-methylnaphthalen | 491.4 | 452.9 | 92.16 | 30-160 |
| 187 Total Benzofluoran | 982.8 | 1484 | 151.04 | 30-160 |

| SURROGATE COMPOUND | CONC ADDED ug/kg | CONC RECOVERED ug/kg | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 1 2-Fluorophenol | 737.1 | 470.5 | 63.83 | 30-160 |
| $ 2 Phenol-d5 | 737.1 | 482.1 | 65.40 | 30-160 |
| $ 5 2-Chlorophenol-d4 | 737.1 | 487.4 | 66.13 | 30-160 |
| $ 10 1,2-Dichlorobenzen | 491.4 | 300.6 | 61.17 | 30-160 |
| $ 18 Nitrobenzene-d5 | 491.4 | 318.6 | 64.84 | 30-160 |
| $ 36 2-Fluorobiphenyl | 491.4 | 340.6 | 69.31 | 30-160 |
| $ 55 2,4,6-Tribromophen | 737.1 | 561.7 | 76.20 | 30-160 |
| $ 66 Terphenyl-d14 | 491.4 | 361.1 | 73.49 | 30-160 |

Data File: /chem1/nt10.i/20120529.b/uu52hmsd.d
Date : 29-MAY-2012 12:19
Client ID: MS007-SS-120515 MSD
Sample Info: UU52HMSD,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25

UU52:60941



CO-ELUTION SUMMARY FOR FILE - uu52hmsd.d

Lab ID: UU52HMSD, Method: ABN.m, Instrument: nt10.i, Date: 29-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D YZ 6/4/12

Data file : /chem1/nt10.i/20120529.b/uu52i.d
Lab Smp Id: UU52I Client Smp ID: MS008-SS-120515
Inj Date : 29-MAY-2012 12:56
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52I,3
Misc Info : 12-8901
Comment : 1ul Injection
Method : /chem1/nt10.i/20120529.b/ABN.m
Meth Date : 04-Jun-2012 11:20 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 3
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 3.00000 | Dilution Factor |
| Vt | 1000.00000 | Volume of final extract (uL) |
| Ws | 91.40000 | Weight of sample extracted (g) |
| M | 89.00000 | % Moisture |

Cpnd Variable Local Compound Variable

| | | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|
| $ | 1 | 2-Fluorophenol | 112 | 6.575 | 6.560 | (0.742) | 91528 | 1.32519 | 395.4 |
| $ | 2 | Phenol-d5 | 99 | 8.268 | 8.260 | (0.933) | 115454 | 1.34193 | 400.4 |
| | 3 | Phenol | 94 | 8.299 | 8.283 | (0.936) | 59234 | 0.64591 | 192.7 |
| $ | 5 | 2-Chlorophenol-d4 | 132 | 8.499 | 8.492 | (0.959) | 106200 | 1.40891 | 420.4 |
| | 4 | Bis(2-Chloroethyl)ether | 93 | Compound Not Detected. | | | | | |
| | 6 | 2-Chlorophenol | 128 | Compound Not Detected. | | | | | |
| | 7 | 1,3-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| * | 8 | 1,4-Dichlorobenzene-d4 | 152 | 8.863 | 8.863 | (1.000) | 197513 | 4.00000 | |
| | 9 | 1,4-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| $ | 10 | 1,2-Dichlorobenzene-d4 | 152 | 9.244 | 9.244 | (1.043) | 41947 | 0.84830 | 253.1 |
| | 12 | 1,2-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| | 11 | Benzyl alcohol | 108 | 9.197 | 9.182 | (1.038) | 8380 | 0.21750 | 64.90 |
| | 14 | 2,2'-oxybis(1-Chloropropane) | 121 | Compound Not Detected. | | | | | |
| | 13 | 2-Methylphenol | 108 | Compound Not Detected. | | | | | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| | 17 Hexachloroethane | 117 | Compound Not Detected. | | | | | |
| | 16 N-Nitroso-di-n-propylamine | 70 | Compound Not Detected. | | | | | |
| | 15 4-Methylphenol | 108 | 9.756 | 9.748 | (1.101) | 154409 | 2.04765 | 611.0 |
| $ | 18 Nitrobenzene-d5 | 82 | 10.035 | 10.035 | (0.872) | 60426 | 0.85200 | 254.2 |
| | 19 Nitrobenzene | 77 | Compound Not Detected. | | | | | |
| | 20 Isophorone | 82 | Compound Not Detected. | | | | | |
| | 21 2-Nitrophenol | 139 | Compound Not Detected. | | | | | |
| | 22 2,4-Dimethylphenol | 107 | Compound Not Detected. | | | | | |
| | 23 Bis(2-Chloroethoxy)methane | 93 | Compound Not Detected. | | | | | |
| | 24 Benzoic acid | 105 | 11.064 | 11.126 | (0.961) | 113932 | 2.49478 | 744.4 |
| | 25 2,4-Dichlorophenol | 162 | Compound Not Detected. | | | | | |
| | 26 1,2,4-Trichlorobenzene | 180 | Compound Not Detected. | | | | | |
| * | 27 Naphthalene-d8 | 136 | 11.512 | 11.512 | (1.000) | 791554 | 4.00000 | |
| | 28 Naphthalene | 128 | 11.558 | 11.550 | (1.004) | 305764 | 1.53226 | 457.2 |
| | 29 4-Chloroaniline | 127 | Compound Not Detected. | | | | | |
| | 30 Hexachlorobutadiene | 225 | Compound Not Detected. | | | | | |
| | 31 4-Chloro-3-methylphenol | 107 | Compound Not Detected. | | | | | |
| | 32 2-Methylnaphthalene | 142 | 13.059 | 13.051 | (1.134) | 30415 | 0.21925 | 65.42 |
| | 33 Hexachlorocyclopentadiene | 237 | Compound Not Detected. | | | | | |
| | 34 2,4,6-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| | 35 2,4,5-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| $ | 36 2-Fluorobiphenyl | 172 | 13.910 | 13.910 | (0.904) | 148739 | 0.98611 | 294.2 |
| | 37 2-Chloronaphthalene | 162 | Compound Not Detected. | | | | | |
| | 38 2-Nitroaniline | 65 | Compound Not Detected. | | | | | |
| | 39 Dimethylphthalate | 163 | Compound Not Detected. | | | | | |
| | 40 Acenaphthylene | 152 | 15.048 | 15.048 | (0.978) | 25499 | 0.13048 | 38.94(M) |
| | 41 2,6-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| * | 42 Acenaphthene-d10 | 164 | 15.388 | 15.388 | (1.000) | 435113 | 4.00000 | |
| | 43 3-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 44 Acenaphthene | 153 | 15.458 | 15.458 | (1.005) | 22635 | 0.19203 | 57.30 |
| | 45 2,4-Dinitrophenol | 184 | Compound Not Detected. | | | | | |
| | 46 Dibenzofuran | 168 | 15.813 | 15.813 | (1.028) | 39712 | 0.22997 | 68.62 |
| | 47 4-Nitrophenol | 109 | Compound Not Detected. | | | | | |
| | 48 2,4-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| | 50 Diethylphthalate | 149 | Compound Not Detected. | | | | | |
| | 49 Fluorene | 166 | 16.579 | 16.579 | (1.077) | 29393 | 0.22214 | 66.29 |
| | 51 4-Chlorophenyl-phenylether | 204 | Compound Not Detected. | | | | | |
| | 52 4-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 53 4,6-Dinitro-2-methylphenol | 198 | Compound Not Detected. | | | | | |
| | 54 N-Nitrosodiphenylamine | 169 | Compound Not Detected. | | | | | |
| $ | 55 2,4,6-Tribromophenol | 330 | 17.165 | 17.157 | (1.115) | 29285 | 1.63063 | 486.6 |
| | 56 4-Bromophenyl-phenylether | 248 | Compound Not Detected. | | | | | |
| | 57 Hexachlorobenzene | 284 | Compound Not Detected. | | | | | |
| | 58 Pentachlorophenol | 266 | Compound Not Detected. | | | | | |
| * | 59 Phenanthrene-d10 | 188 | 18.657 | 18.649 | (1.000) | 618705 | 4.00000 | |
| | 60 Phenanthrene | 178 | 18.703 | 18.703 | (1.002) | 258186 | 1.61832 | 482.9 |
| | 61 Anthracene | 178 | 18.804 | 18.796 | (1.008) | 63527 | 0.38117 | 113.7 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| 62 | Carbazole | 167 | 19.167 | 19.144 | (1.027) | 31906 | 0.20690 | 61.74(M) |
| 63 | Di-n-butylphthalate | 149 | Compound Not Detected. | | | | | |
| 64 | Fluoranthene | 202 | 21.125 | 21.117 | (1.132) | 361547 | 1.99593 | 595.6 |
| 65 | Pyrene | 202 | 21.543 | 21.535 | (0.908) | 329576 | 1.53479 | 458.0 |
| $ 66 | Terphenyl-d14 | 244 | 21.860 | 21.852 | (0.921) | 138794 | 1.03177 | 307.9 |
| 67 | Butylbenzylphthalate | 149 | Compound Not Detected. | | | | | |
| 68 | Benzo(a)anthracene | 228 | 23.703 | 23.695 | (0.999) | 129677 | 0.65321 | 194.9 |
| * 69 | Chrysene-d12 | 240 | 23.726 | 23.726 | (1.000) | 705752 | 4.00000 | |
| 70 | 3,3'-Dichlorobenzidine | 252 | Compound Not Detected. | | | | | |
| 71 | Chrysene | 228 | 23.772 | 23.765 | (1.002) | 138542 | 0.79330 | 236.7 |
| 72 | bis(2-Ethylhexyl)phthalate | 149 | 23.834 | 23.834 | (0.961) | 50237 | 0.33203 | 99.07 |
| * 134 | Di-n-octylphthalate-d4 | 153 | 24.810 | 24.802 | (1.000) | 1101771 | 4.00000 | |
| 73 | Di-n-octylphthalate | 149 | Compound Not Detected. | | | | | |
| 74 | Benzo(b)fluoranthene | 252 | Compound Not Detected. | | | | | |
| 75 | Benzo(k)fluoranthene | 252 | Compound Not Detected. | | | | | |
| 76 | Benzo(a)pyrene | 252 | 26.033 | 26.025 | (0.996) | 127739 | 0.71530 | 213.4 |
| * 77 | Perylene-d12 | 264 | 26.134 | 26.126 | (1.000) | 690654 | 4.00000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | 28.404 | 28.389 | (1.087) | 97168 | 0.47039 | 140.4 |
| 79 | Dibenzo(a,h)anthracene | 278 | 28.404 | 28.396 | (1.087) | 28829 | 0.17717 | 52.87(M) |
| 80 | Benzo(g,h,i)perylene | 276 | 29.072 | 29.041 | (1.112) | 102604 | 0.57924 | 172.8 |
| 90 | N-Nitrosodimethylamine | 74 | Compound Not Detected. | | | | | |
| 91 | Aniline | 93 | Compound Not Detected. | | | | | |
| 93 | Benzidine | 184 | Compound Not Detected. | | | | | |
| 103 | Pyridine | 79 | Compound Not Detected. | | | | | |
| 105 | 1-methylnaphthalene | 142 | 13.291 | 13.291 | (1.155) | 18250 | 0.12900 | 38.49 |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | Compound Not Detected. | | | | | |
| 187 | Total Benzofluoranthenes | 252 | 25.475 | 25.506 | (0.975) | 268207 | 1.39955 | 417.6 |
| 99 | Perylene | 252 | Compound Not Detected. | | | | | |
| 98 | Retene | 219 | Compound Not Detected. | | | | | |

## QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52i.d
Lab Smp Id: UU52I
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120529.b/ABN.m
Misc Info: 12-8901

Calibration Date: 29-MAY-2012
Calibration Time: 11:01
Client Smp ID: MS008-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 197513 | 4.22 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 791554 | 8.29 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 435113 | 3.43 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 618705 | -3.17 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 705752 | 9.41 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 1101771 | 8.43 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 690654 | 6.25 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.86 | 0.00 |
| 27 Naphthalene-d8 | 11.51 | 11.01 | 12.01 | 11.51 | 0.00 |
| 42 Acenaphthene-d10 | 15.39 | 14.89 | 15.89 | 15.39 | 0.00 |
| 59 Phenanthrene-d10 | 18.65 | 18.15 | 19.15 | 18.66 | 0.04 |
| 69 Chrysene-d12 | 23.73 | 23.23 | 24.23 | 23.73 | 0.00 |
| 134 Di-n-octylphthala | 24.80 | 24.30 | 25.30 | 24.81 | 0.03 |
| 77 Perylene-d12 | 26.13 | 25.63 | 26.63 | 26.13 | 0.03 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52I Client Smp ID: MS008-SS-120515
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120529.b/ABN.m
Misc Info: 12-8901

| SURROGATE COMPOUND | CONC ADDED ug/kg | CONC RECOVERED ug/kg | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 1 2-Fluorophenol | 746.0 | 395.4 | 53.01 | 30-160 |
| $ 2 Phenol-d5 | 746.0 | 400.4 | 53.68 | 30-160 |
| $ 5 2-Chlorophenol-d4 | 746.0 | 420.4 | 56.36 | 30-160 |
| $ 10 1,2-Dichlorobenzen | 497.3 | 253.1 | 50.90 | 30-160 |
| $ 18 Nitrobenzene-d5 | 497.3 | 254.2 | 51.12 | 30-160 |
| $ 36 2-Fluorobiphenyl | 497.3 | 294.2 | 59.17 | 30-160 |
| $ 55 2,4,6-Tribromophen | 746.0 | 486.6 | 65.23 | 30-160 |
| $ 66 Terphenyl-d14 | 497.3 | 307.9 | 61.91 | 30-160 |

Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Sample Info: UU52I,3

Volume Injected (uL): 1.0

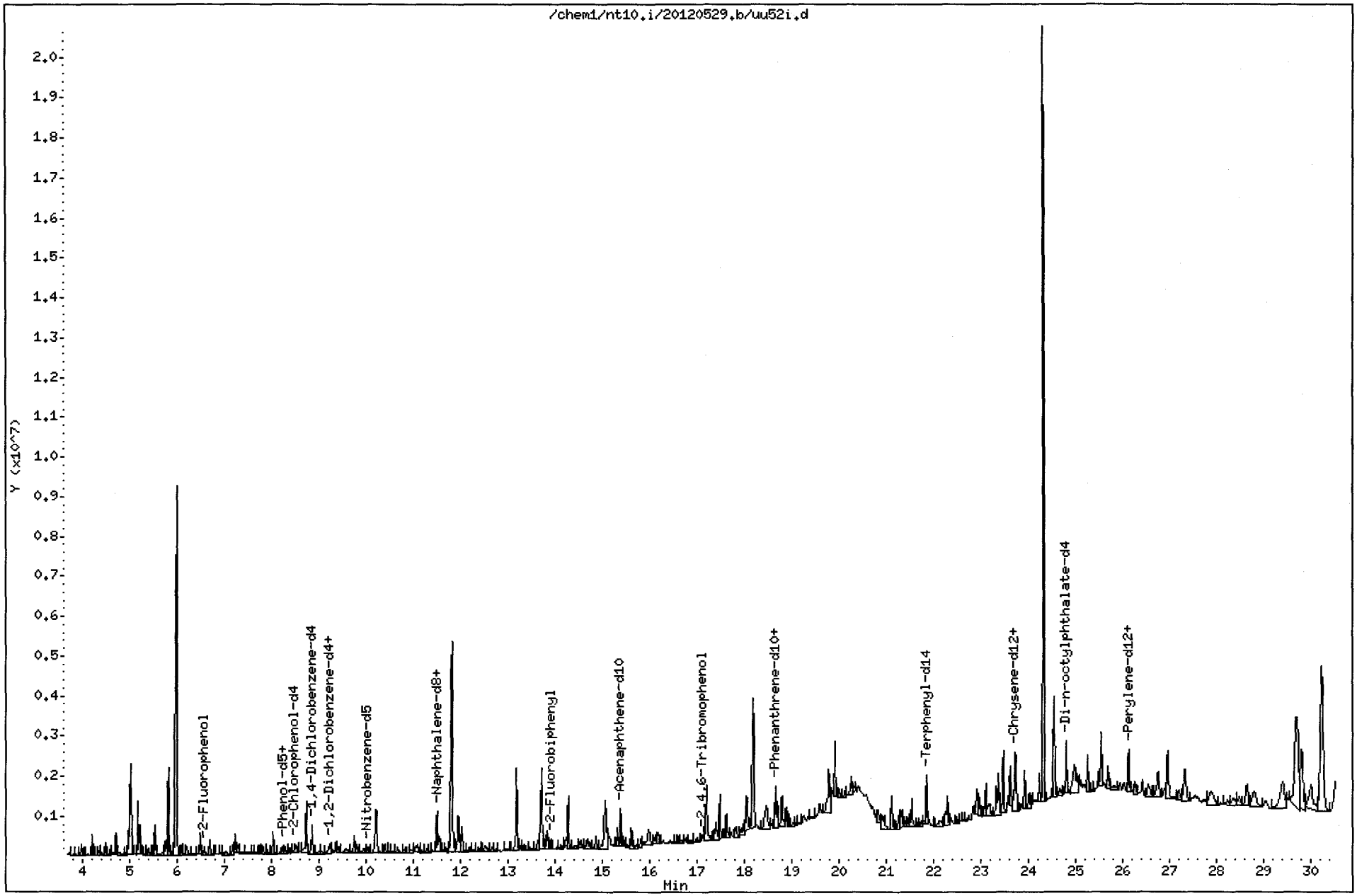
Column phase: ZB-5msi

Instrument: nt10.i

Operator: VTS/YZ

Column diameter: 0.25






UU52:00991

Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

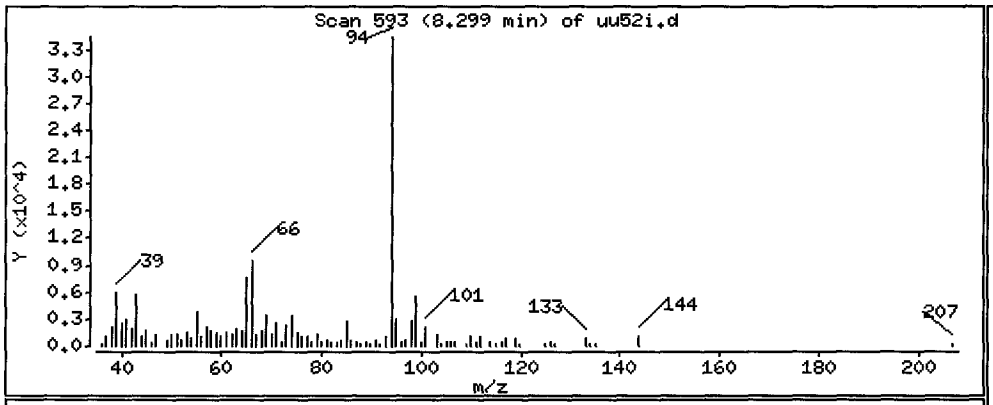
Operator: VTS/YZ

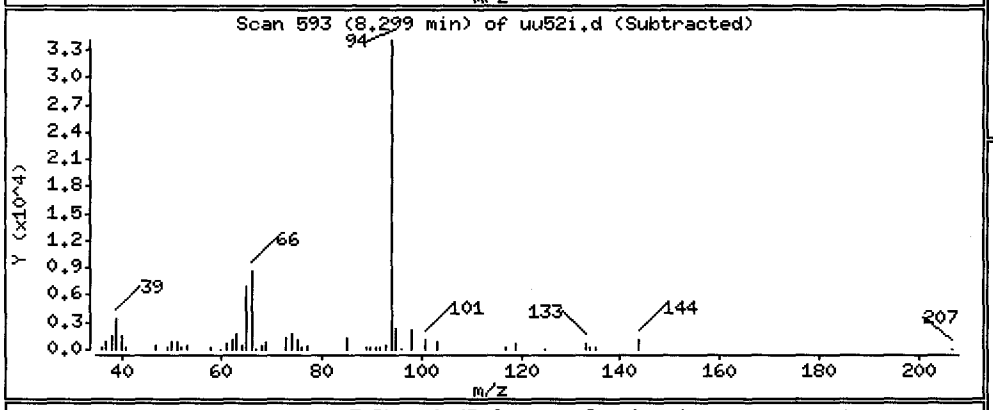
Column phase: ZB-5msi

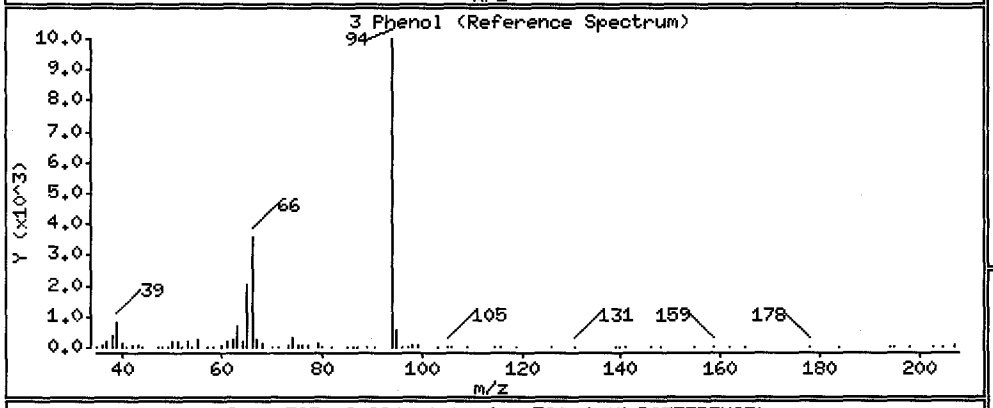
Column diameter: 0.25

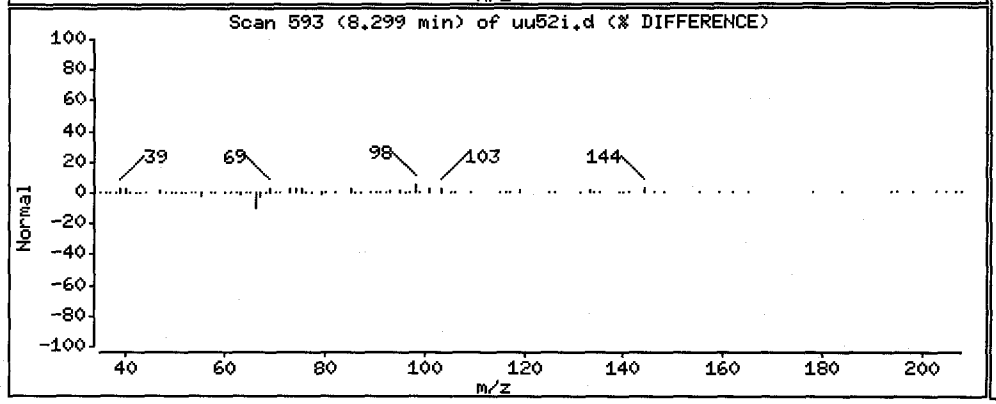
3 Phenol

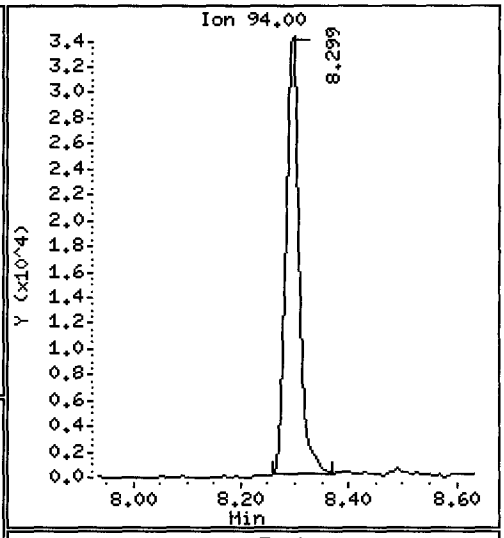
Concentration: 192.7 ug/kg

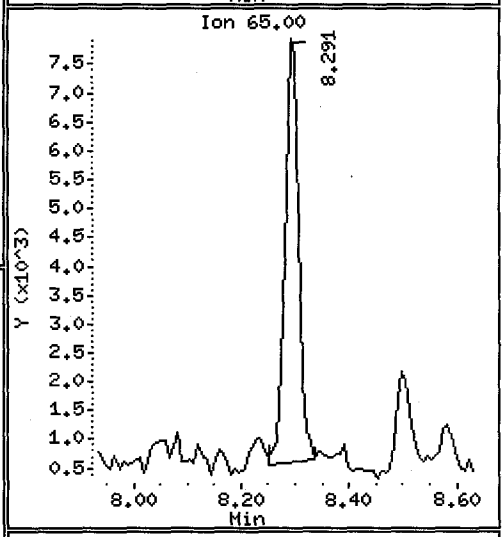


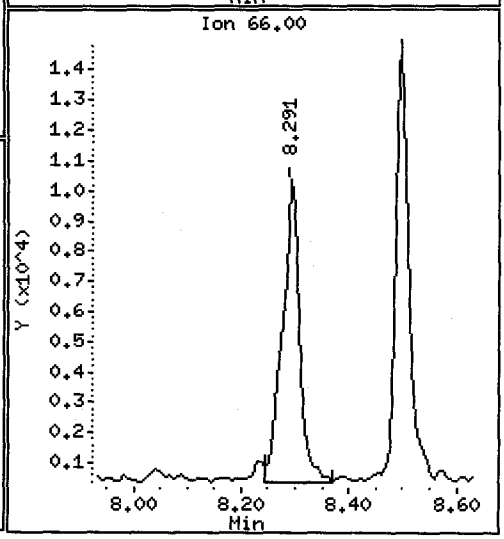



Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

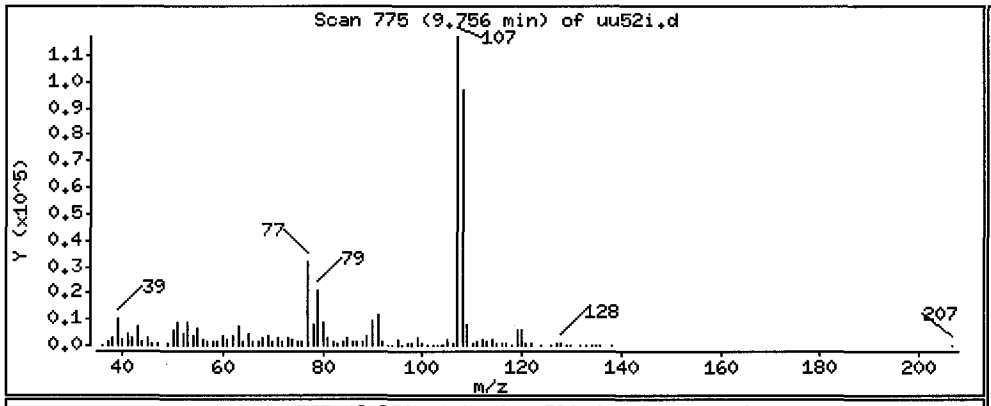
Operator: VTS/YZ

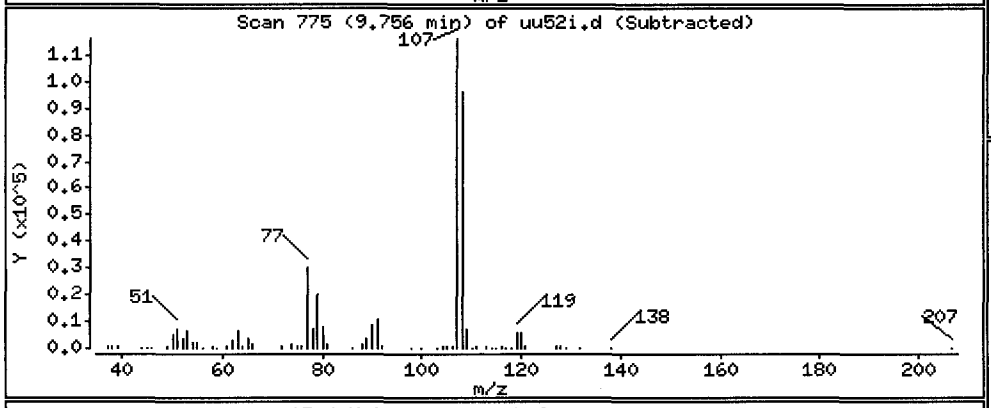
Column phase: ZB-5msi

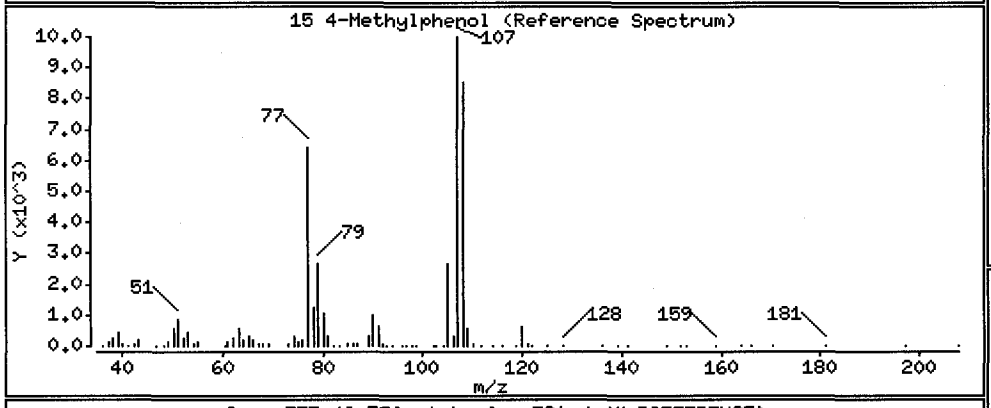
Column diameter: 0.25

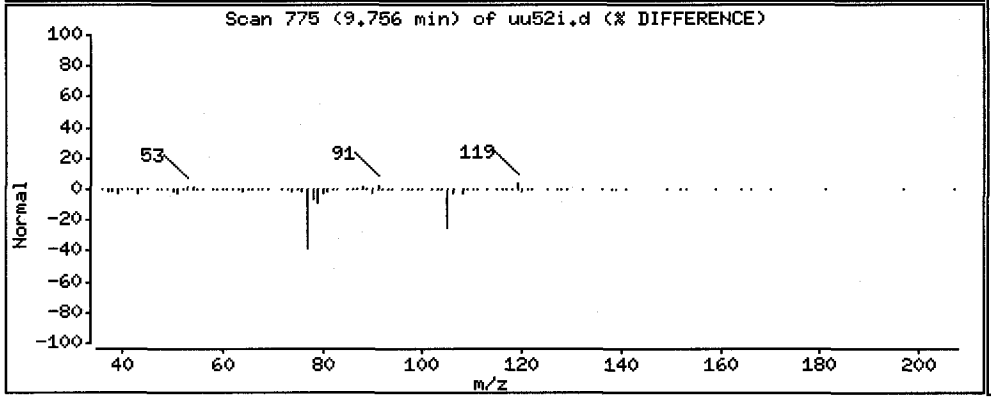
15 4-Methylphenol

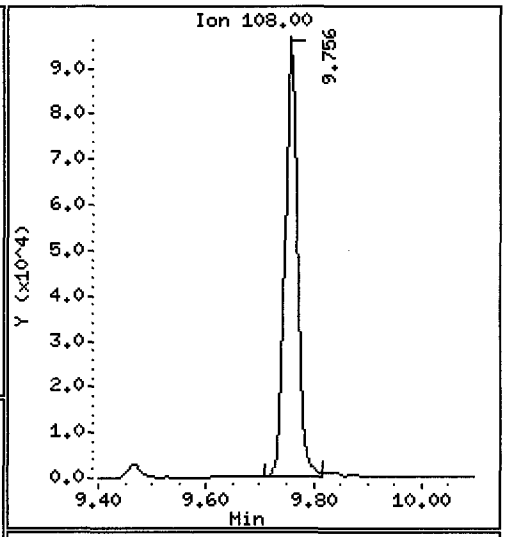
Concentration: 611.0 ug/kg

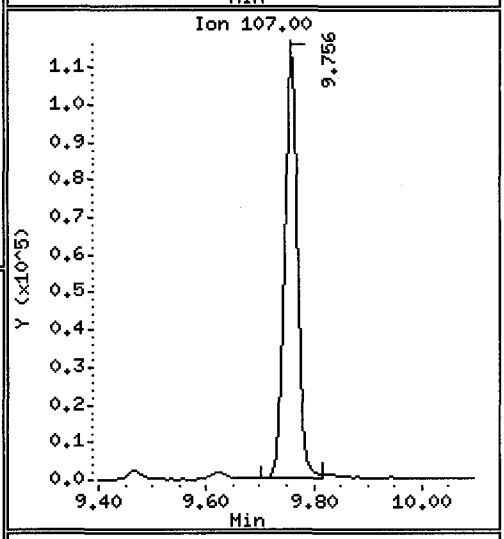


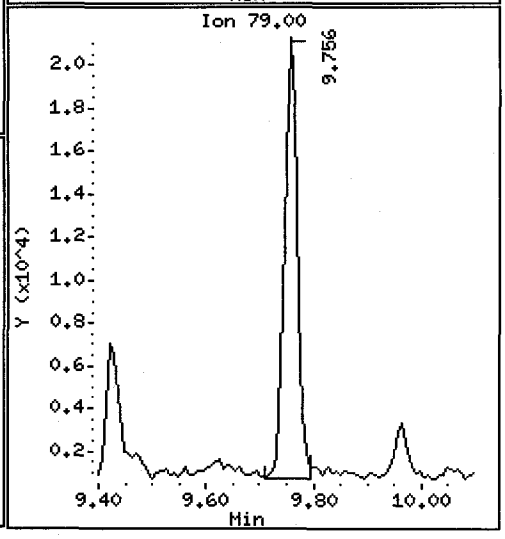



Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

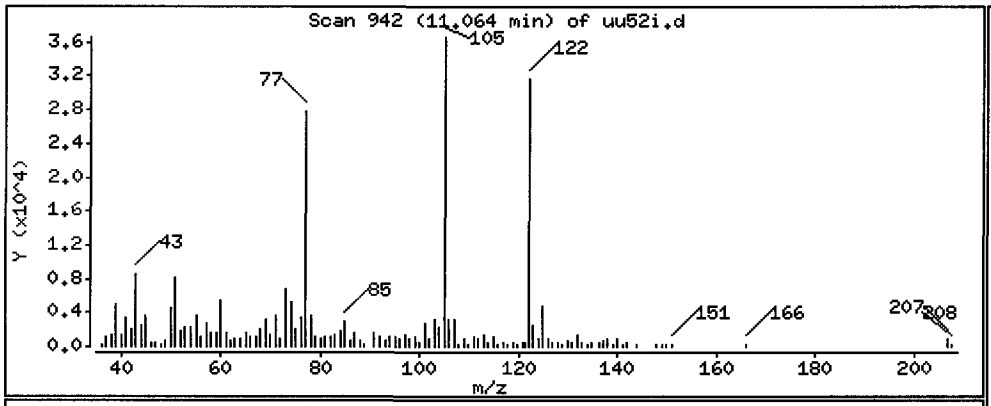
Operator: VTS/YZ

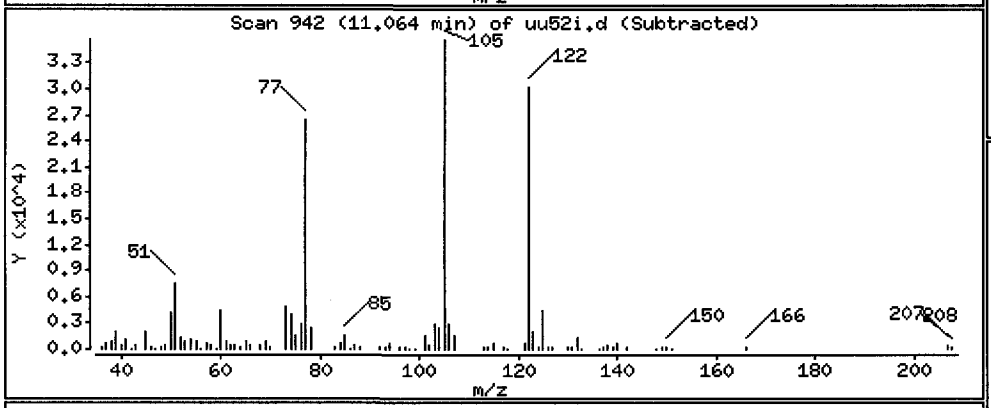
Column phase: ZB-5msi

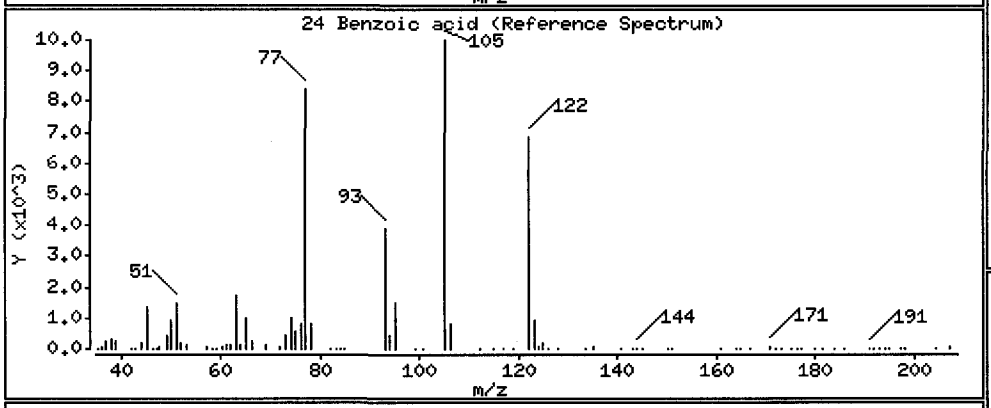
Column diameter: 0.25

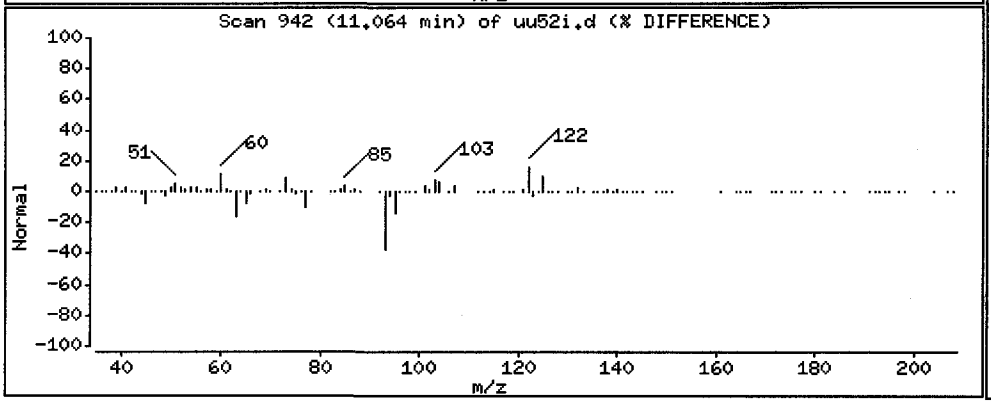
24 Benzoic acid

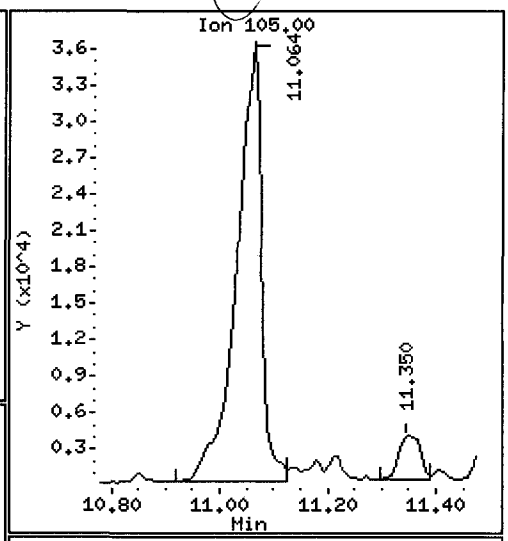
Concentration: 744.4 ug/kg

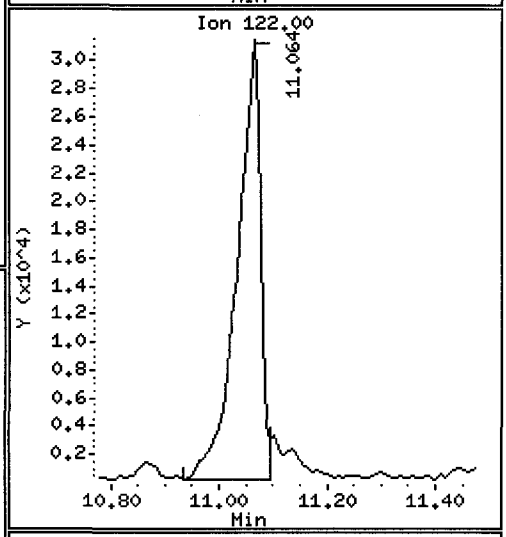


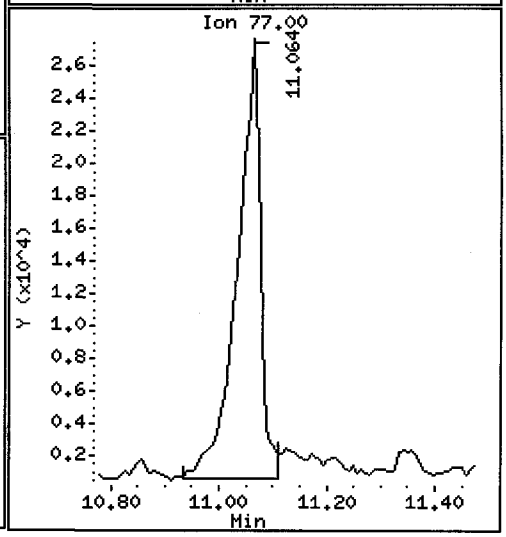



Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

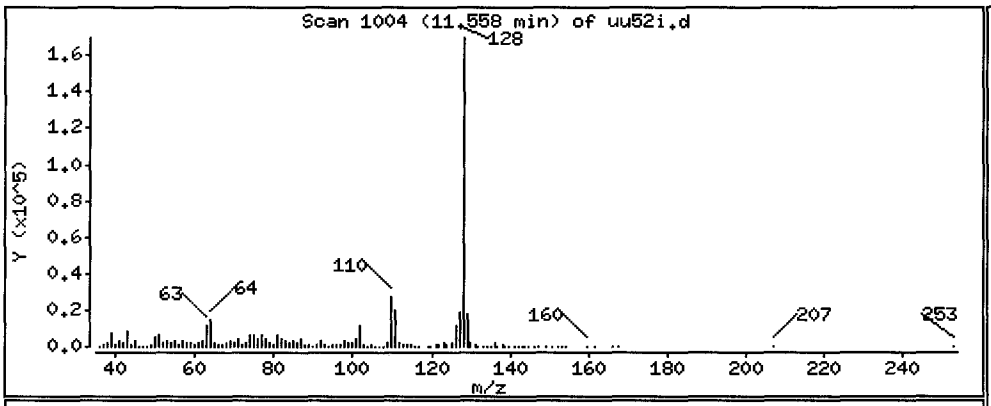
Client ID: MS008-SS-120515 Instrument: nt10.i

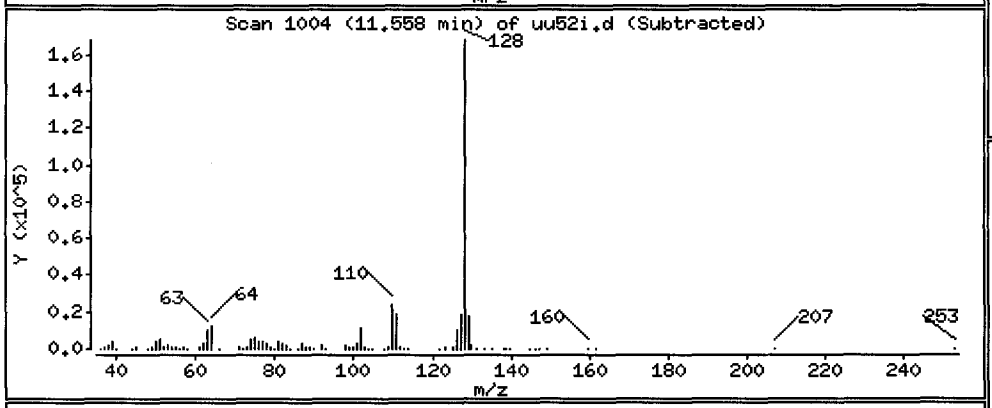
Sample Info: UU52I,3

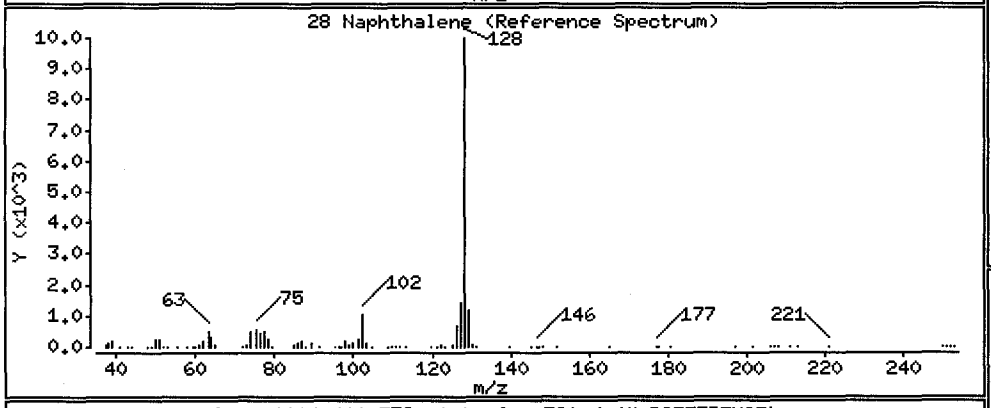
Volume Injected (uL): 1.0 Operator: VTS/YZ

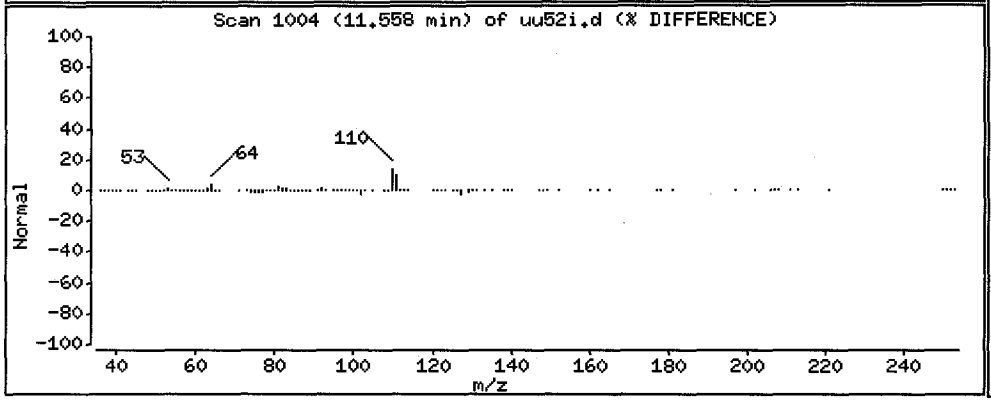
Column phase: ZB-5msi Column diameter: 0.25

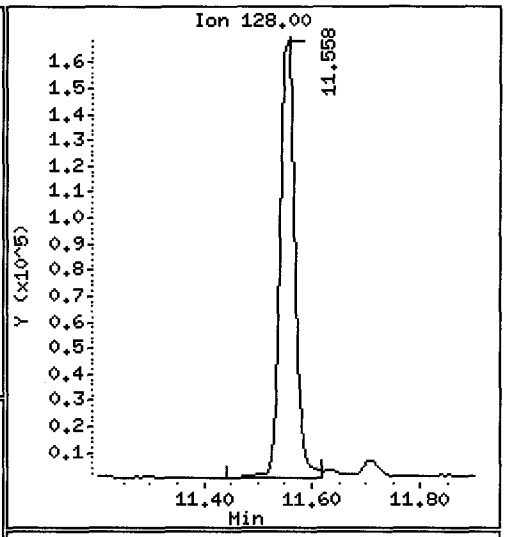
28 Naphthalene Concentration: 457.2 ug/kg

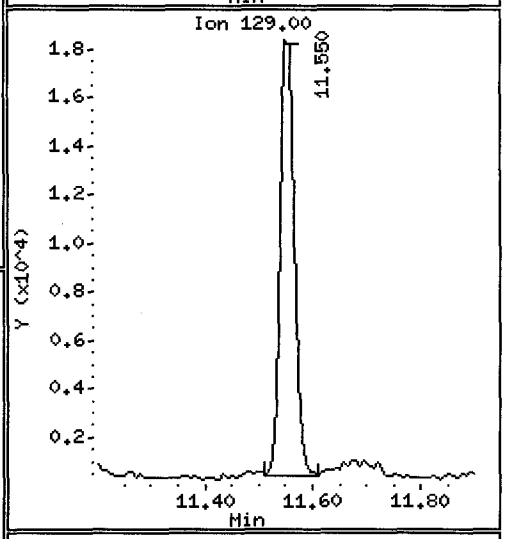


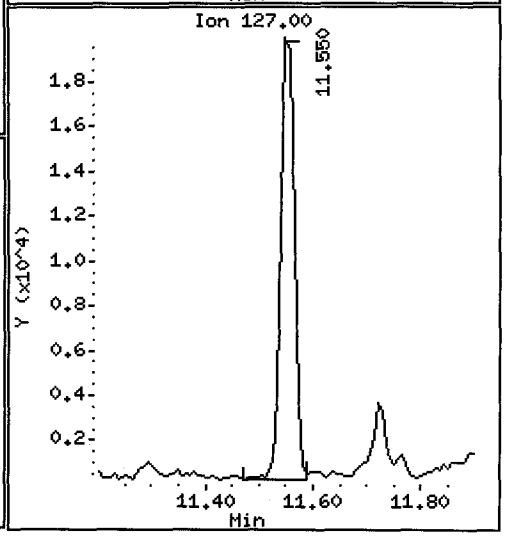



Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

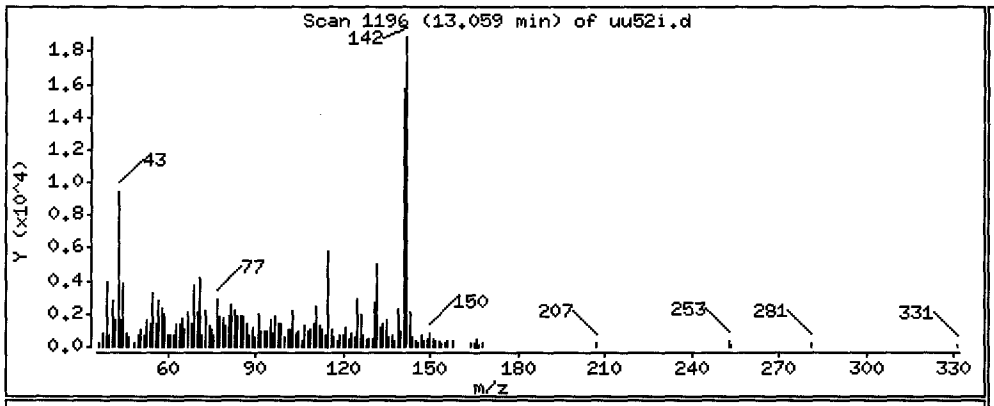
Operator: VTS/YZ

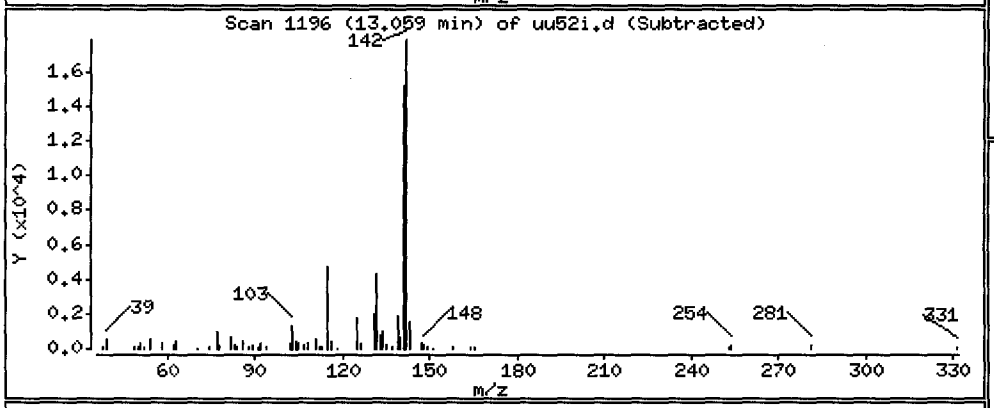
Column phase: ZB-5msi

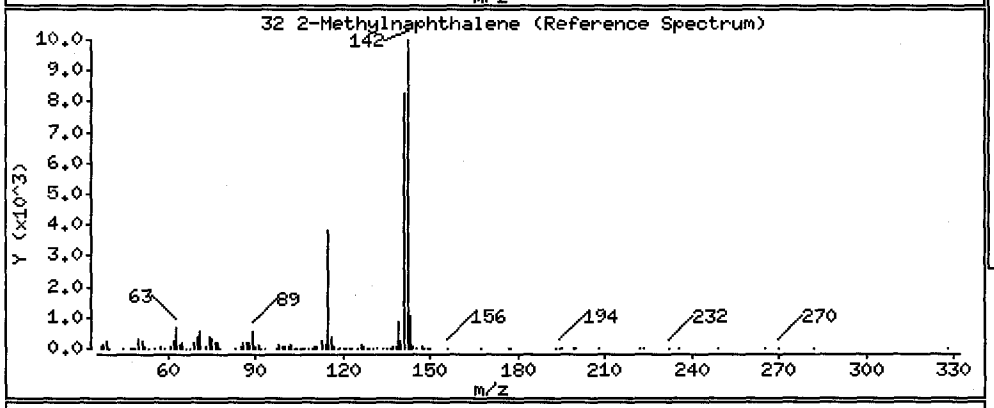
Column diameter: 0.25

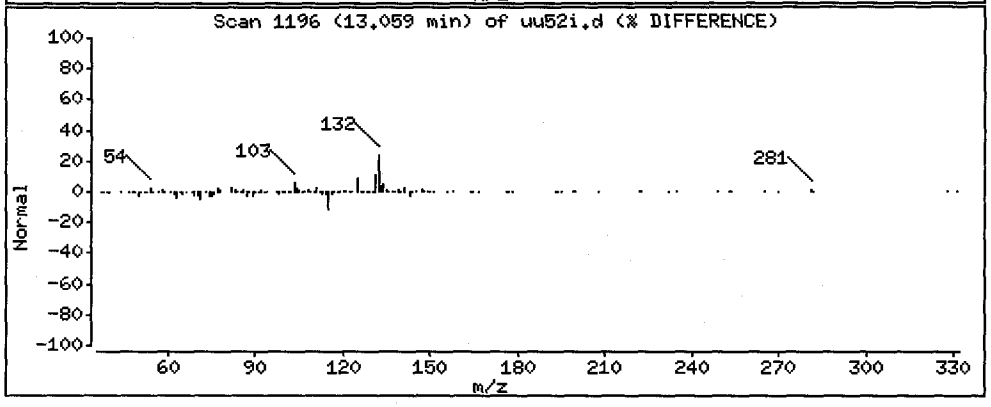
32 2-Methylnaphthalene

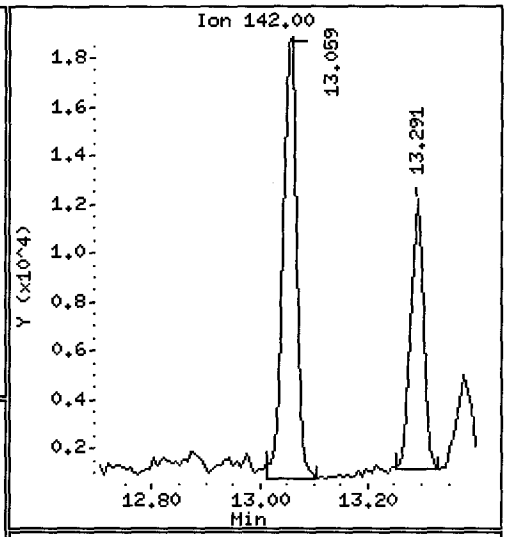
Concentration: 65.42 ug/kg

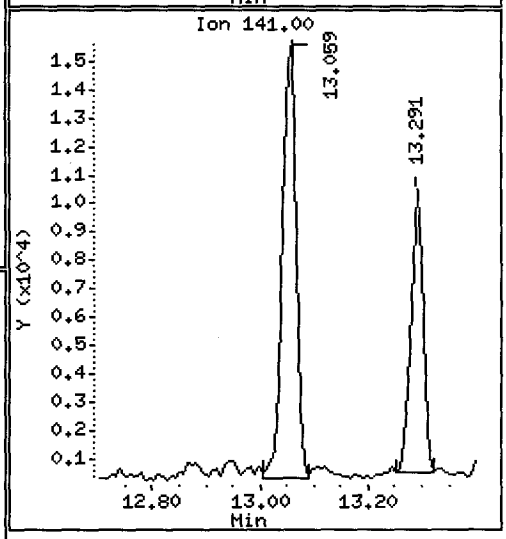


Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

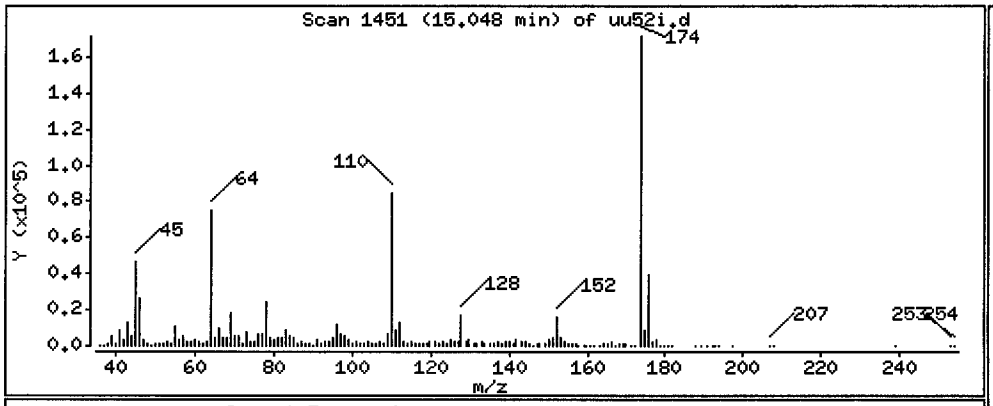
Operator: VTS/YZ

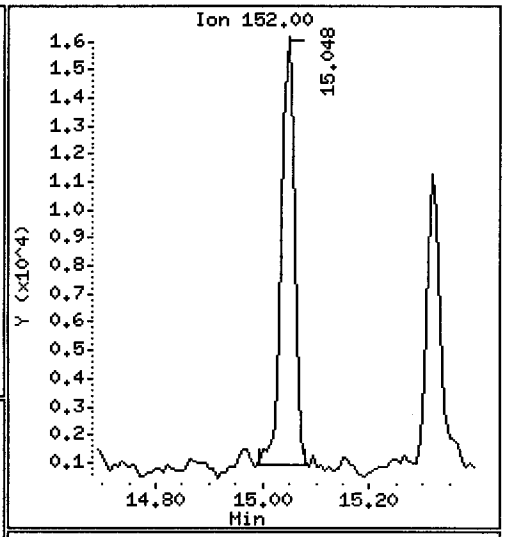
Column phase: ZB-5msi

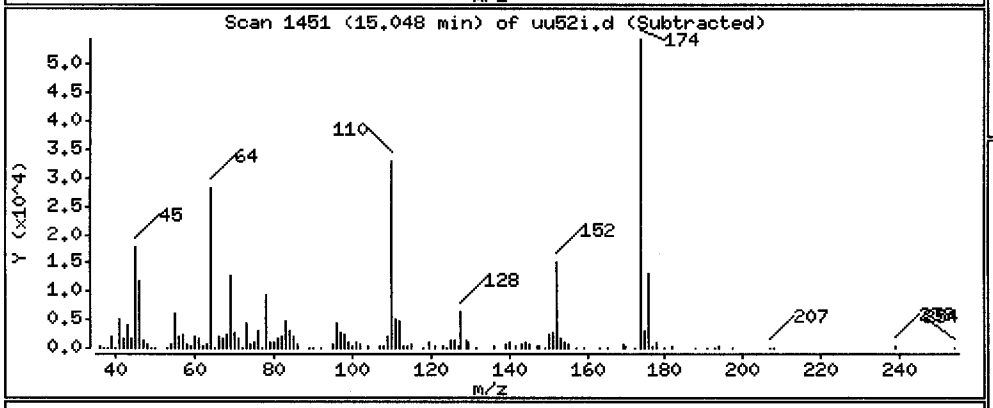
Column diameter: 0.25

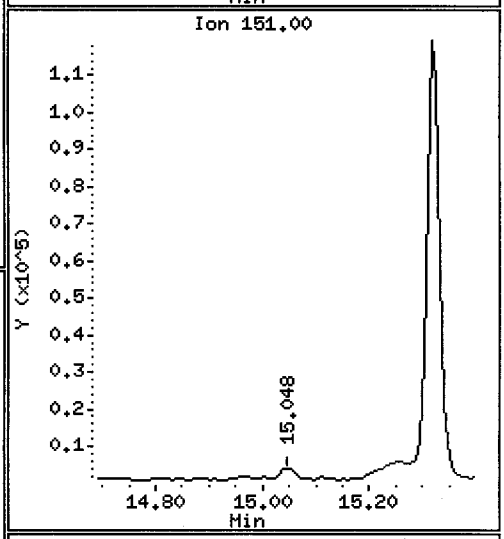
40 Acenaphthylene

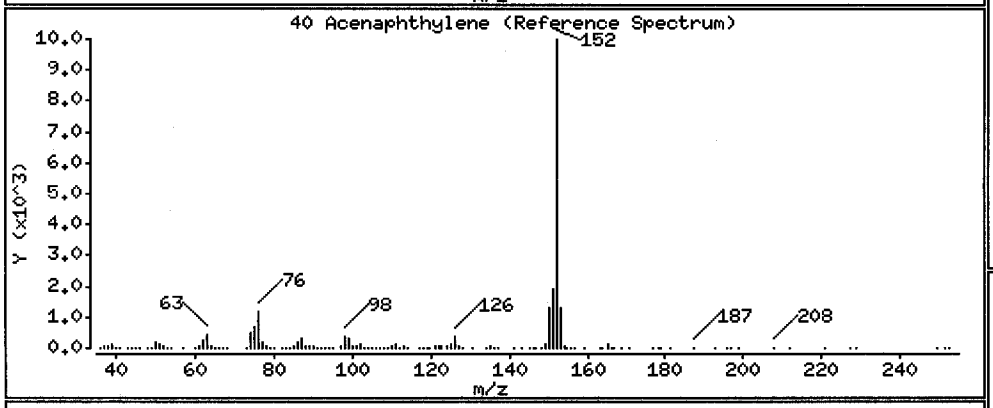
Concentration: 38.94 ug/kg

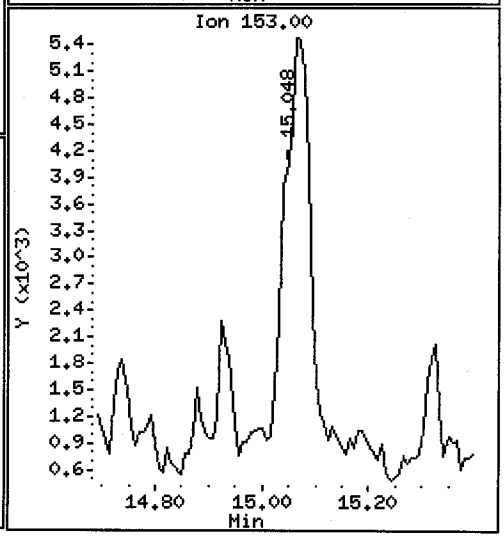


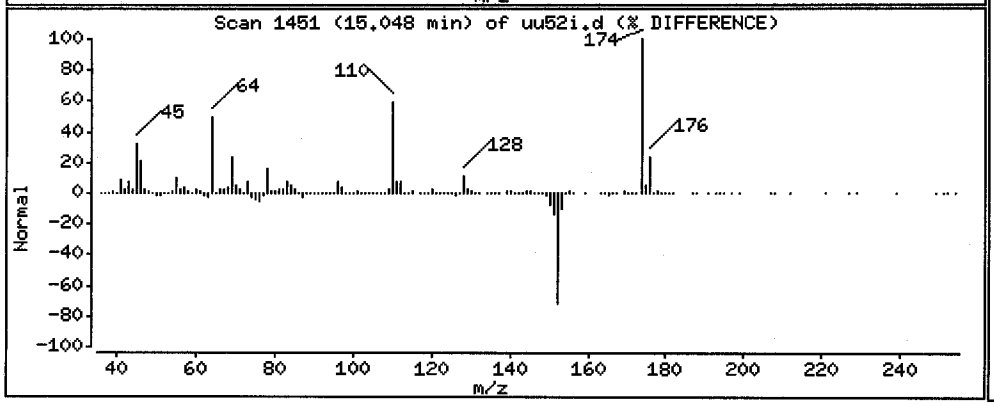



Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

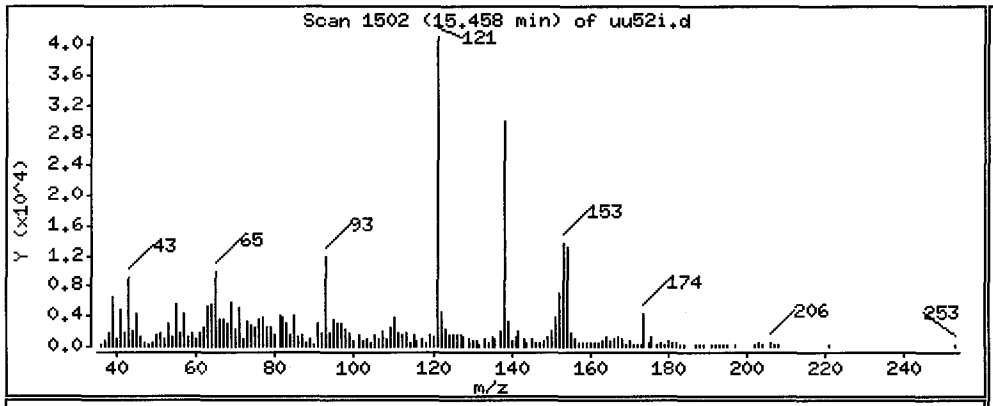
Client ID: MS008-SS-120515 Instrument: nt10.i

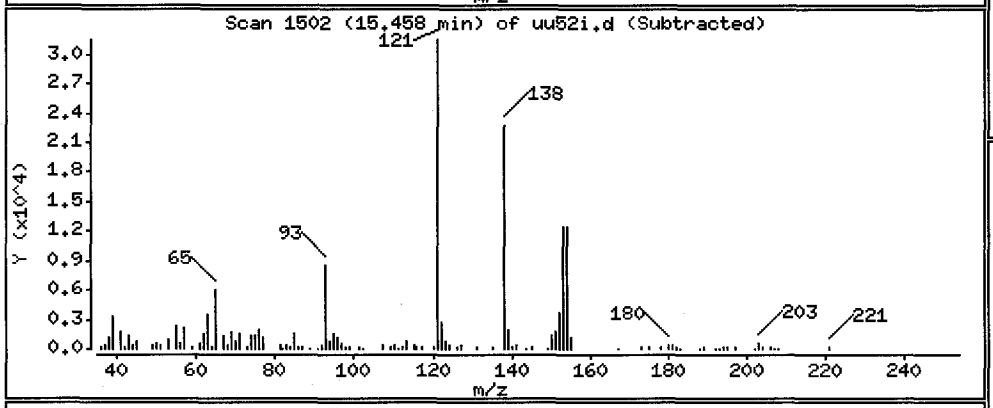
Sample Info: UU52I,3

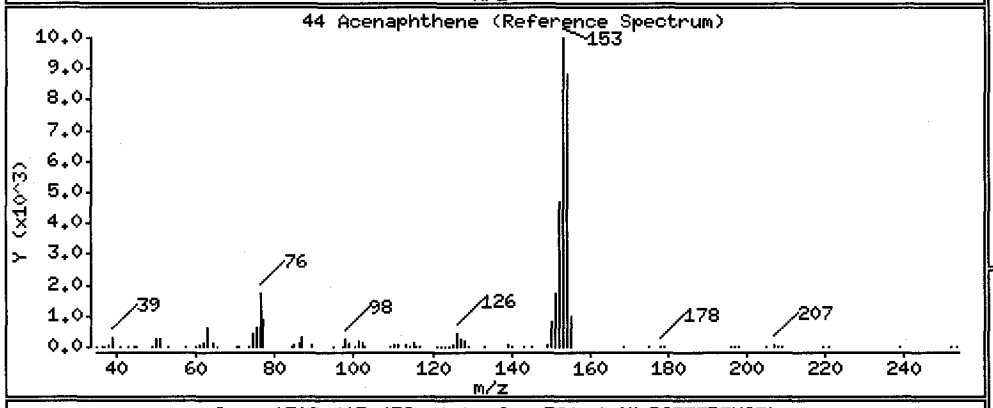
Volume Injected (uL): 1.0 Operator: VTS/YZ

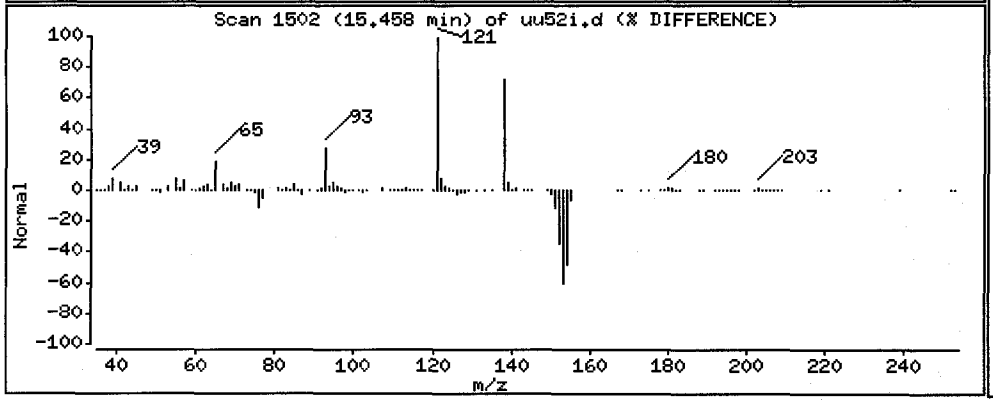
Column phase: ZB-5msi Column diameter: 0.25

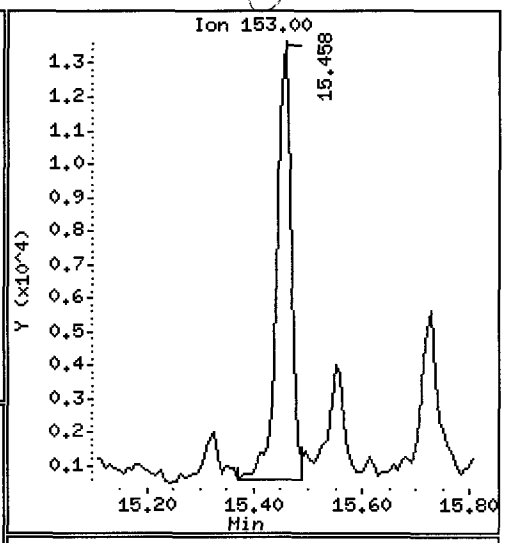
44 Acenaphthene Concentration: 57.30 ug/kg

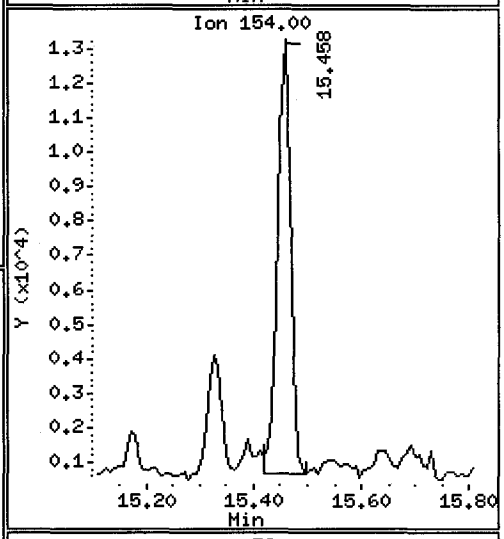


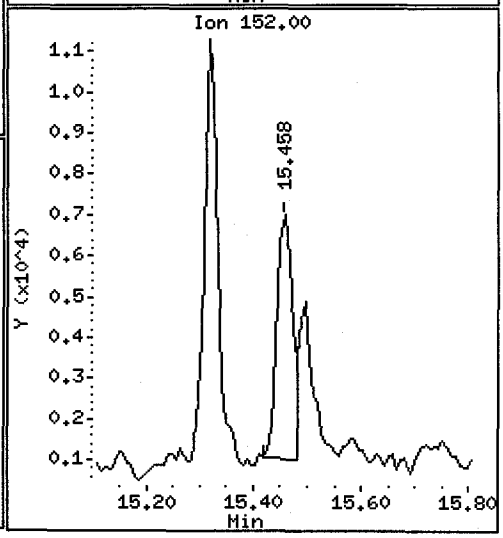



Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

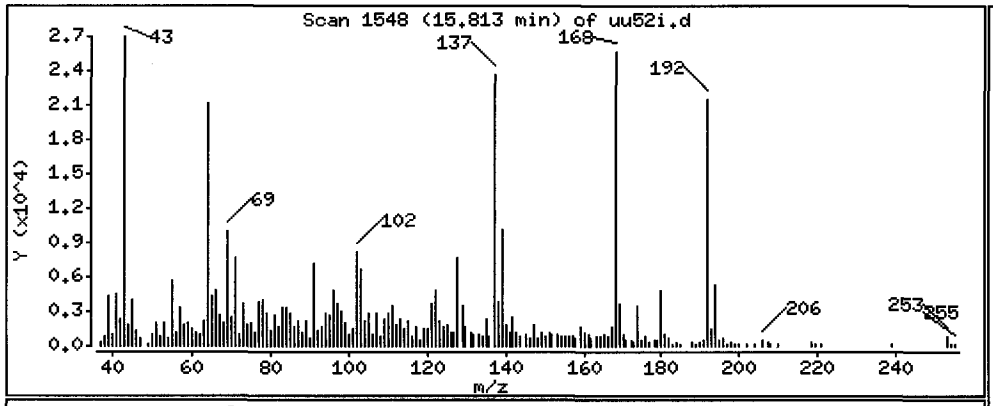
Client ID: MS008-SS-120515 Instrument: nt10.i

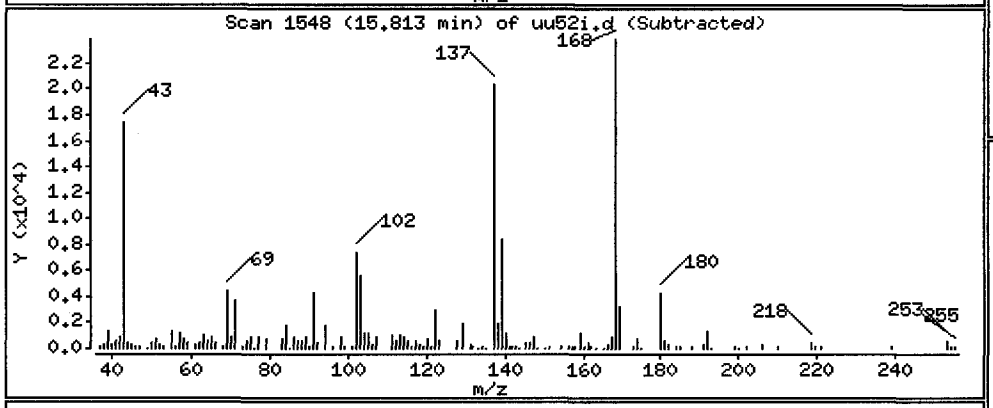
Sample Info: UU52I,3

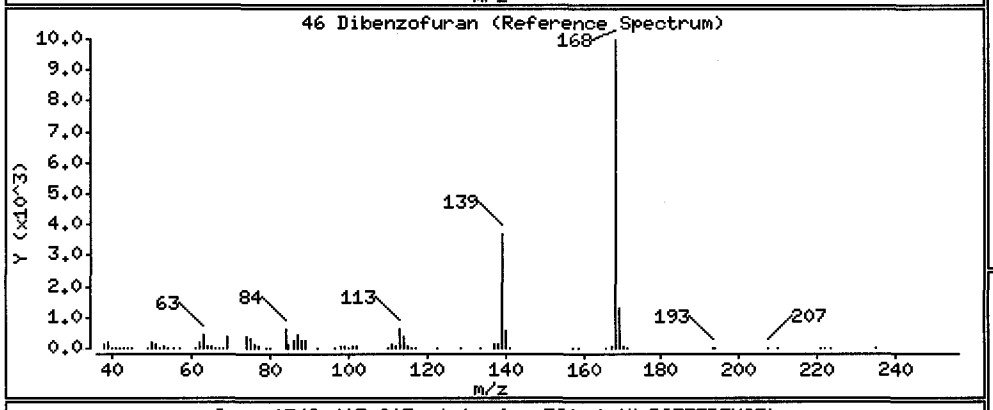
Volume Injected (uL): 1.0 Operator: VTS/YZ

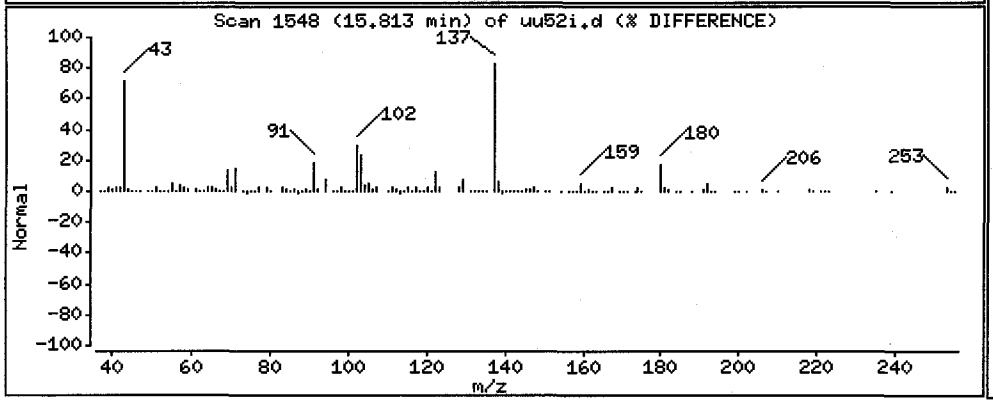
Column phase: ZB-5msi Column diameter: 0.25

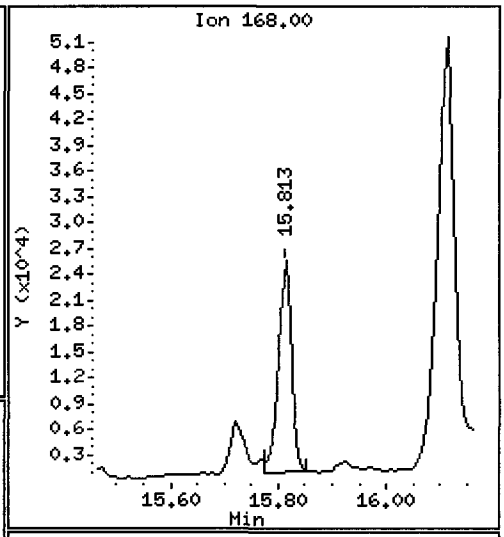
46 Dibenzofuran Concentration: 68.62 ug/kg

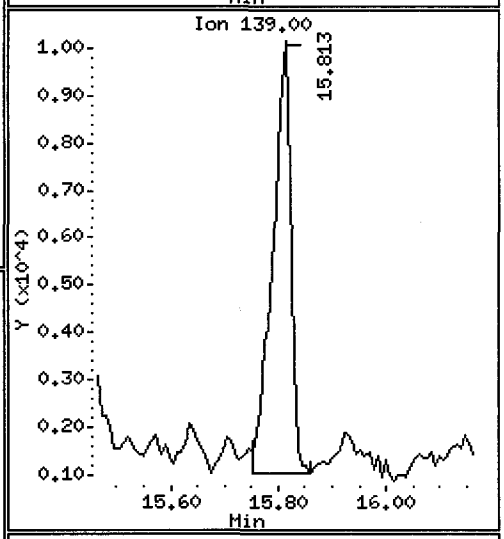


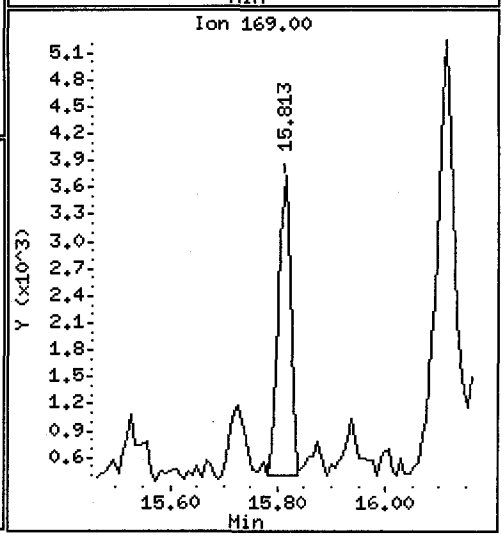



Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

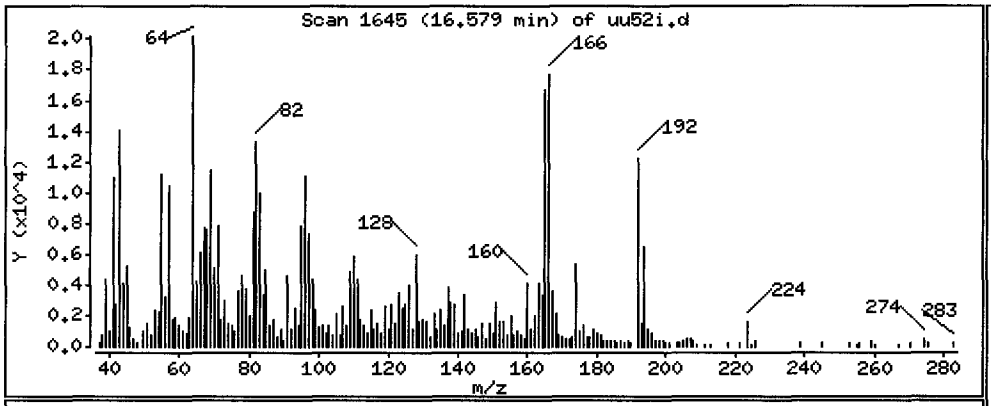
Operator: VTS/YZ

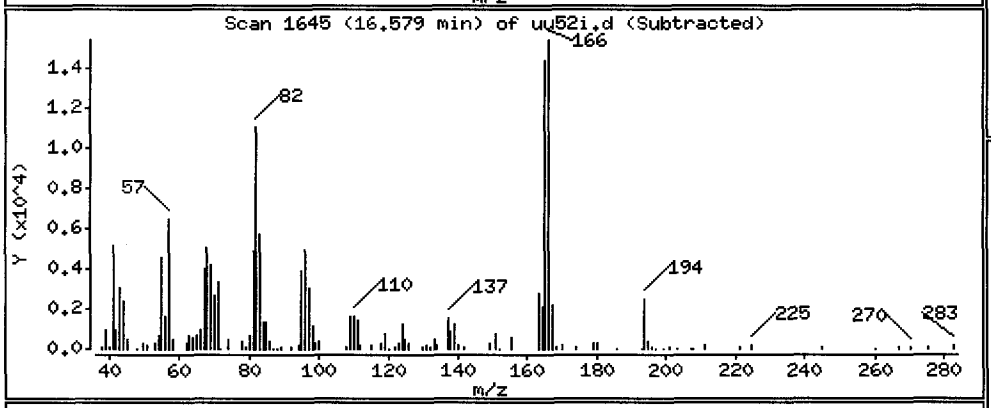
Column phase: ZB-5msi

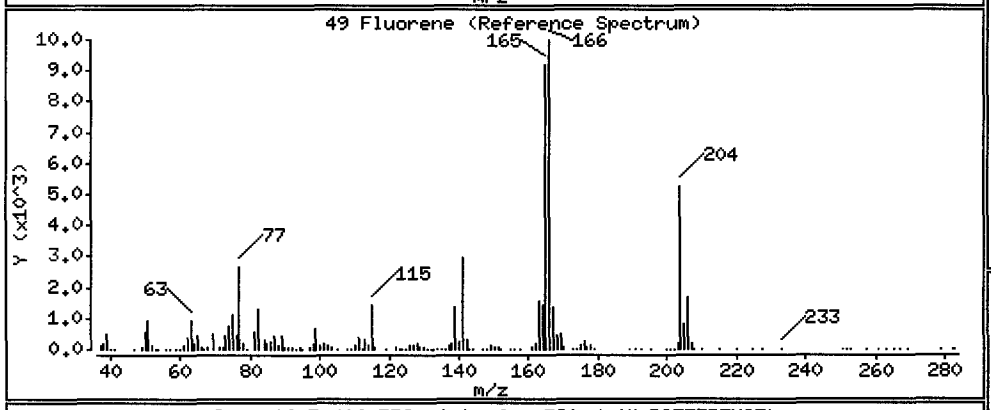
Column diameter: 0.25

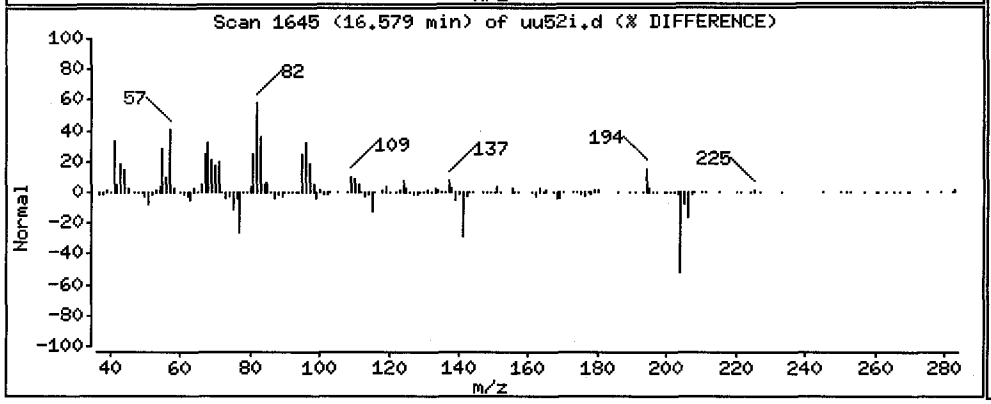
49 Fluorene

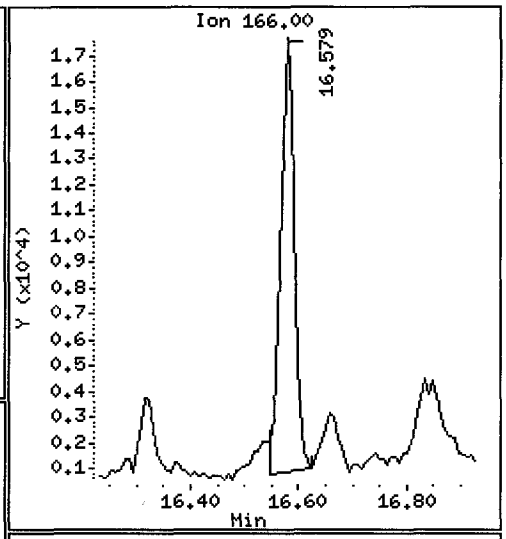
Concentration: 66.29 ug/kg

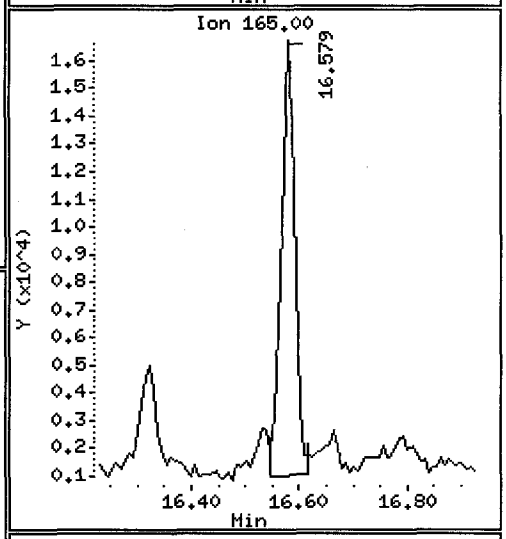


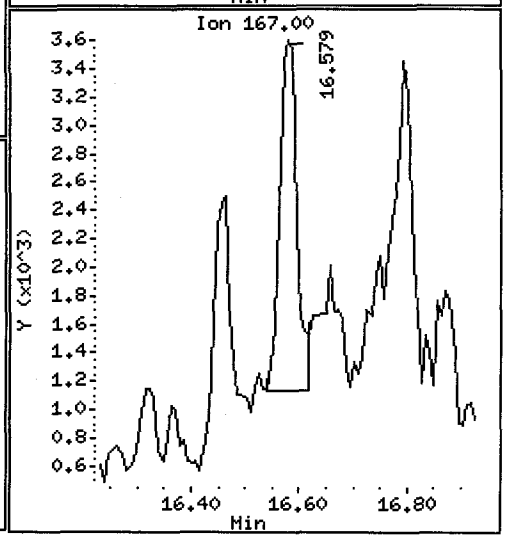



Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

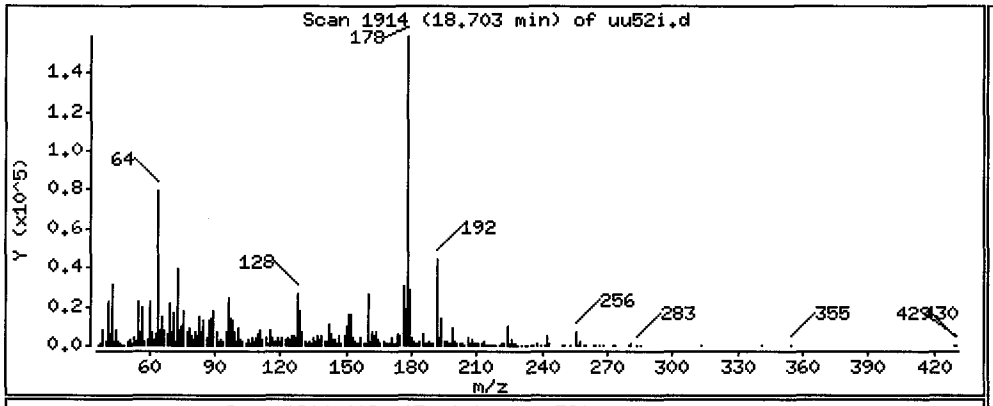
Operator: VTS/YZ

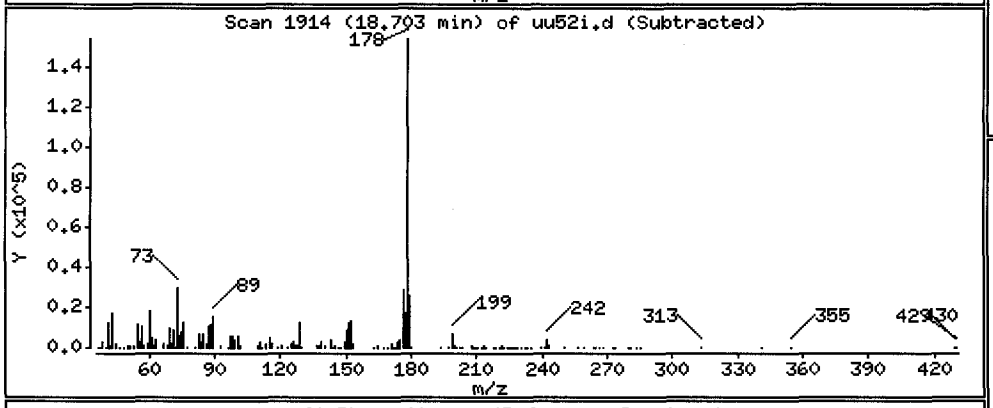
Column phase: ZB-5msi

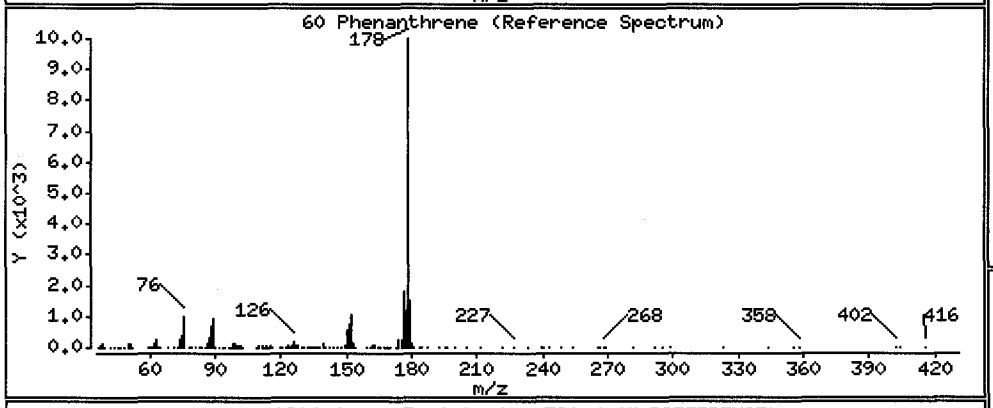
Column diameter: 0.25

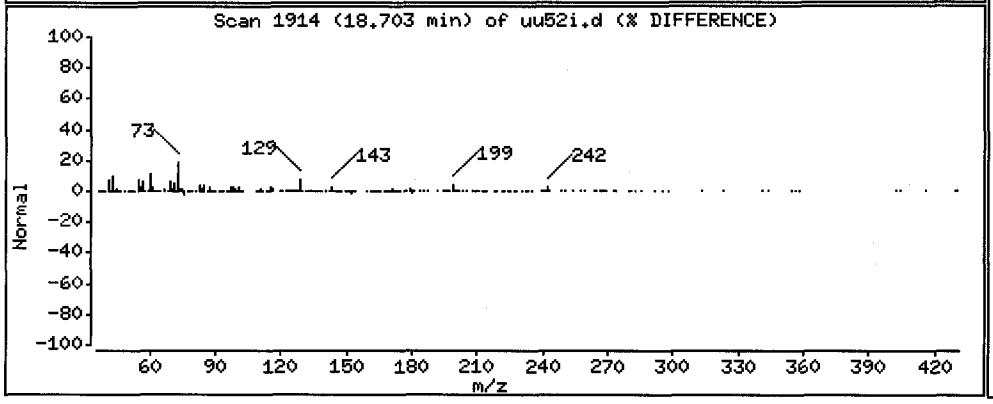
60 Phenanthrene

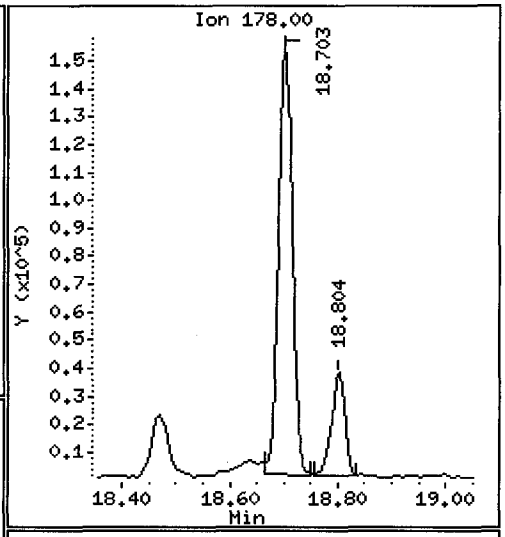
Concentration: 482.9 ug/kg

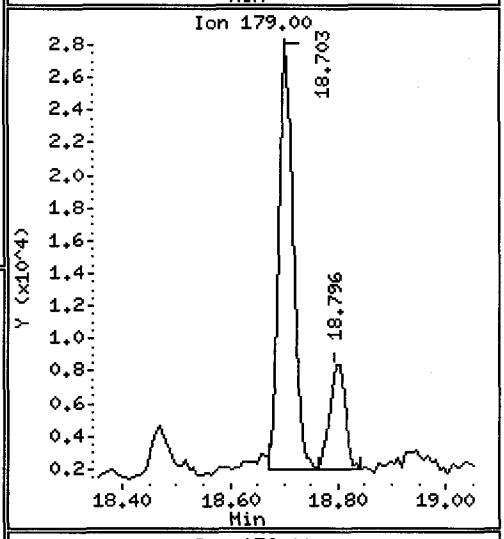


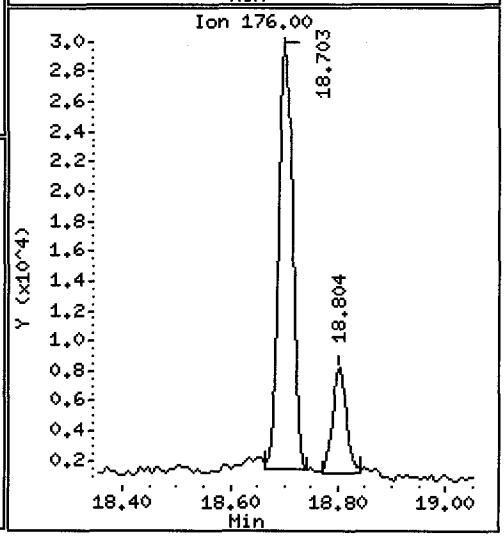



Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

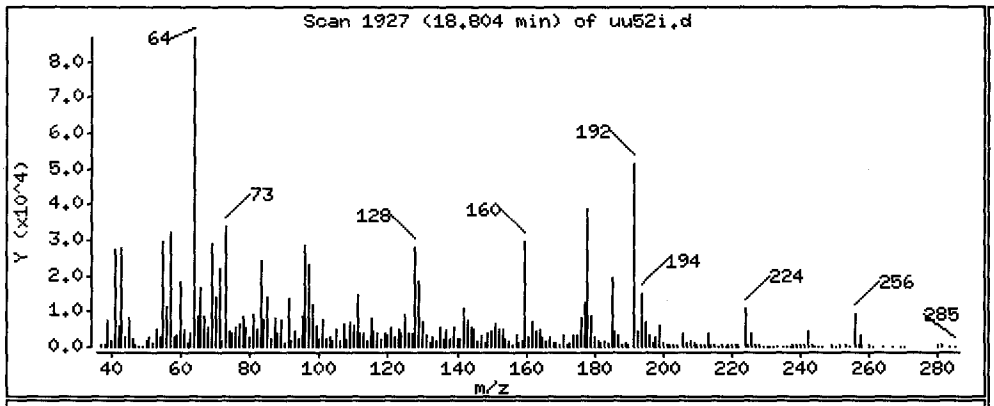
Client ID: MS008-SS-120515 Instrument: nt10.i

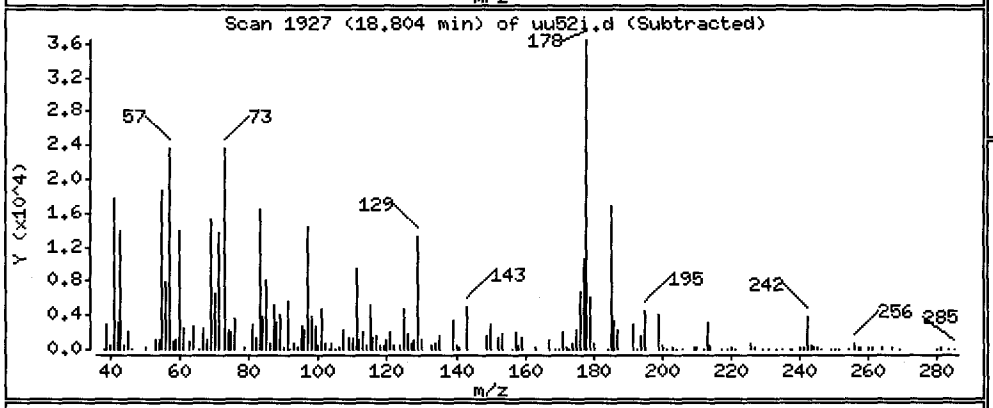
Sample Info: UU52I,3

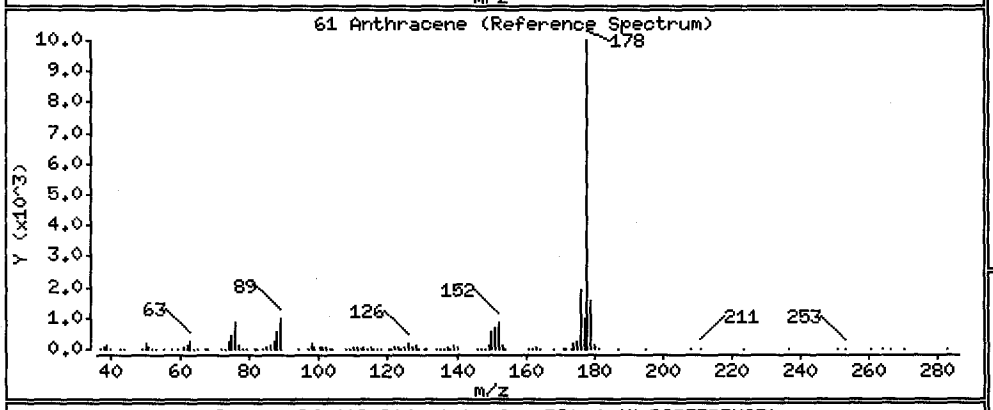
Volume Injected (uL): 1.0 Operator: VTS/YZ

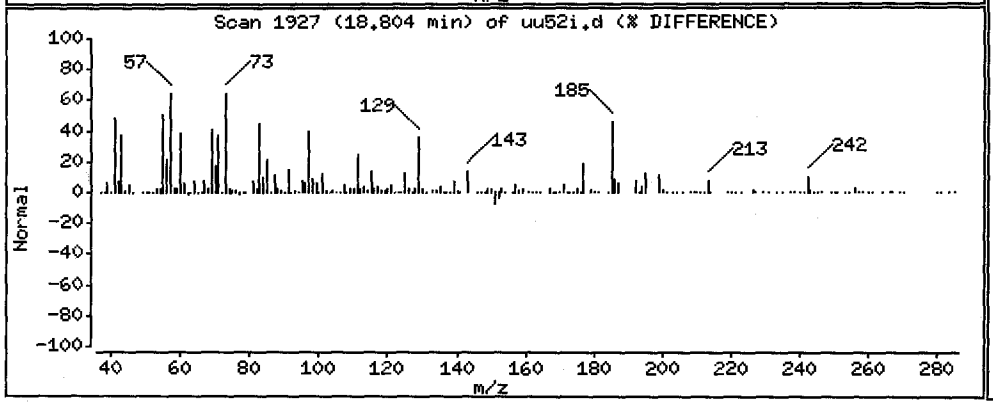
Column phase: ZB-5msi Column diameter: 0.25

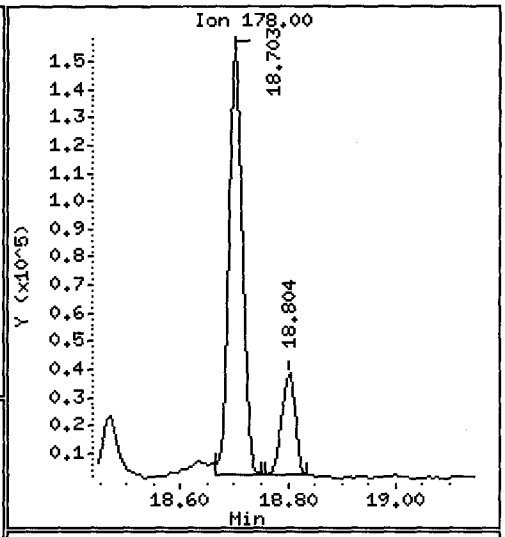
61 Anthracene Concentration: 113.7 ug/kg

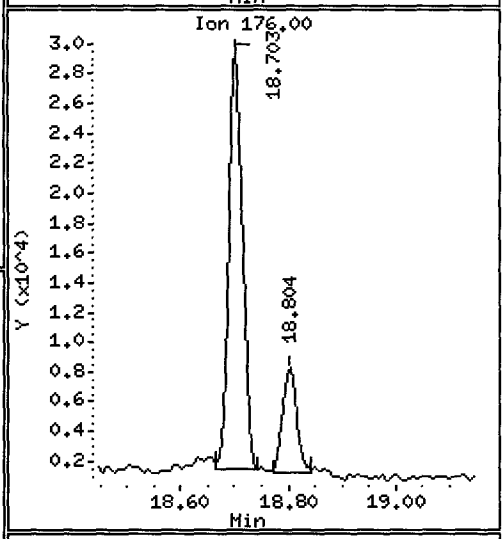


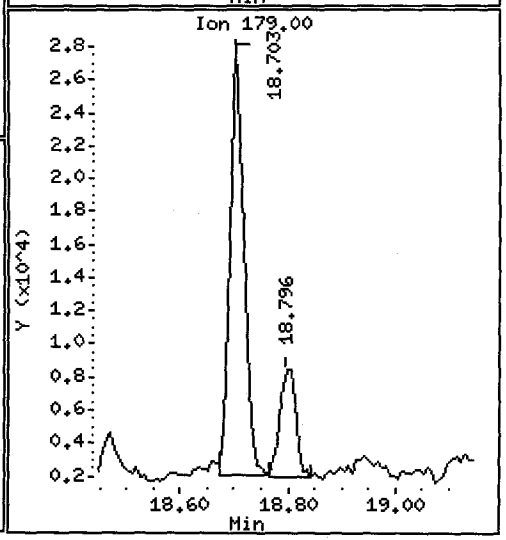



Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

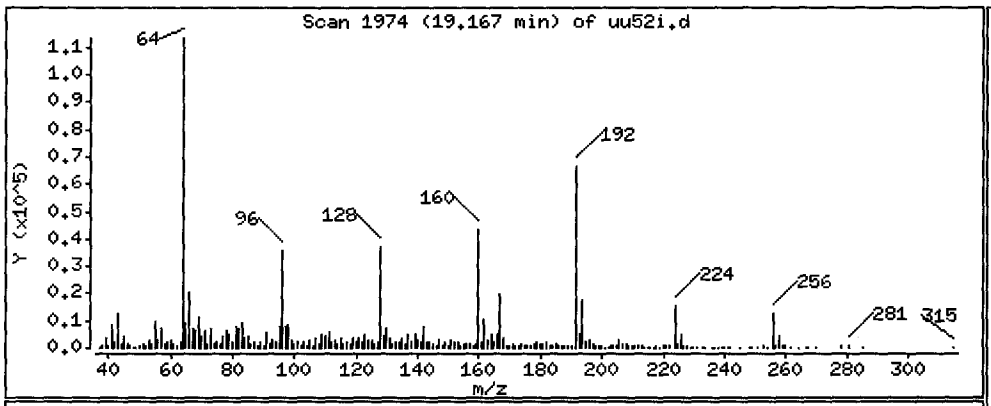
Operator: VTS/YZ

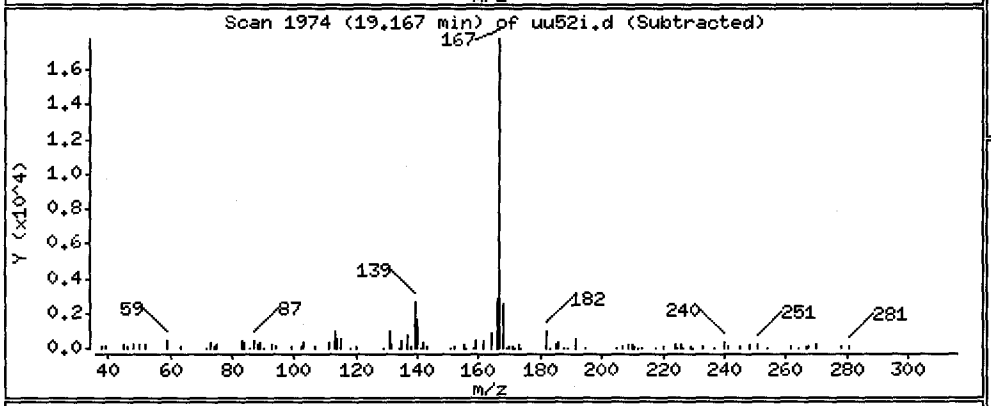
Column phase: ZB-5msi

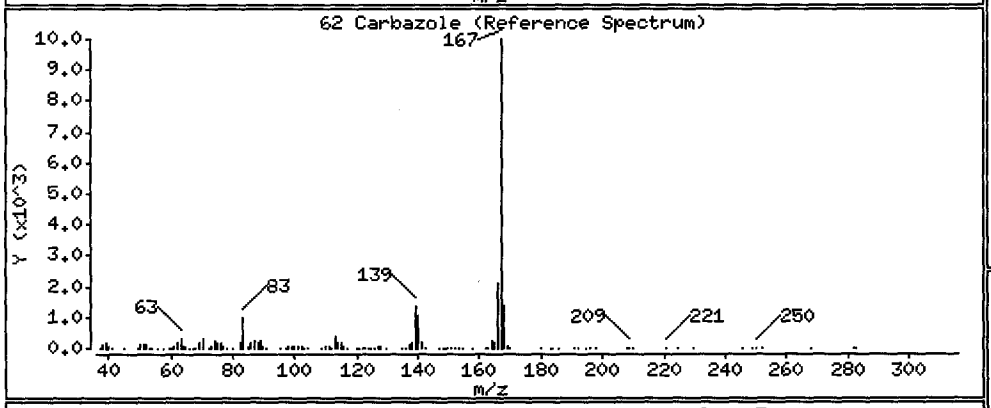
Column diameter: 0.25

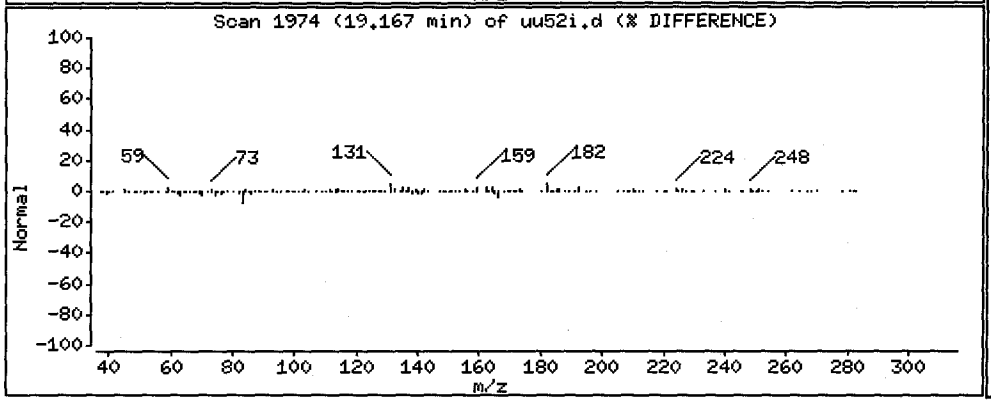
62 Carbazole

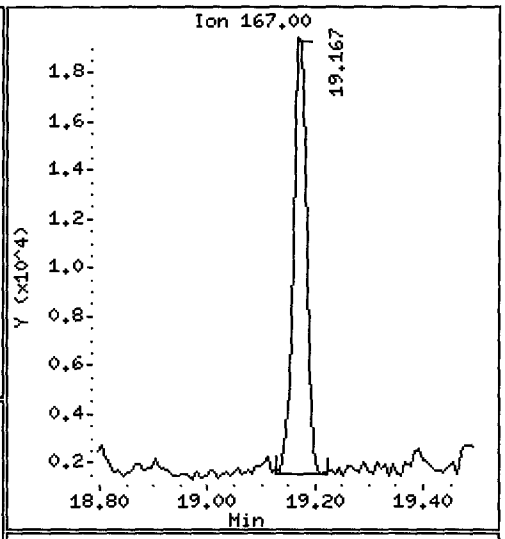
Concentration: 61.74 ug/kg

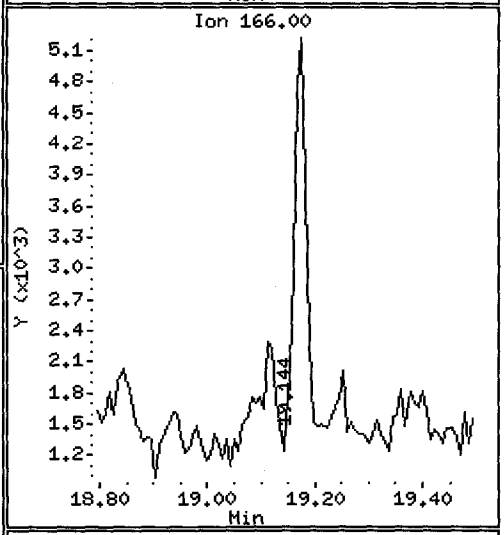


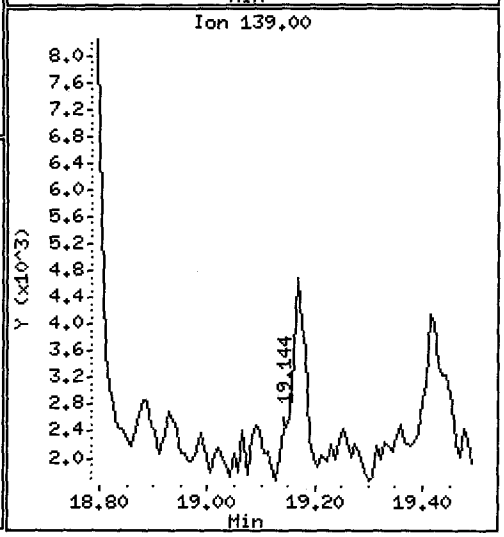



Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

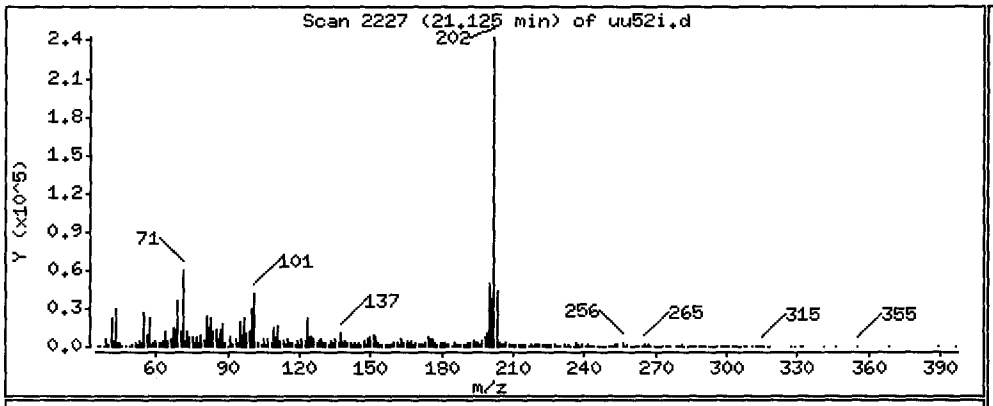
Operator: VTS/YZ

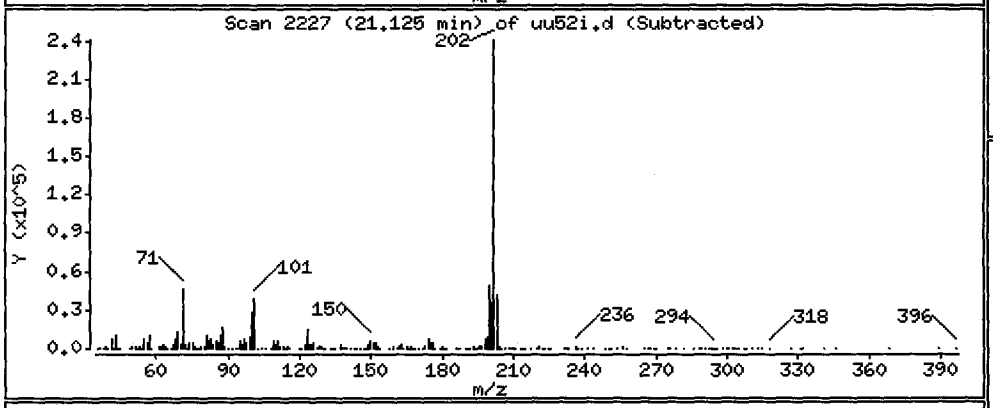
Column phase: ZB-5msi

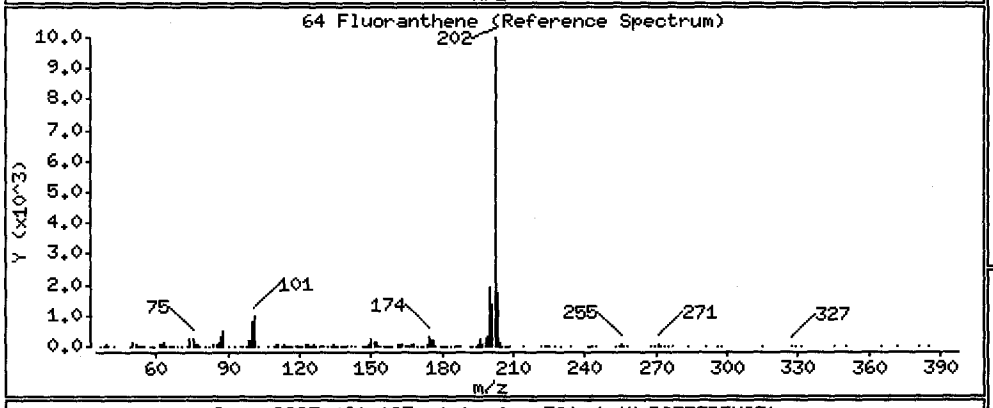
Column diameter: 0.25

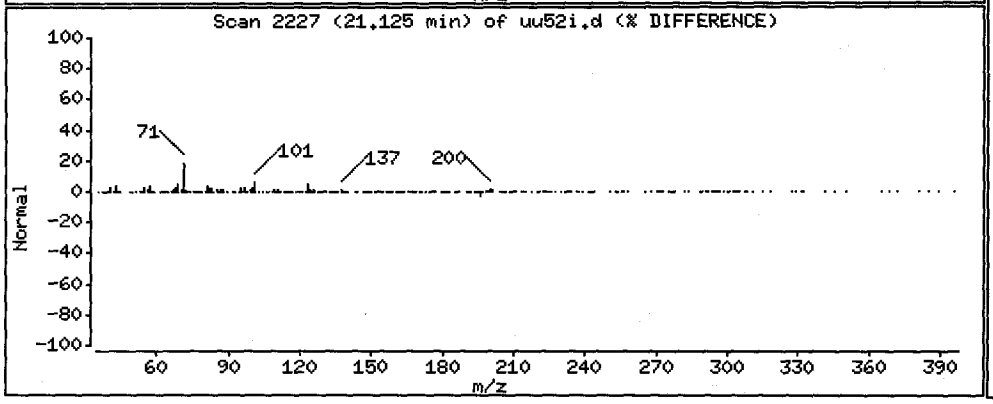
64 Fluoranthene

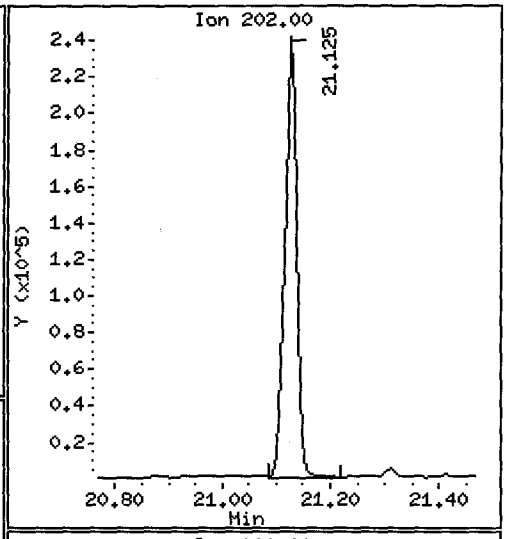
Concentration: 595.6 ug/kg

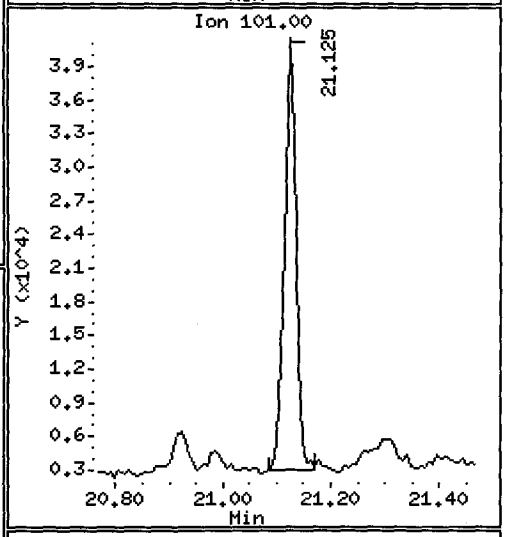


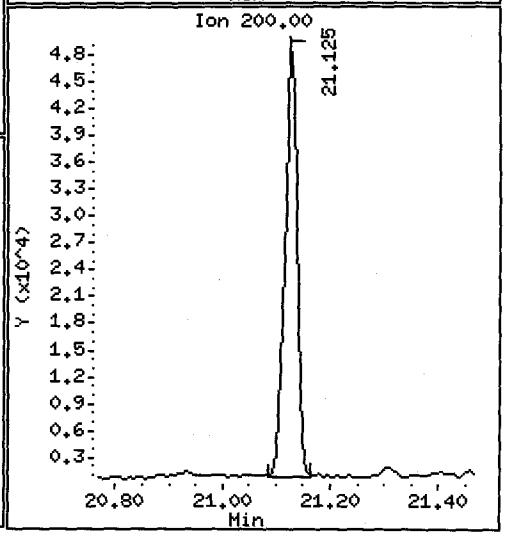



Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

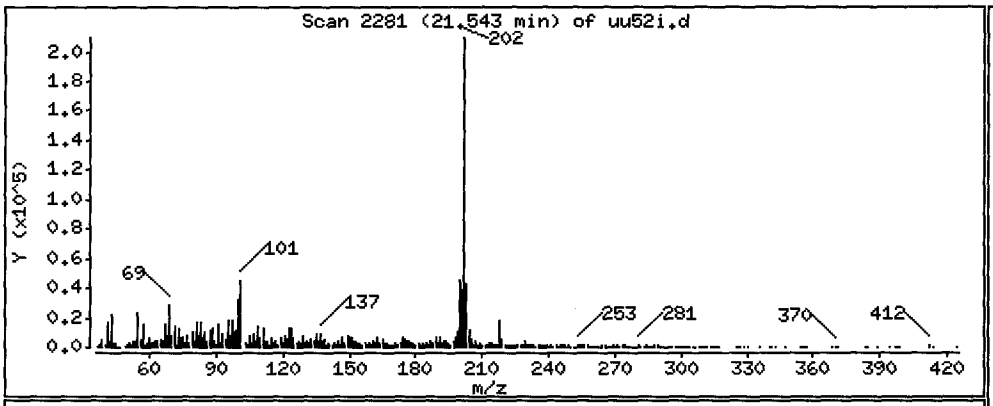
Client ID: MS008-SS-120515 Instrument: nt10.i

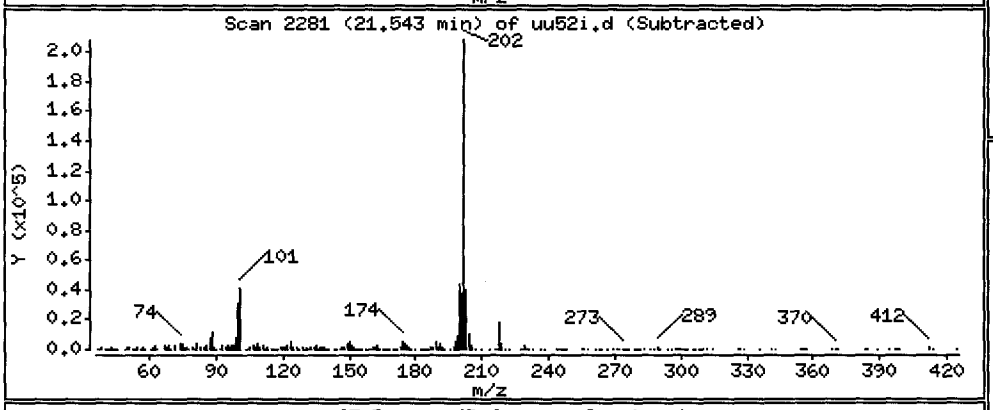
Sample Info: UU52I,3

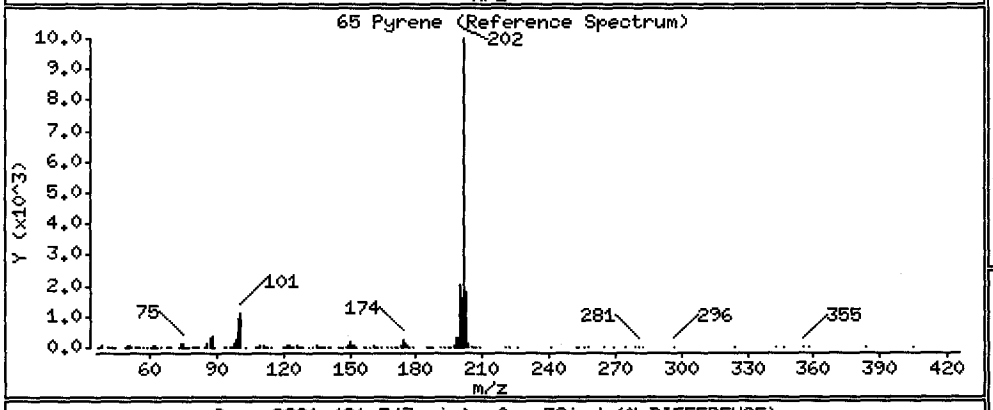
Volume Injected (uL): 1.0 Operator: VTS/YZ

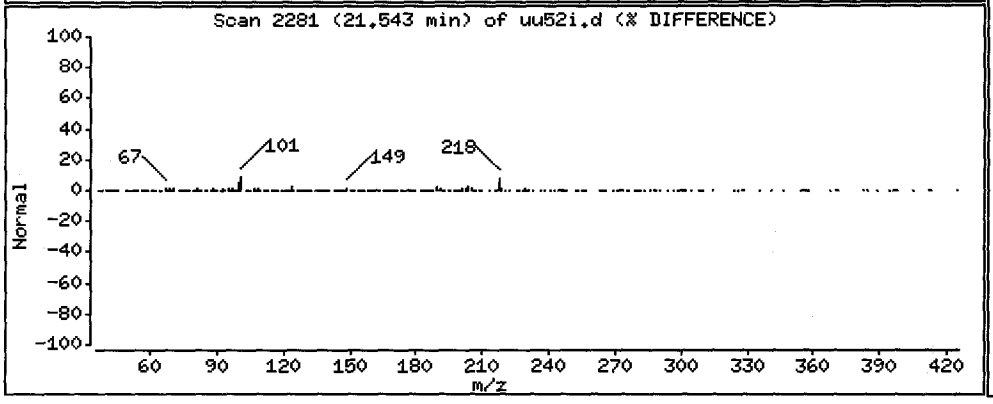
Column phase: ZB-5msi Column diameter: 0.25

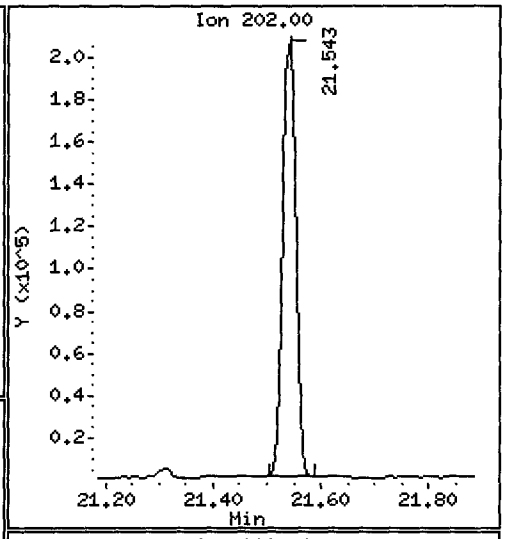
65 Pyrene Concentration: 458.0 ug/kg

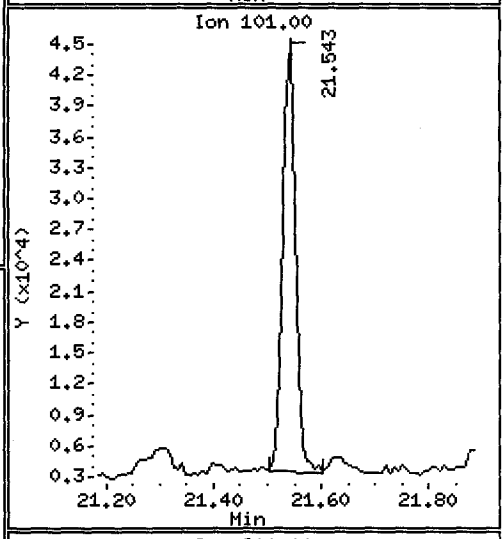


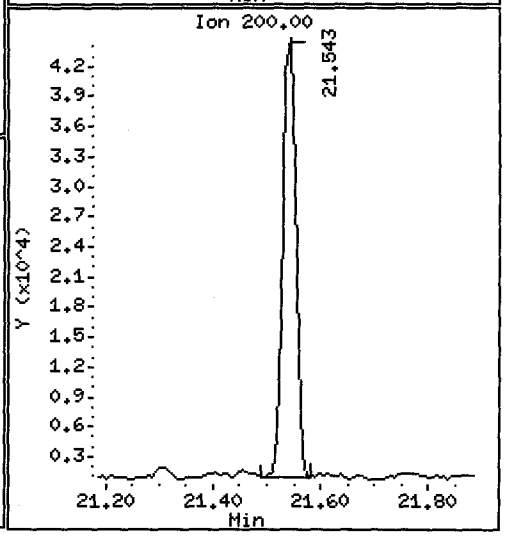



Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

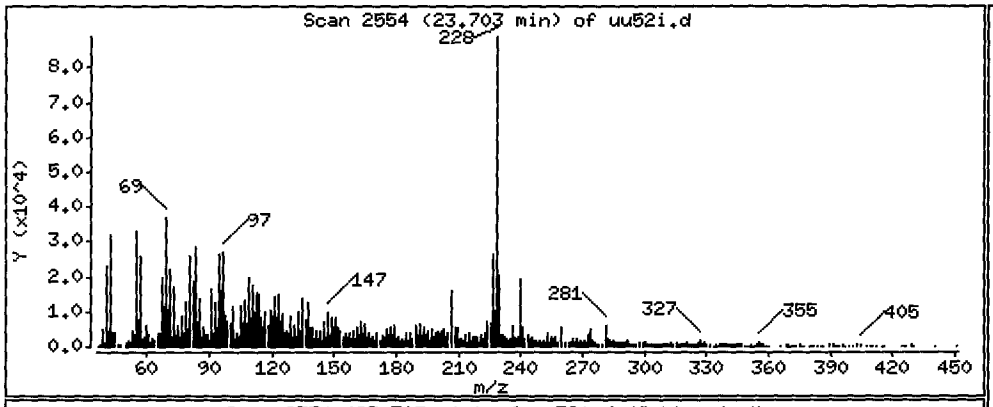
Client ID: MS008-SS-120515 Instrument: nt10.i

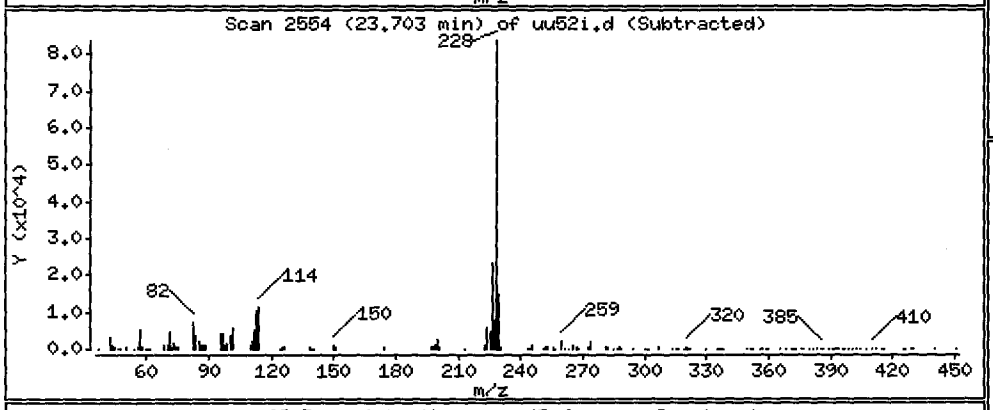
Sample Info: UU52I,3

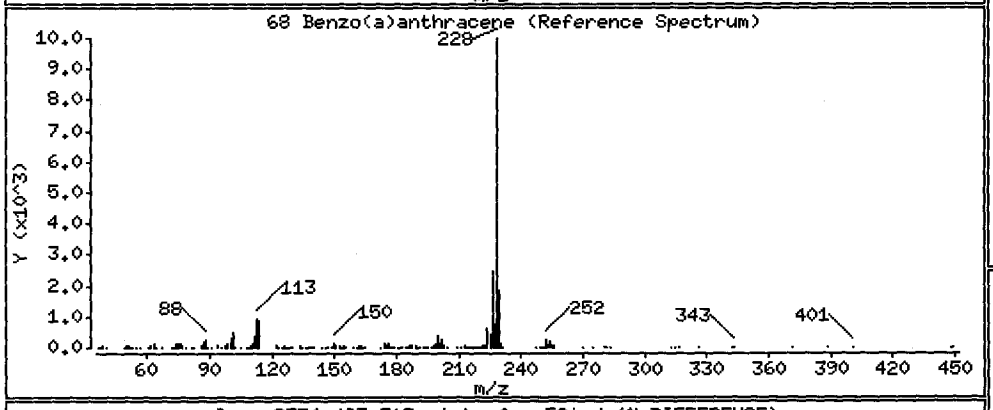
Volume Injected (uL): 1.0 Operator: VTS/YZ

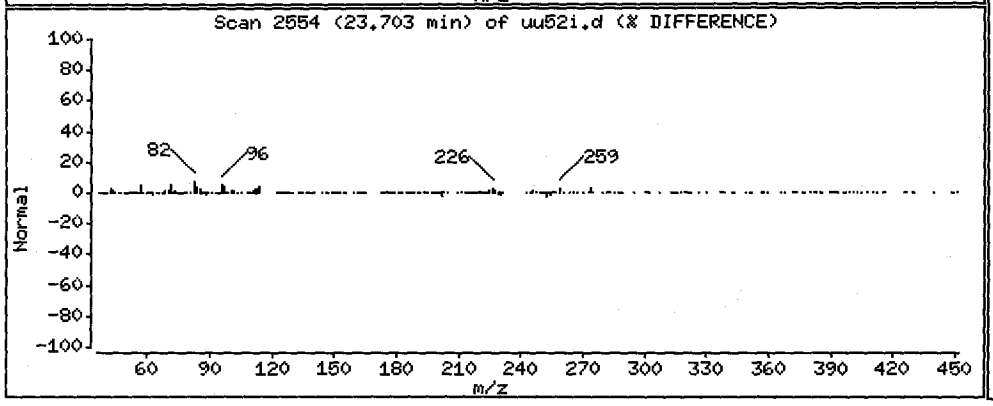
Column phase: ZB-5msi Column diameter: 0.25

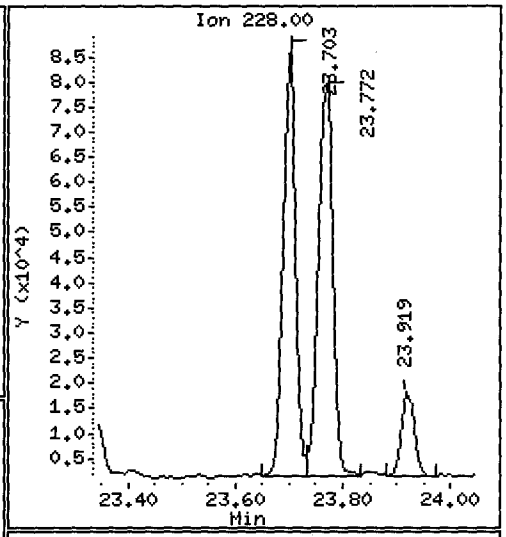
68 Benzo(a)anthracene Concentration: 194.9 ug/kg

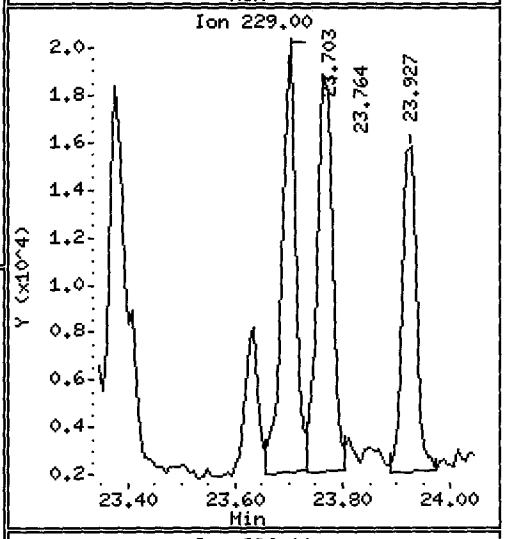


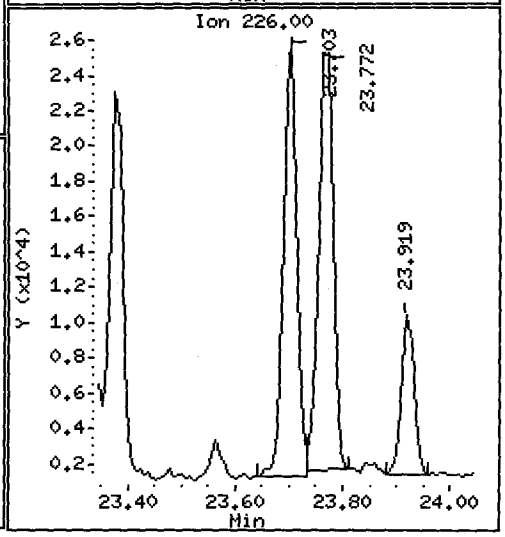



Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

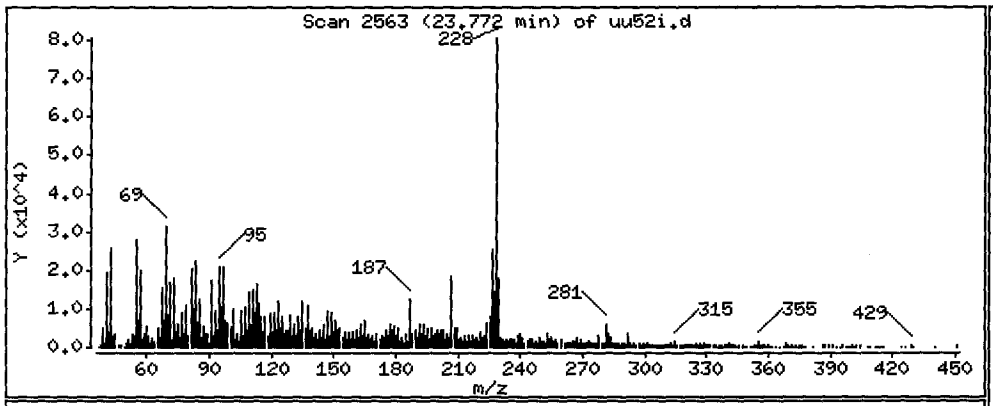
Operator: VTS/YZ

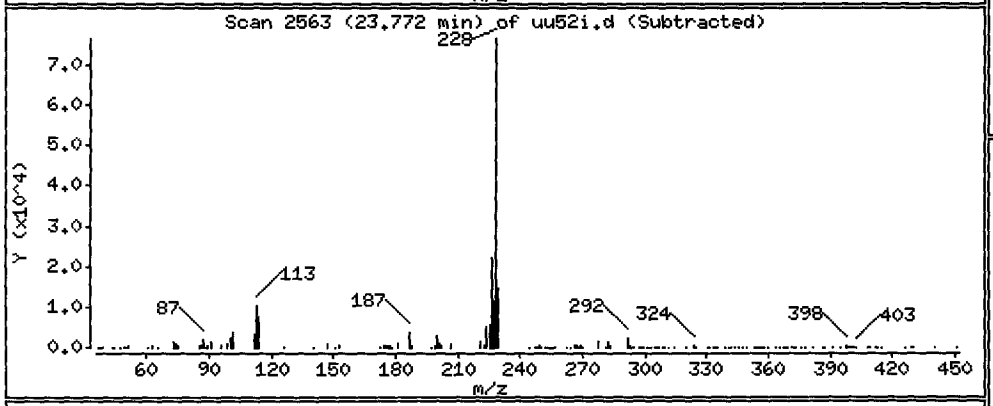
Column phase: ZB-5msi

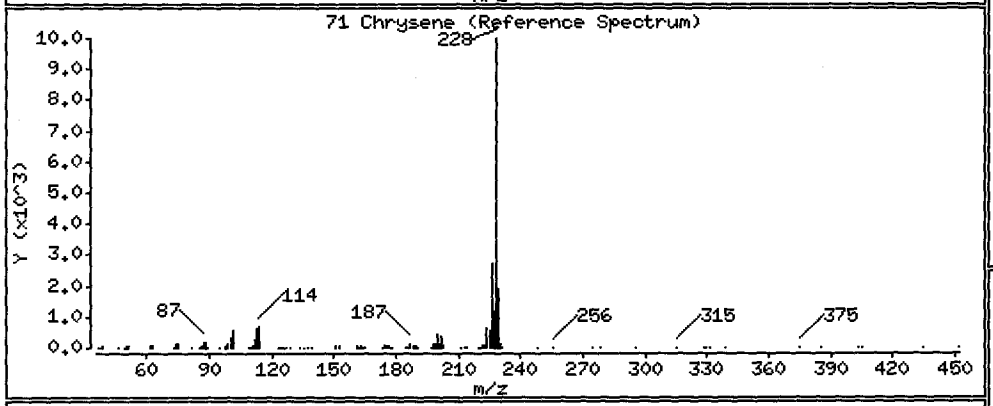
Column diameter: 0.25

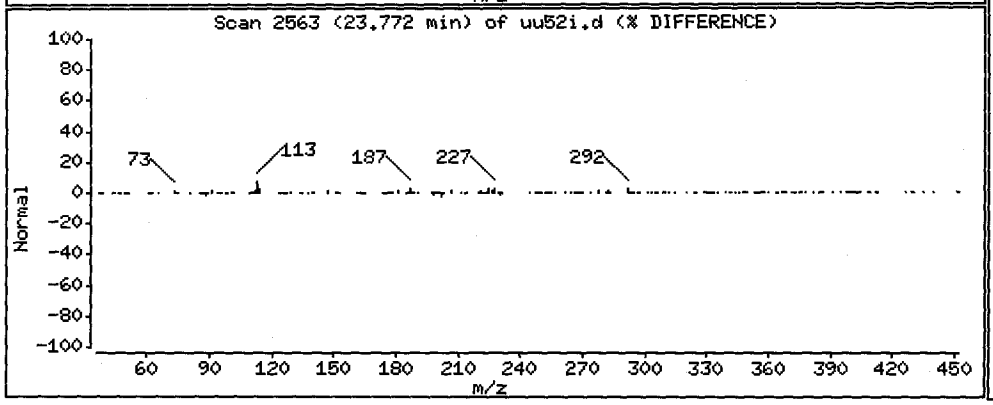
71 Chrysene

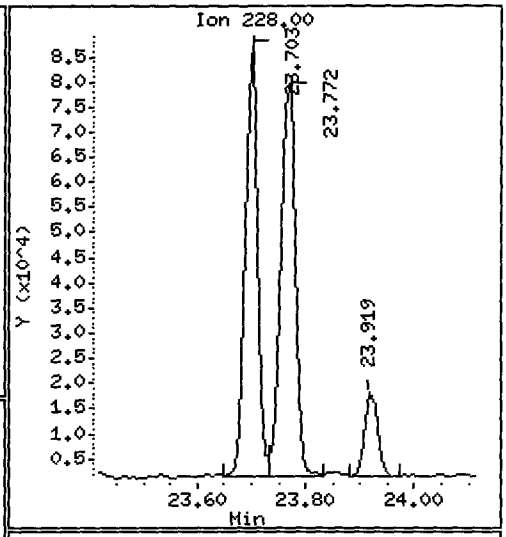
Concentration: 236.7 ug/kg

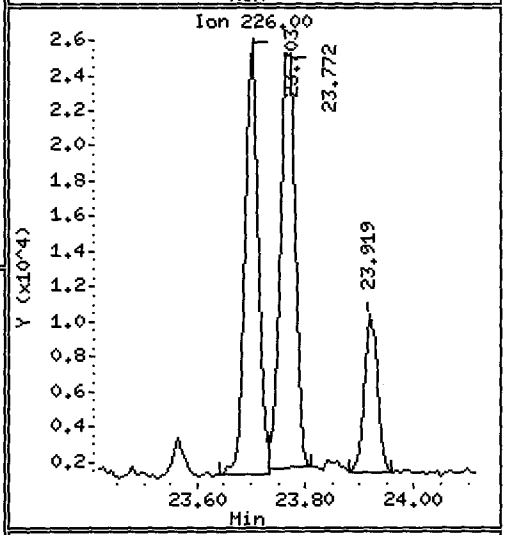


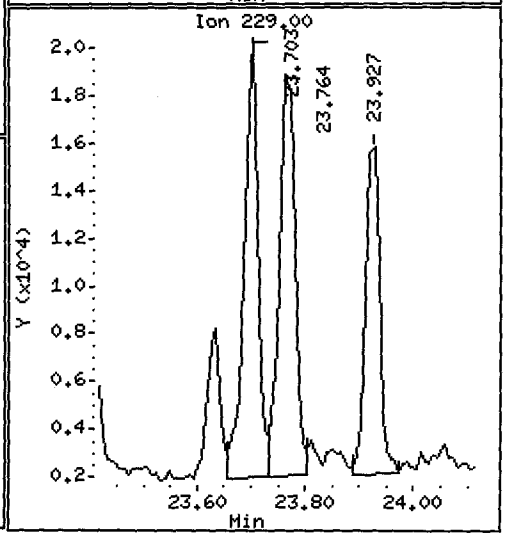



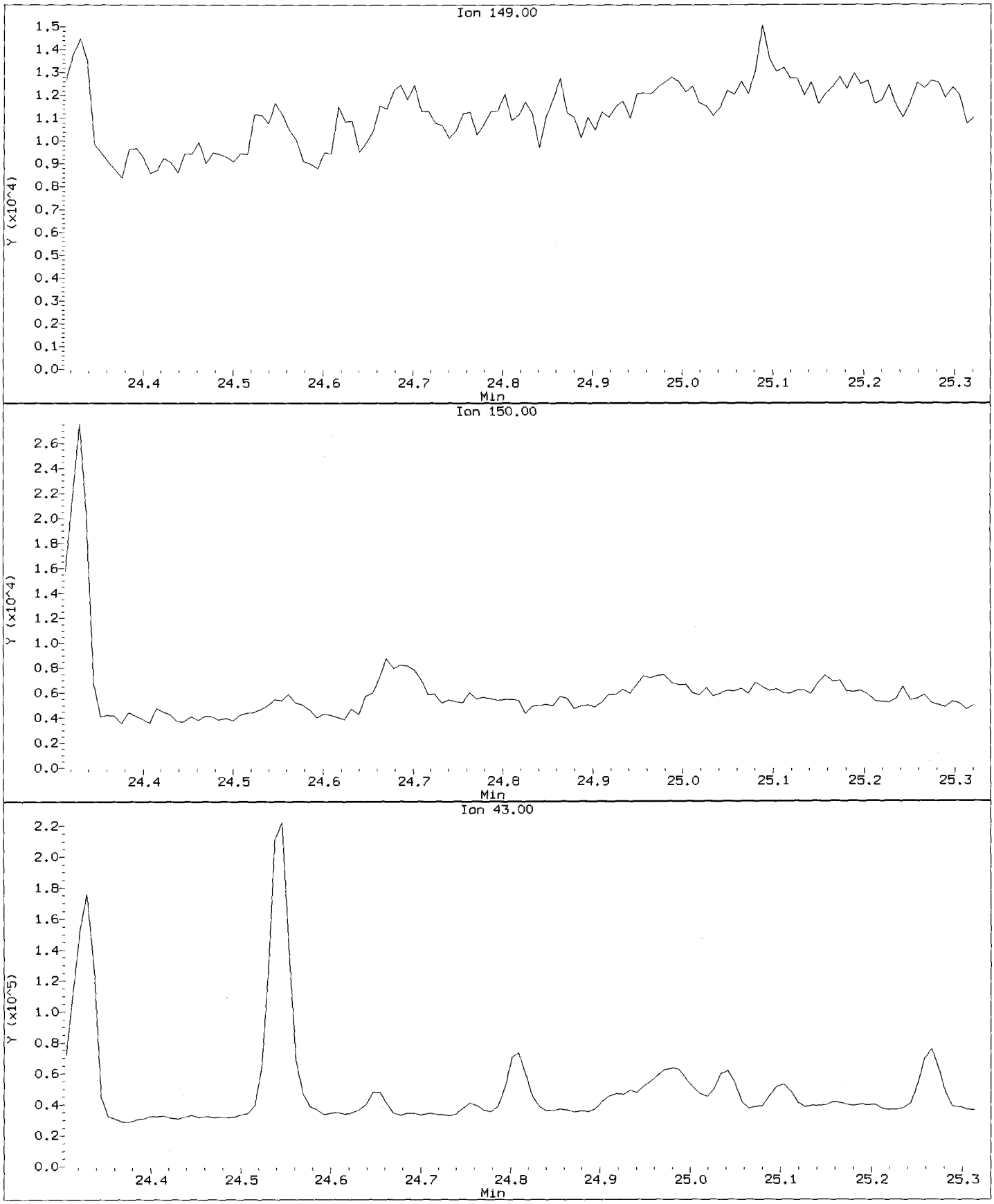



Data File: /chem1/nt10.i/20120529.b/uu52i.d
Injection Date: 29-MAY-2012 12:56
Instrument: nt10.i
Client Sample ID: MS008-SS-120515

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

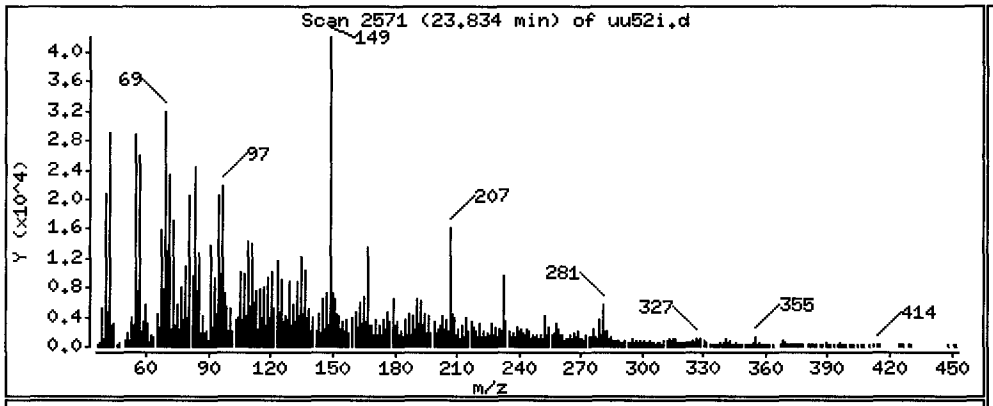
Client ID: MS008-SS-120515 Instrument: nt10.i

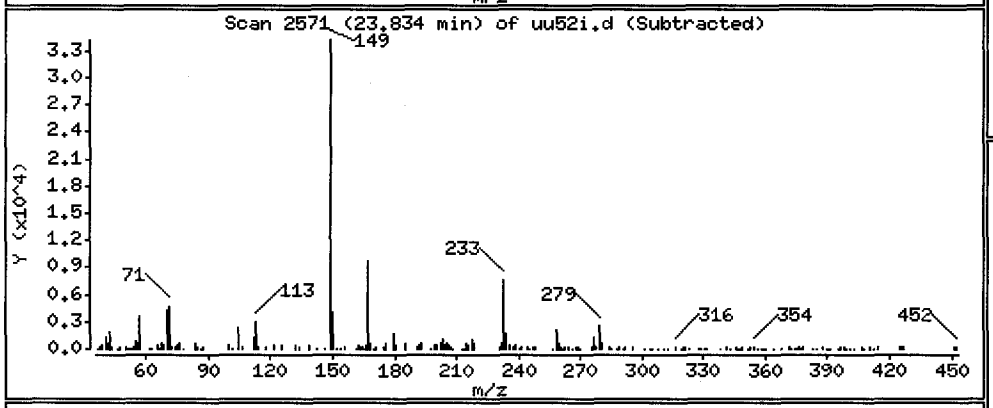
Sample Info: UU52I,3

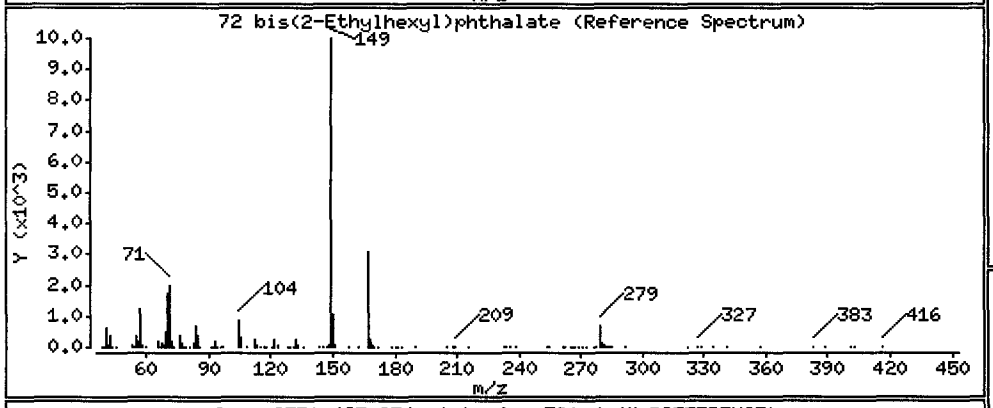
Volume Injected (uL): 1.0 Operator: VTS/YZ

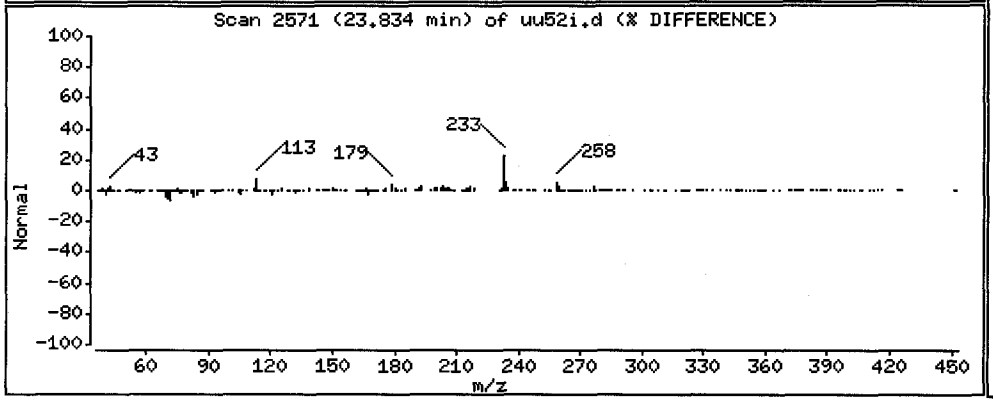
Column phase: ZB-5msi Column diameter: 0.25

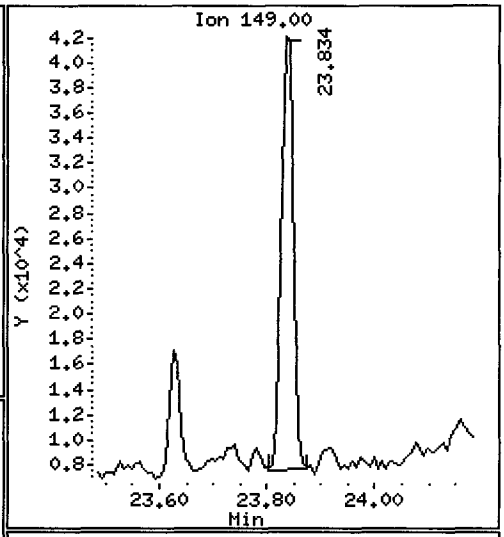
72 bis(2-Ethylhexyl)phthalate Concentration: 99.07 ug/kg

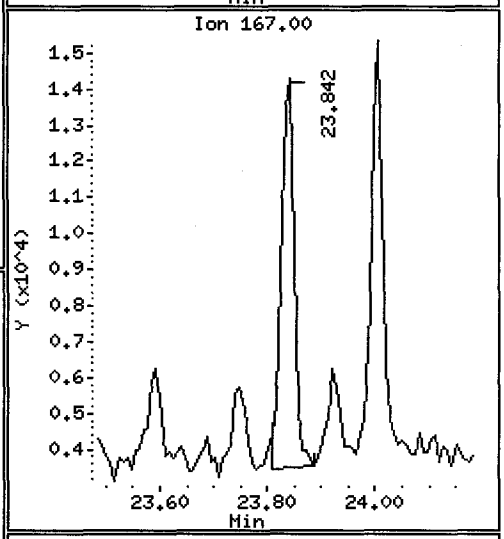


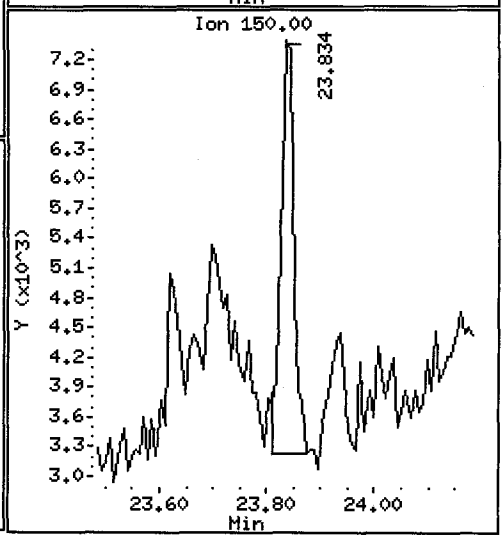



Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

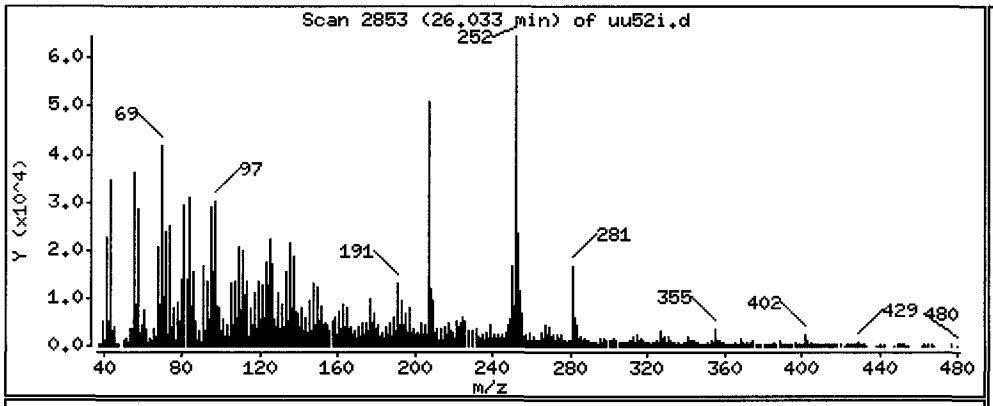
Client ID: MS008-SS-120515 Instrument: nt10.i

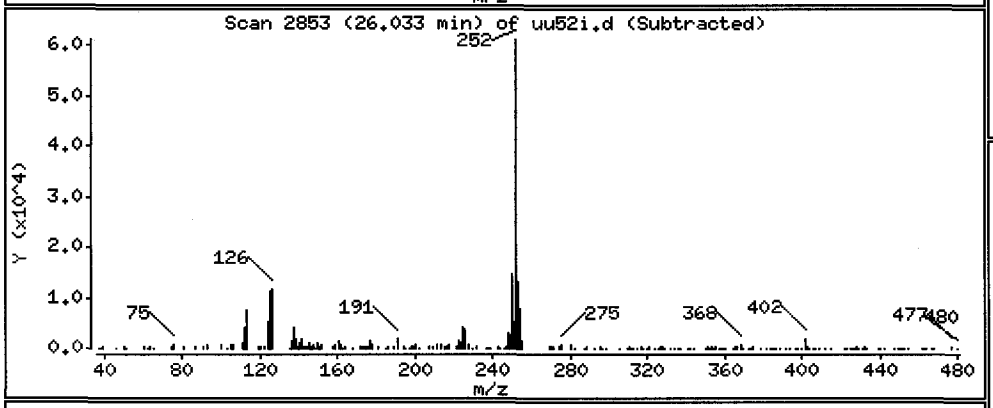
Sample Info: UU52I,3

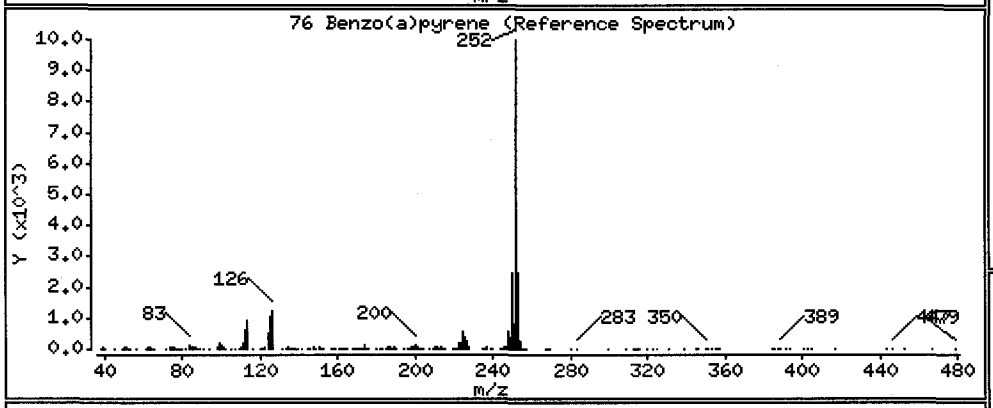
Volume Injected (uL): 1.0 Operator: VTS/YZ

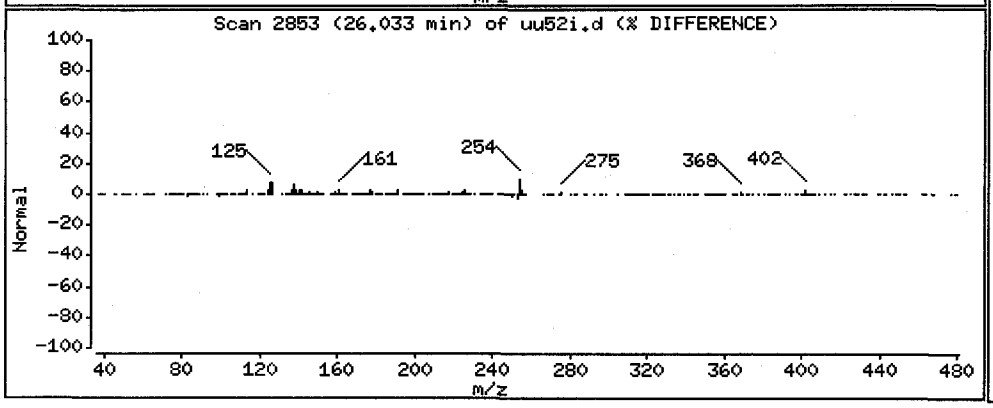
Column phase: ZB-5msi Column diameter: 0.25

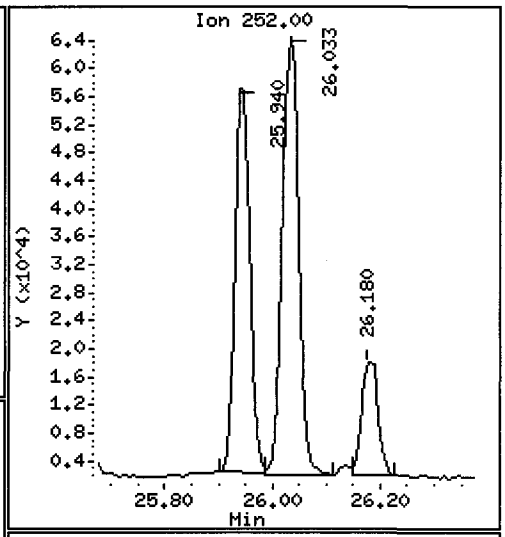
76 Benzo(a)pyrene Concentration: 213.4 ug/kg

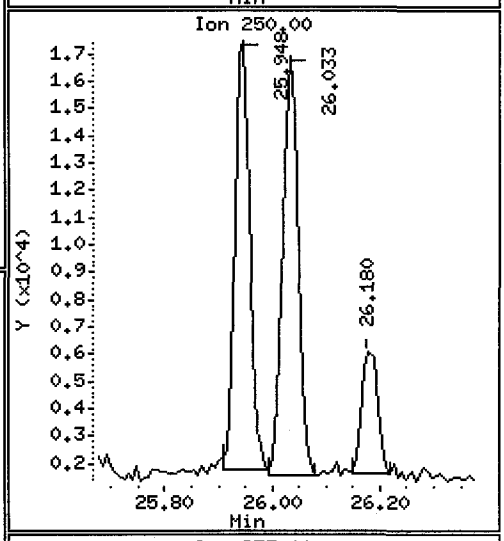


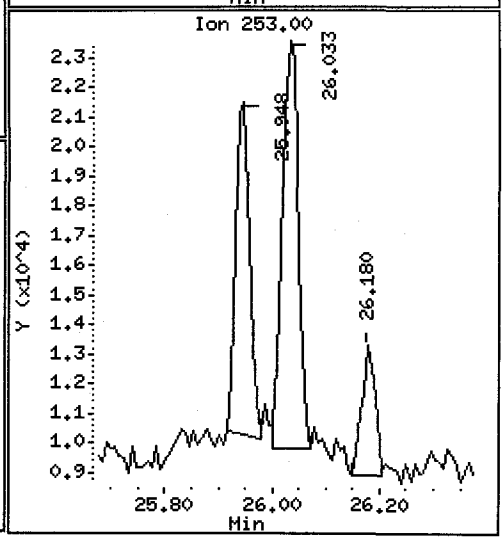



Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

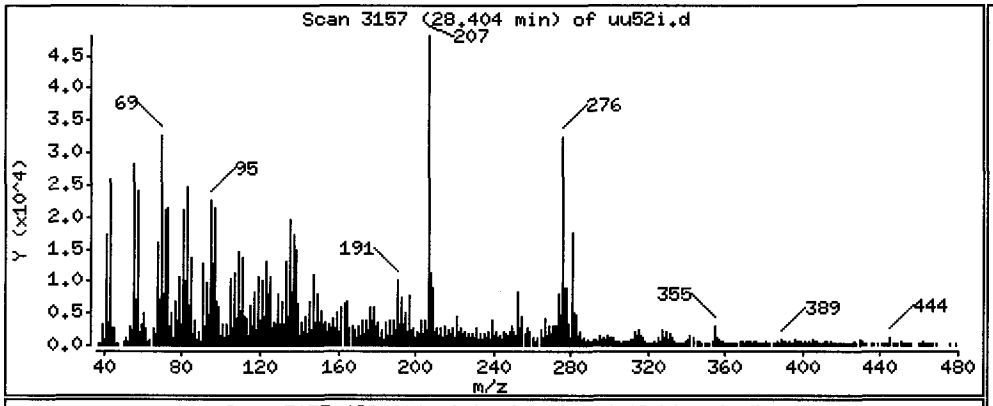
Operator: VTS/YZ

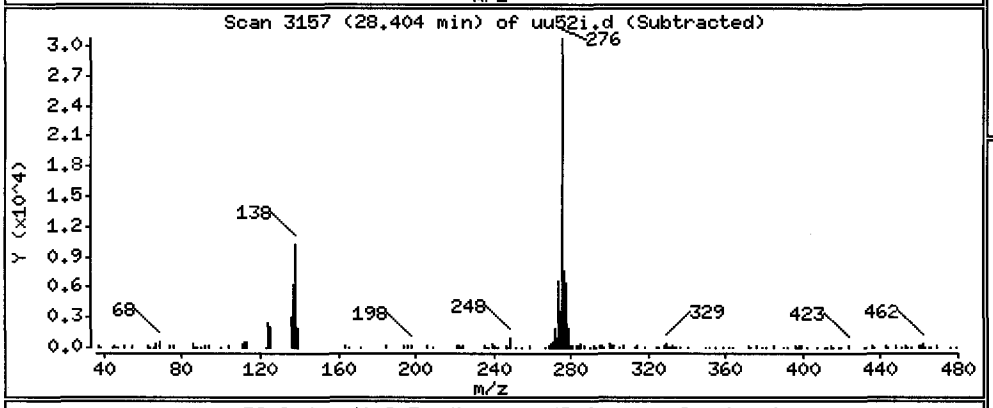
Column phase: ZB-5msi

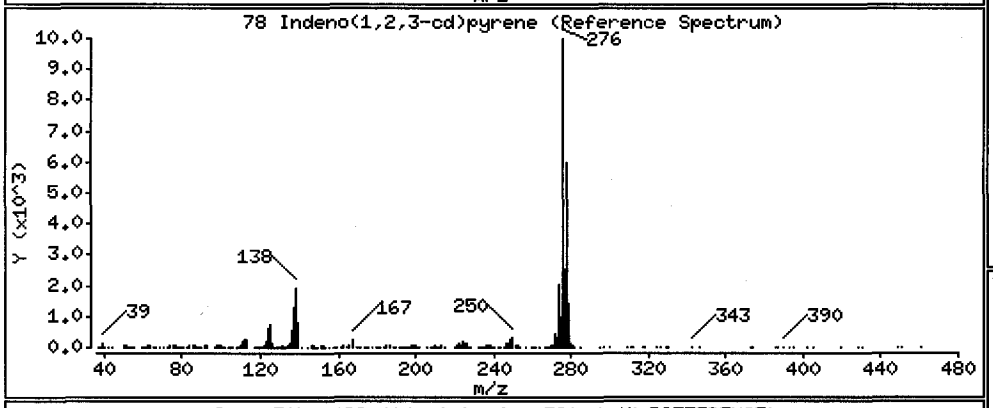
Column diameter: 0.25

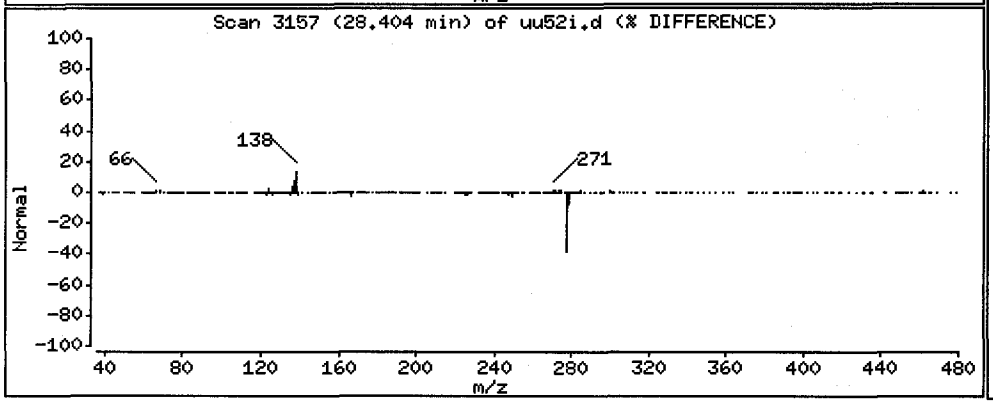
78 Indeno(1,2,3-cd)pyrene

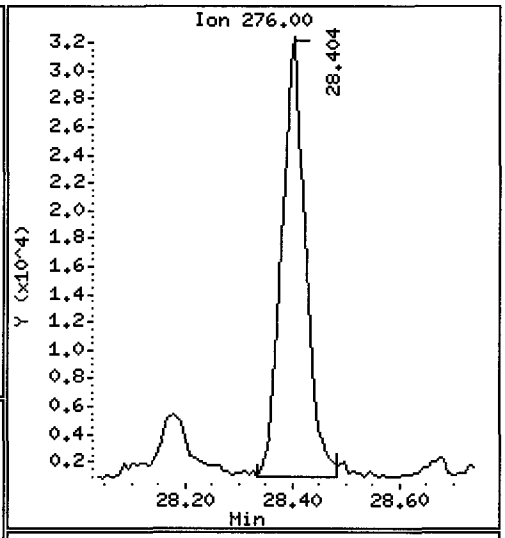
Concentration: 140.4 ug/kg

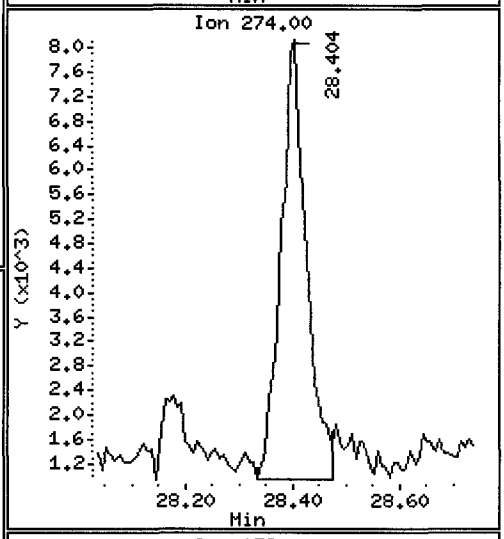


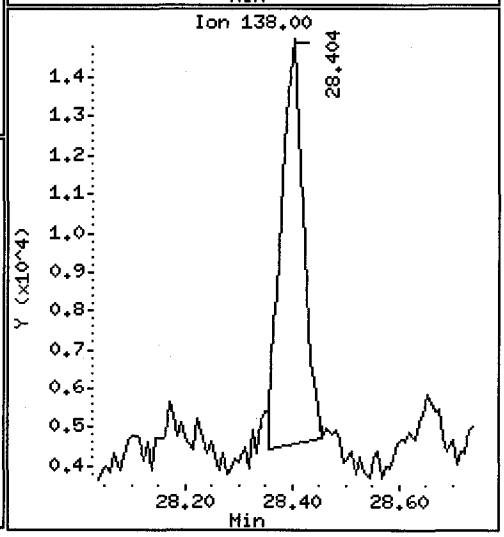



Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

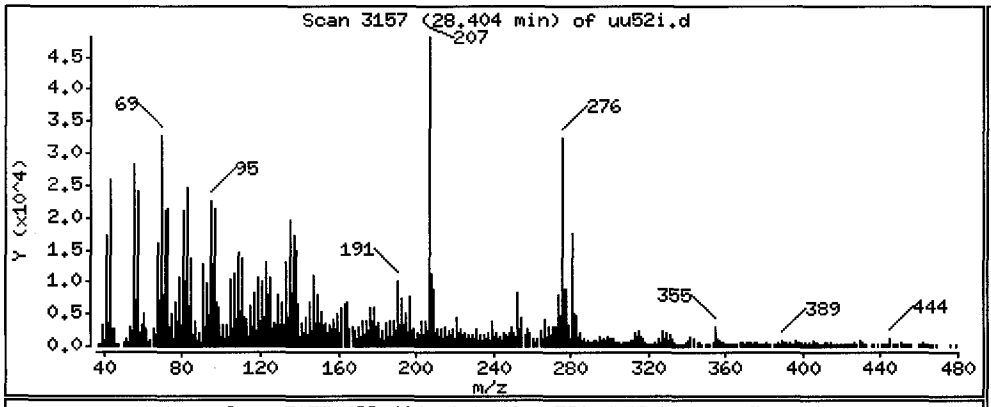
Operator: VTS/YZ

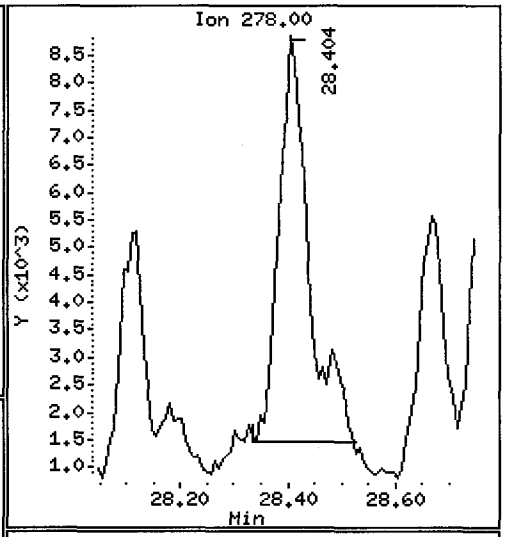
Column phase: ZB-5msi

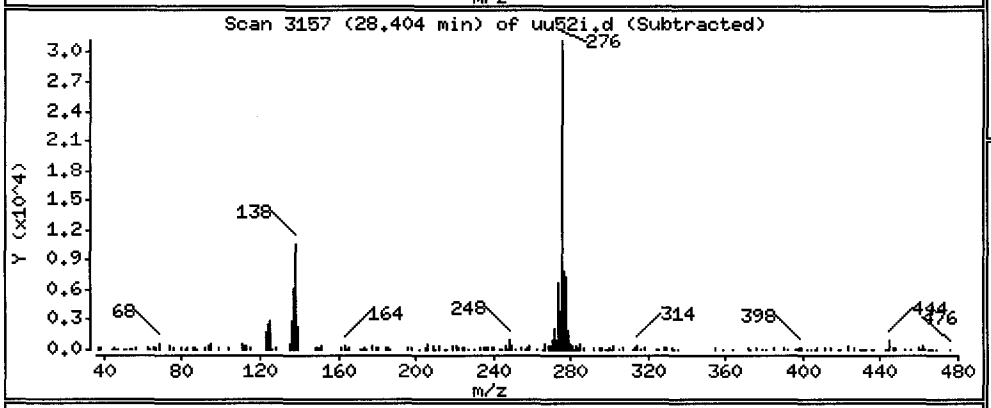
Column diameter: 0.25

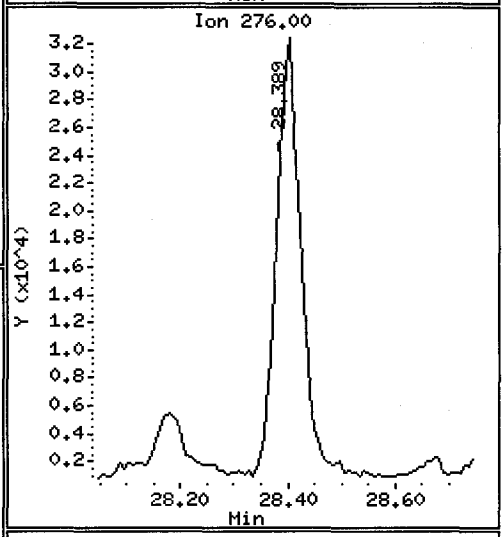
79 Dibenzo(a,h)anthracene

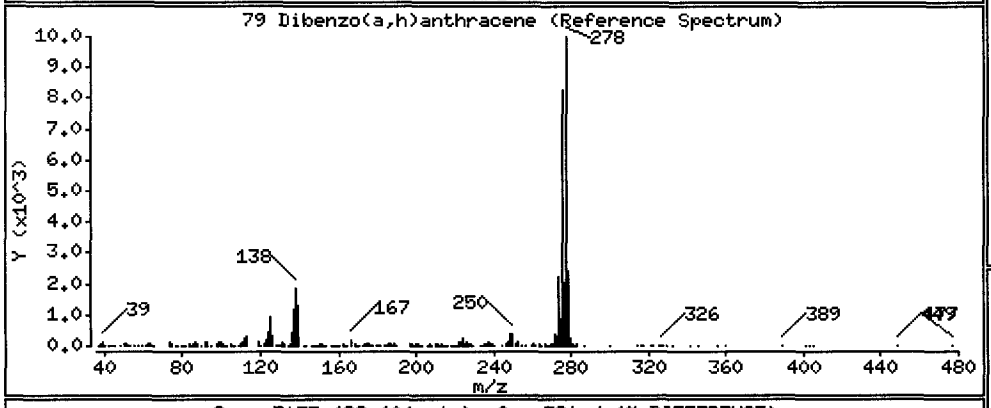
Concentration: 52.87 ug/kg

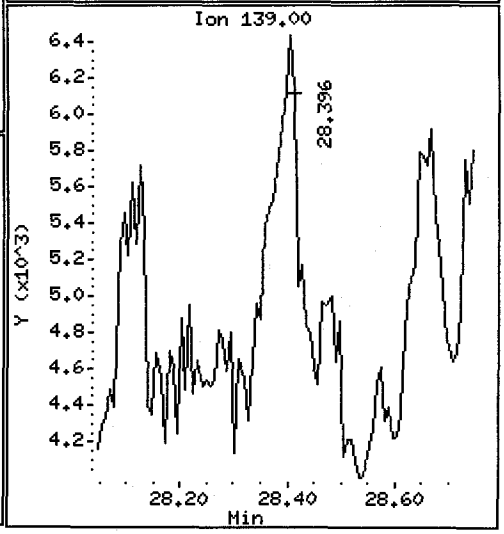


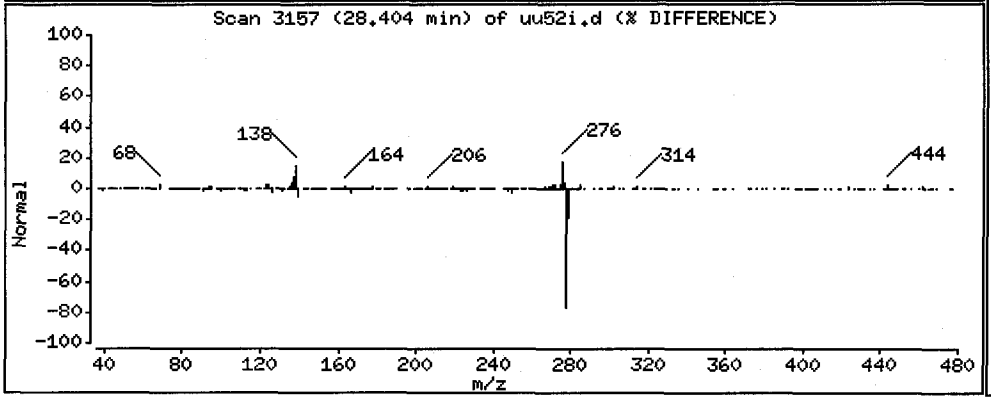



Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

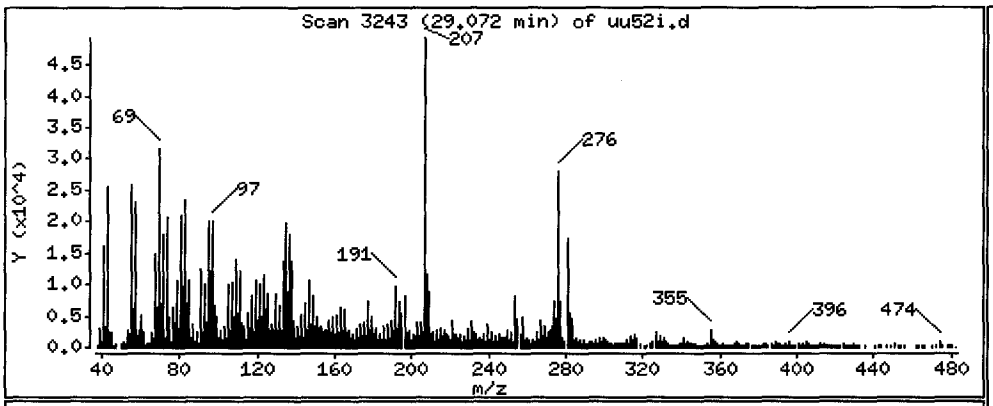
Client ID: MS008-SS-120515 Instrument: nt10.i

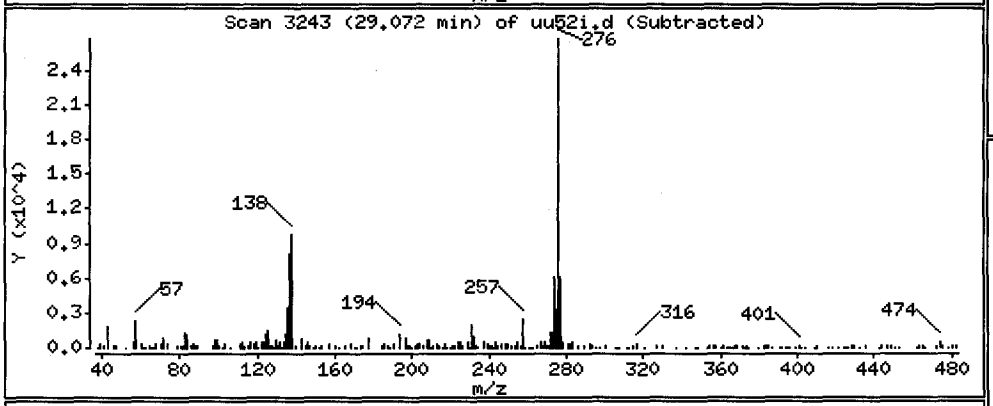
Sample Info: UU52I,3

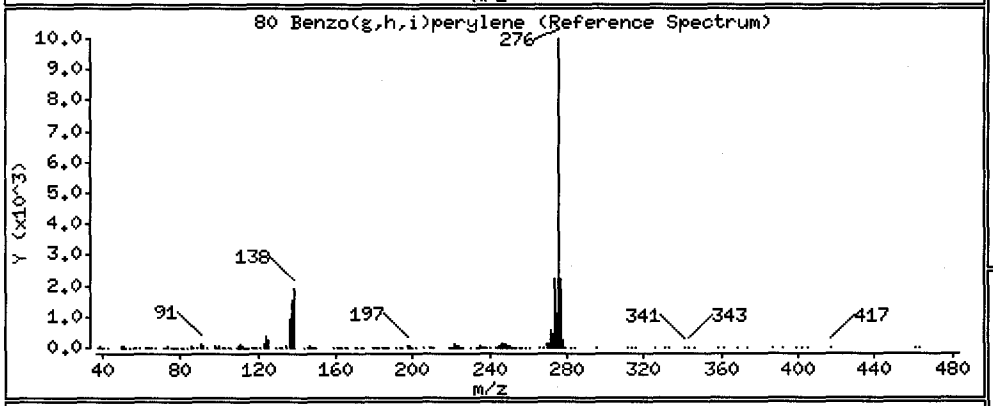
Volume Injected (uL): 1.0 Operator: VTS/YZ

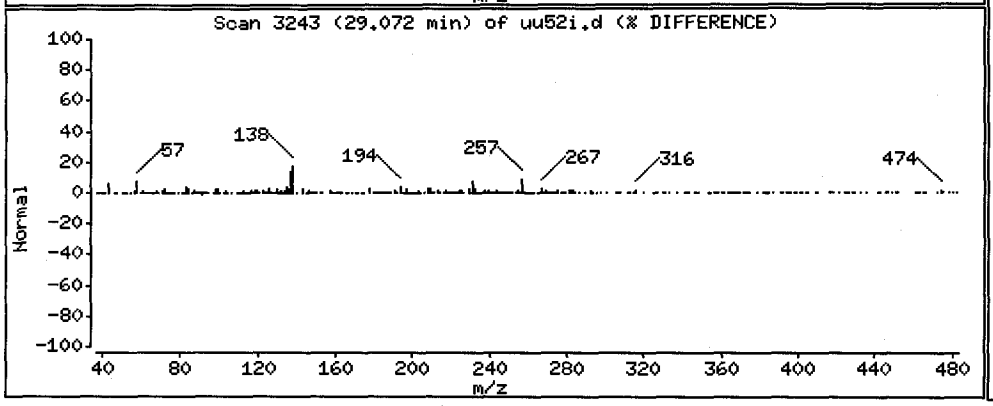
Column phase: ZB-5msi Column diameter: 0.25

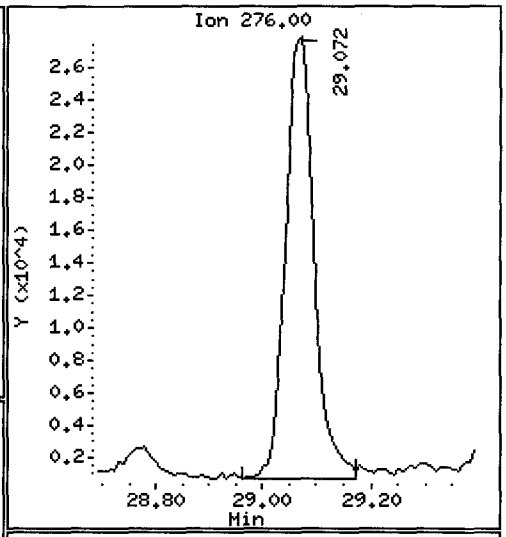
80 Benzo(g,h,i)perylene Concentration: 172.8 ug/kg

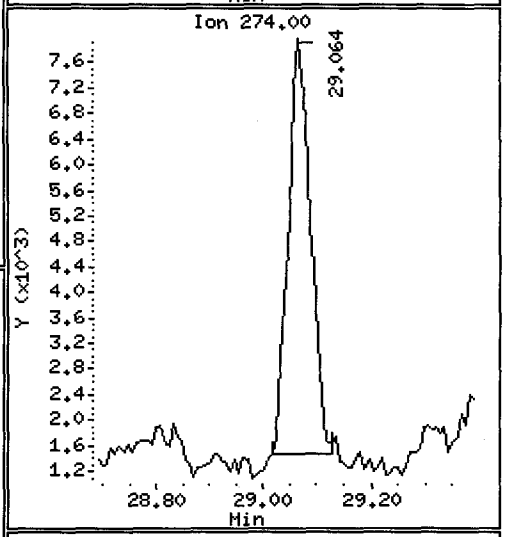


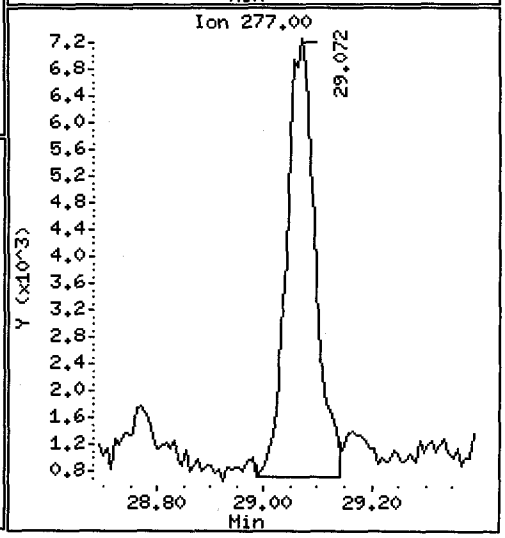



Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

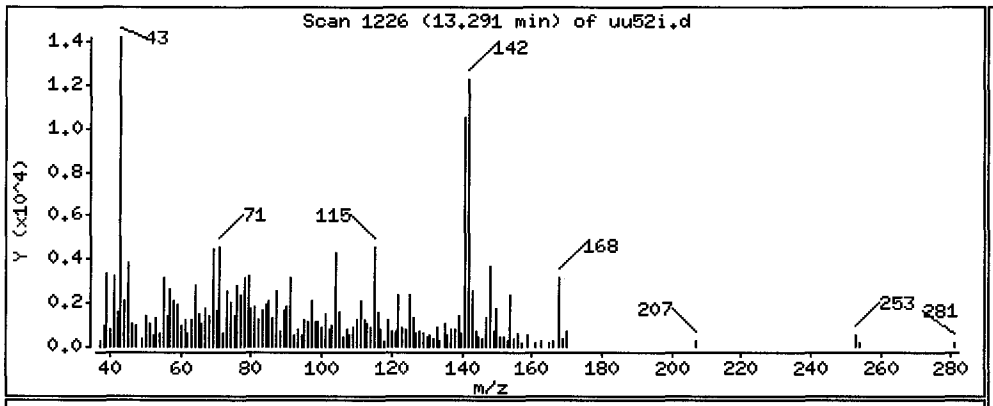
Operator: VTS/YZ

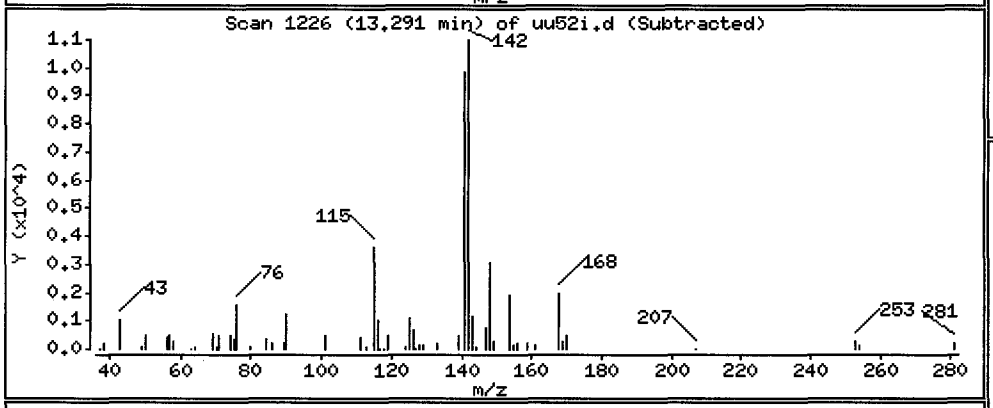
Column phase: ZB-5msi

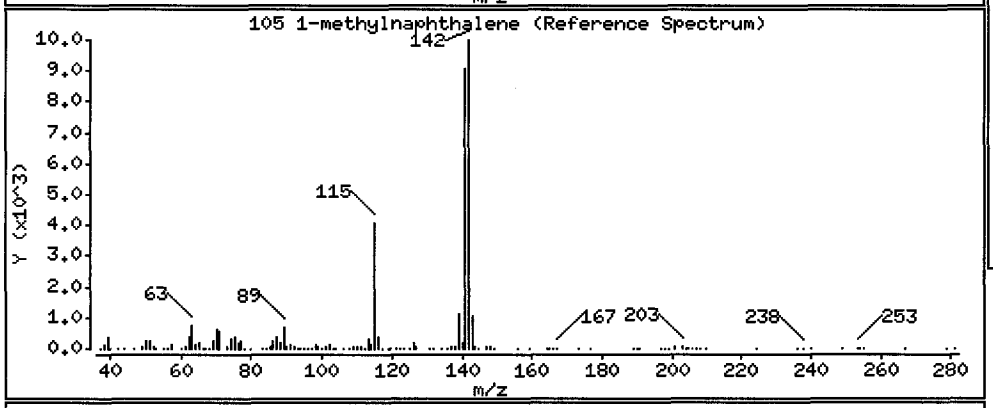
Column diameter: 0.25

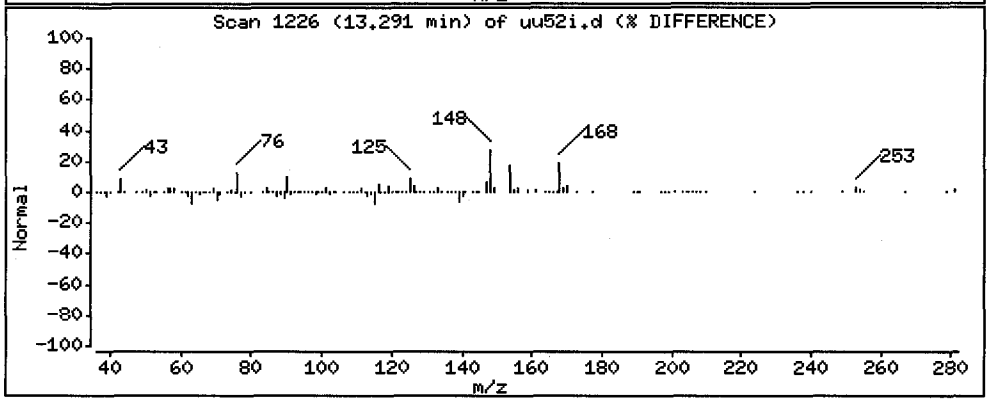
105 1-methylnaphthalene

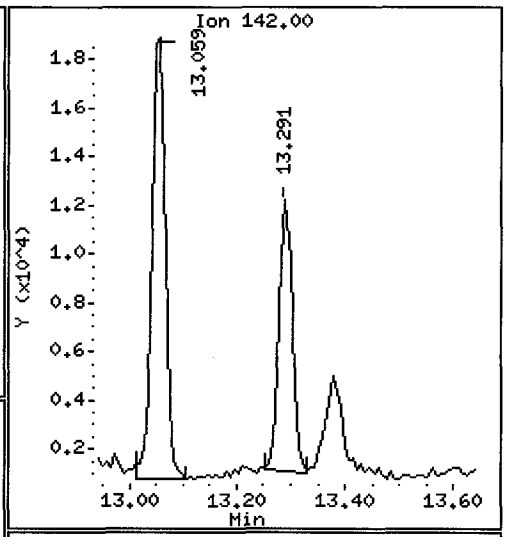
Concentration: 38.49 ug/kg

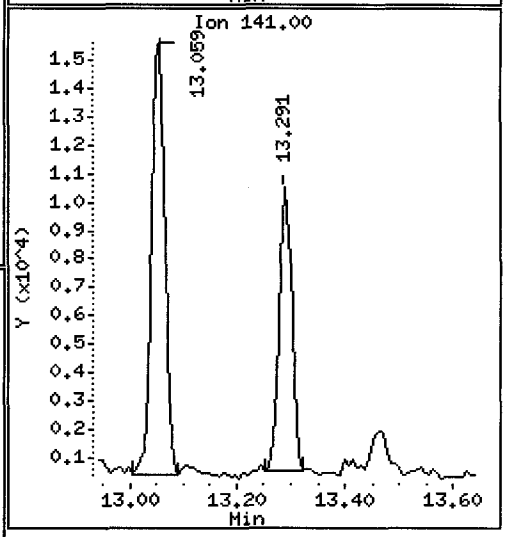


Data File: /chem1/nt10.i/20120529.b/uu52i.d

Date : 29-MAY-2012 12:56

Client ID: MS008-SS-120515

Instrument: nt10.i

Sample Info: UU52I,3

Volume Injected (uL): 1.0

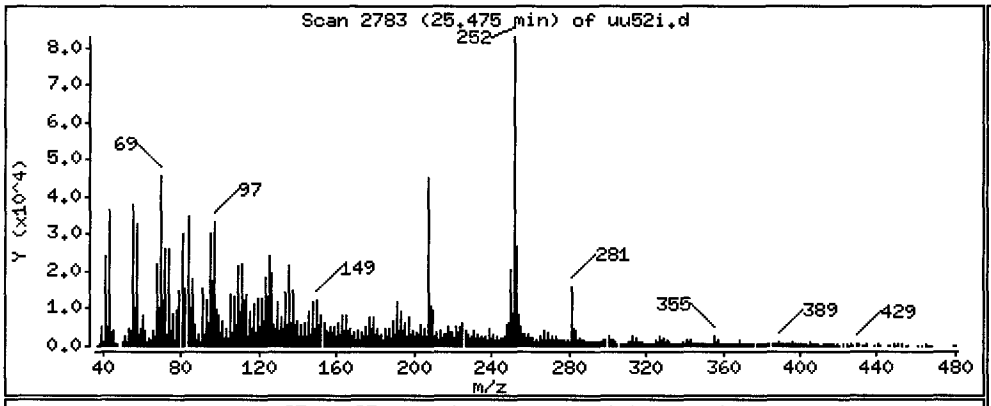
Operator: VTS/YZ

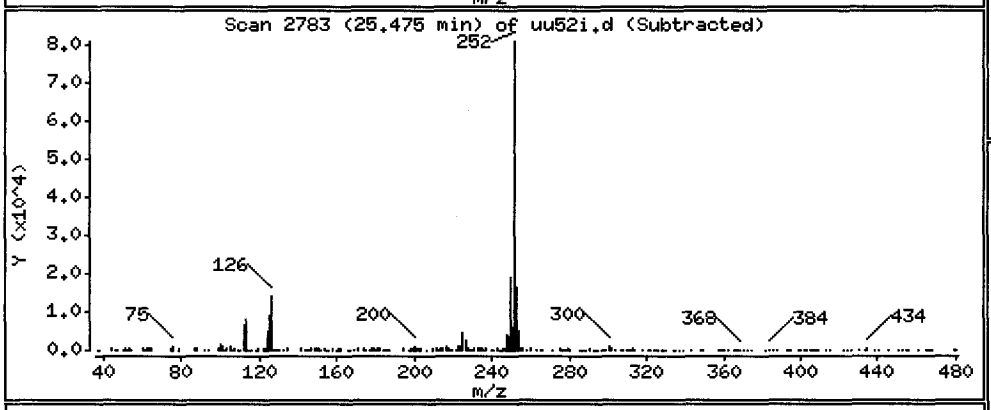
Column phase: ZB-5msi

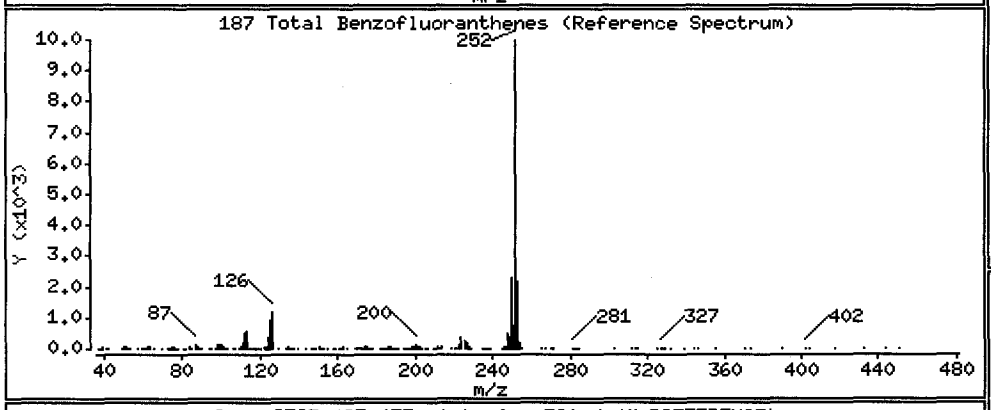
Column diameter: 0.25

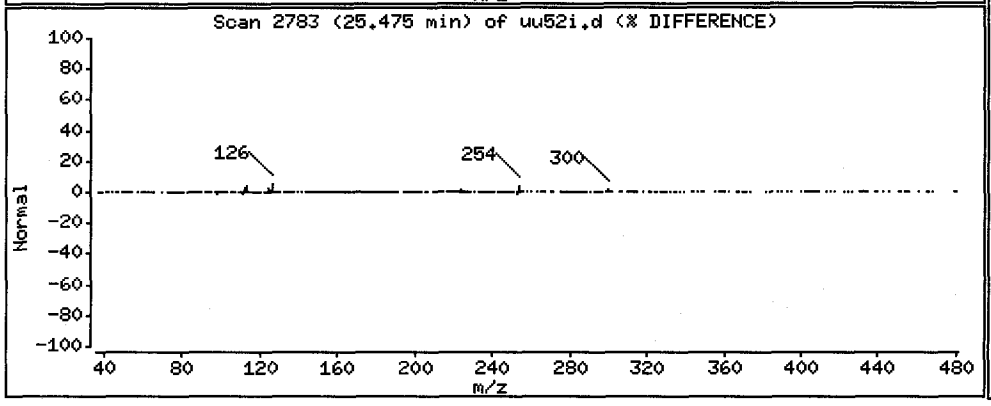
187 Total Benzofluoranthenes

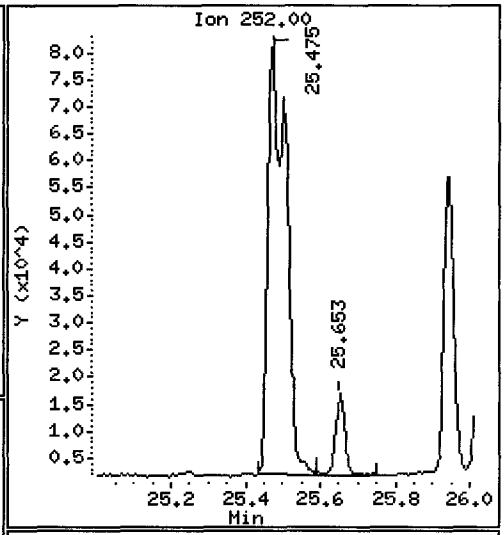
Concentration: 417.6 ug/kg

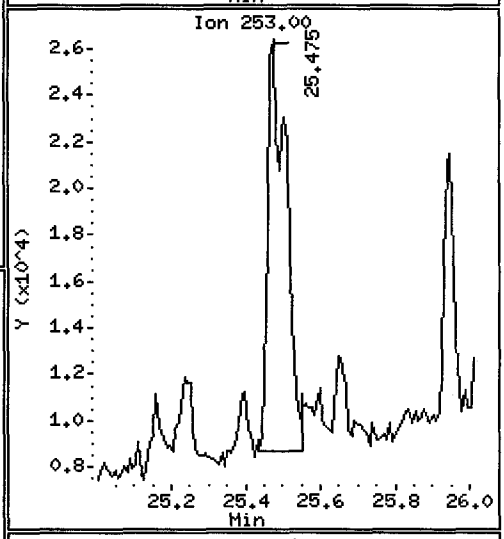


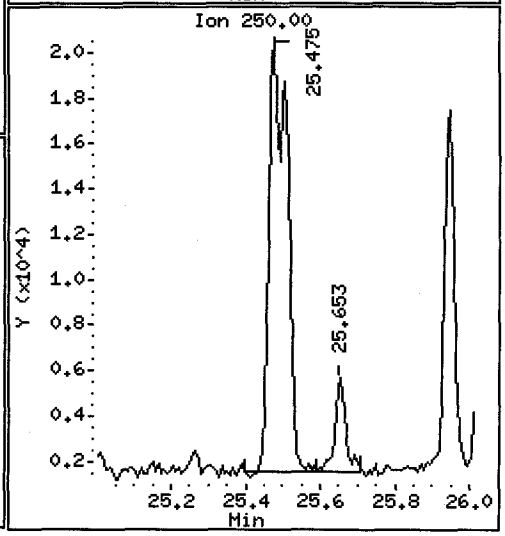



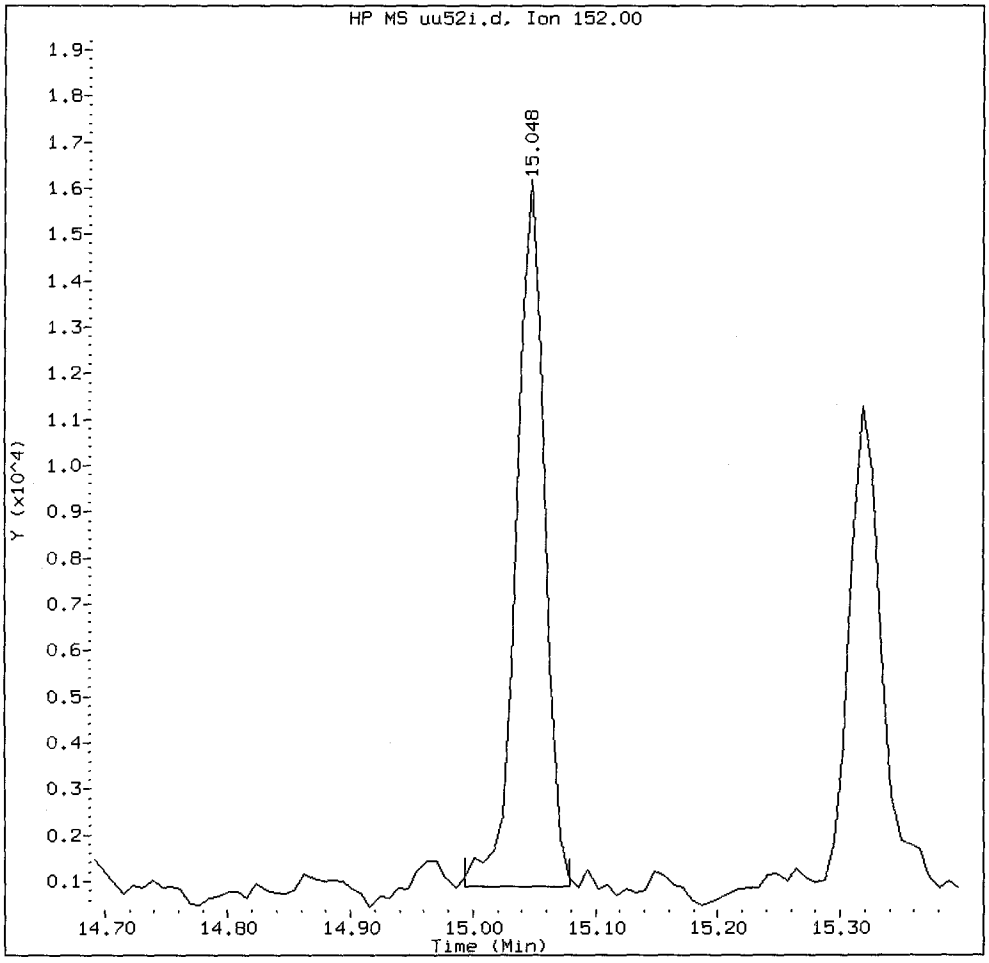



UU52I, /chem1/nt10.i/20120529.b/uu52i.d

Acenaphthylene  Amount: 0.13  Area: 25499




MANUAL INTEGRATION for Acenaphthylene

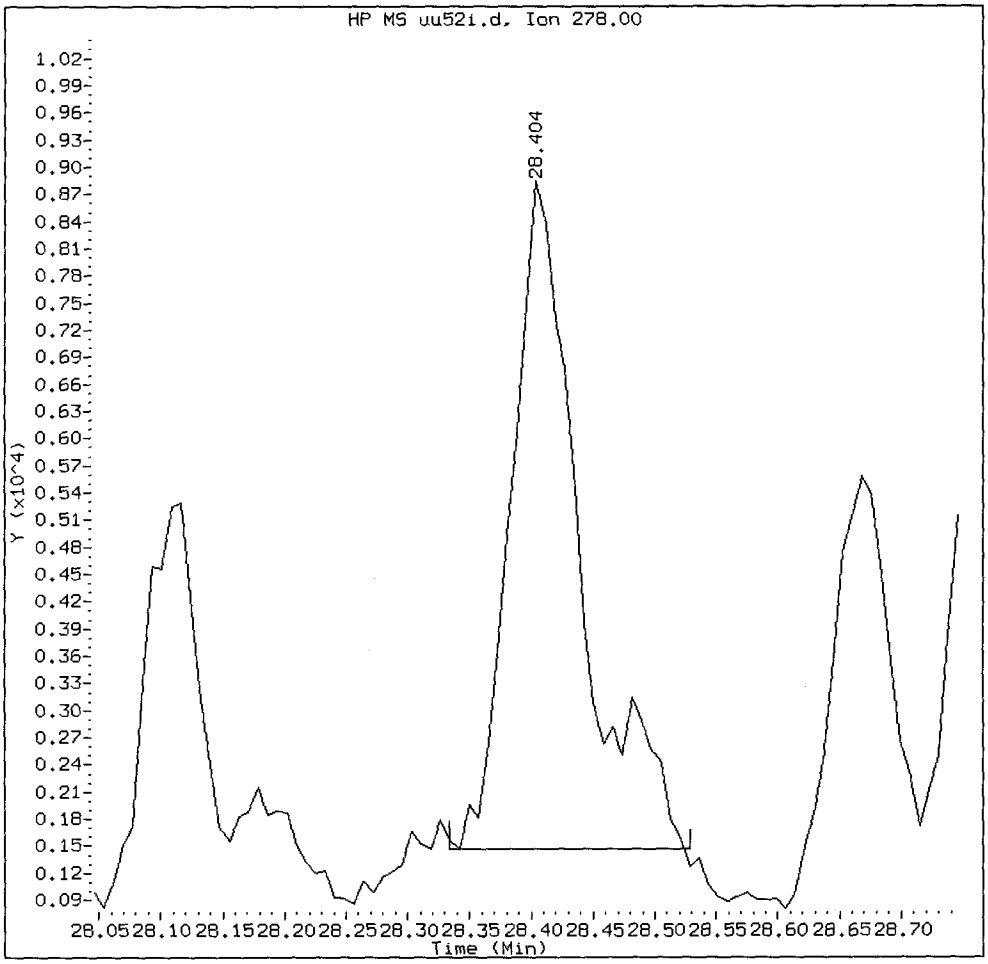
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: JZ  Date: 5/31/12

UU52I, /chem1/nt10.i/20120529.b/uu52i.d

Dibenzo(a,h)anthracene  Amount: 0.18  Area: 28829




MANUAL INTEGRATION for Dibenzo(a,h)anthracene

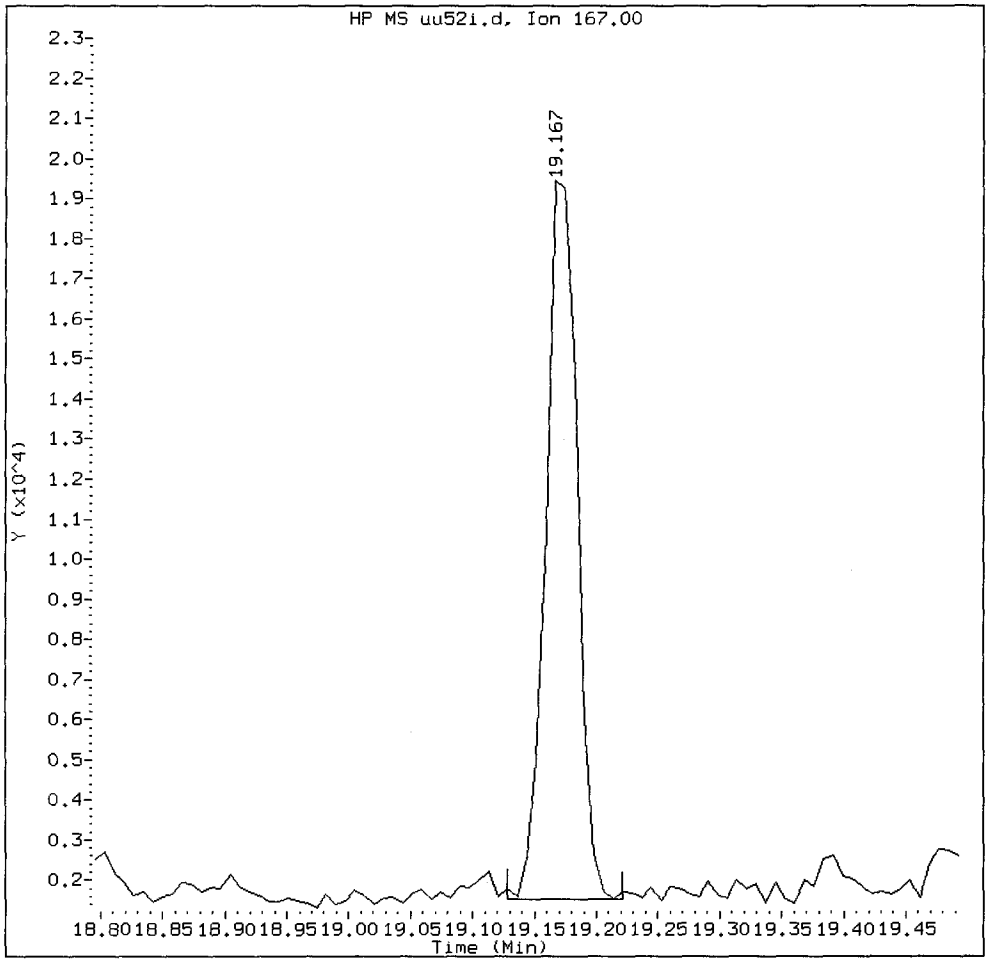
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YZ  Date: 5/31/12

UU52I, /chem1/nt10.i/20120529.b/uu52i.d

Carbazole Amount: 0.21 Area: 31906




MANUAL INTEGRATION for Carbazole

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: YZ Date: 6/4/12

CO-ELUTION SUMMARY FOR FILE - uu52i.d

Lab ID: UU52I, Method: ABN.m, Instrument: nt10.i, Date: 29-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

Analytical Resources, Inc.

YZ 6/4/12

Semivolatile Report SW846 Method 8270D

Data file : /chem1/nt10.i/20120529.b/uu52j.d
Lab Smp Id: UU52J Client Smp ID: MS009-SS-120515
Inj Date : 29-MAY-2012 13:33
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52J,3
Misc Info : 12-8902
Comment : 1ul Injection
Method : /chem1/nt10.i/20120529.b/ABN.m
Meth Date : 30-May-2012 12:34 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 4
Dil Factor: 3.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 3.00000 | Dilution Factor |
| Vt | 1000.00000 | Volume of final extract (uL) |
| Ws | 102.00000 | Weight of sample extracted (g) |
| M | 90.20000 | % Moisture |

Cpnd Variable Local Compound Variable

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| $ 1 | 2-Fluorophenol | 112 | 6.575 | 6.560 | (0.741) | 105640 | 1.56574 | 469.9 |
| $ 2 | Phenol-d5 | 99 | 8.275 | 8.260 | (0.933) | 133648 | 1.59020 | 477.2 |
| 3 | Phenol | 94 | 8.298 | 8.283 | (0.935) | 30766 | 0.34343 | 103.1 |
| $ 5 | 2-Chlorophenol-d4 | 132 | 8.499 | 8.492 | (0.958) | 124226 | 1.68710 | 506.3 |
| 4 | Bis(2-Chloroethyl)ether | 93 | Compound Not Detected. | | | | | |
| 6 | 2-Chlorophenol | 128 | Compound Not Detected. | | | | | |
| 7 | 1,3-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| * 8 | 1,4-Dichlorobenzene-d4 | 152 | 8.871 | 8.863 | (1.000) | 192942 | 4.00000 | |
| 9 | 1,4-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| $ 10 | 1,2-Dichlorobenzene-d4 | 152 | 9.251 | 9.244 | (1.043) | 49251 | 1.01961 | 306.0 |
| 12 | 1,2-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| 11 | Benzyl alcohol | 108 | 9.197 | 9.182 | (1.037) | 4252 | 0.11297 | 33.91 |
| 14 | 2,2'-oxybis(1-Chloropropane) | 121 | Compound Not Detected. | | | | | |
| 13 | 2-Methylphenol | 108 | Compound Not Detected. | | | | | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| | 17 Hexachloroethane | 117 | Compound Not Detected. | | | | | |
| | 16 N-Nitroso-di-n-propylamine | 70 | Compound Not Detected. | | | | | |
| | 15 4-Methylphenol | 108 | 9.756 | 9.748 | (1.100) | 117294 | 1.59231 | 477.9 |
| $ | 18 Nitrobenzene-d5 | 82 | 10.035 | 10.035 | (0.872) | 70683 | 1.01810 | 305.6 |
| | 19 Nitrobenzene | 77 | Compound Not Detected. | | | | | |
| | 20 Isophorone | 82 | Compound Not Detected. | | | | | |
| | 21 2-Nitrophenol | 139 | Compound Not Detected. | | | | | |
| | 22 2,4-Dimethylphenol | 107 | Compound Not Detected. | | | | | |
| | 23 Bis(2-Chloroethoxy)methane | 93 | Compound Not Detected. | | | | | |
| | 24 Benzoic acid | 105 | 11.049 | 11.126 | (0.960) | 60532 | 1.35653 | 407.1 |
| | 25 2,4-Dichlorophenol | 162 | Compound Not Detected. | | | | | |
| | 26 1,2,4-Trichlorobenzene | 180 | Compound Not Detected. | | | | | |
| * | 27 Naphthalene-d8 | 136 | 11.512 | 11.512 | (1.000) | 774858 | 4.00000 | |
| | 28 Naphthalene | 128 | 11.558 | 11.550 | (1.004) | 187913 | 0.96197 | 288.7 |
| | 29 4-Chloroaniline | 127 | Compound Not Detected. | | | | | |
| | 30 Hexachlorobutadiene | 225 | Compound Not Detected. | | | | | |
| | 31 4-Chloro-3-methylphenol | 107 | Compound Not Detected. | | | | | |
| | 32 2-Methylnaphthalene | 142 | 13.059 | 13.051 | (1.134) | 16822 | 0.12387 | 37.18 |
| | 33 Hexachlorocyclopentadiene | 237 | Compound Not Detected. | | | | | |
| | 34 2,4,6-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| | 35 2,4,5-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| $ | 36 2-Fluorobiphenyl | 172 | 13.910 | 13.910 | (0.904) | 172395 | 1.13356 | 340.2 |
| | 37 2-Chloronaphthalene | 162 | Compound Not Detected. | | | | | |
| | 38 2-Nitroaniline | 65 | Compound Not Detected. | | | | | |
| | 39 Dimethylphthalate | 163 | Compound Not Detected. | | | | | |
| | 40 Acenaphthylene | 152 | Compound Not Detected. | | | | | |
| | 41 2,6-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| * | 42 Acenaphthene-d10 | 164 | 15.388 | 15.388 | (1.000) | 438714 | 4.00000 | |
| | 43 3-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 44 Acenaphthene | 153 | Compound Not Detected. | | | | | |
| | 45 2,4-Dinitrophenol | 184 | Compound Not Detected. | | | | | |
| | 46 Dibenzofuran | 168 | 15.813 | 15.813 | (1.028) | 30592 | 0.17570 | 52.73 |
| | 47 4-Nitrophenol | 109 | Compound Not Detected. | | | | | |
| | 48 2,4-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| | 50 Diethylphthalate | 149 | Compound Not Detected. | | | | | |
| | 49 Fluorene | 166 | 16.579 | 16.579 | (1.077) | 19121 | 0.14333 | 43.01 |
| | 51 4-Chlorophenyl-phenylether | 204 | Compound Not Detected. | | | | | |
| | 52 4-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 53 4,6-Dinitro-2-methylphenol | 198 | Compound Not Detected. | | | | | |
| | 54 N-Nitrosodiphenylamine | 169 | Compound Not Detected. | | | | | |
| $ | 55 2,4,6-Tribromophenol | 330 | 17.165 | 17.157 | (1.115) | 32832 | 1.81312 | 544.2 |
| | 56 4-Bromophenyl-phenylether | 248 | Compound Not Detected. | | | | | |
| | 57 Hexachlorobenzene | 284 | Compound Not Detected. | | | | | |
| | 58 Pentachlorophenol | 266 | Compound Not Detected. | | | | | |
| * | 59 Phenanthrene-d10 | 188 | 18.656 | 18.649 | (1.000) | 619554 | 4.00000 | |
| | 60 Phenanthrene | 178 | 18.703 | 18.703 | (1.002) | 132859 | 0.83162 | 249.6 |
| | 61 Anthracene | 178 | 18.803 | 18.796 | (1.008) | 28686 | 0.17189 | 51.59 |
| | 62 Carbazole | 167 | Compound Not Detected. | | | | | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| 63 | Di-n-butylphthalate | 149 | Compound Not Detected. | | | | | |
| 64 | Fluoranthene | 202 | 21.140 | 21.117 | (1.133) | 176384 | 0.97240 | 291.8 |
| 65 | Pyrene | 202 | 21.550 | 21.535 | (0.908) | 171444 | 0.79990 | 240.1 |
| $ 66 | Terphenyl-d14 | 244 | 21.860 | 21.852 | (0.921) | 156445 | 1.16518 | 349.7 |
| 67 | Butylbenzylphthalate | 149 | Compound Not Detected. | | | | | |
| 68 | Benzo(a)anthracene | 228 | 23.702 | 23.695 | (0.999) | 37264 | 0.18806 | 56.44 |
| * 69 | Chrysene-d12 | 240 | 23.733 | 23.726 | (1.000) | 704418 | 4.00000 | |
| 70 | 3,3'-Dichlorobenzidine | 252 | Compound Not Detected. | | | | | |
| 71 | Chrysene | 228 | 23.772 | 23.765 | (1.002) | 69928 | 0.40117 | 120.4 |
| 72 | bis(2-Ethylhexyl)phthalate | 149 | 23.834 | 23.834 | (0.961) | 46422 | 0.30485 | 91.49 |
| * 134 | Di-n-octylphthalate-d4 | 153 | 24.809 | 24.802 | (1.000) | 1108887 | 4.00000 | |
| 73 | Di-n-octylphthalate | 149 | Compound Not Detected. | | | | | |
| 74 | Benzo(b)fluoranthene | 252 | Compound Not Detected. | | | | | |
| 75 | Benzo(k)fluoranthene | 252 | Compound Not Detected. | | | | | |
| 76 | Benzo(a)pyrene | 252 | 26.033 | 26.025 | (0.996) | 48439 | 0.27168 | 81.54 |
| * 77 | Perylene-d12 | 264 | 26.133 | 26.126 | (1.000) | 689542 | 4.00000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | 28.404 | 28.389 | (1.087) | 42701 | 0.20705 | 62.14 |
| 79 | Dibenzo(a,h)anthracene | 278 | Compound Not Detected. | | | | | |
| 80 | Benzo(g,h,i)perylene | 276 | 29.064 | 29.041 | (1.112) | 48606 | 0.27484 | 82.49 |
| 90 | N-Nitrosodimethylamine | 74 | Compound Not Detected. | | | | | |
| 91 | Aniline | 93 | Compound Not Detected. | | | | | |
| 93 | Benzidine | 184 | Compound Not Detected. | | | | | |
| 103 | Pyridine | 79 | Compound Not Detected. | | | | | |
| 105 | 1-methylnaphthalene | 142 | Compound Not Detected. | | | | | |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | Compound Not Detected. | | | | | |
| 187 | Total Benzofluoranthenes | 252 | 25.475 | 25.506 | (0.975) | 118682 | 0.62030 | 186.2 |
| 99 | Perylene | 252 | Compound Not Detected. | | | | | |
| 98 | Retene | 219 | Compound Not Detected. | | | | | |

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52j.d
Lab Smp Id: UU52J
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120529.b/ABN.m
Misc Info: 12-8902

Calibration Date: 29-MAY-2012
Calibration Time: 11:01
Client Smp ID: MS009-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 192942 | 1.81 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 774858 | 6.01 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 438714 | 4.28 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 619554 | -3.04 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 704418 | 9.20 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 1108887 | 9.13 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 689542 | 6.08 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.87 | 0.08 |
| 27 Naphthalene-d8 | 11.51 | 11.01 | 12.01 | 11.51 | 0.00 |
| 42 Acenaphthene-d10 | 15.39 | 14.89 | 15.89 | 15.39 | 0.00 |
| 59 Phenanthrene-d10 | 18.65 | 18.15 | 19.15 | 18.66 | 0.04 |
| 69 Chrysene-d12 | 23.73 | 23.23 | 24.23 | 23.73 | 0.03 |
| 134 Di-n-octylphthala | 24.80 | 24.30 | 25.30 | 24.81 | 0.03 |
| 77 Perylene-d12 | 26.13 | 25.63 | 26.63 | 26.13 | 0.03 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

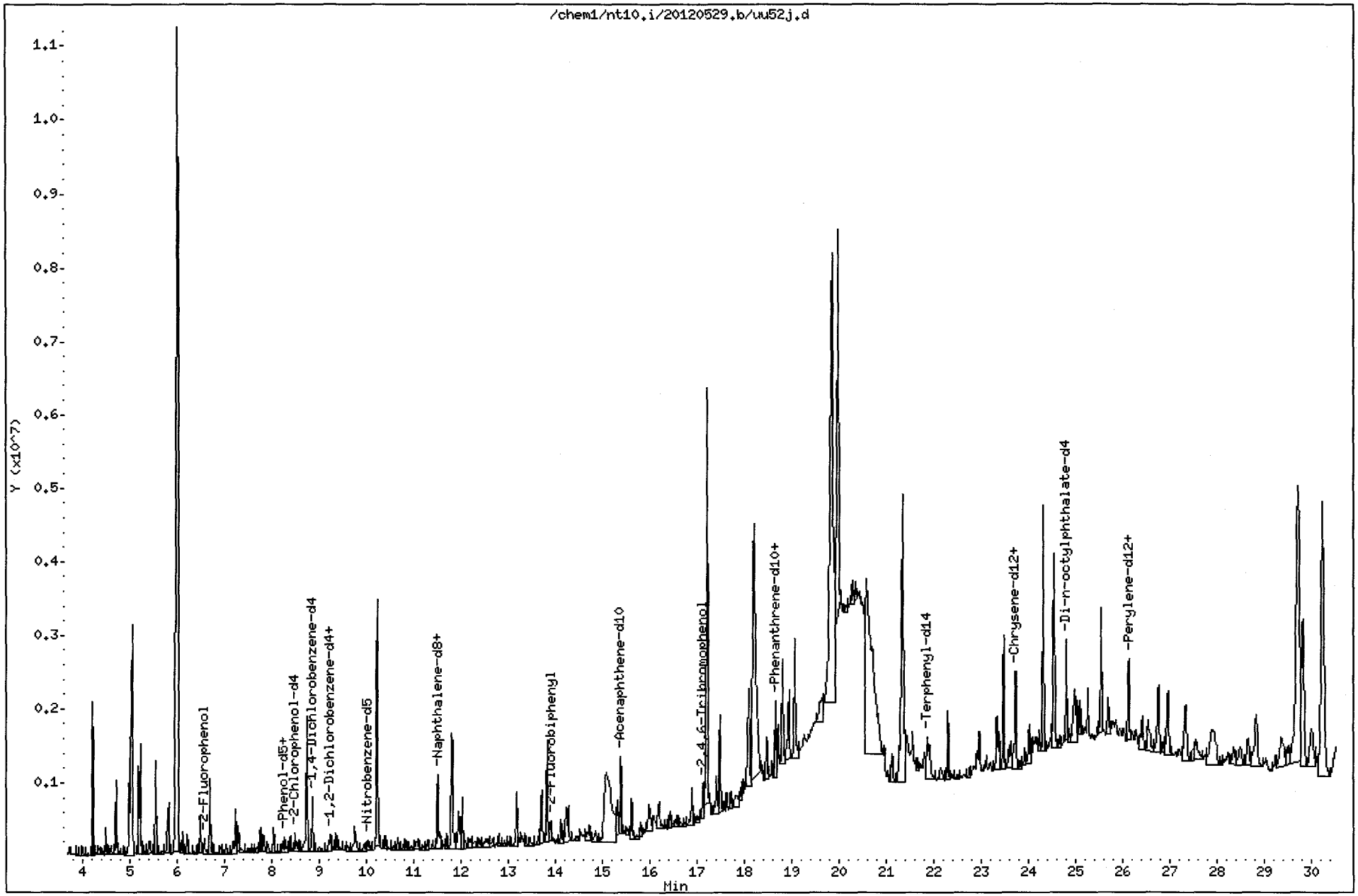
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52J Client Smp ID: MS009-SS-120515
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120529.b/ABN.m
Misc Info: 12-8902

| SURROGATE COMPOUND | CONC ADDED ug/kg | CONC RECOVERED ug/kg | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 1 2-Fluorophenol | 750.3 | 469.9 | 62.63 | 30-160 |
| $ 2 Phenol-d5 | 750.3 | 477.2 | 63.61 | 30-160 |
| $ 5 2-Chlorophenol-d4 | 750.3 | 506.3 | 67.48 | 30-160 |
| $ 10 1,2-Dichlorobenzen | 500.2 | 306.0 | 61.18 | 30-160 |
| $ 18 Nitrobenzene-d5 | 500.2 | 305.6 | 61.09 | 30-160 |
| $ 36 2-Fluorobiphenyl | 500.2 | 340.2 | 68.01 | 30-160 |
| $ 55 2,4,6-Tribromophen | 750.3 | 544.2 | 72.52 | 30-160 |
| $ 66 Terphenyl-d14 | 500.2 | 349.7 | 69.91 | 30-160 |

Data File: /chem1/nt10.i/20120529.b/uu52j.d
Date : 29-MAY-2012 13:33
Client ID: MS009-SS-120515
Sample Info: UU52J,3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25




UU52:91025

Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

Client ID: MS009-SS-120515

Instrument: nt10.i

Sample Info: UU52J,3

Volume Injected (uL): 1.0

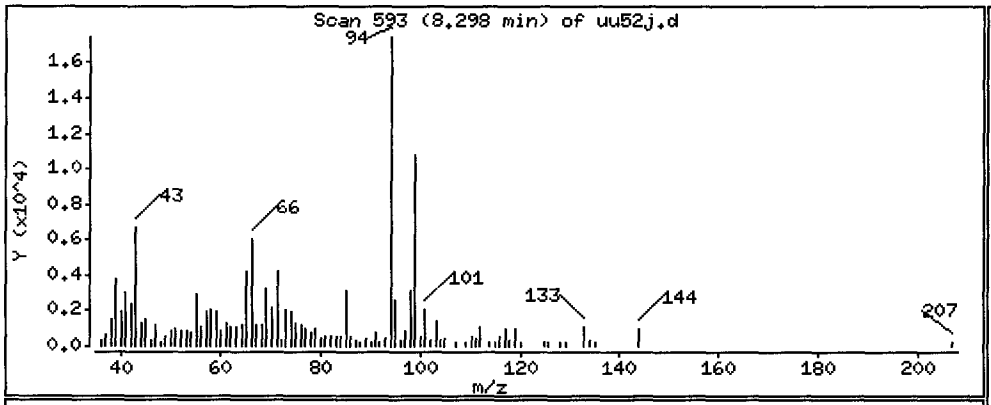
Operator: VTS/YZ

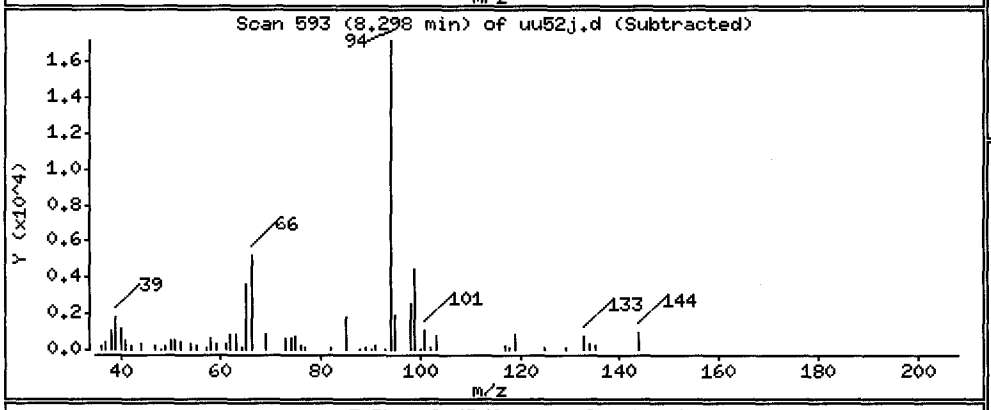
Column phase: ZB-5msi

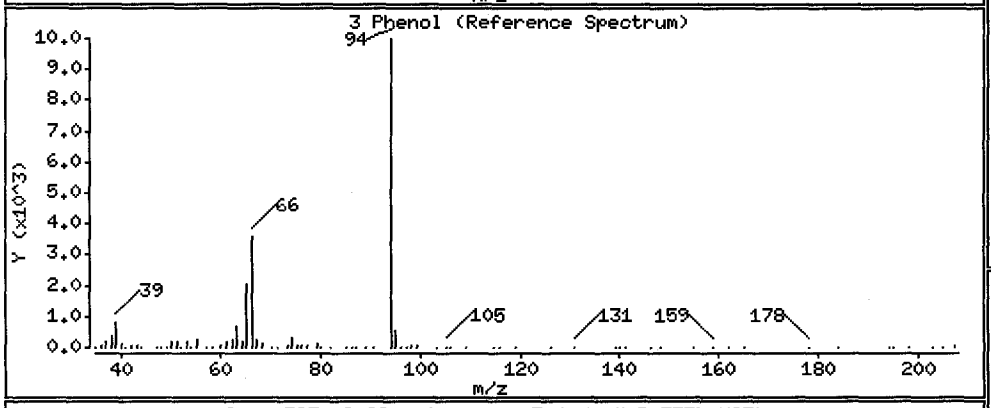
Column diameter: 0.25

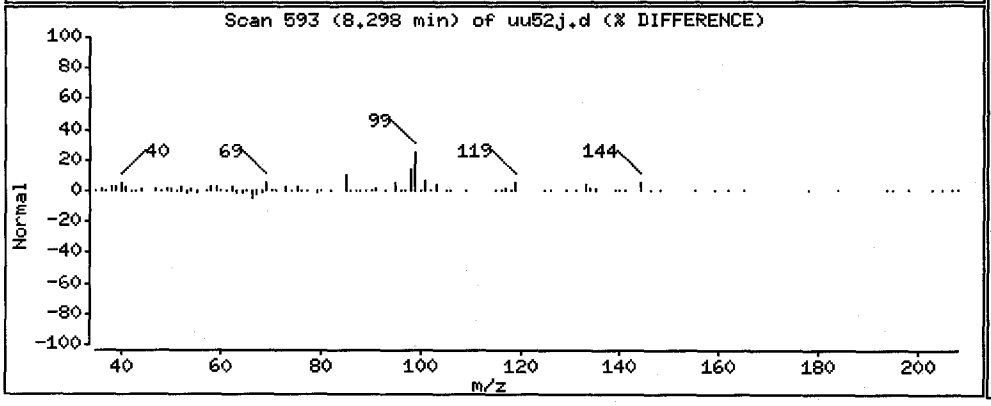
3 Phenol

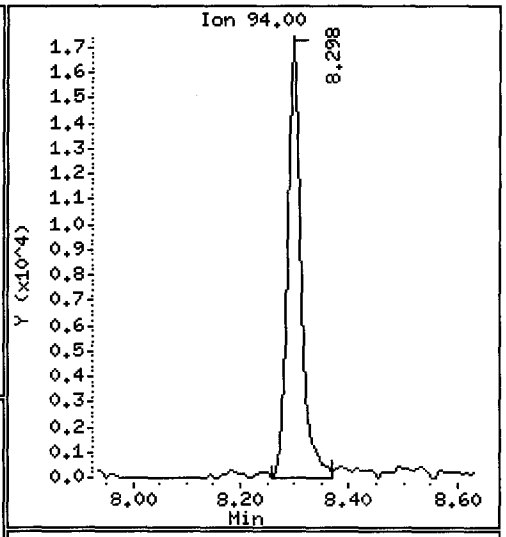
Concentration: 103.1 ug/kg

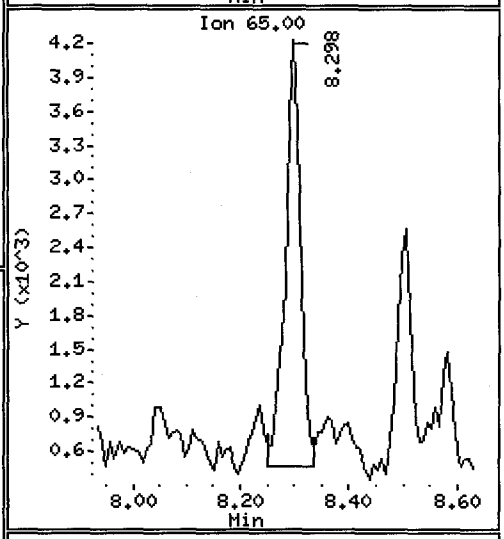


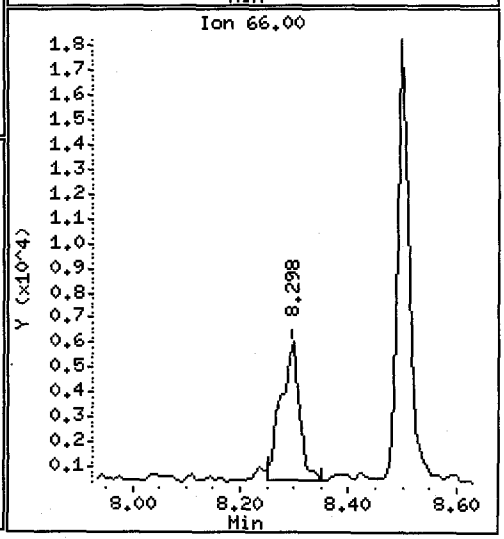



Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

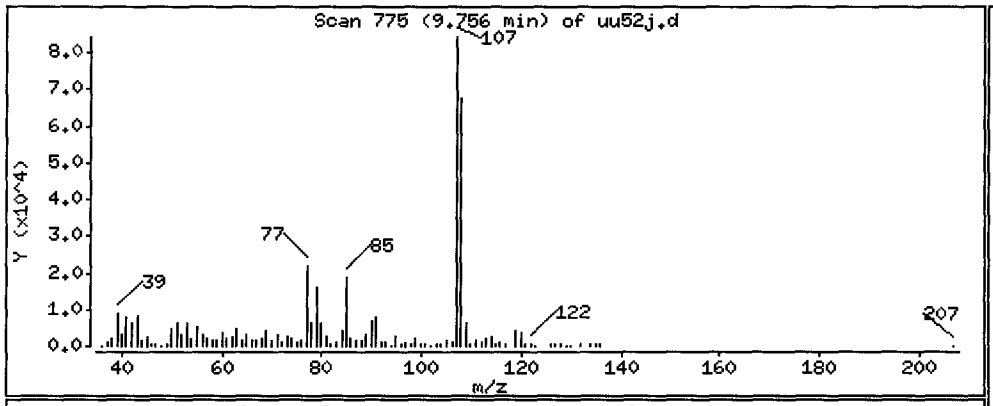
Client ID: MS009-SS-120515 Instrument: nt10.i

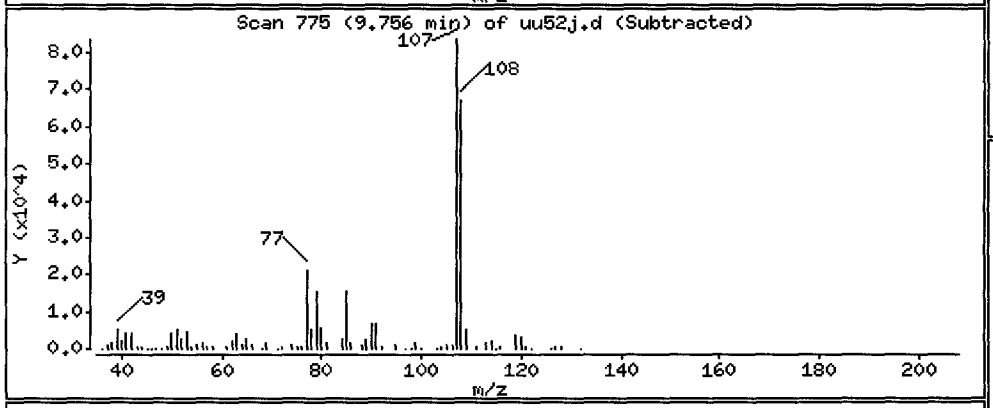
Sample Info: UU52J,3

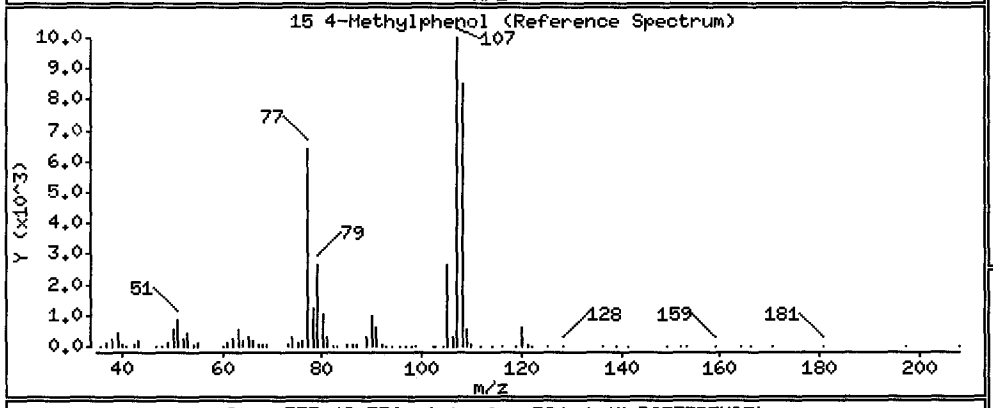
Volume Injected (uL): 1.0 Operator: VTS/YZ

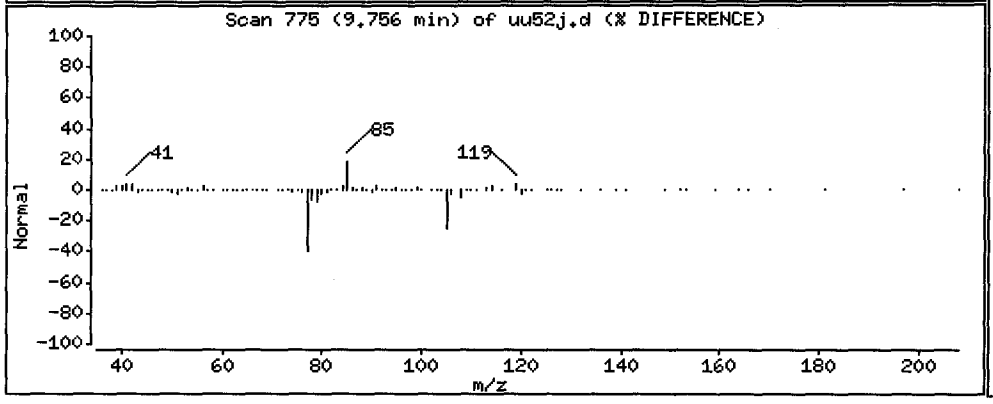
Column phase: ZB-5msi Column diameter: 0.25

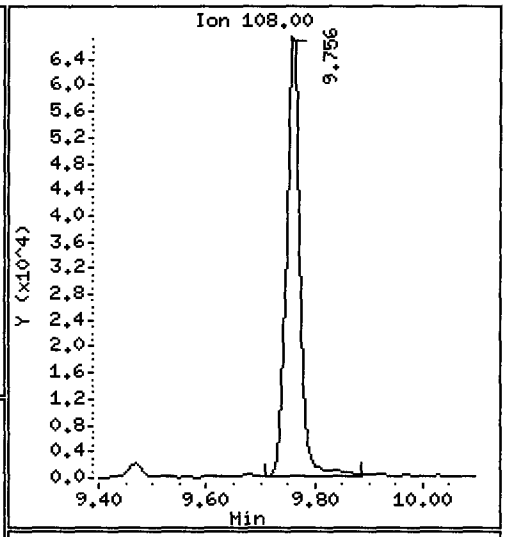
15 4-Methylphenol Concentration: 477.9 ug/kg

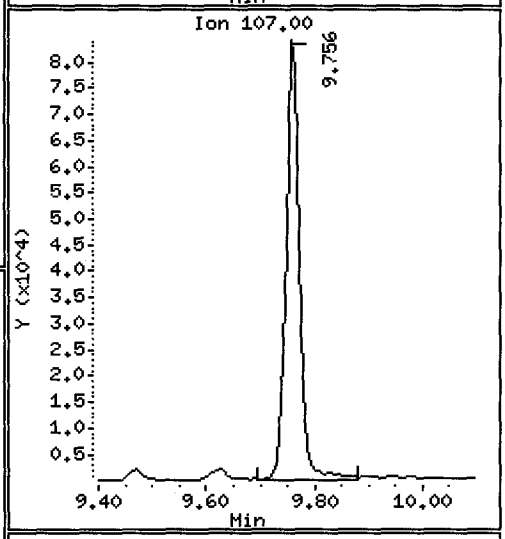


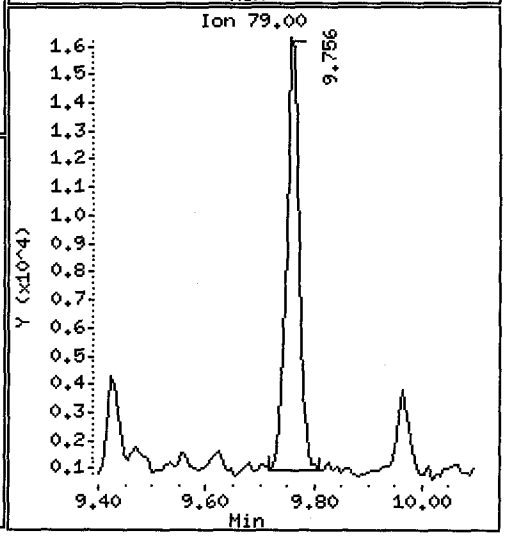



Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

Client ID: MS009-SS-120515

Instrument: nt10.i

Sample Info: UU52J,3

Volume Injected (uL): 1.0

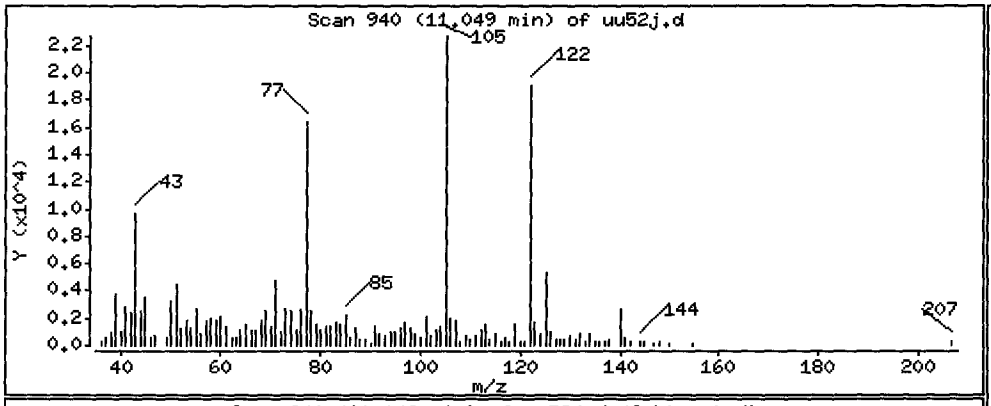
Operator: VTS/YZ

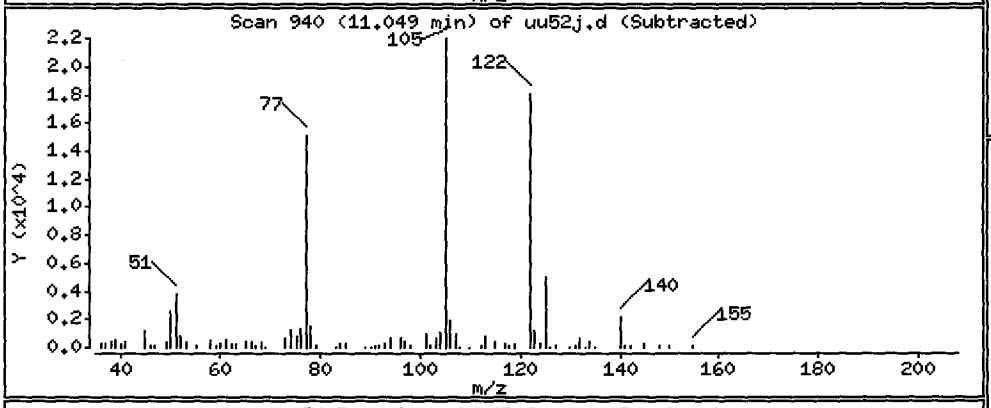
Column phase: ZB-5msi

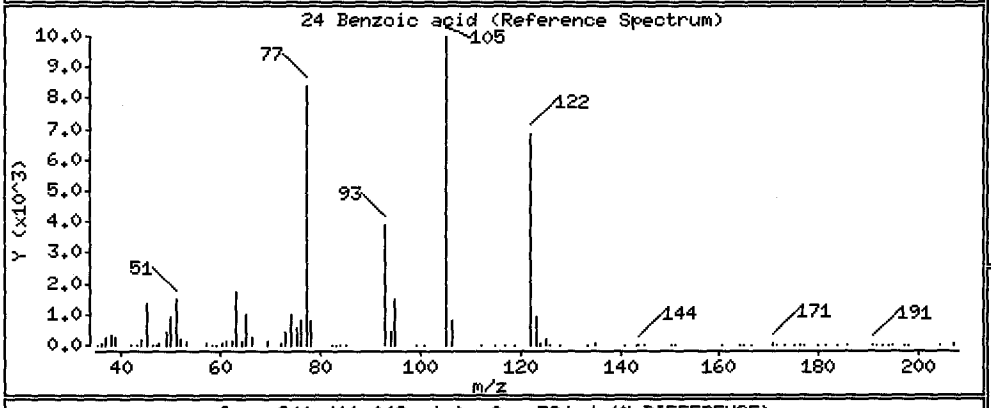
Column diameter: 0.25

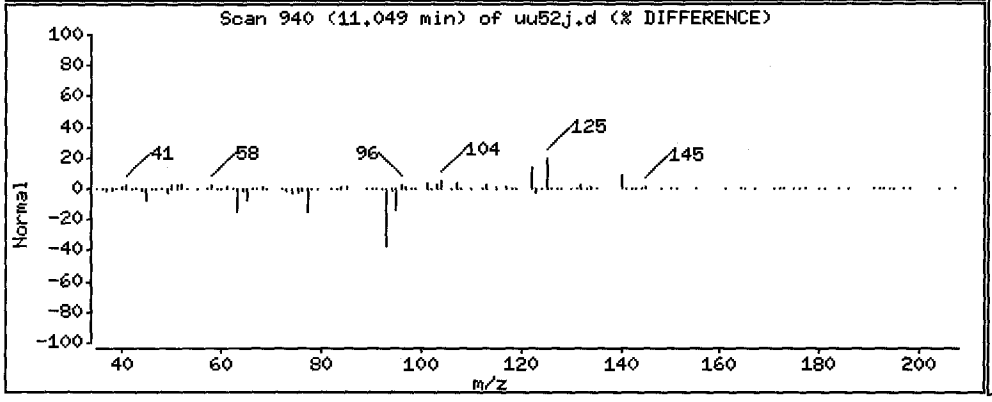
24 Benzoic acid

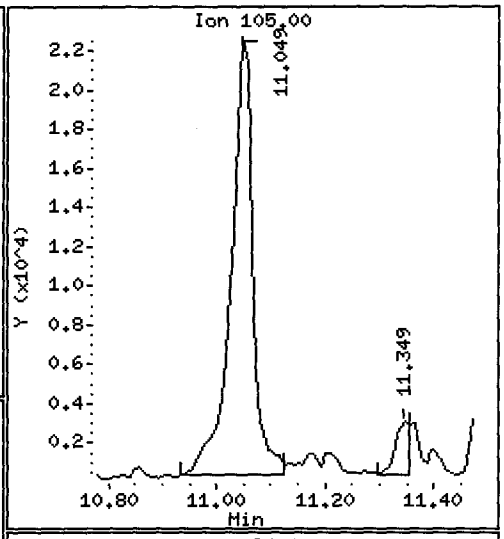
Concentration: 407.1 ug/kg

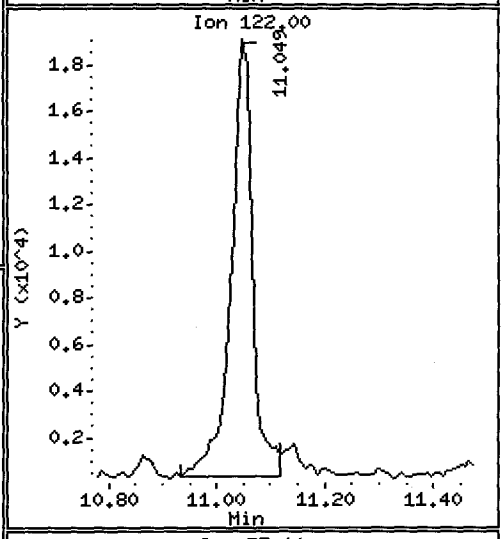


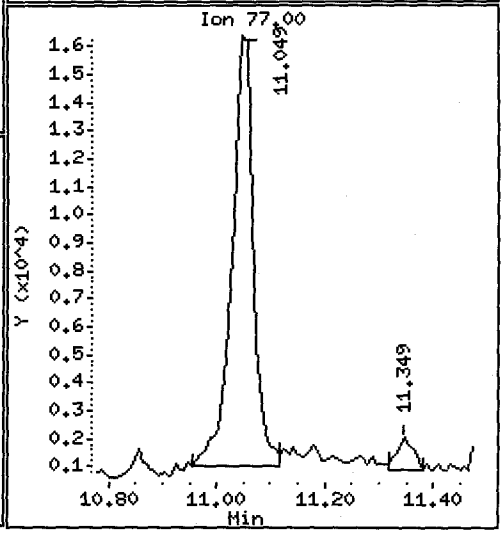



Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

Client ID: MS009-SS-120515

Instrument: nt10.i

Sample Info: UU52J,3

Volume Injected (uL): 1.0

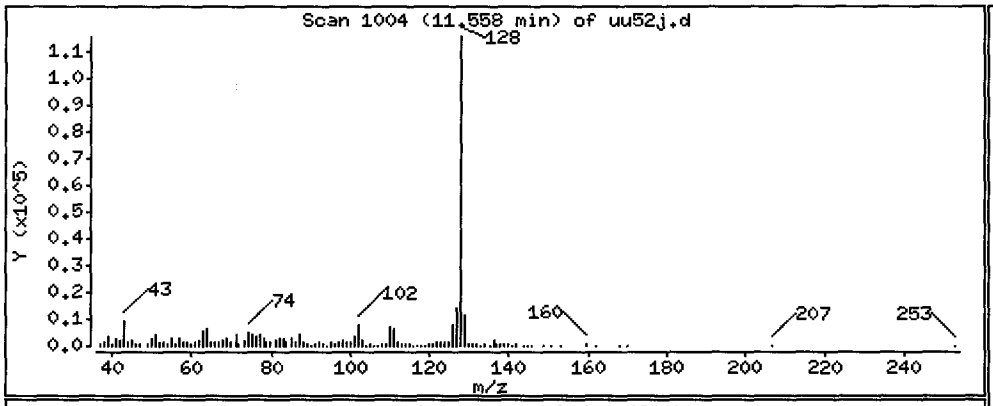
Operator: VTS/YZ

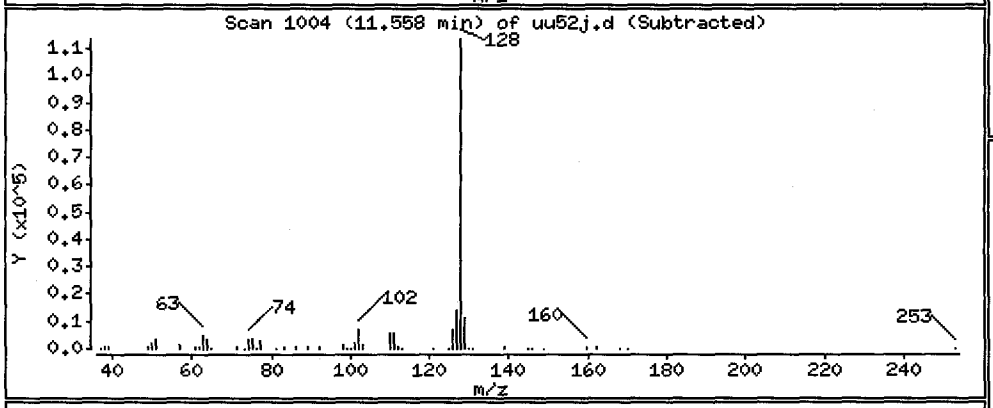
Column phase: ZB-5msi

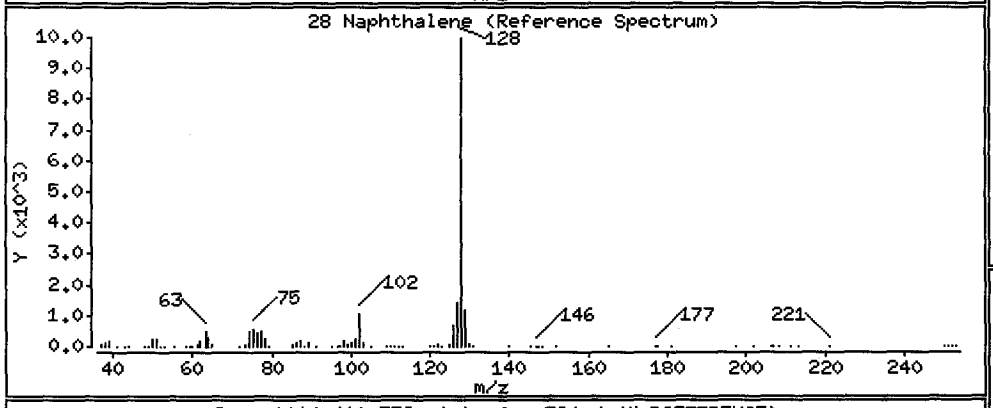
Column diameter: 0.25

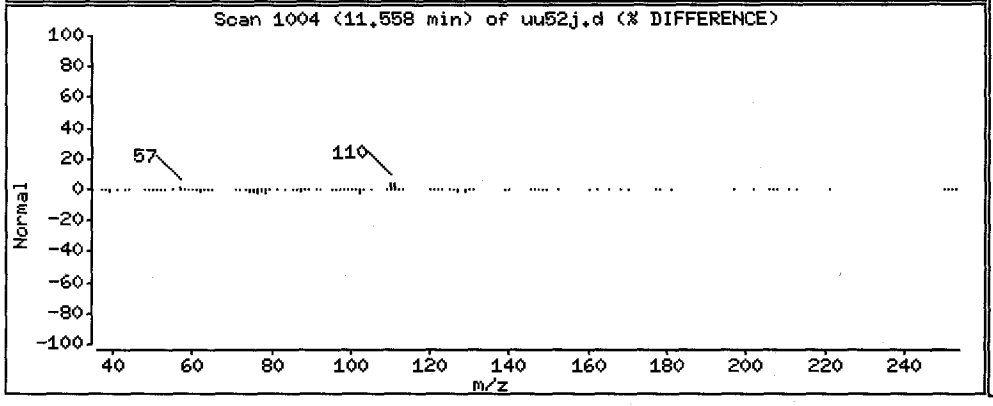
28 Naphthalene

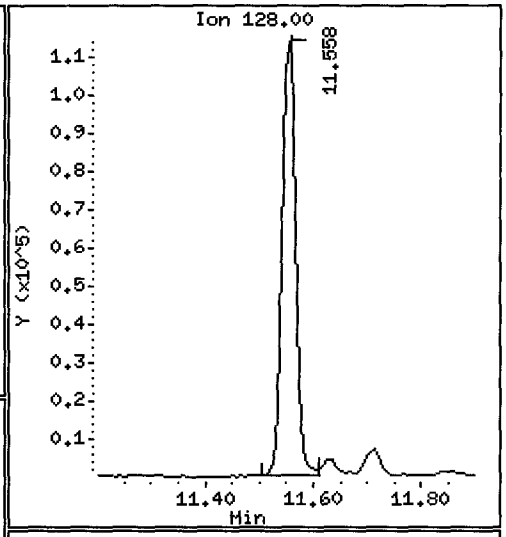
Concentration: 288.7 ug/kg

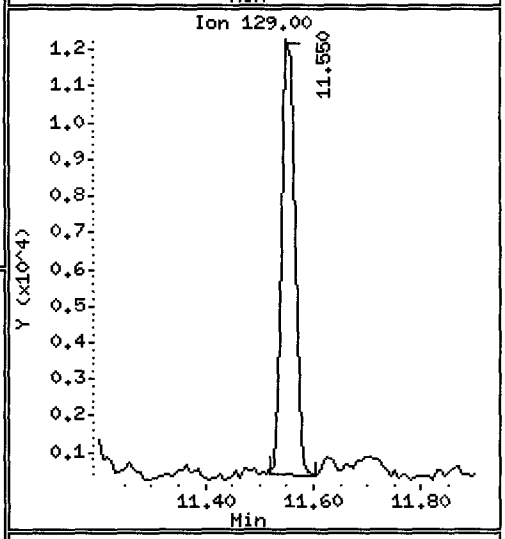


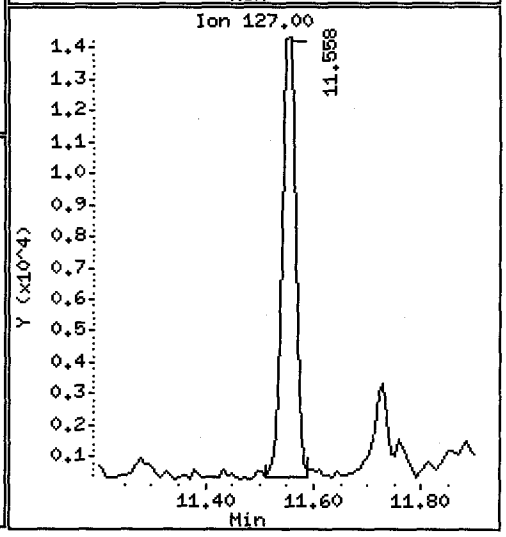



Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

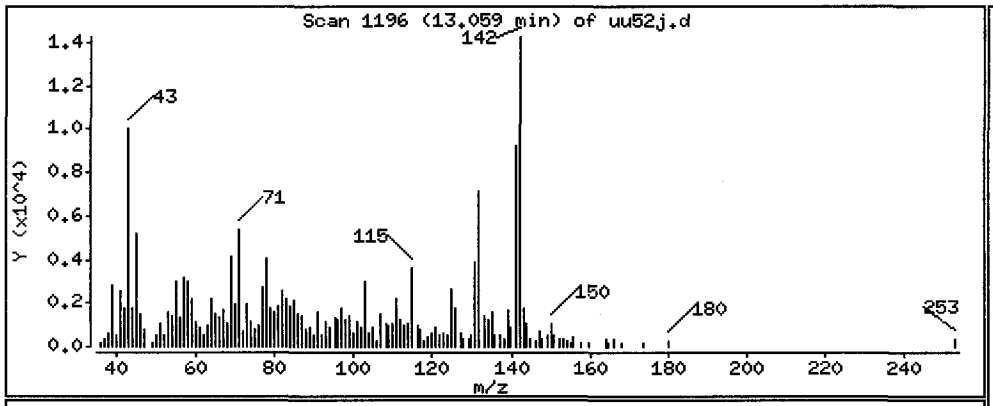
Client ID: MS009-SS-120515 Instrument: nt10.i

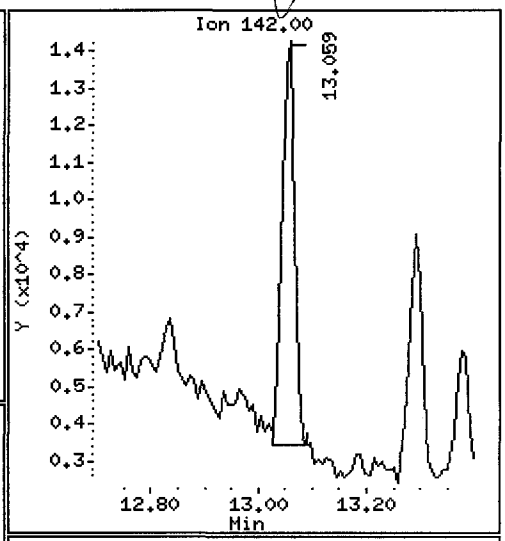
Sample Info: UU52J,3

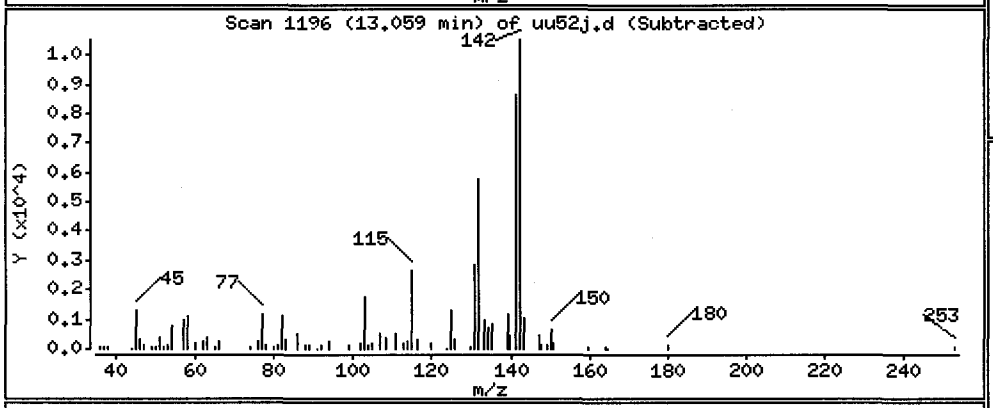
Volume Injected (uL): 1.0 Operator: VTS/YZ

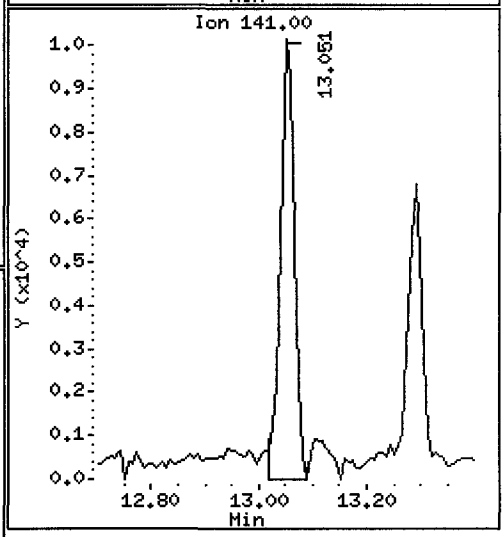
Column phase: ZB-5msi Column diameter: 0.25

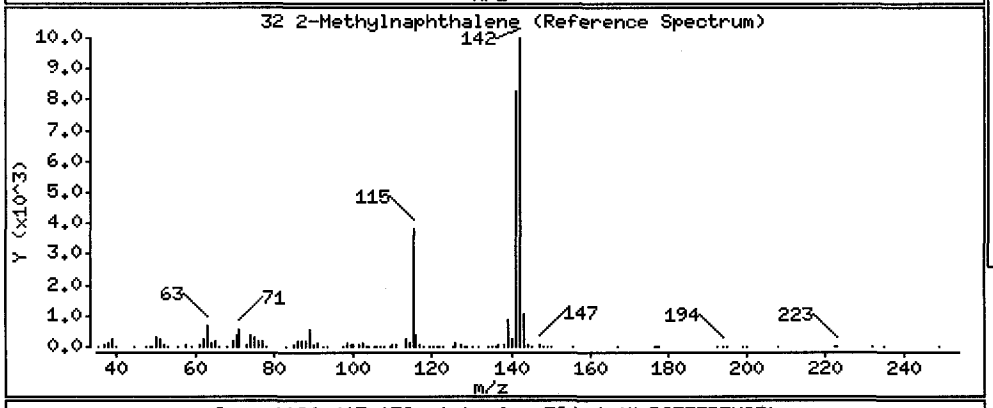
32 2-Methylnaphthalene Concentration: 37.18 ug/kg

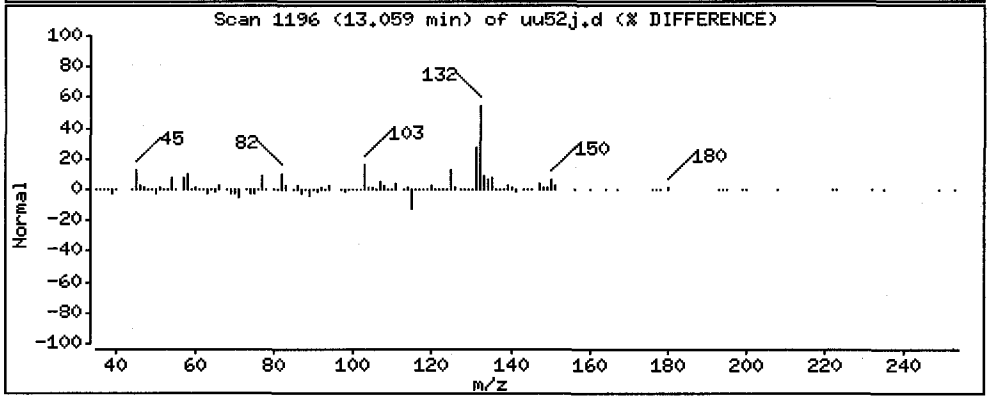


Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

Client ID: MS009-SS-120515

Instrument: nt10.i

Sample Info: UU52J,3

Volume Injected (uL): 1.0

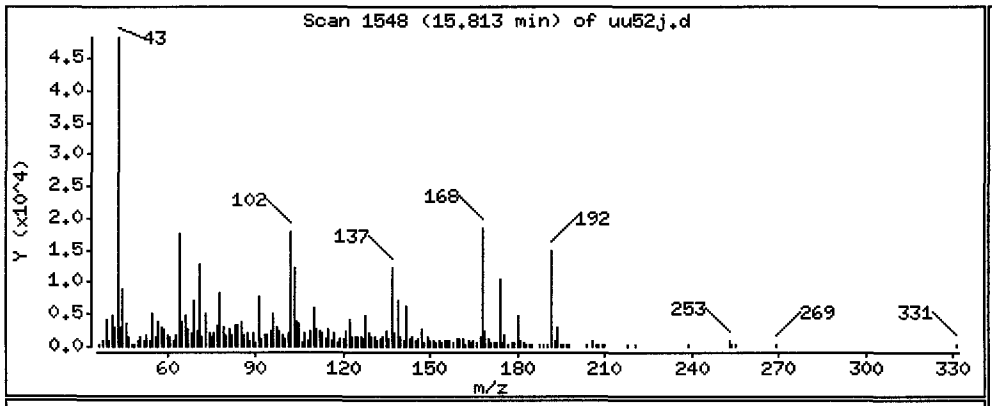
Operator: VTS/YZ

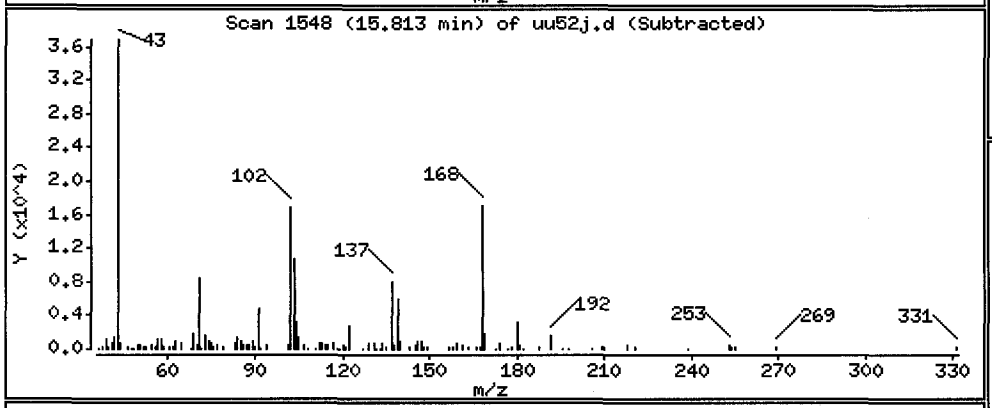
Column phase: ZB-5msi

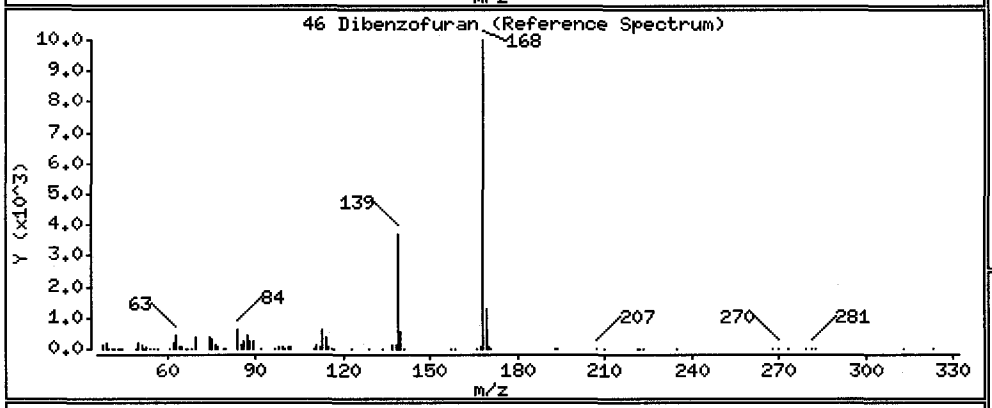
Column diameter: 0.25

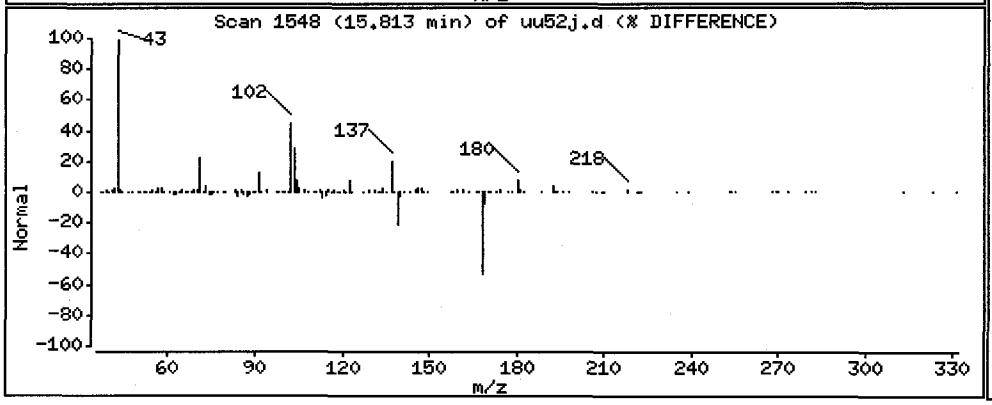
46 Dibenzofuran

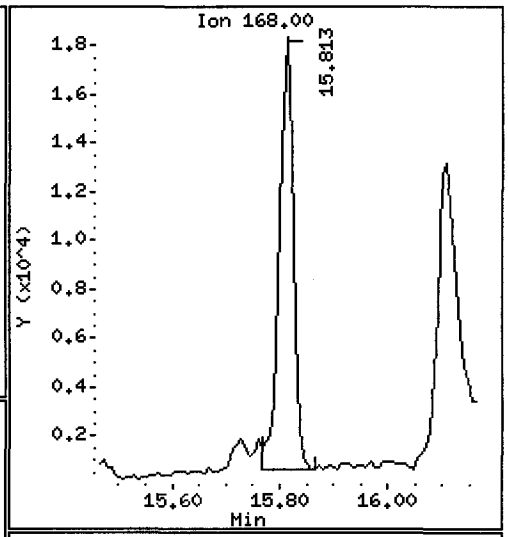
Concentration: 52.73 ug/kg

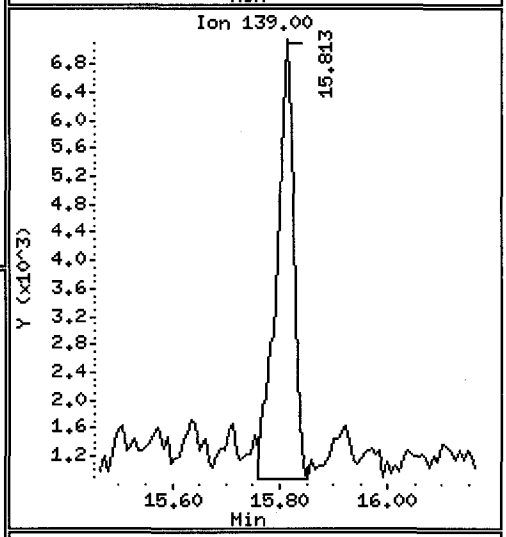


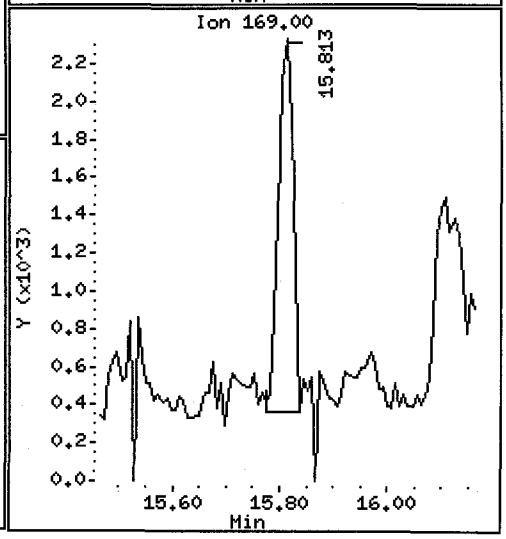



Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

Client ID: MS009-SS-120515

Instrument: nt10.i

Sample Info: UU52J,3

Volume Injected (uL): 1.0

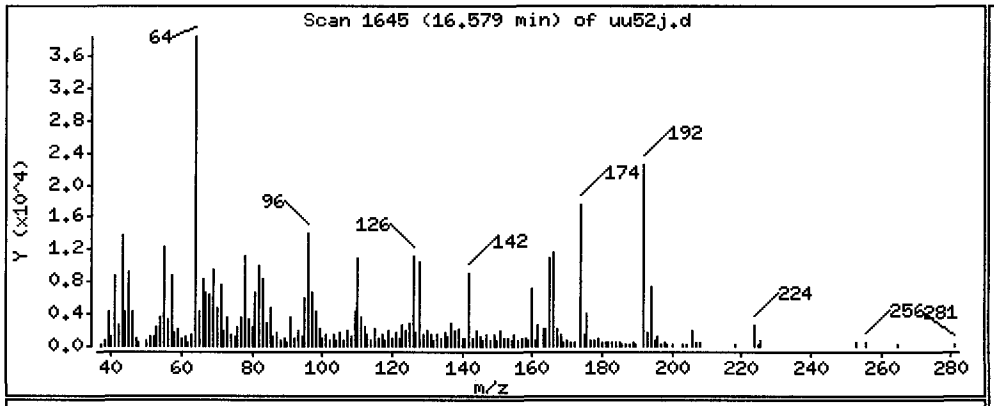
Operator: VTS/YZ

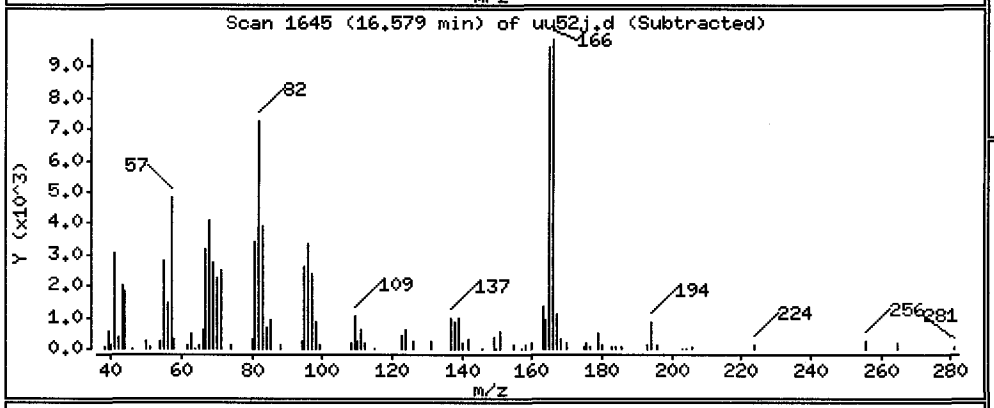
Column phase: ZB-5msi

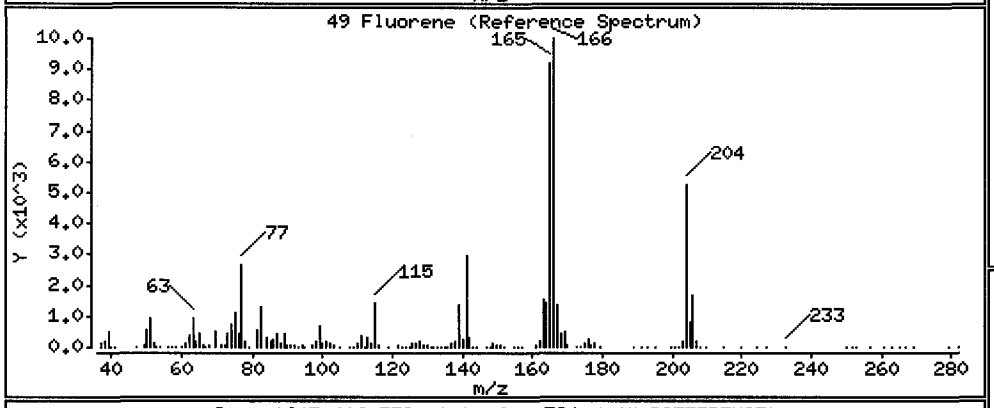
Column diameter: 0.25

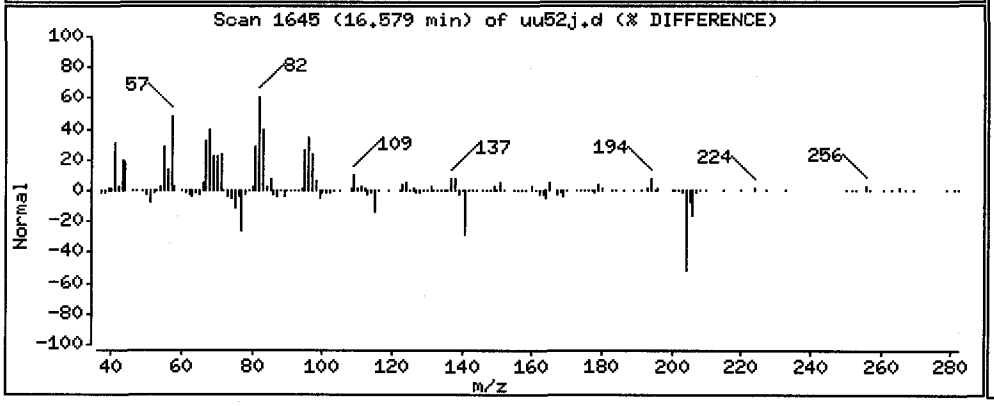
49 Fluorene

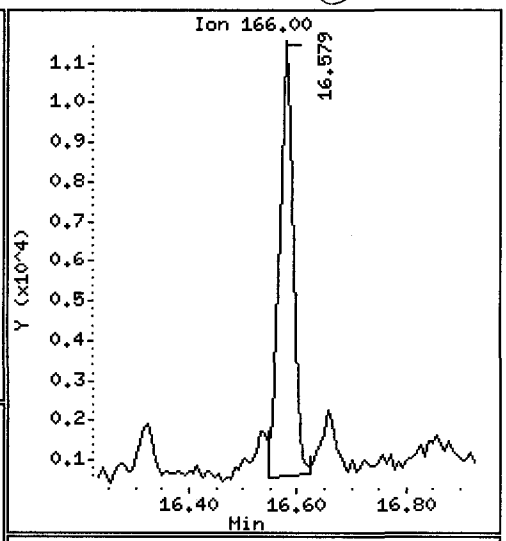
Concentration: 43.01 ug/kg

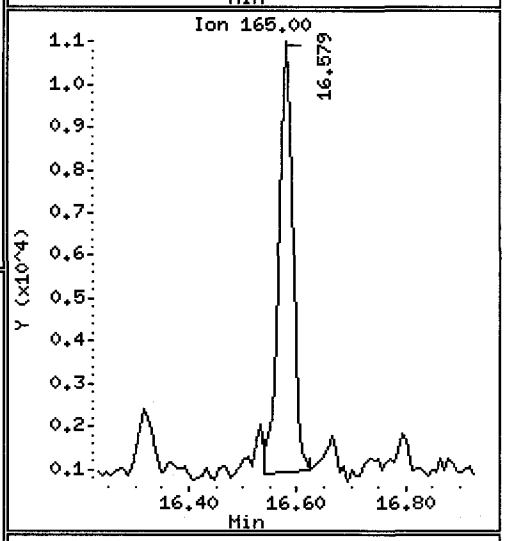


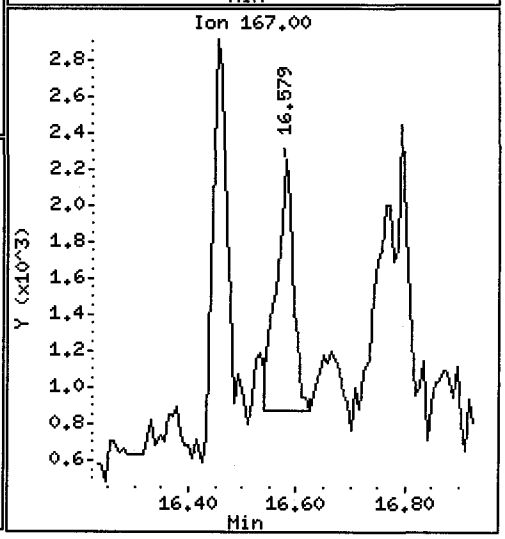



Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

Client ID: MS009-SS-120515

Instrument: nt10.i

Sample Info: UU52J,3

Volume Injected (uL): 1.0

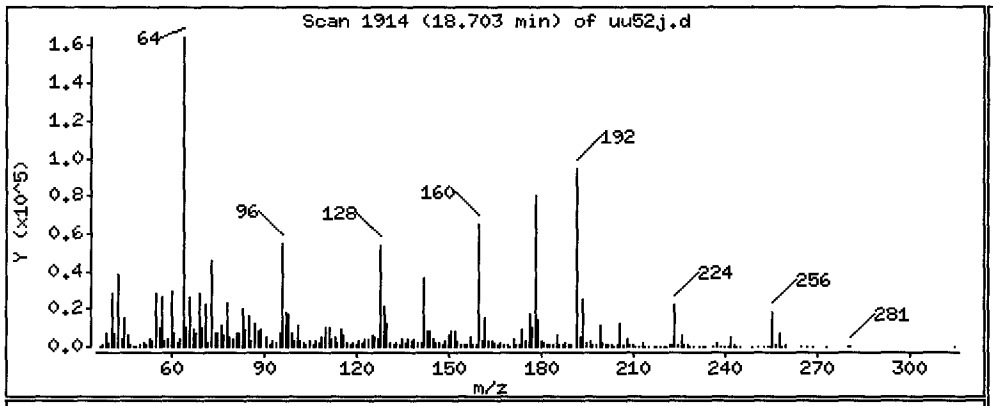
Operator: VTS/YZ

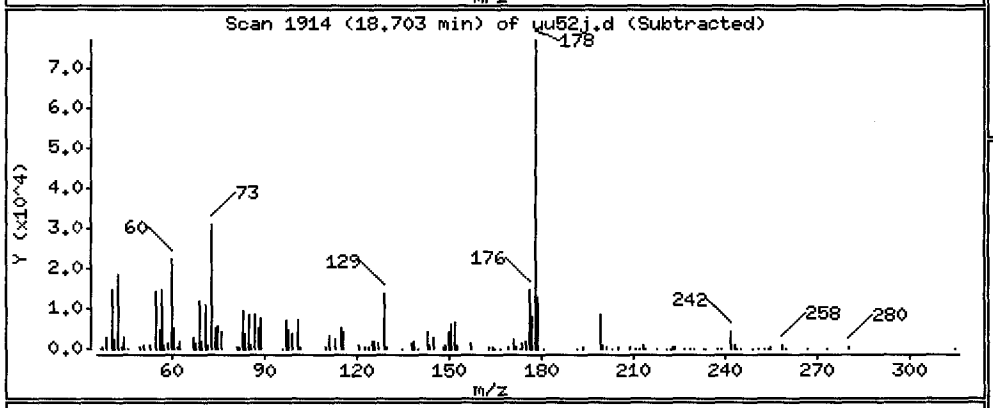
Column phase: ZB-5msi

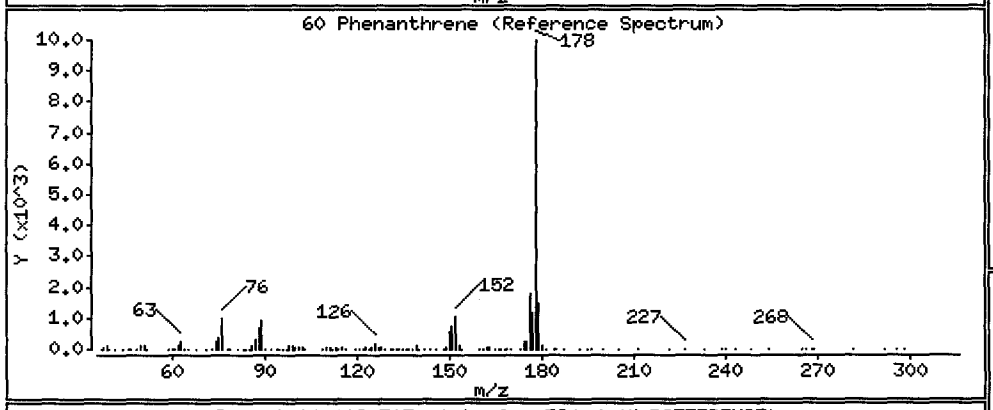
Column diameter: 0.25

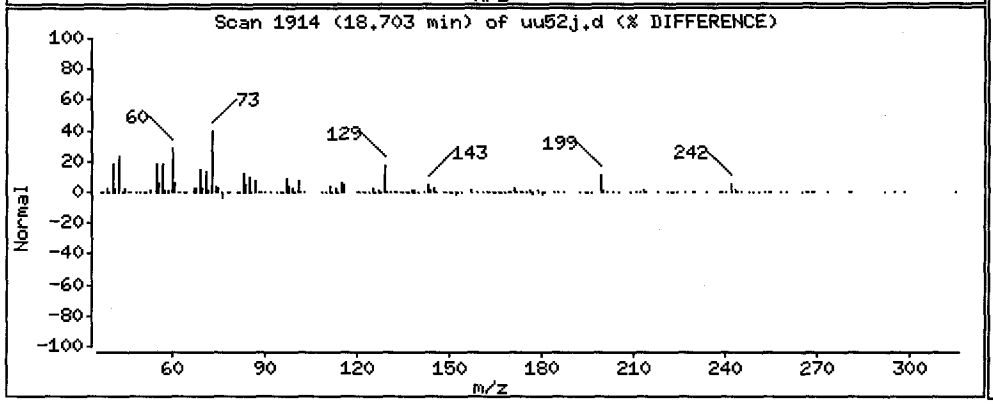
60 Phenanthrene

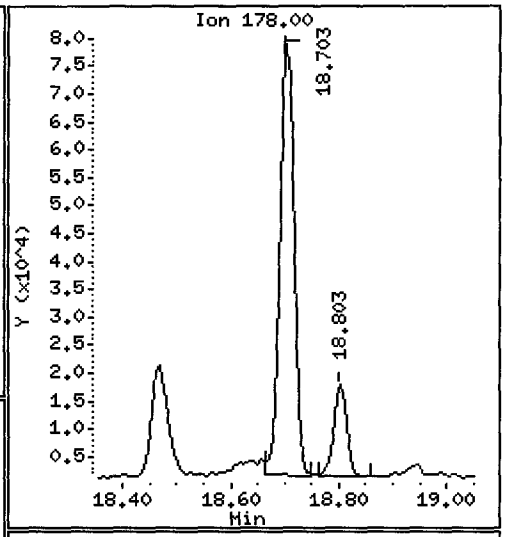
Concentration: 249.6 ug/kg

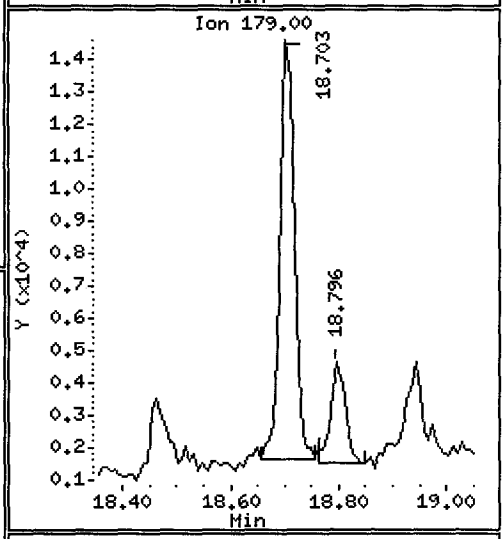


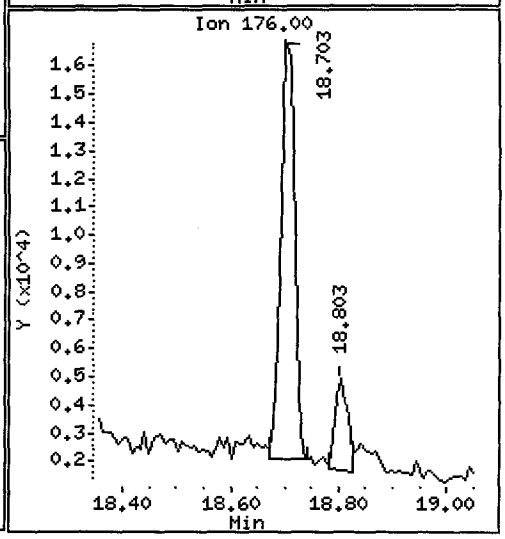



Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

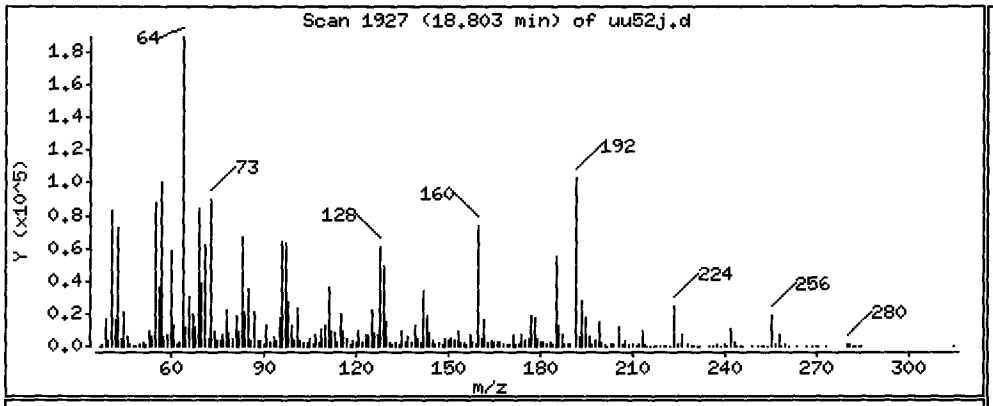
Client ID: MS009-SS-120515 Instrument: nt10.i

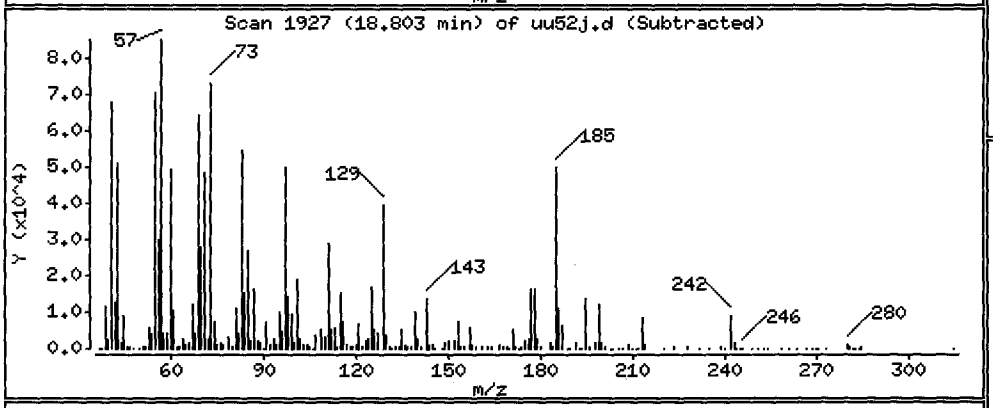
Sample Info: UU52J,3

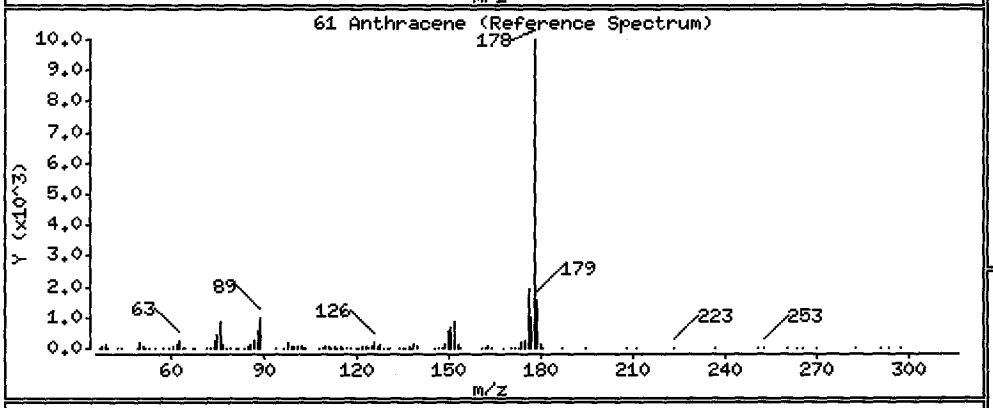
Volume Injected (uL): 1.0 Operator: VTS/YZ

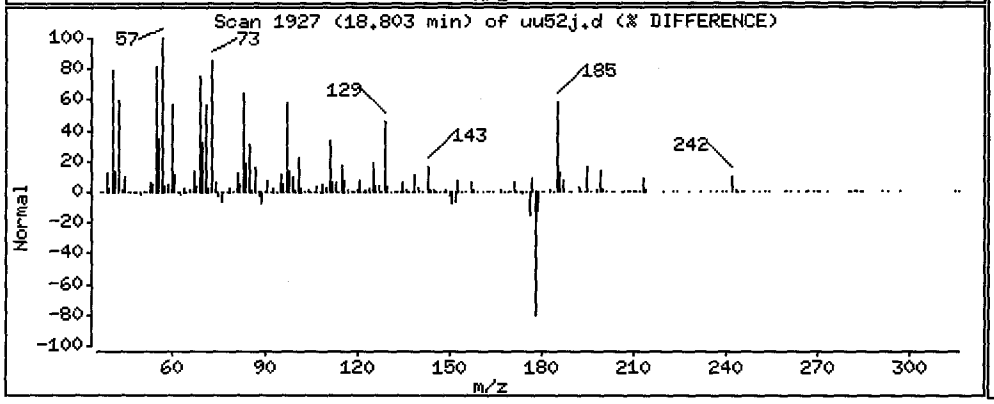
Column phase: ZB-5msi Column diameter: 0.25

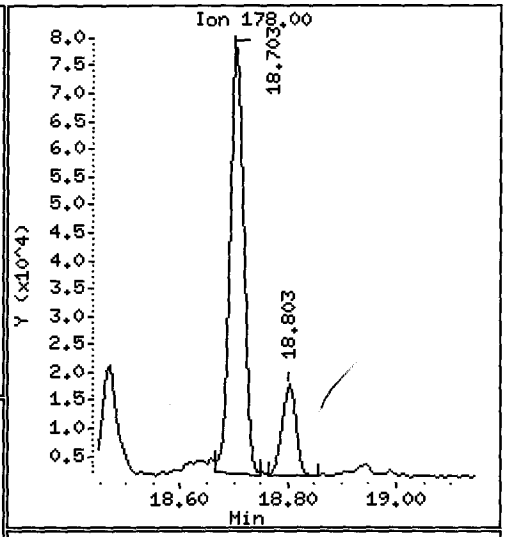
61 Anthracene Concentration: 51.59 ug/kg

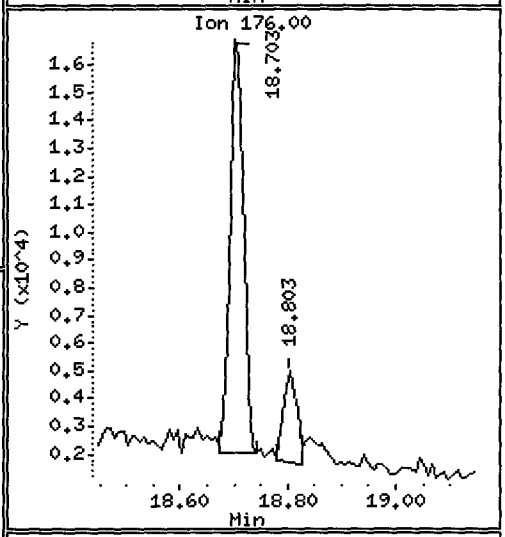


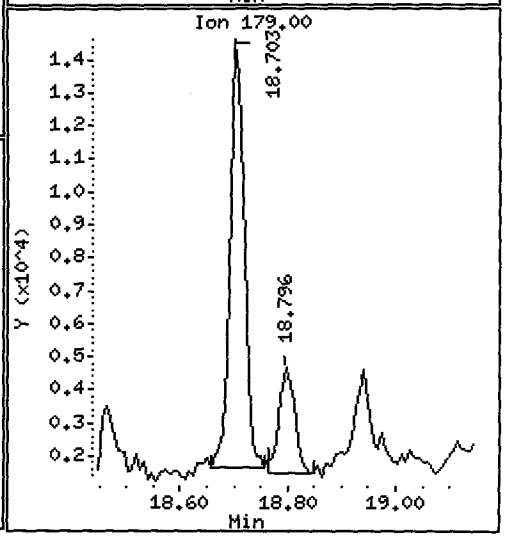



Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

Client ID: MS009-SS-120515

Instrument: nt10.i

Sample Info: UU52J,3

Volume Injected (uL): 1.0

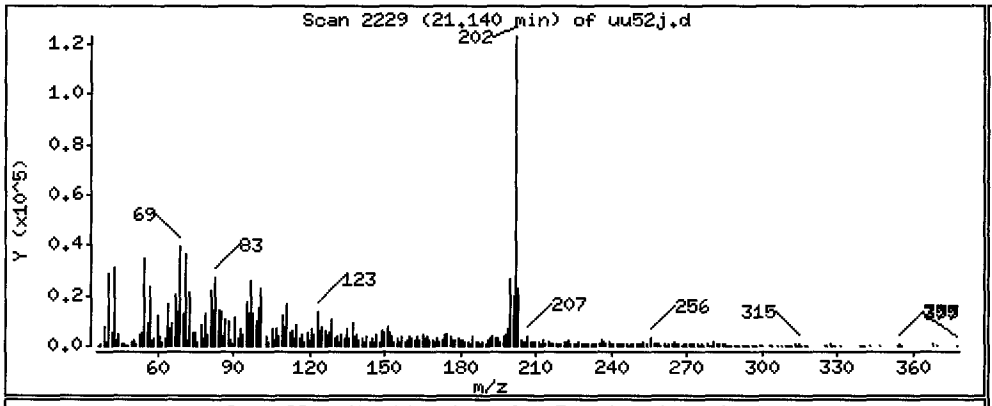
Operator: VTS/YZ

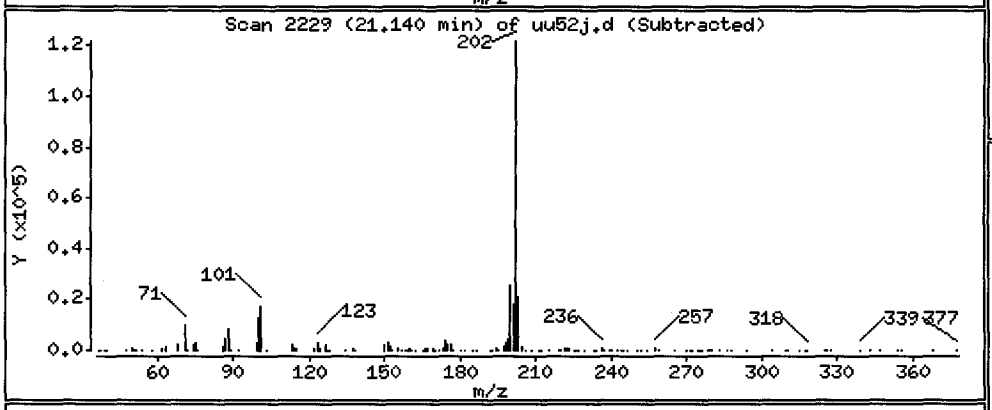
Column phase: ZB-5msi

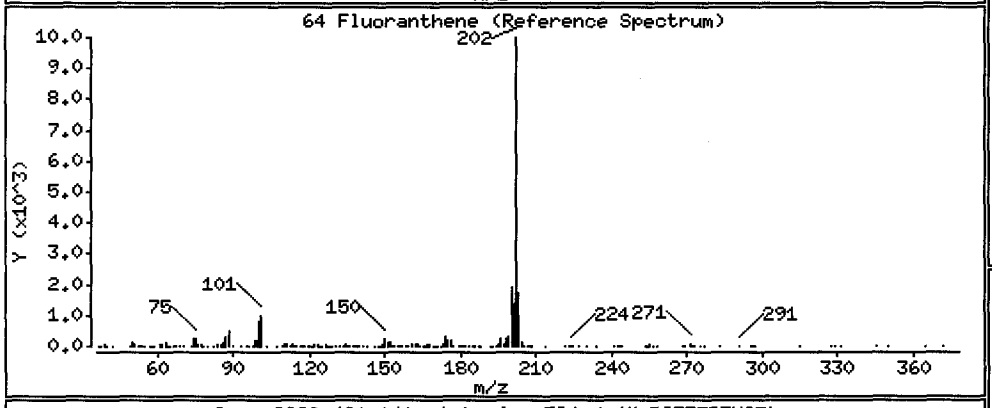
Column diameter: 0.25

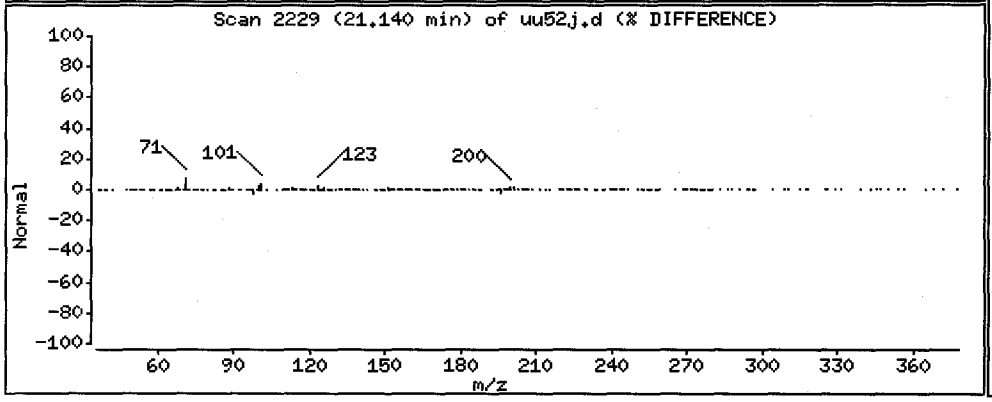
64 Fluoranthene

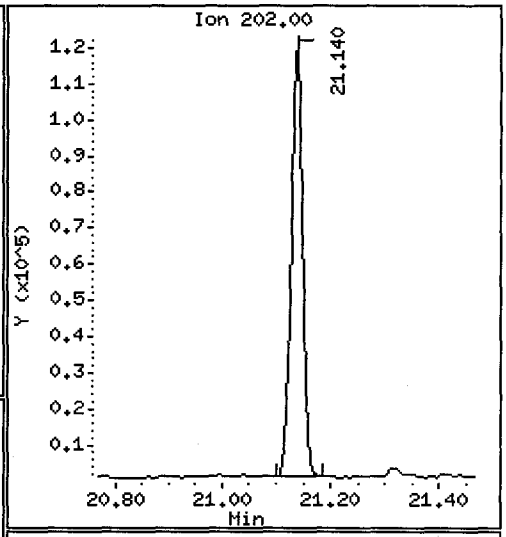
Concentration: 291.8 ug/kg

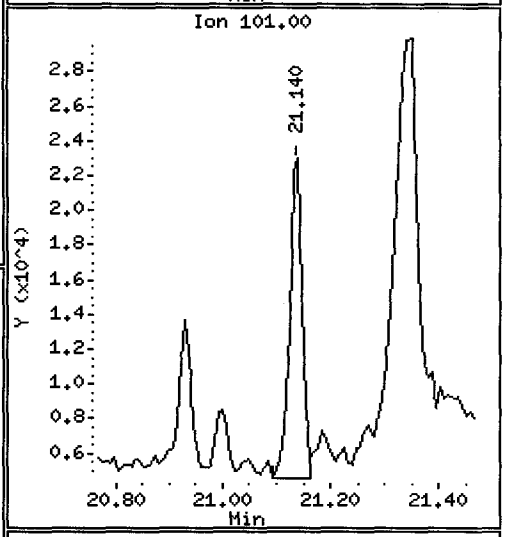


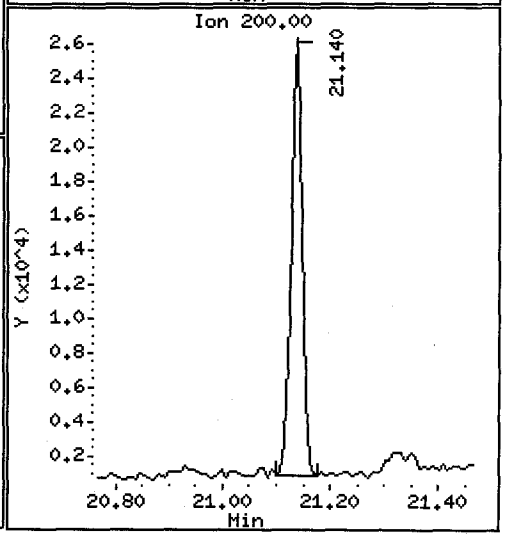



Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

Client ID: MS009-SS-120515

Instrument: nt10.i

Sample Info: UU52J,3

Volume Injected (uL): 1.0

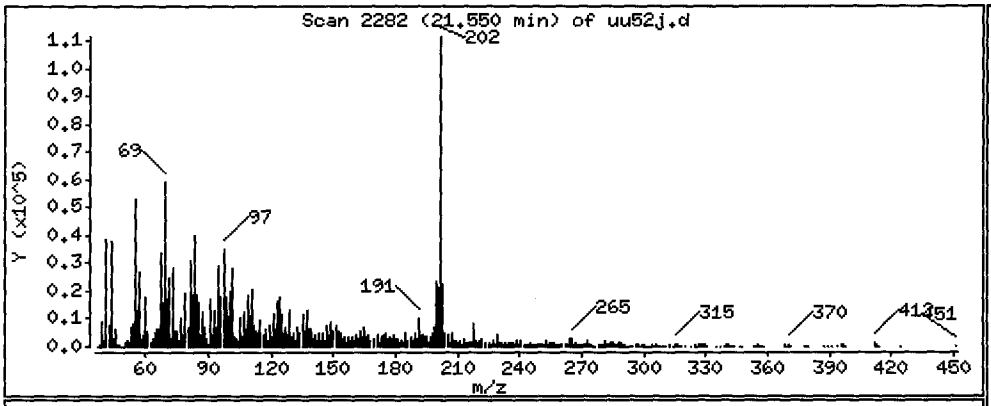
Operator: VTS/YZ

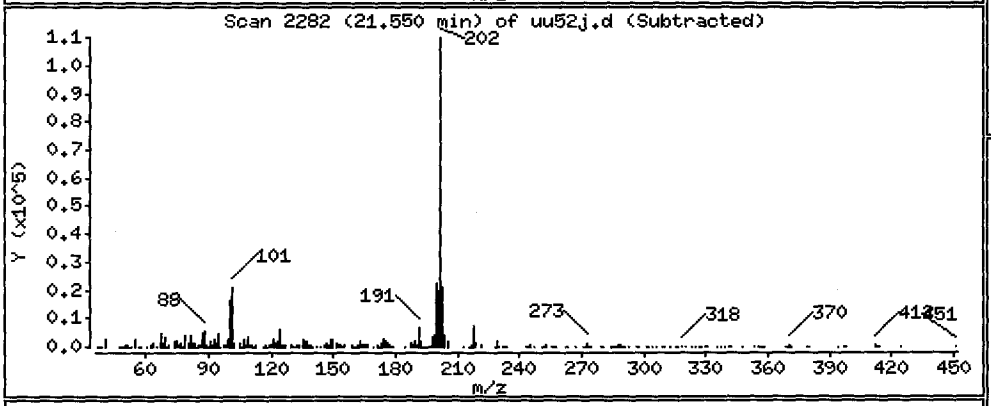
Column phase: ZB-5msi

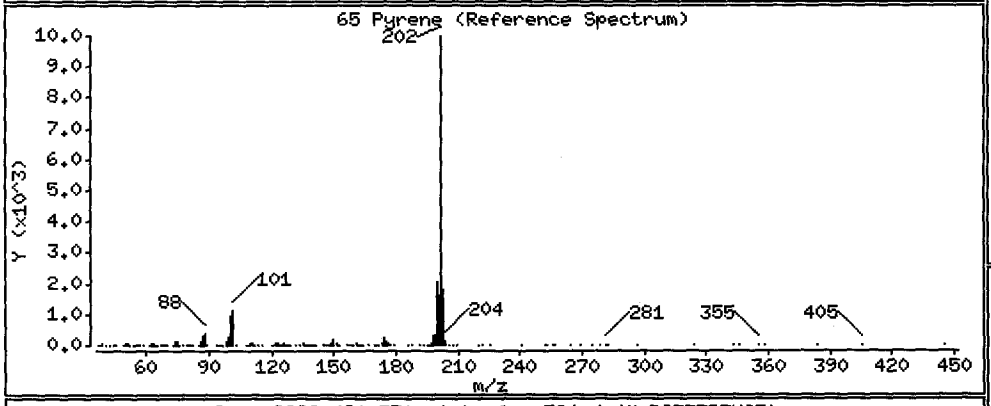
Column diameter: 0.25

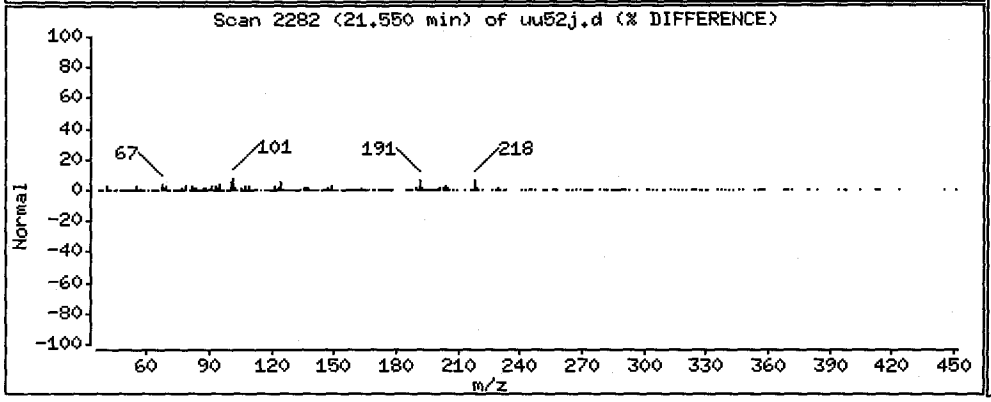
65 Pyrene

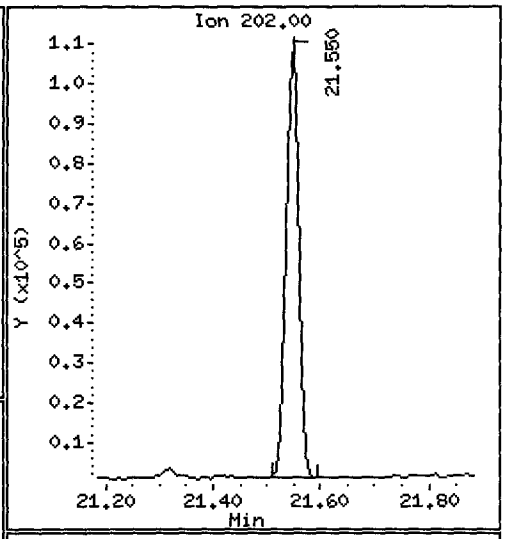
Concentration: 240.1 ug/kg

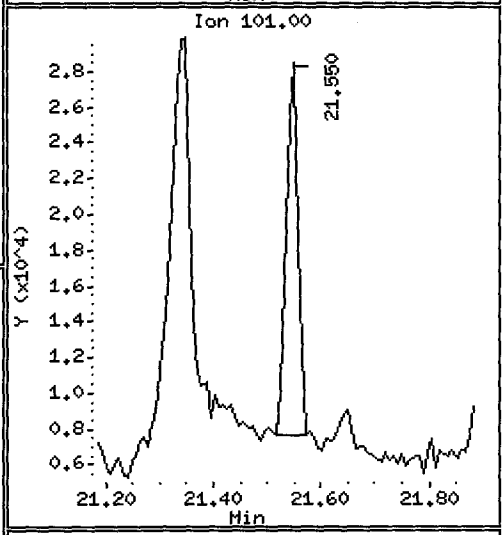


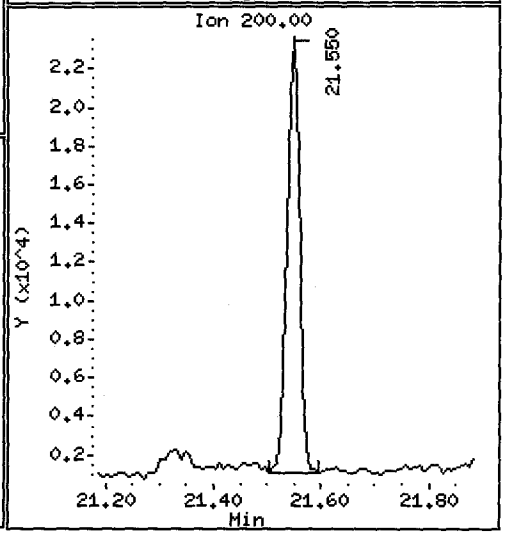



Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

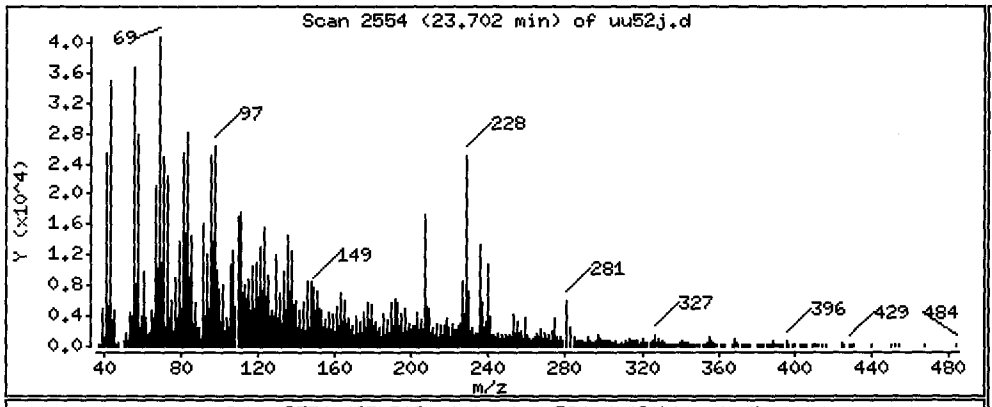
Client ID: MS009-SS-120515 Instrument: nt10.i

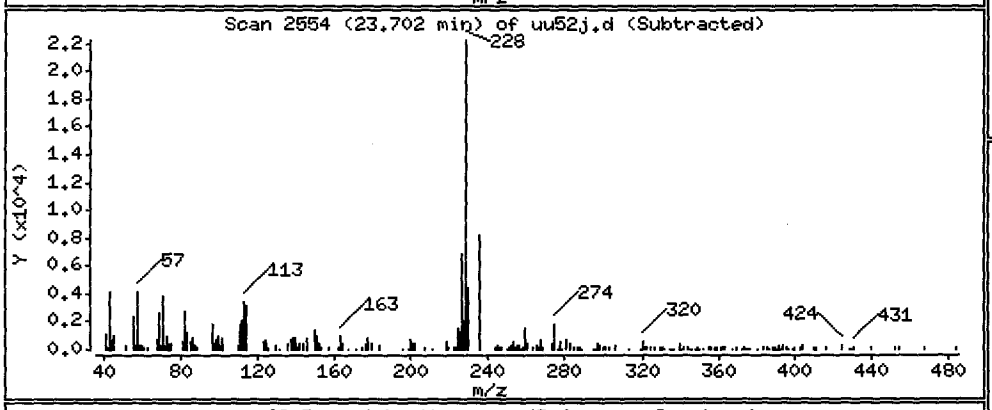
Sample Info: UU52J,3

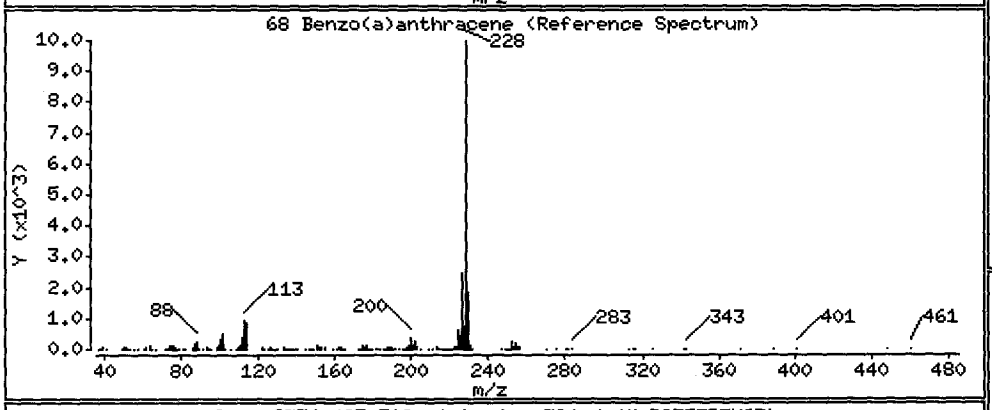
Volume Injected (uL): 1.0 Operator: VTS/YZ

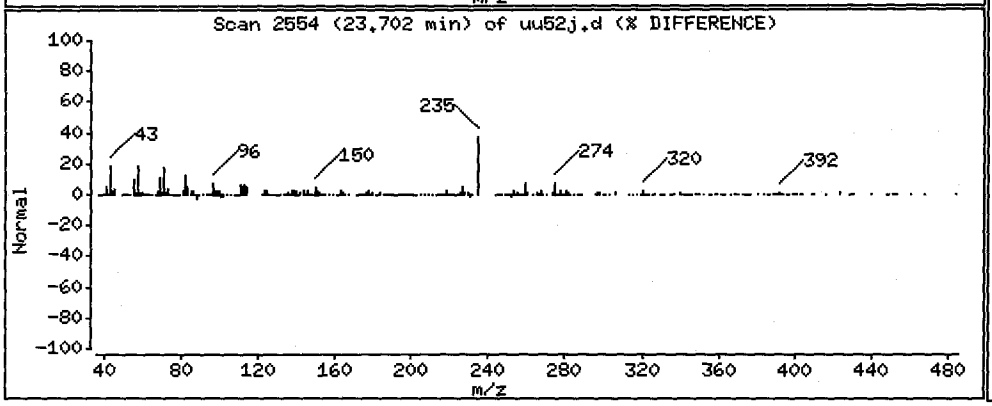
Column phase: ZB-5msi Column diameter: 0.25

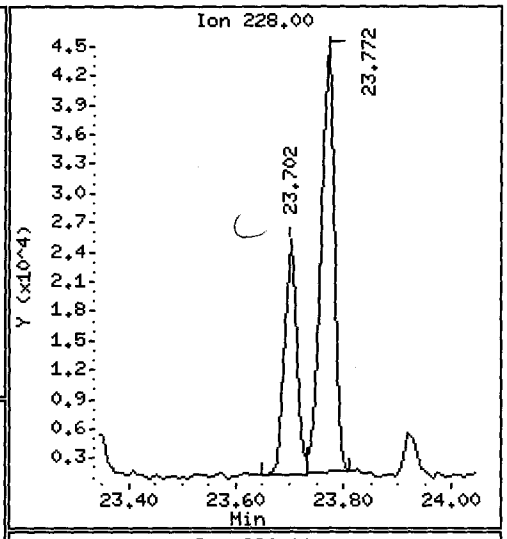
68 Benzo(a)anthracene Concentration: 56.44 ug/kg

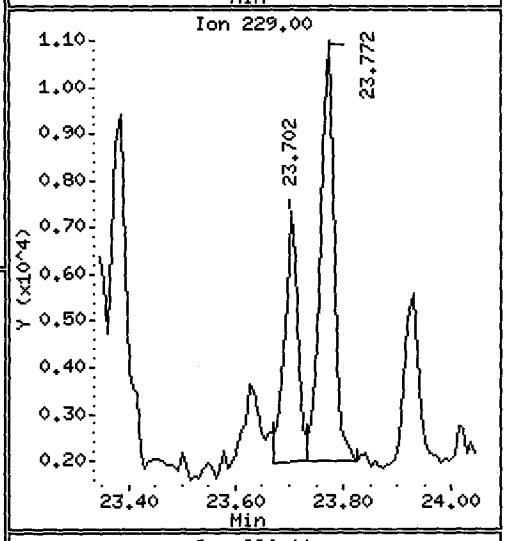


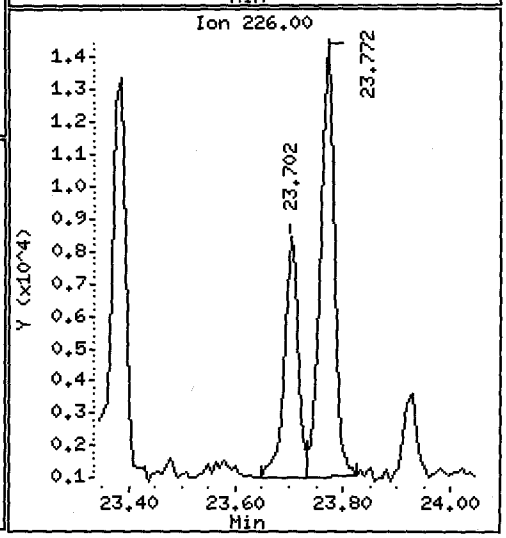



Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

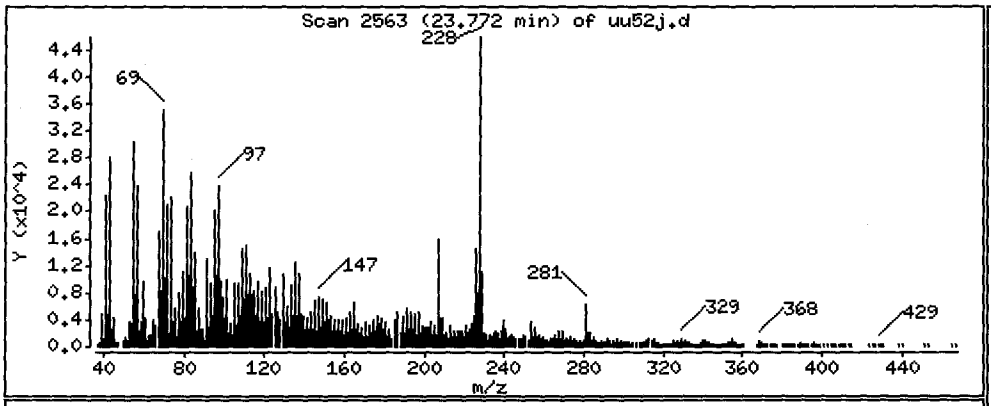
Client ID: MS009-SS-120515 Instrument: nt10.i

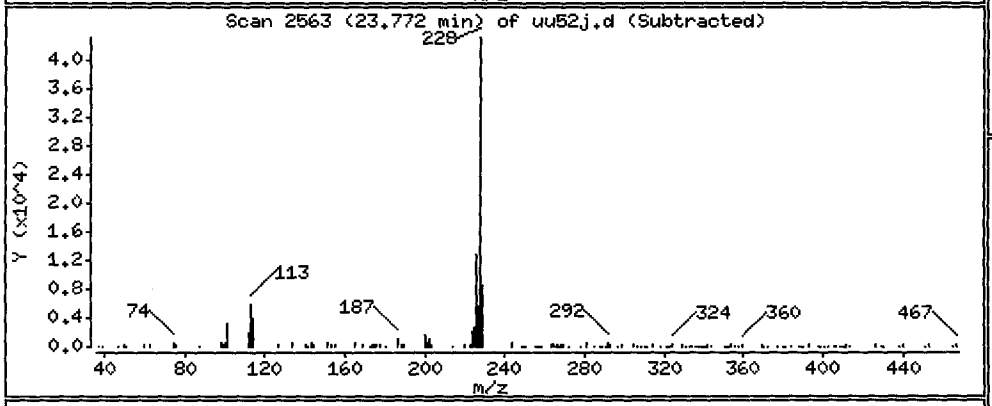
Sample Info: UU52J,3

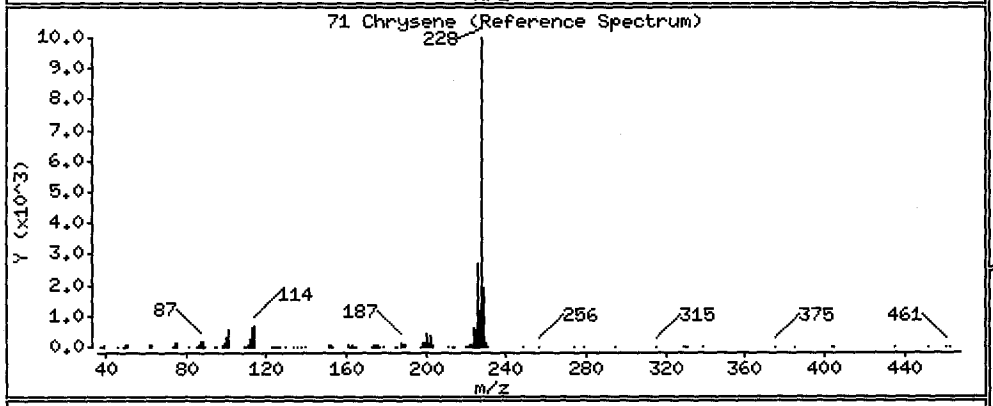
Volume Injected (uL): 1.0 Operator: VTS/YZ

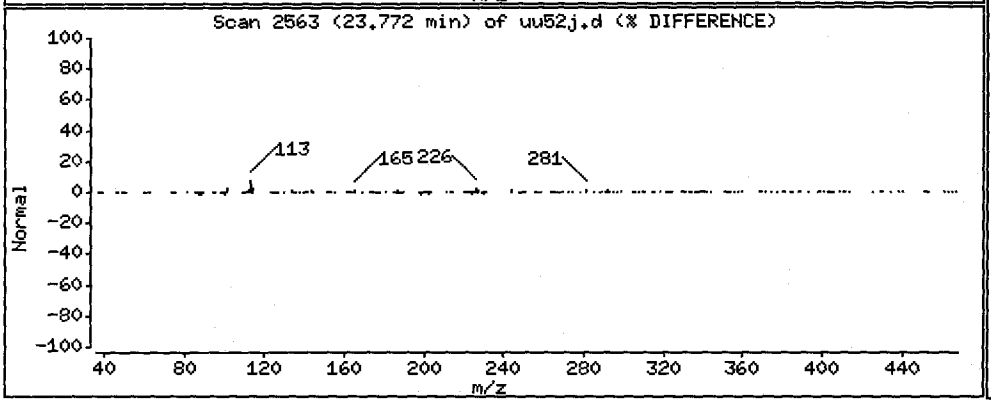
Column phase: ZB-5msi Column diameter: 0.25

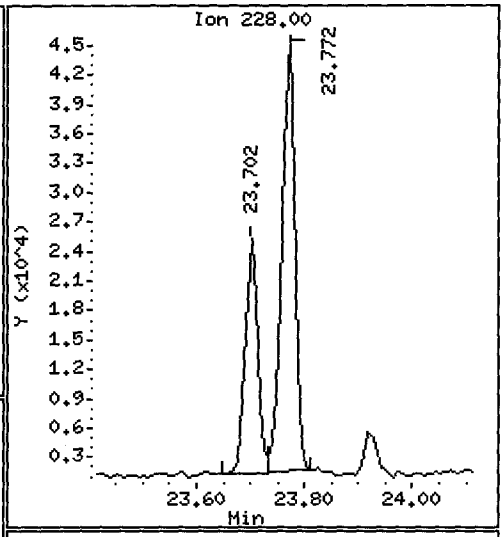
71 Chrysene Concentration: 120.4 ug/kg

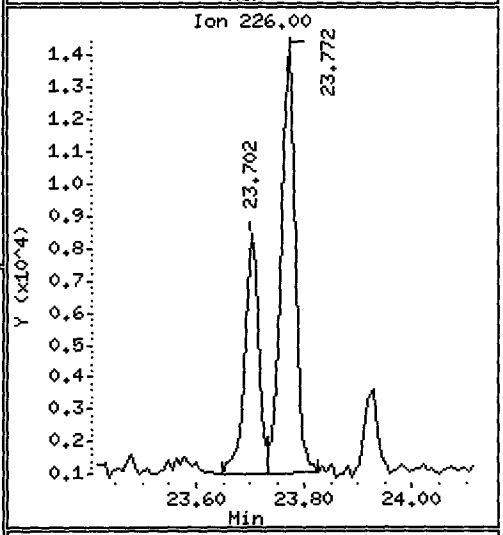


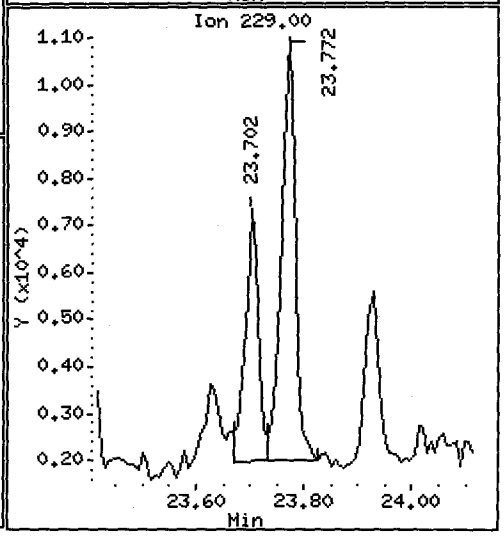



Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

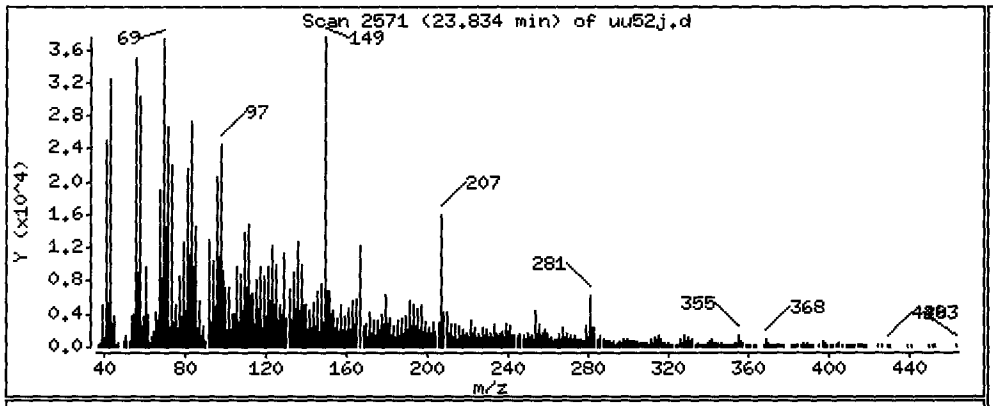
Client ID: MS009-SS-120515 Instrument: nt10.i

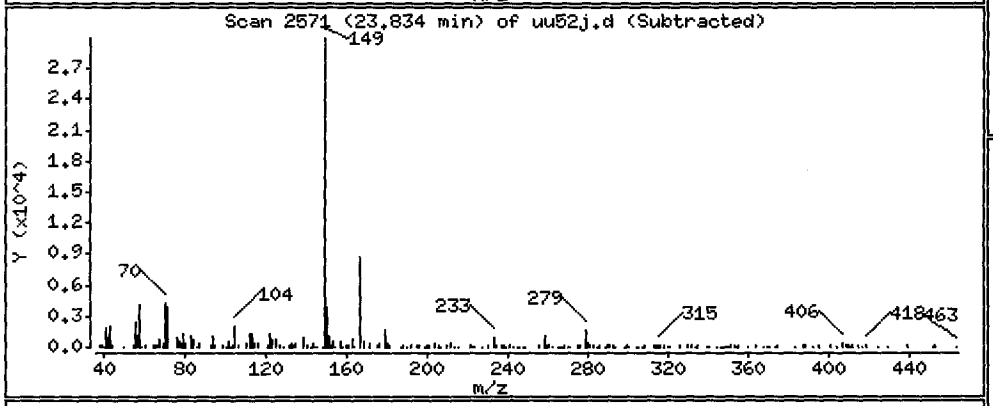
Sample Info: UU52J,3

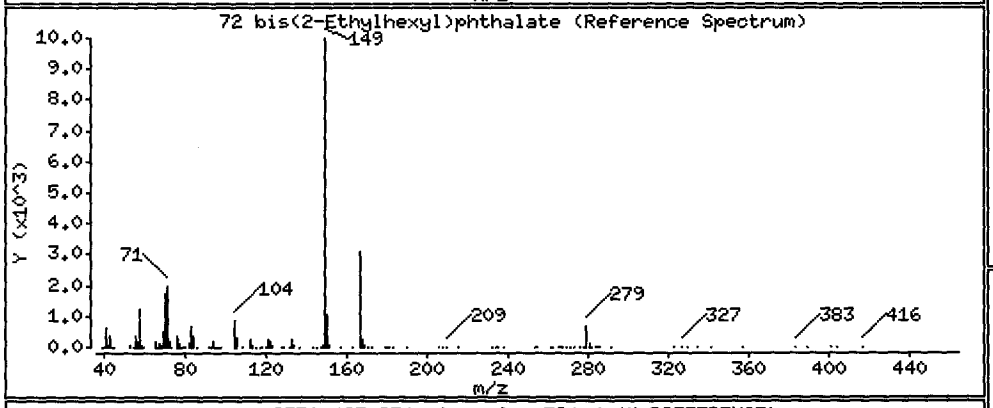
Volume Injected (uL): 1.0 Operator: VTS/YZ

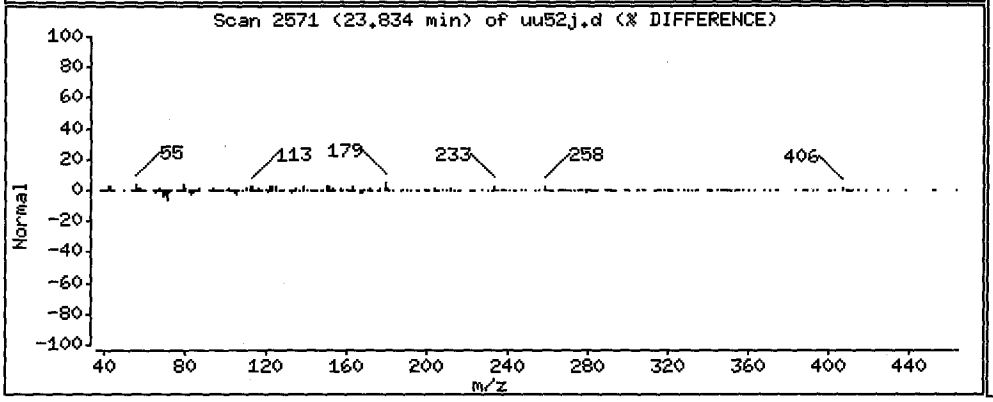
Column phase: ZB-5msi Column diameter: 0.25

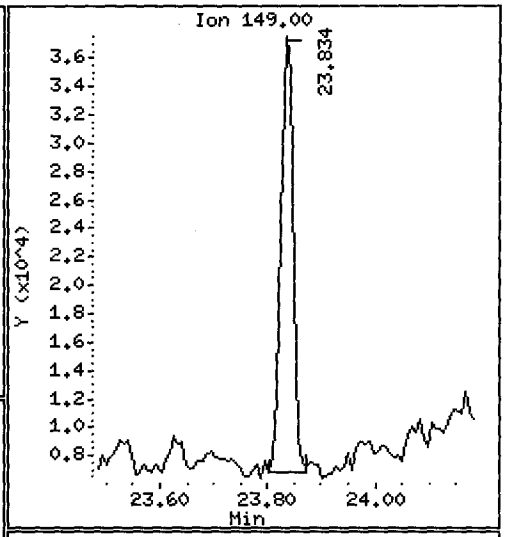
72 bis(2-Ethylhexyl)phthalate Concentration: 91.49 ug/kg

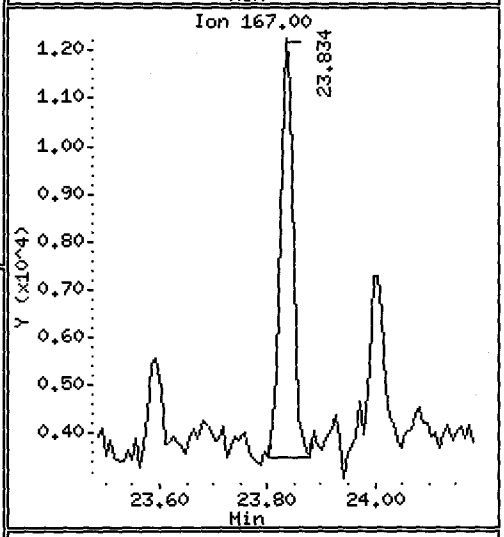


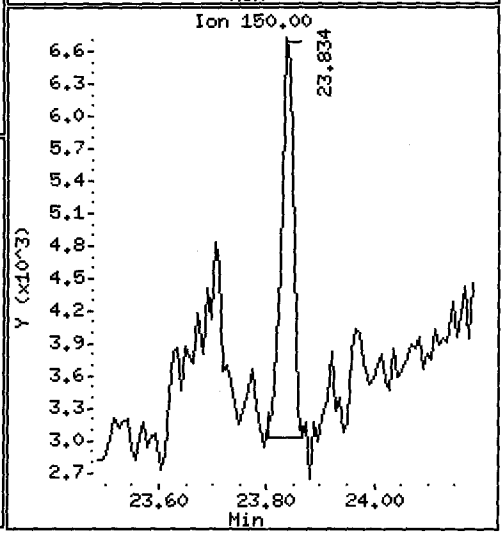



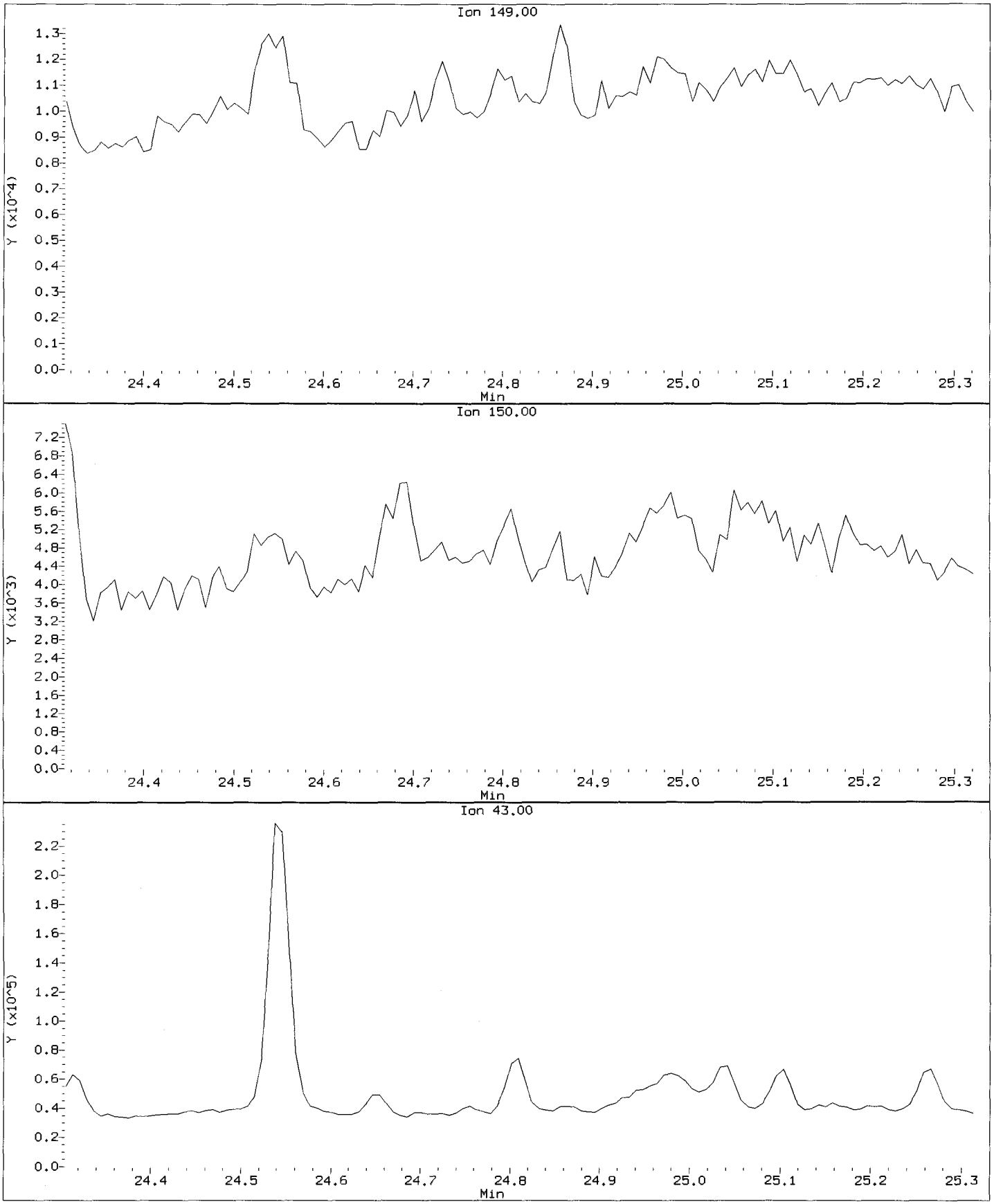



Data File: /chem1/nt10.i/20120529.b/uu52j.d
Injection Date: 29-MAY-2012 13:33
Instrument: nt10.i
Client Sample ID: MS009-SS-120515

Compound: Di-n-octylphthalate
CAS Number: 117-84-0



Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

Client ID: MS009-SS-120515

Instrument: nt10.i

Sample Info: UU52J,3

Volume Injected (uL): 1.0

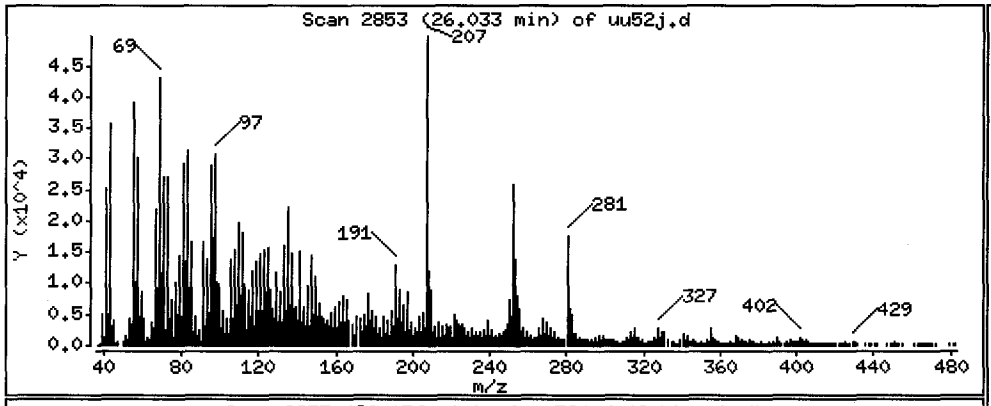
Operator: VTS/YZ

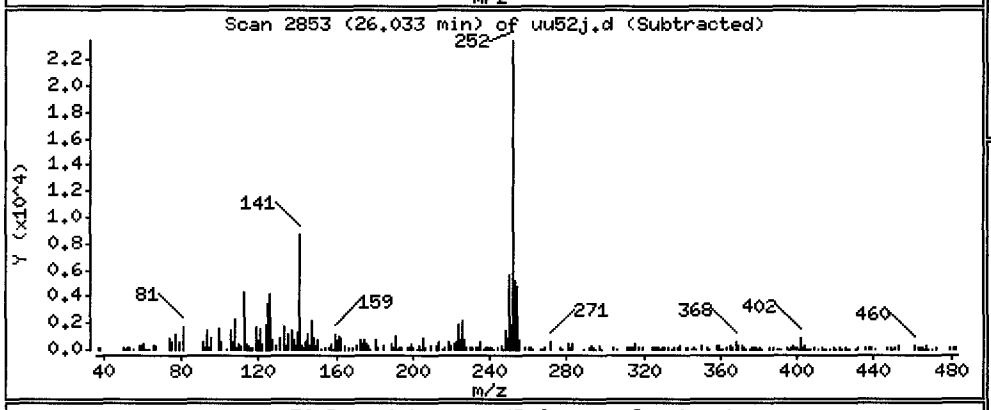
Column phase: ZB-5msi

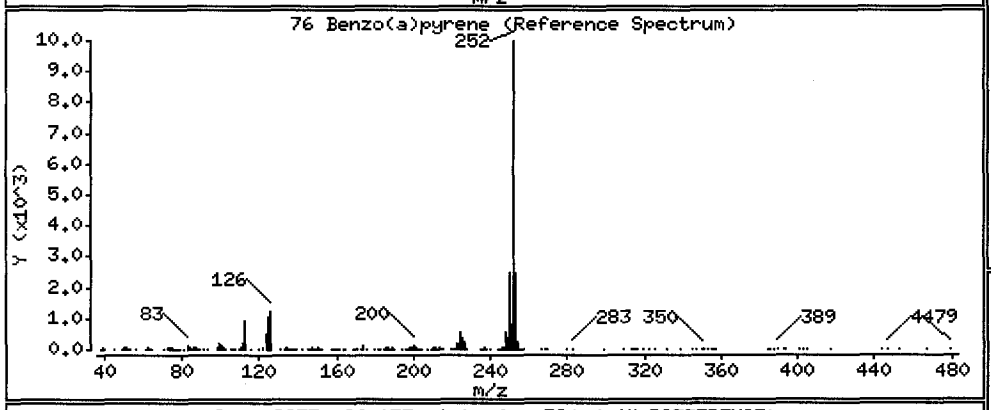
Column diameter: 0.25

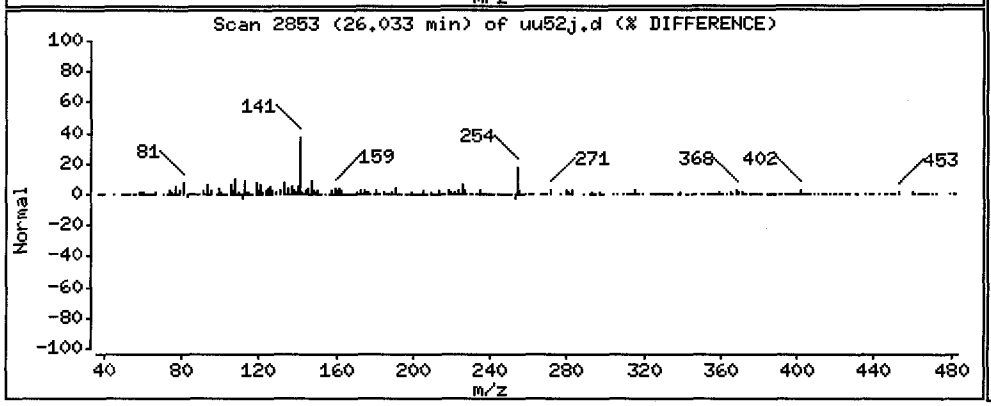
76 Benzo(a)pyrene

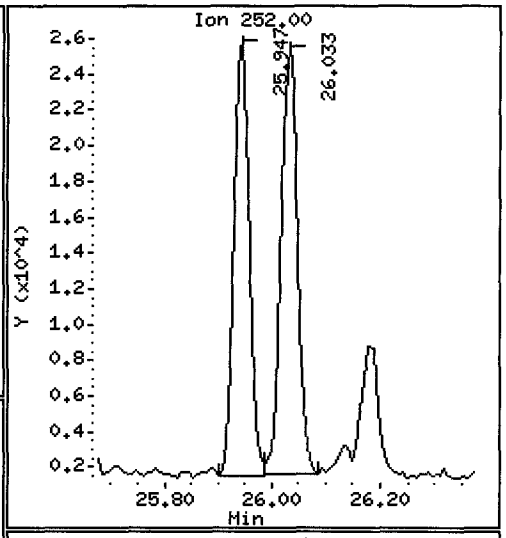
Concentration: 81.54 ug/kg

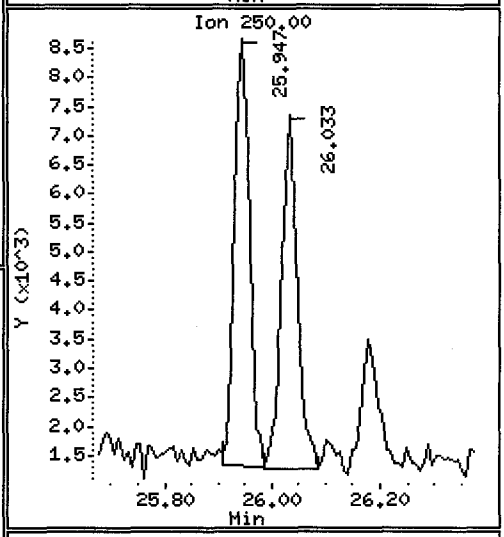


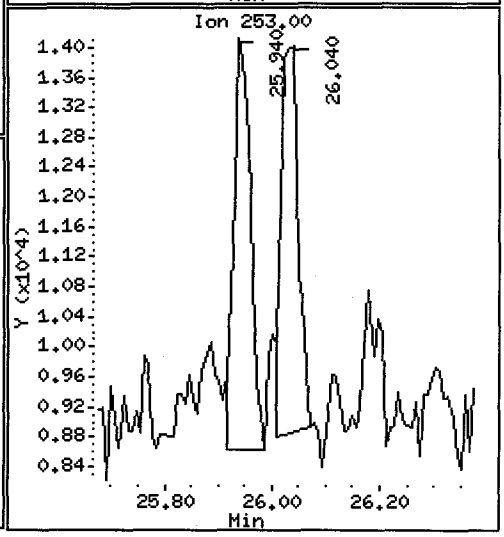



Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

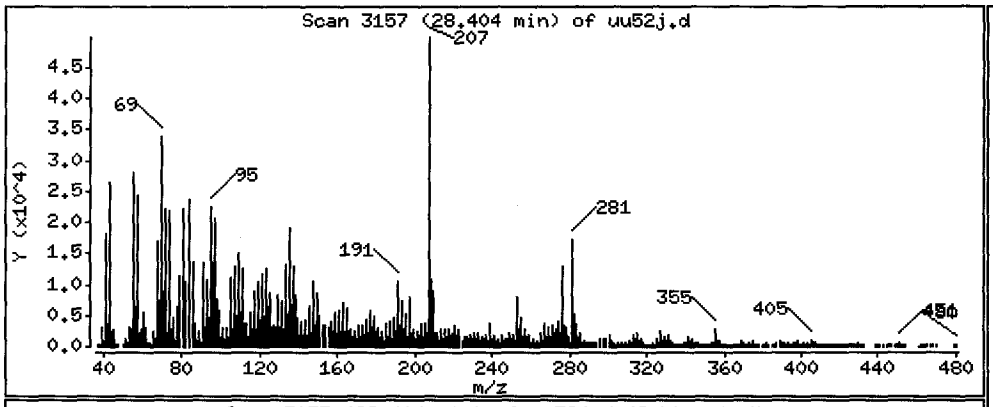
Client ID: MS009-SS-120515 Instrument: nt10.i

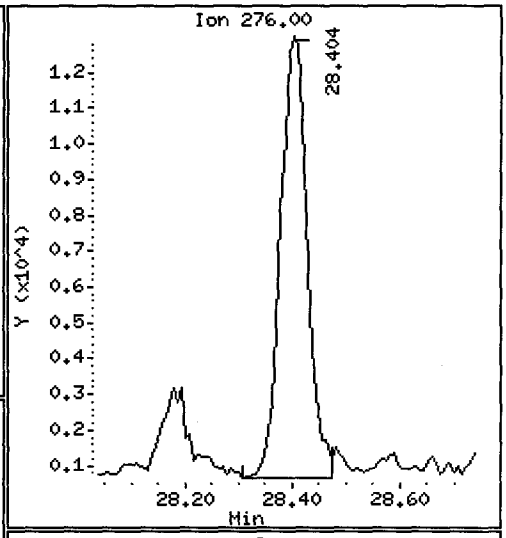
Sample Info: UU52J,3

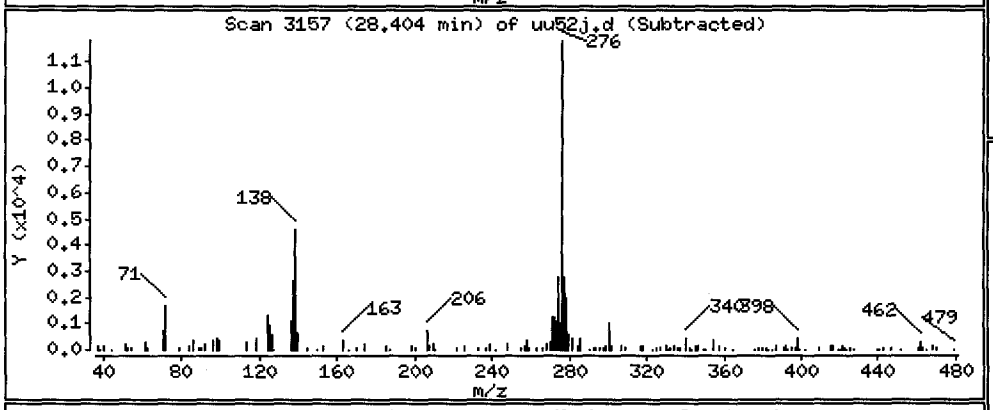
Volume Injected (uL): 1.0 Operator: VTS/YZ

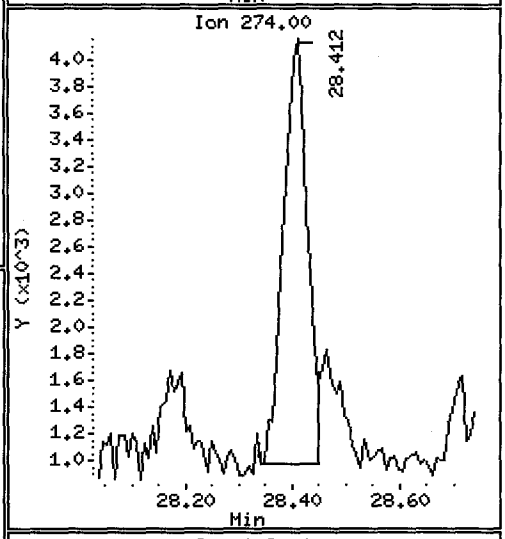
Column phase: ZB-5msi Column diameter: 0.25

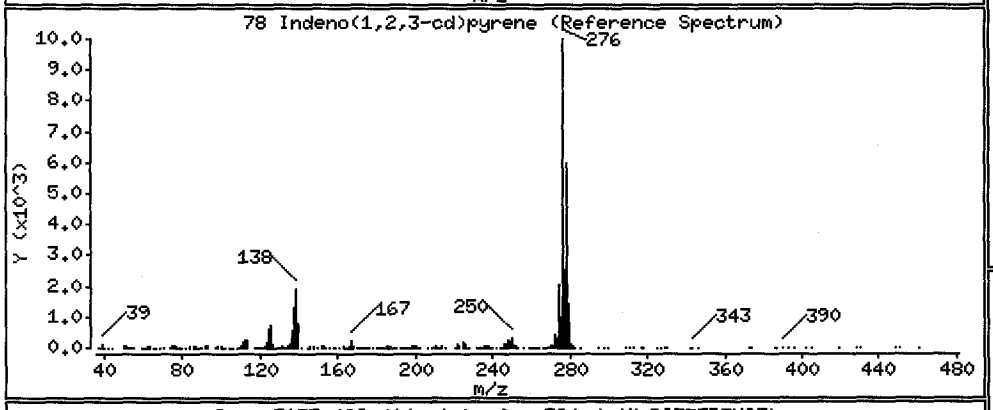
78 Indeno(1,2,3-cd)pyrene Concentration: 62.14 ug/kg

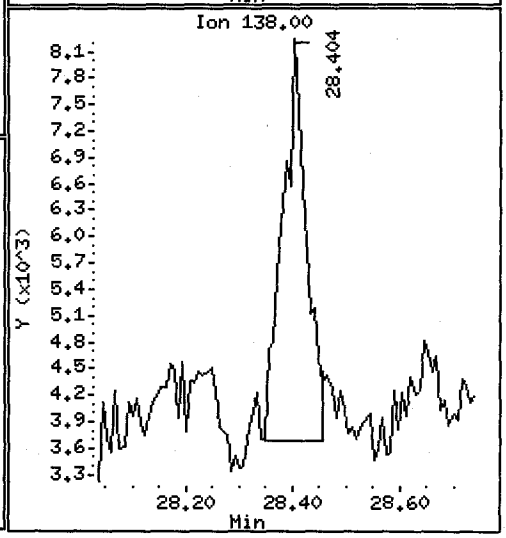


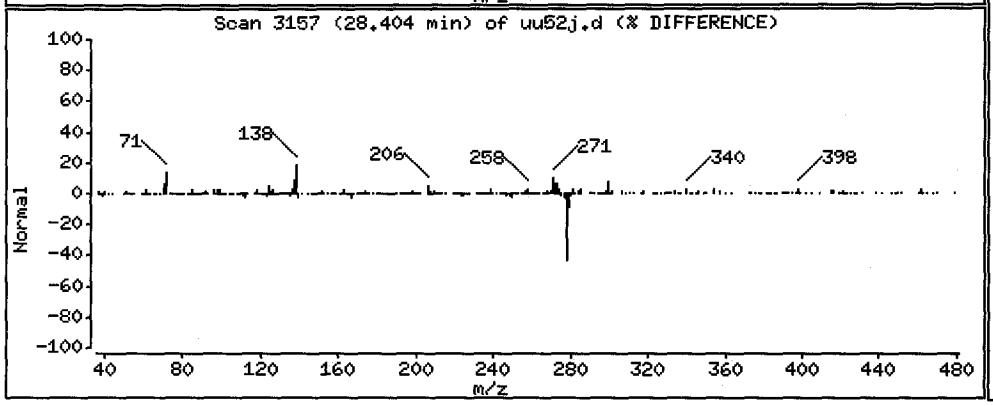



Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

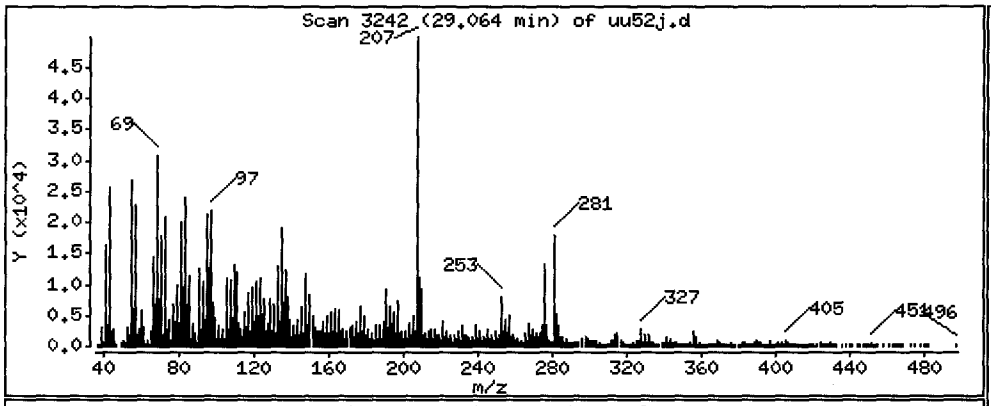
Client ID: MS009-SS-120515 Instrument: nt10.i

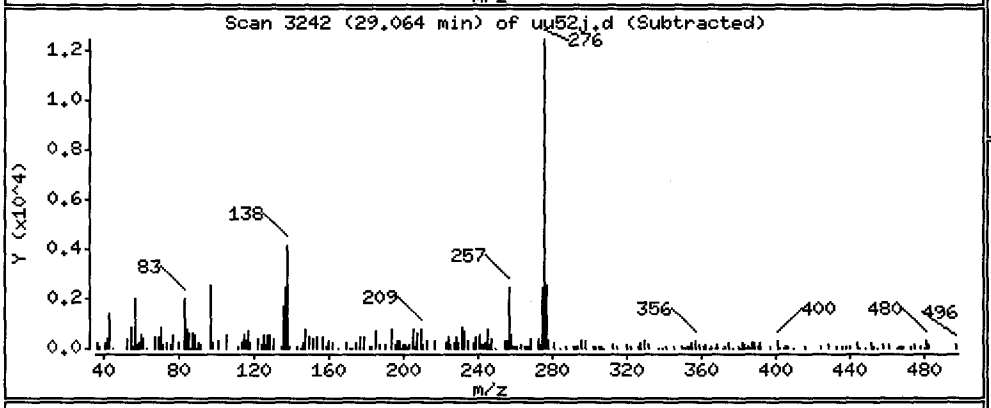
Sample Info: UU52J,3

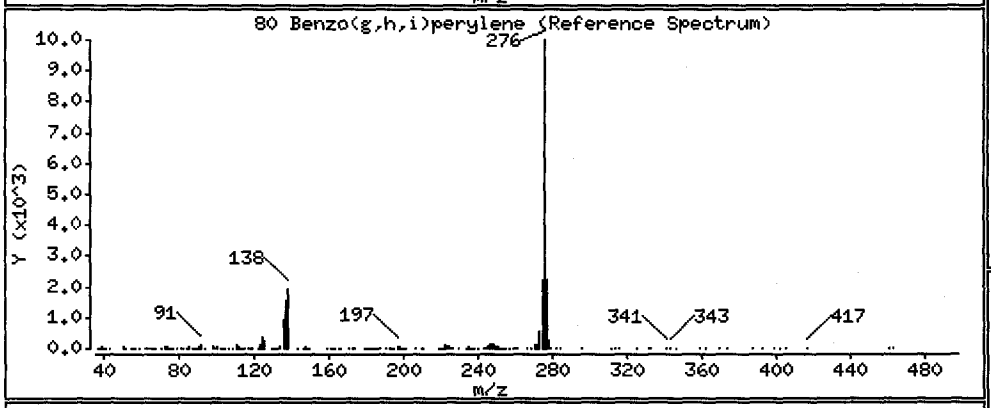
Volume Injected (uL): 1.0 Operator: VTS/YZ

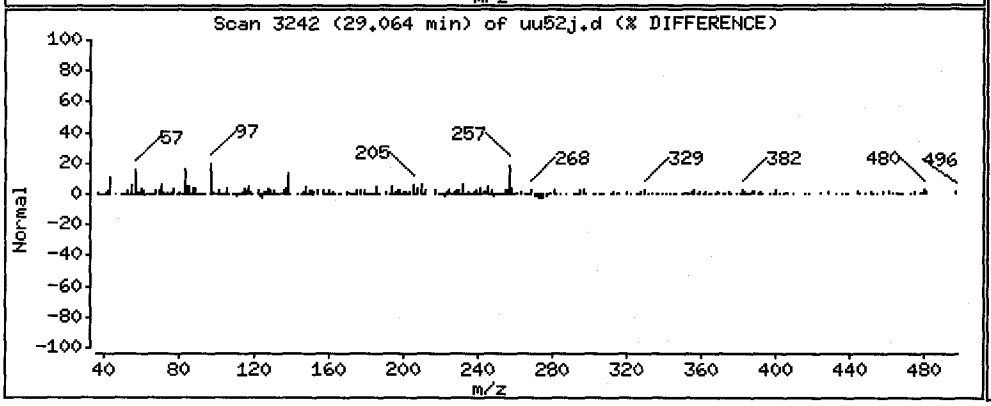
Column phase: ZB-5msi Column diameter: 0.25

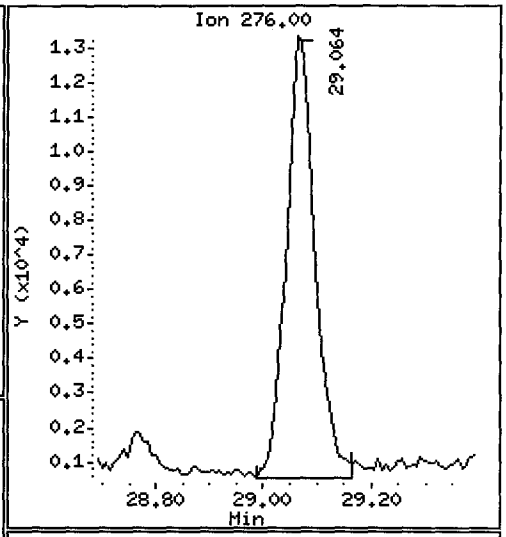
80 Benzo(g,h,i)perylene Concentration: 82.49 ug/kg

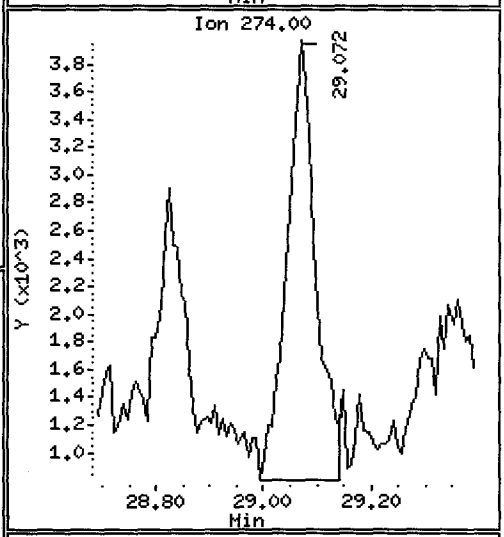


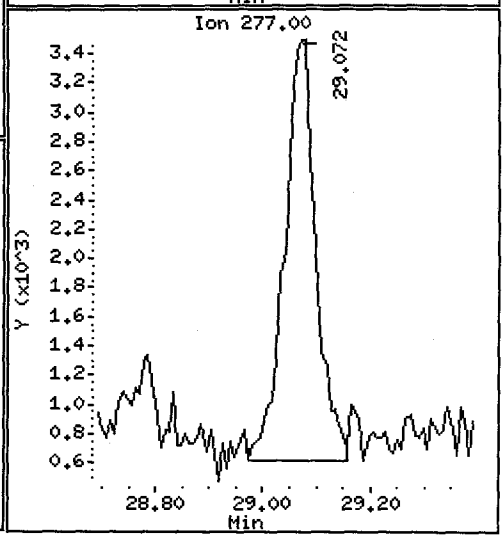



Data File: /chem1/nt10.i/20120529.b/uu52j.d

Date : 29-MAY-2012 13:33

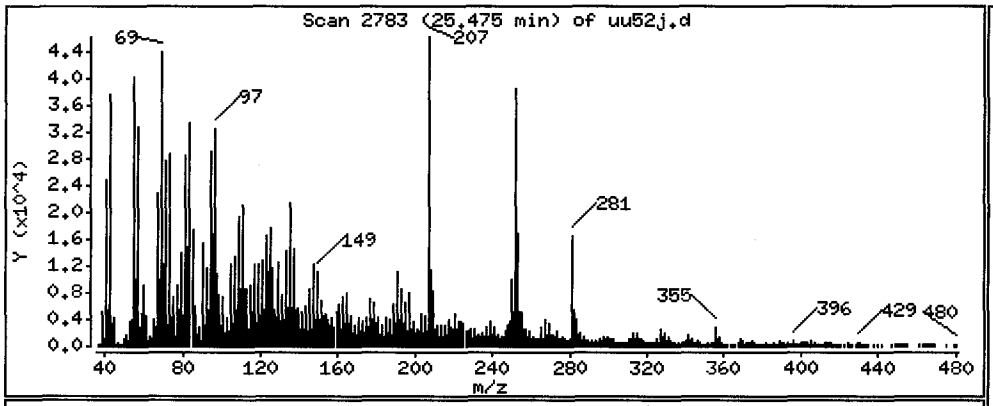
Client ID: MS009-SS-120515 Instrument: nt10.i

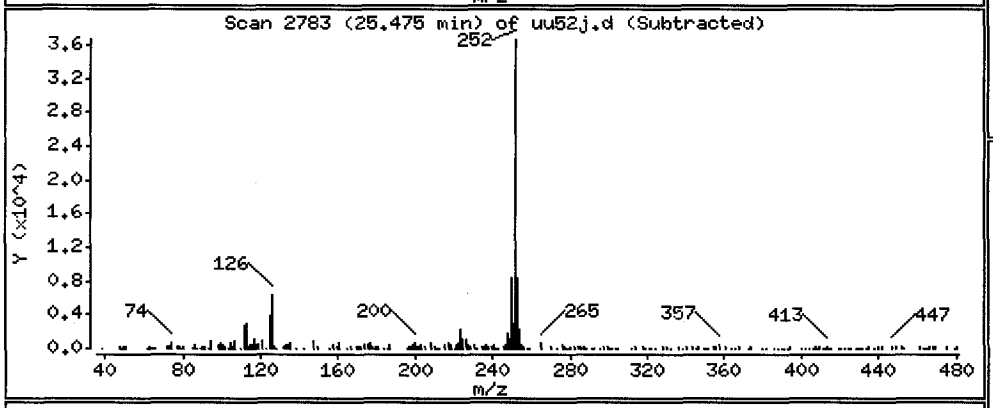
Sample Info: UU52J,3

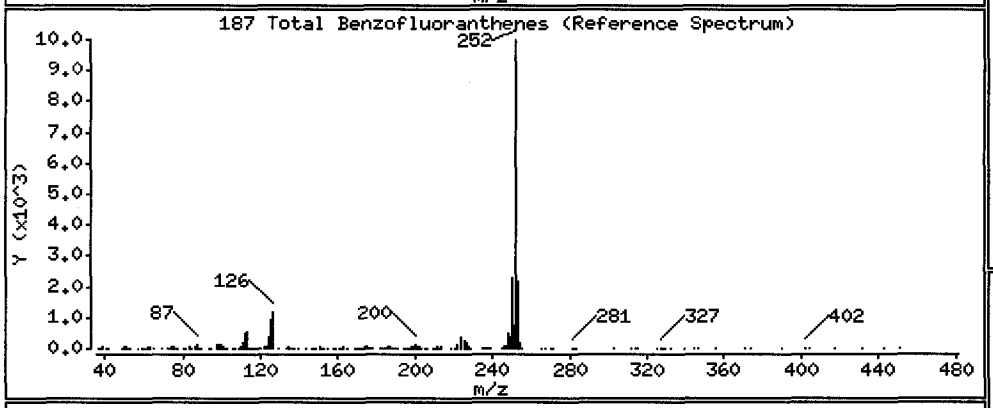
Volume Injected (uL): 1.0 Operator: VTS/YZ

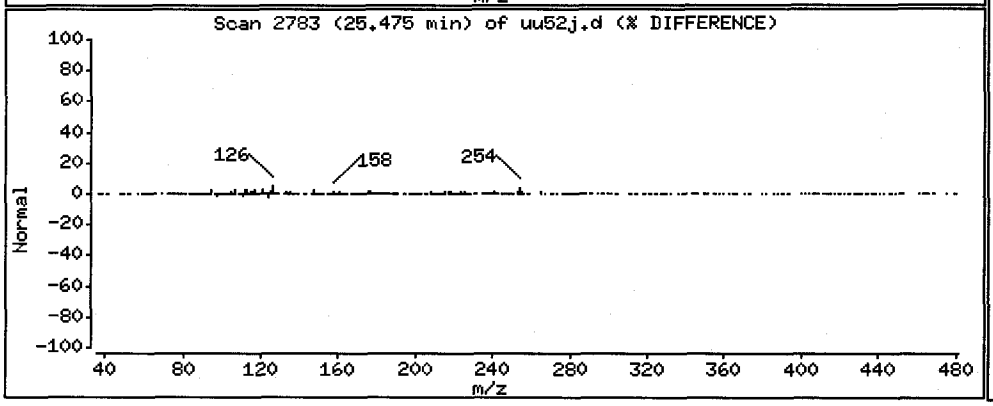
Column phase: ZB-5msi Column diameter: 0.25

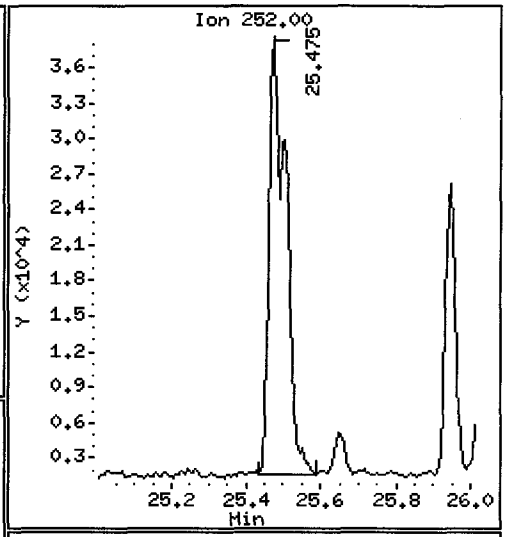
187 Total Benzofluoranthenes Concentration: 186.2 ug/kg

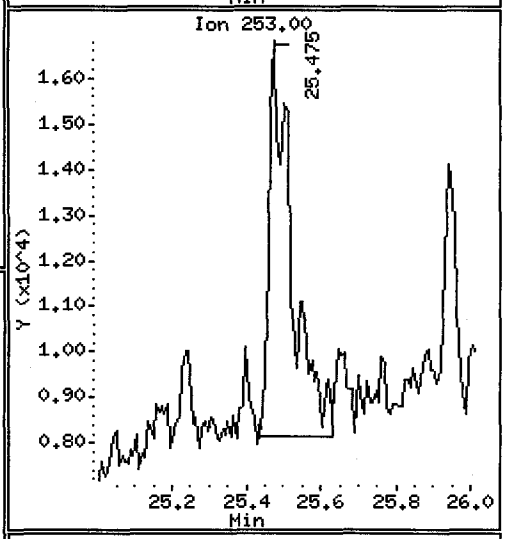


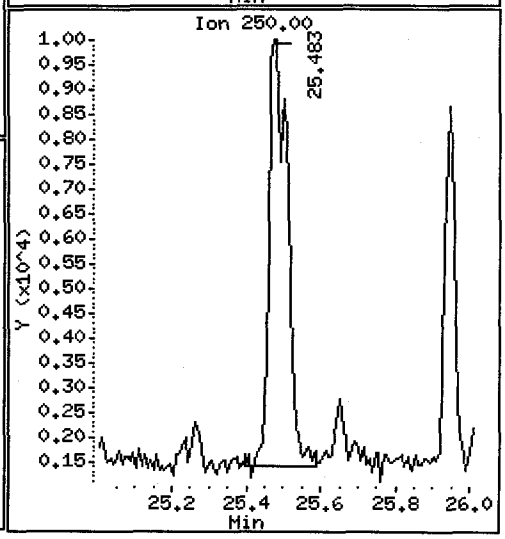



CO-ELUTION SUMMARY FOR FILE - uu52j.d

Lab ID: UU52J, Method: ABN.m, Instrument: nt10.i, Date: 29-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D YZ 6/4/12

Data file : /chem1/nt10.i/20120530.b/uu52g6.d
Lab Smp Id: UU52G Client Smp ID: MS006-SS-120515
Inj Date : 30-MAY-2012 13:04
Operator : VTS/YZ Inst ID: nt10.i
Smp Info : UU52G,6
Misc Info : 12-8899
Comment : 1ul Injection
Method : /chem1/nt10.i/20120530.b/ABN.m
Meth Date : 30-May-2012 14:19 yev Quant Type: ISTD
Cal Date : 26-MAY-2012 14:42 Cal File: ic0526g.d
Als bottle: 4
Dil Factor: 6.00000
Integrator: HP RTE Compound Sublist: PSDDAICAL.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt/(Ws * (100 - M)/100) * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 6.00000 | Dilution Factor |
| Vt | 1000.00000 | Volume of final extract (uL) |
| Ws | 109.00000 | Weight of sample extracted (g) |
| M | 90.80000 | % Moisture |

Cpnd Variable Local Compound Variable

| | | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|
| $ | 1 | 2-Fluorophenol | 112 | 6.575 | 6.560 | (0.741) | 53936 | 0.82913 | 496.1 |
| $ | 2 | Phenol-d5 | 99 | 8.268 | 8.260 | (0.932) | 70101 | 0.86510 | 517.6 |
| | 3 | Phenol | 94 | 8.299 | 8.283 | (0.935) | 71744 | 0.83063 | 497.0 |
| $ | 5 | 2-Chlorophenol-d4 | 132 | 8.499 | 8.499 | (0.958) | 62666 | 0.88270 | 528.1 |
| | 4 | Bis(2-Chloroethyl)ether | 93 | Compound Not Detected. | | | | | |
| | 6 | 2-Chlorophenol | 128 | Compound Not Detected. | | | | | |
| | 7 | 1,3-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| * | 8 | 1,4-Dichlorobenzene-d4 | 152 | 8.871 | 8.863 | (1.000) | 186026 | 4.00000 | |
| | 9 | 1,4-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| $ | 10 | 1,2-Dichlorobenzene-d4 | 152 | 9.244 | 9.243 | (1.042) | 24966 | 0.53607 | 320.7 |
| | 12 | 1,2-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| | 11 | Benzyl alcohol | 108 | 9.197 | 9.181 | (1.037) | 7168 | 0.19753 J | 118.2 |
| | 14 | 2,2'-oxybis(1-Chloropropane) | 121 | Compound Not Detected. | | | | | |
| | 13 | 2-Methylphenol | 108 | Compound Not Detected. | | | | | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| | 17 Hexachloroethane | 117 | Compound Not Detected. | | | | | |
| | 16 N-Nitroso-di-n-propylamine | 70 | Compound Not Detected. | | | | | |
| | 15 4-Methylphenol | 108 | 9.756 | 9.748 | (1.100) | 33825 | 0.47626 | 285.0 |
| $ | 18 Nitrobenzene-d5 | 82 | 10.035 | 10.035 | (0.872) | 37184 | 0.56576 | 338.5 |
| | 19 Nitrobenzene | 77 | Compound Not Detected. | | | | | |
| | 20 Isophorone | 82 | Compound Not Detected. | | | | | |
| | 21 2-Nitrophenol | 139 | Compound Not Detected. | | | | | |
| | 22 2,4-Dimethylphenol | 107 | Compound Not Detected. | | | | | |
| | 23 Bis(2-Chloroethoxy)methane | 93 | Compound Not Detected. | | | | | |
| | 24 Benzoic acid | 105 | 11.095 | 11.080 | (0.964) | 372312 | 8.70776 | 5210 |
| | 25 2,4-Dichlorophenol | 162 | Compound Not Detected. | | | | | |
| | 26 1,2,4-Trichlorobenzene | 180 | Compound Not Detected. | | | | | |
| * | 27 Naphthalene-d8 | 136 | 11.512 | 11.512 | (1.000) | 733531 | 4.00000 | |
| | 28 Naphthalene | 128 | 11.558 | 11.558 | (1.004) | 1944963 | 10.5177 | 6293 |
| | 29 4-Chloroaniline | 127 | Compound Not Detected. | | | | | |
| | 30 Hexachlorobutadiene | 225 | Compound Not Detected. | | | | | |
| | 31 4-Chloro-3-methylphenol | 107 | Compound Not Detected. | | | | | |
| | 32 2-Methylnaphthalene | 142 | 13.059 | 13.059 | (1.134) | 126431 | 0.98347 | 588.4 |
| | 33 Hexachlorocyclopentadiene | 237 | Compound Not Detected. | | | | | |
| | 34 2,4,6-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| | 35 2,4,5-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| $ | 36 2-Fluorobiphenyl | 172 | 13.910 | 13.910 | (0.904) | 89064 | 0.60177 | 360.1 |
| | 37 2-Chloronaphthalene | 162 | Compound Not Detected. | | | | | |
| | 38 2-Nitroaniline | 65 | Compound Not Detected. | | | | | |
| | 39 Dimethylphthalate | 163 | Compound Not Detected. | | | | | |
| | 40 Acenaphthylene | 152 | 15.048 | 15.048 | (0.978) | 68471 | 0.35708 | 213.7(M) |
| | 41 2,6-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| * | 42 Acenaphthene-d10 | 164 | 15.388 | 15.388 | (1.000) | 426946 | 4.00000 | |
| | 43 3-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 44 Acenaphthene | 153 | 15.458 | 15.458 | (1.005) | 17224 | 0.14892 | 89.10 |
| | 45 2,4-Dinitrophenol | 184 | Compound Not Detected. | | | | | |
| | 46 Dibenzofuran | 168 | 15.813 | 15.813 | (1.028) | 151838 | 0.89610 | 536.2 |
| | 47 4-Nitrophenol | 109 | Compound Not Detected. | | | | | |
| | 48 2,4-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| | 50 Diethylphthalate | 149 | Compound Not Detected. | | | | | |
| | 49 Fluorene | 166 | 16.579 | 16.579 | (1.077) | 28972 | 0.22315 | 133.5 |
| | 51 4-Chlorophenyl-phenylether | 204 | Compound Not Detected. | | | | | |
| | 52 4-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 53 4,6-Dinitro-2-methylphenol | 198 | Compound Not Detected. | | | | | |
| | 54 N-Nitrosodiphenylamine | 169 | Compound Not Detected. | | | | | |
| $ | 55 2,4,6-Tribromophenol | 330 | 17.165 | 17.165 | (1.115) | 17230 | 0.97774 | 585.0 |
| | 56 4-Bromophenyl-phenylether | 248 | Compound Not Detected. | | | | | |
| | 57 Hexachlorobenzene | 284 | Compound Not Detected. | | | | | |
| | 58 Pentachlorophenol | 266 | Compound Not Detected. | | | | | |
| * | 59 Phenanthrene-d10 | 188 | 18.657 | 18.657 | (1.000) | 591988 | 4.00000 | |
| | 60 Phenanthrene | 178 | 18.703 | 18.703 | (1.002) | 552278 | 3.61792 | 2165 |
| | 61 Anthracene | 178 | 18.796 | 18.803 | (1.007) | 52014 | 0.32618 | 195.2 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|---|
| 62 | Carbazole | 167 | 19.167 | 19.144 | (1.027) | 26899 | 0.18231 | 109.1(M) |
| 63 | Di-n-butylphthalate | 149 | Compound Not Detected. | | | | | |
| 64 | Fluoranthene | 202 | 21.125 | 21.125 | (1.132) | 517352 | 2.98495 | 1786 |
| 65 | Pyrene | 202 | 21.543 | 21.542 | (0.908) | 483349 | 2.23918 | 1340 |
| $ 66 | Terphenyl-d14 | 244 | 21.860 | 21.860 | (0.921) | 82496 | 0.61007 | 365.0 |
| 67 | Butylbenzylphthalate | 149 | Compound Not Detected. | | | | | |
| 68 | Benzo(a)anthracene | 228 | 23.695 | 23.695 | (0.999) | 69110 | 0.34631 | 207.2 |
| * 69 | Chrysene-d12 | 240 | 23.726 | 23.726 | (1.000) | 709441 | 4.00000 | |
| 70 | 3,3'-Dichlorobenzidine | 252 | Compound Not Detected. | | | | | |
| 71 | Chrysene | 228 | 23.764 | 23.772 | (1.002) | 117300 | 0.66818 | 399.8 |
| 72 | bis(2-Ethylhexyl)phthalate | 149 | 23.834 | 23.834 | (0.961) | 32912 | 0.21989 | 131.6 |
| * 134 | Di-n-octylphthalate-d4 | 153 | 24.810 | 24.809 | (1.000) | 1089932 | 4.00000 | |
| 73 | Di-n-octylphthalate | 149 | Compound Not Detected. | | | | | |
| 74 | Benzo(b)fluoranthene | 252 | Compound Not Detected. | | | | | |
| 75 | Benzo(k)fluoranthene | 252 | Compound Not Detected. | | | | | |
| 76 | Benzo(a)pyrene | 252 | 26.025 | 26.033 | (0.996) | 68231 | 0.39856 | 238.5 |
| * 77 | Perylene-d12 | 264 | 26.134 | 26.133 | (1.000) | 662093 | 4.00000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | 28.381 | 28.388 | (1.086) | 85685 | 0.43269 | 258.9 |
| 79 | Dibenzo(a,h)anthracene | 278 | 28.396 | 28.404 | (1.087) | 16389 | 0.10506 | 62.86(M) |
| 80 | Benzo(g,h,i)perylene | 276 | 29.056 | 29.049 | (1.112) | 108135 | 0.63679 | 381.0 |
| 90 | N-Nitrosodimethylamine | 74 | Compound Not Detected. | | | | | |
| 91 | Aniline | 93 | Compound Not Detected. | | | | | |
| 93 | Benzidine | 184 | Compound Not Detected. | | | | | |
| 103 | Pyridine | 79 | Compound Not Detected. | | | | | |
| 105 | 1-methylnaphthalene | 142 | 13.291 | 13.291 | (1.155) | 73274 | 0.55889 | 334.4 |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | Compound Not Detected. | | | | | |
| 187 | Total Benzofluoranthenes | 252 | 25.468 | 25.506 | (0.975) | 197943 | 1.07746 | 644.7 |
| 99 | Perylene | 252 | Compound Not Detected. | | | | | |
| 98 | Retene | 219 | 22.146 | 22.146 | (0.933) | 44776 | 0.44545 | 266.5 |

## QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt10.i
Lab File ID: uu52g6.d
Lab Smp Id: UU52G
Analysis Type: SV
Quant Type: ISTD
Operator: VTS/YZ
Method File: /chem1/nt10.i/20120530.b/ABN.m
Misc Info: 12-8899

Calibration Date: 30-MAY-2012
Calibration Time: 12:27
Client Smp ID: MS006-SS-120515
Level: LOW
Sample Type: Sediment

Test Mode:
Use Initial Calibration Level 5.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 189516 | 94758 | 379032 | 186026 | -1.84 |
| 27 Naphthalene-d8 | 730932 | 365466 | 1461864 | 733531 | 0.36 |
| 42 Acenaphthene-d10 | 420698 | 210349 | 841396 | 426946 | 1.49 |
| 59 Phenanthrene-d10 | 638950 | 319475 | 1277900 | 591988 | -7.35 |
| 69 Chrysene-d12 | 645065 | 322532 | 1290130 | 709441 | 9.98 |
| 134 Di-n-octylphthala | 1016118 | 508059 | 2032236 | 1089932 | 7.26 |
| 77 Perylene-d12 | 650033 | 325016 | 1300066 | 662093 | 1.86 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 8.86 | 8.36 | 9.36 | 8.87 | 0.09 |
| 27 Naphthalene-d8 | 11.51 | 11.01 | 12.01 | 11.51 | 0.00 |
| 42 Acenaphthene-d10 | 15.39 | 14.89 | 15.89 | 15.39 | 0.00 |
| 59 Phenanthrene-d10 | 18.66 | 18.16 | 19.16 | 18.66 | 0.00 |
| 69 Chrysene-d12 | 23.73 | 23.23 | 24.23 | 23.73 | 0.00 |
| 134 Di-n-octylphthala | 24.81 | 24.31 | 25.31 | 24.81 | 0.00 |
| 77 Perylene-d12 | 26.13 | 25.63 | 26.63 | 26.13 | 0.00 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

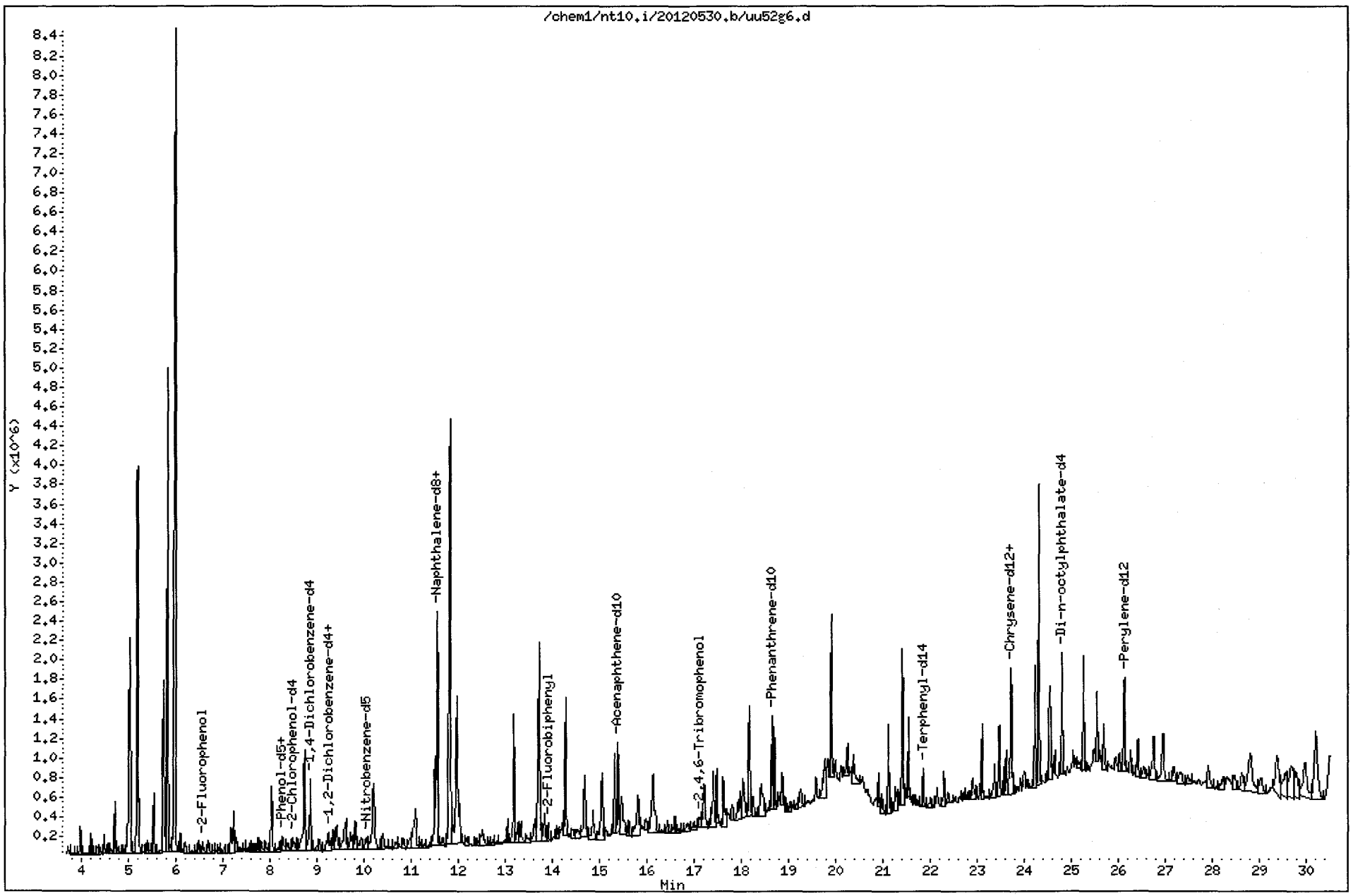
RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU52
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: UU52G Client Smp ID: MS006-SS-120515
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: SHORTPSDDA.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120530.b/ABN.m
Misc Info: 12-8899

| SURROGATE COMPOUND | CONC ADDED ug/kg | CONC RECOVERED ug/kg | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 1 2-Fluorophenol | 747.9 | 496.1 | 66.33 | 30-160 |
| $ 2 Phenol-d5 | 747.9 | 517.6 | 69.21 | 30-160 |
| $ 5 2-Chlorophenol-d4 | 747.9 | 528.1 | 70.62 | 30-160 |
| $ 10 1,2-Dichlorobenzen | 498.6 | 320.7 | 64.33 | 30-160 |
| $ 18 Nitrobenzene-d5 | 498.6 | 338.5 | 67.89 | 30-160 |
| $ 36 2-Fluorobiphenyl | 498.6 | 360.1 | 72.21 | 30-160 |
| $ 55 2,4,6-Tribromophen | 747.9 | 585.0 | 78.22 | 30-160 |
| $ 66 Terphenyl-d14 | 498.6 | 365.0 | 73.21 | 30-160 |

Data File: /chem1/nt10.i/20120530.b/uu52g6.d
Date : 30-MAY-2012 13:04
Client ID: MS006-SS-120515
Sample Info: UU52G,6
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: VTS/YZ
Column diameter: 0.25




UU52 : 61051

Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

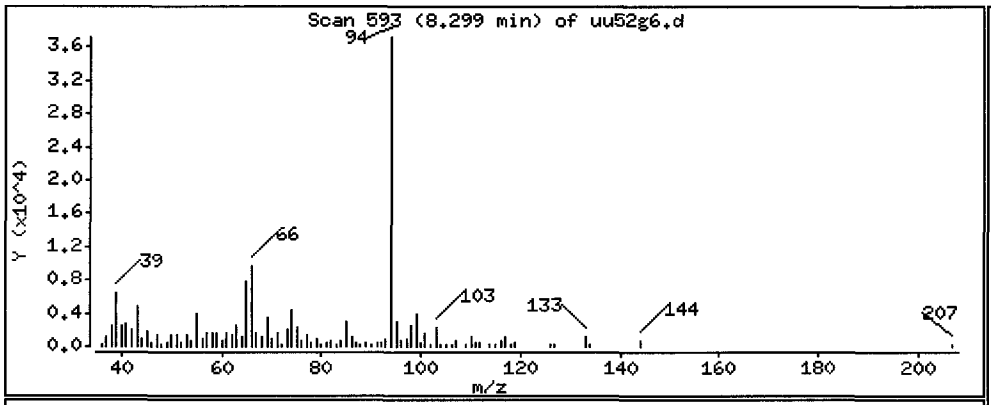
Operator: VTS/YZ

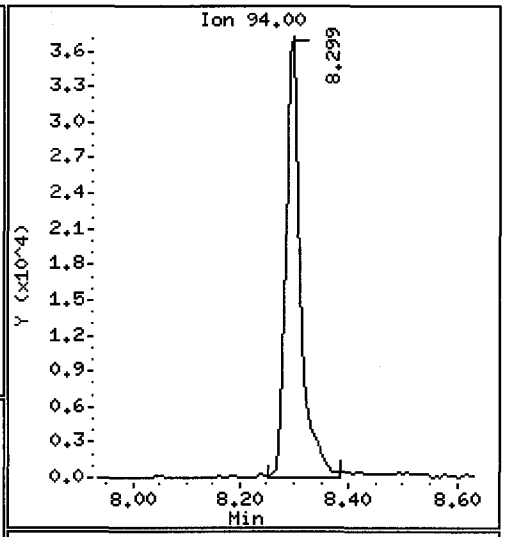
Column phase: ZB-5msi

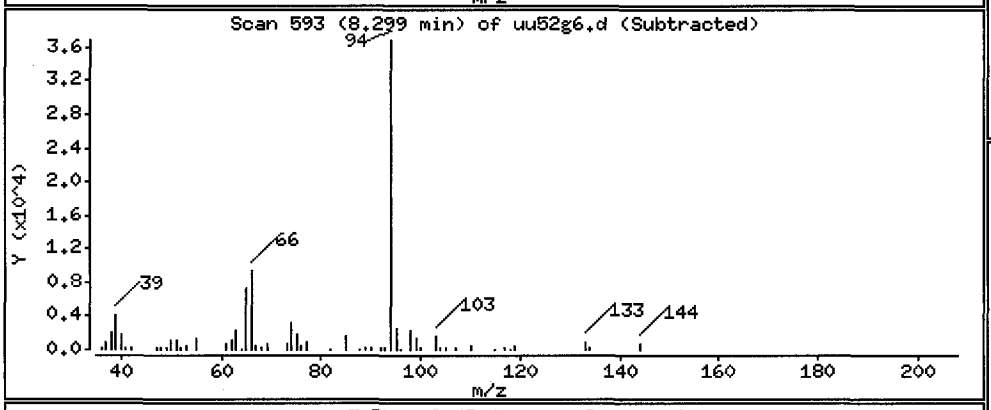
Column diameter: 0.25

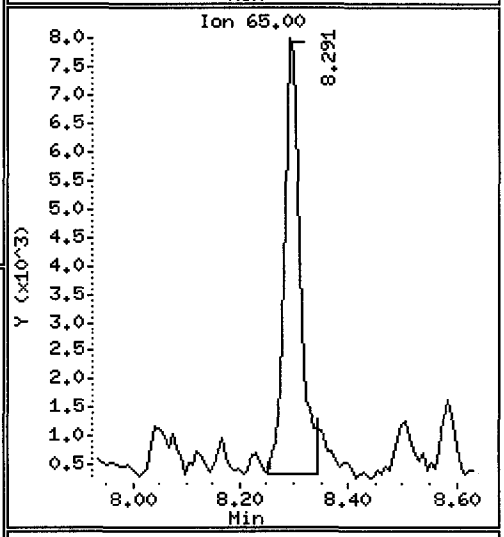
3 Phenol

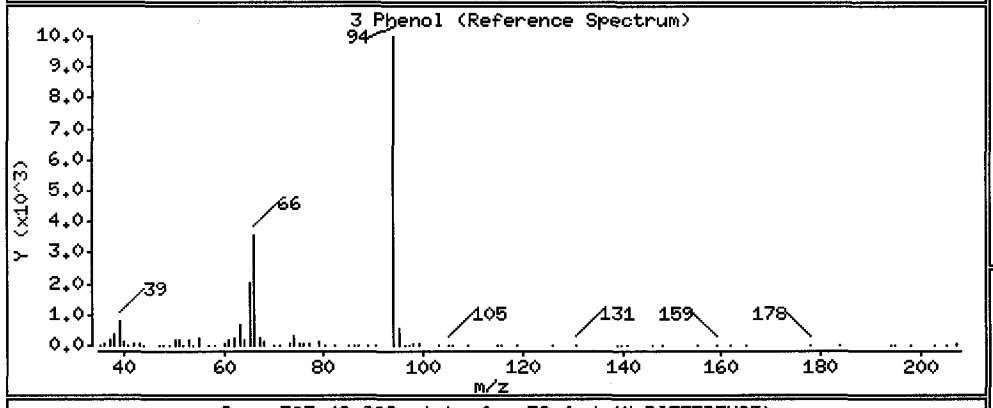
Concentration: 497.0 ug/kg

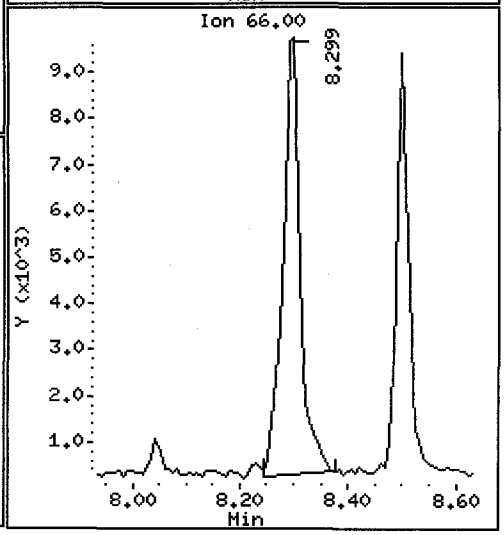


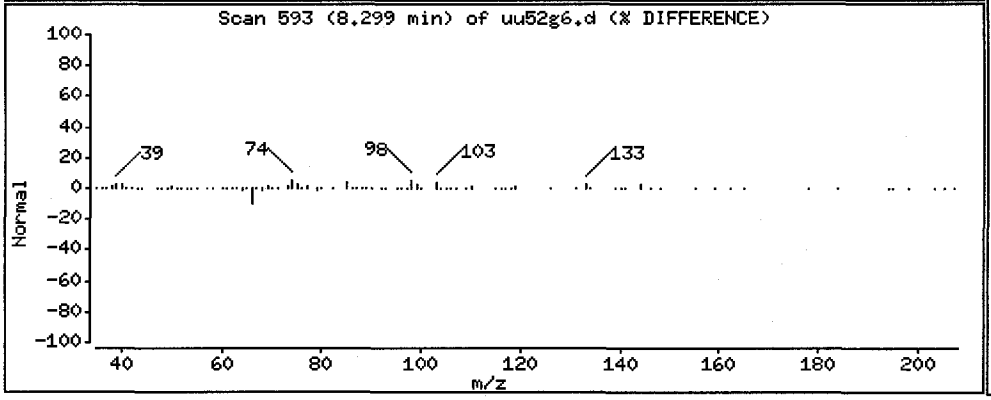



Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

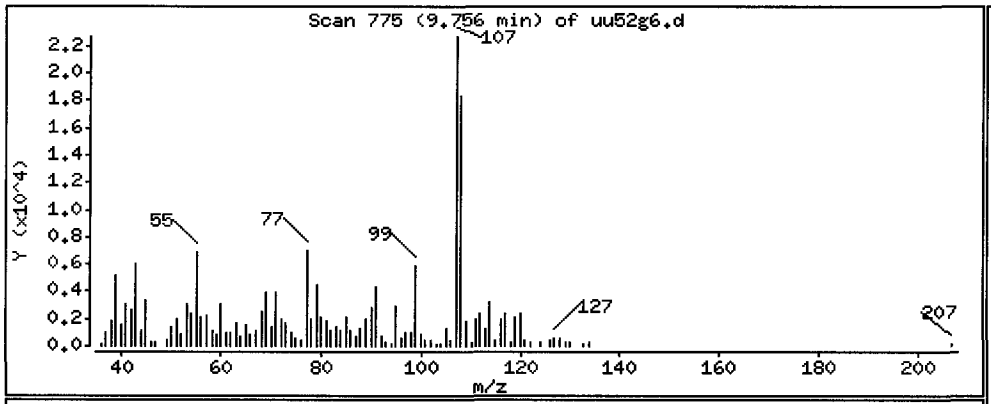
Client ID: MS006-SS-120515 Instrument: nt10.i

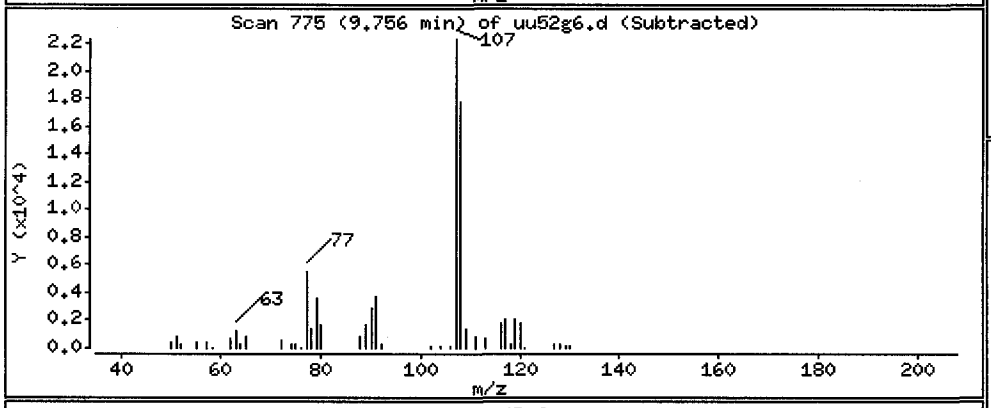
Sample Info: UU52G,6

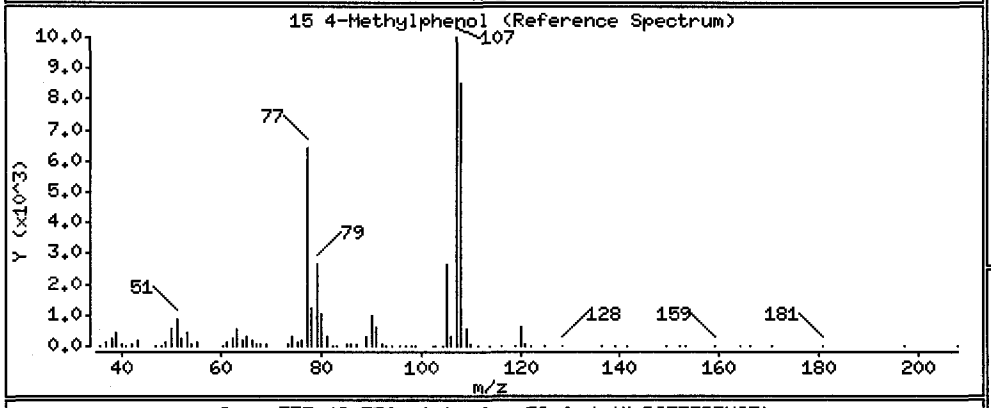
Volume Injected (uL): 1.0 Operator: VTS/YZ

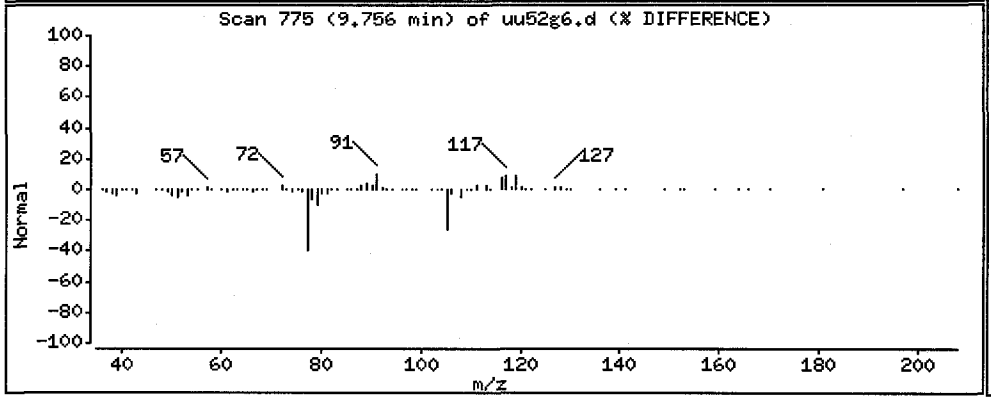
Column phase: ZB-5msi Column diameter: 0.25

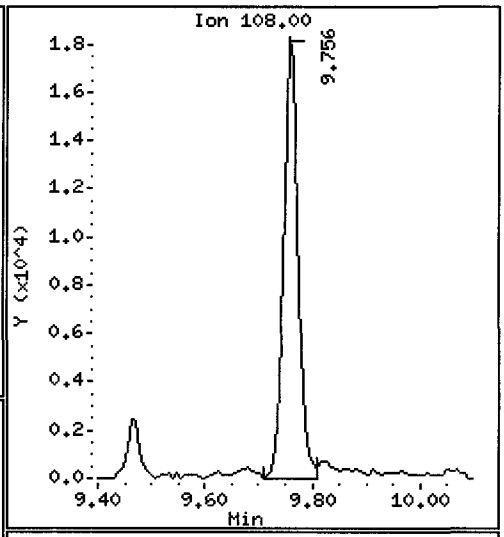
15 4-Methylphenol Concentration: 285.0 ug/kg

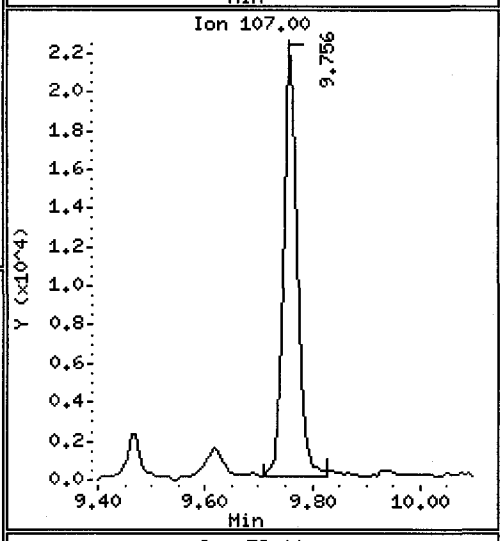


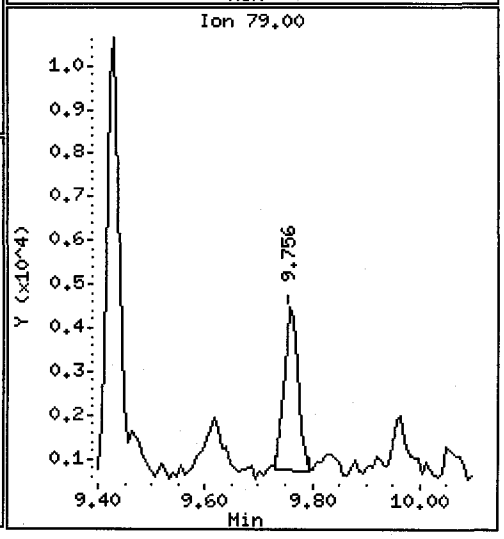



Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

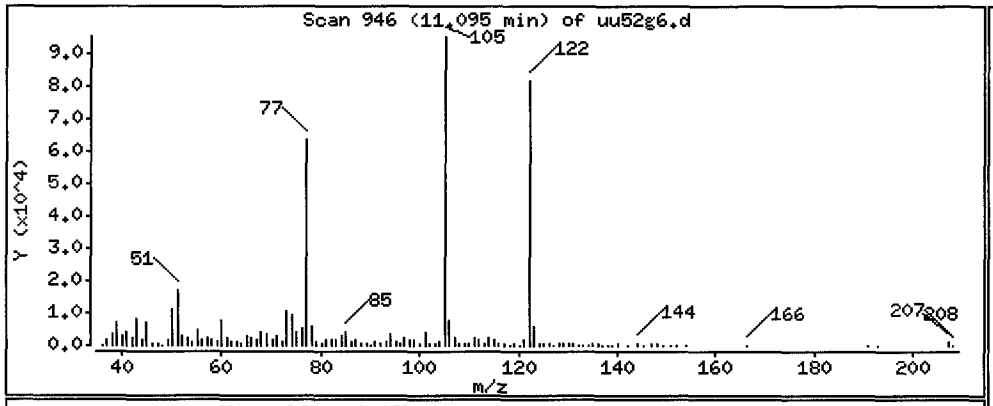
Client ID: MS006-SS-120515 Instrument: nt10.i

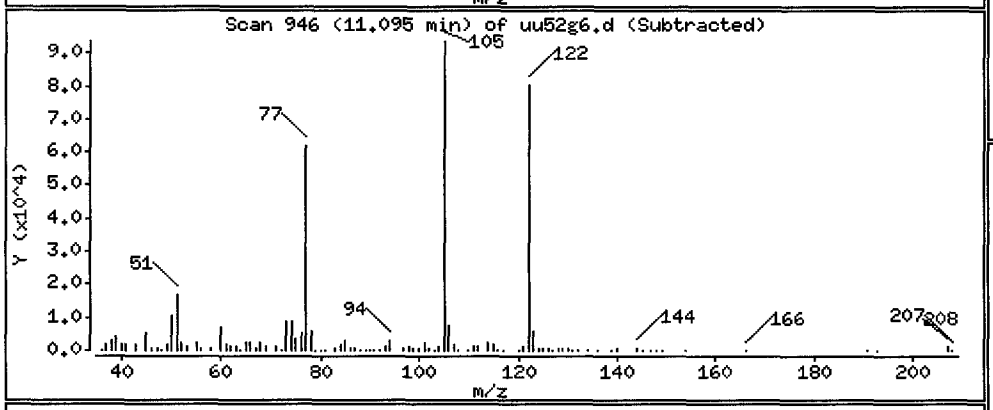
Sample Info: UU52G,6

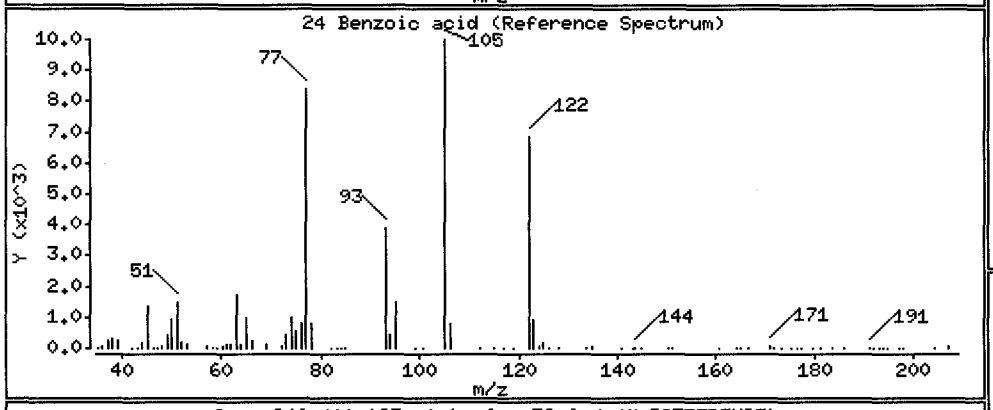
Volume Injected (uL): 1.0 Operator: VTS/YZ

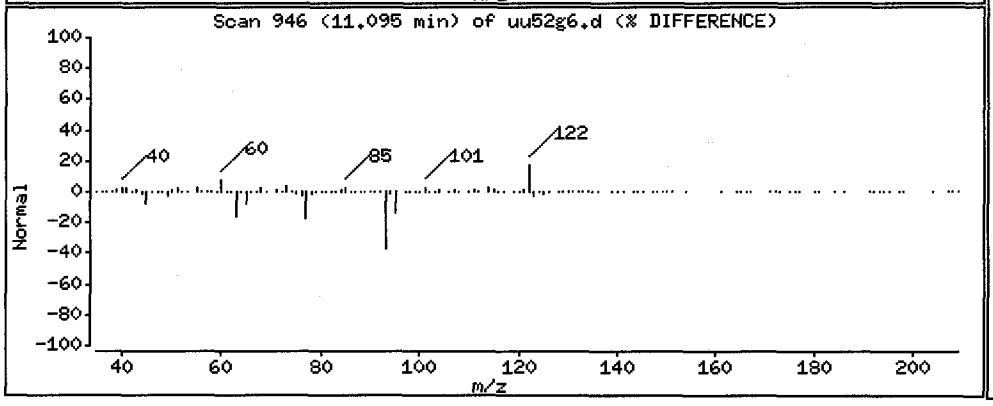
Column phase: ZB-5msi Column diameter: 0.25

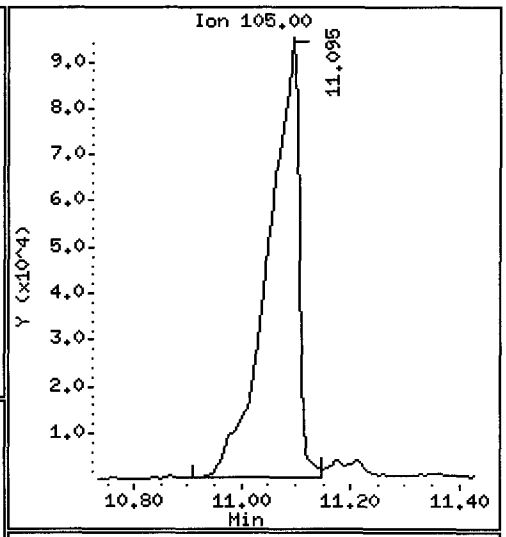
24 Benzoic acid Concentration: 5210 ug/kg

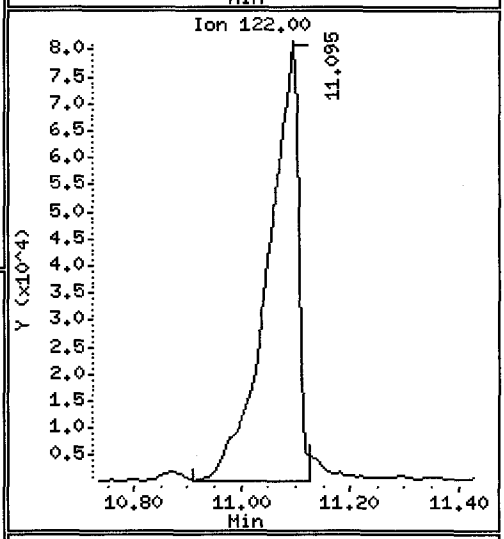


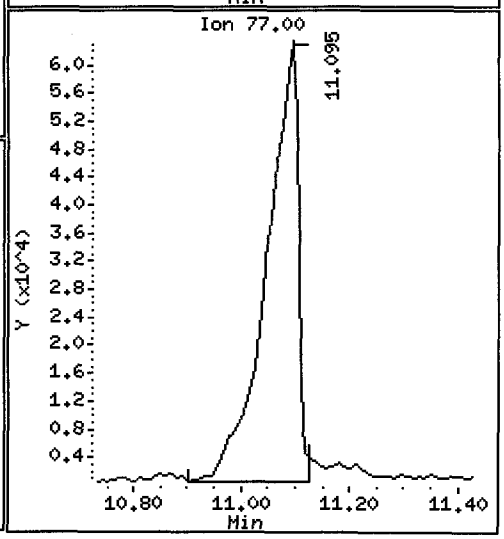



Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

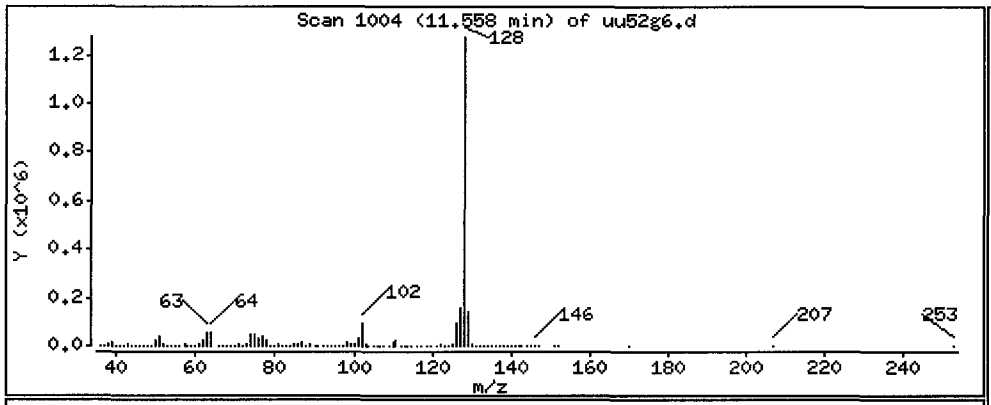
Client ID: MS006-SS-120515 Instrument: nt10.i

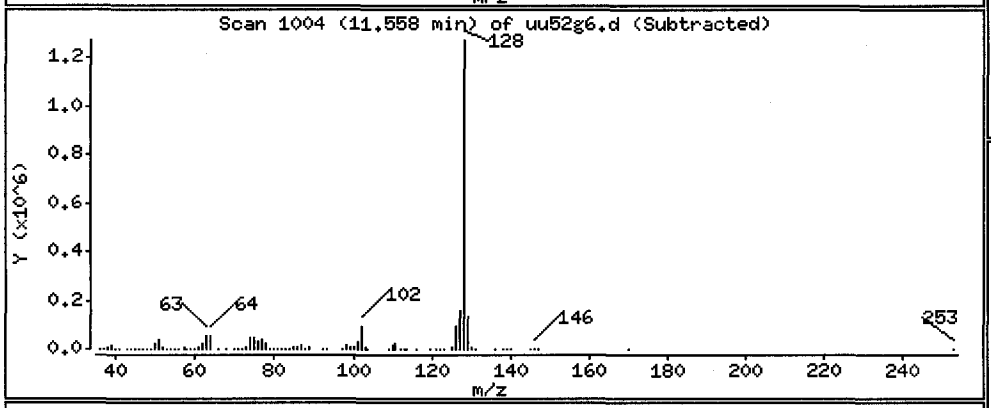
Sample Info: UU52G,6

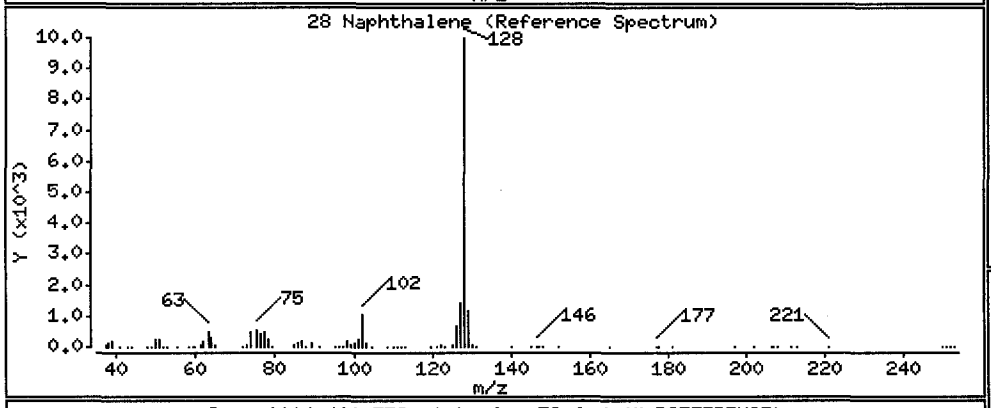
Volume Injected (uL): 1.0 Operator: VTS/YZ

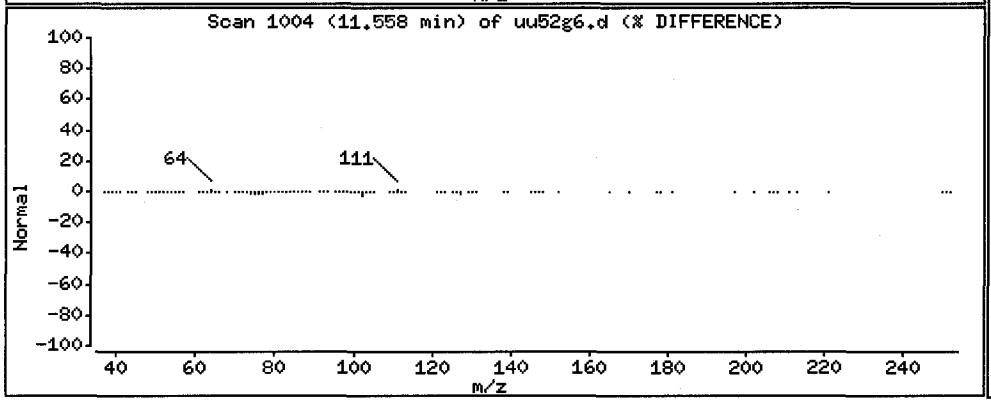
Column phase: ZB-5msi Column diameter: 0.25

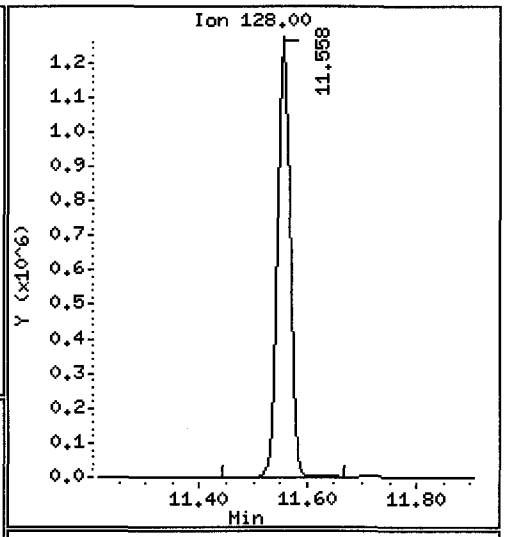
28 Naphthalene Concentration: 6293 ug/kg

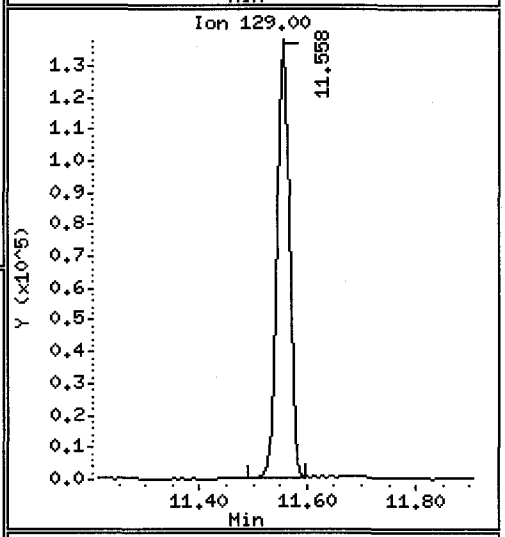


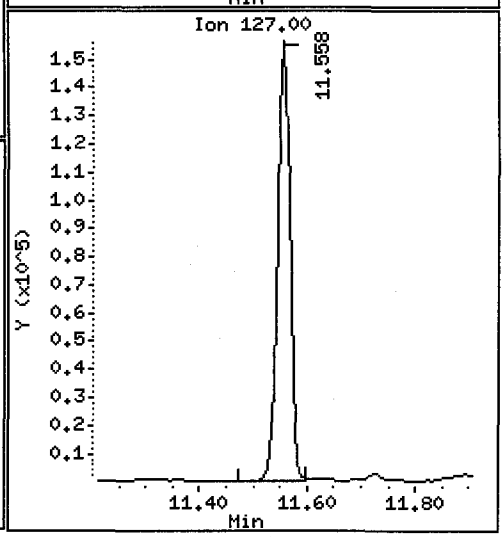



Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

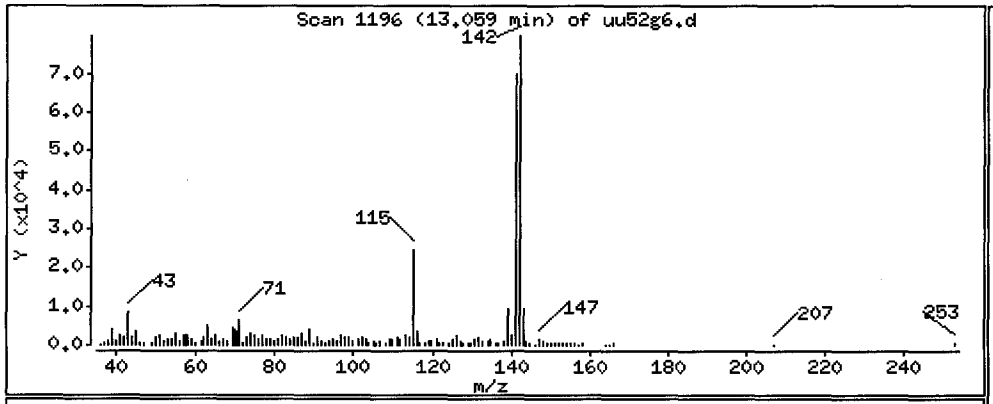
Operator: VTS/YZ

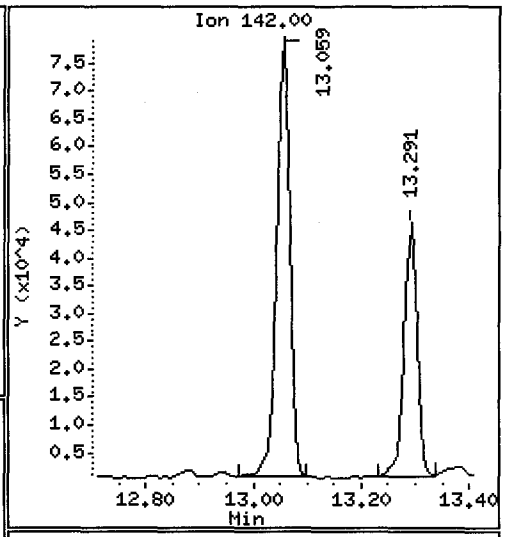
Column phase: ZB-5msi

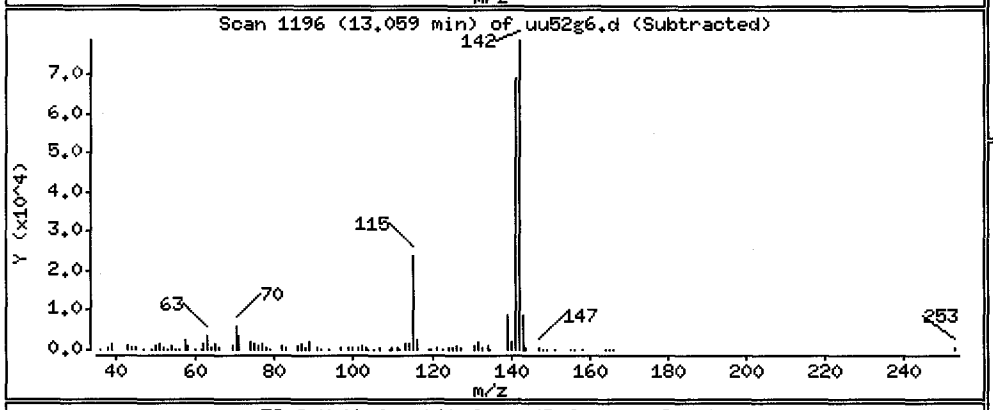
Column diameter: 0.25

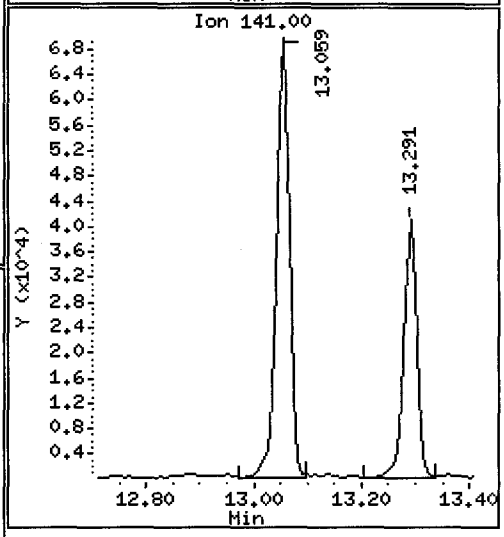
32 2-Methylnaphthalene

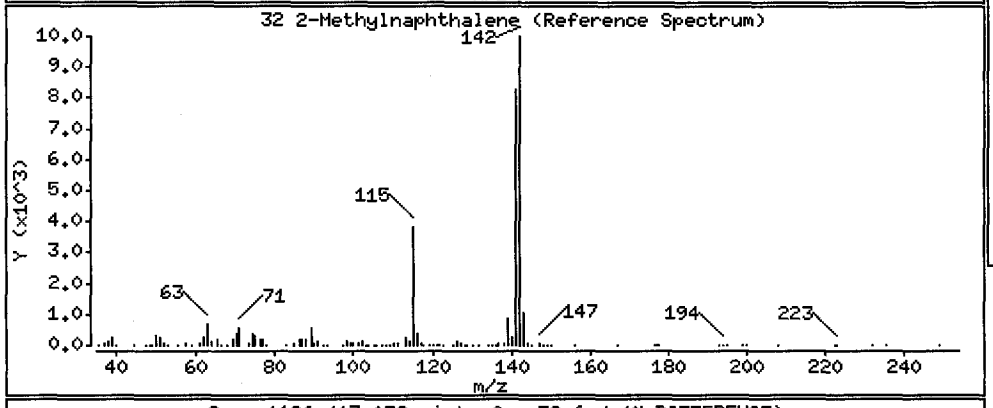
Concentration: 588.4 ug/kg

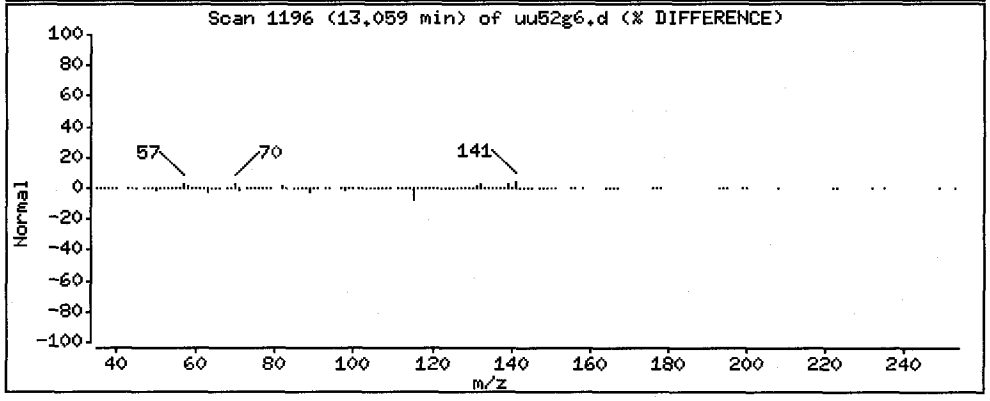


Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

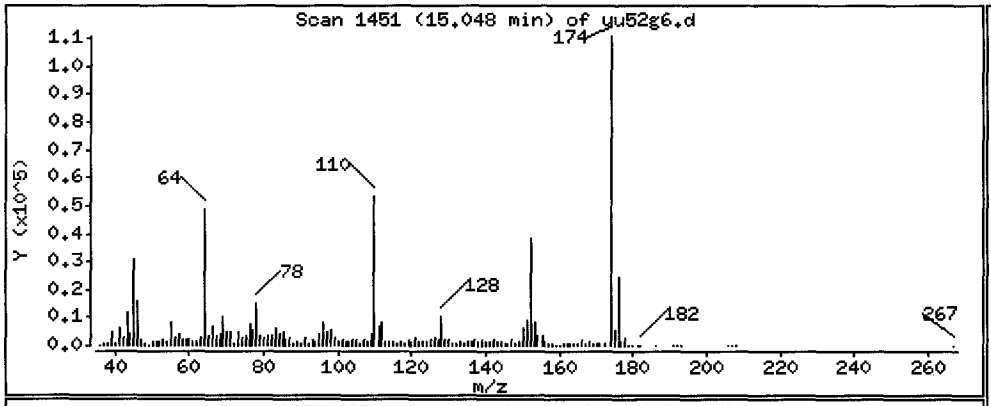
Client ID: MS006-SS-120515 Instrument: nt10.i

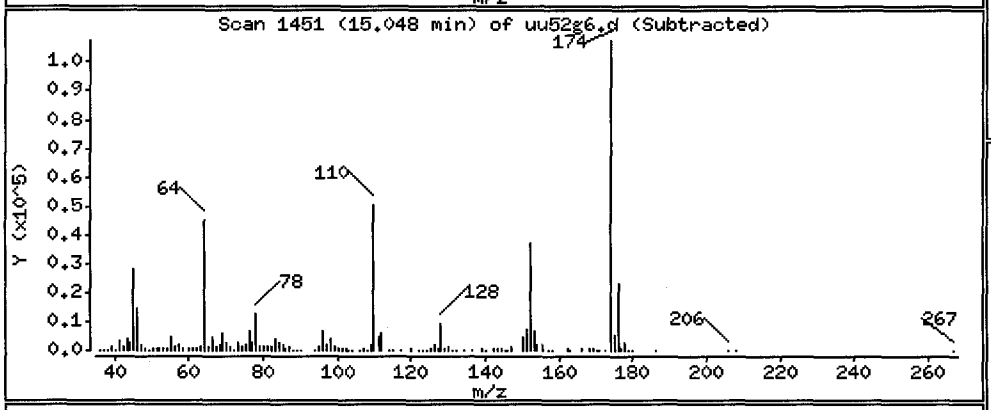
Sample Info: UU52G,6

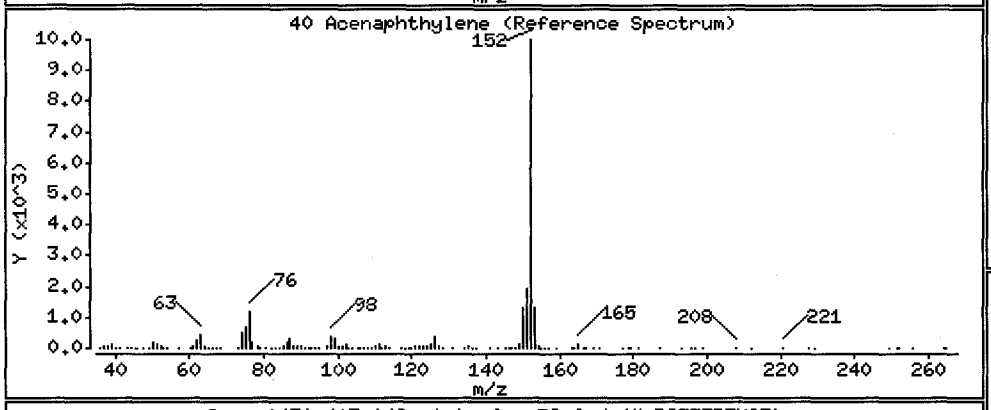
Volume Injected (uL): 1.0 Operator: VTS/YZ

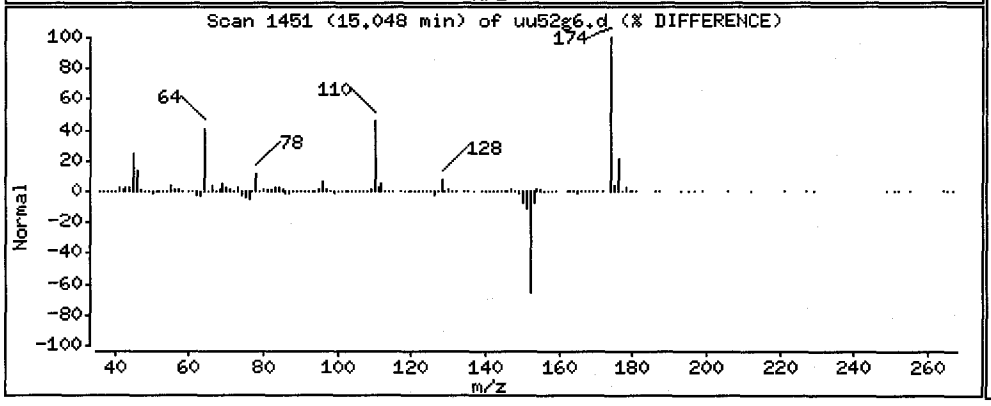
Column phase: ZB-5msi Column diameter: 0.25

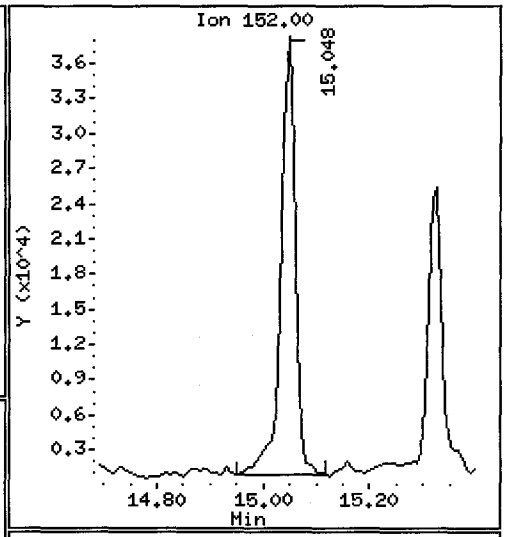
40 Acenaphthylene Concentration: 213.7 ug/kg

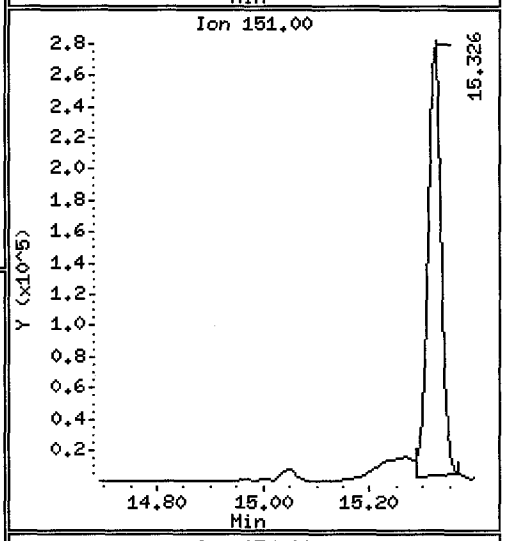


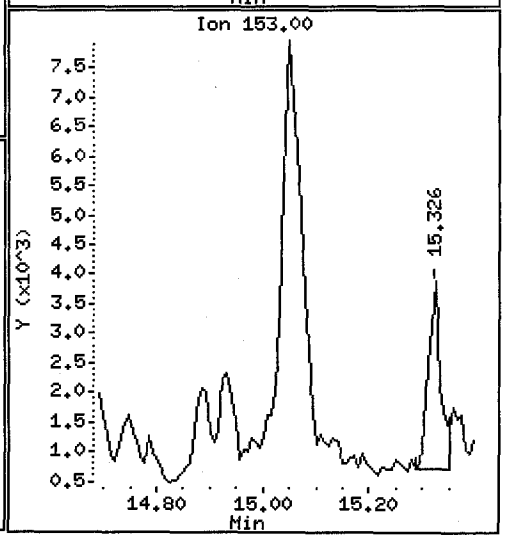



Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

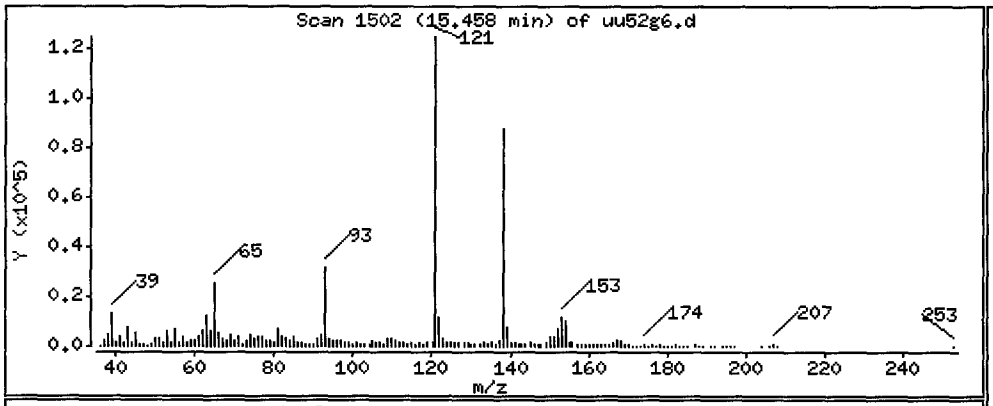
Operator: VTS/YZ

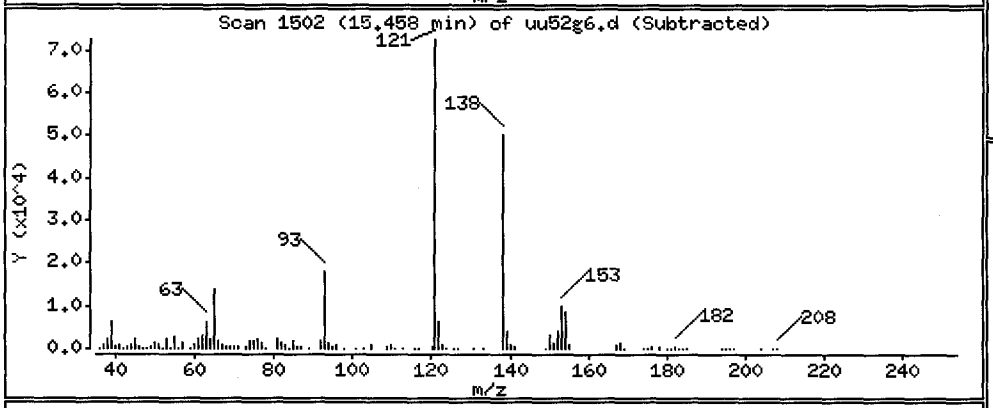
Column phase: ZB-5msi

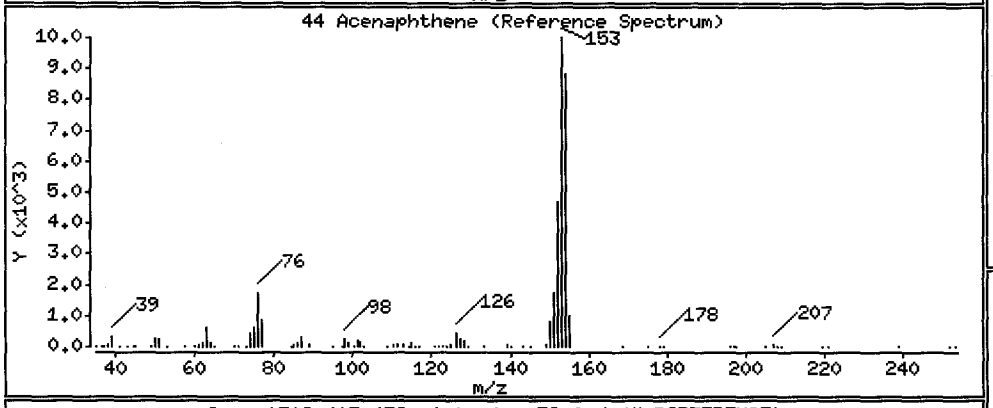
Column diameter: 0.25

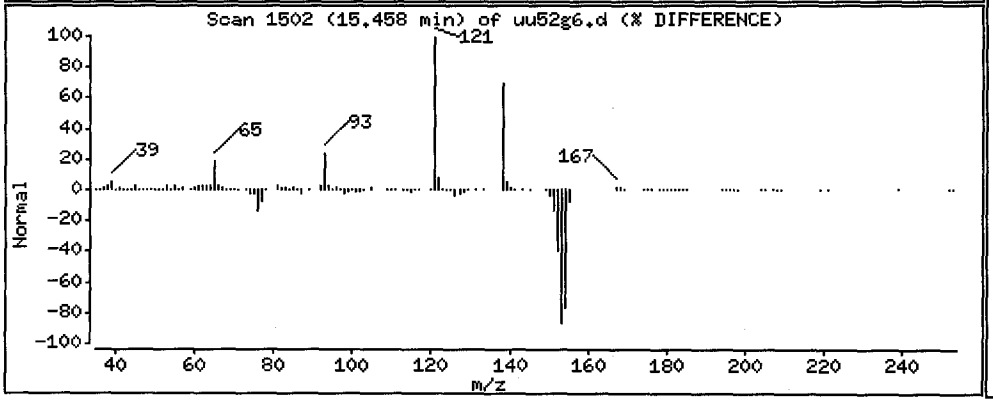
44 Acenaphthene

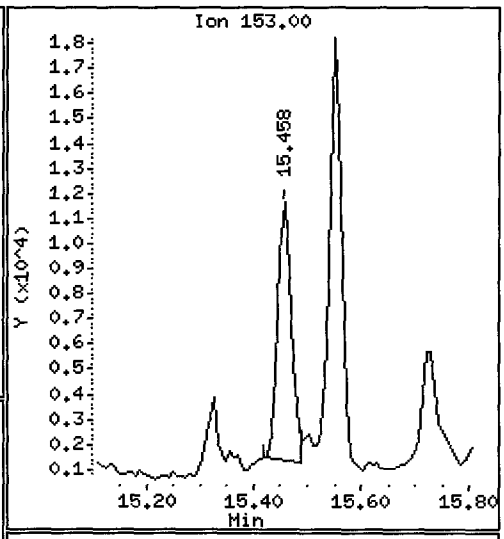
Concentration: 89.10 ug/kg

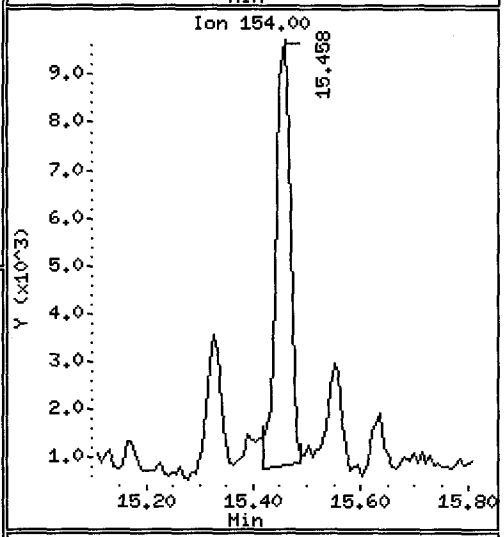


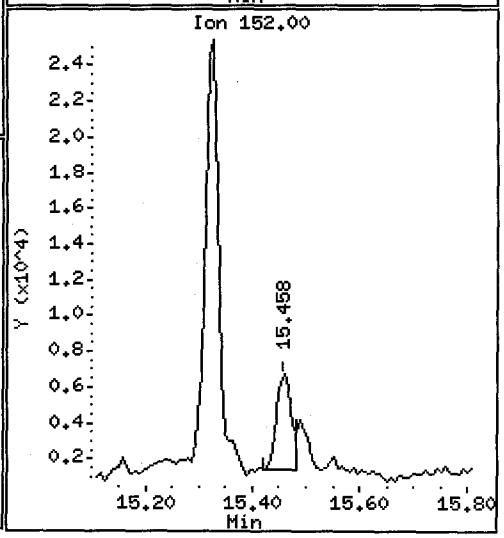



Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

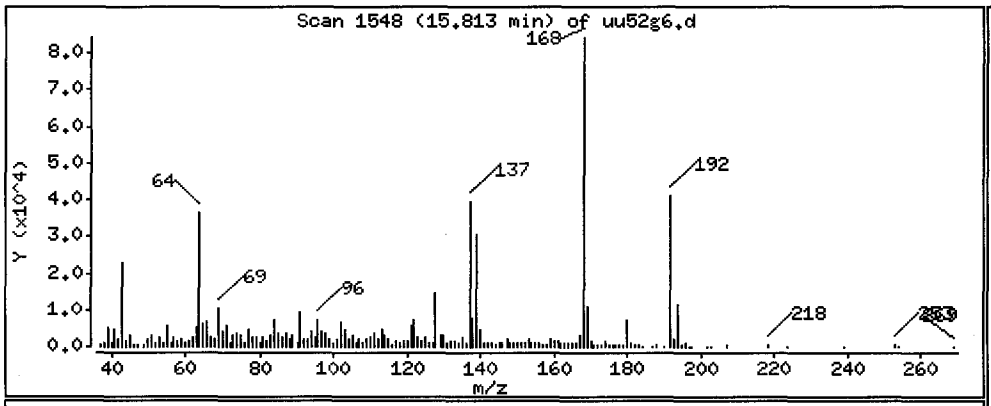
Operator: VTS/YZ

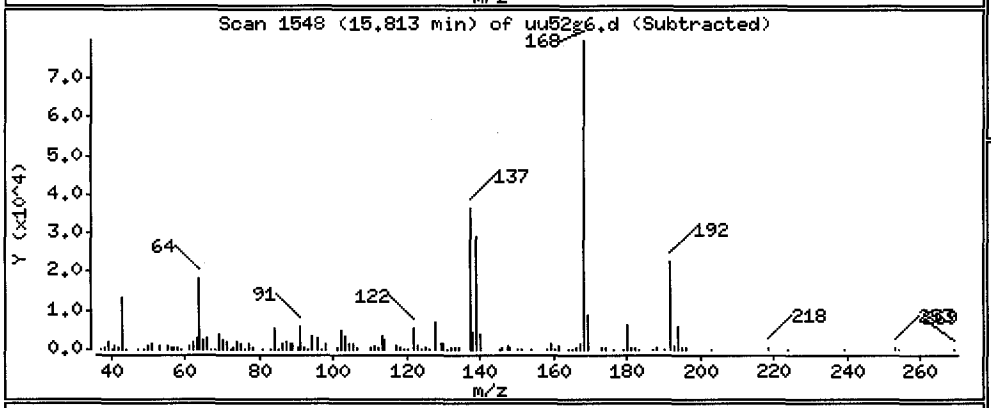
Column phase: ZB-5msi

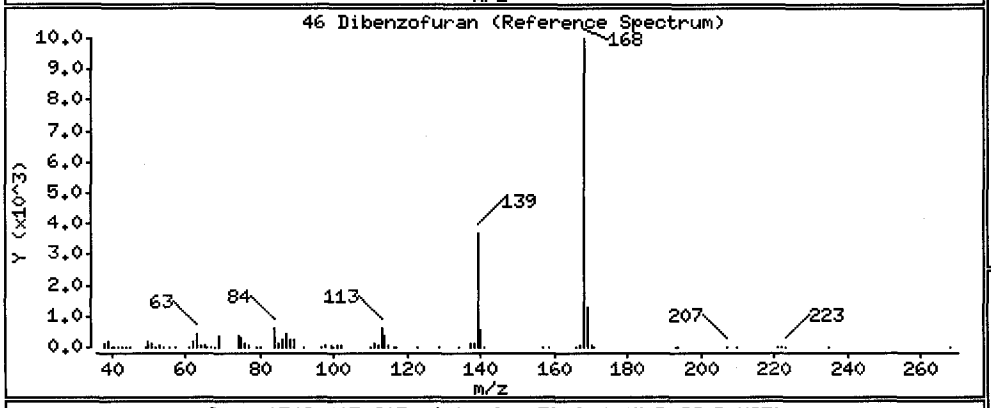
Column diameter: 0.25

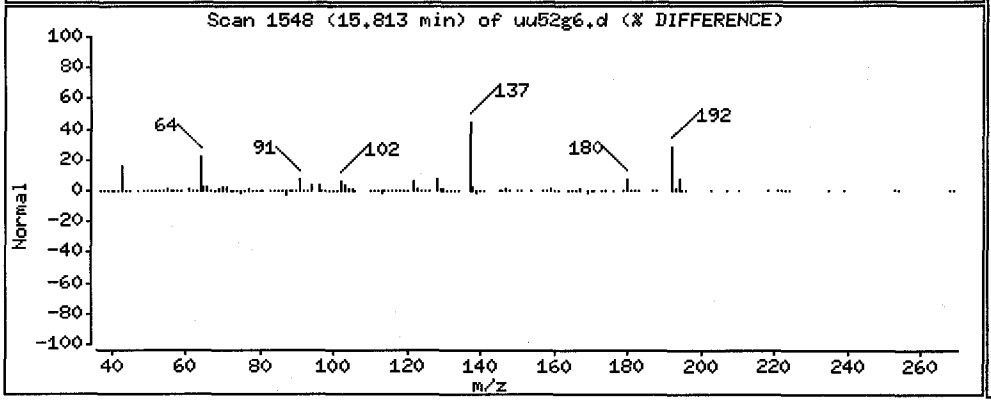
46 Dibenzofuran

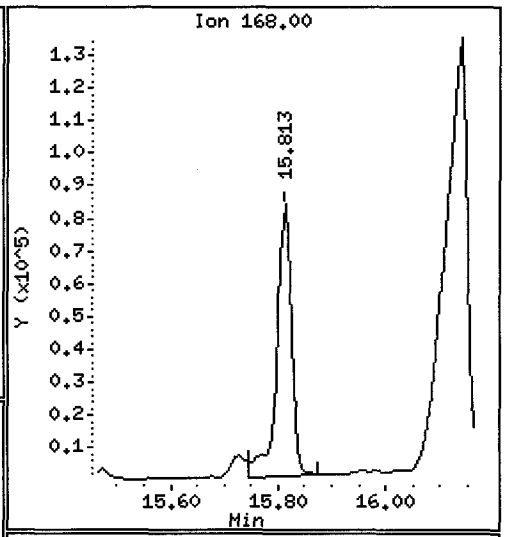
Concentration: 536.2 ug/kg

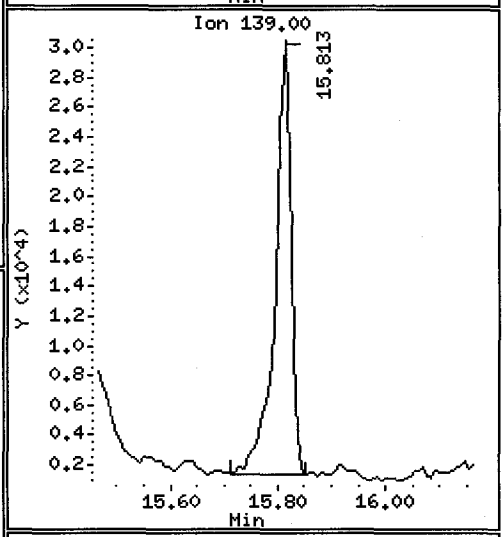


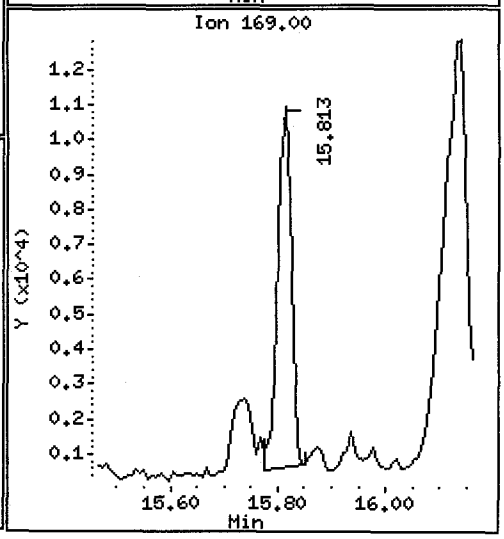



Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

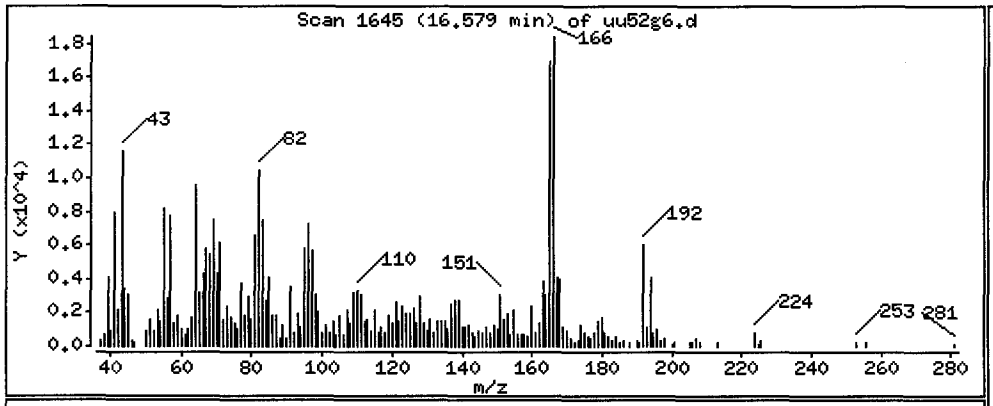
Operator: VTS/YZ

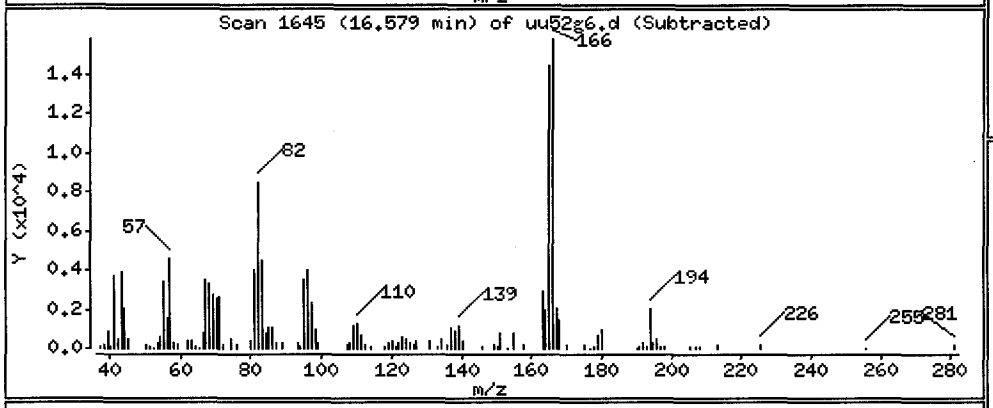
Column phase: ZB-5msi

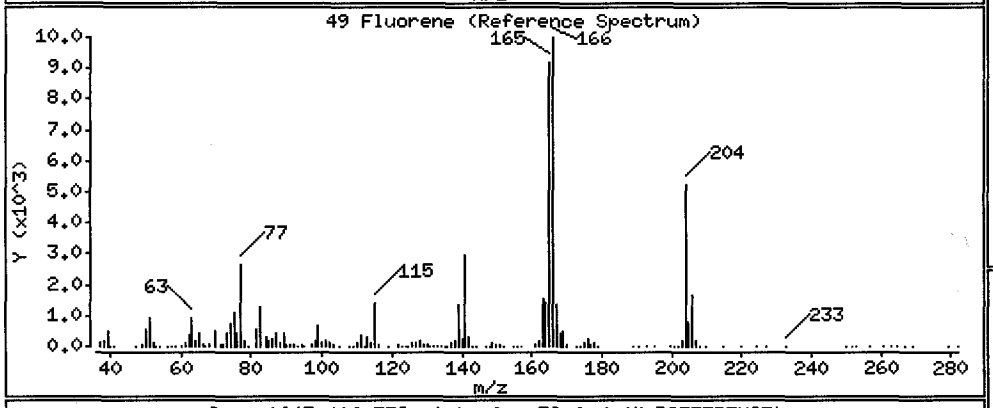
Column diameter: 0.25

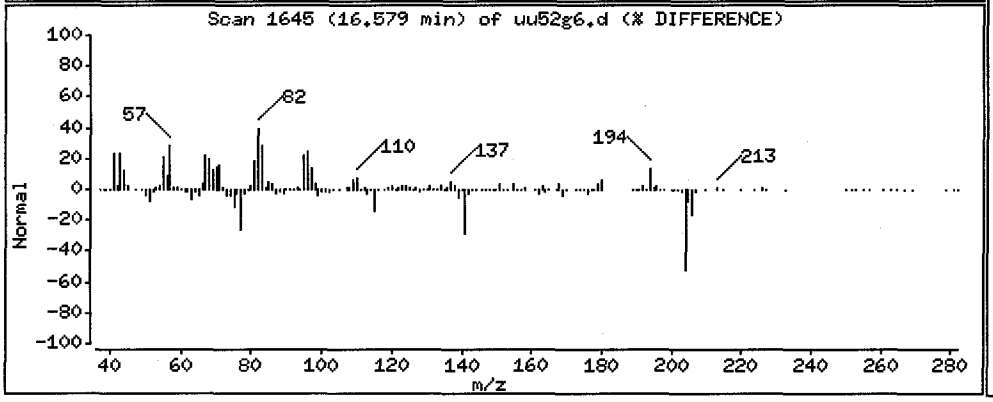
49 Fluorene

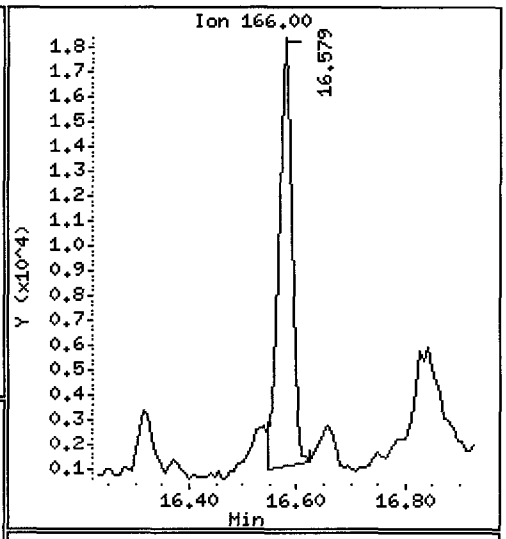
Concentration: 133.5 ug/kg

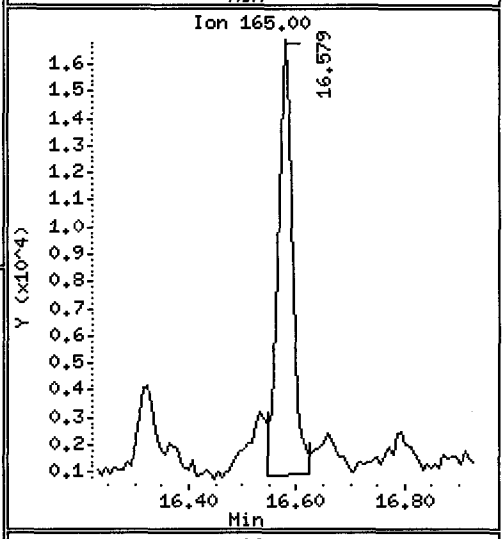


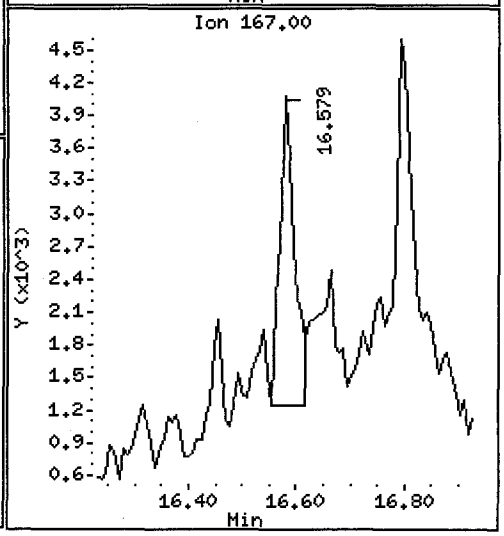



Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

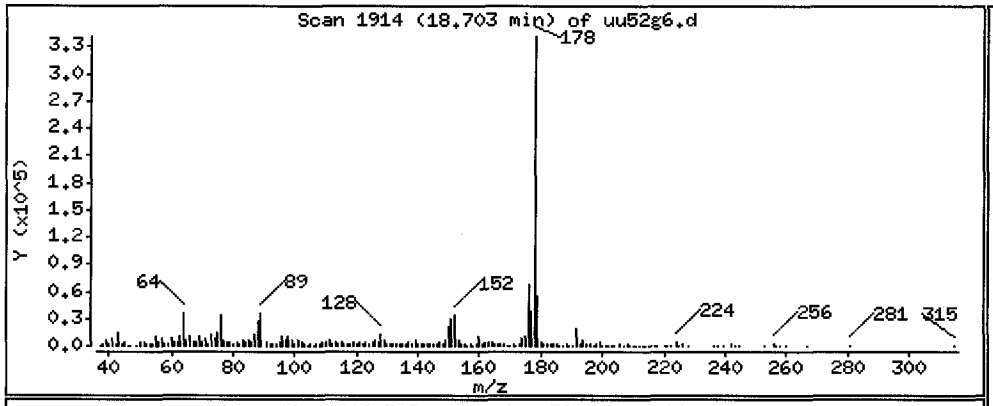
Operator: VTS/YZ

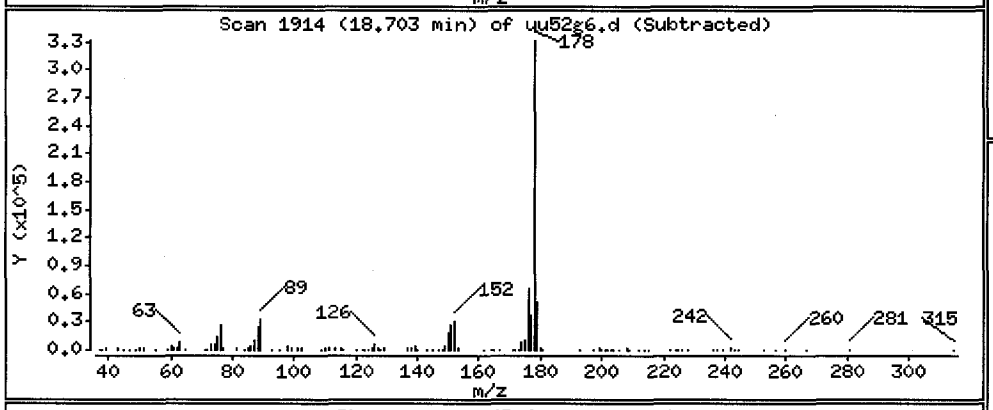
Column phase: ZB-5msi

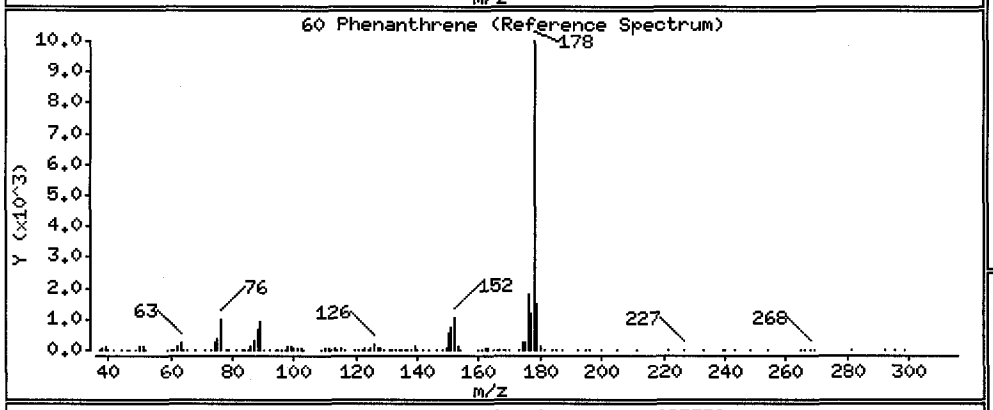
Column diameter: 0.25

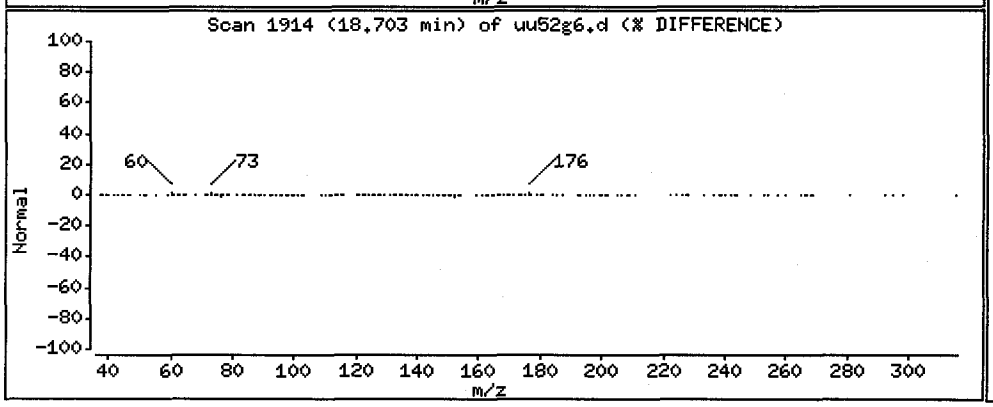
60 Phenanthrene

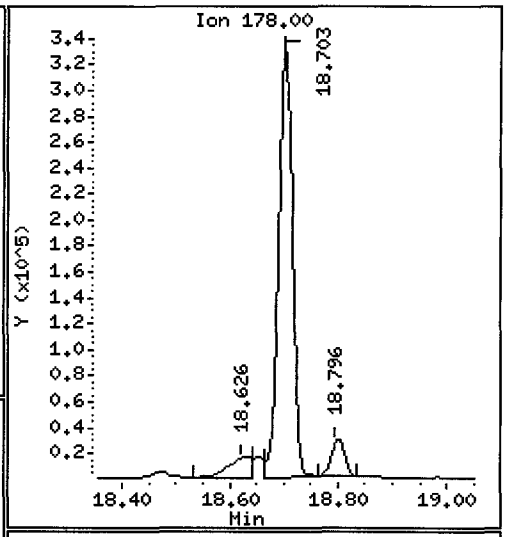
Concentration: 2165 ug/kg

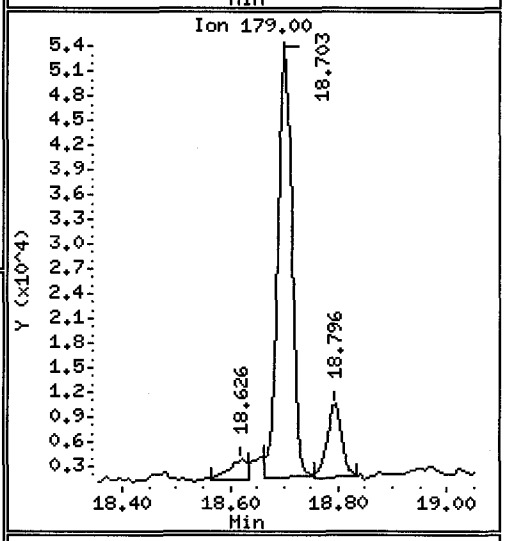


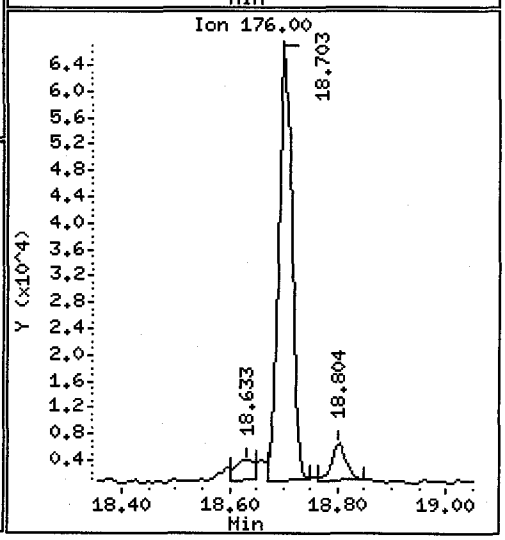



Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

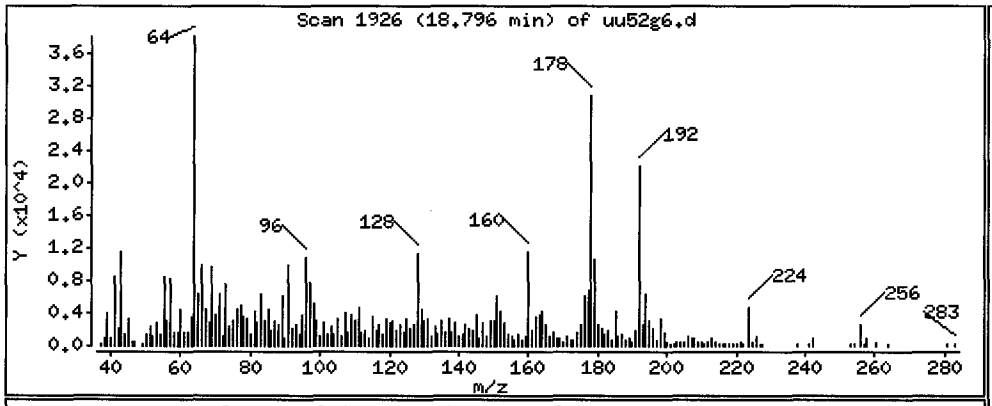
Operator: VTS/YZ

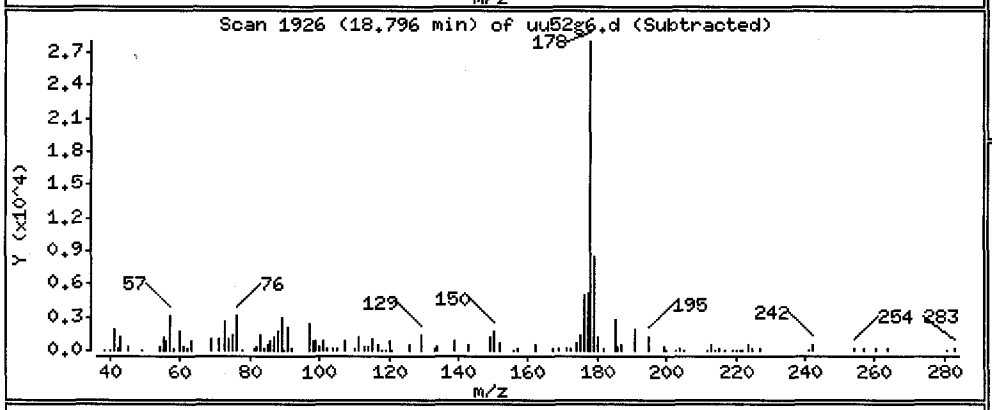
Column phase: ZB-5msi

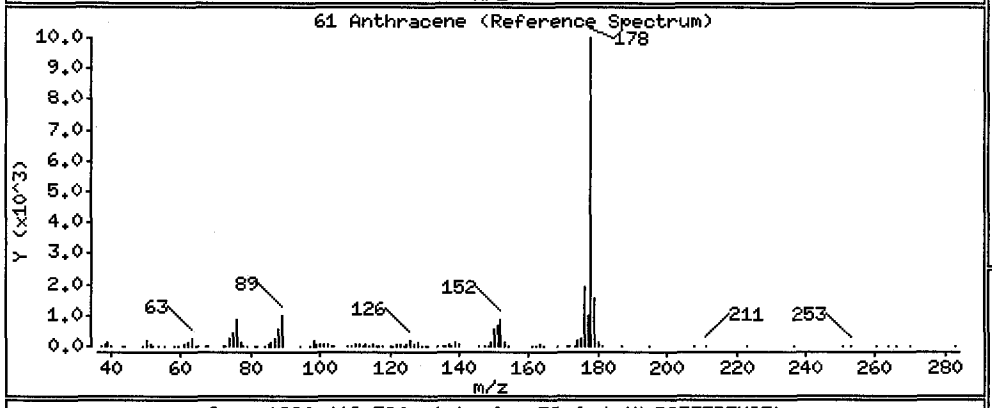
Column diameter: 0.25

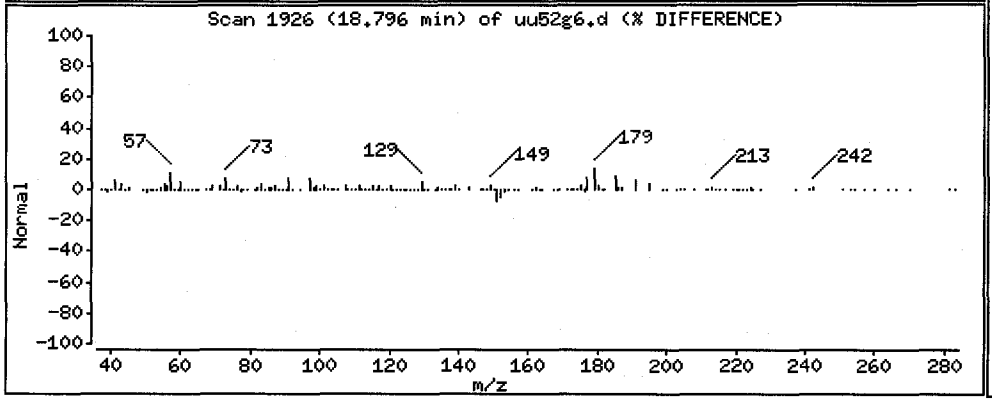
61 Anthracene

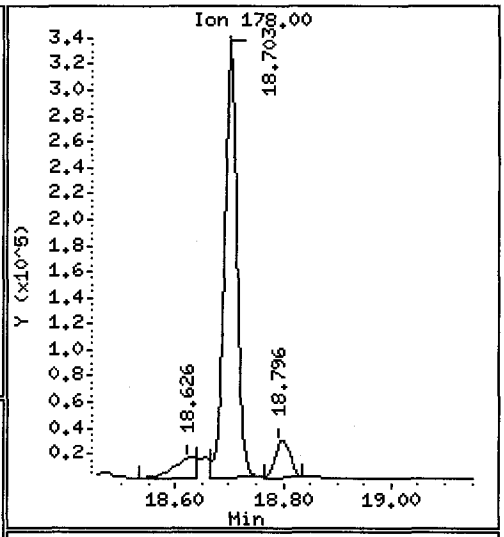
Concentration: 195.2 ug/kg

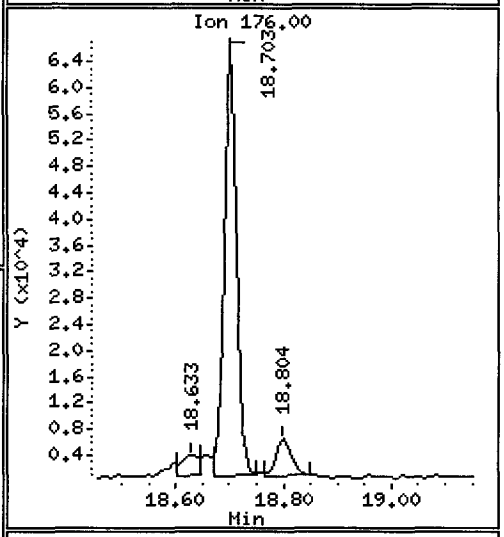


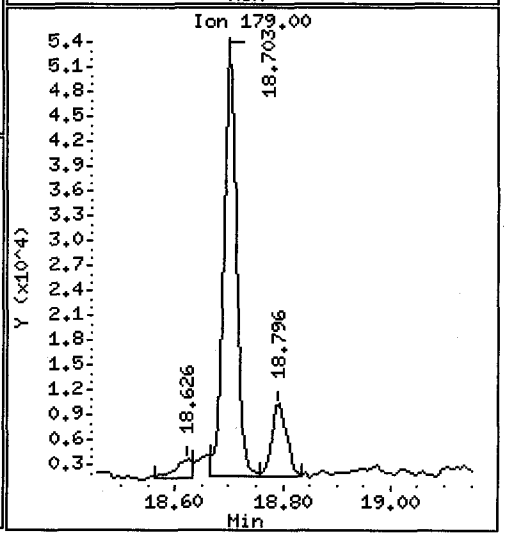



Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

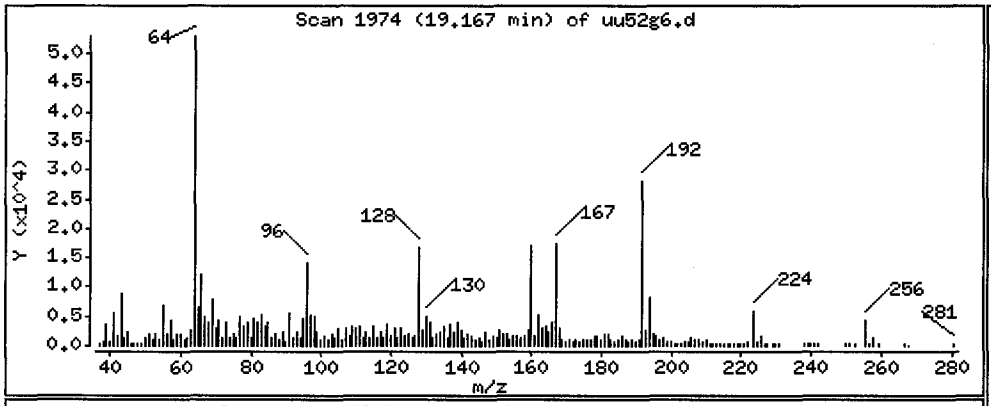
Client ID: MS006-SS-120515 Instrument: nt10.i

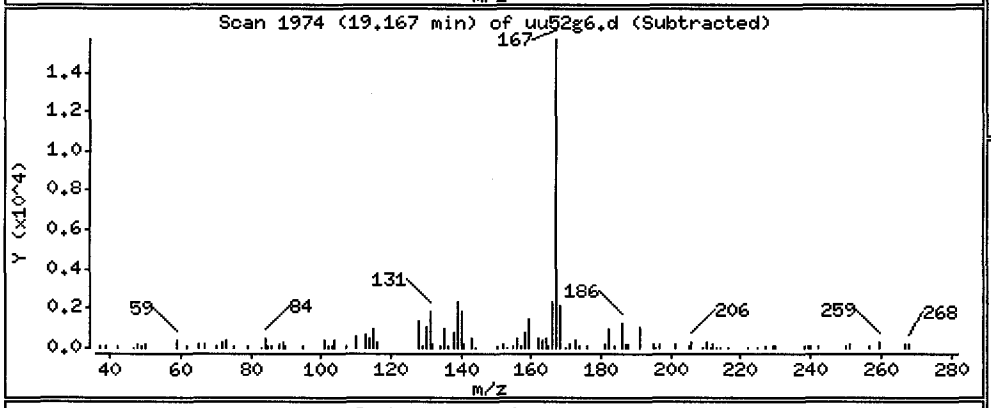
Sample Info: UU52G,6

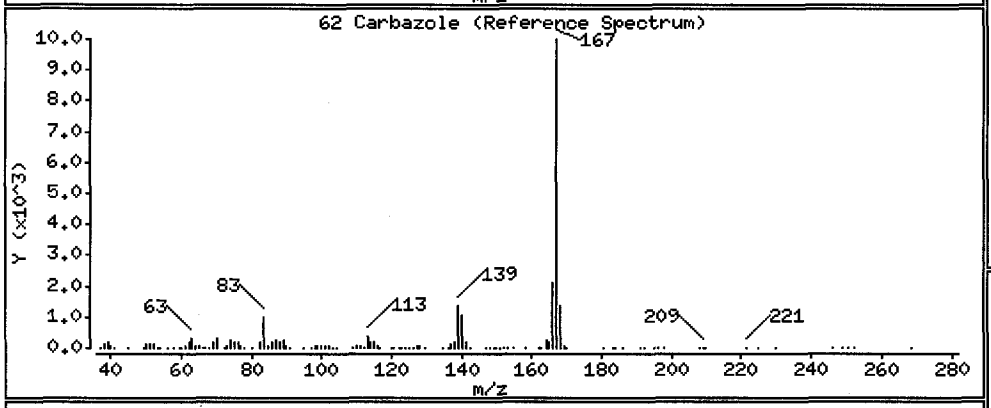
Volume Injected (uL): 1.0 Operator: VTS/YZ

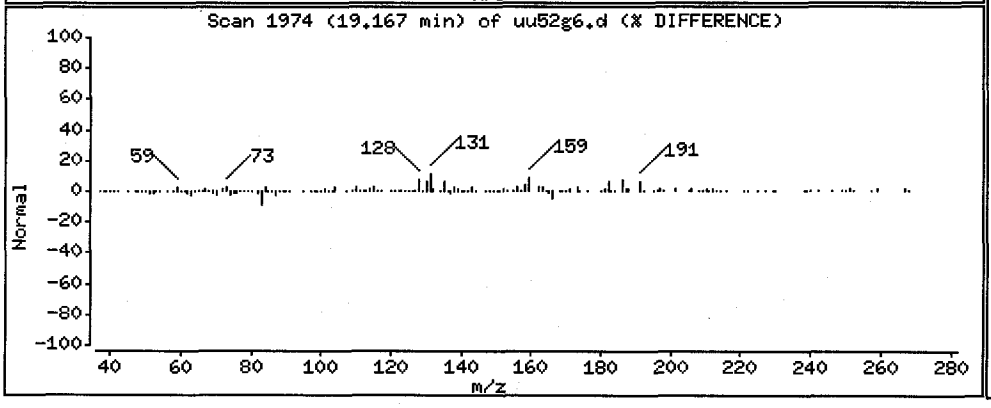
Column phase: ZB-5msi Column diameter: 0.25

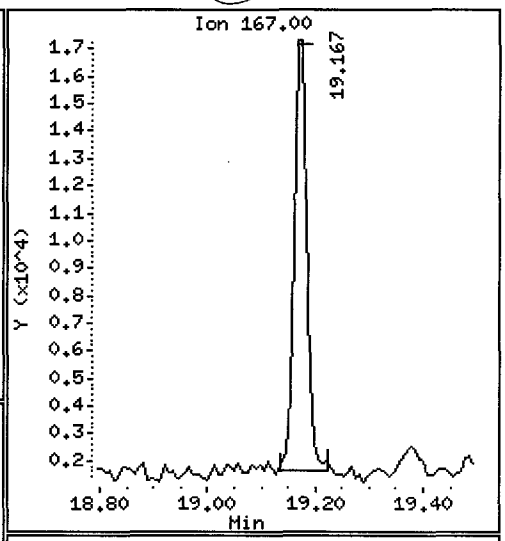
62 Carbazole Concentration: 109.1 ug/kg

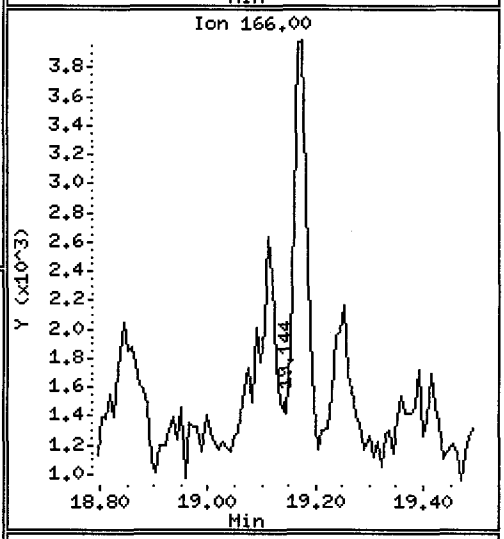


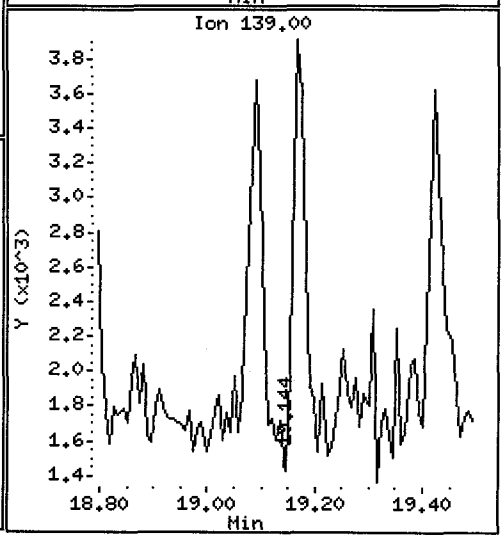



Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

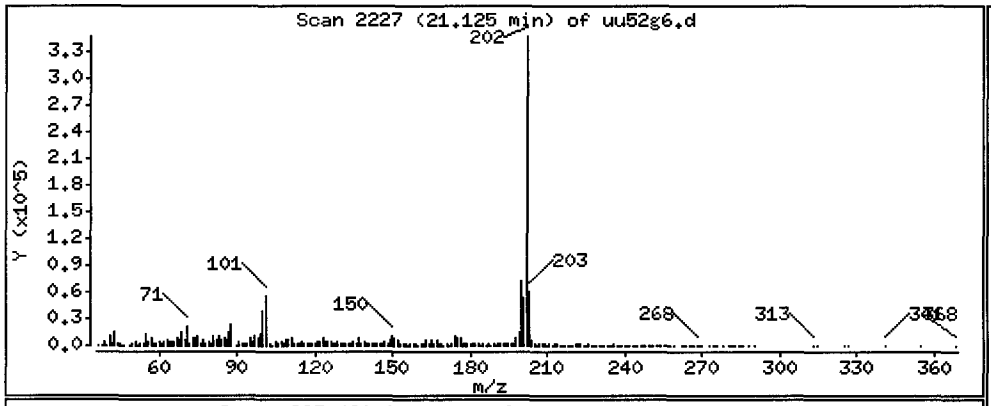
Client ID: MS006-SS-120515 Instrument: nt10.i

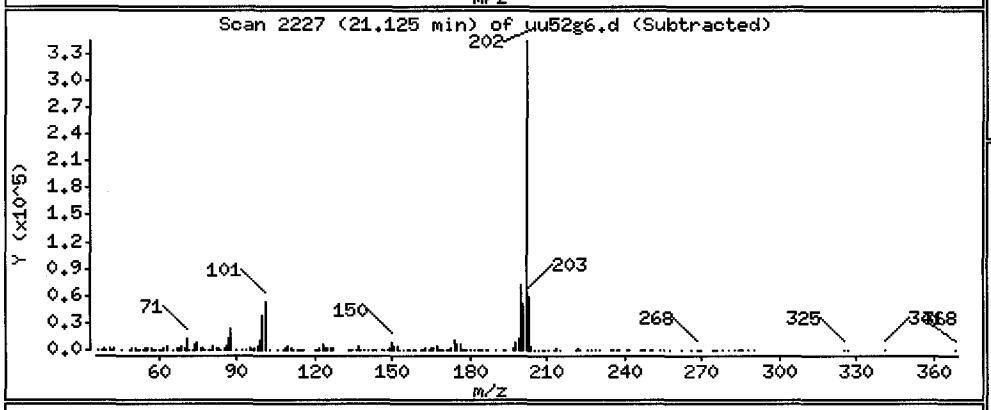
Sample Info: UU52G,6

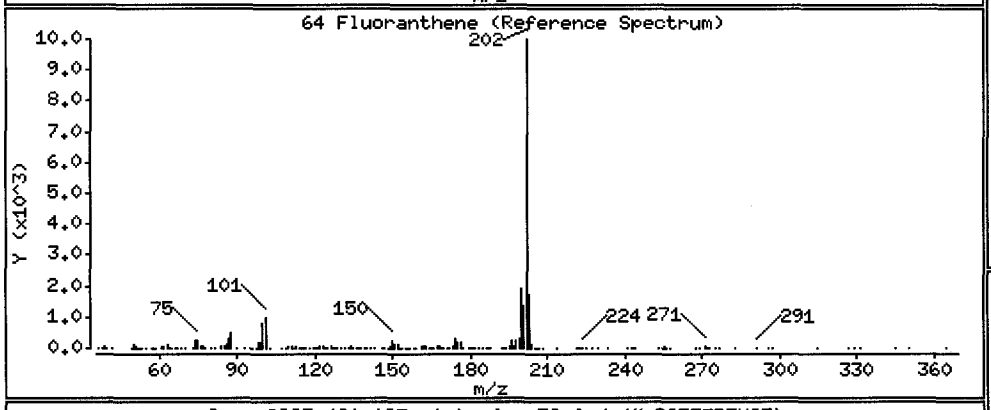
Volume Injected (uL): 1.0 Operator: VTS/YZ

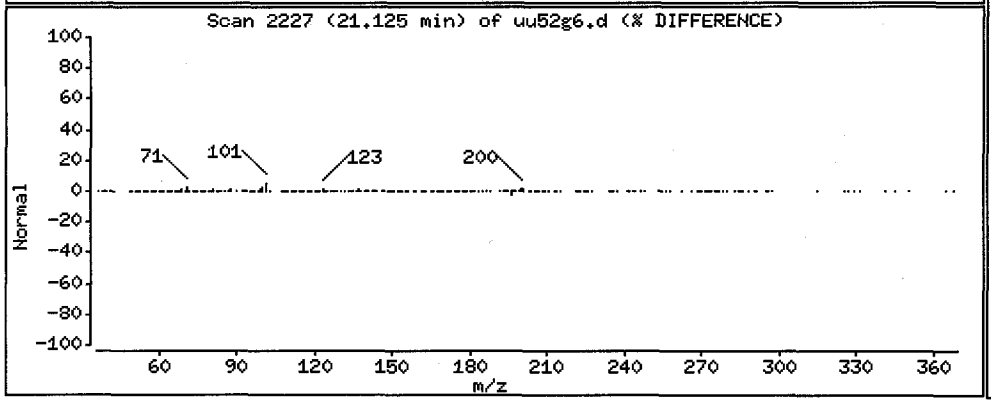
Column phase: ZB-5msi Column diameter: 0.25

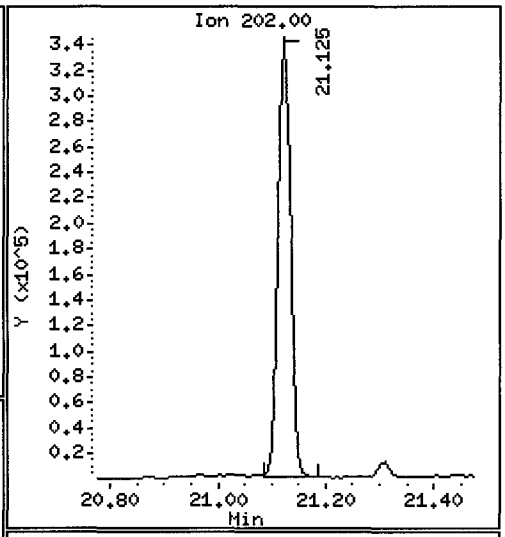
64 Fluoranthene Concentration: 1786 ug/kg

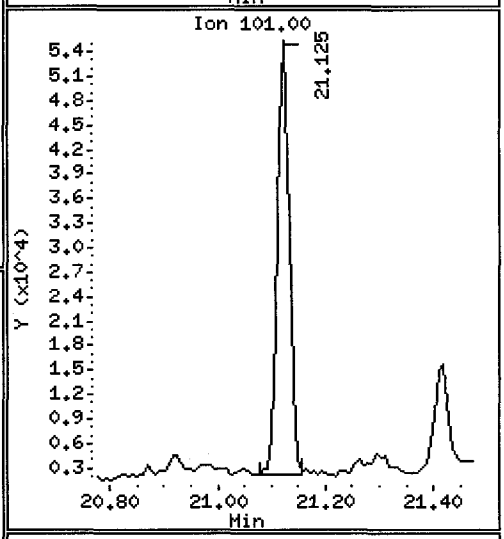


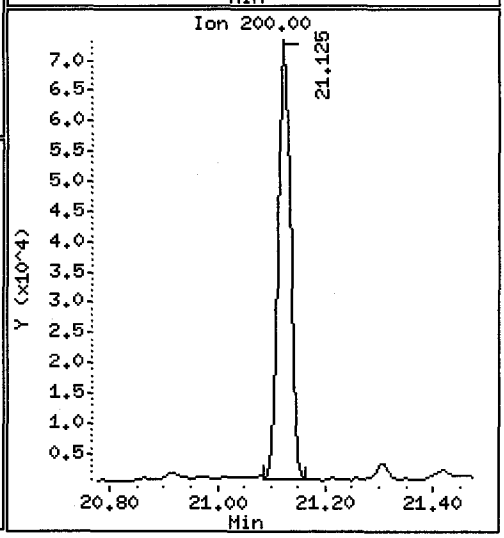



Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

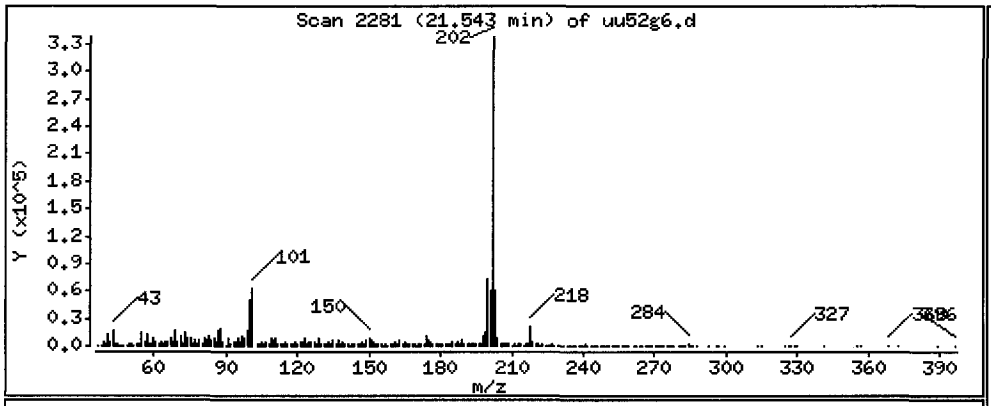
Operator: VTS/YZ

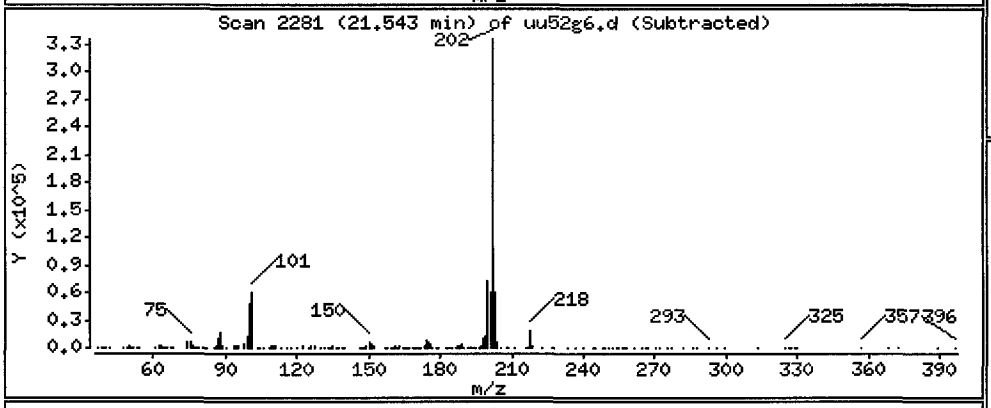
Column phase: ZB-5msi

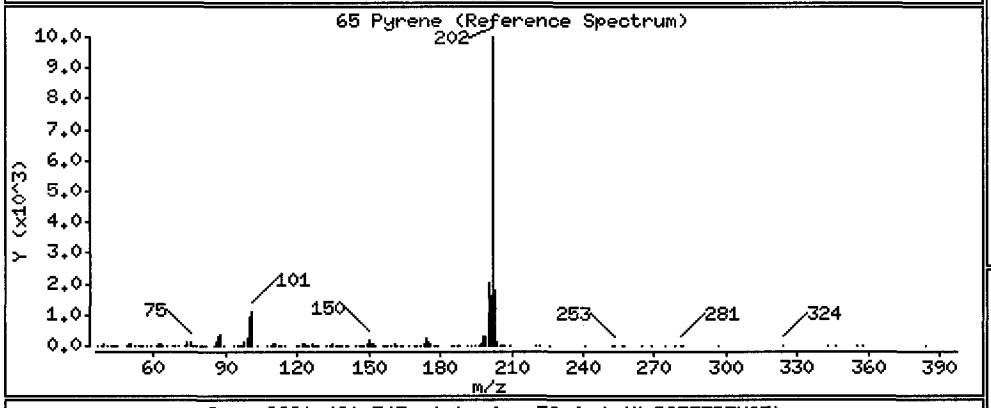
Column diameter: 0.25

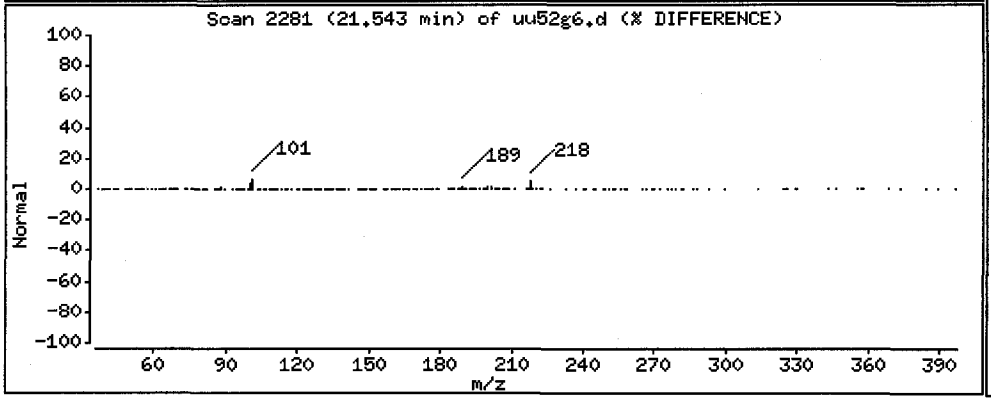
65 Pyrene

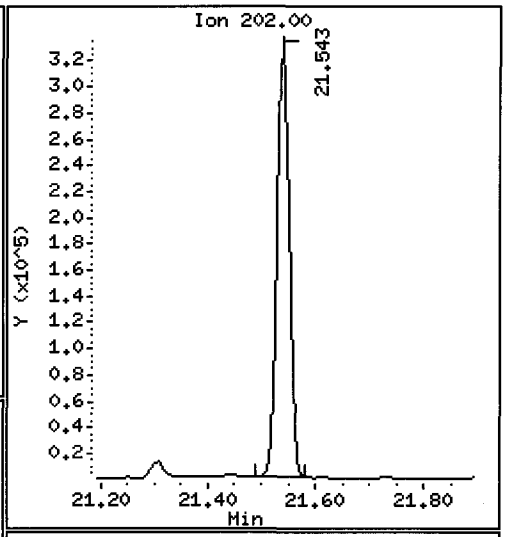
Concentration: 1340 ug/kg

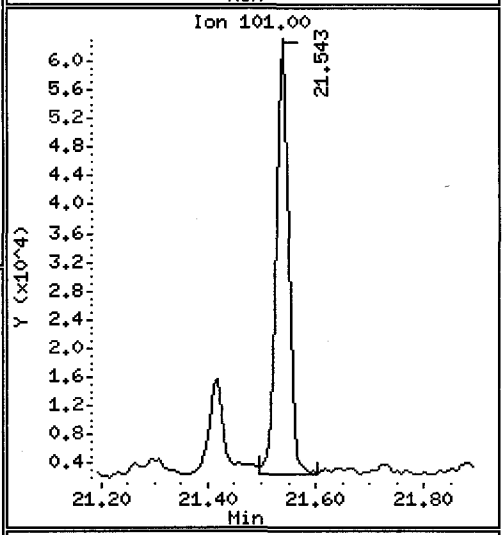


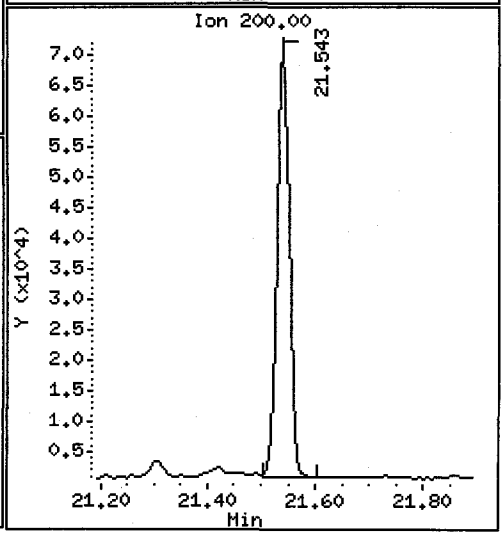



Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

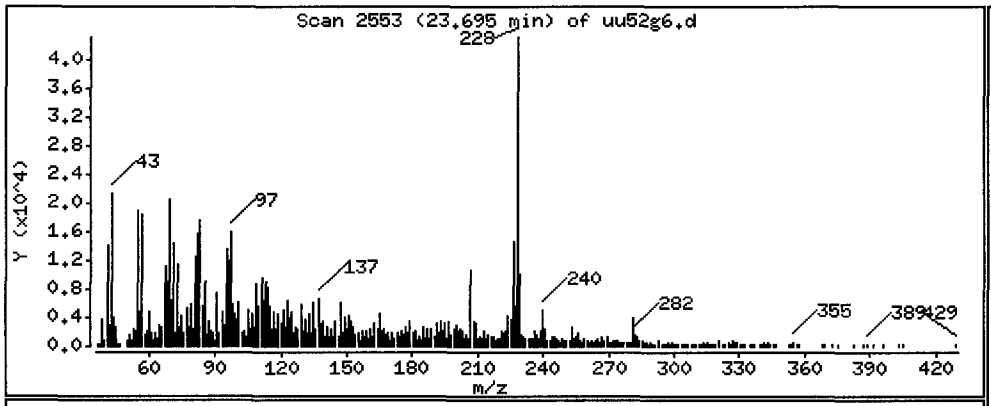
Client ID: MS006-SS-120515 Instrument: nt10.i

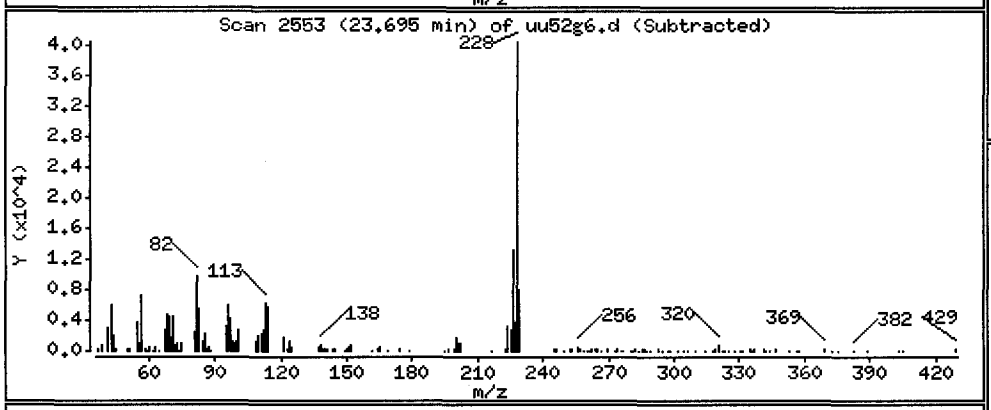
Sample Info: UU52G,6

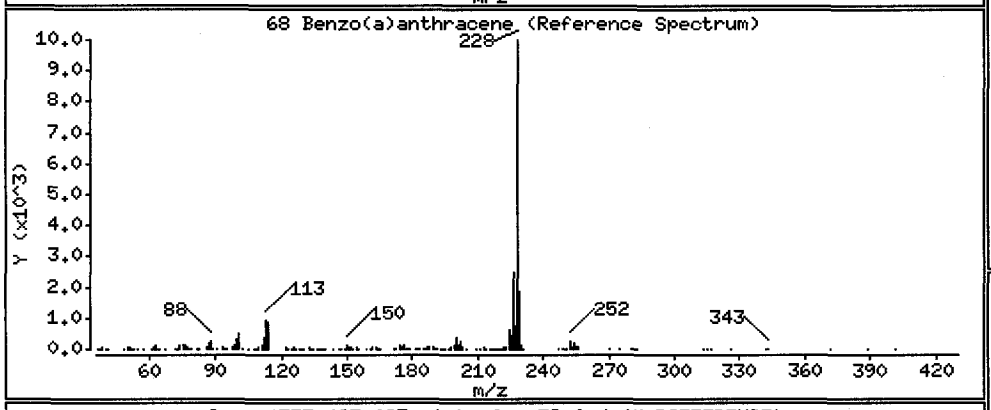
Volume Injected (uL): 1.0 Operator: VTS/YZ

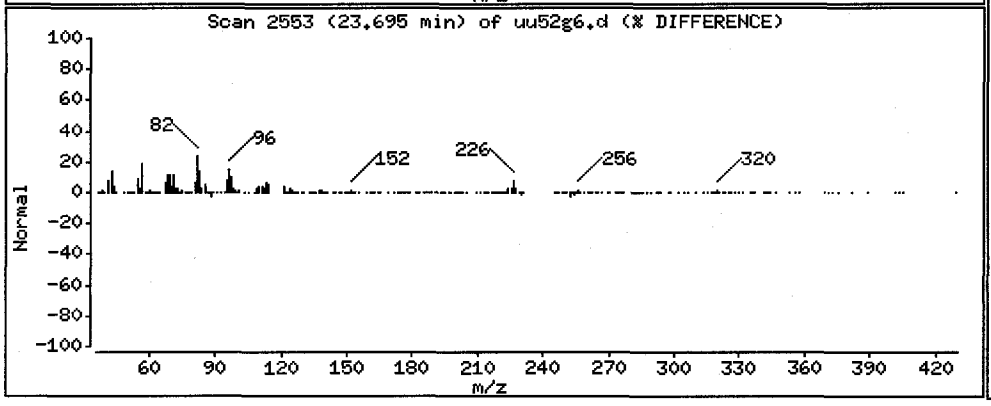
Column phase: ZB-5msi Column diameter: 0.25

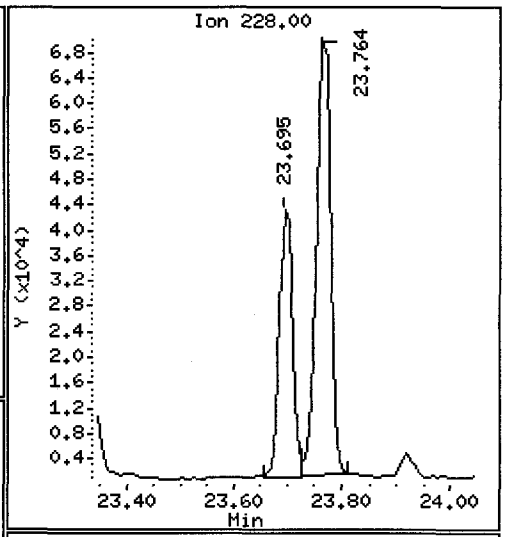
68 Benzo(a)anthracene Concentration: 207.2 ug/kg

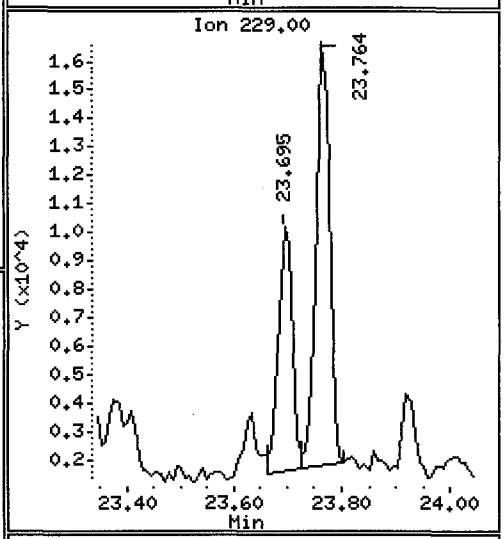


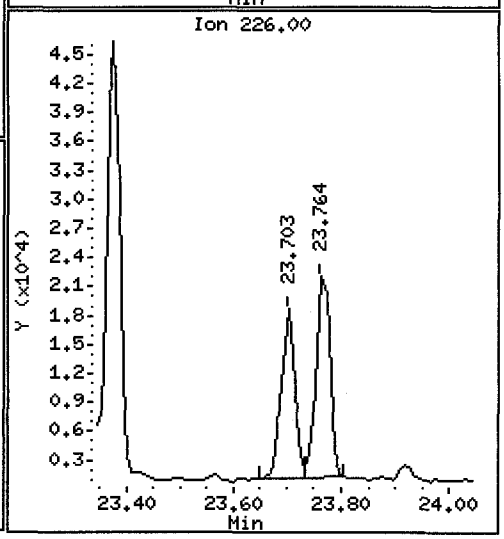



Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

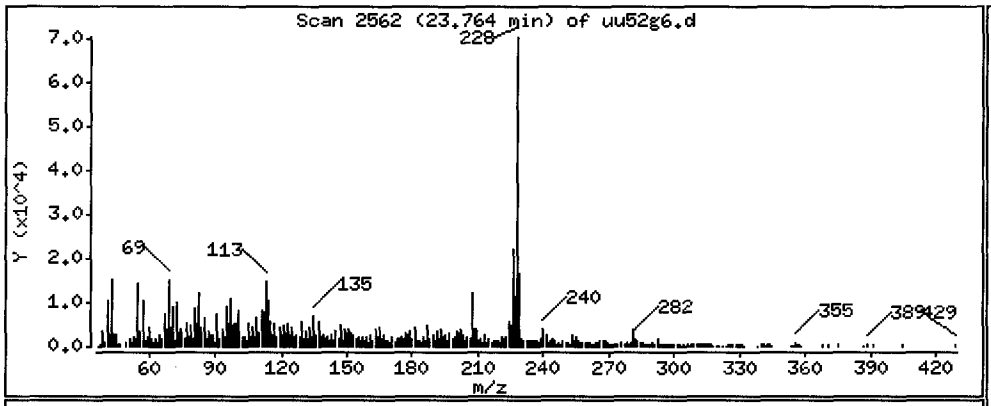
Client ID: MS006-SS-120515 Instrument: nt10.i

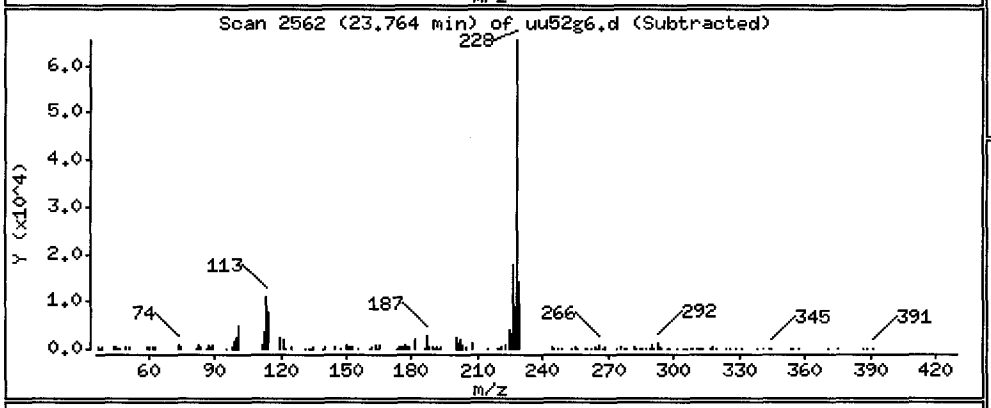
Sample Info: UU52G,6

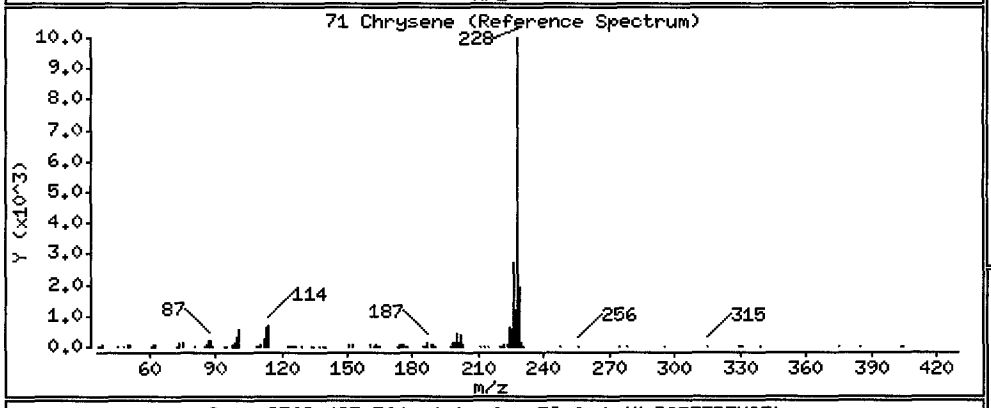
Volume Injected (uL): 1.0 Operator: VTS/YZ

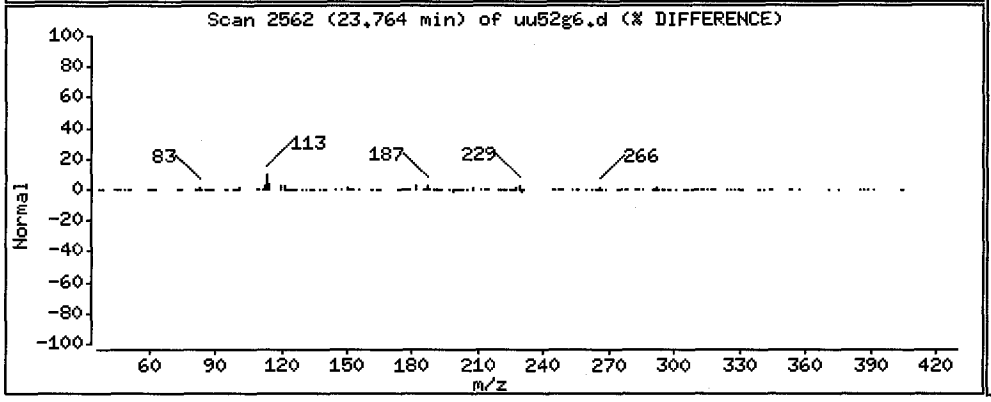
Column phase: ZB-5msi Column diameter: 0.25

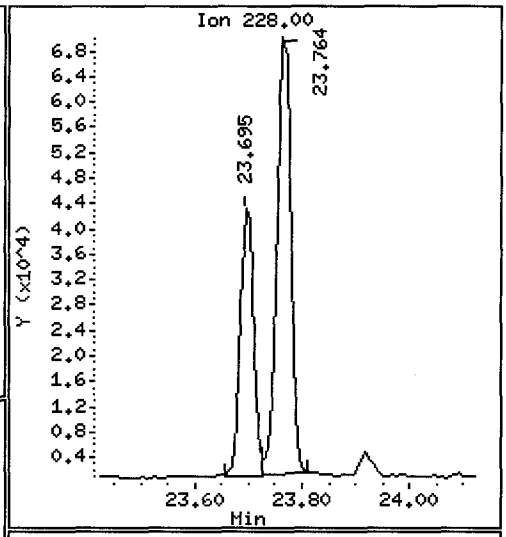
71 Chrysene Concentration: 399.8 ug/kg

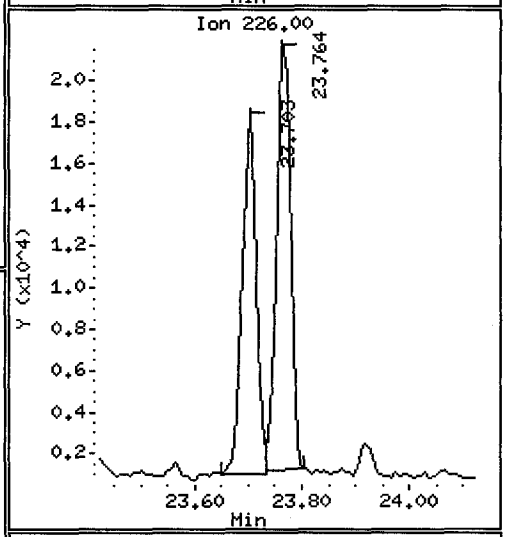


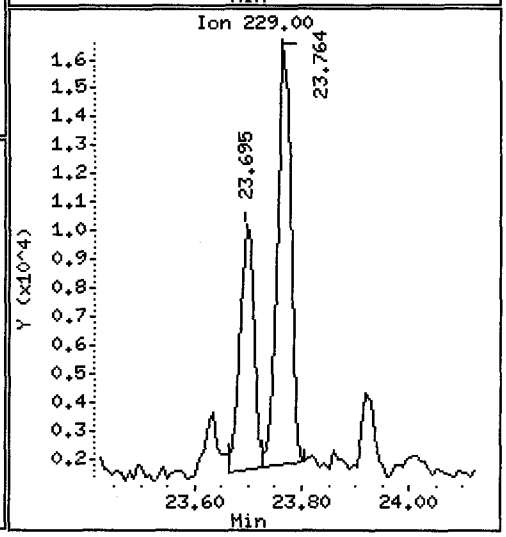



Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

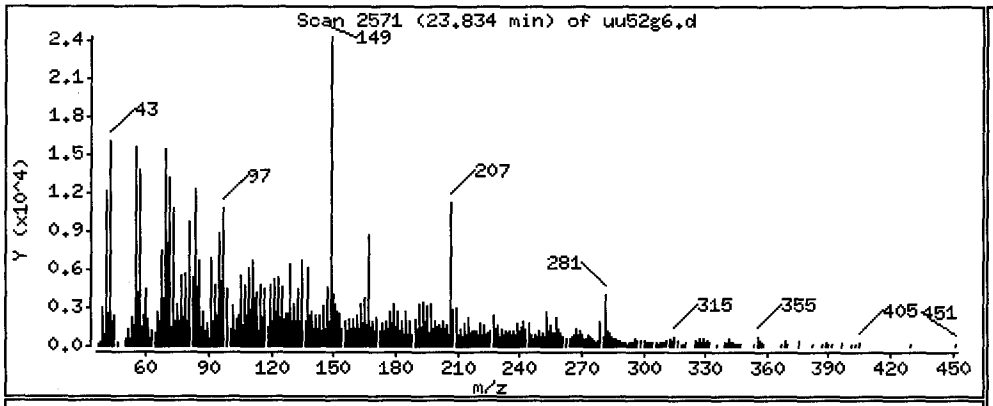
Operator: VTS/YZ

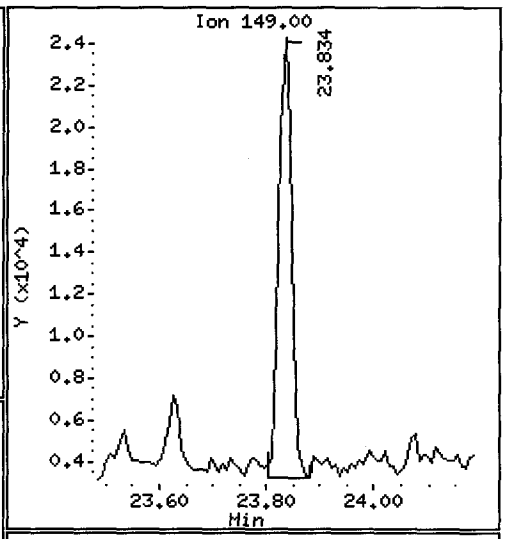
Column phase: ZB-5msi

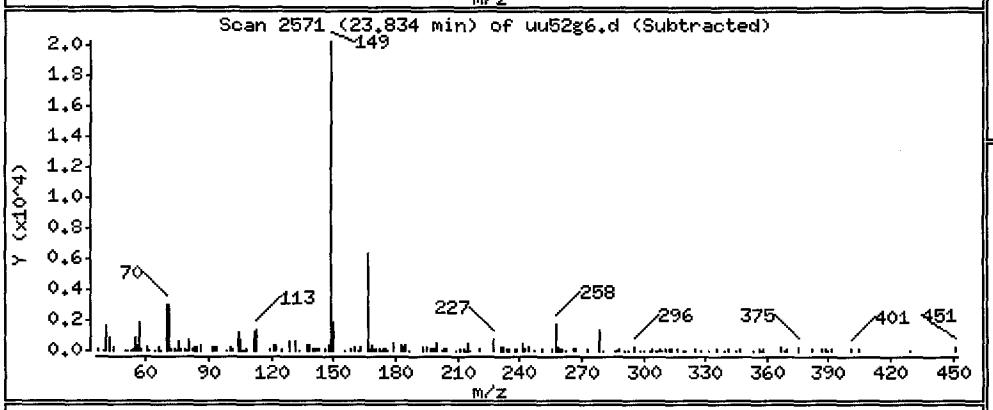
Column diameter: 0.25

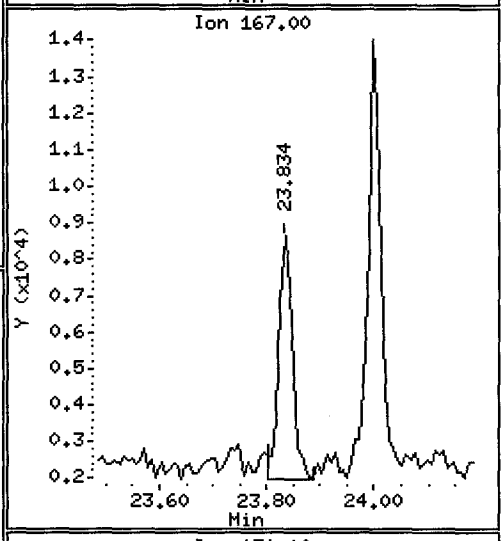
72 bis(2-Ethylhexyl)phthalate

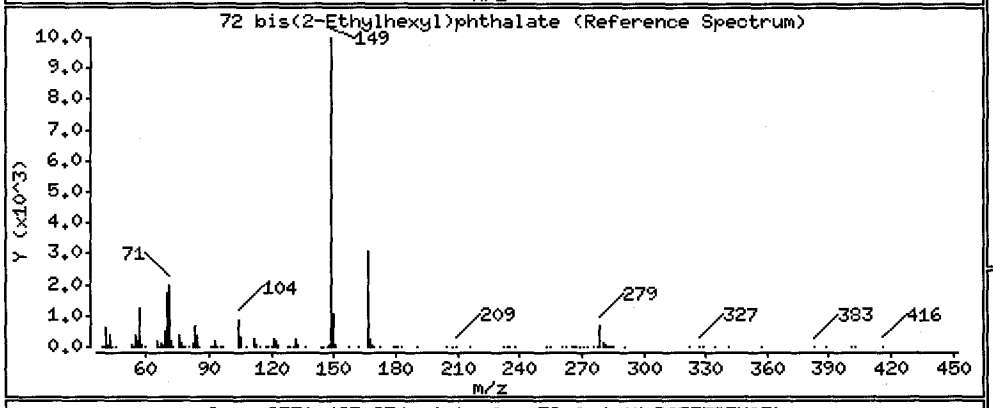
Concentration: 131.6 ug/kg

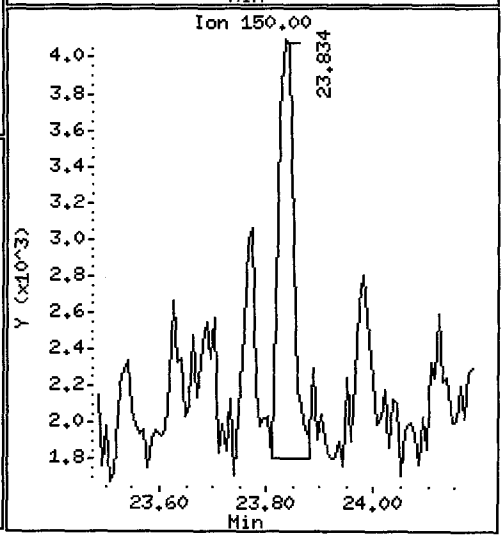


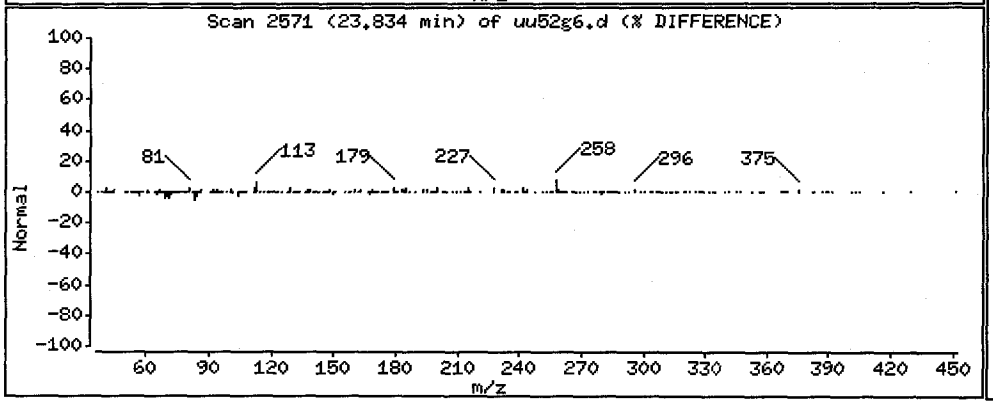



Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

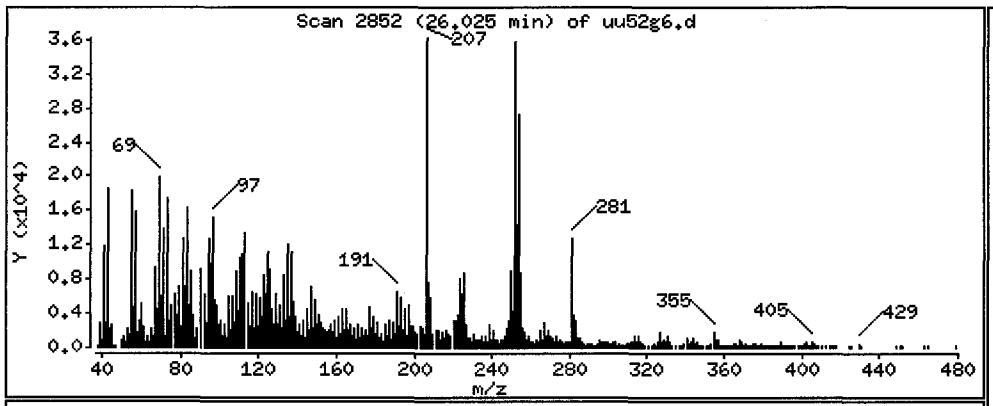
Operator: VTS/YZ

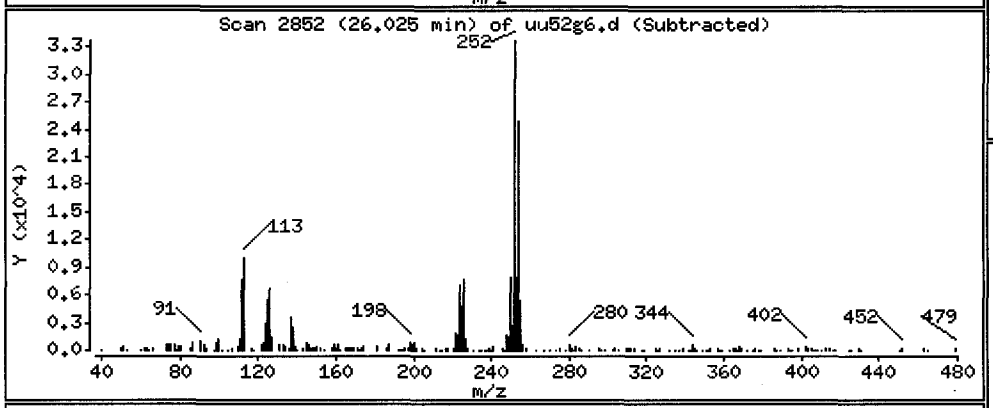
Column phase: ZB-5msi

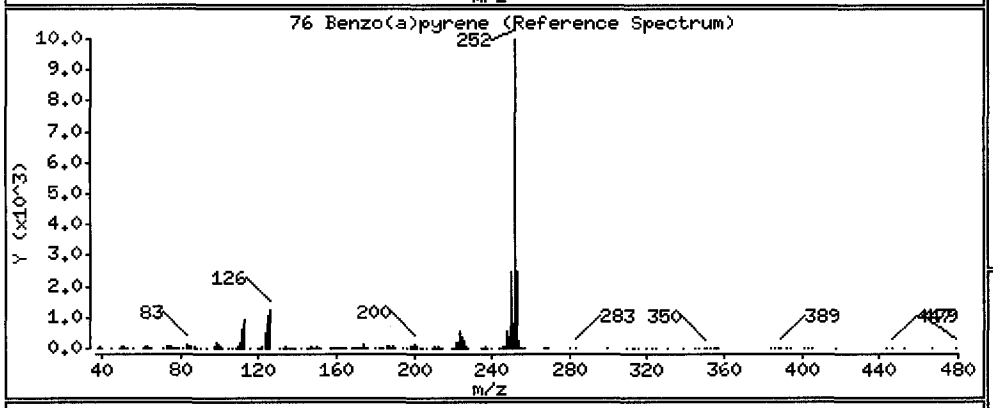
Column diameter: 0.25

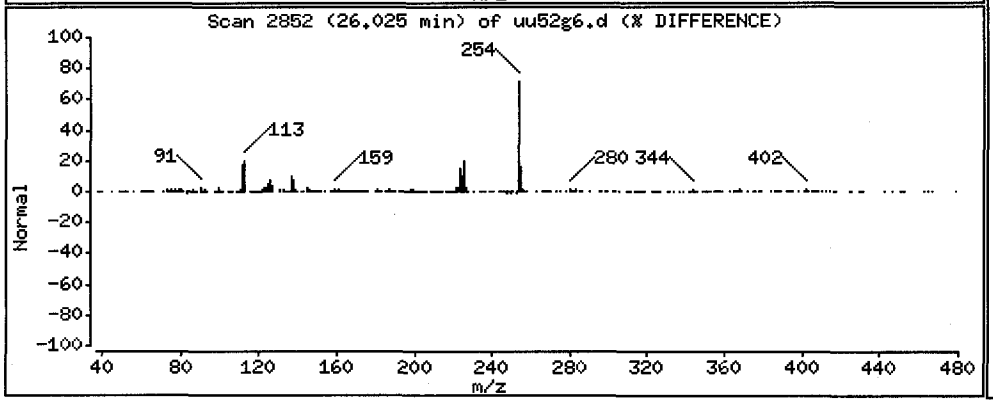
76 Benzo(a)pyrene

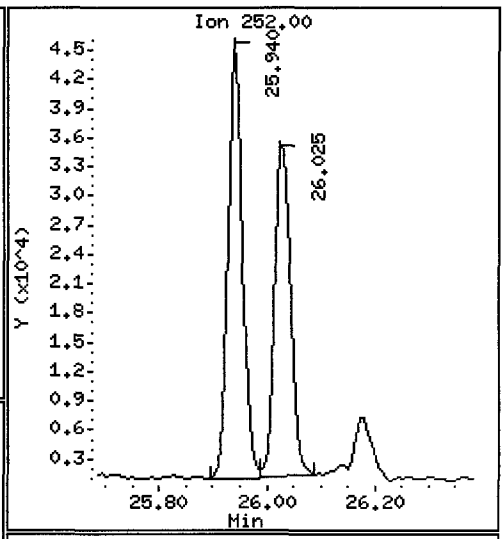
Concentration: 238.5 ug/kg

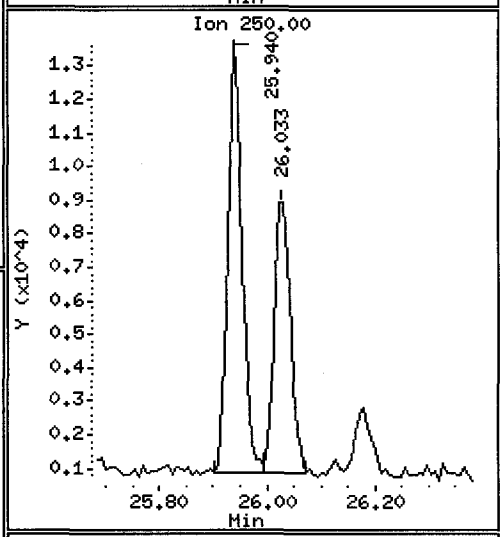


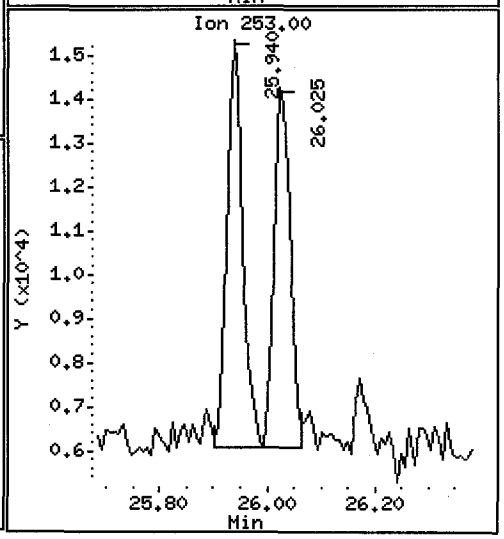



Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

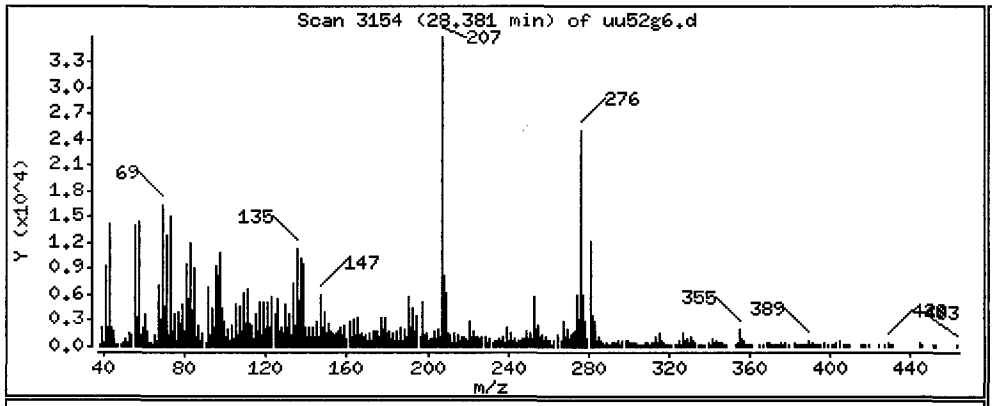
Client ID: MS006-SS-120515 Instrument: nt10.i

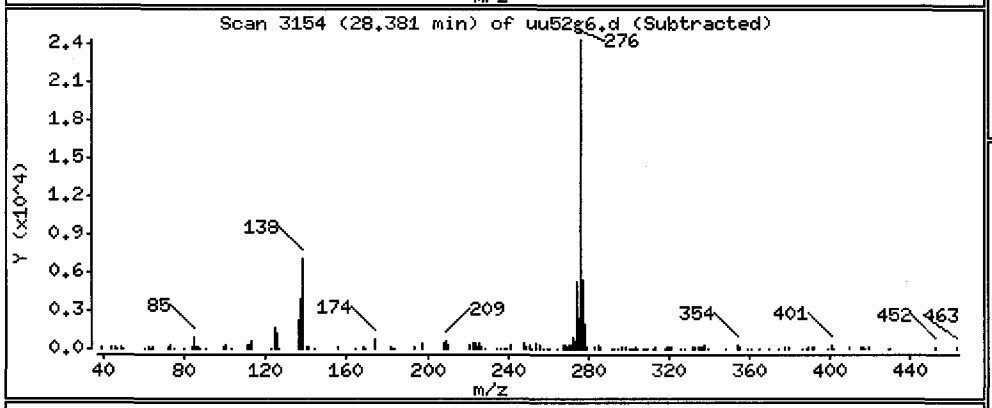
Sample Info: UU52G,6

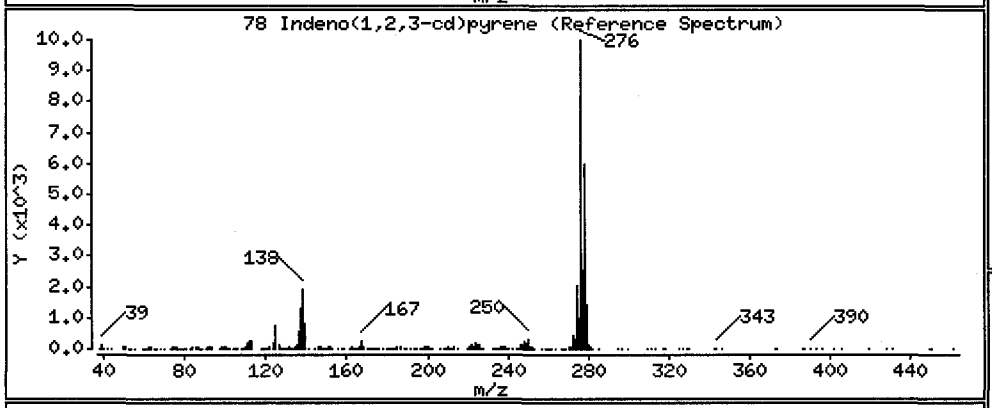
Volume Injected (uL): 1.0 Operator: VTS/YZ

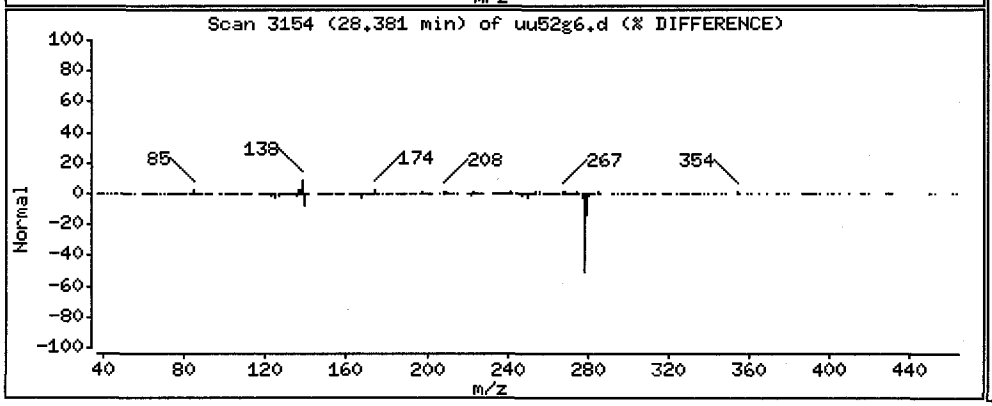
Column phase: ZB-5msi Column diameter: 0.25

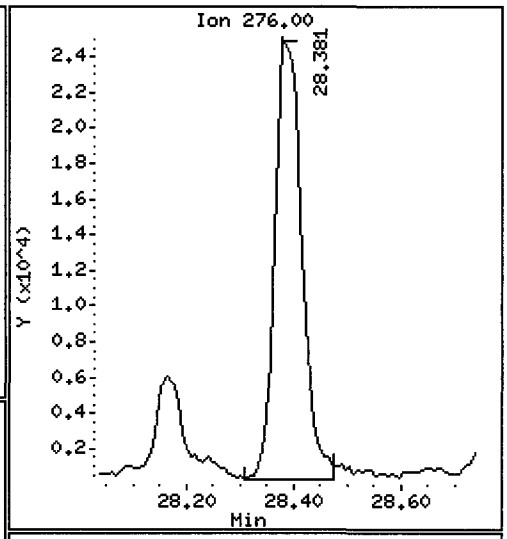
78 Indeno(1,2,3-cd)pyrene Concentration: 258.9 ug/kg

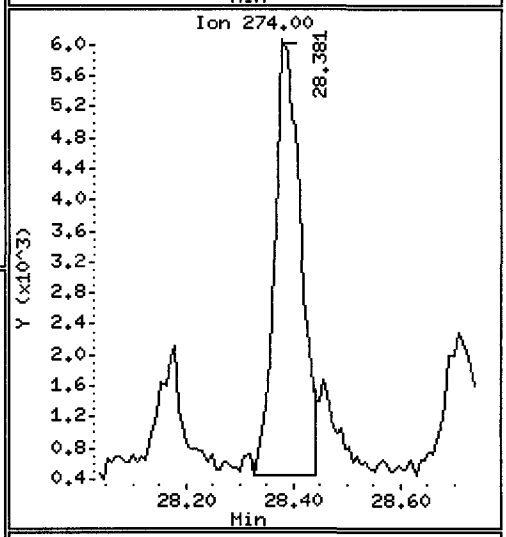


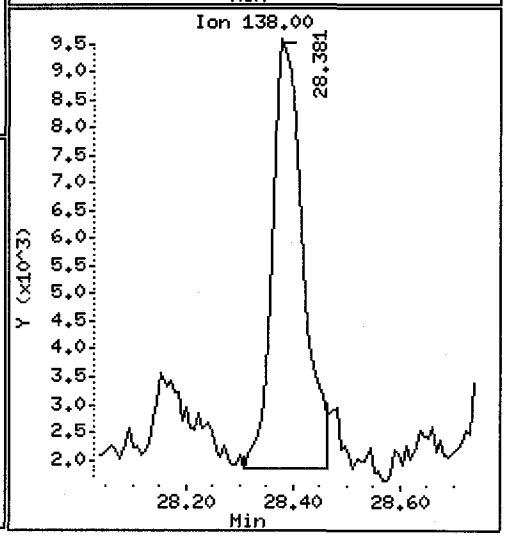



Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

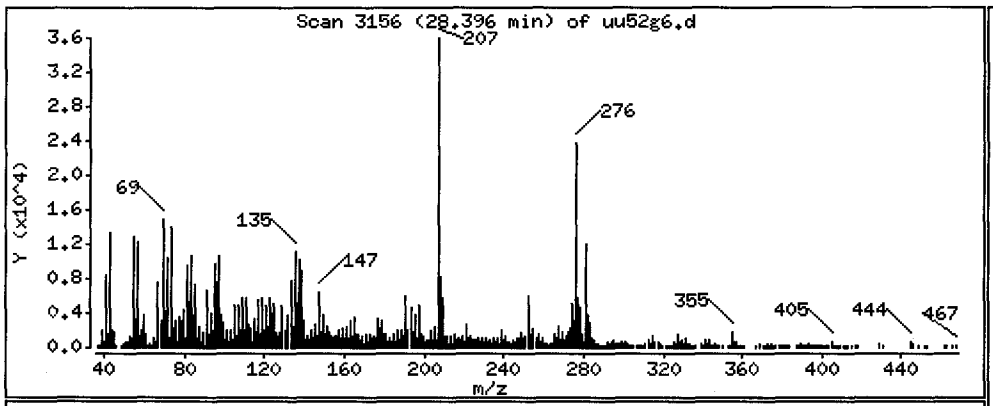
Operator: VTS/YZ

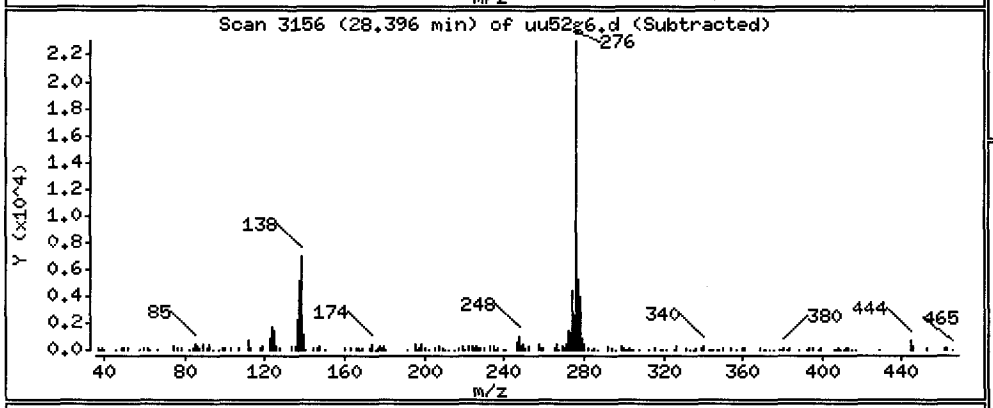
Column phase: ZB-5msi

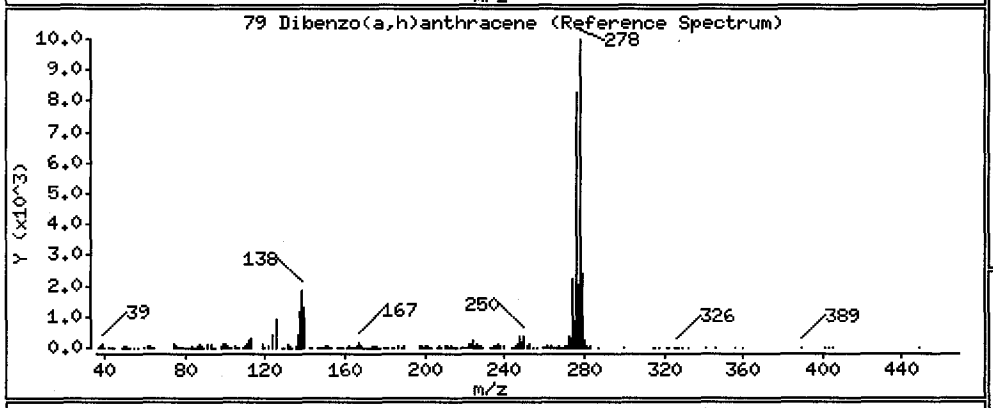
Column diameter: 0.25

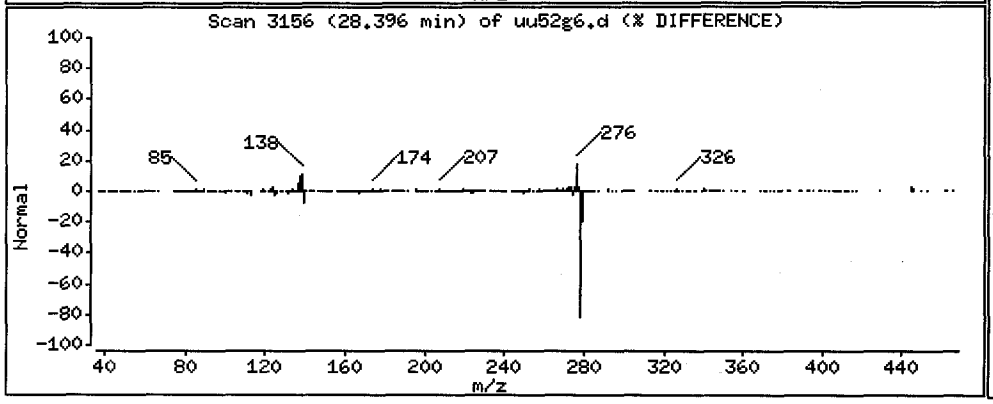
79 Dibenzo(a,h)anthracene

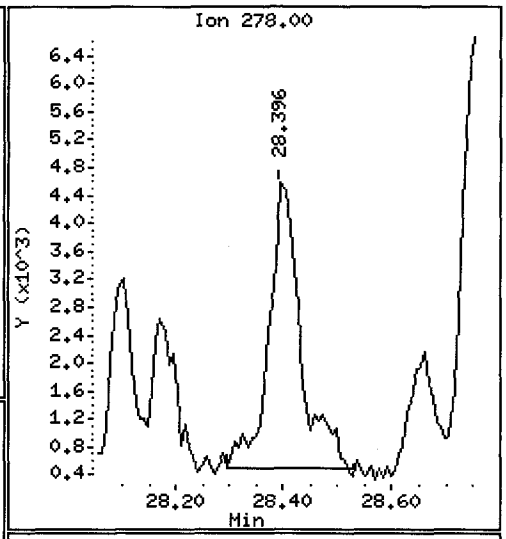
Concentration: 62.86 ug/kg

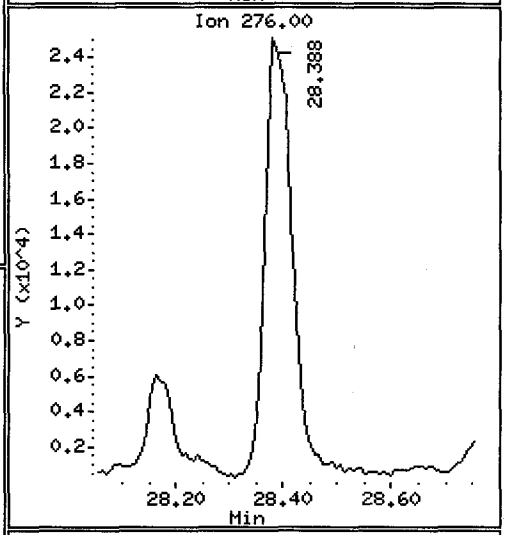


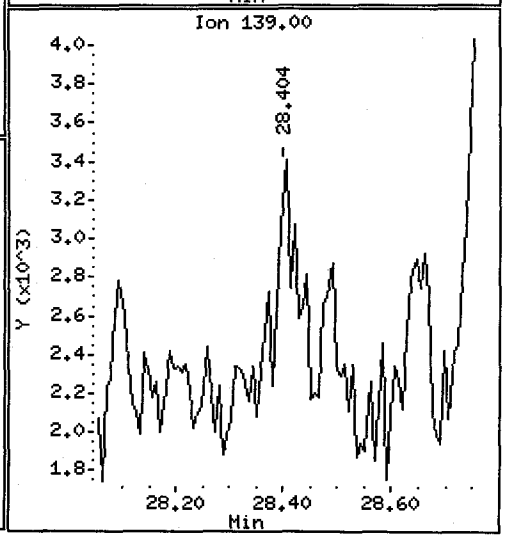



Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

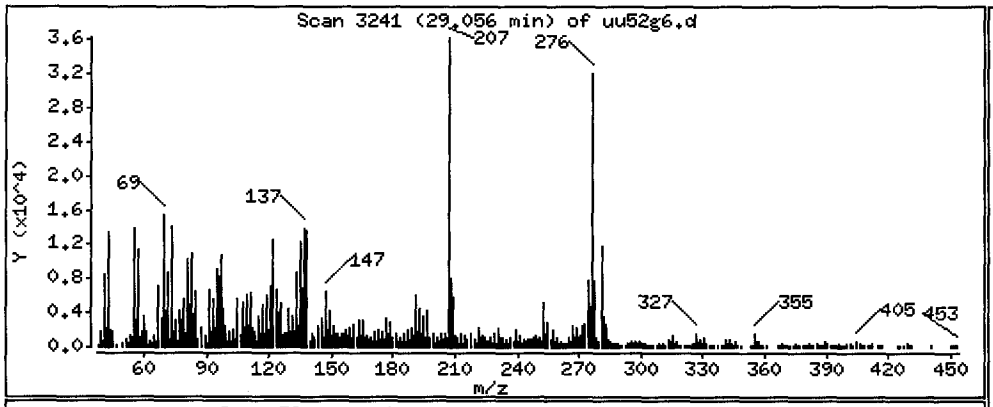
Client ID: MS006-SS-120515 Instrument: nt10.i

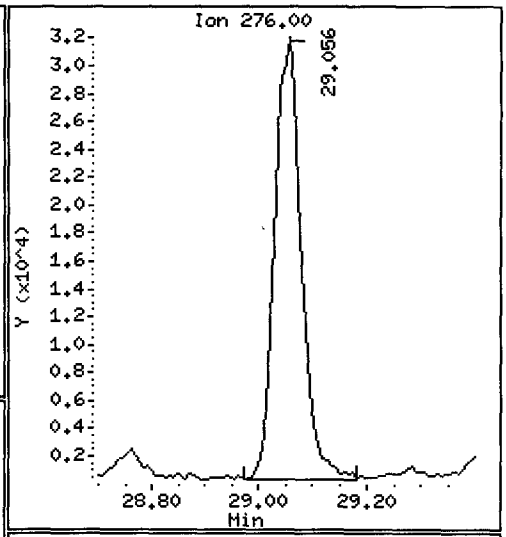
Sample Info: UU52G,6

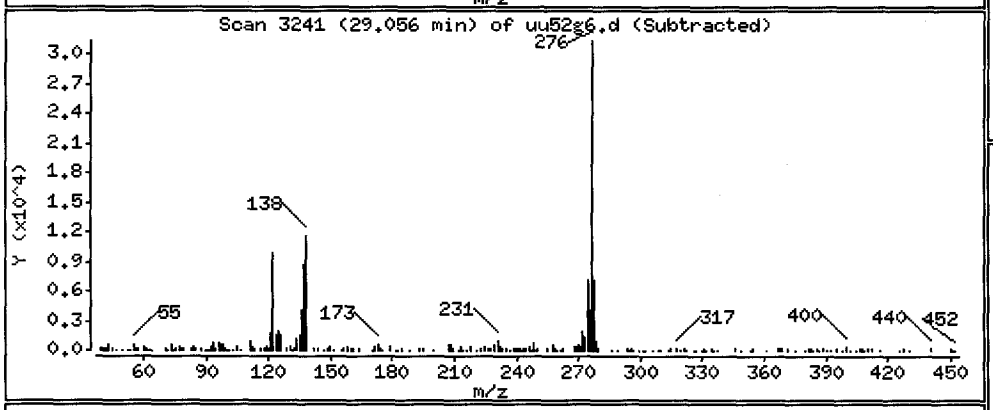
Volume Injected (uL): 1.0 Operator: VTS/YZ

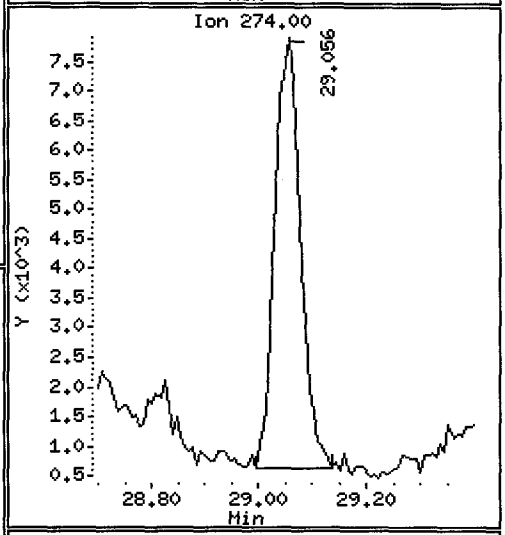
Column phase: ZB-5msi Column diameter: 0.25

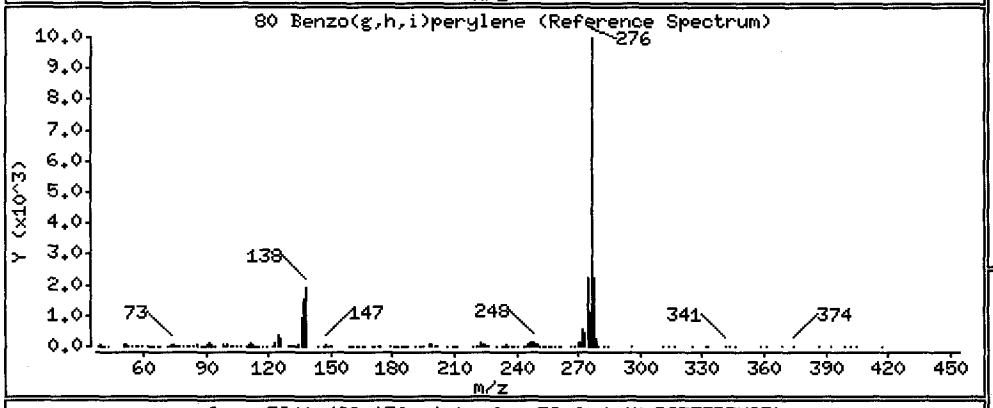
80 Benzo(g,h,i)perylene Concentration: 381.0 ug/kg

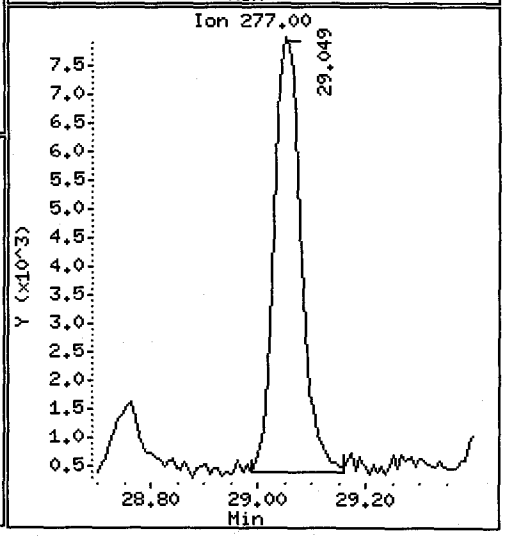


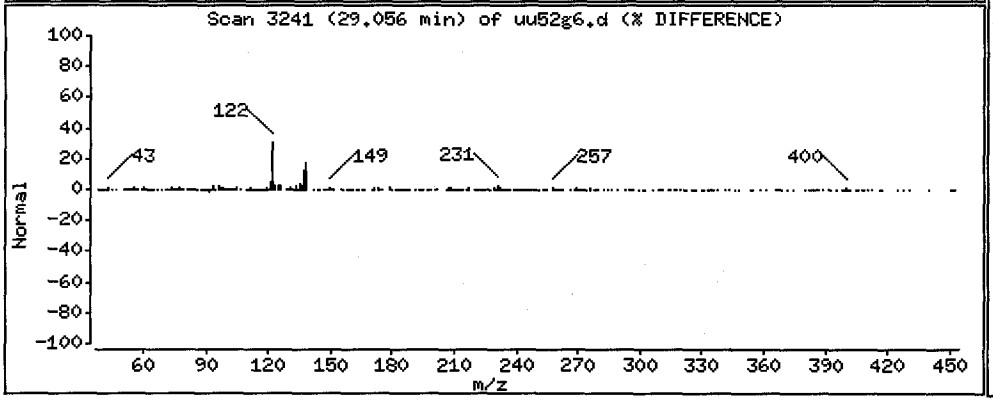



Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

Client ID: MS006-SS-120515

Instrument: nt10.i

Sample Info: UU52G,6

Volume Injected (uL): 1.0

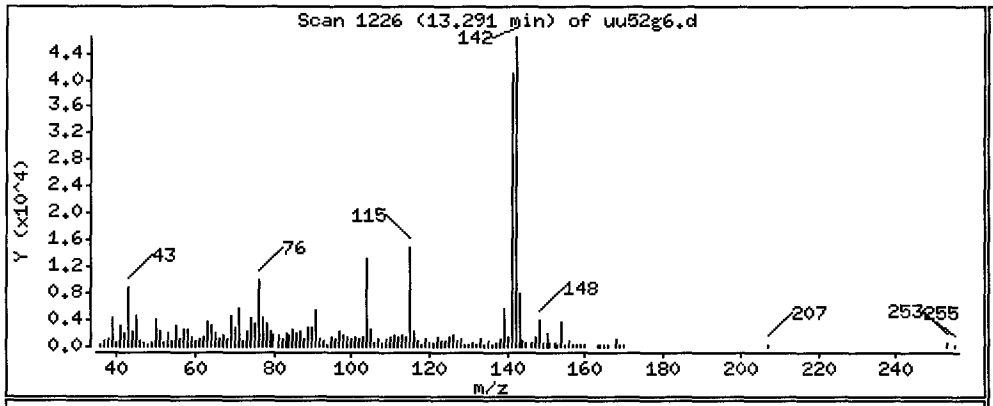
Operator: VTS/YZ

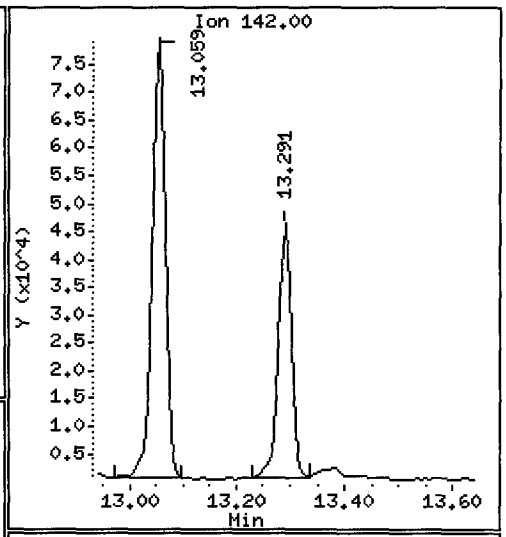
Column phase: ZB-5msi

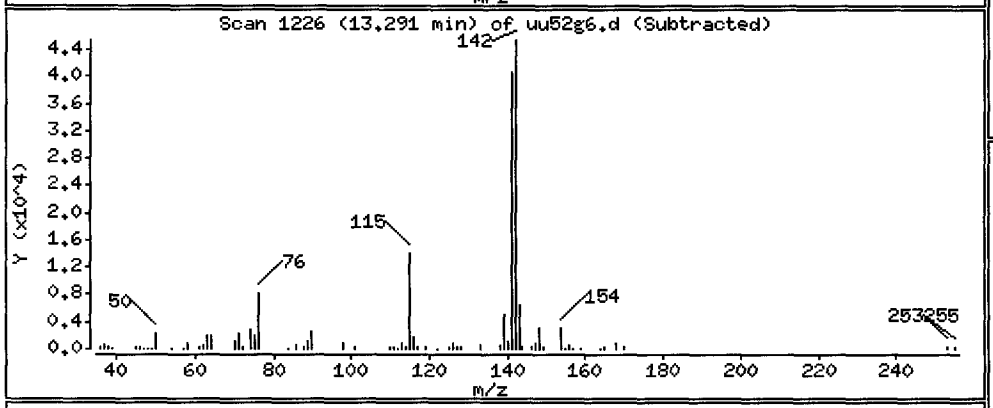
Column diameter: 0.25

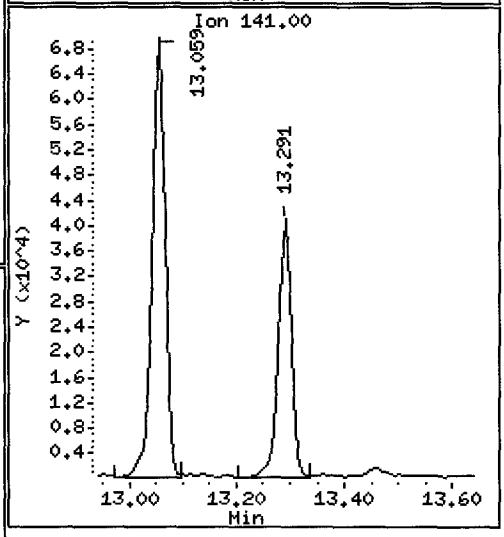
105 1-methylnaphthalene

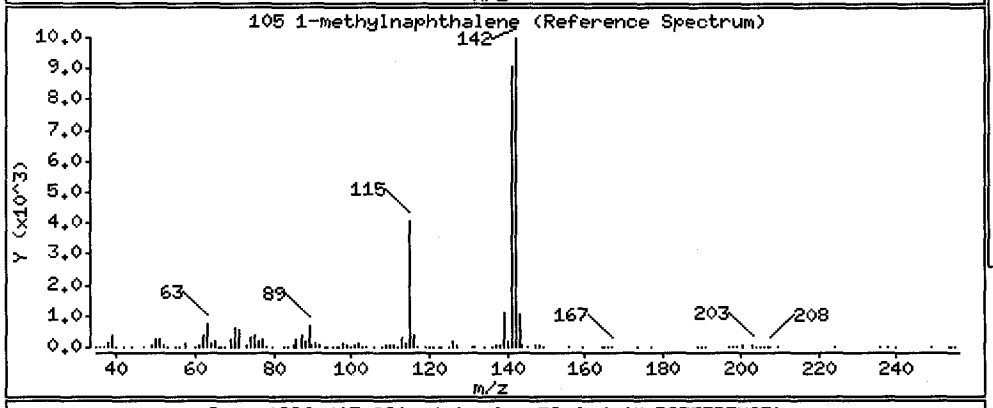
Concentration: 334.4 ug/kg

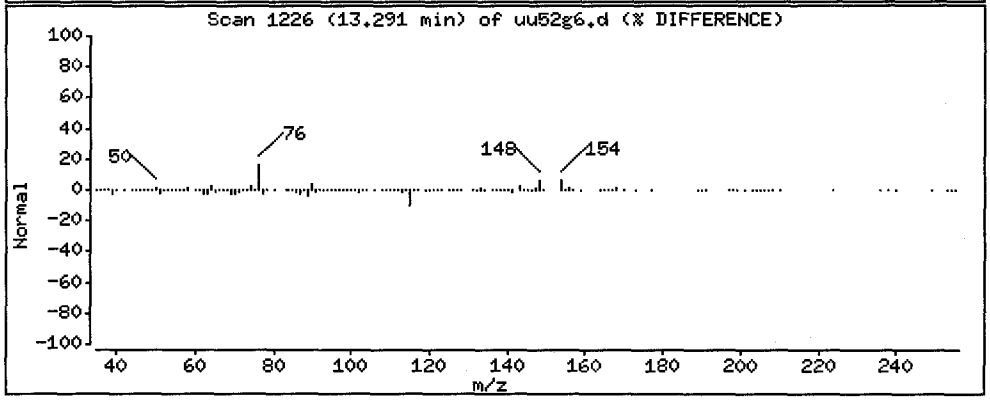


Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

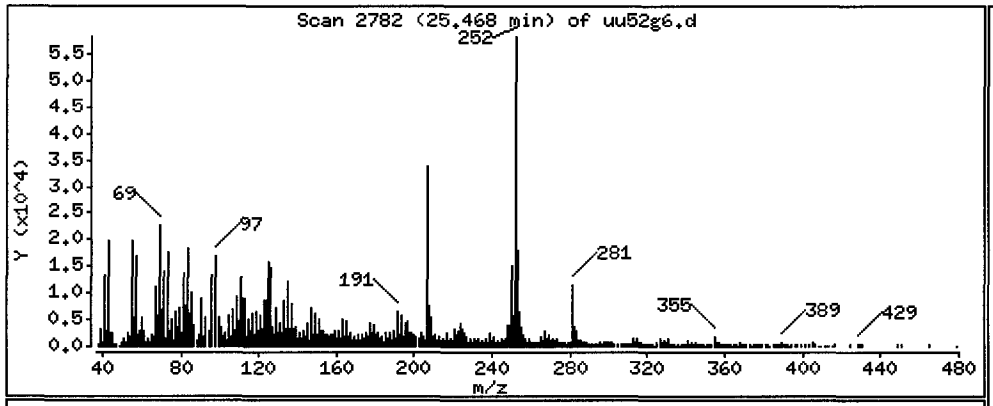
Client ID: MS006-SS-120515 Instrument: nt10.i

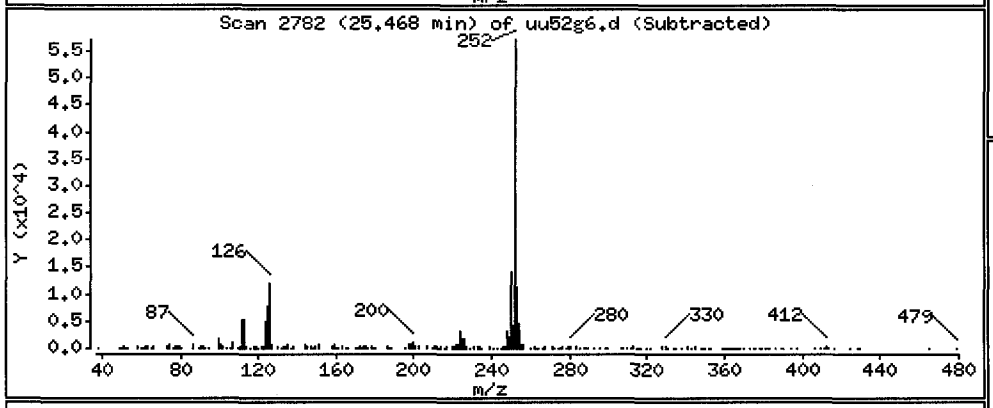
Sample Info: UU52G,6

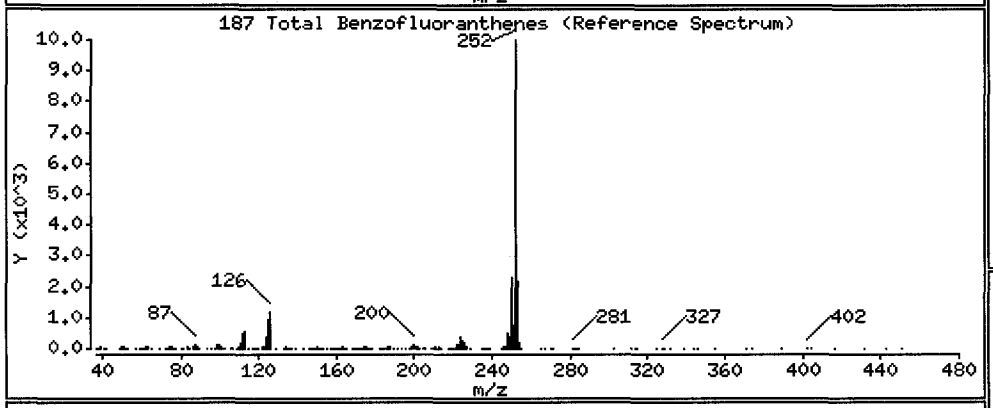
Volume Injected (uL): 1.0 Operator: VTS/YZ

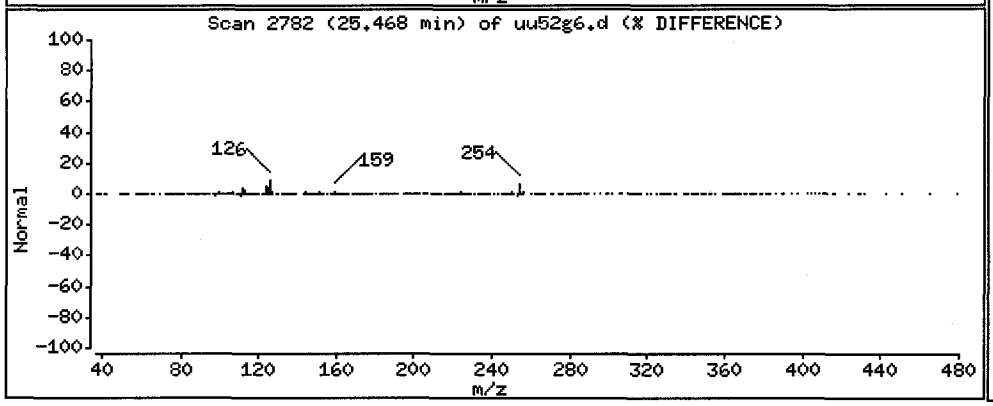
Column phase: ZB-5msi Column diameter: 0.25

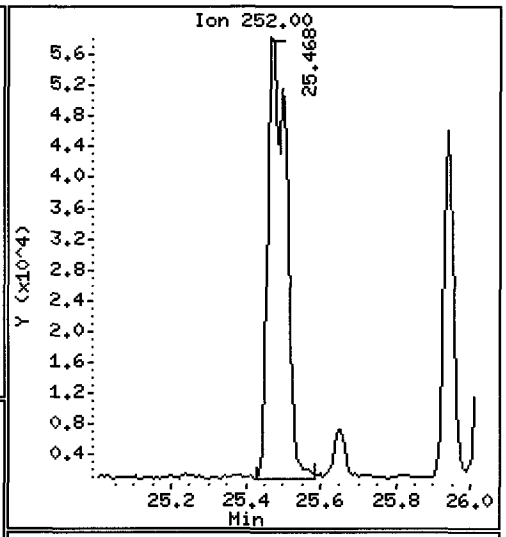
187 Total Benzofluoranthenes Concentration: 644.7 ug/kg

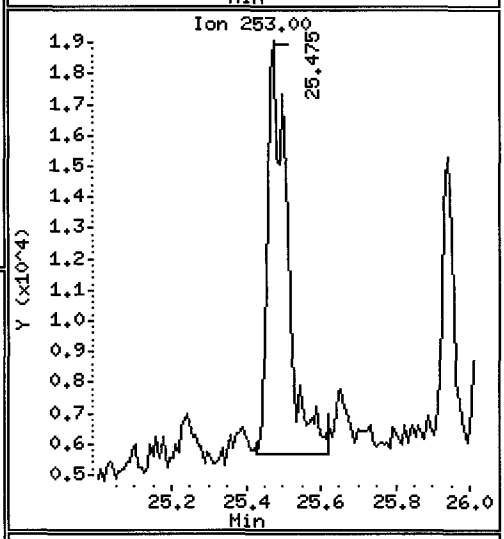


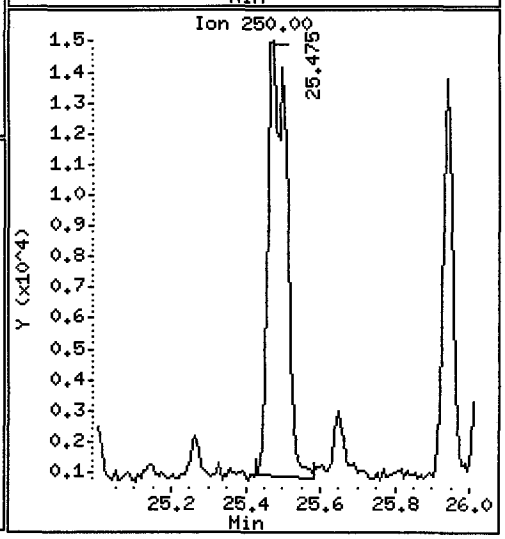



Data File: /chem1/nt10.i/20120530.b/uu52g6.d

Date : 30-MAY-2012 13:04

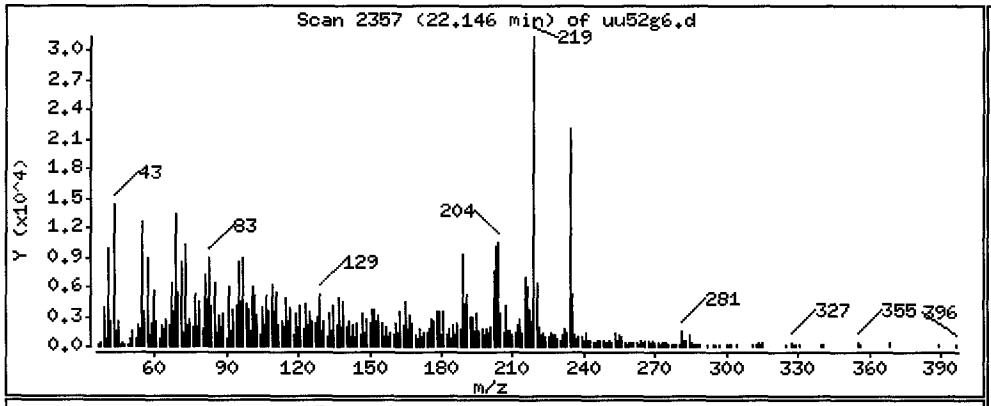
Client ID: MS006-SS-120515 Instrument: nt10.i

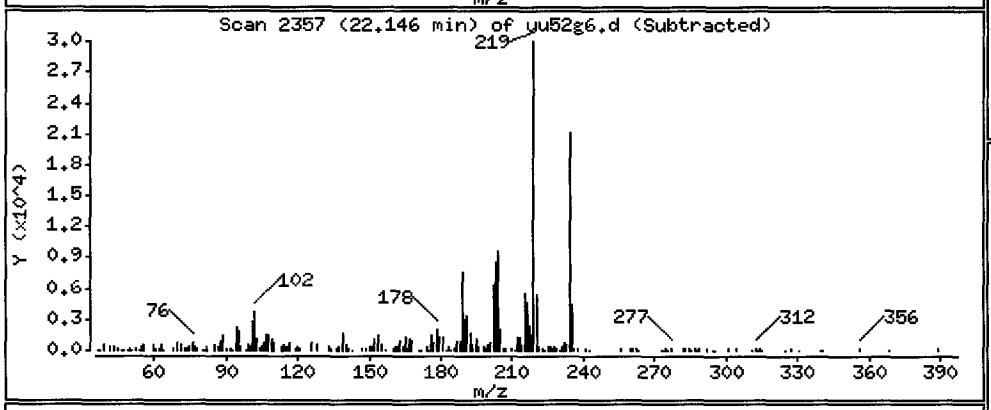
Sample Info: UU52G,6

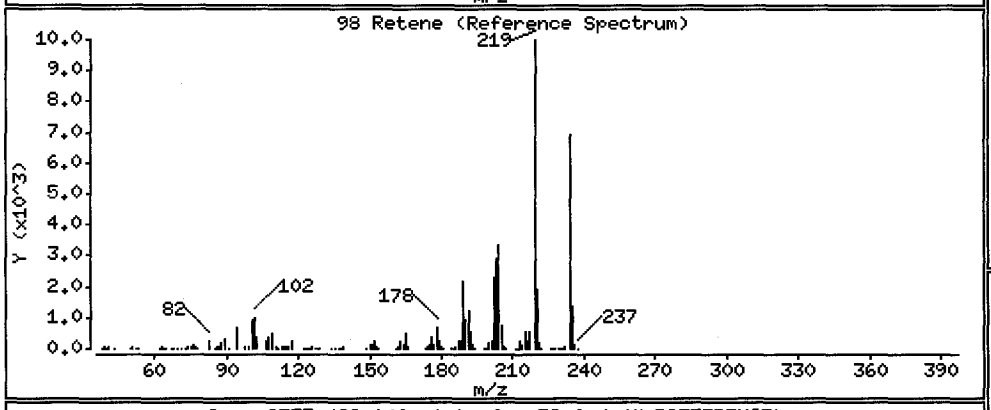
Volume Injected (uL): 1.0 Operator: VTS/YZ

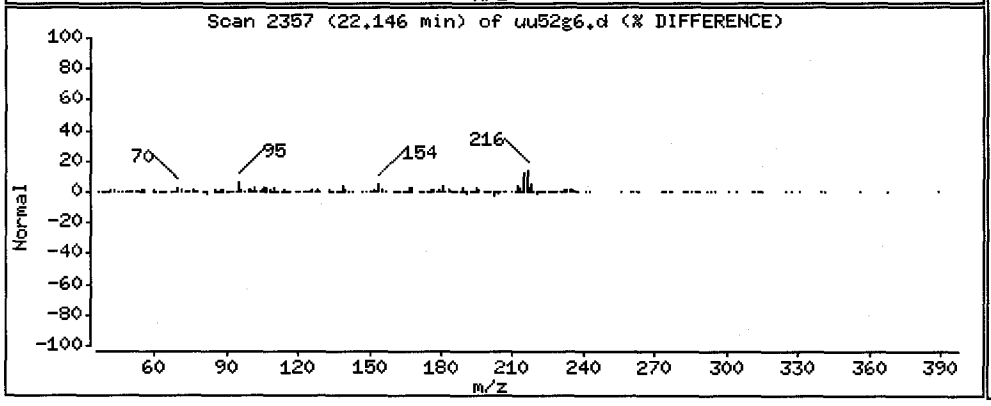
Column phase: ZB-5msi Column diameter: 0.25

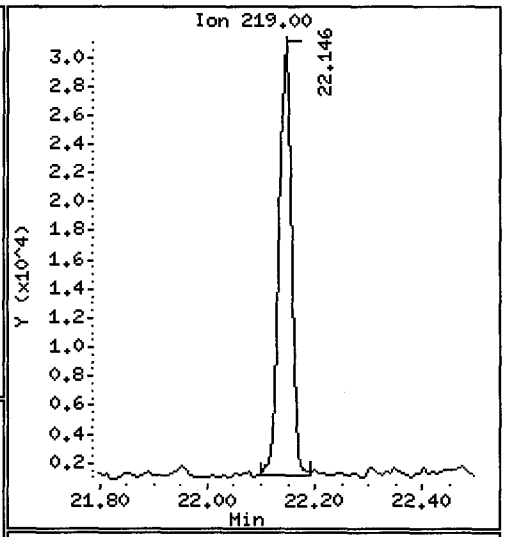
98 Retene Concentration: 266.5 ug/kg

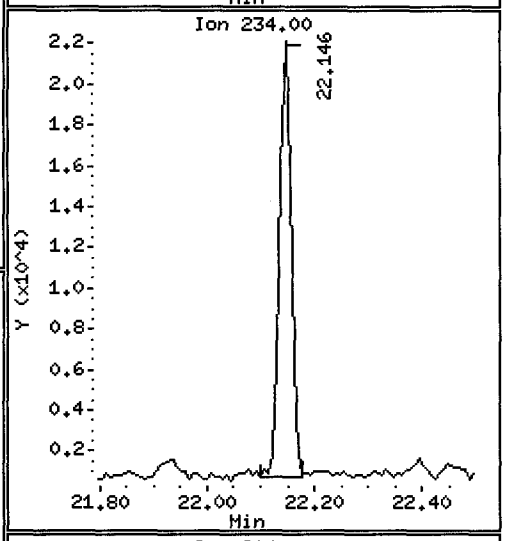


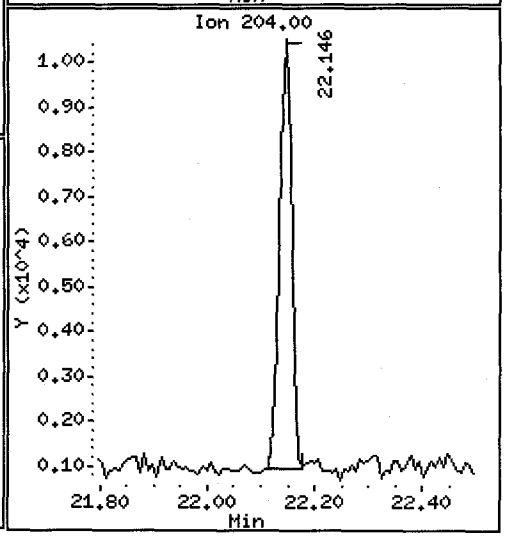



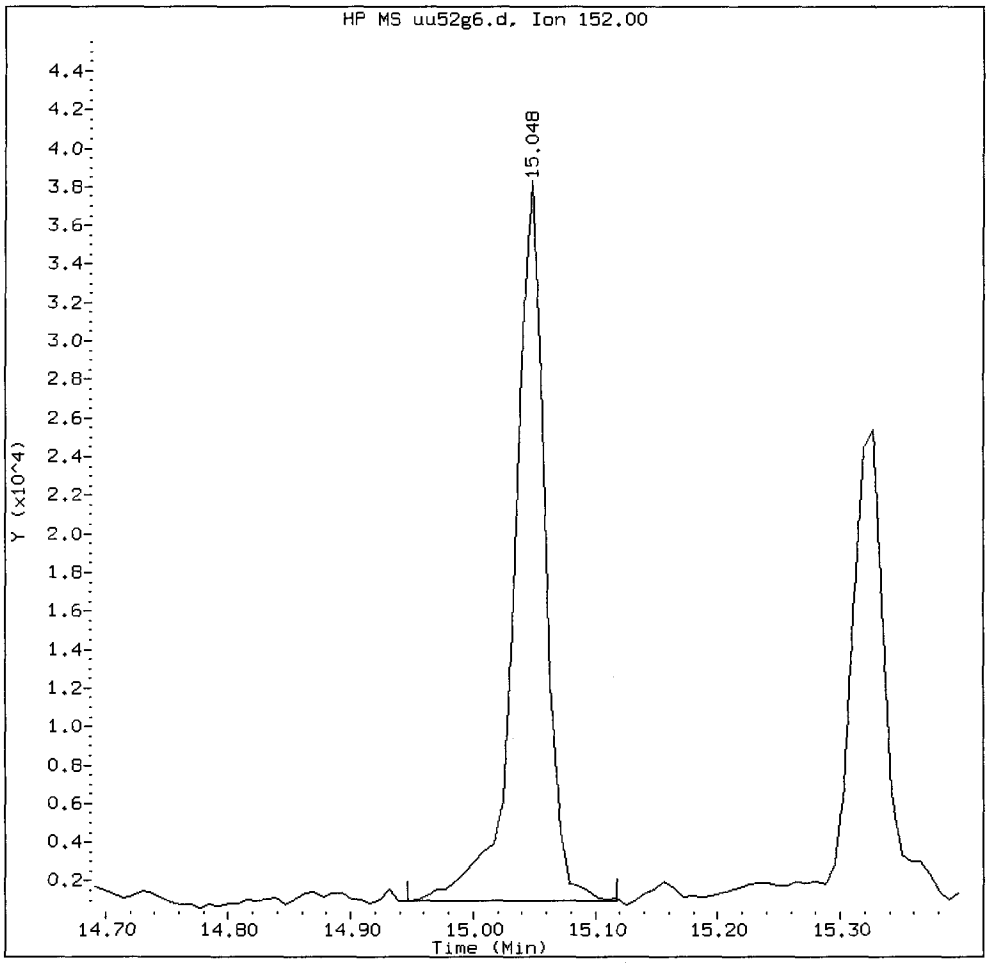



UU52G, /chem1/nt10.i/20120530.b/uu52g6.d

Acenaphthylene Amount: 0.36 Area: 68471




MANUAL INTEGRATION for Acenaphthylene

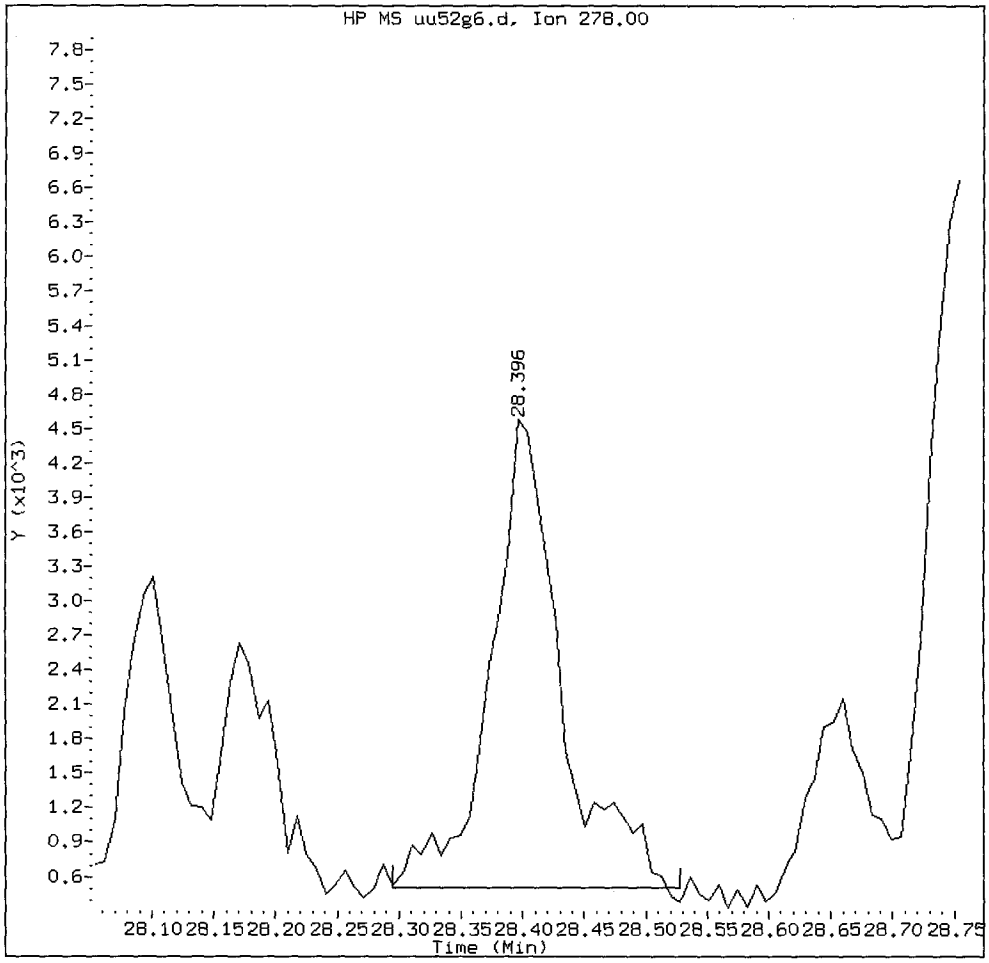
1. Baseline correction
2. Poor chromatography
3. Peak not found ✓
4. Totals calculation

5. Other _____

Analyst: YE Date: 5/30/12

UU52G, /chem1/nt10.i/20120530.b/uu52g6.d

Dibenzo(a,h)anthracene  Amount: 0.11  Area: 16389




MANUAL INTEGRATION for Dibenzo(a,h)anthracene

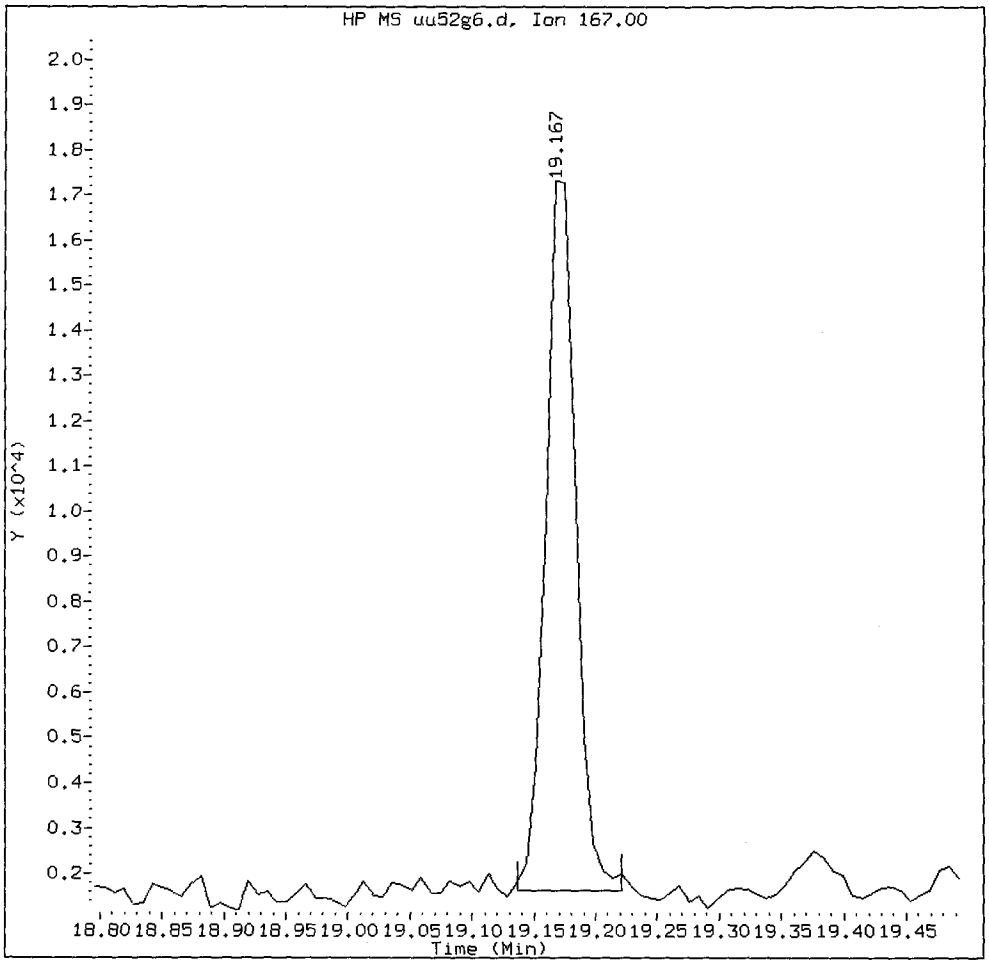
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation ✓

5. Other _____

Analyst: YZ  Date: 5/31/12

UU52G, /chem1/nt10.i/20120530.b/uu52g6.d

Carbazole Amount: 0.18 Area: 26899




MANUAL INTEGRATION for Carbazole

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

CO-ELUTION SUMMARY FOR FILE - uu52g6.d

Lab ID: UU52G, Method: ABN.m, Instrument: nt10.i, Date: 30-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Client SDG: 20120207
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: GPCVER
Level: LOW Operator: VTS/YZ
Data Type: MS DATA SampleType: LCS
SpikeList File: PSDDALCS.spk Quant Type: ISTD
Sublist File: PSDDAICAL.sub
Method File: /chem1/nt10.i/20120207.b/ABN.m
Misc Info:

| SPIKE | COMPOUND | CONC ADDED ug/Kg | CONC RECOVERED ug/Kg | % RECOVERED | LIMITS |
|---|---|---|---|---|---|
| 3 | Phenol | 2500 | 1760 | 70.42 | 30-160 |
| 4 | Bis(2-Chloroethyl) | 2500 | 1658 | 66.31 | 30-160 |
| 6 | 2-Chlorophenol | 2500 | 1677 | 67.07 | 30-160 |
| 7 | 1,3-Dichlorobenzen | 2500 | 1650 | 66.01 | 30-160 |
| 9 | 1,4-Dichlorobenzen | 2500 | 1662 | 66.50 | 30-160 |
| 11 | Benzyl alcohol | 2500 | 2561 | 102.45 | 30-160 |
| 12 | 1,2-Dichlorobenzen | 2500 | 1659 | 66.34 | 30-160 |
| 13 | 2-Methylphenol | 2500 | 1698 | 67.93 | 30-160 |
| 14 | 2,2'-oxybis(1-Chlo | 2500 | 1583 | 63.31 | 30-160 |
| 15 | 4-Methylphenol | 5000 | 3361 | 67.23 | 30-160 |
| 16 | N-Nitroso-di-n-pro | 2500 | 1753 | 70.12 | 30-160 |
| 17 | Hexachloroethane | 2500 | 1686 | 67.42 | 30-160 |
| 19 | Nitrobenzene | 2500 | 1709 | 68.35 | 30-160 |
| 20 | Isophorone | 2500 | 1780 | 71.19 | 30-160 |
| 21 | 2-Nitrophenol | 2500 | 1772 | 70.87 | 30-160 |
| 22 | 2,4-Dimethylphenol | 7500 | 4561 | 60.81 | 30-160 |
| 23 | Bis(2-Chloroethoxy | 2500 | 1726 | 69.02 | 30-160 |
| 24 | Benzoic acid | 13750 | 7435 | 54.07 | 30-160 |
| 25 | 2,4-Dichlorophenol | 7500 | 2956 | 39.41 | 30-160 |
| 26 | 1,2,4-Trichloroben | 2500 | 1644 | 65.74 | 30-160 |
| 28 | Naphthalene | 2500 | 1752 | 70.08 | 30-160 |
| 29 | 4-Chloroaniline | 7500 | 5380 | 71.74 | 30-160 |
| 30 | Hexachlorobutadien | 2500 | 1672 | 66.87 | 30-160 |
| 31 | 4-Chloro-3-methylp | 7500 | 5858 | 78.10 | 30-160 |
| 32 | 2-Methylnaphthalen | 2500 | 1786 | 71.42 | 30-160 |
| 33 | Hexachlorocyclopen | 7500 | 4180 | 55.73 | 30-160 |
| 34 | 2,4,6-Trichlorophe | 7500 | 5844 | 77.92 | 30-160 |
| 35 | 2,4,5-Trichlorophe | 7500 | 6120 | 81.60 | 30-160 |
| 37 | 2-Chloronaphthalen | 2500 | 1750 | 69.99 | 30-160 |
| 38 | 2-Nitroaniline | 7500 | 6320 | 84.27 | 30-160 |
| 39 | Dimethylphthalate | 2500 | 1718 | 68.74 | 30-160 |
| 40 | Acenaphthylene | 2500 | 1785 | 71.40 | 30-160 |
| 41 | 2,6-Dinitrotoluene | 7500 | 5738 | 76.51 | 30-160 |

| SPIKE | COMPOUND | CONC ADDED ug/Kg | CONC RECOVERED ug/Kg | % RECOVERED | LIMITS |
|---|---|---|---|---|---|
| 43 | 3-Nitroaniline | 7500 | 5227 | 69.69 | 30-160 |
| 44 | Acenaphthene | 2500 | 1833 | 73.32 | 30-160 |
| 45 | 2,4-Dinitrophenol | 13750 | 9210 | 66.98 | 30-160 |
| 46 | Dibenzofuran | 2500 | 1802 | 72.10 | 30-160 |
| 47 | 4-Nitrophenol | 7500 | 6838 | 91.17 | 30-160 |
| 48 | 2,4-Dinitrotoluene | 7500 | 6015 | 80.20 | 30-160 |
| 49 | Fluorene | 2500 | 1797 | 71.88 | 30-160 |
| 50 | Diethylphthalate | 2500 | 1964 | 78.55 | 30-160 |
| 51 | 4-Chlorophenyl-phe | 2500 | 1231 | 49.24 | 30-160 |
| 52 | 4-Nitroaniline | 7500 | 5862 | 78.16 | 30-160 |
| 53 | 4,6-Dinitro-2-meth | 13750 | 12160 | 88.40 | 30-160 |
| 54 | N-Nitrosodiphenyla | 2500 | 1797 | 71.87 | 30-160 |
| 56 | 4-Bromophenyl-phen | 2500 | 1946 | 77.84 | 30-160 |
| 57 | Hexachlorobenzene | 2500 | 1915 | 76.61 | 30-160 |
| 58 | Pentachlorophenol | 7500 | 4943 | 65.90 | 30-160 |
| 60 | Phenanthrene | 2500 | 1963 | 78.52 | 30-160 |
| 61 | Anthracene | 2500 | 2016 | 80.64 | 30-160 |
| 62 | Carbazole | 2500 | 2022 | 80.88 | 30-160 |
| 63 | Di-n-butylphthalat | 2500 | 2101 | 84.04 | 30-160 |
| 64 | Fluoranthene | 2500 | 2114 | 84.56 | 30-160 |
| 65 | Pyrene | 2500 | 2063 | 82.53 | 30-160 |
| 67 | Butylbenzylphthala | 2500 | 1816 | 72.65 | 30-160 |
| 68 | Benzo(a)anthracene | 2500 | 1886 | 75.43 | 30-160 |
| 70 | 3,3'-Dichlorobenzi | 7500 | 4203 | 56.04 | 30-160 |
| 71 | Chrysene | 2500 | 1948 | 77.94 | 30-160 |
| 72 | bis(2-Ethylhexyl)p | 2500 | 1687 | 67.50 | 30-160 |
| 73 | Di-n-octylphthalat | 2500 | 1654 | 66.14 | 30-160 |
| 74 | Benzo(b)fluoranthe | 2500 | 1879 | 75.17 | 30-160 |
| 75 | Benzo(k)fluoranthe | 2500 | 1886 | 75.43 | 30-160 |
| 76 | Benzo(a)pyrene | 2500 | 2012 | 80.48 | 30-160 |
| 78 | Indeno(1,2,3-cd)py | 2500 | 1851 | 74.03 | 30-160 |
| 79 | Dibenzo(a,h)anthra | 2500 | 1882 | 75.28 | 30-160 |
| 80 | Benzo(g,h,i)peryle | 2500 | 1877 | 75.07 | 30-160 |
| 91 | Aniline | 7500 | 2295 | 30.59 | 30-160 |
| 111 | Azobenzene (1,2-DP | 2500 | 1684 | 67.35 | 30-160 |
| 90 | N-Nitrosodimethyla | 7500 | 4811 | 64.15 | 30-160 |
| 105 | 1-methylnaphthalen | 2500 | 1751 | 70.06 | 30-160 |
| 103 | Pyridine | 5000 | 9787 | 195.74* | 30-160 |
| 187 | Total Benzofluoran | 5000 | 3748 | 74.97 | 30-160 |

| SURROGATE | COMPOUND | CONC ADDED ug/Kg | CONC RECOVERED ug/Kg | % RECOVERED | LIMITS |
|---|---|---|---|---|---|
| $ 1 | 2-Fluorophenol | 3750 | 2384 | 63.57 | 30-160 |

Results obtained with enhanced integrator!

Signal 2: FID1 A,

| Peak # | RetTime [min] | Type | Width [min] | Area counts*s | Height [counts] | Area % |
|---|---|---|---|---|---|---|
| 1 | 1.701 | BB | 0.0274 | 8386.57617 | 4793.82813 | 6.92801 |
| 2 | 1.822 | BB | 0.0269 | 8546.20215 | 5008.97949 | 7.05987 |
| 3 | 2.142 | BB | 0.0276 | 8302.71094 | 4713.16016 | 6.85873 |
| 4 | 2.697 | BV | 0.0228 | 7718.45801 | 5054.82422 | 6.37609 |
| 5 | 2.724 | VV | 0.0254 | 9934.63184 | 5985.40039 | 8.20683 |
| 6 | 2.749 | VB | 0.0271 | 1.05984e4 | 5872.40576 | 8.75516 |
| 7 | 3.467 | BB | 0.0305 | 9532.32715 | 4951.70068 | 7.87449 |
| 8 | 3.587 | BB | 0.0326 | 9510.16797 | 4707.68457 | 7.85619 |
| 9 | 4.388 | BB | 0.0418 | 1.94536e4 | 6525.24414 | 16.07032 |
| 10 | 5.024 | BB | 0.0446 | 1.45443e4 | 5363.76367 | 12.01483 |
| 11 | 5.178 | PB | 0.0369 | 5178.09131 | 2165.51538 | 4.27753 |
| 12 | 5.792 | PV | 0.0493 | 6230.93164 | 1641.23413 | 5.14727 |
| 13 | 5.868 | VB | 0.0419 | 3116.71411 | 1073.94446 | 2.57467 |
| Totals : | | | | 1.21053e5 | 5.78577e4 | |

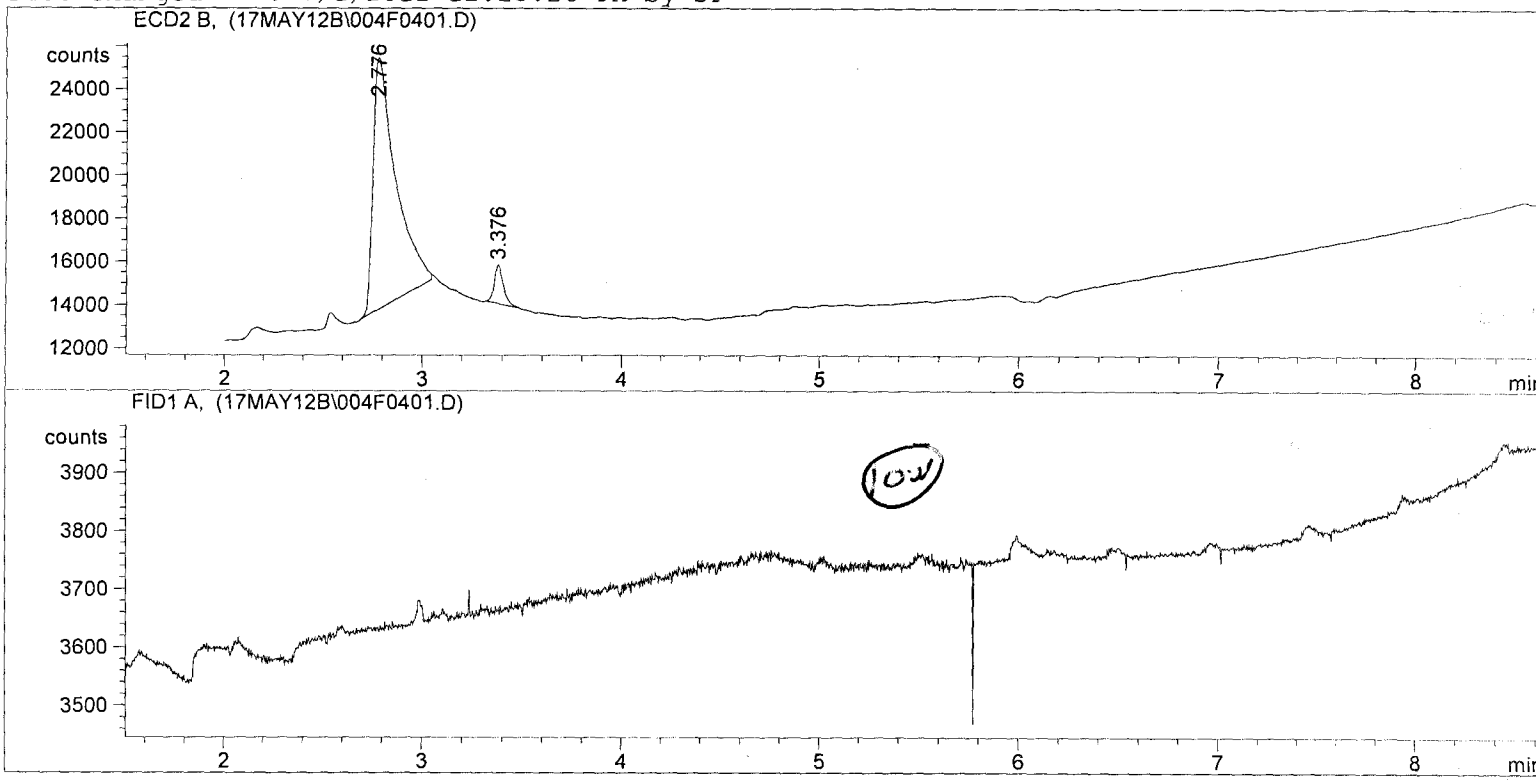
Results obtained with enhanced integrator!

*** End of Report ***



UU52:01082

```
Injection Date  : 5/17/2012 4:45:36 PM          Seq. Line :   4
Sample Name     : UU52 A                        Location : Vial 4
Acq. Operator   : WW                               Inj :   1
                                                Inj Volume : 1 µl
Sequence File   : C:\HPCHEM\1\SEQUENCE\17MAY12B.S
Method          : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed    : 7/1/2011 12:25:26 PM by SP
```




## Area Percent Report

```
Sorted By             :      Signal
Multiplier            :      1.0000
Dilution              :      1.0000

Signal 1: ECD2 B,

Peak RetTime Type  Width     Area      Height     Area
  #   [min]        [min]  counts*s   [counts]      %
----|-------|----|-------|----------|----------|--------|
   1   2.776 PB    0.1081 9.32030e4  1.16761e4  94.18513
   2   3.376 BB    0.0477 5754.23291 1780.95996  5.81487

Totals :                  9.89572e4  1.34570e4

 Results obtained with enhanced integrator!

Signal 2: FID1 A,
```

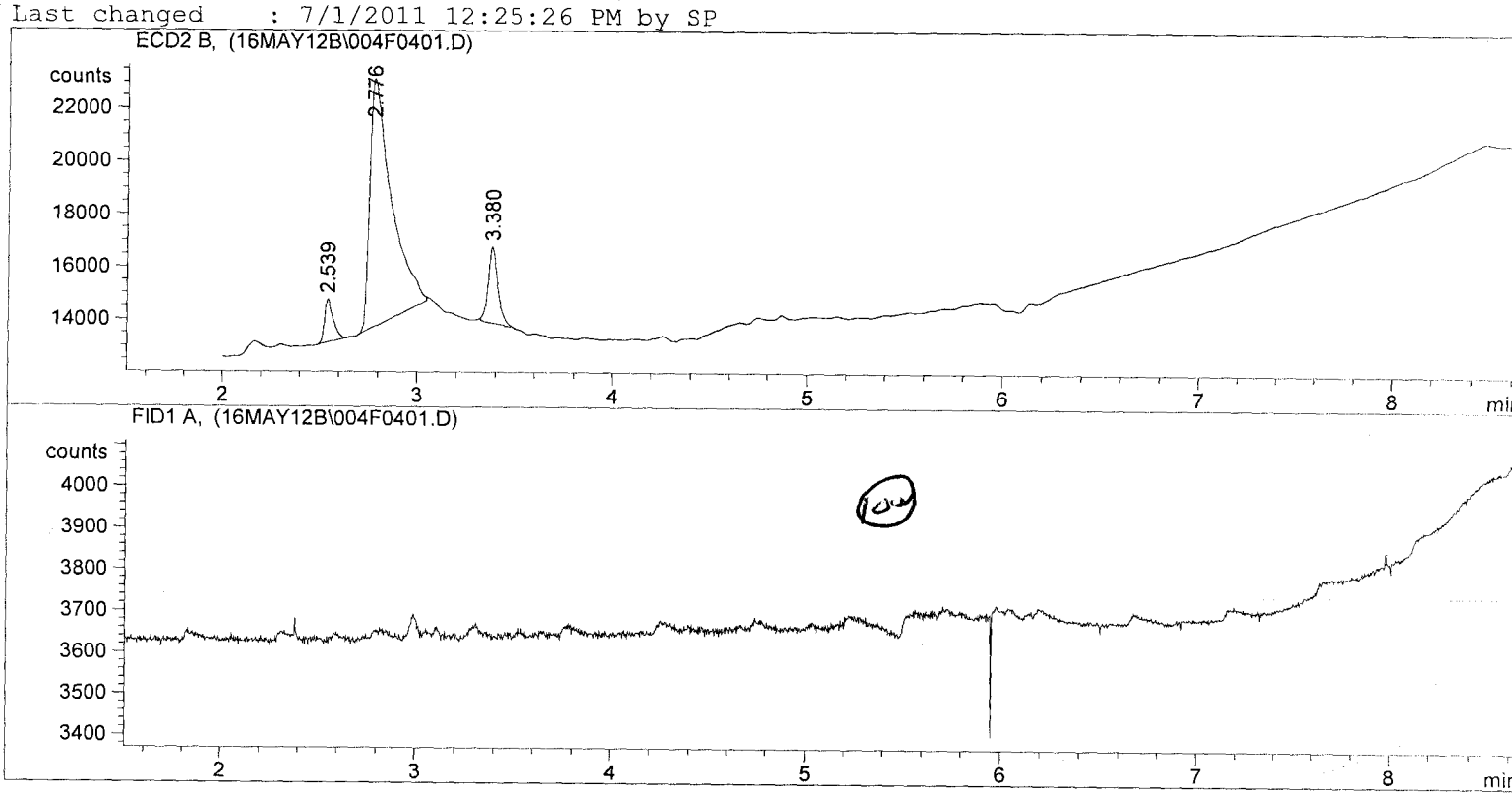
*** End of Report ***



UU52:01083

Injection Date : 5/16/2012 8:08:34 PM Seq. Line : 4
Sample Name : UU52 B Location : Vial 4
Acq. Operator : AC Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\16MAY12B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/1/2011 12:25:26 PM by SP




## Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: ECD2 B,

| Peak # | RetTime [min] | Type | Width [min] | Area counts*s | Height [counts] | Area % |
|---|---|---|---|---|---|---|
| 1 | 2.539 | PB | 0.0455 | 5064.98047 | 1620.05688 | 5.74942 |
| 2 | 2.776 | PB | 0.1058 | 7.31606e4 | 9404.25293 | 83.04697 |
| 3 | 3.380 | BB | 0.0507 | 9869.87793 | 2897.52539 | 11.20361 |
| Totals : | | | | 8.80955e4 | 1.39218e4 | |

Results obtained with enhanced integrator!

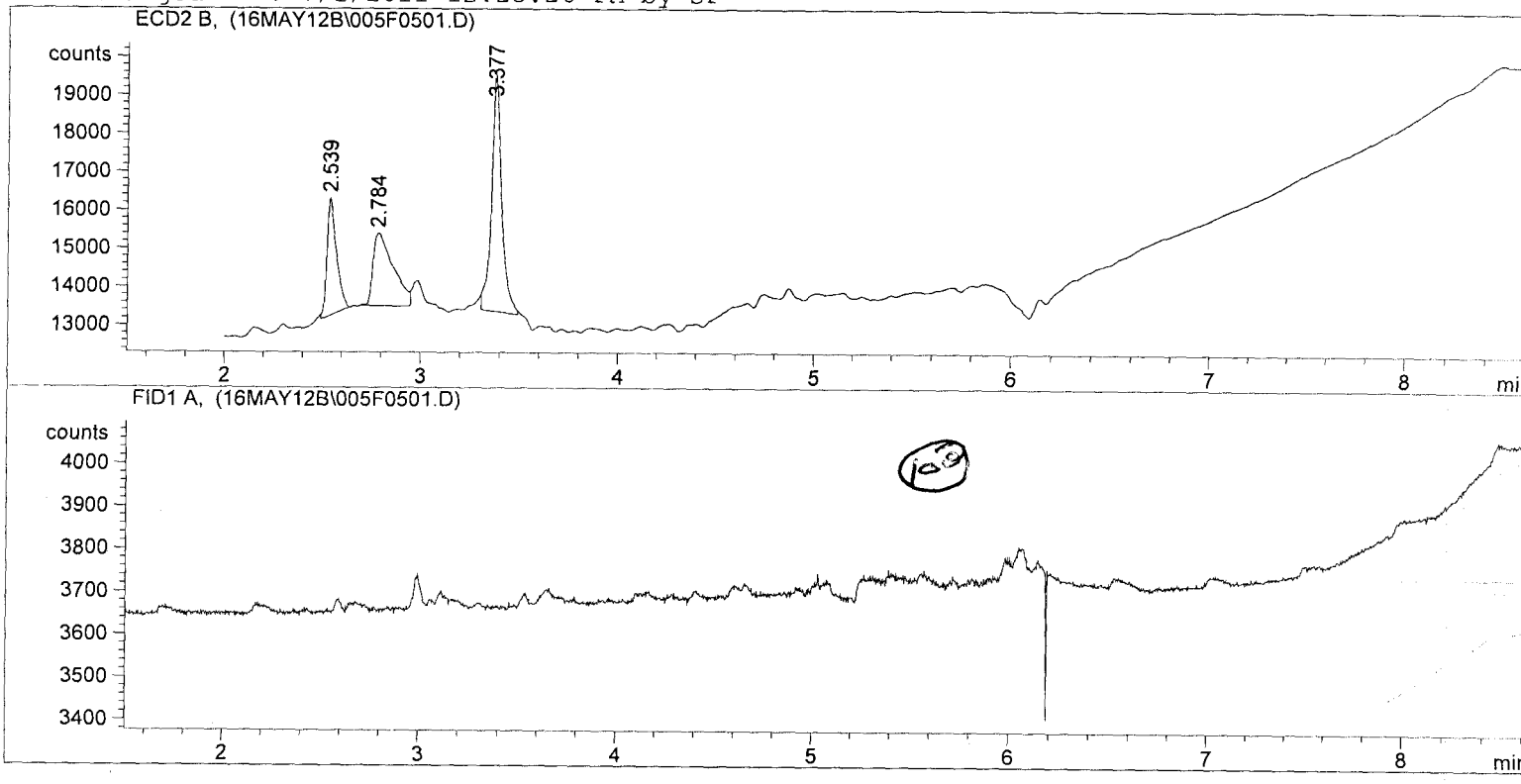
Signal 2: FID1 A,

*** End of Report ***


UU52 : 010854

Injection Date : 5/16/2012 8:21:48 PM Seq. Line : 5
Sample Name : UU52 C Location : Vial 5
Acq. Operator : AC Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\16MAY12B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/1/2011 12:25:26 PM by SP




## Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: ECD2 B,

| Peak # | RetTime [min] | Type | Width [min] | Area counts*s | Height [counts] | Area % |
|---|---|---|---|---|---|---|
| 1 | 2.539 | BB | 0.0481 | 1.02791e4 | 3067.37427 | 22.10699 |
| 2 | 2.784 | BB | 0.1018 | 1.38508e4 | 1906.08594 | 29.78858 |
| 3 | 3.377 | BB | 0.0523 | 2.23672e4 | 6170.35449 | 48.10443 |
| Totals : | | | | 4.64971e4 | 1.11438e4 | |

Results obtained with enhanced integrator!

Signal 2: FID1 A,

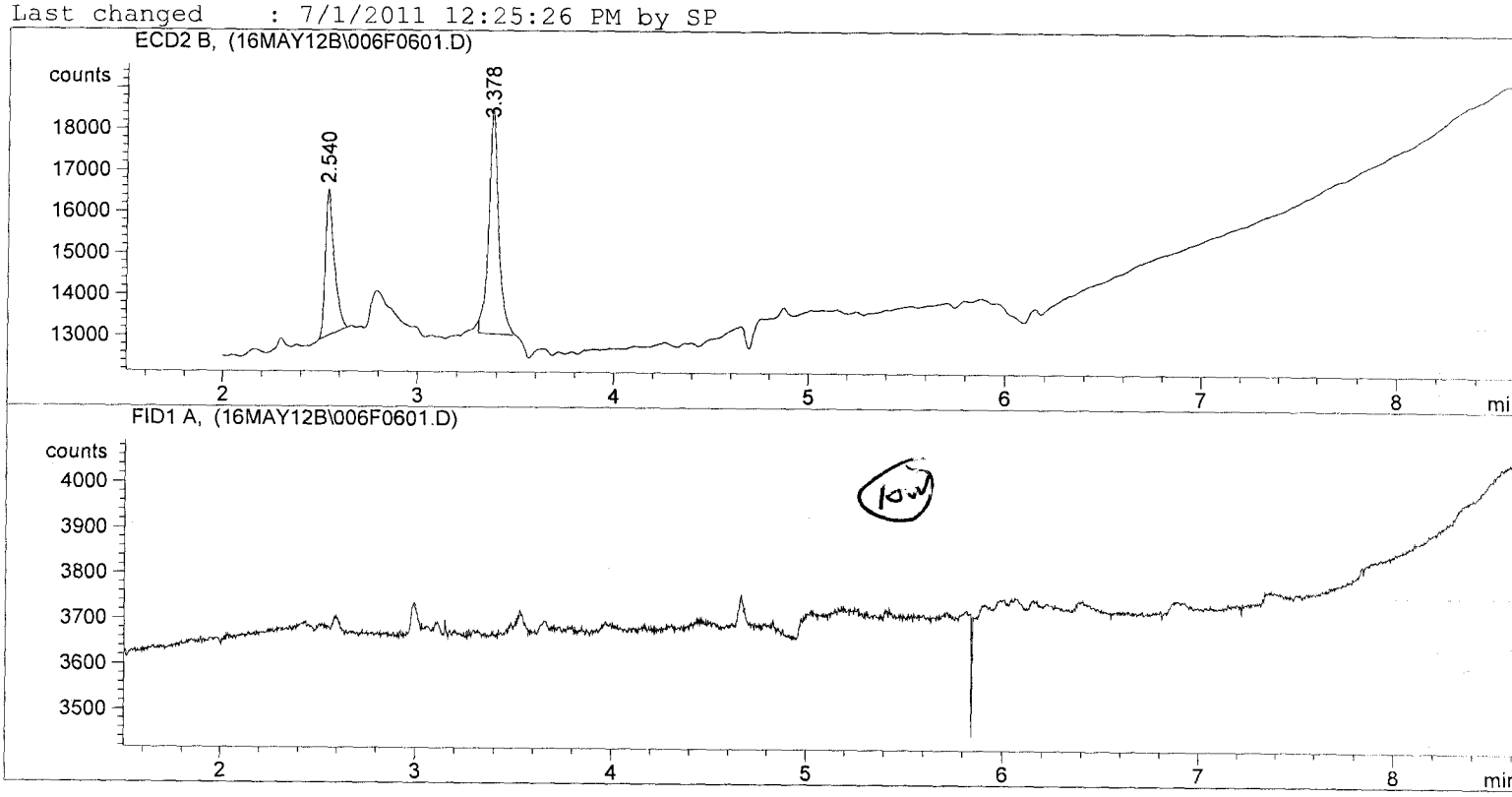
*** End of Report ***


UU52:01085

Injection Date : 5/16/2012 8:35:01 PM
Sample Name : UU52 D
Acq. Operator : AC

Seq. Line : 6
Location : Vial 6
Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\16MAY12B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/1/2011 12:25:26 PM by SP




## Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: ECD2 B,

| Peak # | RetTime [min] | Type | Width [min] | Area counts*s | Height [counts] | Area % |
|---|---|---|---|---|---|---|
| 1 | 2.540 | BB | 0.0450 | 1.12396e4 | 3540.40503 | 36.87132 |
| 2 | 3.378 | BB | 0.0522 | 1.92437e4 | 5444.90137 | 63.12868 |
| Totals : | | | | 3.04833e4 | 8985.30640 | |

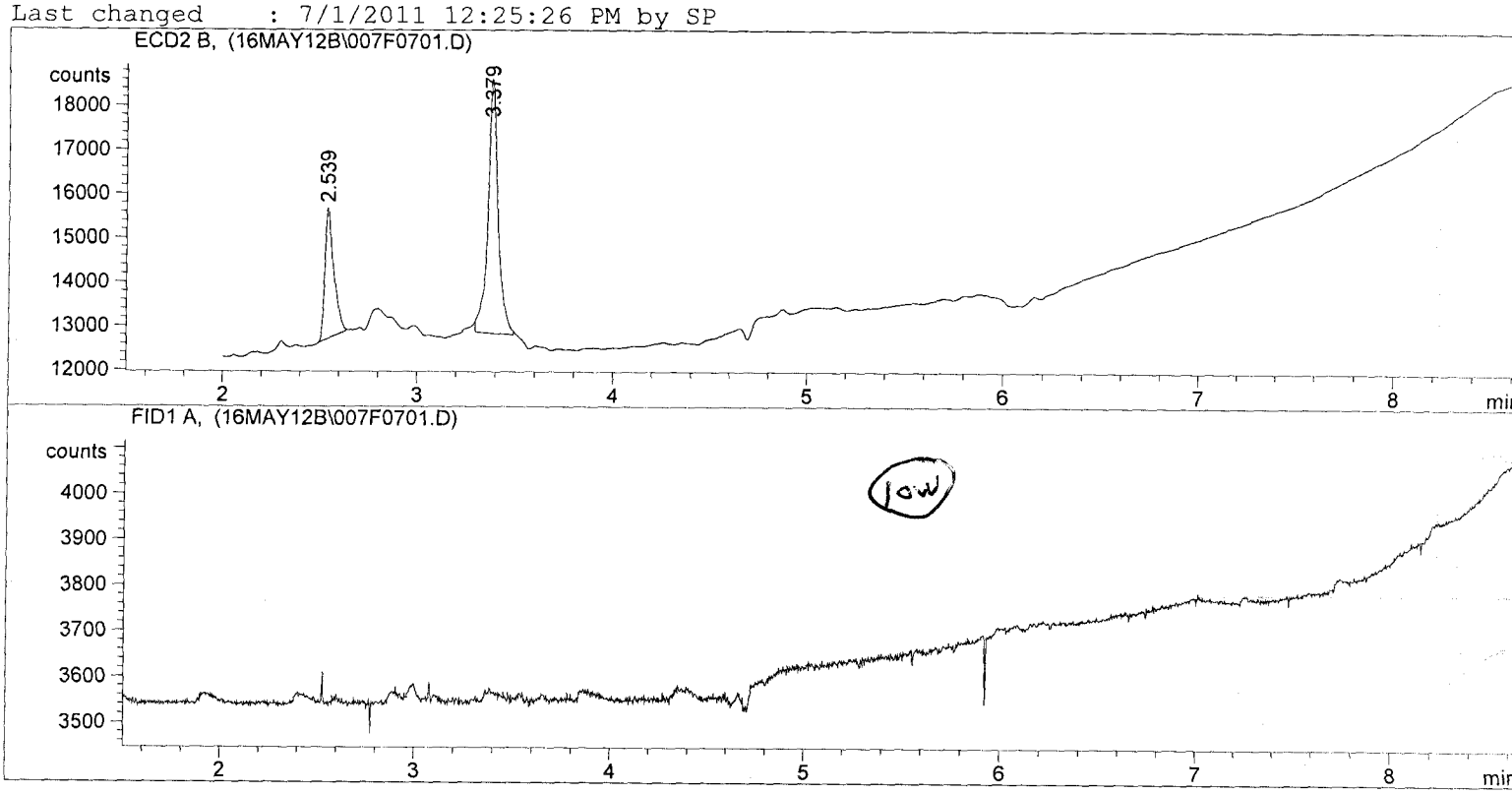
Results obtained with enhanced integrator!

Signal 2: FID1 A,

*** End of Report ***

Injection Date : 5/16/2012 8:48:14 PM Seq. Line : 7
Sample Name : UU52 E Location : Vial 7
Acq. Operator : AC Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\16MAY12B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/1/2011 12:25:26 PM by SP




## Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: ECD2 B,

| Peak # | RetTime [min] | Type | Width [min] | Area counts*s | Height [counts] | Area % |
|---|---|---|---|---|---|---|
| 1 | 2.539 | PB | 0.0457 | 9559.85547 | 2955.92041 | 31.03658 |
| 2 | 3.379 | BB | 0.0529 | 2.12420e4 | 5779.72803 | 68.96342 |

Totals : 3.08019e4 8735.64844

Results obtained with enhanced integrator!

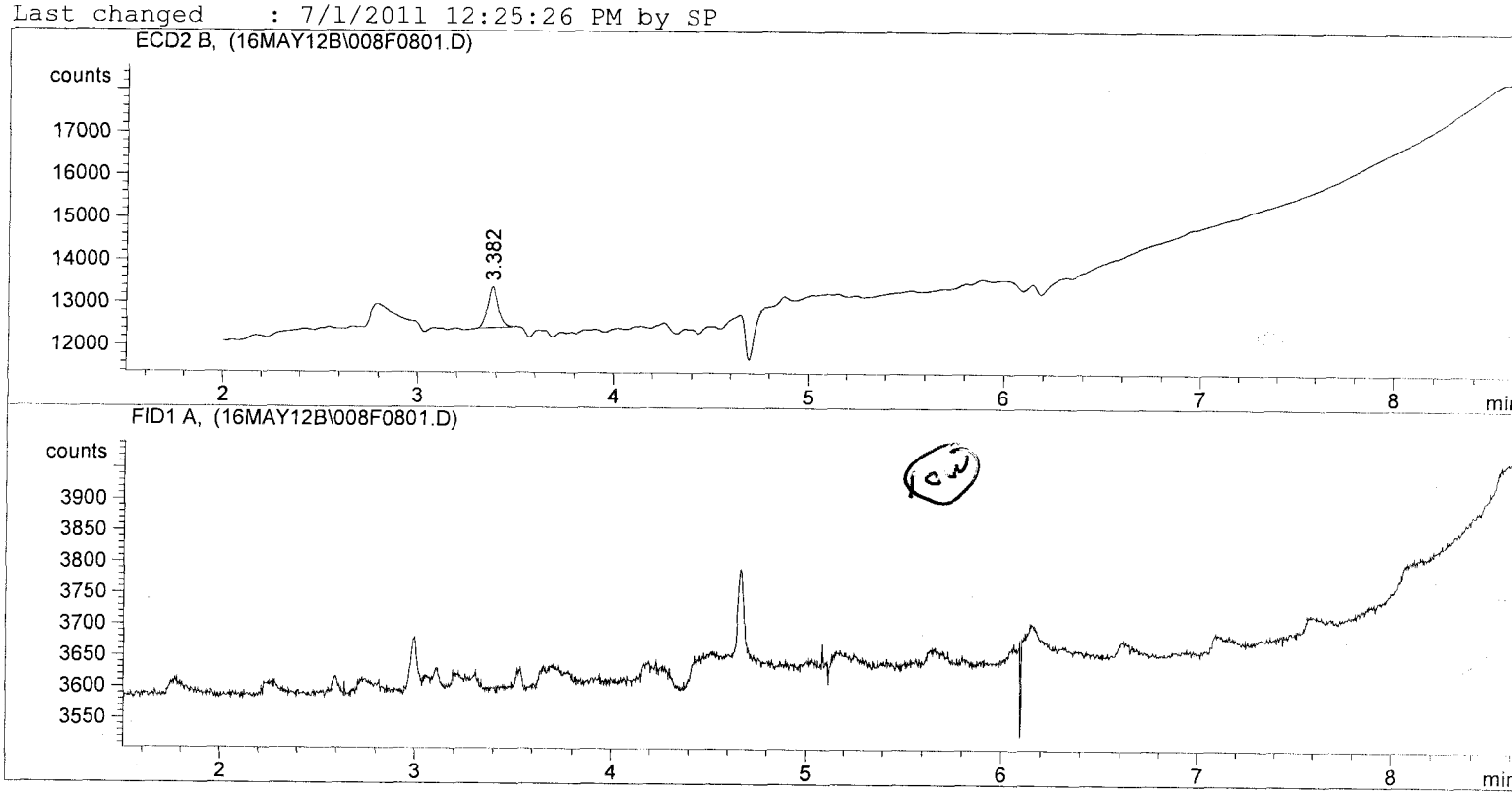
Signal 2: FID1 A,

*** End of Report ***


UU52:01087

Injection Date : 5/16/2012 9:01:29 PM Seq. Line : 8
Sample Name : UU52 F Location : Vial 8
Acq. Operator : AC Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\16MAY12B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/1/2011 12:25:26 PM by SP




## Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: ECD2 B,

| Peak # | RetTime [min] | Type | Width [min] | Area counts*s | Height [counts] | Area % |
|---|---|---|---|---|---|---|
| 1 | 3.382 | BB | 0.0517 | 3502.42529 | 957.90704 | 1.000e2 |

Totals : 3502.42529 957.90704

Results obtained with enhanced integrator!

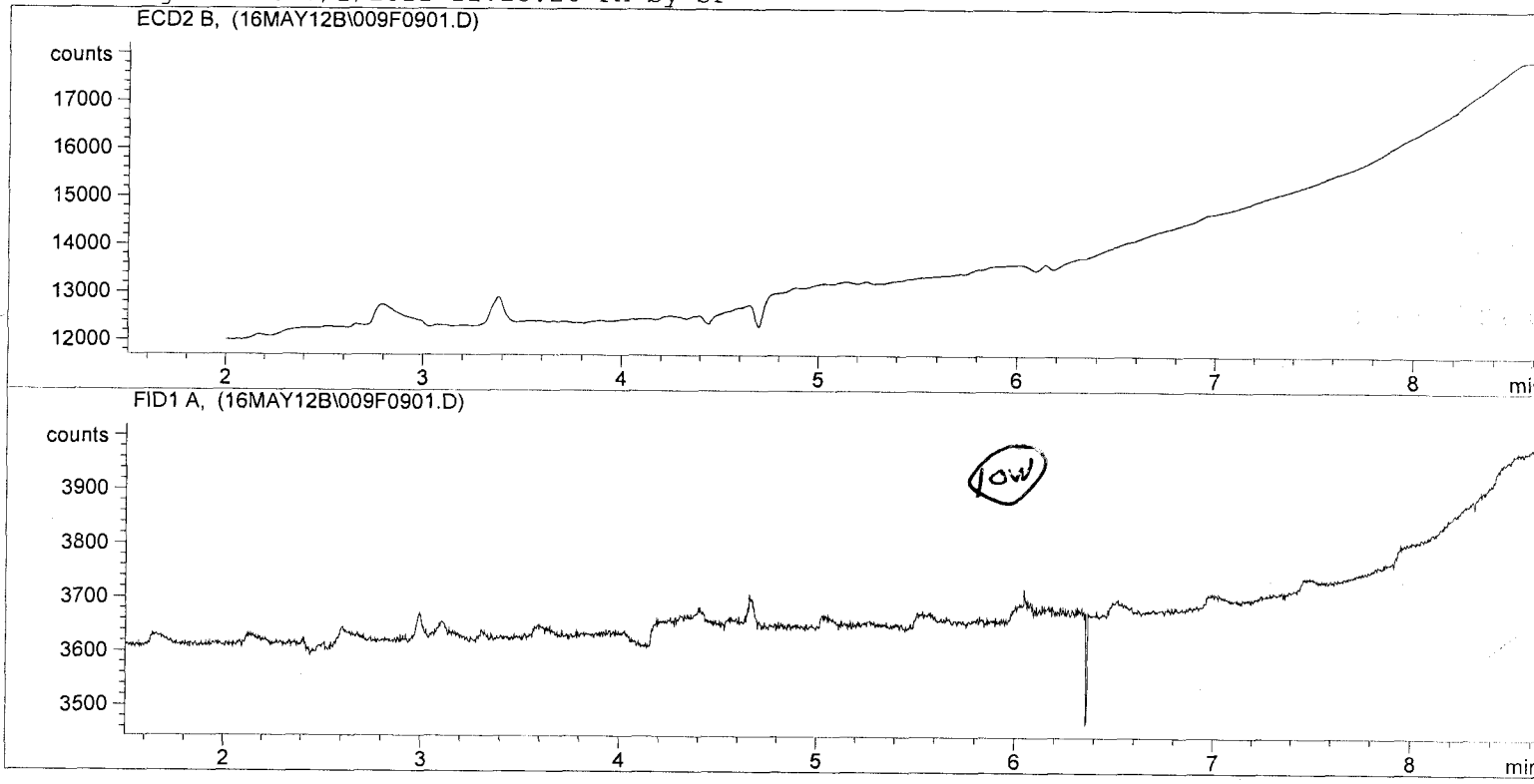
Signal 2: FID1 A,

*** End of Report ***


UU52:01088

Injection Date : 5/16/2012 9:14:41 PM Seq. Line : 9
Sample Name : UU52 G Location : Vial 9
Acq. Operator : AC Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\16MAY12B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/1/2011 12:25:26 PM by SP




Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

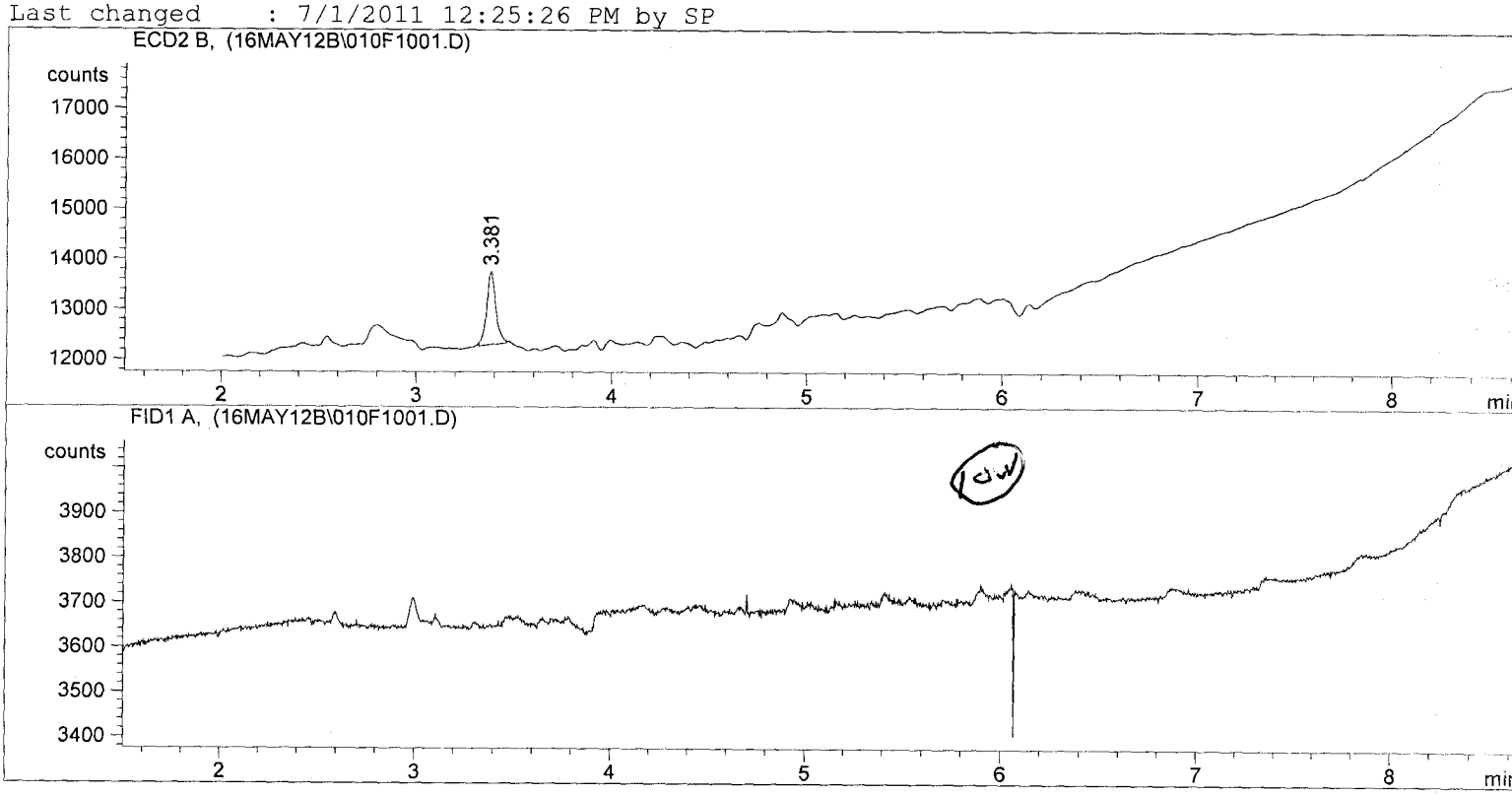
No peaks found

*** End of Report ***


UU52:01089

Injection Date : 5/16/2012 9:27:53 PM Seq. Line : 10
Sample Name : UU52 H Location : Vial 10
Acq. Operator : AC Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\16MAY12B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/1/2011 12:25:26 PM by SP




## Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: ECD2 B,

| Peak # | RetTime [min] | Type | Width [min] | Area counts*s | Height [counts] | Area % |
|---|---|---|---|---|---|---|
| 1 | 3.381 | BB | 0.0478 | 4729.76709 | 1461.35803 | 1.000e2 |

Totals : 4729.76709 1461.35803

Results obtained with enhanced integrator!

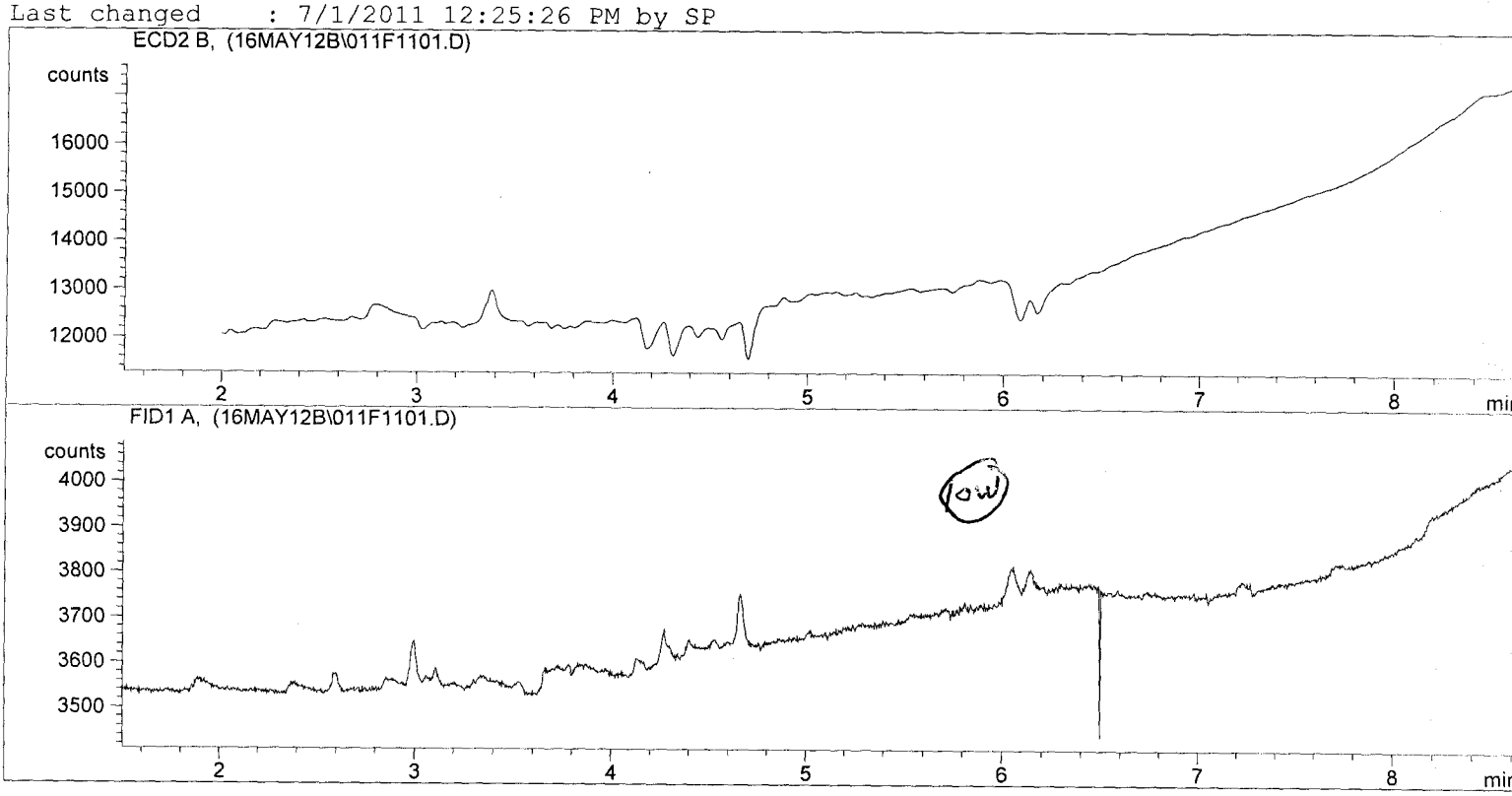
Signal 2: FID1 A,

*** End of Report ***


UU52:010F1001

Injection Date : 5/16/2012 9:41:06 PM
Sample Name : UU52 I
Acq. Operator : AC
Seq. Line : 11
Location : Vial 11
Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\16MAY12B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/1/2011 12:25:26 PM by SP




Area Percent Report

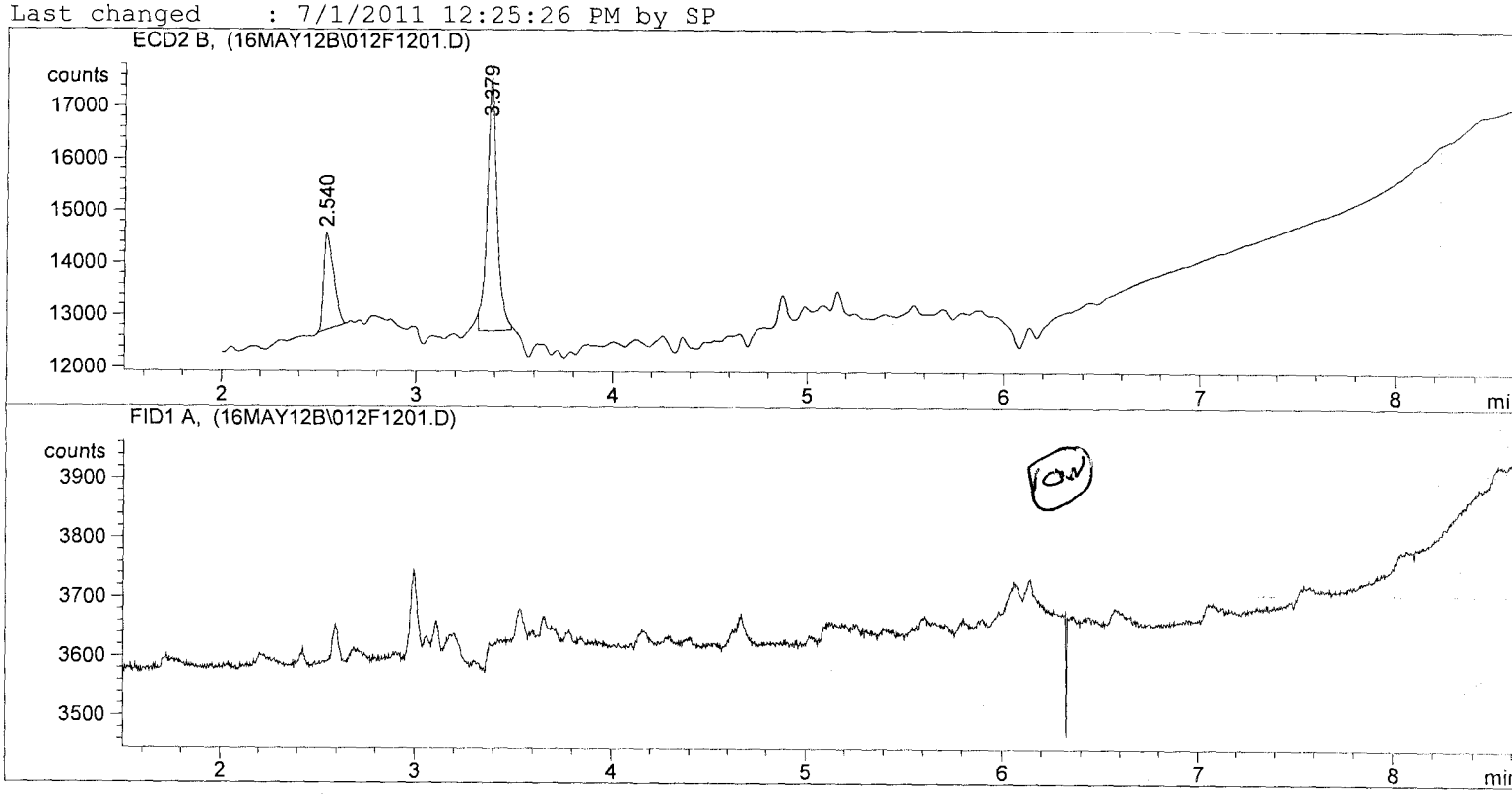
Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

No peaks found

*** End of Report ***

Injection Date : 5/16/2012 9:54:23 PM Seq. Line : 12
Sample Name : UU52 J Location : Vial 12
Acq. Operator : AC Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\16MAY12B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/1/2011 12:25:26 PM by SP




## Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: ECD2 B,

| Peak # | RetTime [min] | Type | Width [min] | Area counts*s | Height [counts] | Area % |
|---|---|---|---|---|---|---|
| 1 | 2.540 | PP | 0.0494 | 6603.12891 | 1861.72583 | 28.09105 |
| 2 | 3.379 | BB | 0.0508 | 1.69030e4 | 4833.55859 | 71.90895 |

Totals : 2.35062e4 6695.28442

Results obtained with enhanced integrator!

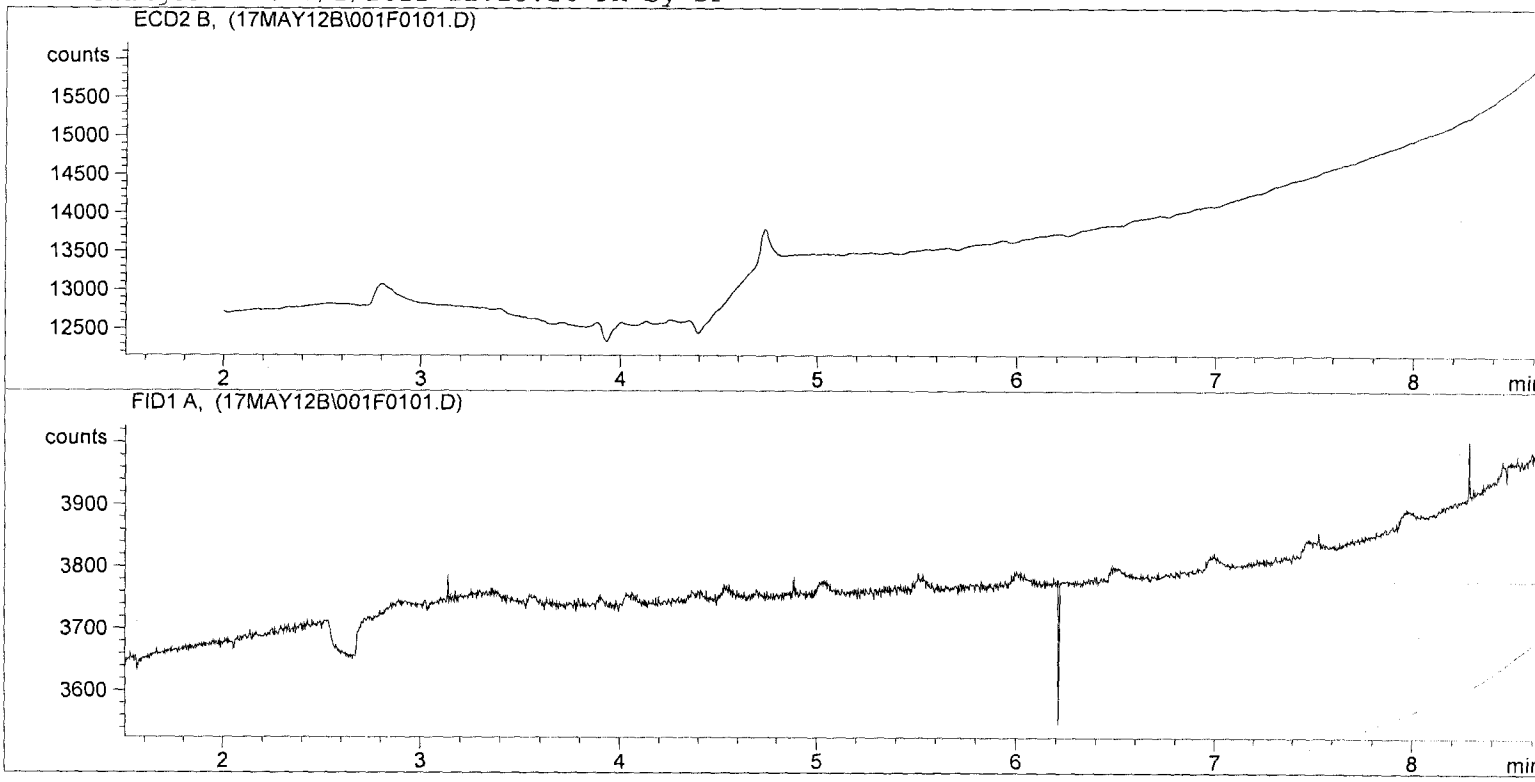
Signal 2: FID1 A,

*** End of Report ***



UU52:01092

| | | | |
|---|---|---|---|
| Injection Date | : 5/17/2012 4:05:54 PM | Seq. Line | : 1 |
| Sample Name | : DCM RINSE | Location | : Vial 1 |
| Acq. Operator | : WW | Inj | : 1 |
| | | Inj Volume | : 1 µl |
| Sequence File | : C:\HPCHEM\1\SEQUENCE\17MAY12B.S | | |
| Method | : C:\HPCHEM\1\METHODS\SCREEN.M | | |
| Last changed | : 7/1/2011 12:25:26 PM by SP | | |




## Area Percent Report

| | | |
|---|---|---|
| Sorted By | : | Signal |
| Multiplier | : | 1.0000 |
| Dilution | : | 1.0000 |

No peaks found

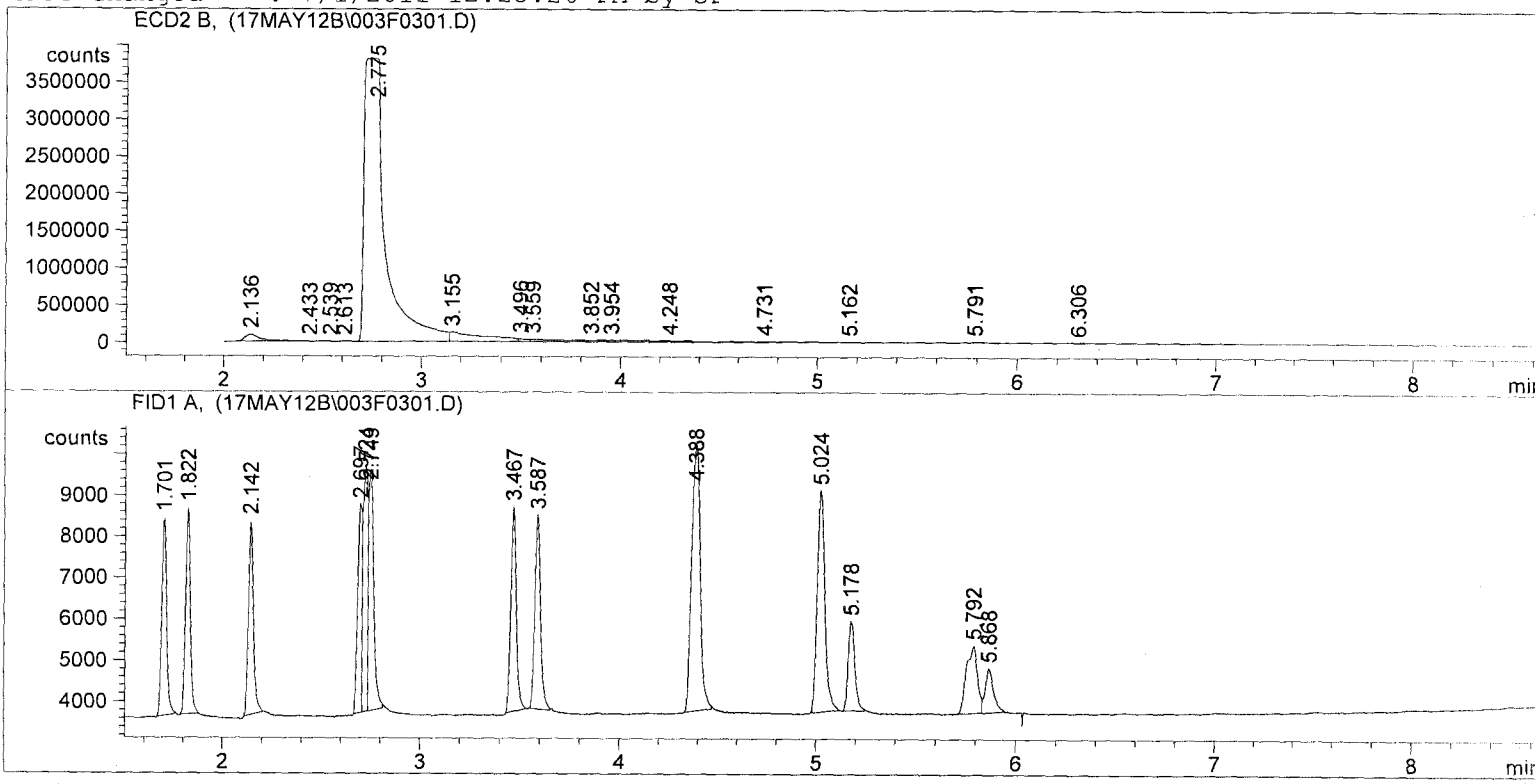
*** End of Report ***



UU52:01093

Injection Date : 5/17/2012 4:32:21 PM Seq. Line : 3
Sample Name : PNA STD 10PPM Location : Vial 3
Acq. Operator : WW Inj : 1
Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\17MAY12B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/1/2011 12:25:26 PM by SP




## Area Percent Report

Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: ECD2 B,

| Peak # | RetTime [min] | Type | Width [min] | Area counts*s | Height [counts] | Area % |
|---|---|---|---|---|---|---|
| 1 | 2.136 | PV | 0.0831 | 5.69628e5 | 9.76138e4 | 1.74465 |
| 2 | 2.433 | VV | 0.0644 | 2.98273e4 | 6394.37695 | 0.09135 |
| 3 | 2.539 | VV | 0.0647 | 3.89932e4 | 8476.16211 | 0.11943 |
| 4 | 2.613 | VV | 0.0434 | 1.62080e4 | 5504.79980 | 0.04964 |
| 5 | 2.775 | VV | 0.1119 | 2.87043e7 | 3.81072e6 | 87.91517 |
| 6 | 3.155 | VV | 0.1554 | 1.62254e6 | 1.28421e5 | 4.96951 |
| 7 | 3.496 | VV | 0.0446 | 1.27109e5 | 3.84045e4 | 0.38931 |
| 8 | 3.559 | VV | 0.0873 | 2.12977e5 | 3.25573e4 | 0.65230 |
| 9 | 3.852 | VV | 0.1767 | 3.76702e5 | 2.52997e4 | 1.15376 |
| 10 | 3.954 | VV | 0.1758 | 3.67395e5 | 2.58456e4 | 1.12525 |
| 11 | 4.248 | VV | 0.1438 | 2.36493e5 | 2.01746e4 | 0.72433 |
| 12 | 4.731 | VV | 0.3548 | 2.79479e5 | 9511.43652 | 0.85598 |
| 13 | 5.162 | VP | 0.0559 | 7787.46973 | 1981.50745 | 0.02385 |
| 14 | 5.791 | BP | 0.0579 | 3.90318e4 | 9922.42188 | 0.11955 |
| 15 | 6.306 | BB | 0.0557 | 2.15220e4 | 5618.81152 | 0.06592 |

Totals : 3.26500e7 4.22645e6

UU52 - Bam psdda (Samples A - E)
Rim 1:2
ML 5/23/12

MARS

CEM

05/23/2012 09:15

ML

MARS #01

REAL TIME DATA

FILE: TPH1200 (24 vessels)

| TIME | PRESSURE | TEMPERATURE |
|---|---|---|
| 0:00:00 | 0000 PSI | 077 |
| 0:01:01 | 0000 PSI | 077 |
| 0:02:01 | 0000 PSI | 081 |
| 0:03:01 | 0000 PSI | 084 |
| 0:04:01 | 0000 PSI | 086 |
| 0:05:01 | 0000 PSI | 087 |
| 0:06:01 | 0000 PSI | 090 |
| 0:07:01 | 0000 PSI | 092 |
| 0:08:01 | 0000 PSI | 102 |
| 0:09:01 | 0000 PSI | 104 |
| 0:10:01 | 0000 PSI | 109 |
| 0:11:01 | 0000 PSI | 114 |
| 0:12:01 | 0000 PSI | 107 |
| 0:13:01 | 0000 PSI | 106 |
| 0:14:01 | 0000 PSI | 112 |
| 0:15:01 | 0000 PSI | 112 |
| 0:16:01 | 0000 PSI | 106 |
| 0:17:01 | 0000 PSI | 109 |
| 0:18:01 | 0000 PSI | 110 |
| 0:19:01 | 0000 PSI | 111 |
| 0:20:01 | 0000 PSI | 114 |

UU52 - Bampsdda (samples A-E)
Run 2:2

MARS

CEM

05/23/2012 10:52

M

MARS# 01

REAL TIME DATA

FILE: TPH1200 (2 vessels)

| TIME | PRESSURE | TEMPERATURE |
|---|---|---|
| 0:00:00 | 0000 PSI | 068 |
| 0:01:00 | 0000 PSI | 073 |
| 0:02:00 | 0000 PSI | 079 |
| 0:03:00 | 0000 PSI | 087 |
| 0:04:00 | 0000 PSI | 090 |
| 0:05:00 | 0000 PSI | 097 |
| 0:06:00 | 0000 PSI | 100 |
| 0:07:00 | 0000 PSI | 108 |
| 0:08:00 | 0000 PSI | 106 |
| 0:09:00 | 0000 PSI | 112 |
| 0:10:00 | 0000 PSI | 111 |
| 0:11:00 | 0000 PSI | 113 |
| 0:12:00 | 0000 PSI | 109 |
| 0:13:00 | 0000 PSI | 104 |
| 0:14:00 | 0000 PSI | 110 |
| 0:15:00 | 0000 PSI | 114 |
| 0:16:00 | 0000 PSI | 106 |
| 0:17:00 | 0000 PSI | 115 |
| 0:18:00 | 0000 PSI | 112 |
| 0:19:00 | 0000 PSI | 107 |
| 0:20:00 | 0000 PSI | 115 |

UU52 - Ban Psdda (Sanyks ~~G~~ F - J) M 5/23/12
Rim 1:2

MARS

CEM

05/23/2012 07:01

MARS#02

REAL TIME DATA

FILE: 1200W (25 vessels)

| TIME | PRESSURE | TEMPERATURE |
|---|---|---|
| 0:00:00 | 0000 PSI | 065 |
| 0:01:01 | 0000 PSI | 067 |
| 0:02:01 | 0000 PSI | 071 |
| 0:03:01 | 0000 PSI | 073 |
| 0:04:01 | 0000 PSI | 079 |
| 0:05:01 | 0000 PSI | 081 |
| 0:06:01 | 0000 PSI | 084 |
| 0:07:01 | 0000 PSI | 087 |
| 0:08:01 | 0000 PSI | 092 |
| 0:09:01 | 0000 PSI | 094 |
| 0:10:01 | 0000 PSI | 095 |
| 0:11:01 | 0000 PSI | 096 |
| 0:12:01 | 0000 PSI | 096 |
| 0:13:01 | 0000 PSI | 093 |
| 0:14:01 | 0000 PSI | 097 |
| 0:15:01 | 0000 PSI | 099 |
| 0:16:01 | 0000 PSI | 103 |
| 0:17:01 | 0000 PSI | 100 |
| 0:18:01 | 0000 PSI | 103 |
| 0:19:01 | 0000 PSI | 105 |
| 0:20:01 | 0000 PSI | 106 |

UU52 - Bam psdda (F - J)
Run 2:2

MARS

CEM

MAR S#02

05/23/2012 09:03

REAL TIME DATA

FILE: 1200W (2 vessels)

| TIME | PRESSURE | TEMPERATURE |
|---|---|---|
| 0:00:00 | 0000 PSI | 079 |
| 0:01:01 | 0000 PSI | 082 |
| 0:02:01 | 0000 PSI | 087 |
| 0:03:01 | 0000 PSI | 092 |
| 0:04:01 | 0000 PSI | 094 |
| 0:05:01 | 0000 PSI | 098 |
| 0:06:01 | 0000 PSI | 098 |
| 0:07:01 | 0000 PSI | 097 |
| 0:08:01 | 0000 PSI | 103 |
| 0:09:01 | 0000 PSI | 102 |
| 0:10:01 | 0000 PSI | 103 |
| 0:11:01 | 0000 PSI | 105 |
| 0:12:01 | 0000 PSI | 111 |
| 0:13:01 | 0000 PSI | 113 |
| 0:14:01 | 0000 PSI | 115 |
| 0:15:01 | 0000 PSI | 108 |
| 0:16:01 | 0000 PSI | 110 |
| 0:17:01 | 0000 PSI | 118 |
| 0:18:01 | 0000 PSI | 111 |
| 0:19:01 | 0000 PSI | 104 |
| 0:20:01 | 0000 PSI | 115 |

Q-FLAG SUMMARY FOR DATABATCH - /chem2/nt6.i/20120524.b

Instrument: nt6.i  Date: 24-MAY-2012  Method: SW846052312.m

INITIAL CAL: 23-MAY-2012

| Compound | %RSD or R^2 |
|---|---|
| NO Q-FLAGS | |

CONTINUING CAL: 24-MAY-2012

| Compound | %D |
|---|---|
| NO Q-FLAGS | |

05/24/12

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt6.i
Lab File ID: 05241201.D
Analysis Type:
Lab Sample ID: CC0524
Method: /chem2/nt6.i/20120524.b/SW846052312.m

Injection Date: 24-MAY-2012 10:50
Init. Cal. Date(s): 23-MAY-2012 23-MAY-2012
Init. Cal. Times: 13:34 18:46
Quant Type: ISTD

| COMPOUND | RRF / AMOUNT | RF25 | CCAL RRF25 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE |
|---|---|---|---|---|---|---|---|
| $ 1 2-Fluorophenol | 1.16232 | 1.10227 | 1.10227 | 0.010 | -5.16665 | 20.00000 | Averaged |
| $ 2 Phenol-d5 | 1.38626 | 1.31414 | 1.31414 | 0.010 | -5.20277 | 20.00000 | Averaged |
| 3 Phenol | 1.65584 | 1.65854 | 1.65854 | 0.800 | 0.16328 | 20.00000 | Averaged |
| $ 5 2-Chlorophenol-d4 | 1.34352 | 1.27189 | 1.27189 | 0.010 | -5.33199 | 20.00000 | Averaged |
| 4 Bis(2-Chloroethyl)ether | 1.14983 | 1.12395 | 1.12395 | 0.700 | -2.25143 | 20.00000 | Averaged |
| 6 2-Chlorophenol | 1.51155 | 1.51189 | 1.51189 | 0.800 | 0.02284 | 20.00000 | Averaged |
| 7 1,3-Dichlorobenzene | 1.54962 | 1.48582 | 1.48582 | 0.100 | -4.11728 | 20.00000 | Averaged |
| 9 1,4-Dichlorobenzene | 1.54874 | 1.48471 | 1.48471 | 0.100 | -4.13492 | 20.00000 | Averaged |
| $ 10 1,2-Dichlorobenzene-d4 | 0.97983 | 0.91594 | 0.91594 | 0.010 | -6.52077 | 20.00000 | Averaged |
| 12 1,2-Dichlorobenzene | 1.48257 | 1.43314 | 1.43314 | 0.100 | -3.33419 | 20.00000 | Averaged |
| 11 Benzyl alcohol | 0.86466 | 0.75392 | 0.75392 | 0.100 | -12.80719 | 20.00000 | Averaged |
| 14 2,2'-oxybis(1-Chloropropane | 1.28965 | 1.26252 | 1.26252 | 0.010 | -2.10327 | 20.00000 | Averaged |
| 13 2-Methylphenol | 1.26348 | 1.26324 | 1.26324 | 0.700 | -0.01926 | 20.00000 | Averaged |
| 17 Hexachloroethane | 0.55466 | 0.53368 | 0.53368 | 0.300 | -3.78295 | 20.00000 | Averaged |
| 16 N-Nitroso-di-n-propylamine | 0.77647 | 0.76183 | 0.76183 | 0.500 | -1.88590 | 20.00000 | Averaged |
| 15 4-Methylphenol | 1.30469 | 1.32021 | 1.32021 | 0.600 | 1.18969 | 20.00000 | Averaged |
| $ 18 Nitrobenzene-d5 | 0.32054 | 0.30533 | 0.30533 | 0.010 | -4.74397 | 20.00000 | Averaged |
| 19 Nitrobenzene | 0.32955 | 0.31020 | 0.31020 | 0.200 | -5.86970 | 20.00000 | Averaged |
| 20 Isophorone | 0.48476 | 0.46645 | 0.46645 | 0.400 | -3.77723 | 20.00000 | Averaged |
| 21 2-Nitrophenol | 0.23195 | 0.23302 | 0.23302 | 0.100 | 0.45958 | 20.00000 | Averaged |
| 22 2,4-Dimethylphenol | 0.34708 | 0.34998 | 0.34998 | 0.200 | 0.83586 | 20.00000 | Averaged |
| 23 Bis(2-Chloroethoxy)methane | 0.36353 | 0.34449 | 0.34449 | 0.300 | -5.23789 | 20.00000 | Averaged |
| 24 Benzoic acid | 47.23346 | 50.00000 | 0.20285 | 0.100 | -5.53309 | 20.00000 | Linear |
| 25 2,4-Dichlorophenol | 0.34369 | 0.35608 | 0.35608 | 0.200 | 3.60555 | 20.00000 | Averaged |
| 26 1,2,4-Trichlorobenzene | 0.36910 | 0.34922 | 0.34922 | 0.100 | -5.38664 | 20.00000 | Averaged |
| 28 Naphthalene | 1.01682 | 1.00511 | 1.00511 | 0.700 | -1.15232 | 20.00000 | Averaged |
| 29 4-Chloroaniline | 0.46956 | 0.44898 | 0.44898 | 0.010 | -4.38355 | 20.00000 | Averaged |
| 30 Hexachlorobutadiene | 0.22538 | 0.21249 | 0.21249 | 0.010 | -5.71810 | 20.00000 | Averaged |
| 31 4-Chloro-3-methylphenol | 0.27483 | 0.29851 | 0.29851 | 0.200 | 8.61306 | 20.00000 | Averaged |
| 32 2-Methylnaphthalene | 0.63209 | 0.60492 | 0.60492 | 0.400 | -4.29932 | 20.00000 | Averaged |
| 33 Hexachlorocyclopentadiene | 0.31515 | 0.31555 | 0.31555 | 0.050 | 0.12613 | 20.00000 | Averaged |
| 34 2,4,6-Trichlorophenol | 0.41002 | 0.42620 | 0.42620 | 0.200 | 3.94697 | 20.00000 | Averaged |
| 35 2,4,5-Trichlorophenol | 0.39610 | 0.42852 | 0.42852 | 0.200 | 8.18614 | 20.00000 | Averaged |
| $ 36 2-Fluorobiphenyl | 1.21486 | 1.13025 | 1.13025 | 0.010 | -6.96413 | 20.00000 | Averaged |
| 37 2-Chloronaphthalene | 1.04401 | 1.01674 | 1.01674 | 0.800 | -2.61238 | 20.00000 | Averaged |

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt6.i
Lab File ID: 05241201.D
Analysis Type:
Lab Sample ID: CC0524
Method: /chem2/nt6.i/20120524.b/SW846052312.m

Injection Date: 24-MAY-2012 10:50
Init. Cal. Date(s): 23-MAY-2012 23-MAY-2012
Init. Cal. Times: 13:34 18:46
Quant Type: ISTD

| COMPOUND | RRF / AMOUNT | RF25 | CCAL RRF25 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE |
|---|---|---|---|---|---|---|---|
| 38 2-Nitroaniline | 0.25631 | 0.24668 | 0.24668 | 0.010 | -3.75492 | 20.00000 | Averaged |
| 39 Dimethylphthalate | 1.05989 | 0.99790 | 0.99790 | 0.010 | -5.84943 | 20.00000 | Averaged |
| 40 Acenaphthylene | 1.63360 | 1.58914 | 1.58914 | 0.900 | -2.72107 | 20.00000 | Averaged |
| 41 2,6-Dinitrotoluene | 0.26221 | 0.24789 | 0.24789 | 0.200 | -5.46055 | 20.00000 | Averaged |
| 43 3-Nitroaniline | 0.29996 | 0.28445 | 0.28445 | 0.010 | -5.16781 | 20.00000 | Averaged |
| 44 Acenaphthene | 1.09603 | 1.01454 | 1.01454 | 0.900 | -7.43543 | 20.00000 | Averaged |
| 45 2,4-Dinitrophenol | 49.26144 | 50.00000 | 0.16133 | 0.010 | -1.47713 | 20.00000 | Quadratic |
| 46 Dibenzofuran | 1.53529 | 1.44640 | 1.44640 | 0.800 | -5.78979 | 20.00000 | Averaged |
| 47 4-Nitrophenol | 22.50200 | 25.00000 | 0.09503 | 0.010 | -9.99200 | 20.00000 | Linear |
| 48 2,4-Dinitrotoluene | 0.33791 | 0.32372 | 0.32372 | 0.200 | -4.19976 | 20.00000 | Averaged |
| 50 Diethylphthalate | 1.00974 | 0.93871 | 0.93871 | 0.010 | -7.03418 | 20.00000 | Averaged |
| 49 Fluorene | 1.24434 | 1.20057 | 1.20057 | 0.900 | -3.51764 | 20.00000 | Averaged |
| 51 4-Chlorophenyl-phenylether | 0.61030 | 0.56846 | 0.56846 | 0.400 | -6.85601 | 20.00000 | Averaged |
| 52 4-Nitroaniline | 0.28225 | 0.27484 | 0.27484 | 0.010 | -2.62484 | 20.00000 | Averaged |
| 53 4,6-Dinitro-2-methylphenol | 0.14418 | 0.15042 | 0.15042 | 0.010 | 4.32691 | 20.00000 | Averaged |
| 54 N-Nitrosodiphenylamine | 0.50404 | 0.46461 | 0.46461 | 0.010 | -7.82235 | 20.00000 | Averaged |
| $ 55 2,4,6-Tribromophenol | 0.25957 | 0.23544 | 0.23544 | 0.010 | -9.29736 | 20.00000 | Averaged |
| 56 4-Bromophenyl-phenylether | 0.25220 | 0.22708 | 0.22708 | 0.100 | -9.96050 | 20.00000 | Averaged |
| 57 Hexachlorobenzene | 0.31508 | 0.28636 | 0.28636 | 0.100 | -9.11730 | 20.00000 | Averaged |
| 58 Pentachlorophenol | 22.68177 | 25.00000 | 0.12267 | 0.050 | -9.27292 | 20.00000 | Quadratic |
| 60 Phenanthrene | 1.03978 | 1.01168 | 1.01168 | 0.700 | -2.70242 | 20.00000 | Averaged |
| 61 Anthracene | 1.05063 | 1.03015 | 1.03015 | 0.700 | -1.94865 | 20.00000 | Averaged |
| 62 Carbazole | 0.81558 | 0.77679 | 0.77679 | 0.010 | -4.75590 | 20.00000 | Averaged |
| 63 Di-n-butylphthalate | 0.96446 | 0.96772 | 0.96772 | 0.010 | 0.33854 | 20.00000 | Averaged |
| 64 Fluoranthene | 1.11247 | 1.12760 | 1.12760 | 0.600 | 1.35967 | 20.00000 | Averaged |
| 65 Pyrene | 1.03280 | 0.98274 | 0.98274 | 0.600 | -4.84701 | 20.00000 | Averaged |
| $ 66 Terphenyl-d14 | 0.69228 | 0.61965 | 0.61965 | 0.010 | -10.49233 | 20.00000 | Averaged |
| 67 Butylbenzylphthalate | 0.39231 | 0.37115 | 0.37115 | 0.010 | -5.39350 | 20.00000 | Averaged |
| 68 Benzo(a)anthracene | 1.04465 | 0.96159 | 0.96159 | 0.800 | -7.95112 | 20.00000 | Averaged |
| 70 3,3'-Dichlorobenzidine | 0.39477 | 0.34877 | 0.34877 | 0.010 | -11.65201 | 20.00000 | Averaged |
| 71 Chrysene | 0.95981 | 0.92747 | 0.92747 | 0.700 | -3.36900 | 20.00000 | Averaged |
| 72 bis(2-Ethylhexyl)phthalate | 0.56228 | 0.52478 | 0.52478 | 0.010 | -6.66888 | 20.00000 | Averaged |
| 73 Di-n-octylphthalate | 0.93469 | 0.89408 | 0.89408 | 0.010 | -4.34482 | 20.00000 | Averaged |
| 74 Benzo(b)fluoranthene | 1.07881 | 1.04911 | 1.04911 | 0.700 | -2.75296 | 20.00000 | Averaged |
| 75 Benzo(k)fluoranthene | 1.02618 | 0.99426 | 0.99426 | 0.700 | -3.11087 | 20.00000 | Averaged |

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt6.i
Lab File ID: 05241201.D
Analysis Type:
Lab Sample ID: CC0524
Method: /chem2/nt6.i/20120524.b/SW846052312.m

Injection Date: 24-MAY-2012 10:50
Init. Cal. Date(s): 23-MAY-2012 23-MAY-2012
Init. Cal. Times: 13:34 18:46
Quant Type: ISTD

| COMPOUND | RRF / AMOUNT | RF25 | CCAL RRF25 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE |
|---|---|---|---|---|---|---|---|
| 187 Total Benzofluoranthenes | 0.97823 | 0.95841 | 0.95841 | 0.010 | -2.02588 | 20.00000 | Averaged |
| 76 Benzo(a)pyrene | 0.93668 | 0.90591 | 0.90591 | 0.700 | -3.28461 | 20.00000 | Averaged |
| 78 Indeno(1,2,3-cd)pyrene | 1.37952 | 1.33330 | 1.33330 | 0.500 | -3.35042 | 20.00000 | Averaged |
| 79 Dibenzo(a,h)anthracene | 1.10920 | 1.10794 | 1.10794 | 0.400 | -0.11393 | 20.00000 | Averaged |
| 80 Benzo(g,h,i)perylene | 1.16367 | 1.13165 | 1.13165 | 0.500 | -2.75194 | 20.00000 | Averaged |
| 90 N-Nitrosodimethylamine | 0.69180 | 0.64797 | 0.64797 | 0.010 | -6.33573 | 20.00000 | Averaged |
| 103 Pyridine | 1.15583 | 1.15725 | 1.15725 | 0.010 | 0.12345 | 20.00000 | Averaged |
| 91 Aniline | 1.82183 | 1.78771 | 1.78771 | 0.010 | -1.87316 | 20.00000 | Averaged |
| 105 1-methylnaphthalene | 0.48559 | 0.45346 | 0.45346 | 0.010 | -6.61558 | 20.00000 | Averaged |
| 111 Azobenzene (1,2-DP-Hydrazin | 0.93617 | 0.91908 | 0.91908 | 0.010 | -1.82565 | 20.00000 | Averaged |
| 143 1,4-Dioxane | 0.41940 | 0.39033 | 0.39033 | 0.010 | -6.93106 | 20.00000 | Averaged |
| $ 137 d8-1,4-Dioxane | 0.44747 | 0.41474 | 0.41474 | 0.010 | -7.31541 | 20.00000 | Averaged |
| 144 alpha-Terpineol | 0.19211 | 0.17852 | 0.17852 | 0.010 | -7.07361 | 20.00000 | Averaged |
| 177 p-Benzoquinone | 0.05488 | 0.05349 | 0.05349 | 0.010 | -2.52726 | 20.00000 | Averaged |
| 98 Retene | 0.37090 | 0.34100 | 0.34100 | 0.010 | -8.05971 | 20.00000 | Averaged |
| 99 Perylene | 0.90576 | 0.84432 | 0.84432 | 0.010 | -6.78309 | 20.00000 | Averaged |
| 133 Butylatedhydroxytoluene | 0.78067 | 0.74521 | 0.74521 | 0.010 | -4.54192 | 20.00000 | Averaged |
| 115 Tributyl Phosphate | 0.59290 | 0.55070 | 0.55070 | 0.010 | -7.11779 | 20.00000 | Averaged |
| 116 Dibutyl Phenyl Phosphate | 0.47909 | 0.45629 | 0.45629 | 0.010 | -4.75906 | 20.00000 | Averaged |
| 117 Butyl Diphenyl Phosphate | 0.12025 | 0.10988 | 0.10988 | 0.010 | -8.62888 | 20.00000 | Averaged |
| 118 Triphenyl Phosphate | 0.23152 | 0.21238 | 0.21238 | 0.010 | -8.26679 | 20.00000 | Averaged |
| 123 Acetophenone | 1.56612 | 1.53119 | 1.53119 | 0.010 | -2.23025 | 20.00000 | Averaged |
| 168 Pentachlorobenzene | 0.51870 | 0.47844 | 0.47844 | 0.010 | -7.76160 | 20.00000 | Averaged |
| 113 Diphenyl Oxide | 0.73168 | 0.66227 | 0.66227 | 0.010 | -9.48705 | 20.00000 | Averaged |
| 112 Biphenyl | 1.11643 | 1.01690 | 1.01690 | 0.010 | -8.91494 | 20.00000 | Averaged |
| 120 2,3,4,6-Tetrachlorophenol | 0.28317 | 0.30209 | 0.30209 | 0.010 | 6.67993 | 20.00000 | Averaged |
| 151 1,2,4,5-Tetrachlorobenzene | 0.54306 | 0.51070 | 0.51070 | 0.010 | -5.95921 | 20.00000 | Averaged |
| 110 Tetrachloroguaiacol | 0.13235 | 0.12608 | 0.12608 | 0.010 | -4.74005 | 20.00000 | Averaged |
| 109 3,4,5-Trichloroguaiacol | 0.13159 | 0.11856 | 0.11856 | 0.010 | -9.90007 | 20.00000 | Averaged |
| 181 3,4,6-Trichloroguaiacol | 0.57316 | 0.54320 | 0.54320 | 0.010 | -5.22655 | 20.00000 | Averaged |
| 108 4,5,6-Trichloroguaiacol | 0.21817 | 0.19753 | 0.19753 | 0.010 | -9.45789 | 20.00000 | Averaged |
| 184 3,4-Dichloroguaiacol | 0.50906 | 0.47635 | 0.47635 | 0.010 | -6.42549 | 20.00000 | Averaged |
| 107 4,5-Dichloroguaiacol | 0.28069 | 0.26102 | 0.26102 | 0.010 | -7.00515 | 20.00000 | Averaged |
| 182 4,6-Dichloroguaiacol | 0.63689 | 0.61464 | 0.61464 | 0.010 | -3.49320 | 20.00000 | Averaged |
| 185 4-Chloroguaiacol | 0.49321 | 0.49196 | 0.49196 | 0.010 | -0.25200 | 20.00000 | Averaged |

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt6.i Injection Date: 24-MAY-2012 10:50
Lab File ID: 05241201.D Init. Cal. Date(s): 23-MAY-2012 23-MAY-2012
Analysis Type: Init. Cal. Times: 13:34 18:46
Lab Sample ID: CC0524 Quant Type: ISTD
Method: /chem2/nt6.i/20120524.b/SW846052312.m

| COMPOUND | RRF / AMOUNT | RF25 | CCAL RRF25 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE |
|---|---|---|---|---|---|---|---|
| 186 Carbaryl | 0.48418 | 0.50613 | 0.50613 | 0.010 | 4.53337 | 20.00000 | Averaged |
| 178 2-Benzyl-4-Chlorophenol | 0.21443 | 0.20459 | 0.20459 | 0.010 | -4.58995 | 20.00000 | Averaged |
| 106 Guaiacol | 1.01087 | 0.97087 | 0.97087 | 0.010 | -3.95675 | 20.00000 | Averaged |

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120524.b/05241201.D
Lab Smp Id: CC0524 Client Smp ID: CC0524
Inj Date : 24-MAY-2012 10:50
Operator : JZ Inst ID: nt6.i
Smp Info : CC0524
Misc Info : 12-
Comment : 1ul Injection
Method : /chem2/nt6.i/20120524.b/SW846052312.m
Meth Date : 24-May-2012 15:43 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 16:56 Cal File: 05231207.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALA.sub
Target Version: 3.50

05/24/12

AMOUNTS

| | | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CAL-AMT (ug/mL) | ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|---|
| $ | 1 | 2-Fluorophenol | 112 | 5.187 | 5.187 | (0.721) | 1159600 | 25.0000 | 23.71 |
| $ | 2 | Phenol-d5 | 99 | 6.865 | 6.865 | (0.955) | 1382492 | 25.0000 | 23.70 |
| | 3 | Phenol | 94 | 6.881 | 6.881 | (0.957) | 1744808 | 25.0000 | 25.04 |
| $ | 5 | 2-Chlorophenol-d4 | 132 | 6.907 | 6.907 | (0.961) | 1338041 | 25.0000 | 23.67 |
| | 4 | Bis(2-Chloroethyl)ether | 93 | 6.891 | 6.891 | (0.958) | 1182405 | 25.0000 | 24.44 |
| | 6 | 2-Chlorophenol | 128 | 6.929 | 6.929 | (0.964) | 1590532 | 25.0000 | 25.01 |
| | 7 | 1,3-Dichlorobenzene | 146 | 7.121 | 7.121 | (0.990) | 1563100 | 25.0000 | 23.97 |
| * | 8 | 1,4-Dichlorobenzene-d4 | 152 | 7.191 | 7.191 | (1.000) | 841610 | 20.0000 | |
| | 9 | 1,4-Dichlorobenzene | 146 | 7.217 | 7.217 | (1.004) | 1561930 | 25.0000 | 23.97 |
| $ | 10 | 1,2-Dichlorobenzene-d4 | 152 | 7.490 | 7.490 | (1.042) | 963578 | 25.0000 | 23.37 |
| | 12 | 1,2-Dichlorobenzene | 146 | 7.516 | 7.516 | (1.045) | 1507679 | 25.0000 | 24.17 |
| | 11 | Benzyl alcohol | 108 | 7.532 | 7.532 | (1.048) | 793132 | 25.0000 | 21.80 |
| | 14 | 2,2'-oxybis(1-Chloropropane) | 45 | 7.783 | 7.783 | (1.082) | 1328189 | 25.0000 | 24.47 |
| | 13 | 2-Methylphenol | 108 | 7.816 | 7.816 | (1.087) | 1328942 | 25.0000 | 25.00 |
| | 17 | Hexachloroethane | 117 | 8.003 | 8.003 | (1.113) | 561438 | 25.0000 | 24.05 |
| | 16 | N-Nitroso-di-n-propylamine | 70 | 8.008 | 8.008 | (1.114) | 801450 | 25.0000 | 24.53 |
| | 15 | 4-Methylphenol | 108 | 8.056 | 8.056 | (1.120) | 1388877 | 25.0000 | 25.30 |
| $ | 18 | Nitrobenzene-d5 | 82 | 8.147 | 8.147 | (0.880) | 1179748 | 25.0000 | 23.81 |
| | 19 | Nitrobenzene | 77 | 8.179 | 8.179 | (0.883) | 1198574 | 25.0000 | 23.53 |
| | 20 | Isophorone | 82 | 8.574 | 8.574 | (0.926) | 1802270 | 25.0000 | 24.06 |
| | 21 | 2-Nitrophenol | 139 | 8.702 | 8.702 | (0.940) | 900335 | 25.0000 | 25.11 |
| | 22 | 2,4-Dimethylphenol | 107 | 8.879 | 8.879 | (0.959) | 1352274 | 25.0000 | 25.21 |
| | 23 | Bis(2-Chloroethoxy)methane | 93 | 9.002 | 9.002 | (0.972) | 1331037 | 25.0000 | 23.69 |
| | 24 | Benzoic acid | 105 | 9.188 | 9.188 | (0.992) | 1567583 | 50.0000 | 47.23 |
| | 25 | 2,4-Dichlorophenol | 162 | 9.114 | 9.114 | (0.984) | 1375829 | 25.0000 | 25.90 |
| | 26 | 1,2,4-Trichlorobenzene | 180 | 9.210 | 9.210 | (0.995) | 1349321 | 25.0000 | 23.65 |
| * | 27 | Naphthalene-d8 | 136 | 9.258 | 9.258 | (1.000) | 3091072 | 20.0000 | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 28 Naphthalene | 128 | 9.285 | 9.285 | (1.003) | 3883570 | 25.0000 | 24.71 |
| | 29 4-Chloroaniline | 127 | 9.466 | 9.466 | (1.022) | 1734775 | 25.0000 | 23.90 |
| | 30 Hexachlorobutadiene | 225 | 9.627 | 9.627 | (1.040) | 821023 | 25.0000 | 23.57 |
| | 31 4-Chloro-3-methylphenol | 107 | 10.337 | 10.337 | (1.117) | 1153381 | 25.0000 | 27.15 |
| | 32 2-Methylnaphthalene | 141 | 10.412 | 10.412 | (1.125) | 2337296 | 25.0000 | 23.93 |
| | 33 Hexachlorocyclopentadiene | 237 | 10.796 | 10.796 | (0.892) | 781674 | 25.0000 | 25.03 |
| | 34 2,4,6-Trichlorophenol | 196 | 10.957 | 10.957 | (0.905) | 1055790 | 25.0000 | 25.99 |
| | 35 2,4,5-Trichlorophenol | 196 | 11.021 | 11.021 | (0.910) | 1061543 | 25.0000 | 27.05 |
| $ | 36 2-Fluorobiphenyl | 172 | 11.074 | 11.074 | (0.915) | 2799866 | 25.0000 | 23.26 |
| | 37 2-Chloronaphthalene | 162 | 11.181 | 11.181 | (0.924) | 2518670 | 25.0000 | 24.35 |
| | 38 2-Nitroaniline | 65 | 11.448 | 11.448 | (0.946) | 611085 | 25.0000 | 24.06 |
| | 39 Dimethylphthalate | 163 | 11.838 | 11.838 | (0.978) | 2471995 | 25.0000 | 23.54 |
| | 40 Acenaphthylene | 152 | 11.849 | 11.849 | (0.979) | 3936641 | 25.0000 | 24.32 |
| | 41 2,6-Dinitrotoluene | 165 | 11.918 | 11.918 | (0.985) | 614072 | 25.0000 | 23.63 |
| * | 42 Acenaphthene-d10 | 164 | 12.105 | 12.105 | (1.000) | 1981765 | 20.0000 | |
| | 43 3-Nitroaniline | 138 | 12.127 | 12.127 | (1.002) | 704652 | 25.0000 | 23.71 |
| | 44 Acenaphthene | 153 | 12.153 | 12.153 | (1.004) | 2513216 | 25.0000 | 23.14 |
| | 45 2,4-Dinitrophenol | 184 | 12.292 | 12.292 | (1.015) | 799277 | 50.0000 | 49.26 |
| | 46 Dibenzofuran | 168 | 12.420 | 12.420 | (1.026) | 3583042 | 25.0000 | 23.55 |
| | 47 4-Nitrophenol | 109 | 12.517 | 12.517 | (1.034) | 235401 | 25.0000 | 22.50 |
| | 48 2,4-Dinitrotoluene | 165 | 12.538 | 12.538 | (1.036) | 801912 | 25.0000 | 23.95 |
| | 50 Diethylphthalate | 149 | 12.987 | 12.987 | (1.073) | 2325390 | 25.0000 | 23.24 |
| | 49 Fluorene | 166 | 12.971 | 12.971 | (1.071) | 2974062 | 25.0000 | 24.12 |
| | 51 4-Chlorophenyl-phenylether | 204 | 13.019 | 13.019 | (1.075) | 1408192 | 25.0000 | 23.29 |
| | 52 4-Nitroaniline | 138 | 13.115 | 13.115 | (1.083) | 680845 | 25.0000 | 24.34 |
| | 53 4,6-Dinitro-2-methylphenol | 198 | 13.190 | 13.190 | (0.912) | 1205358 | 50.0000 | 52.16 |
| | 54 N-Nitrosodiphenylamine | 169 | 13.232 | 13.232 | (0.915) | 1861527 | 25.0000 | 23.04 |
| $ | 55 2,4,6-Tribromophenol | 330 | 13.398 | 13.398 | (1.107) | 583231 | 25.0000 | 22.68 |
| | 56 4-Bromophenyl-phenylether | 248 | 13.788 | 13.788 | (0.954) | 909816 | 25.0000 | 22.51 |
| | 57 Hexachlorobenzene | 284 | 13.986 | 13.986 | (0.967) | 1147331 | 25.0000 | 22.72 |
| | 58 Pentachlorophenol | 266 | 14.306 | 14.306 | (0.990) | 491477 | 25.0000 | 22.68 |
| * | 59 Phenanthrene-d10 | 188 | 14.456 | 14.456 | (1.000) | 3205322 | 20.0000 | |
| | 60 Phenanthrene | 178 | 14.493 | 14.493 | (1.003) | 4053452 | 25.0000 | 24.32 |
| | 61 Anthracene | 178 | 14.563 | 14.563 | (1.007) | 4127462 | 25.0000 | 24.51 |
| | 62 Carbazole | 167 | 14.873 | 14.873 | (1.029) | 3112323 | 25.0000 | 23.81 |
| | 63 Di-n-butylphthalate | 149 | 15.626 | 15.626 | (1.081) | 3877328 | 25.0000 | 25.08 |
| | 64 Fluoranthene | 202 | 16.411 | 16.411 | (1.135) | 4517883 | 25.0000 | 25.34 |
| | 65 Pyrene | 202 | 16.753 | 16.753 | (0.894) | 4743059 | 25.0000 | 23.79 |
| $ | 66 Terphenyl-d14 | 244 | 17.106 | 17.106 | (0.913) | 2990634 | 25.0000 | 22.38 |
| | 67 Butylbenzylphthalate | 149 | 18.014 | 18.014 | (0.962) | 1791298 | 25.0000 | 23.65 |
| | 68 Benzo(a)anthracene | 228 | 18.708 | 18.708 | (0.999) | 4640996 | 25.0000 | 23.01 |
| * | 69 Chrysene-d12 | 240 | 18.735 | 18.735 | (1.000) | 3861093 | 20.0000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | 18.751 | 18.751 | (1.001) | 1683311 | 25.0000 | 22.09 |
| | 71 Chrysene | 228 | 18.772 | 18.772 | (1.002) | 4476312 | 25.0000 | 24.16 |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 19.034 | 19.034 | (0.953) | 2397812 | 25.0000 | 23.33 |
| * | 134 Di-n-octylphthalate-d4 | 153 | 19.964 | 19.964 | (1.000) | 3655319 | 20.0000 | |
| | 73 Di-n-octylphthalate | 149 | 19.974 | 19.974 | (1.001) | 4085203 | 25.0000 | 23.91 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| 74 | Benzo(b)fluoranthene | 252 | 20.354 | 20.354 | (0.975) | 5297393 | 25.0000 | 24.31 |
| 75 | Benzo(k)fluoranthene | 252 | 20.386 | 20.386 | (0.977) | 5020431 | 25.0000 | 24.22 |
| 187 | Total Benzofluoranthenes | 252 | 20.386 | 20.386 | (0.977) | 9678884 | 50.0000 | 48.99 |
| 76 | Benzo(a)pyrene | 252 | 20.792 | 20.792 | (0.996) | 4574336 | 25.0000 | 24.18 |
| * 77 | Perylene-d12 | 264 | 20.872 | 20.872 | (1.000) | 4039539 | 20.0000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | 22.223 | 22.223 | (1.065) | 6732378 | 25.0000 | 24.16 |
| 79 | Dibenzo(a,h)anthracene | 278 | 22.245 | 22.245 | (1.066) | 5594443 | 25.0000 | 24.97 |
| 80 | Benzo(g,h,i)perylene | 276 | 22.528 | 22.528 | (1.079) | 5714181 | 25.0000 | 24.31 |
| 90 | N-Nitrosodimethylamine | 74 | 2.281 | 2.281 | (0.317) | 681671 | 25.0000 | 23.42 |
| 103 | Pyridine | 79 | 2.254 | 2.254 | (0.314) | 1217447 | 25.0000 | 25.03 |
| 91 | Aniline | 93 | 6.752 | 6.752 | (0.939) | 1880692 | 25.0000 | 24.53 |
| 105 | 1-methylnaphthalene | 141 | 10.577 | 10.577 | (1.143) | 1752112 | 25.0000 | 23.35 |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | 13.265 | 13.265 | (1.096) | 2276755 | 25.0000 | 24.54 |
| 143 | 1,4-Dioxane | 88 | 1.806 | 1.806 | (0.251) | 410629 | 25.0000 | 23.27 |
| $ 137 | d8-1,4-Dioxane | 96 | 1.774 | 1.774 | (0.247) | 436309 | 25.0000 | 23.17 |
| 144 | alpha-Terpineol | 59 | 9.354 | 9.354 | (1.010) | 689767 | 25.0000 | 23.23 |
| 177 | p-Benzoquinone | 82 | 5.834 | 5.834 | (0.630) | 206677 | 25.0000 | 24.37 |
| 98 | Retene | 219 | 17.341 | 17.341 | (0.926) | 1645811 | 25.0000 | 22.99 |
| 99 | Perylene | 252 | 20.904 | 20.904 | (1.002) | 4263315 | 25.0000 | 23.30 |
| 133 | Butylatedhydroxytoluene | 205 | 12.324 | 12.324 | (1.018) | 1846034 | 25.0000 | 23.86 |
| 115 | Tributyl Phosphate | 99 | 13.382 | 13.382 | (0.926) | 2206465 | 25.0000 | 23.22 |
| 116 | Dibutyl Phenyl Phosphate | 175 | 15.081 | 15.081 | (1.043) | 1828179 | 25.0000 | 23.81 |
| 117 | Butyl Diphenyl Phosphate | 94 | 16.737 | 16.737 | (0.893) | 530306 | 25.0000 | 22.84 |
| 118 | Triphenyl Phosphate | 326 | 18.318 | 18.318 | (0.978) | 1025043 | 25.0000 | 22.93 |
| 123 | Acetophenone | 105 | 7.922 | 7.922 | (1.102) | 1610834 | 25.0000 | 24.44 |
| 168 | Pentachlorobenzene | 250 | 12.458 | 12.458 | (1.029) | 1185192 | 25.0000 | 23.06 |
| 113 | Diphenyl Oxide | 170 | 11.395 | 11.395 | (0.941) | 1640576 | 25.0000 | 22.63 |
| 112 | Biphenyl | 154 | 11.197 | 11.197 | (0.925) | 2519073 | 25.0000 | 22.77 |
| 120 | 2,3,4,6-Tetrachlorophenol | 232 | 12.725 | 12.725 | (1.051) | 748340 | 25.0000 | 26.67 |
| 151 | 1,2,4,5-Tetrachlorobenzene | 216 | 10.754 | 10.754 | (0.888) | 1265114 | 25.0000 | 23.51 |
| 110 | Tetrachloroguaiacol | 247 | 14.440 | 14.440 | (0.999) | 1010282 | 50.0000 | 47.63 |
| 109 | 3,4,5-Trichloroguaiacol | 213 | 12.826 | 12.826 | (0.887) | 475031 | 25.0000 | 22.52 |
| 181 | 3,4,6-Trichloroguaiacol | 211 | 12.944 | 12.944 | (1.800) | 571455 | 25.0000 | 23.69 |
| 108 | 4,5,6-Trichloroguaiacol | 213 | 13.857 | 13.857 | (1.145) | 489326 | 25.0000 | 22.64 |
| 184 | 3,4-Dichloroguaiacol | 192 | 11.299 | 11.299 | (1.571) | 501125 | 25.0000 | 23.39 |
| 107 | 4,5-Dichloroguaiacol | 192 | 12.095 | 12.095 | (0.999) | 1293217 | 50.0000 | 46.50 |
| 182 | 4,6-Dichloroguaiacol | 192 | 12.095 | 12.095 | (1.682) | 1293217 | 50.0000 | 48.25 |
| 185 | 4-Chloroguaiacol | 115 | 10.225 | 10.225 | (1.422) | 258776 | 12.5000 | 12.47 |
| 186 | Carbaryl | 144 | 15.300 | 15.300 | (1.058) | 2027876 | 25.0000 | 26.13 |
| 178 | 2-Benzyl-4-Chlorophenol | 218 | 15.278 | 15.278 | (1.057) | 819712 | 25.0000 | 23.85 |
| 106 | Guaiacol | 124 | 8.206 | 8.206 | (1.141) | 1021366 | 25.0000 | 24.01 |

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05241201.D
Lab Smp Id: CC0524
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120524.b/SW846052312.m
Misc Info: 12-

Calibration Date: 24-MAY-2012
Calibration Time: 10:50
Client Smp ID: CC0524
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 963757 | 481878 | 1927514 | 841610 | -12.67 |
| 27 Naphthalene-d8 | 3430476 | 1715238 | 6860952 | 3091072 | -9.89 |
| 42 Acenaphthene-d10 | 2259168 | 1129584 | 4518336 | 1981765 | -12.28 |
| 59 Phenanthrene-d10 | 3446677 | 1723338 | 6893354 | 3205322 | -7.00 |
| 69 Chrysene-d12 | 3961525 | 1980762 | 7923050 | 3861093 | -2.54 |
| 134 Di-n-octylphthala | 3758743 | 1879372 | 7517486 | 3655319 | -2.75 |
| 77 Perylene-d12 | 4154109 | 2077054 | 8308218 | 4039539 | -2.76 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 7.19 | 6.69 | 7.69 | 7.19 | 0.00 |
| 27 Naphthalene-d8 | 9.26 | 8.76 | 9.76 | 9.26 | 0.00 |
| 42 Acenaphthene-d10 | 12.11 | 11.61 | 12.61 | 12.11 | 0.00 |
| 59 Phenanthrene-d10 | 14.46 | 13.96 | 14.96 | 14.46 | 0.00 |
| 69 Chrysene-d12 | 18.73 | 18.23 | 19.23 | 18.73 | 0.00 |
| 134 Di-n-octylphthala | 19.96 | 19.46 | 20.46 | 19.96 | 0.00 |
| 77 Perylene-d12 | 20.87 | 20.37 | 21.37 | 20.87 | 0.00 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem2/nt6.i/20120524.b/05241201.D

Date : 24-MAY-2012 10:50

Client ID: CC0524

Sample Info: CC0524

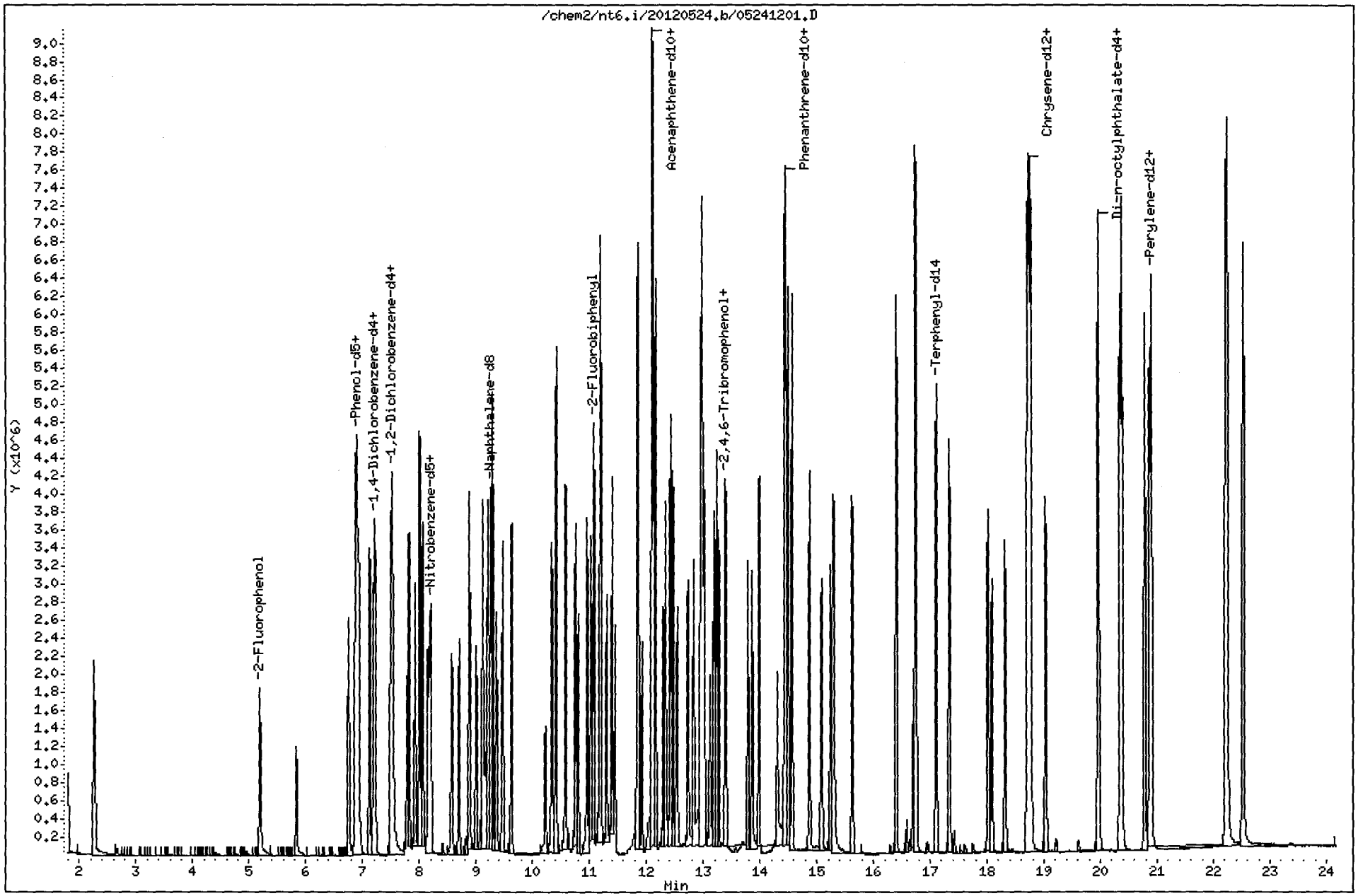
Column phase: ZB-5msi

Instrument: nt6.i

Operator: JZ

Column diameter: 0.32






UU52:01108

CO-ELUTION SUMMARY FOR FILE - 05241201.D

Lab ID: CC0524, Method: SW846052312.m, Instrument: nt6.i, Date: 24-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Data File: /chem2/nt6.i/20120524.b/tune.b/05241201.D

Date : 24-MAY-2012 10:50

Client ID: DFTPP0524

Instrument: nt6.i

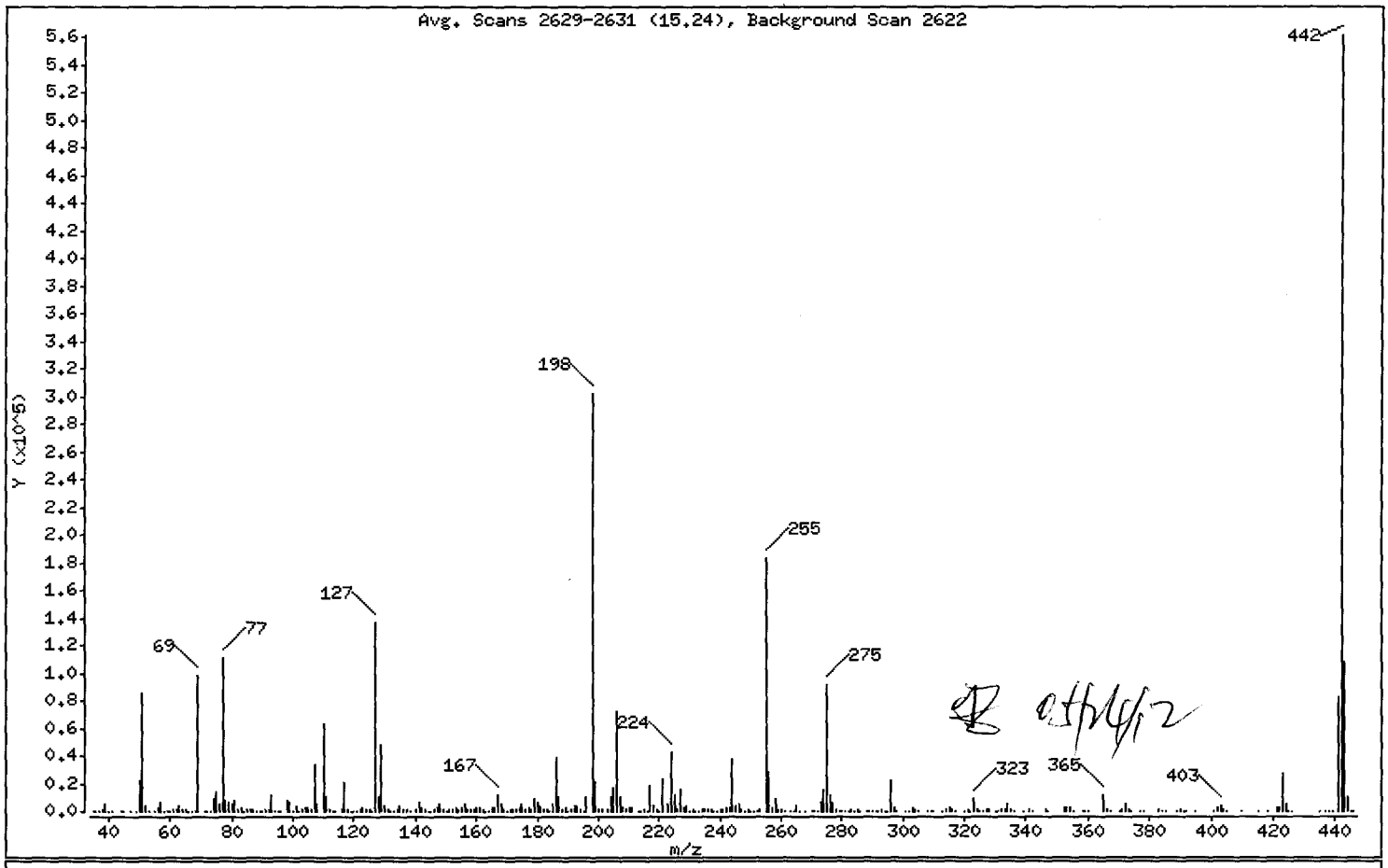
Sample Info: DFTPP0524

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

1 dftpp




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 198 | Base Peak, 100% relative abundance | 100.00 |
| 51 | 10.00 - 80.00% of mass 198 | 28.31 |
| 68 | Less than 2.00% of mass 69 | 0.12 ( 0.36) |
| 69 | Mass 69 relative abundance | 32.26 |
| 70 | Less than 2.00% of mass 69 | 0.00 ( 0.00) |
| 127 | 10.00 - 80.00% of mass 198 | 45.16 |
| 197 | Less than 2.00% of mass 198 | 0.00 |
| 199 | 5.00 - 9.00% of mass 198 | 7.01 |
| 275 | 10.00 - 60.00% of mass 198 | 30.24 |
| 365 | Greater than 1.00% of mass 198 | 3.91 |
| 441 | 0.01 - 24.00% of mass 442 | 27.14 ( 14.61) |
| 442 | 50.00 - 200.00% of mass 198 | 185.73 |
| 443 | 15.00 - 24.00% of mass 442 | 35.77 ( 19.26) |

UU52:01110

Data File: /chem2/nt6.i/20120524.b/tune.b/05241201.D

Date : 24-MAY-2012 10:50

Client ID: DFTPP0524 Instrument: nt6.i

Sample Info: DFTPP0524

Operator: JZ

Column phase: ZB-5msi Column diameter: 0.32

Data File: 05241201.D
Spectrum: Avg. Scans 2629-2631 (15,24), Background Scan 2622
Location of Maximum: 442.00
Number of points: 328

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 35.00 | 260 | 127.00 | 136512 | 214.00 | 51 | 305.00 | 57 |
| 36.00 | 42 | 128.00 | 10208 | 215.00 | 870 | 308.00 | 349 |
| 37.00 | 168 | 129.00 | 47168 | 216.00 | 365 | 309.00 | 179 |
| 38.00 | 1192 | 130.00 | 3840 | 217.00 | 17656 | 310.00 | 409 |
| 39.00 | 5798 | 131.00 | 753 | 218.00 | 4198 | 313.00 | 319 |
| 40.00 | 312 | 132.00 | 425 | 219.00 | 657 | 314.00 | 835 |
| 41.00 | 126 | 133.00 | 226 | 220.00 | 96 | 315.00 | 2727 |
| 44.00 | 57 | 134.00 | 1101 | 221.00 | 23016 | 316.00 | 1339 |
| 45.00 | 322 | 135.00 | 3553 | 223.00 | 4752 | 317.00 | 398 |
| 47.00 | 57 | 136.00 | 1435 | 224.00 | 43152 | 320.00 | 119 |
| 49.00 | 210 | 137.00 | 1763 | 225.00 | 11063 | 321.00 | 714 |
| 50.00 | 21440 | 138.00 | 566 | 226.00 | 1238 | 322.00 | 305 |
| 51.00 | 85584 | 140.00 | 1409 | 227.00 | 14949 | 323.00 | 9152 |
| 52.00 | 4515 | 141.00 | 6283 | 228.00 | 2238 | 324.00 | 1598 |
| 53.00 | 199 | 142.00 | 2074 | 229.00 | 4073 | 325.00 | 142 |
| 55.00 | 341 | 143.00 | 1259 | 230.00 | 565 | 326.00 | 56 |
| 56.00 | 2266 | 144.00 | 69 | 231.00 | 1595 | 327.00 | 1822 |
| 57.00 | 6633 | 145.00 | 445 | 232.00 | 206 | 328.00 | 957 |
| 58.00 | 355 | 146.00 | 966 | 233.00 | 381 | 330.00 | 51 |
| 59.00 | 79 | 147.00 | 3131 | 234.00 | 1024 | 331.00 | 56 |
| 60.00 | 221 | 148.00 | 5774 | 235.00 | 1183 | 332.00 | 983 |
| 61.00 | 1014 | 149.00 | 1338 | 236.00 | 689 | 333.00 | 956 |
| 62.00 | 1336 | 150.00 | 344 | 237.00 | 1414 | 334.00 | 5542 |
| 63.00 | 3361 | 151.00 | 1221 | 238.00 | 362 | 335.00 | 1552 |
| 64.00 | 674 | 152.00 | 1280 | 239.00 | 604 | 336.00 | 161 |
| 65.00 | 1791 | 153.00 | 2018 | 240.00 | 763 | 339.00 | 278 |
| 66.00 | 17 | 154.00 | 1367 | 241.00 | 1076 | 341.00 | 1202 |
| 67.00 | 264 | 155.00 | 3220 | 242.00 | 2241 | 342.00 | 435 |
| 68.00 | 352 | 156.00 | 5572 | 243.00 | 2869 | 346.00 | 1825 |
| 69.00 | 97520 | 157.00 | 1262 | 244.00 | 37008 | 347.00 | 488 |
| 71.00 | 232 | 158.00 | 1275 | 245.00 | 4437 | 352.00 | 2912 |
| 72.00 | 170 | 159.00 | 766 | 246.00 | 5393 | 353.00 | 2266 |
| 73.00 | 240 | 160.00 | 2096 | 247.00 | 1177 | 354.00 | 3057 |
| 74.00 | 8472 | 161.00 | 3012 | 248.00 | 310 | 355.00 | 580 |
| 75.00 | 14611 | 162.00 | 1442 | 249.00 | 1426 | 358.00 | 76 |

UU52:01111

Data File: /chem2/nt6.i/20120524.b/tune.b/05241201.D

Date : 24-MAY-2012 10:50

Client ID: DFTPP0524 Instrument: nt6.i

Sample Info: DFTPP0524

Operator: JZ

Column phase: ZB-5msi Column diameter: 0.32

Data File: 05241201.D
Spectrum: Avg. Scans 2629-2631 (15.24), Background Scan 2622
Location of Maximum: 442.00
Number of points: 328

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 76.00 | 5595 | 163.00 | 259 | 250.00 | 340 | 359.00 | 103 |
| 77.00 | 110520 | 164.00 | 422 | 251.00 | 466 | 360.00 | 75 |
| 78.00 | 7989 | 165.00 | 2865 | 252.00 | 344 | 365.00 | 11832 |
| 79.00 | 6109 | 166.00 | 2104 | 253.00 | 967 | 366.00 | 1823 |
| 80.00 | 5148 | 167.00 | 11480 | 255.00 | 183232 | 367.00 | 320 |
| 81.00 | 7345 | 168.00 | 4890 | 256.00 | 27776 | 370.00 | 372 |
| 82.00 | 1715 | 169.00 | 1064 | 257.00 | 1960 | 371.00 | 722 |
| 83.00 | 2045 | 170.00 | 469 | 258.00 | 9146 | 372.00 | 5453 |
| 84.00 | 466 | 171.00 | 695 | 259.00 | 1508 | 373.00 | 1421 |
| 85.00 | 1070 | 172.00 | 669 | 260.00 | 704 | 374.00 | 72 |
| 86.00 | 1904 | 173.00 | 1415 | 261.00 | 475 | 377.00 | 73 |
| 87.00 | 973 | 174.00 | 2702 | 263.00 | 159 | 378.00 | 63 |
| 88.00 | 546 | 175.00 | 4631 | 264.00 | 110 | 383.00 | 1705 |
| 89.00 | 60 | 176.00 | 1756 | 265.00 | 3496 | 384.00 | 302 |
| 90.00 | 117 | 177.00 | 1968 | 266.00 | 516 | 385.00 | 118 |
| 91.00 | 1468 | 178.00 | 674 | 268.00 | 79 | 389.00 | 59 |
| 92.00 | 1654 | 179.00 | 9459 | 270.00 | 366 | 390.00 | 923 |
| 93.00 | 11563 | 180.00 | 6138 | 271.00 | 348 | 391.00 | 574 |
| 94.00 | 575 | 181.00 | 3431 | 272.00 | 515 | 392.00 | 292 |
| 95.00 | 237 | 182.00 | 1065 | 273.00 | 6198 | 395.00 | 56 |
| 96.00 | 476 | 183.00 | 1180 | 274.00 | 15949 | 401.00 | 441 |
| 98.00 | 7386 | 184.00 | 579 | 275.00 | 91392 | 402.00 | 2519 |
| 99.00 | 6652 | 185.00 | 4759 | 276.00 | 11892 | 403.00 | 3847 |
| 100.00 | 515 | 186.00 | 38744 | 277.00 | 6420 | 404.00 | 1585 |
| 101.00 | 3788 | 187.00 | 10343 | 278.00 | 1007 | 405.00 | 236 |
| 102.00 | 631 | 188.00 | 1201 | 279.00 | 220 | 410.00 | 60 |
| 103.00 | 1592 | 189.00 | 2045 | 280.00 | 64 | 415.00 | 216 |
| 104.00 | 2431 | 190.00 | 455 | 281.00 | 250 | 418.00 | 57 |
| 105.00 | 2821 | 191.00 | 932 | 282.00 | 153 | 421.00 | 3143 |
| 106.00 | 893 | 192.00 | 3492 | 283.00 | 943 | 422.00 | 3051 |
| 107.00 | 33072 | 193.00 | 3308 | 284.00 | 475 | 423.00 | 27056 |
| 108.00 | 5096 | 194.00 | 646 | 285.00 | 1200 | 424.00 | 5324 |
| 110.00 | 63360 | 195.00 | 528 | 286.00 | 403 | 425.00 | 538 |
| 111.00 | 9949 | 196.00 | 10017 | 288.00 | 56 | 426.00 | 57 |
| 112.00 | 1740 | 198.00 | 302272 | 289.00 | 325 | 435.00 | 56 |

Data File: /chem2/nt6.i/20120524.b/tune.b/05241201.D

Date : 24-MAY-2012 10:50

Client ID: DFTPP0524

Instrument: nt6.i

Sample Info: DFTPP0524

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32

Data File: 05241201.D

Spectrum: Avg. Scans 2629-2631 (15.24), Background Scan 2622

Location of Maximum: 442.00

Number of points: 328

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 113.00 | 518 | 199.00 | 21200 | 290.00 | 324 | 437.00 | 116 |
| 114.00 | 198 | 200.00 | 1478 | 291.00 | 317 | 438.00 | 149 |
| 116.00 | 1076 | 201.00 | 1747 | 292.00 | 316 | 439.00 | 423 |
| 117.00 | 20792 | 203.00 | 1727 | 293.00 | 1548 | 441.00 | 82048 |
| 118.00 | 1652 | 204.00 | 9990 | 294.00 | 566 | 442.00 | 561408 |
| 119.00 | 186 | 205.00 | 17352 | 295.00 | 236 | 443.00 | 108120 |
| 120.00 | 276 | 206.00 | 71816 | 296.00 | 22536 | 444.00 | 9788 |
| 121.00 | 88 | 207.00 | 10394 | 297.00 | 2765 | 445.00 | 472 |
| 122.00 | 1907 | 208.00 | 2279 | 298.00 | 145 | 446.00 | 52 |
| 123.00 | 2741 | 209.00 | 711 | 301.00 | 253 | | |
| 124.00 | 1407 | 210.00 | 2307 | 302.00 | 504 | | |
| 125.00 | 1502 | 211.00 | 2869 | 303.00 | 2744 | | |
| 126.00 | 155 | 213.00 | 213 | 304.00 | 960 | | |

Data File: /chem2/nt6.i/20120524.b/tune.b/05241201.D



Date : 24-MAY-2012 10:50

Client ID: DFTPP0524

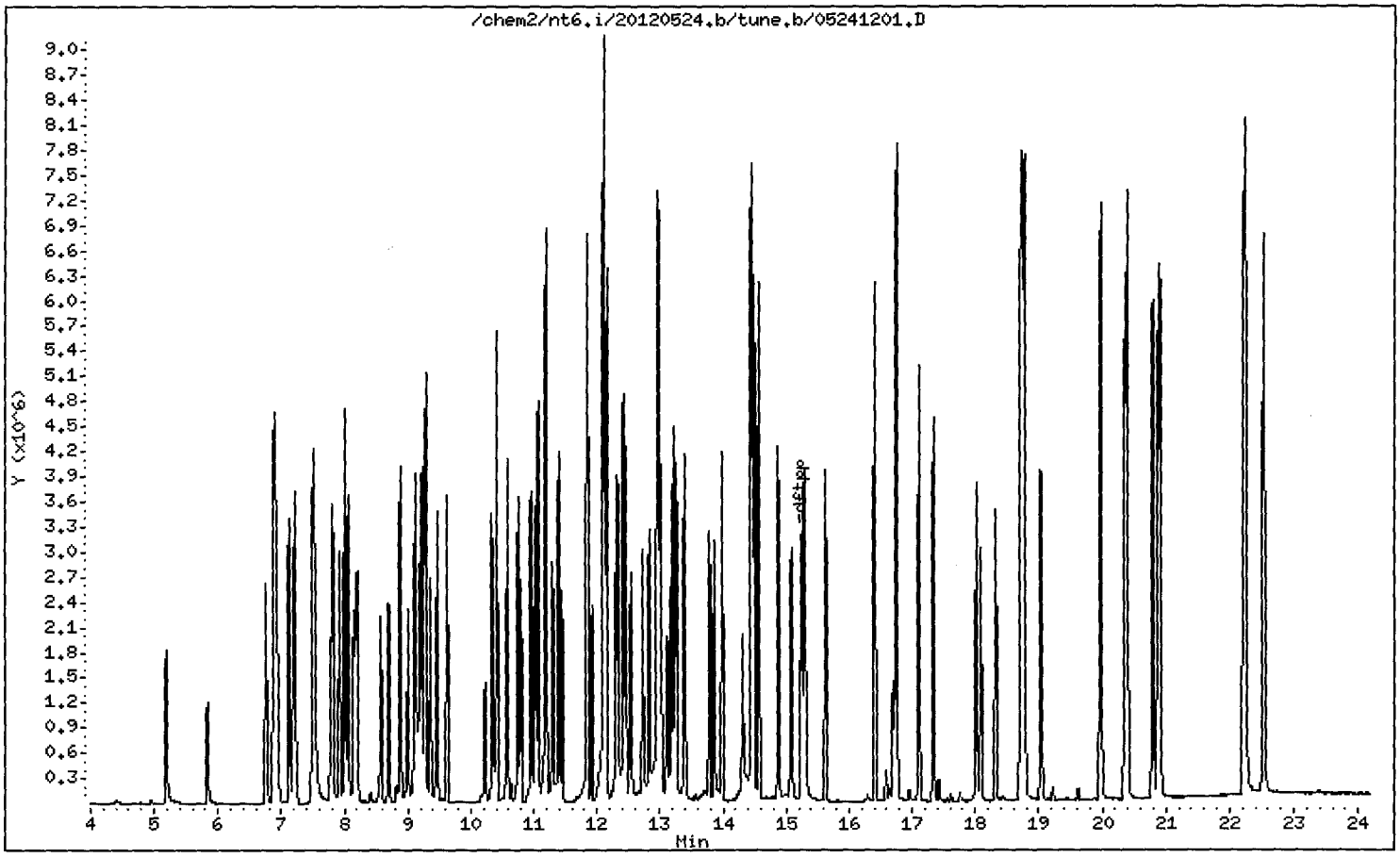
Instrument: nt6.i

Sample Info: DFTPP0524

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32




UU52:01114

Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem2/nt6.i/20120524.b/ddt.b/05241201.D  ARI ID: DDT0524
Method: /chem2/nt6.i/20120524.b/ddt.b/sw846ddt.m  Misc: 12-
Analysis Date: 24-MAY-2012 10:50  Instrument: nt6.i

| COMPOUND | RT | AREA |
|---|---|---|
| Pentachlorophenol | 14.306 | 491477 |
| Benzidine | 16.694 | 1155260 |
| 4,4'-DDE | ---- | ---- |
| 4,4'-DDD | 17.618 | 26981 |
| 4,4'-DDT | 18.083 | 1164099 |

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

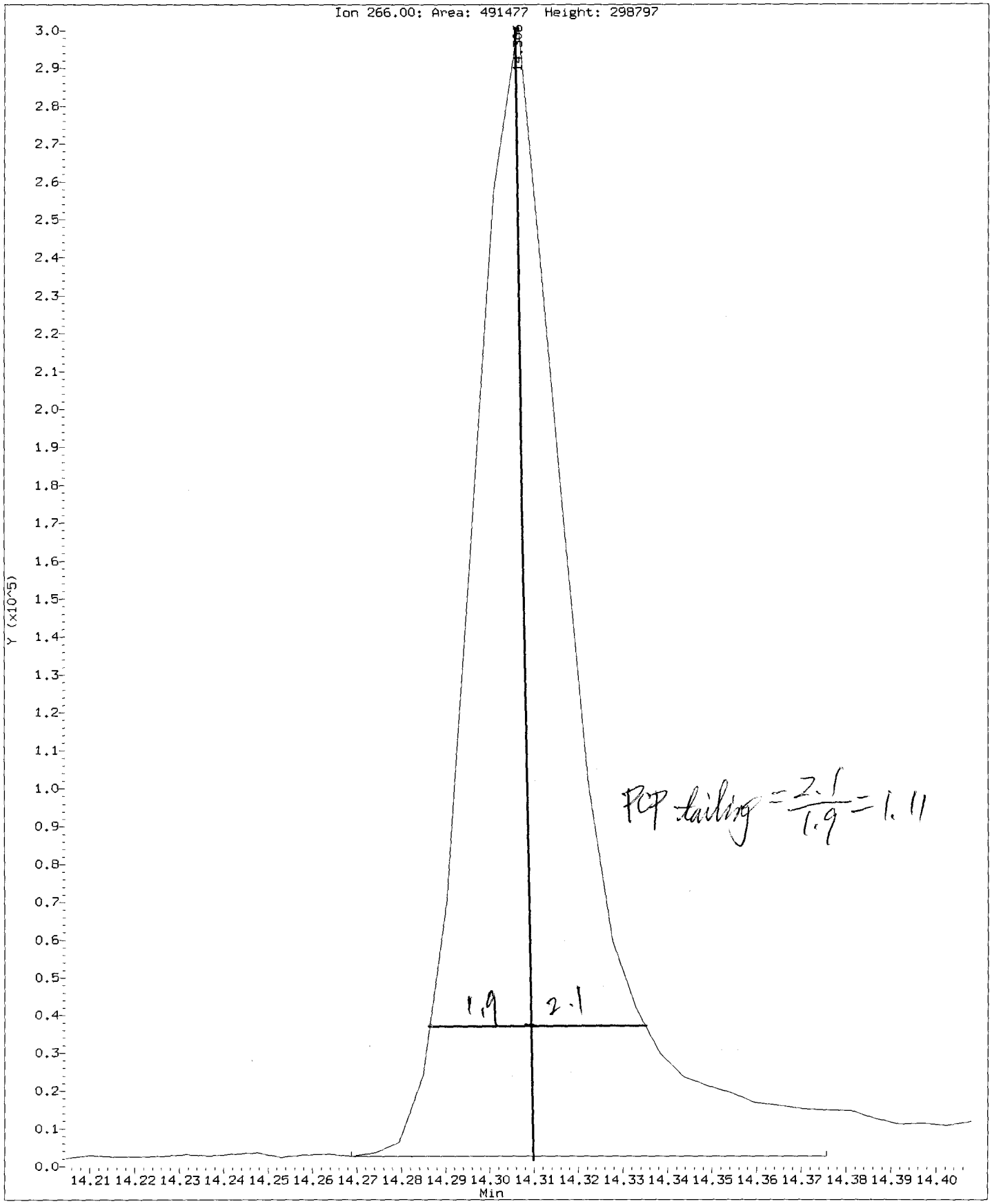
$$\text{DDT Percent Breakdown} = \frac{(0 + 26981) * 100}{(0 + 26981 + 1164099)}$$

DDT Percent Breakdown = 2.3 %

5/24/12

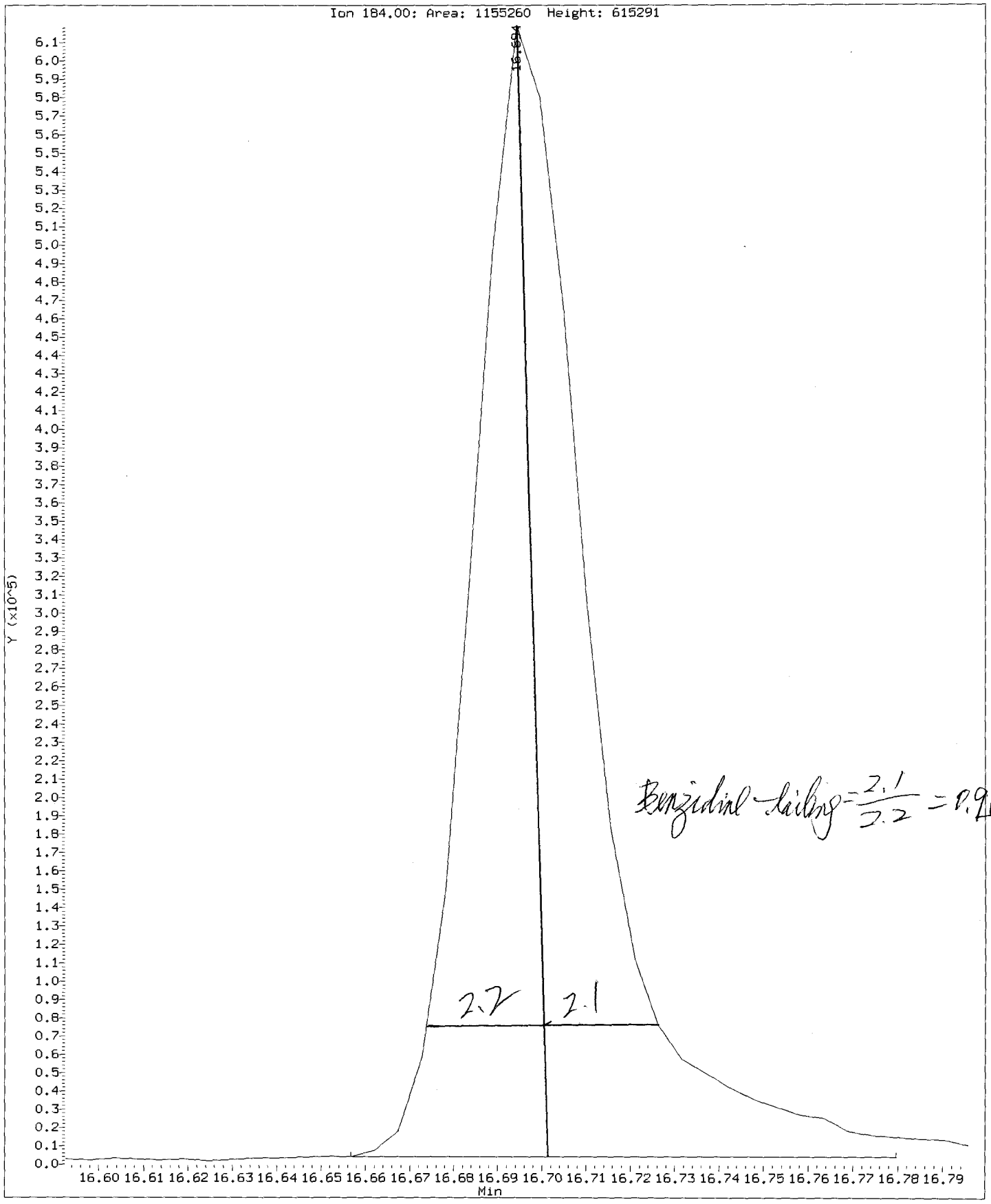
Data File: /chem2/nt6.i/20120524.b/ddt.b/05241201.D
Injection Date: 24-MAY-2012 10:50
Instrument: nt6.i
Client Sample ID: DDT0524

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem2/nt6.i/20120524.b/ddt.b/05241201.D
Injection Date: 24-MAY-2012 10:50
Instrument: nt6.i
Client Sample ID: DDT0524

Compound: Benzidine
CAS Number:



Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120524.b/05241202.D
Lab Smp Id: UU62MBW1 Client Smp ID: UU62MBW1
Inj Date : 24-MAY-2012 11:26
Operator : JZ Inst ID: nt6.i
Smp Info : UU62MBW1,
Misc Info : 12-8937
Comment : 1ul Injection
Method : /chem2/nt6.i/20120524.b/SW846052312.m
Meth Date : 24-May-2012 17:57 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 16:56 Cal File: 05231207.D
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: LLReteneMBLCS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Vt | 500.00000 | Volume of final extract (uL) |
| Vo | 500.00000 | Volume of sample extracted (mL) |

Cpnd Variable Local Compound Variable

| | | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|---|---|
| $ | 1 | 2-Fluorophenol | 112 | 5.184 | 5.187 | (0.721) | 1600180 | 28.3423 | 28.34 |
| $ | 2 | Phenol-d5 | 99 | 6.861 | 6.865 | (0.954) | 1850494 | 27.4811 | 27.48 |
| | 3 | Phenol | 94 | Compound Not Detected. | | | | | |
| $ | 5 | 2-Chlorophenol-d4 | 132 | 6.904 | 6.907 | (0.960) | 1767111 | 27.0777 | 27.08 |
| | 4 | Bis(2-Chloroethyl)ether | 93 | Compound Not Detected. | | | | | |
| | 6 | 2-Chlorophenol | 128 | Compound Not Detected. | | | | | |
| | 7 | 1,3-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| * | 8 | 1,4-Dichlorobenzene-d4 | 152 | 7.193 | 7.191 | (1.000) | 971489 | 20.0000 | |
| | 9 | 1,4-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| $ | 10 | 1,2-Dichlorobenzene-d4 | 152 | 7.492 | 7.490 | (1.042) | 704957 | 14.8117 | 14.81 |
| | 12 | 1,2-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| | 11 | Benzyl alcohol | 108 | Compound Not Detected. | | | | | |
| | 14 | 2,2'-oxybis(1-Chloropropane) | 45 | Compound Not Detected. | | | | | |
| | 13 | 2-Methylphenol | 108 | Compound Not Detected. | | | | | |
| | 17 | Hexachloroethane | 117 | Compound Not Detected. | | | | | |
| | 16 | N-Nitroso-di-n-propylamine | 70 | Compound Not Detected. | | | | | |

| | | | | | | | CONCENTRATIONS | |
|---|---|---|---|---|---|---|---|---|
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | ON-COLUMN (ug/mL) | FINAL ( ug/L) |
| | 15 4-Methylphenol | 108 | Compound Not Detected. | | | | | |
| $ | 18 Nitrobenzene-d5 | 82 | 8.144 | 8.147 | (0.880) | 982735 | 18.1684 | 18.17 |
| | 19 Nitrobenzene | 77 | Compound Not Detected. | | | | | |
| | 20 Isophorone | 82 | Compound Not Detected. | | | | | |
| | 21 2-Nitrophenol | 139 | Compound Not Detected. | | | | | |
| | 22 2,4-Dimethylphenol | 107 | Compound Not Detected. | | | | | |
| | 23 Bis(2-Chloroethoxy)methane | 93 | Compound Not Detected. | | | | | |
| | 24 Benzoic acid | 105 | Compound Not Detected. | | | | | |
| | 25 2,4-Dichlorophenol | 162 | Compound Not Detected. | | | | | |
| | 26 1,2,4-Trichlorobenzene | 180 | Compound Not Detected. | | | | | |
| * | 27 Naphthalene-d8 | 136 | 9.255 | 9.258 | (1.000) | 3374983 | 20.0000 | |
| | 28 Naphthalene | 128 | Compound Not Detected. | | | | | |
| | 29 4-Chloroaniline | 127 | Compound Not Detected. | | | | | |
| | 30 Hexachlorobutadiene | 225 | Compound Not Detected. | | | | | |
| | 31 4-Chloro-3-methylphenol | 107 | Compound Not Detected. | | | | | |
| | 32 2-Methylnaphthalene | 141 | Compound Not Detected. | | | | | |
| | 33 Hexachlorocyclopentadiene | 237 | Compound Not Detected. | | | | | |
| | 34 2,4,6-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| | 35 2,4,5-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| $ | 36 2-Fluorobiphenyl | 172 | 11.071 | 11.074 | (0.915) | 2215708 | 17.1452 | 17.15 |
| | 37 2-Chloronaphthalene | 162 | Compound Not Detected. | | | | | |
| | 38 2-Nitroaniline | 65 | Compound Not Detected. | | | | | |
| | 39 Dimethylphthalate | 163 | Compound Not Detected. | | | | | |
| | 40 Acenaphthylene | 152 | Compound Not Detected. | | | | | |
| | 41 2,6-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| * | 42 Acenaphthene-d10 | 164 | 12.102 | 12.105 | (1.000) | 2127525 | 20.0000 | |
| | 43 3-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 44 Acenaphthene | 153 | Compound Not Detected. | | | | | |
| | 45 2,4-Dinitrophenol | 184 | Compound Not Detected. | | | | | |
| | 46 Dibenzofuran | 168 | Compound Not Detected. | | | | | |
| | 47 4-Nitrophenol | 109 | Compound Not Detected. | | | | | |
| | 48 2,4-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| | 50 Diethylphthalate | 149 | Compound Not Detected. | | | | | |
| | 49 Fluorene | 166 | Compound Not Detected. | | | | | |
| | 51 4-Chlorophenyl-phenylether | 204 | Compound Not Detected. | | | | | |
| | 52 4-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 53 4,6-Dinitro-2-methylphenol | 198 | Compound Not Detected. | | | | | |
| | 54 N-Nitrosodiphenylamine | 169 | Compound Not Detected. | | | | | |
| $ | 55 2,4,6-Tribromophenol | 330 | 13.395 | 13.398 | (1.107) | 747851 | 27.0839 | 27.08 |
| | 56 4-Bromophenyl-phenylether | 248 | Compound Not Detected. | | | | | |
| | 57 Hexachlorobenzene | 284 | Compound Not Detected. | | | | | |
| | 58 Pentachlorophenol | 266 | Compound Not Detected. | | | | | |
| * | 59 Phenanthrene-d10 | 188 | 14.453 | 14.456 | (1.000) | 3333166 | 20.0000 | |
| | 60 Phenanthrene | 178 | Compound Not Detected. | | | | | |
| | 61 Anthracene | 178 | Compound Not Detected. | | | | | |
| | 62 Carbazole | 167 | Compound Not Detected. | | | | | |
| | 63 Di-n-butylphthalate | 149 | Compound Not Detected. | | | | | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|---|
| | 64 Fluoranthene | 202 | Compound Not Detected. | | | | | |
| | 65 Pyrene | 202 | Compound Not Detected. | | | | | |
| $ | 66 Terphenyl-d14 | 244 | 17.108 | 17.106 | (0.914) | 2600499 | 20.2076 | 20.21 |
| | 67 Butylbenzylphthalate | 149 | Compound Not Detected. | | | | | |
| | 68 Benzo(a)anthracene | 228 | Compound Not Detected. | | | | | |
| * | 69 Chrysene-d12 | 240 | 18.726 | 18.735 | (1.000) | 3717834 | 20.0000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | Compound Not Detected. | | | | | |
| | 71 Chrysene | 228 | Compound Not Detected. | | | | | |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | Compound Not Detected. | | | | | |
| * | 134 Di-n-octylphthalate-d4 | 153 | 19.960 | 19.964 | (1.000) | 3450320 | 20.0000 | |
| | 73 Di-n-octylphthalate | 149 | Compound Not Detected. | | | | | |
| | 74 Benzo(b)fluoranthene | 252 | Compound Not Detected. | | | | | |
| | 75 Benzo(k)fluoranthene | 252 | Compound Not Detected. | | | | | |
| | 76 Benzo(a)pyrene | 252 | Compound Not Detected. | | | | | |
| * | 77 Perylene-d12 | 264 | 20.869 | 20.872 | (1.000) | 4238968 | 20.0000 | |
| | 78 Indeno(1,2,3-cd)pyrene | 276 | Compound Not Detected. | | | | | |
| | 79 Dibenzo(a,h)anthracene | 278 | Compound Not Detected. | | | | | |
| | 80 Benzo(g,h,i)perylene | 276 | Compound Not Detected. | | | | | |
| | 90 N-Nitrosodimethylamine | 74 | Compound Not Detected. | | | | | |
| | 91 Aniline | 93 | Compound Not Detected. | | | | | |
| | 93 Benzidine | 184 | Compound Not Detected. | | | | | |
| | 103 Pyridine | 79 | Compound Not Detected. | | | | | |
| | 105 1-methylnaphthalene | 141 | Compound Not Detected. | | | | | |
| | 111 Azobenzene (1,2-DP-Hydrazine) | 77 | Compound Not Detected. | | | | | |
| | 187 Total Benzofluoranthenes | 252 | Compound Not Detected. | | | | | |
| | 98 Retene | 219 | Compound Not Detected. | | | | | |

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05241202.D
Lab Smp Id: UU62MBW1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120524.b/SW846052312.m
Misc Info: 12-8937

Calibration Date: 24-MAY-2012
Calibration Time: 10:50
Client Smp ID: UU62MBW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 963757 | 481878 | 1927514 | 971489 | 0.80 |
| 27 Naphthalene-d8 | 3430476 | 1715238 | 6860952 | 3374983 | -1.62 |
| 42 Acenaphthene-d10 | 2259168 | 1129584 | 4518336 | 2127525 | -5.83 |
| 59 Phenanthrene-d10 | 3446677 | 1723338 | 6893354 | 3333166 | -3.29 |
| 69 Chrysene-d12 | 3961525 | 1980762 | 7923050 | 3717834 | -6.15 |
| 134 Di-n-octylphthala | 3758743 | 1879372 | 7517486 | 3450320 | -8.21 |
| 77 Perylene-d12 | 4154109 | 2077054 | 8308218 | 4238968 | 2.04 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 7.19 | 6.69 | 7.69 | 7.19 | 0.03 |
| 27 Naphthalene-d8 | 9.26 | 8.76 | 9.76 | 9.25 | -0.03 |
| 42 Acenaphthene-d10 | 12.11 | 11.61 | 12.61 | 12.10 | -0.03 |
| 59 Phenanthrene-d10 | 14.46 | 13.96 | 14.96 | 14.45 | -0.02 |
| 69 Chrysene-d12 | 18.73 | 18.23 | 19.23 | 18.73 | -0.05 |
| 134 Di-n-octylphthala | 19.96 | 19.46 | 20.46 | 19.96 | -0.02 |
| 77 Perylene-d12 | 20.87 | 20.37 | 21.37 | 20.87 | -0.02 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU62
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: UU62MBW1 Client Smp ID: UU62MBW1
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: BLANK
SpikeList File: LLLCS.spk Quant Type: ISTD
Sublist File: LLReteneMBLCS.sub
Method File: /chem2/nt6.i/20120524.b/SW846052312.m
Misc Info: 12-8937

| SURROGATE COMPOUND | CONC ADDED ug/L | CONC RECOVERED ug/L | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 1 2-Fluorophenol | 37.50 | 28.34 | 75.58 | 46-100 |
| $ 2 Phenol-d5 | 37.50 | 27.48 | 73.28 | 50-100 |
| $ 5 2-Chlorophenol-d4 | 37.50 | 27.08 | 72.21 | 53-100 |
| $ 10 1,2-Dichlorobenzen | 25.00 | 14.81 | 59.25 | 38-100 |
| $ 18 Nitrobenzene-d5 | 25.00 | 18.17 | 72.67 | 46-100 |
| $ 36 2-Fluorobiphenyl | 25.00 | 17.15 | 68.58 | 49-100 |
| $ 55 2,4,6-Tribromophen | 37.50 | 27.08 | 72.22 | 52-123 |
| $ 66 Terphenyl-d14 | 25.00 | 20.21 | 80.83 | 53-119 |

Data File: /chem2/nt6.i/20120524.b/05241202.D

Date : 24-MAY-2012 11:26

Client ID: UU62MBW1

Sample Info: UU62MBW1,

Volume Injected (uL): 1.0

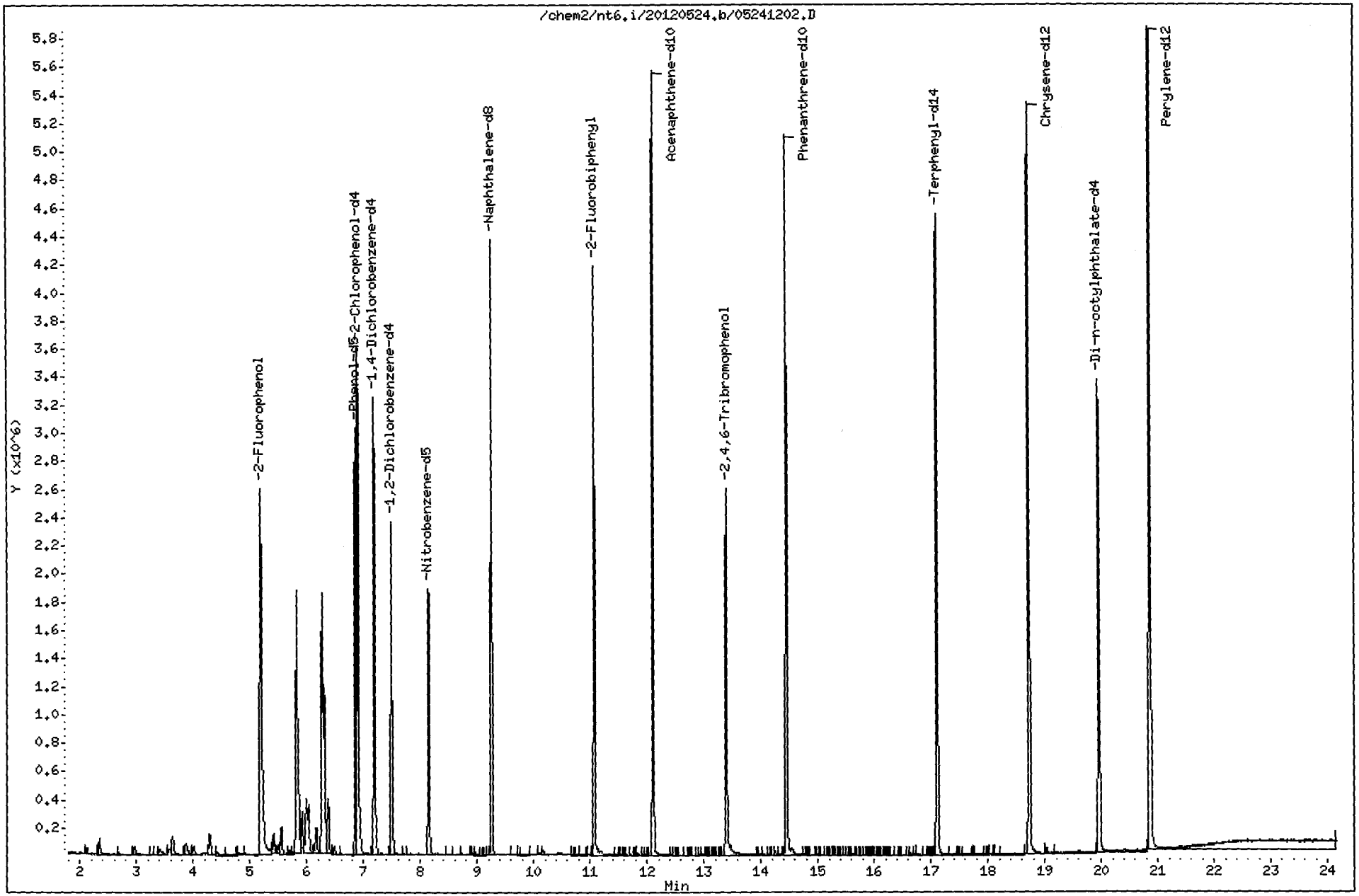
Column phase: ZB-5msi

Instrument: nt6.i

Operator: JZ

Column diameter: 0.32






UU52:01123

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120524.b/05241203.D
Lab Smp Id: UU62LCSW1 Client Smp ID: UU62LCSW1
Inj Date : 24-MAY-2012 11:59
Operator : JZ Inst ID: nt6.i
Smp Info : UU62LCSW1,
Misc Info : 12-8937
Comment : 1ul Injection
Method : /chem2/nt6.i/20120524.b/SW846052312.m
Meth Date : 24-May-2012 18:14 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 16:56 Cal File: 05231207.D
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: LLReteneMBLCS.sub
Target Version: 3.50

JZ 05/24/12

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Vt | 500.00000 | Volume of final extract (uL) |
| Vo | 500.00000 | Volume of sample extracted (mL) |

Cpnd Variable Local Compound Variable

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|---|
| $ | 1 2-Fluorophenol | 112 | 5.186 | 5.187 | (0.721) | 1278293 | 25.9488 | 25.95 |
| $ | 2 Phenol-d5 | 99 | 6.863 | 6.865 | (0.955) | 1671212 | 28.4445 | 28.44 |
| | 3 Phenol | 94 | 6.879 | 6.881 | (0.957) | 1166615 | 16.6235 | 16.62 |
| $ | 5 2-Chlorophenol-d4 | 132 | 6.906 | 6.907 | (0.961) | 1494231 | 26.2413 | 26.24 |
| | 4 Bis(2-Chloroethyl)ether | 93 | 6.890 | 6.891 | (0.958) | 874042 | 17.9354 | 17.94 |
| | 6 2-Chlorophenol | 128 | 6.927 | 6.929 | (0.964) | 996166 | 15.5497 | 15.55 |
| | 7 1,3-Dichlorobenzene | 146 | 7.120 | 7.121 | (0.990) | 708017 | 10.7803 | 10.78 |
| * | 8 1,4-Dichlorobenzene-d4 | 152 | 7.189 | 7.191 | (1.000) | 847652 | 20.0000 | |
| | 9 1,4-Dichlorobenzene | 146 | 7.216 | 7.217 | (1.004) | 748649 | 11.4054 | 11.41 |
| $ | 10 1,2-Dichlorobenzene-d4 | 152 | 7.494 | 7.490 | (1.042) | 578529 | 13.9311 | 13.93 |
| | 12 1,2-Dichlorobenzene | 146 | 7.515 | 7.516 | (1.045) | 745937 | 11.8713 | 11.87 |
| | 11 Benzyl alcohol | 108 | 7.531 | 7.532 | (1.048) | 581010 | 15.8545 | 15.85 |
| | 14 2,2'-oxybis(1-Chloropropane) | 45 | 7.782 | 7.783 | (1.082) | 933746 | 17.0833 | 17.08 |
| | 13 2-Methylphenol | 108 | 7.809 | 7.816 | (1.086) | 823438 | 15.3771 | 15.38 |
| | 17 Hexachloroethane | 117 | 8.001 | 8.003 | (1.113) | 227851 | 9.69247 | 9.692 |
| | 16 N-Nitroso-di-n-propylamine | 70 | 8.006 | 8.008 | (1.114) | 596250 | 18.1183 | 18.12 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|---|
| | 15 4-Methylphenol | 108 | 8.060 | 8.056 | (1.121) | 1775887 | 32.1160 | 32.12 |
| $ | 18 Nitrobenzene-d5 | 82 | 8.145 | 8.147 | (0.880) | 859858 | 17.4513 | 17.45 |
| | 19 Nitrobenzene | 77 | 8.177 | 8.179 | (0.883) | 853708 | 16.8528 | 16.85 |
| | 20 Isophorone | 82 | 8.578 | 8.574 | (0.927) | 1466848 | 19.6852 | 19.69 |
| | 21 2-Nitrophenol | 139 | 8.701 | 8.702 | (0.940) | 567595 | 15.9193 | 15.92 |
| | 22 2,4-Dimethylphenol | 107 | 8.883 | 8.879 | (0.960) | 2279013 | 42.7164 | 42.72 |
| | 23 Bis(2-Chloroethoxy)methane | 93 | 9.000 | 9.002 | (0.972) | 987304 | 17.6682 | 17.67 |
| | 24 Benzoic acid | 105 | 9.262 | 9.188 | (1.001) | 3381172 | 102.434 | 102.4 |
| | 25 2,4-Dichlorophenol | 162 | 9.112 | 9.114 | (0.984) | 2642305 | 50.0148 | 50.01 |
| | 26 1,2,4-Trichlorobenzene | 180 | 9.208 | 9.210 | (0.995) | 696245 | 12.2715 | 12.27 |
| * | 27 Naphthalene-d8 | 136 | 9.257 | 9.258 | (1.000) | 3074341 | 20.0000 | |
| | 28 Naphthalene | 128 | 9.289 | 9.285 | (1.003) | 2368189 | 15.1513 | 15.15 |
| | 29 4-Chloroaniline | 127 | 9.470 | 9.466 | (1.023) | 3385175 | 46.8994 | 46.90 |
| | 30 Hexachlorobutadiene | 225 | 9.625 | 9.627 | (1.040) | 335553 | 9.68570 | 9.686 |
| | 31 4-Chloro-3-methylphenol | 107 | 10.336 | 10.337 | (1.117) | 2374532 | 56.2062 | 56.21 |
| | 32 2-Methylnaphthalene | 141 | 10.410 | 10.412 | (1.125) | 1352620 | 13.9211 | 13.92 |
| | 33 Hexachlorocyclopentadiene | 237 | 10.800 | 10.796 | (0.892) | 838981 | 28.4741 | 28.47 |
| | 34 2,4,6-Trichlorophenol | 196 | 10.955 | 10.957 | (0.905) | 2177917 | 56.8134 | 56.81 |
| | 35 2,4,5-Trichlorophenol | 196 | 11.019 | 11.021 | (0.910) | 2241838 | 60.5360 | 60.54 |
| $ | 36 2-Fluorobiphenyl | 172 | 11.073 | 11.074 | (0.914) | 1992532 | 17.5426 | 17.54 |
| | 37 2-Chloronaphthalene | 162 | 11.185 | 11.181 | (0.924) | 1662648 | 17.0337 | 17.03 |
| | 38 2-Nitroaniline | 65 | 11.452 | 11.448 | (0.946) | 1357120 | 56.6331 | 56.63 |
| | 39 Dimethylphthalate | 163 | 11.842 | 11.838 | (0.978) | 2163989 | 21.8377 | 21.84 |
| | 40 Acenaphthylene | 152 | 11.853 | 11.849 | (0.979) | 2792780 | 18.2854 | 18.29 |
| | 41 2,6-Dinitrotoluene | 165 | 11.928 | 11.918 | (0.985) | 1568118 | 63.9658 | 63.97 |
| * | 42 Acenaphthene-d10 | 164 | 12.109 | 12.105 | (1.000) | 1869892 | 20.0000 | |
| | 43 3-Nitroaniline | 138 | 12.136 | 12.127 | (1.002) | 1682200 | 59.9839 | 59.98 |
| | 44 Acenaphthene | 153 | 12.157 | 12.153 | (1.004) | 1759153 | 17.1670 | 17.17 |
| | 45 2,4-Dinitrophenol | 184 | 12.296 | 12.292 | (1.015) | 1800285 | 107.713 | 107.7 |
| | 46 Dibenzofuran | 168 | 12.419 | 12.420 | (1.026) | 2524115 | 17.5845 | 17.58 |
| | 47 4-Nitrophenol | 109 | 12.515 | 12.517 | (1.034) | 619871 | 62.7984 | 62.80 |
| | 48 2,4-Dinitrotoluene | 165 | 12.547 | 12.538 | (1.036) | 2094094 | 66.2845 | 66.28 |
| | 50 Diethylphthalate | 149 | 12.996 | 12.987 | (1.073) | 2077950 | 22.0109 | 22.01 |
| | 49 Fluorene | 166 | 12.969 | 12.971 | (1.071) | 2158504 | 18.5535 | 18.55 |
| | 51 4-Chlorophenyl-phenylether | 204 | 13.017 | 13.019 | (1.075) | 1101194 | 19.2989 | 19.30 |
| | 52 4-Nitroaniline | 138 | 13.135 | 13.115 | (1.085) | 1611941 | 61.0836 | 61.08 |
| | 53 4,6-Dinitro-2-methylphenol | 198 | 13.199 | 13.190 | (0.913) | 2608577 | 118.353 | 118.4 |
| | 54 N-Nitrosodiphenylamine | 169 | 13.236 | 13.232 | (0.916) | 1435847 | 18.6350 | 18.63 |
| $ | 55 2,4,6-Tribromophenol | 330 | 13.397 | 13.398 | (1.106) | 786950 | 32.4267 | 32.43 |
| | 56 4-Bromophenyl-phenylether | 248 | 13.787 | 13.788 | (0.954) | 751480 | 19.4922 | 19.49 |
| | 57 Hexachlorobenzene | 284 | 13.984 | 13.986 | (0.967) | 956386 | 19.8559 | 19.86 |
| | 58 Pentachlorophenol | 266 | 14.305 | 14.306 | (0.990) | 1345402 | 60.5575 | 60.56 |
| * | 59 Phenanthrene-d10 | 188 | 14.454 | 14.456 | (1.000) | 3057363 | 20.0000 | |
| | 60 Phenanthrene | 178 | 14.492 | 14.493 | (1.003) | 3153509 | 19.8397 | 19.84 |
| | 61 Anthracene | 178 | 14.561 | 14.563 | (1.007) | 3084959 | 19.2081 | 19.21 |
| | 62 Carbazole | 167 | 14.871 | 14.873 | (1.029) | 2787154 | 22.3552 | 22.36 |
| | 63 Di-n-butylphthalate | 149 | 15.624 | 15.626 | (1.081) | 3416309 | 23.1717 | 23.17 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|---|
| | 64 Fluoranthene | 202 | 16.404 | 16.411 | (1.135) | 3680394 | 21.6416 | 21.64 |
| | 65 Pyrene | 202 | 16.752 | 16.753 | (0.894) | 3722489 | 19.2912 | 19.29 |
| $ | 66 Terphenyl-d14 | 244 | 17.104 | 17.106 | (0.913) | 2586318 | 19.9959 | 20.00 |
| | 67 Butylbenzylphthalate | 149 | 18.012 | 18.014 | (0.962) | 1541915 | 21.0366 | 21.04 |
| | 68 Benzo(a)anthracene | 228 | 18.707 | 18.708 | (0.999) | 3595651 | 18.4224 | 18.42 |
| * | 69 Chrysene-d12 | 240 | 18.733 | 18.735 | (1.000) | 3736704 | 20.0000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | 18.755 | 18.751 | (1.001) | 3780098 | 51.2504 | 51.25 |
| | 71 Chrysene | 228 | 18.771 | 18.772 | (1.002) | 3563248 | 19.8703 | 19.87 |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 19.033 | 19.034 | (0.953) | 2116125 | 21.3033 | 21.30 |
| * | 134 Di-n-octylphthalate-d4 | 153 | 19.962 | 19.964 | (1.000) | 3533231 | 20.0000 | |
| | 73 Di-n-octylphthalate | 149 | 19.973 | 19.974 | (1.001) | 3567160 | 21.6028 | 21.60 |
| | 74 Benzo(b)fluoranthene | 252 | 20.352 | 20.354 | (0.975) | 3742889 | 17.6002 | 17.60 |
| | 75 Benzo(k)fluoranthene | 252 | 20.384 | 20.386 | (0.977) | 4406273 | 21.7822 | 21.78 |
| | 76 Benzo(a)pyrene | 252 | 20.785 | 20.792 | (0.996) | 3352476 | 18.1564 | 18.16 |
| * | 77 Perylene-d12 | 264 | 20.870 | 20.872 | (1.000) | 3942542 | 20.0000 | |
| | 78 Indeno(1,2,3-cd)pyrene | 276 | 22.217 | 22.223 | (1.064) | 4937628 | 18.1571 | 18.16 |
| | 79 Dibenzo(a,h)anthracene | 278 | 22.243 | 22.245 | (1.066) | 3915613 | 17.9078 | 17.91 |
| | 80 Benzo(g,h,i)perylene | 276 | 22.521 | 22.528 | (1.079) | 4370802 | 19.0539 | 19.05 |
| | 90 N-Nitrosodimethylamine | 74 | 2.280 | 2.281 | (0.317) | 1448154 | 49.3910 | 49.39 |
| | 91 Aniline | 93 | 6.756 | 6.752 | (0.940) | 1271519 | 16.4675 | 16.47 |
| | 93 Benzidine | 184 | Compound Not Detected. | | | | | |
| | 103 Pyridine | 79 | Compound Not Detected. | | | | | |
| | 105 1-methylnaphthalene | 141 | 10.581 | 10.577 | (1.143) | 1429054 | 19.1451 | 19.15 |
| | 111 Azobenzene (1,2-DP-Hydrazine) | 77 | 13.268 | 13.265 | (1.096) | 1864969 | 21.3073 | 21.31 |
| | 187 Total Benzofluoranthenes | 252 | 20.384 | 20.386 | (0.977) | 7651676 | 39.6797 | 39.68 |
| | 98 Retene | 219 | Compound Not Detected. | | | | | |

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05241203.D
Lab Smp Id: UU62LCSW1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120524.b/SW846052312.m
Misc Info: 12-8937

Calibration Date: 24-MAY-2012
Calibration Time: 10:50
Client Smp ID: UU62LCSW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 963757 | 481878 | 1927514 | 847652 | -12.05 |
| 27 Naphthalene-d8 | 3430476 | 1715238 | 6860952 | 3074341 | -10.38 |
| 42 Acenaphthene-d10 | 2259168 | 1129584 | 4518336 | 1869892 | -17.23 |
| 59 Phenanthrene-d10 | 3446677 | 1723338 | 6893354 | 3057363 | -11.30 |
| 69 Chrysene-d12 | 3961525 | 1980762 | 7923050 | 3736704 | -5.68 |
| 134 Di-n-octylphthala | 3758743 | 1879372 | 7517486 | 3533231 | -6.00 |
| 77 Perylene-d12 | 4154109 | 2077054 | 8308218 | 3942542 | -5.09 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 7.19 | 6.69 | 7.69 | 7.19 | -0.02 |
| 27 Naphthalene-d8 | 9.26 | 8.76 | 9.76 | 9.26 | -0.02 |
| 42 Acenaphthene-d10 | 12.11 | 11.61 | 12.61 | 12.11 | 0.03 |
| 59 Phenanthrene-d10 | 14.46 | 13.96 | 14.96 | 14.45 | -0.01 |
| 69 Chrysene-d12 | 18.73 | 18.23 | 19.23 | 18.73 | -0.01 |
| 134 Di-n-octylphthala | 19.96 | 19.46 | 20.46 | 19.96 | -0.01 |
| 77 Perylene-d12 | 20.87 | 20.37 | 21.37 | 20.87 | -0.01 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU62
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: UU62LCSW1 Client Smp ID: UU62LCSW1
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: LCS
SpikeList File: LLRetenLCS.spk Quant Type: ISTD
Sublist File: LLReteneMBLCS.sub
Method File: /chem2/nt6.i/20120524.b/SW846052312.m
Misc Info: 12-8937

| SPIKE | COMPOUND | CONC ADDED ug/L | CONC RECOVERED ug/L | % RECOVERED | LIMITS |
|---|---|---|---|---|---|
| 3 | Phenol | 25.00 | 16.62 | 66.49 | 50-100 |
| 4 | Bis(2-Chloroethyl) | 25.00 | 17.94 | 71.74 | 52-100 |
| 6 | 2-Chlorophenol | 25.00 | 15.55 | 62.20 | 56-100 |
| 7 | 1,3-Dichlorobenzen | 25.00 | 10.78 | 43.12 | 23-100 |
| 9 | 1,4-Dichlorobenzen | 25.00 | 11.41 | 45.62 | 25-100 |
| 11 | Benzyl alcohol | 25.00 | 15.85 | 63.42 | 19-100 |
| 12 | 1,2-Dichlorobenzen | 25.00 | 11.87 | 47.49 | 30-100 |
| 13 | 2-Methylphenol | 25.00 | 15.38 | 61.51 | 52-100 |
| 14 | 2,2'-oxybis(1-Chlo | 25.00 | 17.08 | 68.33 | 32-111 |
| 15 | 4-Methylphenol | 50.00 | 32.12 | 64.23 | 53-102 |
| 16 | N-Nitroso-di-n-pro | 25.00 | 18.12 | 72.47 | 43-104 |
| 17 | Hexachloroethane | 25.00 | 9.692 | 38.77 | 12-100 |
| 19 | Nitrobenzene | 25.00 | 16.85 | 67.41 | 33-125 |
| 20 | Isophorone | 25.00 | 19.69 | 78.74 | 57-115 |
| 21 | 2-Nitrophenol | 25.00 | 15.92 | 63.68 | 56-102 |
| 22 | 2,4-Dimethylphenol | 75.00 | 42.72 | 56.96 | 29-100 |
| 23 | Bis(2-Chloroethoxy | 25.00 | 17.67 | 70.67 | 54-101 |
| 24 | Benzoic acid | 137.5 | 102.4 | 74.50 | 10-131 |
| 25 | 2,4-Dichlorophenol | 75.00 | 50.01 | 66.69 | 56-104 |
| 26 | 1,2,4-Trichloroben | 25.00 | 12.27 | 49.09 | 27-100 |
| 28 | Naphthalene | 25.00 | 15.15 | 60.61 | 45-100 |
| 29 | 4-Chloroaniline | 75.00 | 46.90 | 62.53 | 10-139 |
| 30 | Hexachlorobutadien | 25.00 | 9.686 | 38.74 | 10-100 |
| 31 | 4-Chloro-3-methylp | 75.00 | 56.21 | 74.94 | 53-109 |
| 32 | 2-Methylnaphthalen | 25.00 | 13.92 | 55.68 | 46-100 |
| 33 | Hexachlorocyclopen | 75.00 | 28.47 | 37.97 | 10-100 |
| 34 | 2,4,6-Trichlorophe | 75.00 | 56.81 | 75.75 | 58-108 |
| 35 | 2,4,5-Trichlorophe | 75.00 | 60.54 | 80.71 | 58-107 |
| 37 | 2-Chloronaphthalen | 25.00 | 17.03 | 68.13 | 56-104 |
| 38 | 2-Nitroaniline | 75.00 | 56.63 | 75.51 | 50-107 |
| 39 | Dimethylphthalate | 25.00 | 21.84 | 87.35 | 58-107 |
| 40 | Acenaphthylene | 25.00 | 18.29 | 73.14 | 57-100 |
| 41 | 2,6-Dinitrotoluene | 75.00 | 63.97 | 85.29 | 58-112 |

| SPIKE | COMPOUND | CONC ADDED ug/L | CONC RECOVERED ug/L | % RECOVERED | LIMITS |
|---|---|---|---|---|---|
| 43 | 3-Nitroaniline | 75.00 | 59.98 | 79.98 | 21-150 |
| 44 | Acenaphthene | 25.00 | 17.17 | 68.67 | 51-100 |
| 45 | 2,4-Dinitrophenol | 137.5 | 107.7 | 78.34 | 12-169 |
| 46 | Dibenzofuran | 25.00 | 17.58 | 70.34 | 57-100 |
| 47 | 4-Nitrophenol | 75.00 | 62.80 | 83.73 | 35-119 |
| 48 | 2,4-Dinitrotoluene | 75.00 | 66.28 | 88.38 | 58-117 |
| 49 | Fluorene | 25.00 | 18.55 | 74.21 | 56-104 |
| 50 | Diethylphthalate | 25.00 | 22.01 | 88.04 | 52-111 |
| 51 | 4-Chlorophenyl-phe | 25.00 | 19.30 | 77.20 | 55-104 |
| 52 | 4-Nitroaniline | 75.00 | 61.08 | 81.44 | 49-112 |
| 53 | 4,6-Dinitro-2-meth | 137.5 | 118.4 | 86.07 | 13-139 |
| 54 | N-Nitrosodiphenyla | 25.00 | 18.63 | 74.54 | 60-136 |
| 56 | 4-Bromophenyl-phen | 25.00 | 19.49 | 77.97 | 50-103 |
| 57 | Hexachlorobenzene | 25.00 | 19.86 | 79.42 | 54-106 |
| 58 | Pentachlorophenol | 75.00 | 60.56 | 80.74 | 46-114 |
| 60 | Phenanthrene | 25.00 | 19.84 | 79.36 | 56-102 |
| 61 | Anthracene | 25.00 | 19.21 | 76.83 | 56-101 |
| 62 | Carbazole | 25.00 | 22.36 | 89.42 | 60-108 |
| 63 | Di-n-butylphthalat | 25.00 | 23.17 | 92.69 | 56-112 |
| 64 | Fluoranthene | 25.00 | 21.64 | 86.57 | 57-110 |
| 65 | Pyrene | 25.00 | 19.29 | 77.16 | 48-119 |
| 67 | Butylbenzylphthala | 25.00 | 21.04 | 84.15 | 51-114 |
| 68 | Benzo(a)anthracene | 25.00 | 18.42 | 73.69 | 55-105 |
| 70 | 3,3'-Dichlorobenzi | 75.00 | 51.25 | 68.33 | 10-128 |
| 71 | Chrysene | 25.00 | 19.87 | 79.48 | 55-104 |
| 72 | bis(2-Ethylhexyl)p | 25.00 | 21.30 | 85.21 | 28-164 |
| 73 | Di-n-octylphthalat | 25.00 | 21.60 | 86.41 | 57-107 |
| 74 | Benzo(b)fluoranthe | 25.00 | 17.60 | 70.40 | 53-112 |
| 75 | Benzo(k)fluoranthe | 25.00 | 21.78 | 87.13 | 50-116 |
| 76 | Benzo(a)pyrene | 25.00 | 18.16 | 72.63 | 45-103 |
| 78 | Indeno(1,2,3-cd)py | 25.00 | 18.16 | 72.63 | 35-118 |
| 79 | Dibenzo(a,h)anthra | 25.00 | 17.91 | 71.63 | 42-119 |
| 80 | Benzo(g,h,i)peryle | 25.00 | 19.05 | 76.22 | 39-123 |
| 91 | Aniline | 75.00 | 16.47 | 21.96 | 10-100 |
| 111 | Azobenzene (1,2-DP | 25.00 | 21.31 | 85.23 | 57-109 |
| 90 | N-Nitrosodimethyla | 75.00 | 49.39 | 65.85 | 49-100 |
| 105 | 1-methylnaphthalen | 25.00 | 19.15 | 76.58 | 46-100 |
| 144 | alpha-Terpineol | 25.00 | 0.000 | not added in * | 30-160 |
| 187 | Total Benzofluoran | 50.00 | 39.68 | 79.36 | 30-160 |
| 98 | Retene | 25.00 | 0.000 | not added in * | 30-160 |

| SURROGATE | COMPOUND | CONC ADDED ug/L | CONC RECOVERED ug/L | % RECOVERED | LIMITS |
|---|---|---|---|---|---|
| $ 1 | 2-Fluorophenol | 37.50 | 25.95 | 69.20 | 46-100 |

AB 05/24/12

| SURROGATE COMPOUND | CONC ADDED ug/L | CONC RECOVERED ug/L | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 2 Phenol-d5 | 37.50 | 28.44 | 75.85 | 50-100 |
| $ 5 2-Chlorophenol-d4 | 37.50 | 26.24 | 69.98 | 53-100 |
| $ 10 1,2-Dichlorobenzen | 25.00 | 13.93 | 55.72 | 38-100 |
| $ 18 Nitrobenzene-d5 | 25.00 | 17.45 | 69.81 | 46-100 |
| $ 36 2-Fluorobiphenyl | 25.00 | 17.54 | 70.17 | 49-100 |
| $ 55 2,4,6-Tribromophen | 37.50 | 32.43 | 86.47 | 52-123 |
| $ 66 Terphenyl-d14 | 25.00 | 20.00 | 79.98 | 53-119 |

Data File: /chem2/nt6.i/20120524.b/05241203.D

Date : 24-MAY-2012 11:59

Client ID: UU62LCSW1

Sample Info: UU62LCSW1,

Volume Injected (uL): 1.0

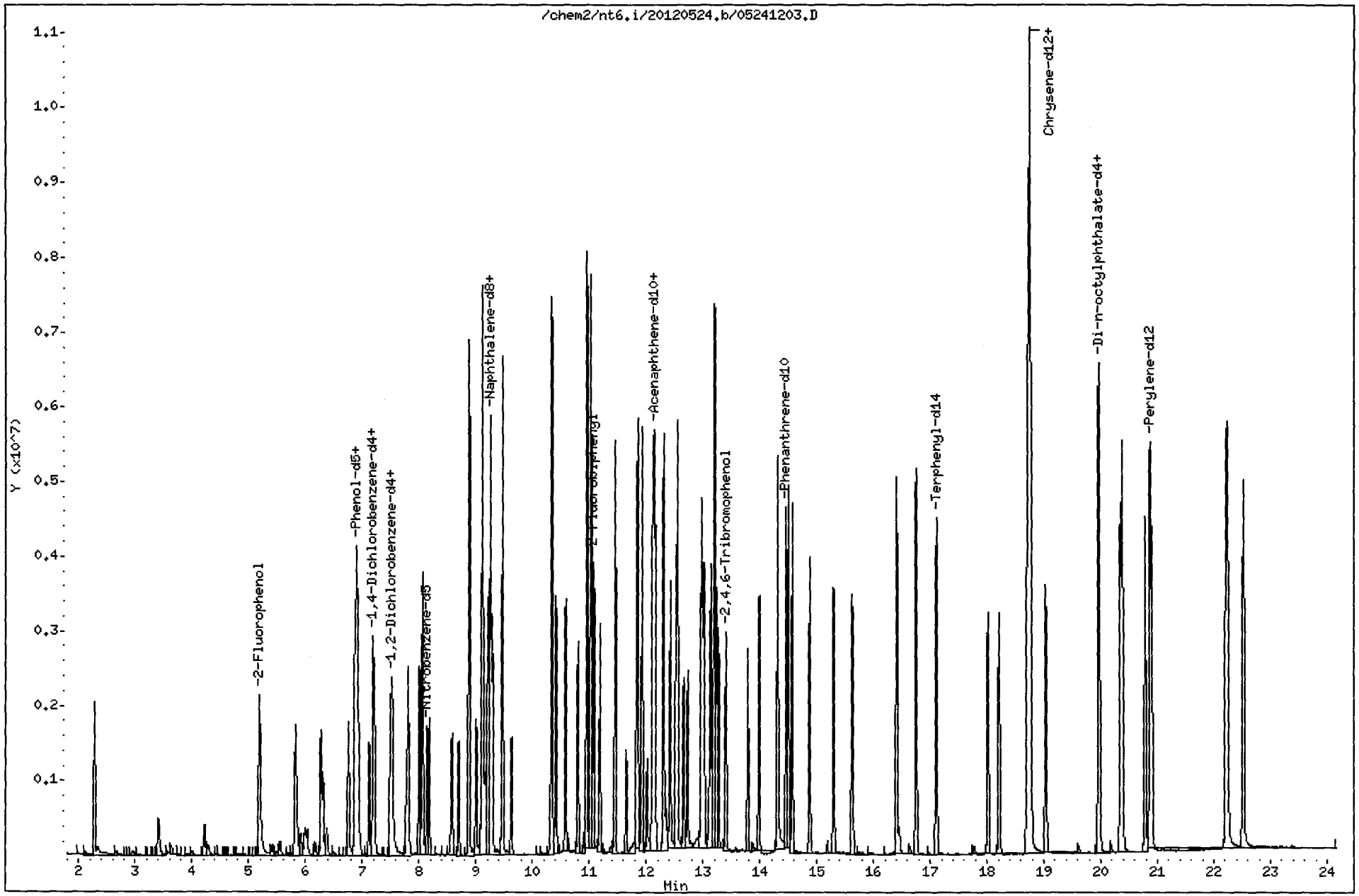
Column phase: ZB-5msi

Instrument: nt6.i

Operator: JZ

Column diameter: 0.32






UU52:01131

CO-ELUTION SUMMARY FOR FILE - 05241203.D

Lab ID: UU62LCSW1, Method: SW846052312.m, Instrument: nt6.i, Date: 24-MAY-201

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120524.b/05241204.D
Lab Smp Id: UU62LCSDW1 Client Smp ID: UU62LCSDW1
Inj Date : 24-MAY-2012 12:33
Operator : JZ Inst ID: nt6.i
Smp Info : UU62LCSDW1,
Misc Info : 12-8937
Comment : 1ul Injection
Method : /chem2/nt6.i/20120524.b/SW846052312.m
Meth Date : 24-May-2012 18:14 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 16:56 Cal File: 05231207.D
Als bottle: 4 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: LLReteneMBLCS.sub
Target Version: 3.50

JZ 05/24/12

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Vt | 500.00000 | Volume of final extract (uL) |
| Vo | 500.00000 | Volume of sample extracted (mL) |

Cpnd Variable Local Compound Variable

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|---|
| $ 1 | 2-Fluorophenol | 112 | 5.190 | 5.187 | (0.721) | 1304531 | 24.6127 | 24.61 |
| $ 2 | Phenol-d5 | 99 | 6.862 | 6.865 | (0.954) | 1695252 | 26.8176 | 26.82 |
| 3 | Phenol | 94 | 6.883 | 6.881 | (0.957) | 1217973 | 16.1306 | 16.13 |
| $ 5 | 2-Chlorophenol-d4 | 132 | 6.905 | 6.907 | (0.960) | 1515195 | 24.7318 | 24.73 |
| 4 | Bis(2-Chloroethyl)ether | 93 | 6.894 | 6.891 | (0.958) | 913877 | 17.4295 | 17.43 |
| 6 | 2-Chlorophenol | 128 | 6.931 | 6.929 | (0.964) | 1035015 | 15.0161 | 15.02 |
| 7 | 1,3-Dichlorobenzene | 146 | 7.124 | 7.121 | (0.990) | 761282 | 10.7734 | 10.77 |
| * 8 | 1,4-Dichlorobenzene-d4 | 152 | 7.193 | 7.191 | (1.000) | 912008 | 20.0000 | |
| 9 | 1,4-Dichlorobenzene | 146 | 7.214 | 7.217 | (1.003) | 797708 | 11.2952 | 11.30 |
| $ 10 | 1,2-Dichlorobenzene-d4 | 152 | 7.492 | 7.490 | (1.042) | 595547 | 13.3290 | 13.33 |
| 12 | 1,2-Dichlorobenzene | 146 | 7.514 | 7.516 | (1.045) | 811063 | 11.9970 | 12.00 |
| 11 | Benzyl alcohol | 108 | 7.530 | 7.532 | (1.047) | 635938 | 16.1288 | 16.13 |
| 14 | 2,2'-oxybis(1-Chloropropane) | 45 | 7.786 | 7.783 | (1.082) | 982815 | 16.7122 | 16.71 |
| 13 | 2-Methylphenol | 108 | 7.807 | 7.816 | (1.085) | 851561 | 14.7801 | 14.78 |
| 17 | Hexachloroethane | 117 | 8.000 | 8.003 | (1.112) | 239328 | 9.46229 | 9.462 |
| 16 | N-Nitroso-di-n-propylamine | 70 | 8.005 | 8.008 | (1.113) | 634158 | 17.9104 | 17.91 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|---|
| | 15 4-Methylphenol | 108 | 8.064 | 8.056 | (1.121) | 1854560 | 31.1721 | 31.17 |
| $ | 18 Nitrobenzene-d5 | 82 | 8.149 | 8.147 | (0.881) | 895115 | 16.5181 | 16.52 |
| | 19 Nitrobenzene | 77 | 8.176 | 8.179 | (0.883) | 912196 | 16.3731 | 16.37 |
| | 20 Isophorone | 82 | 8.582 | 8.574 | (0.927) | 1650433 | 20.1388 | 20.14 |
| | 21 2-Nitrophenol | 139 | 8.700 | 8.702 | (0.940) | 605766 | 15.4479 | 15.45 |
| | 22 2,4-Dimethylphenol | 107 | 8.881 | 8.879 | (0.960) | 2171343 | 37.0047 | 37.00 |
| | 23 Bis(2-Chloroethoxy)methane | 93 | 8.999 | 9.002 | (0.972) | 1090463 | 17.7433 | 17.74 |
| | 24 Benzoic acid | 105 | 9.271 | 9.188 | (1.002) | 3745583 | 103.176 | 103.2 |
| | 25 2,4-Dichlorophenol | 162 | 9.111 | 9.114 | (0.984) | 2783619 | 47.9079 | 47.91 |
| | 26 1,2,4-Trichlorobenzene | 180 | 9.207 | 9.210 | (0.995) | 773247 | 12.3918 | 12.39 |
| * | 27 Naphthalene-d8 | 136 | 9.255 | 9.258 | (1.000) | 3381197 | 20.0000 | |
| | 28 Naphthalene | 128 | 9.287 | 9.285 | (1.003) | 2564474 | 14.9181 | 14.92 |
| | 29 4-Chloroaniline | 127 | 9.469 | 9.466 | (1.023) | 3640857 | 45.8640 | 45.86 |
| | 30 Hexachlorobutadiene | 225 | 9.624 | 9.627 | (1.040) | 362095 | 9.50329 | 9.503 |
| | 31 4-Chloro-3-methylphenol | 107 | 10.340 | 10.337 | (1.117) | 2572994 | 55.3766 | 55.38 |
| | 32 2-Methylnaphthalene | 141 | 10.414 | 10.412 | (1.125) | 1499579 | 14.0330 | 14.03 |
| | 33 Hexachlorocyclopentadiene | 237 | 10.799 | 10.796 | (0.892) | 928120 | 27.7640 | 27.76 |
| | 34 2,4,6-Trichlorophenol | 196 | 10.959 | 10.957 | (0.905) | 2344202 | 53.8995 | 53.90 |
| | 35 2,4,5-Trichlorophenol | 196 | 11.023 | 11.021 | (0.910) | 2489917 | 59.2618 | 59.26 |
| $ | 36 2-Fluorobiphenyl | 172 | 11.071 | 11.074 | (0.914) | 2144163 | 16.6390 | 16.64 |
| | 37 2-Chloronaphthalene | 162 | 11.184 | 11.181 | (0.924) | 1858839 | 16.7853 | 16.79 |
| | 38 2-Nitroaniline | 65 | 11.456 | 11.448 | (0.946) | 1554069 | 57.1614 | 57.16 |
| | 39 Dimethylphthalate | 163 | 11.841 | 11.838 | (0.978) | 2482183 | 22.0783 | 22.08 |
| | 40 Acenaphthylene | 152 | 11.851 | 11.849 | (0.979) | 3120303 | 18.0072 | 18.01 |
| | 41 2,6-Dinitrotoluene | 165 | 11.926 | 11.918 | (0.985) | 1794524 | 64.5207 | 64.52 |
| * | 42 Acenaphthene-d10 | 164 | 12.108 | 12.105 | (1.000) | 2121467 | 20.0000 | |
| | 43 3-Nitroaniline | 138 | 12.140 | 12.127 | (1.003) | 1922761 | 60.4314 | 60.43 |
| | 44 Acenaphthene | 153 | 12.156 | 12.153 | (1.004) | 1970113 | 16.9458 | 16.95 |
| | 45 2,4-Dinitrophenol | 184 | 12.300 | 12.292 | (1.016) | 2059328 | 108.459 | 108.5 |
| | 46 Dibenzofuran | 168 | 12.418 | 12.420 | (1.026) | 2806390 | 17.2326 | 17.23 |
| | 47 4-Nitrophenol | 109 | 12.519 | 12.517 | (1.034) | 706262 | 63.0658 | 63.07 |
| | 48 2,4-Dinitrotoluene | 165 | 12.546 | 12.538 | (1.036) | 2393238 | 66.7701 | 66.77 |
| | 50 Diethylphthalate | 149 | 12.995 | 12.987 | (1.073) | 2392727 | 22.3397 | 22.34 |
| | 49 Fluorene | 166 | 12.968 | 12.971 | (1.071) | 2411472 | 18.2699 | 18.27 |
| | 51 4-Chlorophenyl-phenylether | 204 | 13.016 | 13.019 | (1.075) | 1238941 | 19.1381 | 19.14 |
| | 52 4-Nitroaniline | 138 | 13.139 | 13.115 | (1.085) | 1812028 | 60.5230 | 60.52 |
| | 53 4,6-Dinitro-2-methylphenol | 198 | 13.198 | 13.190 | (0.913) | 2971763 | 120.717 | 120.7 |
| | 54 N-Nitrosodiphenylamine | 169 | 13.235 | 13.232 | (0.915) | 1633530 | 18.9814 | 18.98 |
| $ | 55 2,4,6-Tribromophenol | 330 | 13.401 | 13.398 | (1.107) | 869638 | 31.5845 | 31.58 |
| | 56 4-Bromophenyl-phenylether | 248 | 13.785 | 13.788 | (0.953) | 852276 | 19.7926 | 19.79 |
| | 57 Hexachlorobenzene | 284 | 13.983 | 13.986 | (0.967) | 1089333 | 20.2487 | 20.25 |
| | 58 Pentachlorophenol | 266 | 14.303 | 14.306 | (0.989) | 1557483 | 62.5020 | 62.50 |
| * | 59 Phenanthrene-d10 | 188 | 14.458 | 14.456 | (1.000) | 3414818 | 20.0000 | |
| | 60 Phenanthrene | 178 | 14.490 | 14.493 | (1.002) | 3535942 | 19.9171 | 19.92 |
| | 61 Anthracene | 178 | 14.565 | 14.563 | (1.007) | 3479464 | 19.3967 | 19.40 |
| | 62 Carbazole | 167 | 14.870 | 14.873 | (1.028) | 3072344 | 22.0631 | 22.06 |
| | 63 Di-n-butylphthalate | 149 | 15.623 | 15.626 | (1.081) | 3838820 | 23.3119 | 23.31 |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|---|
| | 64 Fluoranthene | 202 | 16.408 | 16.411 | (1.135) | 4044962 | 21.2955 | 21.30 |
| | 65 Pyrene | 202 | 16.750 | 16.753 | (0.894) | 4077719 | 19.9244 | 19.92 |
| $ | 66 Terphenyl-d14 | 244 | 17.103 | 17.106 | (0.913) | 2768074 | 20.1780 | 20.18 |
| | 67 Butylbenzylphthalate | 149 | 18.016 | 18.014 | (0.962) | 1676831 | 21.5698 | 21.57 |
| | 68 Benzo(a)anthracene | 228 | 18.705 | 18.708 | (0.999) | 3848908 | 18.5929 | 18.59 |
| * | 69 Chrysene-d12 | 240 | 18.732 | 18.735 | (1.000) | 3963208 | 20.0000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | 18.753 | 18.751 | (1.001) | 3906431 | 49.9362 | 49.94 |
| | 71 Chrysene | 228 | 18.769 | 18.772 | (1.002) | 3796433 | 19.9607 | 19.96 |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | 19.031 | 19.034 | (0.953) | 2291366 | 21.5933 | 21.59 |
| * | 134 Di-n-octylphthalate-d4 | 153 | 19.961 | 19.964 | (1.000) | 3774442 | 20.0000 | |
| | 73 Di-n-octylphthalate | 149 | 19.971 | 19.974 | (1.001) | 3798553 | 21.5340 | 21.53 |
| | 74 Benzo(b)fluoranthene | 252 | 20.351 | 20.354 | (0.975) | 4351552 | 19.0587 | 19.06 |
| | 75 Benzo(k)fluoranthene | 252 | 20.383 | 20.386 | (0.977) | 4299400 | 19.7959 | 19.80 |
| | 76 Benzo(a)pyrene | 252 | 20.789 | 20.792 | (0.996) | 3594400 | 18.1313 | 18.13 |
| * | 77 Perylene-d12 | 264 | 20.869 | 20.872 | (1.000) | 4232897 | 20.0000 | |
| | 78 Indeno(1,2,3-cd)pyrene | 276 | 22.215 | 22.223 | (1.064) | 5530454 | 18.9420 | 18.94 |
| | 79 Dibenzo(a,h)anthracene | 278 | 22.242 | 22.245 | (1.066) | 4497164 | 19.1567 | 19.16 |
| | 80 Benzo(g,h,i)perylene | 276 | 22.525 | 22.528 | (1.079) | 4787532 | 19.4389 | 19.44 |
| | 90 N-Nitrosodimethylamine | 74 | 2.289 | 2.281 | (0.318) | 1506032 | 47.7404 | 47.74 |
| | 91 Aniline | 93 | 6.755 | 6.752 | (0.939) | 1767086 | 21.2706 | 21.27 |
| | 93 Benzidine | 184 | Compound Not Detected. | | | | | |
| | 103 Pyridine | 79 | Compound Not Detected. | | | | | |
| | 105 1-methylnaphthalene | 141 | 10.580 | 10.577 | (1.143) | 1576761 | 19.2069 | 19.21 |
| | 111 Azobenzene (1,2-DP-Hydrazine) | 77 | 13.267 | 13.265 | (1.096) | 2093535 | 21.0823 | 21.08 |
| | 187 Total Benzofluoranthenes | 252 | 20.383 | 20.386 | (0.977) | 8119509 | 39.2175 | 39.22 |
| | 98 Retene | 219 | Compound Not Detected. | | | | | |

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05241204.D
Lab Smp Id: UU62LCSDW1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120524.b/SW846052312.m
Misc Info: 12-8937

Calibration Date: 24-MAY-2012
Calibration Time: 10:50
Client Smp ID: UU62LCSDW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 963757 | 481878 | 1927514 | 912008 | -5.37 |
| 27 Naphthalene-d8 | 3430476 | 1715238 | 6860952 | 3381197 | -1.44 |
| 42 Acenaphthene-d10 | 2259168 | 1129584 | 4518336 | 2121467 | -6.10 |
| 59 Phenanthrene-d10 | 3446677 | 1723338 | 6893354 | 3414818 | -0.92 |
| 69 Chrysene-d12 | 3961525 | 1980762 | 7923050 | 3963208 | 0.04 |
| 134 Di-n-octylphthala | 3758743 | 1879372 | 7517486 | 3774442 | 0.42 |
| 77 Perylene-d12 | 4154109 | 2077054 | 8308218 | 4232897 | 1.90 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 7.19 | 6.69 | 7.69 | 7.19 | 0.04 |
| 27 Naphthalene-d8 | 9.26 | 8.76 | 9.76 | 9.26 | -0.03 |
| 42 Acenaphthene-d10 | 12.11 | 11.61 | 12.61 | 12.11 | 0.02 |
| 59 Phenanthrene-d10 | 14.46 | 13.96 | 14.96 | 14.46 | 0.02 |
| 69 Chrysene-d12 | 18.73 | 18.23 | 19.23 | 18.73 | -0.01 |
| 134 Di-n-octylphthala | 19.96 | 19.46 | 20.46 | 19.96 | -0.01 |
| 77 Perylene-d12 | 20.87 | 20.37 | 21.37 | 20.87 | -0.01 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU62
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: UU62LCSDW1 Client Smp ID: UU62LCSDW1
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: LCSD
SpikeList File: LLRetenLCS.spk Quant Type: ISTD
Sublist File: LLReteneMBLCS.sub
Method File: /chem2/nt6.i/20120524.b/SW846052312.m
Misc Info: 12-8937

| SPIKE COMPOUND | CONC ADDED ug/L | CONC RECOVERED ug/L | % RECOVERED | LIMITS |
|---|---|---|---|---|
| 3 Phenol | 25.00 | 16.13 | 64.52 | 50-100 |
| 4 Bis(2-Chloroethyl) | 25.00 | 17.43 | 69.72 | 52-100 |
| 6 2-Chlorophenol | 25.00 | 15.02 | 60.06 | 56-100 |
| 7 1,3-Dichlorobenzen | 25.00 | 10.77 | 43.09 | 23-100 |
| 9 1,4-Dichlorobenzen | 25.00 | 11.30 | 45.18 | 25-100 |
| 11 Benzyl alcohol | 25.00 | 16.13 | 64.52 | 19-100 |
| 12 1,2-Dichlorobenzen | 25.00 | 12.00 | 47.99 | 30-100 |
| 13 2-Methylphenol | 25.00 | 14.78 | 59.12 | 52-100 |
| 14 2,2'-oxybis(1-Chlo | 25.00 | 16.71 | 66.85 | 32-111 |
| 15 4-Methylphenol | 50.00 | 31.17 | 62.34 | 53-102 |
| 16 N-Nitroso-di-n-pro | 25.00 | 17.91 | 71.64 | 43-104 |
| 17 Hexachloroethane | 25.00 | 9.462 | 37.85 | 12-100 |
| 19 Nitrobenzene | 25.00 | 16.37 | 65.49 | 33-125 |
| 20 Isophorone | 25.00 | 20.14 | 80.56 | 57-115 |
| 21 2-Nitrophenol | 25.00 | 15.45 | 61.79 | 56-102 |
| 22 2,4-Dimethylphenol | 75.00 | 37.00 | 49.34 | 29-100 |
| 23 Bis(2-Chloroethoxy | 25.00 | 17.74 | 70.97 | 54-101 |
| 24 Benzoic acid | 137.5 | 103.2 | 75.04 | 10-131 |
| 25 2,4-Dichlorophenol | 75.00 | 47.91 | 63.88 | 56-104 |
| 26 1,2,4-Trichloroben | 25.00 | 12.39 | 49.57 | 27-100 |
| 28 Naphthalene | 25.00 | 14.92 | 59.67 | 45-100 |
| 29 4-Chloroaniline | 75.00 | 45.86 | 61.15 | 10-139 |
| 30 Hexachlorobutadien | 25.00 | 9.503 | 38.01 | 10-100 |
| 31 4-Chloro-3-methylp | 75.00 | 55.38 | 73.84 | 53-109 |
| 32 2-Methylnaphthalen | 25.00 | 14.03 | 56.13 | 46-100 |
| 33 Hexachlorocyclopen | 75.00 | 27.76 | 37.02 | 10-100 |
| 34 2,4,6-Trichlorophe | 75.00 | 53.90 | 71.87 | 58-108 |
| 35 2,4,5-Trichlorophe | 75.00 | 59.26 | 79.02 | 58-107 |
| 37 2-Chloronaphthalen | 25.00 | 16.79 | 67.14 | 56-104 |
| 38 2-Nitroaniline | 75.00 | 57.16 | 76.22 | 50-107 |
| 39 Dimethylphthalate | 25.00 | 22.08 | 88.31 | 58-107 |
| 40 Acenaphthylene | 25.00 | 18.01 | 72.03 | 57-100 |
| 41 2,6-Dinitrotoluene | 75.00 | 64.52 | 86.03 | 58-112 |

| SPIKE | COMPOUND | CONC ADDED ug/L | CONC RECOVERED ug/L | % RECOVERED | LIMITS |
|---|---|---|---|---|---|
| 43 | 3-Nitroaniline | 75.00 | 60.43 | 80.58 | 21-150 |
| 44 | Acenaphthene | 25.00 | 16.95 | 67.78 | 51-100 |
| 45 | 2,4-Dinitrophenol | 137.5 | 108.5 | 78.88 | 12-169 |
| 46 | Dibenzofuran | 25.00 | 17.23 | 68.93 | 57-100 |
| 47 | 4-Nitrophenol | 75.00 | 63.07 | 84.09 | 35-119 |
| 48 | 2,4-Dinitrotoluene | 75.00 | 66.77 | 89.03 | 58-117 |
| 49 | Fluorene | 25.00 | 18.27 | 73.08 | 56-104 |
| 50 | Diethylphthalate | 25.00 | 22.34 | 89.36 | 52-111 |
| 51 | 4-Chlorophenyl-phe | 25.00 | 19.14 | 76.55 | 55-104 |
| 52 | 4-Nitroaniline | 75.00 | 60.52 | 80.70 | 49-112 |
| 53 | 4,6-Dinitro-2-meth | 137.5 | 120.7 | 87.79 | 13-139 |
| 54 | N-Nitrosodiphenyla | 25.00 | 18.98 | 75.93 | 60-136 |
| 56 | 4-Bromophenyl-phen | 25.00 | 19.79 | 79.17 | 50-103 |
| 57 | Hexachlorobenzene | 25.00 | 20.25 | 80.99 | 54-106 |
| 58 | Pentachlorophenol | 75.00 | 62.50 | 83.34 | 46-114 |
| 60 | Phenanthrene | 25.00 | 19.92 | 79.67 | 56-102 |
| 61 | Anthracene | 25.00 | 19.40 | 77.59 | 56-101 |
| 62 | Carbazole | 25.00 | 22.06 | 88.25 | 60-108 |
| 63 | Di-n-butylphthalat | 25.00 | 23.31 | 93.25 | 56-112 |
| 64 | Fluoranthene | 25.00 | 21.30 | 85.18 | 57-110 |
| 65 | Pyrene | 25.00 | 19.92 | 79.70 | 48-119 |
| 67 | Butylbenzylphthala | 25.00 | 21.57 | 86.28 | 51-114 |
| 68 | Benzo(a)anthracene | 25.00 | 18.59 | 74.37 | 55-105 |
| 70 | 3,3'-Dichlorobenzi | 75.00 | 49.94 | 66.58 | 10-128 |
| 71 | Chrysene | 25.00 | 19.96 | 79.84 | 55-104 |
| 72 | bis(2-Ethylhexyl)p | 25.00 | 21.59 | 86.37 | 28-164 |
| 73 | Di-n-octylphthalat | 25.00 | 21.53 | 86.14 | 57-107 |
| 74 | Benzo(b)fluoranthe | 25.00 | 19.06 | 76.23 | 53-112 |
| 75 | Benzo(k)fluoranthe | 25.00 | 19.80 | 79.18 | 50-116 |
| 76 | Benzo(a)pyrene | 25.00 | 18.13 | 72.53 | 45-103 |
| 78 | Indeno(1,2,3-cd)py | 25.00 | 18.94 | 75.77 | 35-118 |
| 79 | Dibenzo(a,h)anthra | 25.00 | 19.16 | 76.63 | 42-119 |
| 80 | Benzo(g,h,i)peryle | 25.00 | 19.44 | 77.76 | 39-123 |
| 91 | Aniline | 75.00 | 21.27 | 28.36 | 10-100 |
| 111 | Azobenzene (1,2-DP | 25.00 | 21.08 | 84.33 | 57-109 |
| 90 | N-Nitrosodimethyla | 75.00 | 47.74 | 63.65 | 49-100 |
| 105 | 1-methylnaphthalen | 25.00 | 19.21 | 76.83 | 46-100 |
| 144 | alpha-Terpineol | 25.00 | 0.000 | not added in * | 30-160 |
| 187 | Total Benzofluoran | 50.00 | 39.22 | 78.44 | 30-160 |
| 98 | Retene | 25.00 | 0.000 | not added in * | 30-160 |

| SURROGATE | COMPOUND | CONC ADDED ug/L | CONC RECOVERED ug/L | % RECOVERED | LIMITS |
|---|---|---|---|---|---|
| $ 1 | 2-Fluorophenol | 37.50 | 24.61 | 65.63 | 46-100 |

5/24/12

| SURROGATE COMPOUND | CONC ADDED ug/L | CONC RECOVERED ug/L | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 2 Phenol-d5 | 37.50 | 26.82 | 71.51 | 50-100 |
| $ 5 2-Chlorophenol-d4 | 37.50 | 24.73 | 65.95 | 53-100 |
| $ 10 1,2-Dichlorobenzen | 25.00 | 13.33 | 53.32 | 38-100 |
| $ 18 Nitrobenzene-d5 | 25.00 | 16.52 | 66.07 | 46-100 |
| $ 36 2-Fluorobiphenyl | 25.00 | 16.64 | 66.56 | 49-100 |
| $ 55 2,4,6-Tribromophen | 37.50 | 31.58 | 84.23 | 52-123 |
| $ 66 Terphenyl-d14 | 25.00 | 20.18 | 80.71 | 53-119 |

Data File: /chem2/nt6.i/20120524.b/05241204.D

Date : 24-MAY-2012 12:33

Client ID: UU62LCSDW1

Sample Info: UU62LCSDW1,

Volume Injected (uL): 1.0

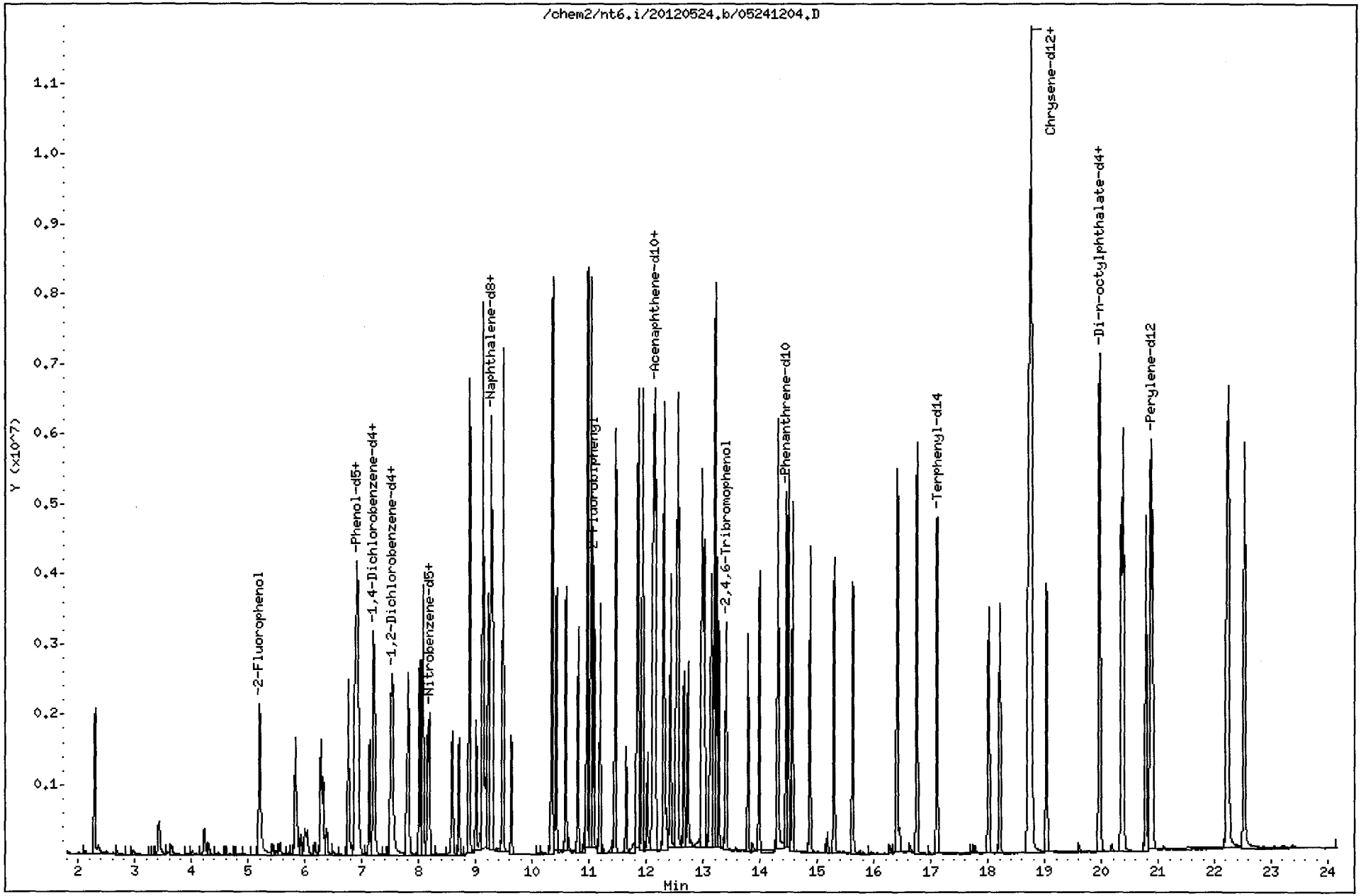
Column phase: ZB-5msi

Instrument: nt6.i

Operator: JZ

Column diameter: 0.32






UU52:01140

CO-ELUTION SUMMARY FOR FILE - 05241204.D

Lab ID: UU62LCSDW1, Method: SW846052312.m, Instrument: nt6.i, Date: 24-MAY-20

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120524.b/05241206.D
Lab Smp Id: UU62J Client Smp ID: MS-SSRB-120515
Inj Date : 24-MAY-2012 13:40
Operator : JZ Inst ID: nt6.i
Smp Info : UU62J
Misc Info : 12-8937
Comment : 1ul Injection
Method : /chem2/nt6.i/20120524.b/SW846052312.m
Meth Date : 24-May-2012 18:14 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 16:56 Cal File: 05231207.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: LLReten.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Vt | 500.00000 | Volume of final extract (uL) |
| Vo | 500.00000 | Volume of sample extracted (mL) |

Cpnd Variable Local Compound Variable

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|---|
| $ 1 | 2-Fluorophenol | 112 | 5.189 | 5.187 | (0.721) | 1489975 | 28.6010 | 28.60 |
| $ 2 | Phenol-d5 | 99 | 6.861 | 6.865 | (0.954) | 1703055 | 27.4101 | 27.41 |
| 3 | Phenol | 94 | Compound Not Detected. | | | | | |
| $ 5 | 2-Chlorophenol-d4 | 132 | 6.904 | 6.907 | (0.960) | 1646833 | 27.3484 | 27.35 |
| 4 | Bis(2-Chloroethyl)ether | 93 | Compound Not Detected. | | | | | |
| 6 | 2-Chlorophenol | 128 | Compound Not Detected. | | | | | |
| 7 | 1,3-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| * 8 | 1,4-Dichlorobenzene-d4 | 152 | 7.193 | 7.191 | (1.000) | 896401 | 20.0000 | |
| 9 | 1,4-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| $ 10 | 1,2-Dichlorobenzene-d4 | 152 | 7.492 | 7.490 | (1.042) | 657794 | 14.9784 | 14.98 |
| 12 | 1,2-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| 11 | Benzyl alcohol | 108 | Compound Not Detected. | | | | | |
| 14 | 2,2'-oxybis(1-Chloropropane) | 45 | Compound Not Detected. | | | | | |
| 13 | 2-Methylphenol | 108 | Compound Not Detected. | | | | | |
| 17 | Hexachloroethane | 117 | Compound Not Detected. | | | | | |
| 16 | N-Nitroso-di-n-propylamine | 70 | Compound Not Detected. | | | | | |

| | | | QUANT SIG | | | | | CONCENTRATIONS | |
|---|---|---|---|---|---|---|---|---|---|
| | | Compounds | MASS | RT | EXP RT | REL RT | RESPONSE | ON-COLUMN (ug/mL) | FINAL ( ug/L) |
| | 15 | 4-Methylphenol | 108 | Compound Not Detected. | | | | | |
| $ | 18 | Nitrobenzene-d5 | 82 | 8.144 | 8.147 | (0.880) | 931594 | 18.2899 | 18.29 |
| | 19 | Nitrobenzene | 77 | Compound Not Detected. | | | | | |
| | 20 | Isophorone | 82 | Compound Not Detected. | | | | | |
| | 21 | 2-Nitrophenol | 139 | Compound Not Detected. | | | | | |
| | 22 | 2,4-Dimethylphenol | 107 | Compound Not Detected. | | | | | |
| | 23 | Bis(2-Chloroethoxy)methane | 93 | Compound Not Detected. | | | | | |
| | 24 | Benzoic acid | 105 | Compound Not Detected. | | | | | |
| | 25 | 2,4-Dichlorophenol | 162 | Compound Not Detected. | | | | | |
| | 26 | 1,2,4-Trichlorobenzene | 180 | Compound Not Detected. | | | | | |
| * | 27 | Naphthalene-d8 | 136 | 9.255 | 9.258 | (1.000) | 3178107 | 20.0000 | |
| | 28 | Naphthalene | 128 | Compound Not Detected. | | | | | |
| | 29 | 4-Chloroaniline | 127 | Compound Not Detected. | | | | | |
| | 30 | Hexachlorobutadiene | 225 | Compound Not Detected. | | | | | |
| | 31 | 4-Chloro-3-methylphenol | 107 | Compound Not Detected. | | | | | |
| | 32 | 2-Methylnaphthalene | 141 | Compound Not Detected. | | | | | |
| | 33 | Hexachlorocyclopentadiene | 237 | Compound Not Detected. | | | | | |
| | 34 | 2,4,6-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| | 35 | 2,4,5-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| $ | 36 | 2-Fluorobiphenyl | 172 | 11.071 | 11.074 | (0.915) | 2071460 | 16.9097 | 16.91 |
| | 37 | 2-Chloronaphthalene | 162 | Compound Not Detected. | | | | | |
| | 38 | 2-Nitroaniline | 65 | Compound Not Detected. | | | | | |
| | 39 | Dimethylphthalate | 163 | Compound Not Detected. | | | | | |
| | 40 | Acenaphthylene | 152 | Compound Not Detected. | | | | | |
| | 41 | 2,6-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| * | 42 | Acenaphthene-d10 | 164 | 12.102 | 12.105 | (1.000) | 2016726 | 20.0000 | |
| | 43 | 3-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 44 | Acenaphthene | 153 | Compound Not Detected. | | | | | |
| | 45 | 2,4-Dinitrophenol | 184 | Compound Not Detected. | | | | | |
| | 46 | Dibenzofuran | 168 | Compound Not Detected. | | | | | |
| | 47 | 4-Nitrophenol | 109 | Compound Not Detected. | | | | | |
| | 48 | 2,4-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| | 50 | Diethylphthalate | 149 | 12.978 | 12.987 | (1.072) | 97873 | 0.96125 | 0.9612 |
| | 49 | Fluorene | 166 | Compound Not Detected. | | | | | |
| | 51 | 4-Chlorophenyl-phenylether | 204 | Compound Not Detected. | | | | | |
| | 52 | 4-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| | 53 | 4,6-Dinitro-2-methylphenol | 198 | Compound Not Detected. | | | | | |
| | 54 | N-Nitrosodiphenylamine | 169 | Compound Not Detected. | | | | | |
| $ | 55 | 2,4,6-Tribromophenol | 330 | 13.395 | 13.398 | (1.107) | 772438 | 29.5113 | 29.51 |
| | 56 | 4-Bromophenyl-phenylether | 248 | Compound Not Detected. | | | | | |
| | 57 | Hexachlorobenzene | 284 | Compound Not Detected. | | | | | |
| | 58 | Pentachlorophenol | 266 | Compound Not Detected. | | | | | |
| * | 59 | Phenanthrene-d10 | 188 | 14.453 | 14.456 | (1.000) | 3170811 | 20.0000 | |
| | 60 | Phenanthrene | 178 | Compound Not Detected. | | | | | |
| | 61 | Anthracene | 178 | Compound Not Detected. | | | | | |
| | 62 | Carbazole | 167 | Compound Not Detected. | | | | | |
| | 63 | Di-n-butylphthalate | 149 | Compound Not Detected. | | | | | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|---|
| | 64 Fluoranthene | 202 | Compound Not Detected. | | | | | |
| | 65 Pyrene | 202 | Compound Not Detected. | | | | | |
| $ | 66 Terphenyl-d14 | 244 | 17.108 | 17.106 | (0.914) | 2702763 | 20.7374 | 20.74 |
| | 67 Butylbenzylphthalate | 149 | Compound Not Detected. | | | | | |
| | 68 Benzo(a)anthracene | 228 | Compound Not Detected. | | | | | |
| * | 69 Chrysene-d12 | 240 | 18.726 | 18.735 | (1.000) | 3765318 | 20.0000 | |
| | 70 3,3'-Dichlorobenzidine | 252 | Compound Not Detected. | | | | | |
| | 71 Chrysene | 228 | Compound Not Detected. | | | | | |
| | 72 bis(2-Ethylhexyl)phthalate | 149 | Compound Not Detected. | | | | | |
| * | 134 Di-n-octylphthalate-d4 | 153 | 19.960 | 19.964 | (1.000) | 3520284 | 20.0000 | |
| | 73 Di-n-octylphthalate | 149 | Compound Not Detected. | | | | | |
| | 74 Benzo(b)fluoranthene | 252 | Compound Not Detected. | | | | | |
| | 75 Benzo(k)fluoranthene | 252 | Compound Not Detected. | | | | | |
| | 76 Benzo(a)pyrene | 252 | Compound Not Detected. | | | | | |
| * | 77 Perylene-d12 | 264 | 20.863 | 20.872 | (1.000) | 4272719 | 20.0000 | |
| | 78 Indeno(1,2,3-cd)pyrene | 276 | Compound Not Detected. | | | | | |
| | 79 Dibenzo(a,h)anthracene | 278 | Compound Not Detected. | | | | | |
| | 80 Benzo(g,h,i)perylene | 276 | Compound Not Detected. | | | | | |
| | 90 N-Nitrosodimethylamine | 74 | Compound Not Detected. | | | | | |
| | 91 Aniline | 93 | Compound Not Detected. | | | | | |
| | 93 Benzidine | 184 | Compound Not Detected. | | | | | |
| | 103 Pyridine | 79 | Compound Not Detected. | | | | | |
| | 105 1-methylnaphthalene | 141 | Compound Not Detected. | | | | | |
| | 111 Azobenzene (1,2-DP-Hydrazine) | 77 | Compound Not Detected. | | | | | |
| | 187 Total Benzofluoranthenes | 252 | Compound Not Detected. | | | | | |
| | 98 Retene | 219 | Compound Not Detected. | | | | | |

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05241206.D
Lab Smp Id: UU62J
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120524.b/SW846052312.m
Misc Info: 12-8937

Calibration Date: 24-MAY-2012
Calibration Time: 10:50
Client Smp ID: MS-SSRB-120515
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 4.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 963757 | 481878 | 1927514 | 896401 | -6.99 |
| 27 Naphthalene-d8 | 3430476 | 1715238 | 6860952 | 3178107 | -7.36 |
| 42 Acenaphthene-d10 | 2259168 | 1129584 | 4518336 | 2016726 | -10.73 |
| 59 Phenanthrene-d10 | 3446677 | 1723338 | 6893354 | 3170811 | -8.00 |
| 69 Chrysene-d12 | 3961525 | 1980762 | 7923050 | 3765318 | -4.95 |
| 134 Di-n-octylphthala | 3758743 | 1879372 | 7517486 | 3520284 | -6.34 |
| 77 Perylene-d12 | 4154109 | 2077054 | 8308218 | 4272719 | 2.86 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 7.19 | 6.69 | 7.69 | 7.19 | 0.03 |
| 27 Naphthalene-d8 | 9.26 | 8.76 | 9.76 | 9.25 | -0.03 |
| 42 Acenaphthene-d10 | 12.11 | 11.61 | 12.61 | 12.10 | -0.03 |
| 59 Phenanthrene-d10 | 14.46 | 13.96 | 14.96 | 14.45 | -0.02 |
| 69 Chrysene-d12 | 18.73 | 18.23 | 19.23 | 18.73 | -0.05 |
| 134 Di-n-octylphthala | 19.96 | 19.46 | 20.46 | 19.96 | -0.02 |
| 77 Perylene-d12 | 20.87 | 20.37 | 21.37 | 20.86 | -0.04 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU62
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: UU62J Client Smp ID: MS-SSRB-120515
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: LLLCS.spk Quant Type: ISTD
Sublist File: LLReten.sub
Method File: /chem2/nt6.i/20120524.b/SW846052312.m
Misc Info: 12-8937

| SURROGATE COMPOUND | CONC ADDED ug/L | CONC RECOVERED ug/L | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 1 2-Fluorophenol | 37.50 | 28.60 | 76.27 | 38-100 |
| $ 2 Phenol-d5 | 37.50 | 27.41 | 73.09 | 41-100 |
| $ 5 2-Chlorophenol-d4 | 37.50 | 27.35 | 72.93 | 44-100 |
| $ 10 1,2-Dichlorobenzen | 25.00 | 14.98 | 59.91 | 32-100 |
| $ 18 Nitrobenzene-d5 | 25.00 | 18.29 | 73.16 | 39-100 |
| $ 36 2-Fluorobiphenyl | 25.00 | 16.91 | 67.64 | 42-100 |
| $ 55 2,4,6-Tribromophen | 37.50 | 29.51 | 78.70 | 48-118 |
| $ 66 Terphenyl-d14 | 25.00 | 20.74 | 82.95 | 28-121 |

Data File: /chem2/nt6.i/20120524.b/05241206.D

Date : 24-MAY-2012 13:40

Client ID: MS-SSRB-120515

Sample Info: UU62J

Volume Injected (uL): 1.0

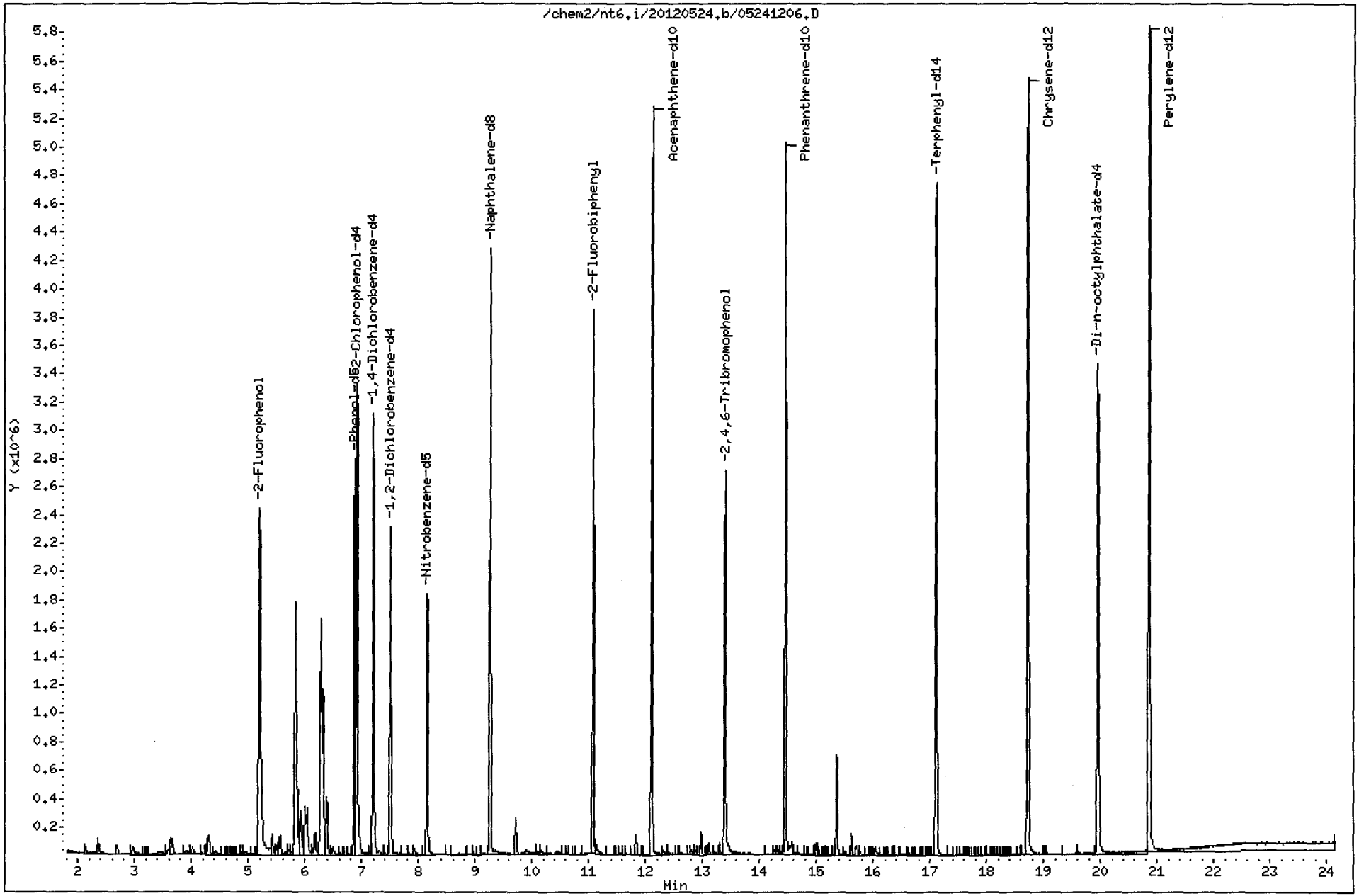
Column phase: ZB-5msi

Instrument: nt6.i

Operator: JZ

Column diameter: 0.32






UU52:01147

Data File: /chem2/nt6.i/20120524.b/05241206.D

Date : 24-MAY-2012 13:40

Client ID: MS-SSRB-120515

Instrument: nt6.i

Sample Info: UU62J

Volume Injected (uL): 1.0

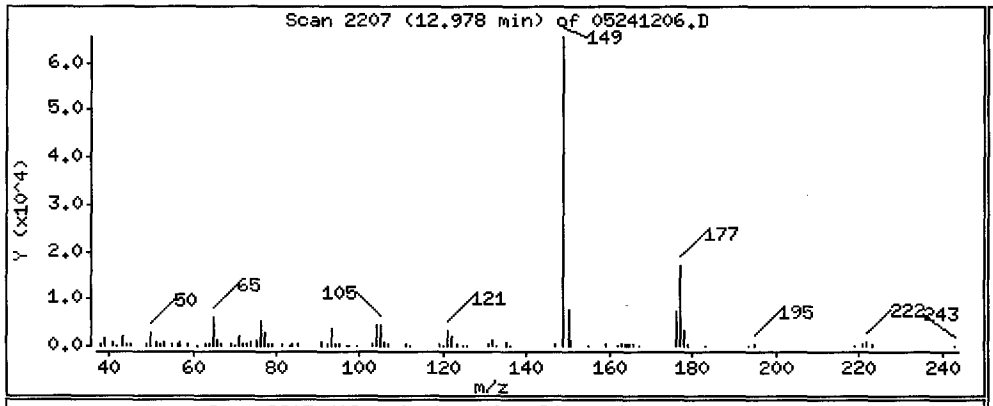
Operator: JZ

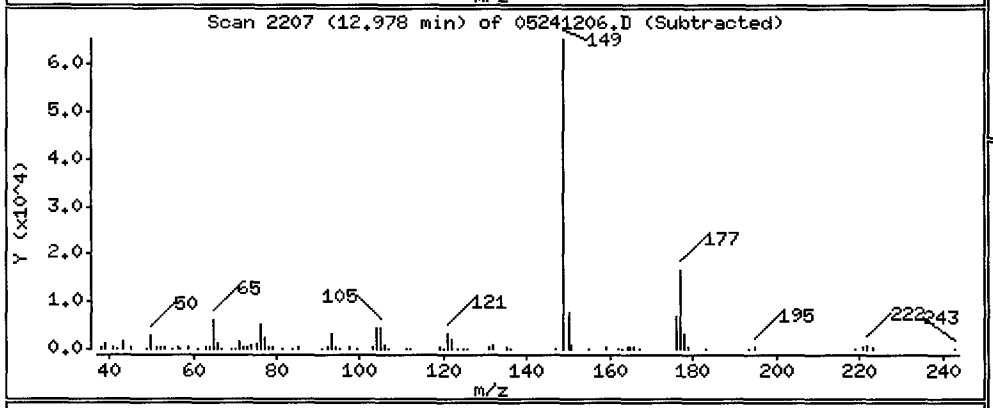
Column phase: ZB-5msi

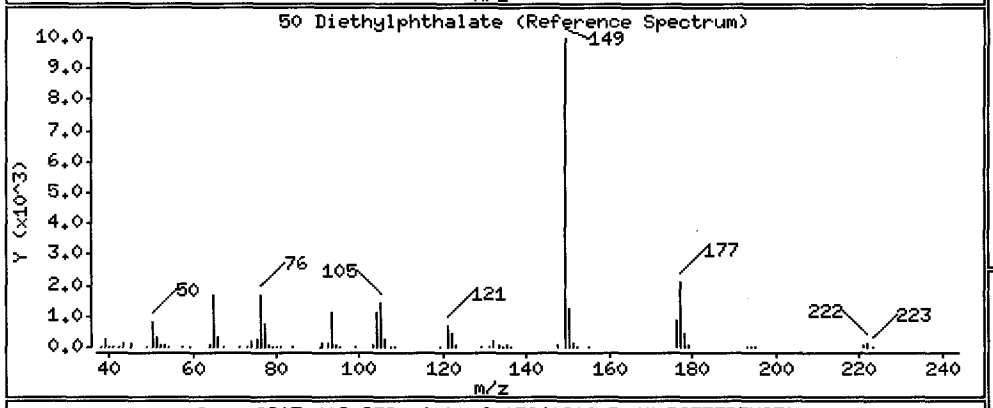
Column diameter: 0.32

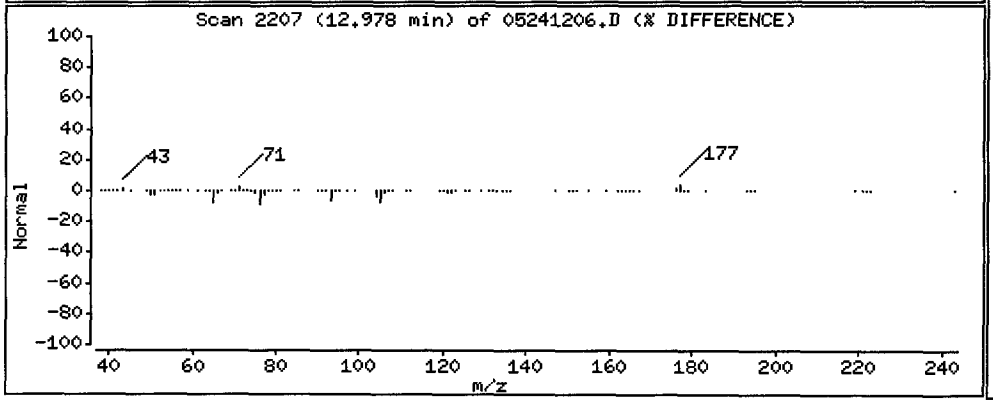
50 Diethylphthalate

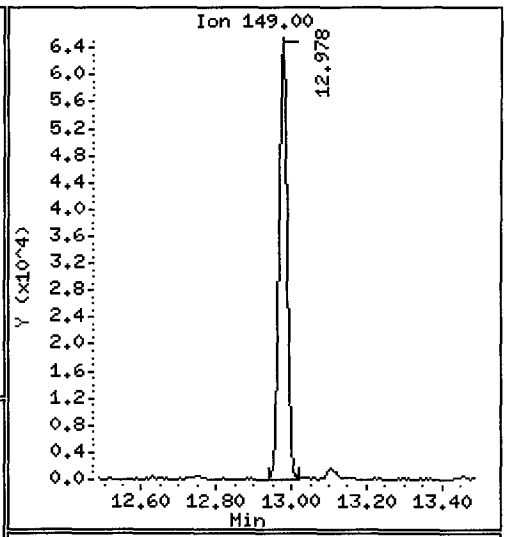
Concentration: 0.9612 ug/L

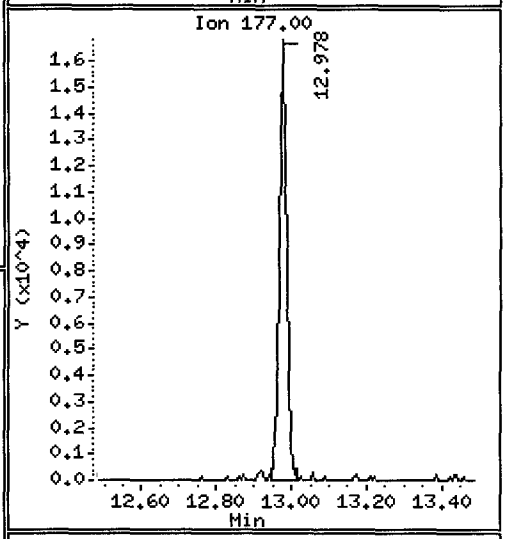


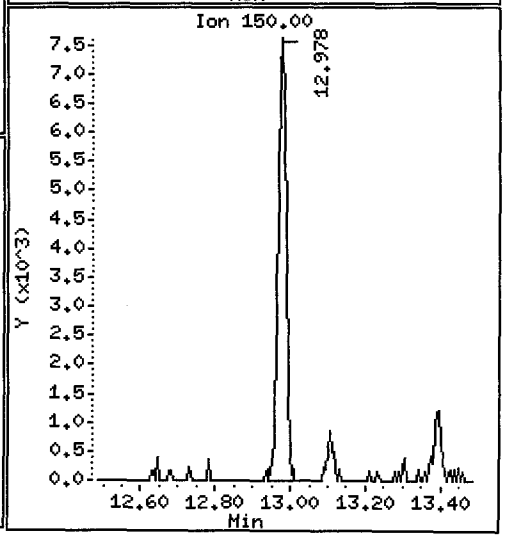



CO-ELUTION SUMMARY FOR FILE - 05241206.D

Lab ID: UU62J, Method: SW846052312.m, Instrument: nt6.i, Date: 24-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem2/nt6.i/20120524.b/05241207.D
Lab Smp Id: UU62K Client Smp ID: MS-SSFB-120515
Inj Date : 24-MAY-2012 14:14
Operator : JZ Inst ID: nt6.i
Smp Info : UU62K
Misc Info : 12-8938
Comment : 1ul Injection
Method : /chem2/nt6.i/20120524.b/SW846052312.m
Meth Date : 24-May-2012 18:14 jianqing Quant Type: ISTD
Cal Date : 23-MAY-2012 16:56 Cal File: 05231207.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: LLReten.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Vt | 500.00000 | Volume of final extract (uL) |
| Vo | 500.00000 | Volume of sample extracted (mL) |

Cpnd Variable Local Compound Variable

| | | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|---|---|
| $ | 1 | 2-Fluorophenol | 112 | 5.190 | 5.187 | (0.722) | 1417828 | 25.7346 | 25.73 |
| $ | 2 | Phenol-d5 | 99 | 6.862 | 6.865 | (0.954) | 1718783 | 26.1575 | 26.16 |
| | 3 | Phenol | 94 | Compound Not Detected. | | | | | |
| $ | 5 | 2-Chlorophenol-d4 | 132 | 6.905 | 6.907 | (0.960) | 1640665 | 25.7629 | 25.76 |
| | 4 | Bis(2-Chloroethyl)ether | 93 | Compound Not Detected. | | | | | |
| | 6 | 2-Chlorophenol | 128 | Compound Not Detected. | | | | | |
| | 7 | 1,3-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| * | 8 | 1,4-Dichlorobenzene-d4 | 152 | 7.193 | 7.191 | (1.000) | 948003 | 20.0000 | |
| | 9 | 1,4-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| $ | 10 | 1,2-Dichlorobenzene-d4 | 152 | 7.493 | 7.490 | (1.042) | 665537 | 14.3299 | 14.33 |
| | 12 | 1,2-Dichlorobenzene | 146 | Compound Not Detected. | | | | | |
| | 11 | Benzyl alcohol | 108 | Compound Not Detected. | | | | | |
| | 14 | 2,2'-oxybis(1-Chloropropane) | 45 | Compound Not Detected. | | | | | |
| | 13 | 2-Methylphenol | 108 | Compound Not Detected. | | | | | |
| | 17 | Hexachloroethane | 117 | Compound Not Detected. | | | | | |
| | 16 | N-Nitroso-di-n-propylamine | 70 | Compound Not Detected. | | | | | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|---|
| 15 | 4-Methylphenol | 108 | Compound Not Detected. | | | | | |
| $ 18 | Nitrobenzene-d5 | 82 | 8.144 | 8.147 | (0.880) | 931891 | 17.3698 | 17.37 |
| 19 | Nitrobenzene | 77 | Compound Not Detected. | | | | | |
| 20 | Isophorone | 82 | Compound Not Detected. | | | | | |
| 21 | 2-Nitrophenol | 139 | Compound Not Detected. | | | | | |
| 22 | 2,4-Dimethylphenol | 107 | Compound Not Detected. | | | | | |
| 23 | Bis(2-Chloroethoxy)methane | 93 | Compound Not Detected. | | | | | |
| 24 | Benzoic acid | 105 | Compound Not Detected. | | | | | |
| 25 | 2,4-Dichlorophenol | 162 | Compound Not Detected. | | | | | |
| 26 | 1,2,4-Trichlorobenzene | 180 | Compound Not Detected. | | | | | |
| * 27 | Naphthalene-d8 | 136 | 9.256 | 9.258 | (1.000) | 3347510 | 20.0000 | |
| 28 | Naphthalene | 128 | Compound Not Detected. | | | | | |
| 29 | 4-Chloroaniline | 127 | Compound Not Detected. | | | | | |
| 30 | Hexachlorobutadiene | 225 | Compound Not Detected. | | | | | |
| 31 | 4-Chloro-3-methylphenol | 107 | Compound Not Detected. | | | | | |
| 32 | 2-Methylnaphthalene | 141 | Compound Not Detected. | | | | | |
| 33 | Hexachlorocyclopentadiene | 237 | Compound Not Detected. | | | | | |
| 34 | 2,4,6-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| 35 | 2,4,5-Trichlorophenol | 196 | Compound Not Detected. | | | | | |
| $ 36 | 2-Fluorobiphenyl | 172 | 11.072 | 11.074 | (0.915) | 2040595 | 15.6868 | 15.69 |
| 37 | 2-Chloronaphthalene | 162 | Compound Not Detected. | | | | | |
| 38 | 2-Nitroaniline | 65 | Compound Not Detected. | | | | | |
| 39 | Dimethylphthalate | 163 | 11.825 | 11.838 | (0.977) | 92450 | 0.81460 | 0.8146 |
| 40 | Acenaphthylene | 152 | Compound Not Detected. | | | | | |
| 41 | 2,6-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| * 42 | Acenaphthene-d10 | 164 | 12.103 | 12.105 | (1.000) | 2141551 | 20.0000 | |
| 43 | 3-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| 44 | Acenaphthene | 153 | Compound Not Detected. | | | | | |
| 45 | 2,4-Dinitrophenol | 184 | Compound Not Detected. | | | | | |
| 46 | Dibenzofuran | 168 | Compound Not Detected. | | | | | |
| 47 | 4-Nitrophenol | 109 | Compound Not Detected. | | | | | |
| 48 | 2,4-Dinitrotoluene | 165 | Compound Not Detected. | | | | | |
| 50 | Diethylphthalate | 149 | 12.979 | 12.987 | (1.072) | 147011 | 1.35969 | 1.360 |
| 49 | Fluorene | 166 | Compound Not Detected. | | | | | |
| 51 | 4-Chlorophenyl-phenylether | 204 | Compound Not Detected. | | | | | |
| 52 | 4-Nitroaniline | 138 | Compound Not Detected. | | | | | |
| 53 | 4,6-Dinitro-2-methylphenol | 198 | Compound Not Detected. | | | | | |
| 54 | N-Nitrosodiphenylamine | 169 | Compound Not Detected. | | | | | |
| $ 55 | 2,4,6-Tribromophenol | 330 | 13.390 | 13.398 | (1.106) | 784407 | 28.2218 | 28.22 |
| 56 | 4-Bromophenyl-phenylether | 248 | Compound Not Detected. | | | | | |
| 57 | Hexachlorobenzene | 284 | Compound Not Detected. | | | | | |
| 58 | Pentachlorophenol | 266 | Compound Not Detected. | | | | | |
| * 59 | Phenanthrene-d10 | 188 | 14.448 | 14.456 | (1.000) | 3383727 | 20.0000 | |
| 60 | Phenanthrene | 178 | Compound Not Detected. | | | | | |
| 61 | Anthracene | 178 | Compound Not Detected. | | | | | |
| 62 | Carbazole | 167 | Compound Not Detected. | | | | | |
| 63 | Di-n-butylphthalate | 149 | 15.623 | 15.626 | (1.081) | 604665 | 3.70567 | 3.706 |
| 64 | Fluoranthene | 202 | Compound Not Detected. | | | | | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|---|
| 65 | Pyrene | 202 | Compound Not Detected. | | | | | |
| $ 66 | Terphenyl-d14 | 244 | 17.103 | 17.106 | (0.913) | 2728362 | 19.7849 | 19.78 |
| 67 | Butylbenzylphthalate | 149 | 18.011 | 18.014 | (0.962) | 41844 | 0.53545 | 0.5355 |
| 68 | Benzo(a)anthracene | 228 | Compound Not Detected. | | | | | |
| * 69 | Chrysene-d12 | 240 | 18.727 | 18.735 | (1.000) | 3983969 | 20.0000 | |
| 70 | 3,3'-Dichlorobenzidine | 252 | Compound Not Detected. | | | | | |
| 71 | Chrysene | 228 | Compound Not Detected. | | | | | |
| 72 | bis(2-Ethylhexyl)phthalate | 149 | Compound Not Detected. | | | | | |
| * 134 | Di-n-octylphthalate-d4 | 153 | 19.961 | 19.964 | (1.000) | 3747644 | 20.0000 | |
| 73 | Di-n-octylphthalate | 149 | Compound Not Detected. | | | | | |
| 74 | Benzo(b)fluoranthene | 252 | Compound Not Detected. | | | | | |
| 75 | Benzo(k)fluoranthene | 252 | Compound Not Detected. | | | | | |
| 76 | Benzo(a)pyrene | 252 | Compound Not Detected. | | | | | |
| * 77 | Perylene-d12 | 264 | 20.864 | 20.872 | (1.000) | 4429070 | 20.0000 | |
| 78 | Indeno(1,2,3-cd)pyrene | 276 | Compound Not Detected. | | | | | |
| 79 | Dibenzo(a,h)anthracene | 278 | Compound Not Detected. | | | | | |
| 80 | Benzo(g,h,i)perylene | 276 | Compound Not Detected. | | | | | |
| 90 | N-Nitrosodimethylamine | 74 | Compound Not Detected. | | | | | |
| 91 | Aniline | 93 | Compound Not Detected. | | | | | |
| 93 | Benzidine | 184 | Compound Not Detected. | | | | | |
| 103 | Pyridine | 79 | Compound Not Detected. | | | | | |
| 105 | 1-methylnaphthalene | 141 | Compound Not Detected. | | | | | |
| 111 | Azobenzene (1,2-DP-Hydrazine) | 77 | Compound Not Detected. | | | | | |
| 187 | Total Benzofluoranthenes | 252 | Compound Not Detected. | | | | | |
| 98 | Retene | 219 | Compound Not Detected. | | | | | |

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt6.i
Lab File ID: 05241207.D
Lab Smp Id: UU62K
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: /chem2/nt6.i/20120524.b/SW846052312.m
Misc Info: 12-8938

Calibration Date: 24-MAY-2012
Calibration Time: 10:50
Client Smp ID: MS-SSFB-120515
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 4.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 963757 | 481878 | 1927514 | 948003 | -1.63 |
| 27 Naphthalene-d8 | 3430476 | 1715238 | 6860952 | 3347510 | -2.42 |
| 42 Acenaphthene-d10 | 2259168 | 1129584 | 4518336 | 2141551 | -5.21 |
| 59 Phenanthrene-d10 | 3446677 | 1723338 | 6893354 | 3383727 | -1.83 |
| 69 Chrysene-d12 | 3961525 | 1980762 | 7923050 | 3983969 | 0.57 |
| 134 Di-n-octylphthala | 3758743 | 1879372 | 7517486 | 3747644 | -0.30 |
| 77 Perylene-d12 | 4154109 | 2077054 | 8308218 | 4429070 | 6.62 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 8 1,4-Dichlorobenze | 7.19 | 6.69 | 7.69 | 7.19 | 0.04 |
| 27 Naphthalene-d8 | 9.26 | 8.76 | 9.76 | 9.26 | -0.03 |
| 42 Acenaphthene-d10 | 12.11 | 11.61 | 12.61 | 12.10 | -0.02 |
| 59 Phenanthrene-d10 | 14.46 | 13.96 | 14.96 | 14.45 | -0.05 |
| 69 Chrysene-d12 | 18.73 | 18.23 | 19.23 | 18.73 | -0.04 |
| 134 Di-n-octylphthala | 19.96 | 19.46 | 20.46 | 19.96 | -0.01 |
| 77 Perylene-d12 | 20.87 | 20.37 | 21.37 | 20.86 | -0.04 |

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Anchor QEA, LLC. Client SDG: UU62
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: UU62K Client Smp ID: MS-SSFB-120515
Level: LOW Operator: JZ
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: LLLCS.spk Quant Type: ISTD
Sublist File: LLReten.sub
Method File: /chem2/nt6.i/20120524.b/SW846052312.m
Misc Info: 12-8938

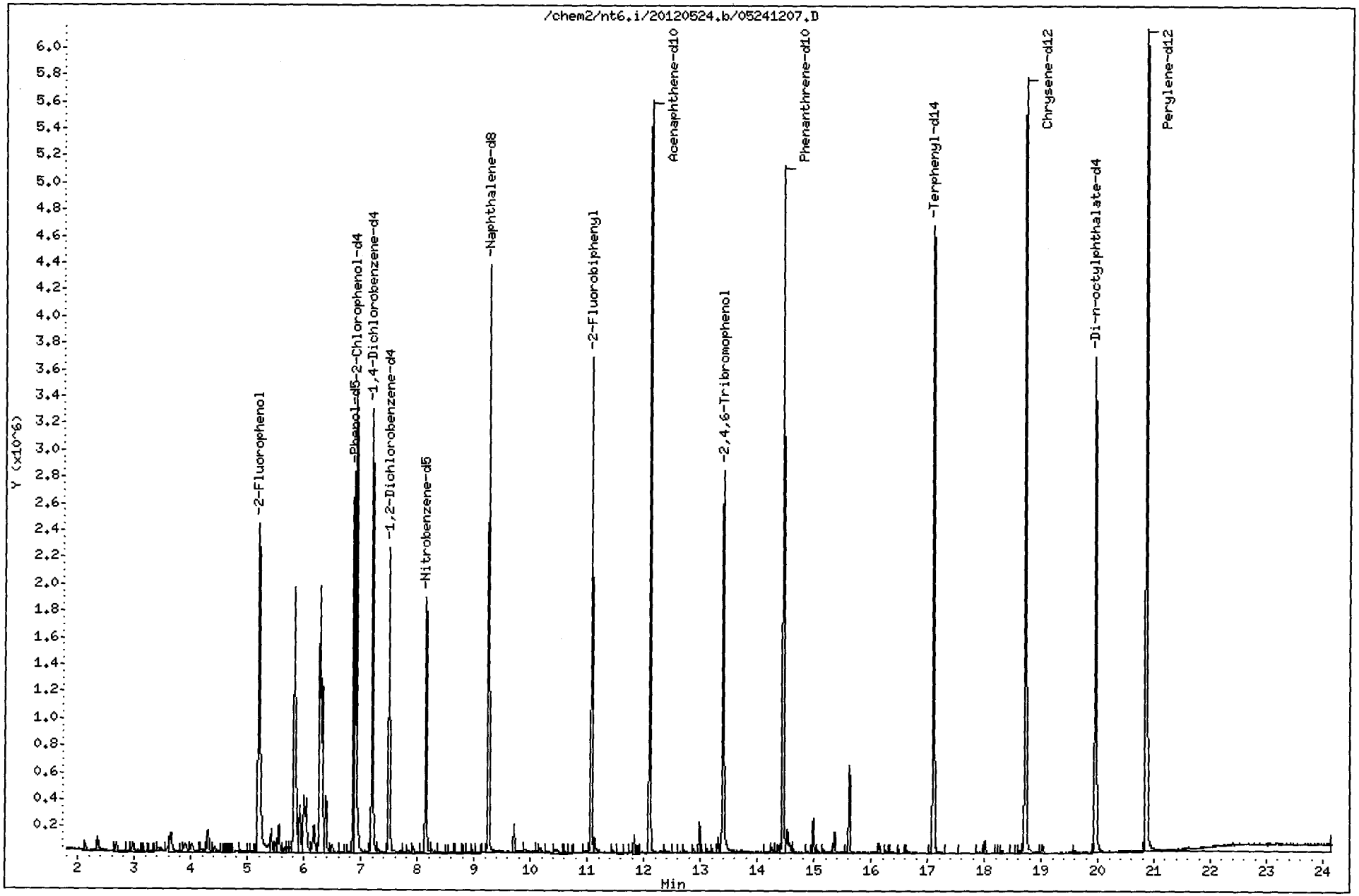
| SURROGATE COMPOUND | CONC ADDED ug/L | CONC RECOVERED ug/L | % RECOVERED | LIMITS |
|---|---|---|---|---|
| $ 1 2-Fluorophenol | 37.50 | 25.73 | 68.63 | 38-100 |
| $ 2 Phenol-d5 | 37.50 | 26.16 | 69.75 | 41-100 |
| $ 5 2-Chlorophenol-d4 | 37.50 | 25.76 | 68.70 | 44-100 |
| $ 10 1,2-Dichlorobenzen | 25.00 | 14.33 | 57.32 | 32-100 |
| $ 18 Nitrobenzene-d5 | 25.00 | 17.37 | 69.48 | 39-100 |
| $ 36 2-Fluorobiphenyl | 25.00 | 15.69 | 62.75 | 42-100 |
| $ 55 2,4,6-Tribromophen | 37.50 | 28.22 | 75.26 | 48-118 |
| $ 66 Terphenyl-d14 | 25.00 | 19.78 | 79.14 | 28-121 |

Data File: /chem2/nt6.i/20120524.b/05241207.D
Date : 24-MAY-2012 14:14
Client ID: MS-SSFB-120515
Sample Info: UU62K
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt6.i

Operator: JZ
Column diameter: 0.32






UU52:01155

Data File: /chem2/nt6.i/20120524.b/05241207.D

Date : 24-MAY-2012 14:14

Client ID: MS-SSFB-120515

Instrument: nt6.i

Sample Info: UU62K

Volume Injected (uL): 1.0

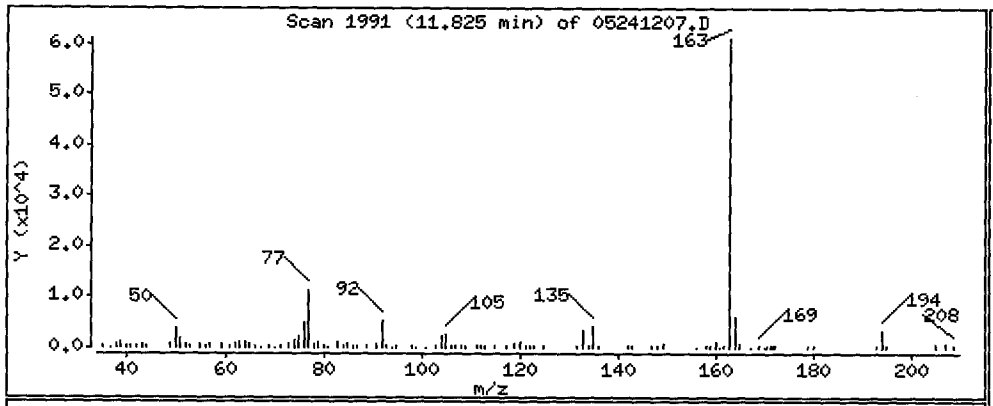
Operator: JZ

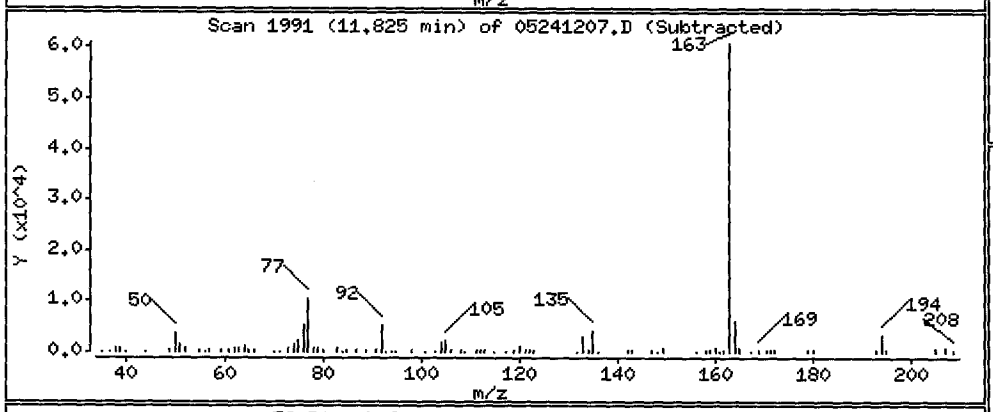
Column phase: ZB-5msi

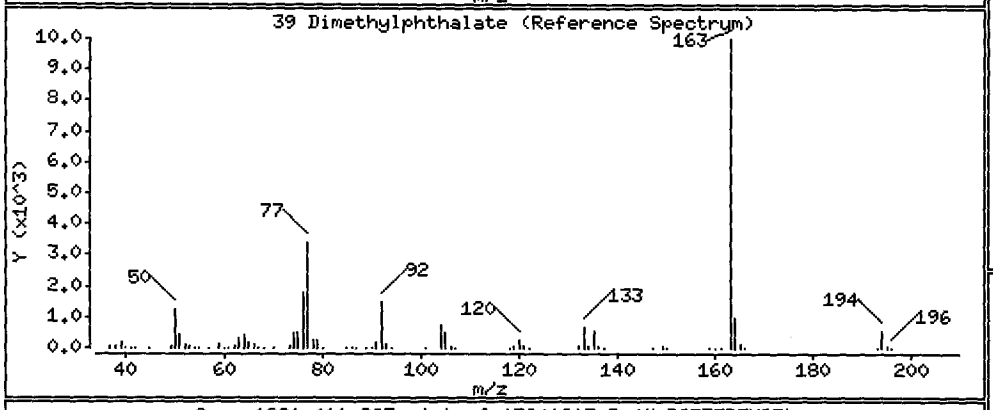
Column diameter: 0.32

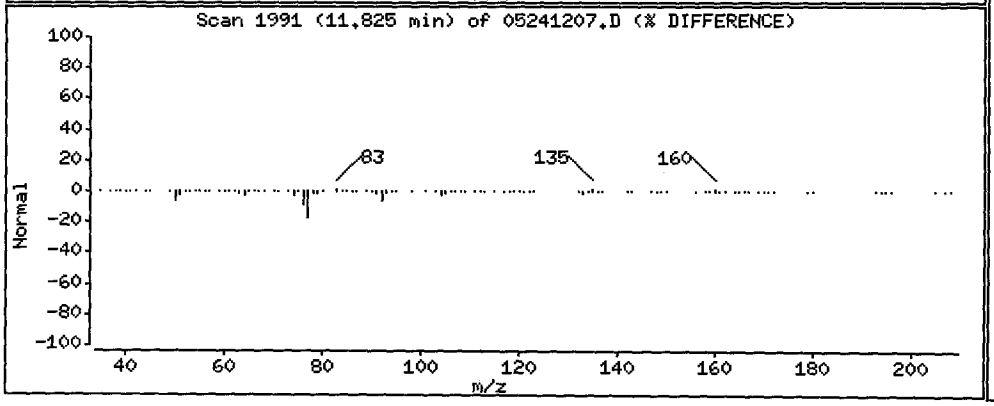
39 Dimethylphthalate

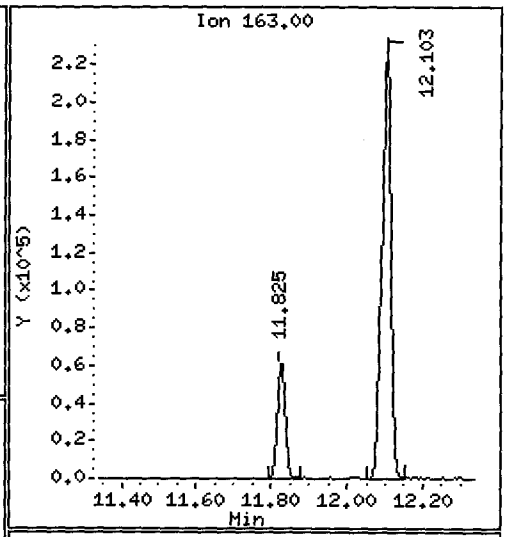
Concentration: 0.8146 ug/L

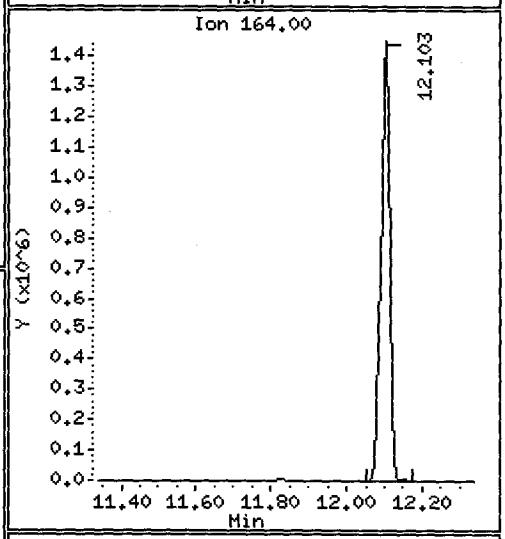


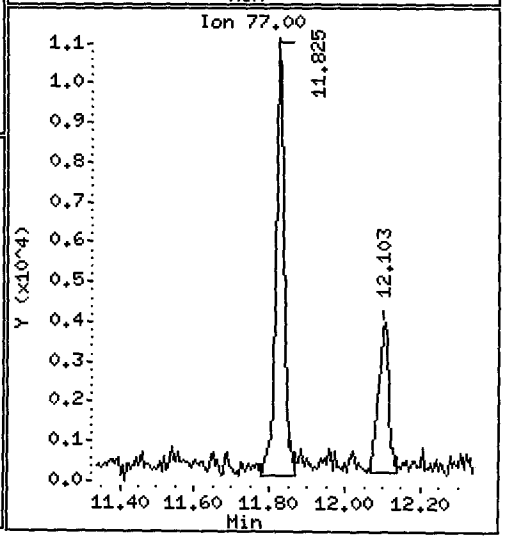



Data File: /chem2/nt6.i/20120524.b/05241207.D

Date : 24-MAY-2012 14:14

Client ID: MS-SSFB-120515

Instrument: nt6.i

Sample Info: UU62K

Volume Injected (uL): 1.0

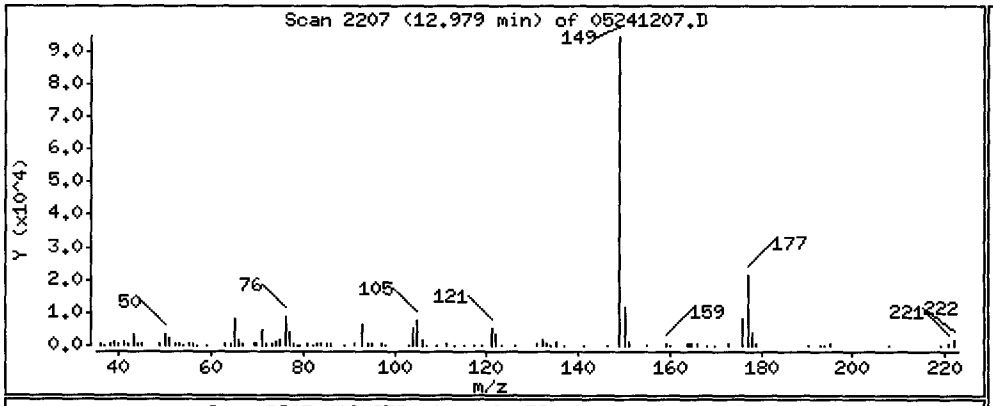
Operator: JZ

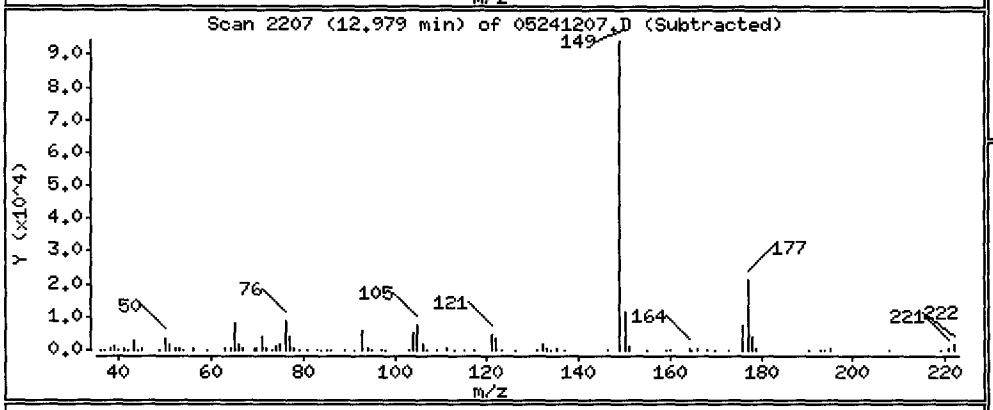
Column phase: ZB-5msi

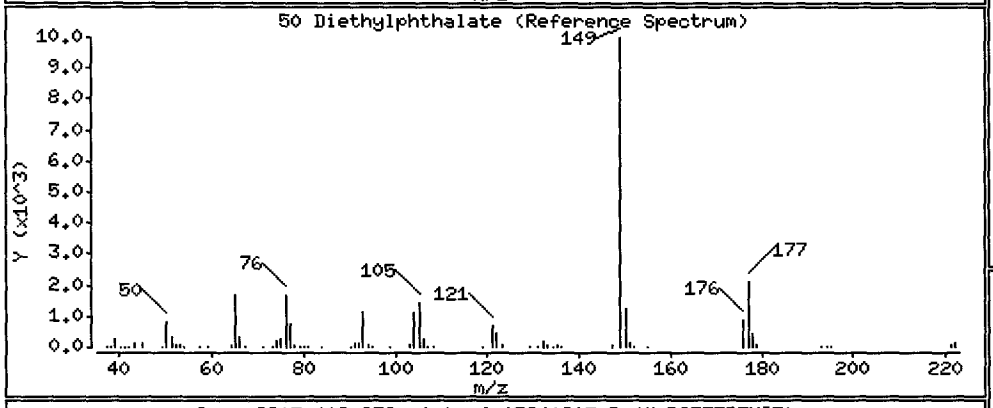
Column diameter: 0.32

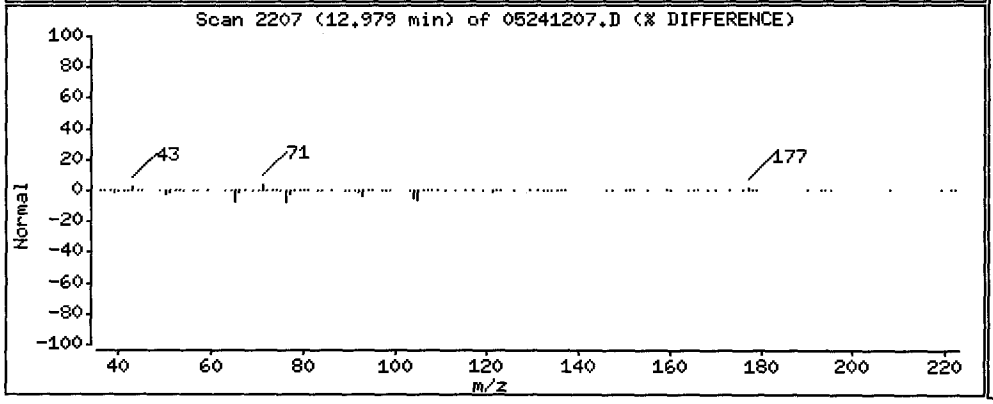
50 Diethylphthalate

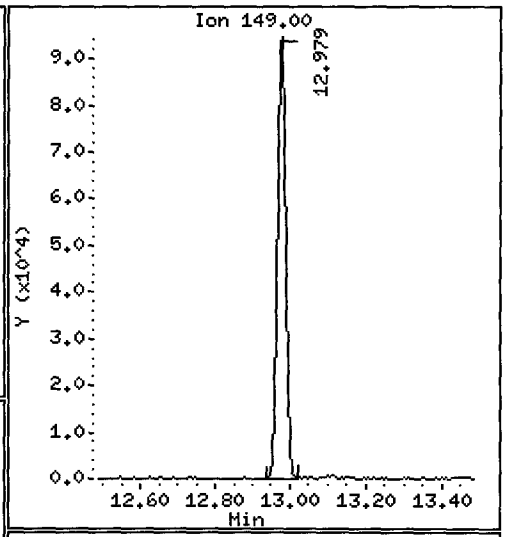
Concentration: 1.360 ug/L

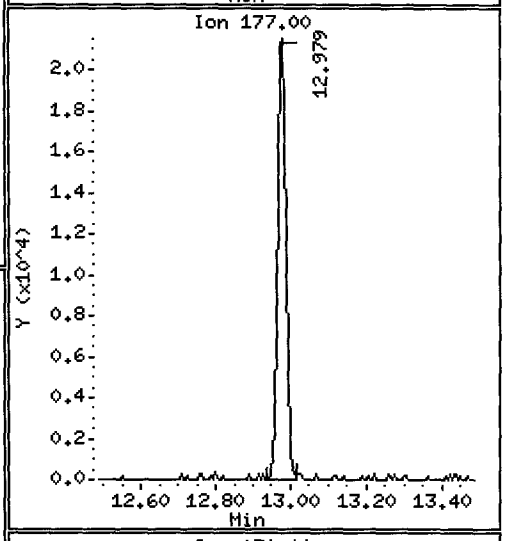


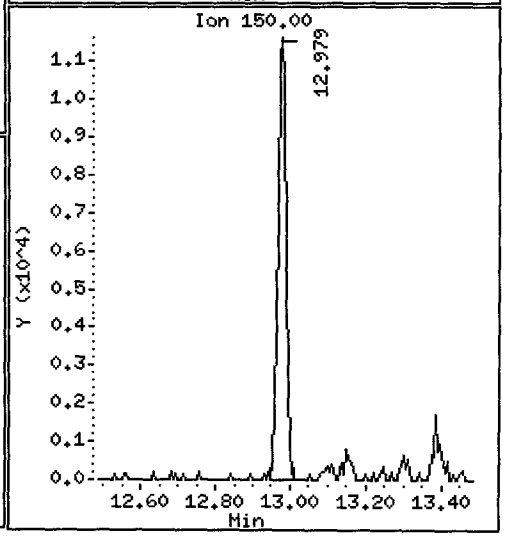



Data File: /chem2/nt6.i/20120524.b/05241207.D

Date : 24-MAY-2012 14:14

Client ID: MS-SSFB-120515

Instrument: nt6.i

Sample Info: UU62K

Volume Injected (uL): 1.0

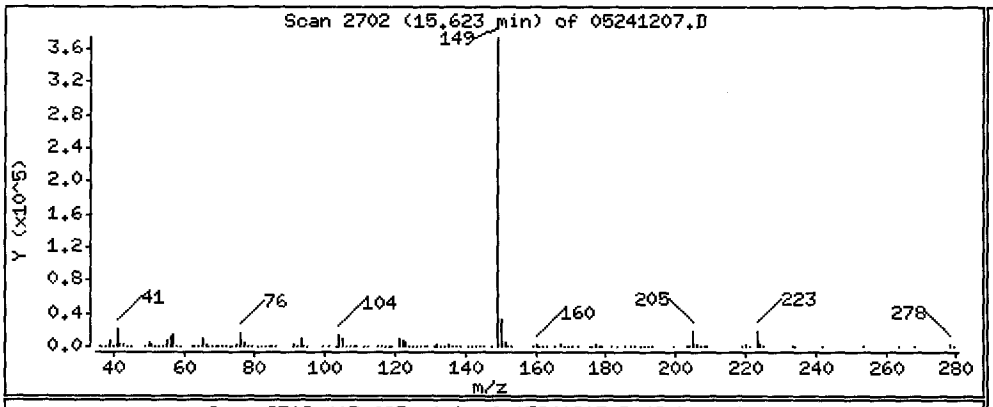
Operator: JZ

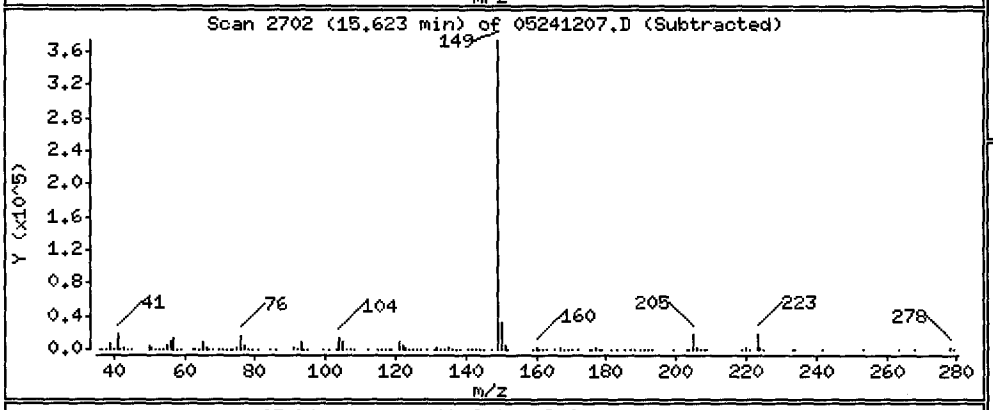
Column phase: ZB-5msi

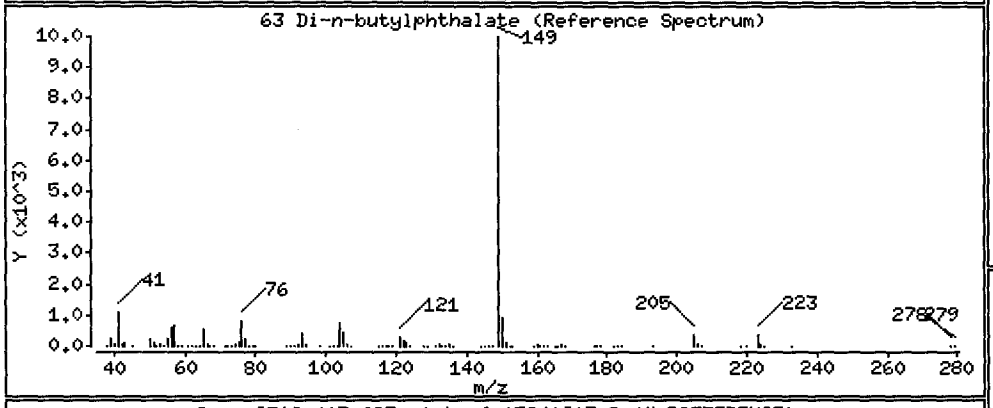
Column diameter: 0.32

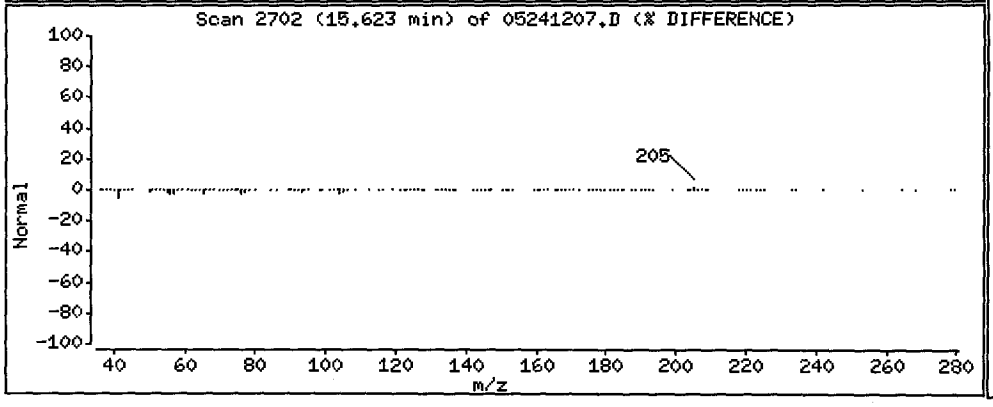
63 Di-n-butylphthalate

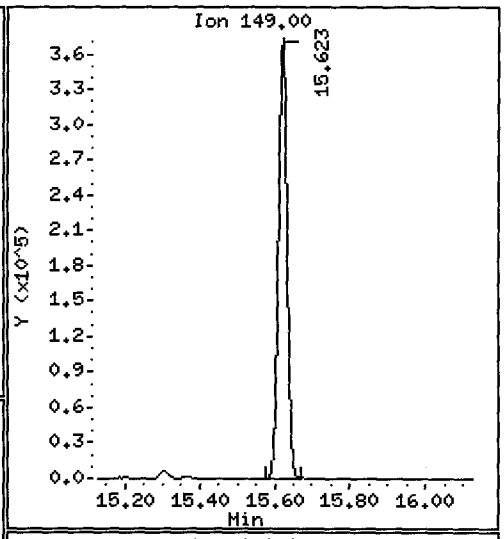
Concentration: 3.706 ug/L

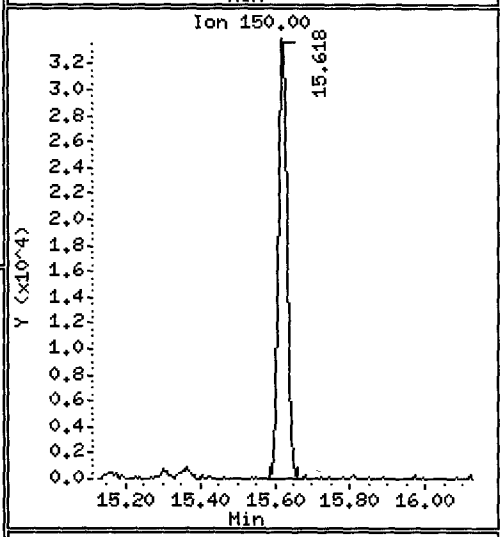


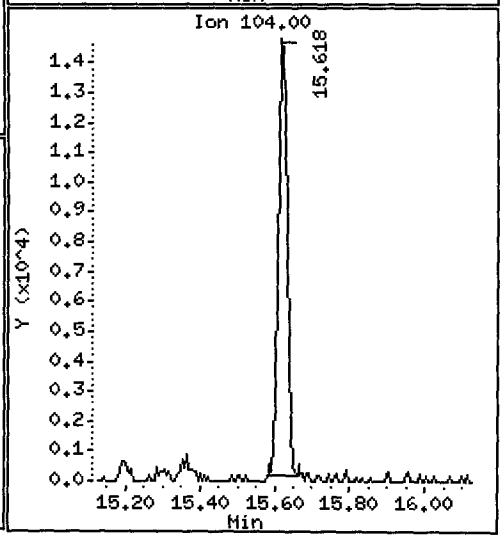



Data File: /chem2/nt6.i/20120524.b/05241207.D

Date : 24-MAY-2012 14:14

Client ID: MS-SSFB-120515

Instrument: nt6.i

Sample Info: UU62K

Volume Injected (uL): 1.0

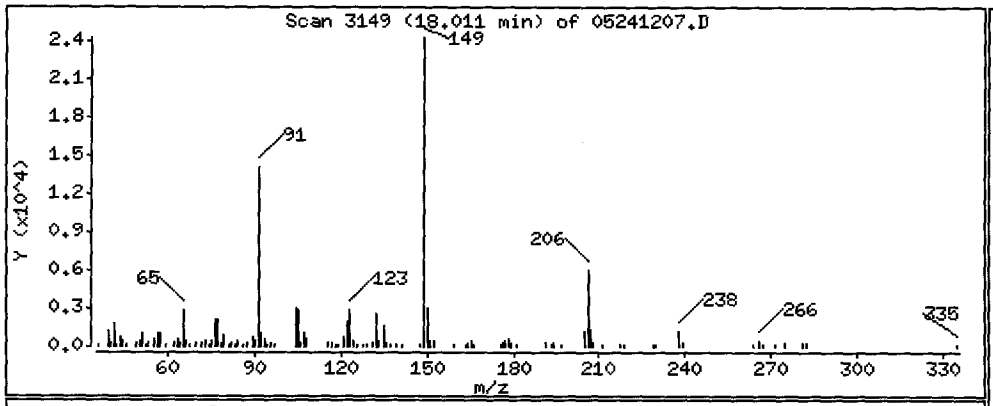
Operator: JZ

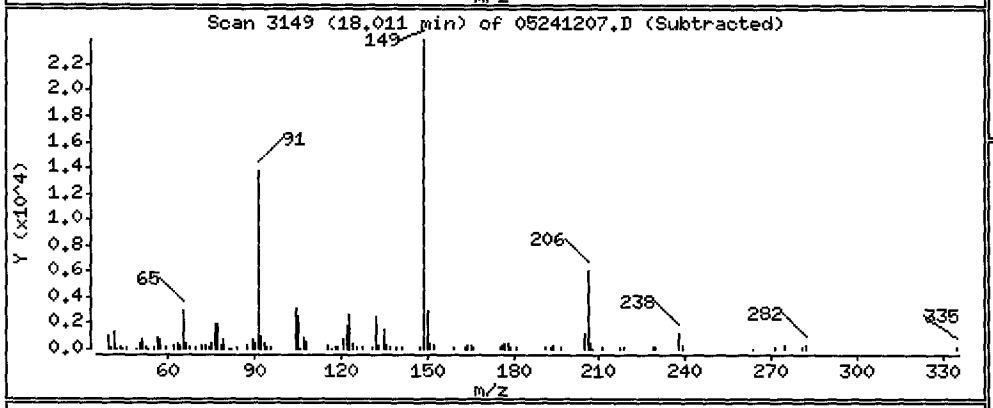
Column phase: ZB-5msi

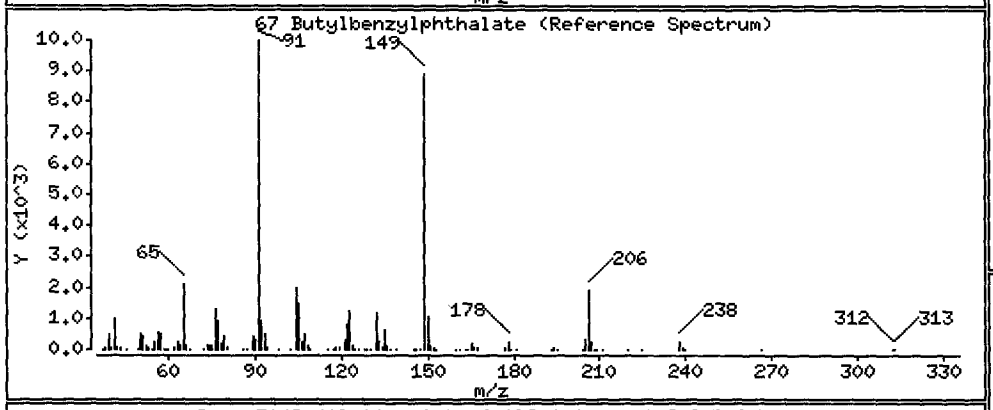
Column diameter: 0.32

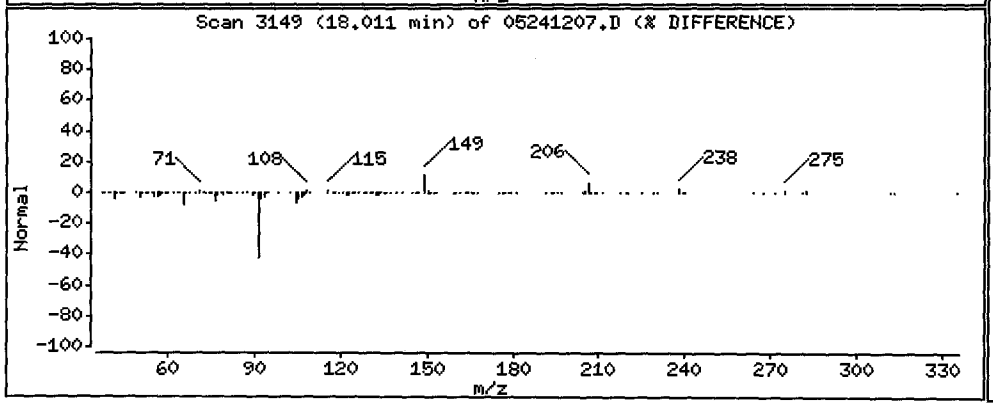
67 Butylbenzylphthalate

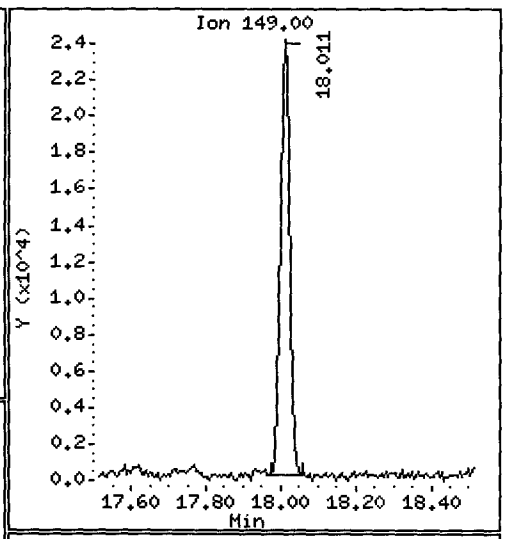
Concentration: 0.5355 ug/L

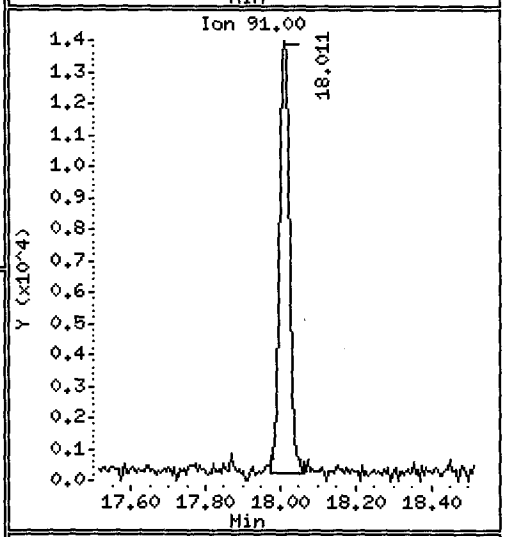


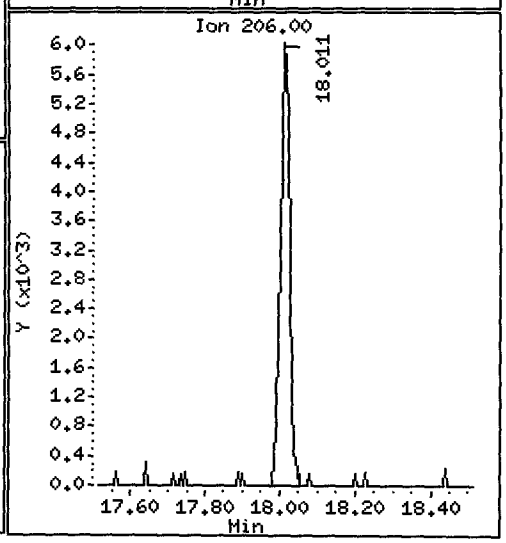



CO-ELUTION SUMMARY FOR FILE - 05241207.D

Lab ID: UU62K, Method: SW846052312.m, Instrument: nt6.i, Date: 24-MAY-2012

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Pesticide Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: UU52, UU62

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Organic Extractions Benchsheet

**Pest PSDDA – Soil/Sed**
**Microwave (3546) (SOP # 3304S)**
PSDDA (1-2ppb)

**Preparation Test Pest # 5 (PESSDMP)** very high sulfur content

ARI Job No(s) UU52 Page 1 of 1 Batch set up by: _____

| Bottle # | ARI Sample I.D. | Weight Extracted (eq. to 12.5 dry wt) | (REQ) Sulfur Clean 2mL+0.5mL Ethyl Acetate 1 2 3 | (REQ) Silica Gel Clean (1:2.5) | Final Effective Volume | Volume to Lab | Comment | Verify Client ID |
|---|---|---|---|---|---|---|---|---|
| | UU52 MBS | 12.5g | 2.5mL | (1:2.5) 1mL | 2.5mL | 1mL | (10g Actual Wt) | AC 5-22-12 Analyst/Date |
| | SBS | 12.5g | 2.5mL | (1:2.5) 1mL | 2.5mL | 1mL | (10g Actual Wt) | Microwave QR/NL 05/23/12 |
| 6 | ~~SBS Dup.~~ A | ~~12.5g~~ 130.43 | 2.5mL | (1:2.5) 1mL | 2.5mL | 1mL | ~~(10g Actual Wt)~~ | Analyst/Date |
| 5,6 | ~~QLS~~ B | ~~12.5g~~ 129.09 | 2.5mL | (1:2.5) 1mL | 2.5mL | 1mL | ~~(10g Actual Wt)~~ | KD 100°C Hexane Exchange (2 X 20mL) |
| 5,6 | C | 123.43 | 2.5mL | (1:2.5) 1mL | 2.5mL | 1mL | | YL 5/23/12 |
| 5,6 | CMS | 123.70 | 2.5mL | (1:2.5) 1mL | 2.5mL | 1mL | | Analyst/Date |
| 5,6 | CMSD | 123.14 | 2.5mL | (1:2.5) 1mL | 2.5mL | 1mL | | TurboVap 1 2 3 Pre-Cleanups |
| 5 | D | 135.72 | 2.5mL | (1:2.5) 1mL | 2.5mL | 1mL | | |
| 5 | E | 131.57 | 2.5mL | (1:2.5) 1mL | 2.5mL | 1mL | | |
| 5 | F | 141.65 | 2.5mL | (1:2.5) 1mL | 2.5mL | 1mL | | |
| 5 | G | 136.63 | 2.5mL | (1:2.5) 1mL | 2.5mL | 1mL | | 5-24-12 IS Analyst/Date |
| 5 | H | 78.46 | 2.5mL | (1:2.5) 1mL | 2.5mL | 1mL | | TurboVap 1 2 3 Post Cleanups |
| 5 | I | 114.44 | 2.5mL | (1:2.5) 1mL | 2.5mL | 1mL | | |
| 5 | J | 127.31 | 2.5mL | (1:2.5) 1mL | 2.5mL | 1mL | | |
| Analyst/Date | | AC 5-22-12 | IS 5-24-12 | IS 5-24-12 | IS 5-24-12 | IS 5-24-12 | | 5-24-12 IS Analyst/Date |

| Standard | Standard ID | Concentration | Volume | Expiration Date | Analyst | Witness |
|---|---|---|---|---|---|---|
| Surrogate | N (1914-2) | 2µg/mL | 50µL | 5/28/12 | QR | SP |
| Spike | 3 (1922-2) | 1/2/10µg/mL | 50µL | 12/13/12 | QR | SP |
| ~~QLS Spike~~ | ~~10 ( )~~ | ~~0.25-2.5µg/mL~~ | ~~25µL~~ | | | |

Extraction Time: 1140 Balance ID: B1464-2614

SPECIAL INSTRUCTIONS: 1. Weigh into beakers-lightly dry with Sodium Sulfate. 2. Transfer to microwave vessel. Note: do not fill vessel more than 2/3rd full. Some samples may require ~~two~~ multiple vessels). 3. Add 1:1 Hex/ACE to the vessels (until solvent is 3" above soil layer after homogenization). 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-re-homogenize while hot then let cool 15 min in cold water. 7. Decant 1:1 Hex/ACE into Erlenmeyer flask with sodium sulfate in the bottom and funnel containing neutral glasswool. 8. Rinse with Hexane 9. Microwave a 2nd time using 8:2 Hex/Ace (until solvent is 3" above soil layer after homogenization). 10. Let cool and decant the solvent then empty the soil into the funnel and rinse with Hexane. 11. KD (~~Smaller~~ Large drying column) to 5mL at 100°C. 12. Exchange to Hexane ( 2 X with 20mL). 13. TurboVap. 14. Clean-ups. 15. TurboVap. 16. Vial in Hexane.

A. Need Total Solids Y (N) B. Archive/Freeze Y (N)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Organic Extractions Laboratory Analyst Notes

ARI Job No.: UU52

Client ID: Anchor QEA, LLC

Parameter: Pest PSDDA

Client Project: Jeld Wen Maulsby Marsh

| Screens: Soil/Sediment/Solid/Other: | Analyst/Date |
|---|---|
| ☐ No Anomalies (standard soil/wet sediment/sand/gravel)= | AC 5-16-12 |
| ☐ Standing Water Decanted (Not shared)= | |
| ☐ Standing Water Homogenized (Shared samples)= | |
| ☐ Clay/Clumps (Difficult to homogenize)= | |
| ☐ Rocks (%+size)? | |
| ☐ Organics (Leaves/sticks/grass)= B < 5% sticks D= 30% grass/sticks E=10% grass F=60% grass/sticks g=50% grass/sticks h=30% i=50% | AC 5-16-12 |
| ☐ Oily, obvious fuel/sulfur odors= B- | |
| ☒ Other (Details)= UU52 - A-J - Samples, Surrogates & Spikes has to splitted into multi vessels prior to microwaved due to sample weigh, all samples will combine after microwaved samples with multi flasks are: A, B, Cms, E, F, G, I, J | NL 5/23/12 |
| **Aqueous:** | |
| ☐ No Anomalies | |
| ☐ Turbid/Color= | |
| ☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead) | |
| ☐ Emulsions (%)= | |
| ☐ Other (Details)= | |
| | |
| | |
| ☐ Other Notes/Comments= (Note problems, concerns, corrective actions). | |

3056F

Revision 008
11/02/11

UU52:01163

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Organic Extractions Benchsheet

**Pest – Water**
**Separatory Funnel (3510C) (SOP # 3311S)**
In-House (0.05-0.1ppb)
Batch set up by: SP

**Preparation Test Pest # 1(PESWSI)**
ARI Job No(s) UU37, UU46, UU62 Page 1 of 1

| Bottle # | ARI Sample I.D. | Volume Extracted | ~~(Opt)~~ Sulfur Clean 4.5mL+0.5mL (5mL) Ethyl Acetate 1 2 3 REQ 5/22/12 | ~~(Opt)~~ Silica Gel Clean (1:5) REQ SP 5/22/12 | Final Effective Volume | Volume to Lab | Comment | Verify Client ID NL 5/18/12 Analyst/Date |
|---|---|---|---|---|---|---|---|---|
| | UU37 MBW | 500mL | (5mL) Y / N | (1:5) Y / N | 5mL | 1mL | | |
| | SBW | 500mL | (5mL) Y / N | (1:5) Y / N | 5mL | 1mL | | Verify pH is 5-9 see note NL 5/18/12 Analyst/Date |
| | SBW Dup. | 500mL | (5mL) Y / N | (1:5) Y / N | 5mL | 1mL | | |
| | QLS | 500mL | (5mL) Y / N | (1:5) Y / N | 5mL | 1mL | | |
| 14 | A | 500mL | (5mL) Y / N | (1:5) Y / N | 5mL | 1mL | | KD 80-85°C |
| 14 | B | 500mL | (5mL) Y / N | (1:5) Y / N | 5mL | 1mL | | Hexane Exchange (2 X 20mL) 100°C |
| 5 | F | 500mL | (5mL) Y / N | (1:5) Y / N | 5mL | 1mL | | RR 05/21/12 Analyst/Date |
| 14 | UU46 A | 500mL | (5mL) Y / N | (1:5) Y / N | 5mL | 1mL | | |
| 12 | B | 500mL | (5mL) Y / N | (1:5) Y / N | 5mL | 1mL | see Analyst note | |
| 12 | C | 500mL | (5mL) Y / N | (1:5) Y / N | 5mL | 1mL | | TurboVap 1 2 3 Pre-Cleanups (4mL=10mL Hexane Exchange) |
| 5 | UU62 J | 500mL | (5mL) Y / N | (1:5) Y / N | 5mL | 1mL | | |
| 7 | K | 500mL | (5mL) Y / N | (1:5) Y / N | 5mL | 1mL | | SP 5/22/12 Analyst/Date |
| | | 500mL | (5mL) Y / N | (1:5) Y / N | 5mL | 1mL | | |
| | | 500mL | (5mL) Y / N | (1:5) Y / N | 5mL | 1mL | | |
| | | 500mL | (5mL) Y / N | (1:5) Y / N | 5mL | 1mL | | TurboVap 1 2 3 Post Cleanups |
| | | 500mL | (5mL) Y / N | (1:5) Y / N | 5mL | 1mL | | |
| | | 500mL | (5mL) Y / N | (1:5) Y / N | 5mL | 1mL | | |
| | | 500mL | (5mL) Y / N | (1:5) Y / N | 5mL | 1mL | | SP 5/23/12 Analyst/Date |
| Analyst/Date | | NL 5/18/12 | SP 5/23/12 | SP 5/23/12 | SP 5/22/12 | SP 5/23/12 | | |

| Standard | Standard ID | Concentration | Volume | Expiration Date | Analyst | Witness |
|---|---|---|---|---|---|---|
| Surrogate | N (1914-2) | 2µg/mL | 100µL | 5/28/12 | NL | SP |
| Spike | 3 (1922-2) | 1/2/10µg/mL | 100µL | 12/13/12 | NL | SP |
| QLS Spike | 10 (1922-4) | 0.25-2.5µg/mL | 50µL | 12/13/12 | NL | SP |
| Extraction Time: 0900 | | | | | | |

SPECIAL INSTRUCTIONS: 1. Verify pH is 5-9 2. Adjust pH (if necessary=Analyst Notes). 3. Add Surr/Spike. 4. Extract 3X with 30mL DCM. 5. KD (NO Drying Column) at 80°. 6. Exchange (2 X with 20mL) Hexane at 100°. 7. TurboVap to 4mL=10mL Hexane Exchange. 8. TurboVap. 9. Clean-ups? 10. TurboVap (if Silica Clean). 11. Vial with Hexane.

A. Archive Y / N

3038F

Revision 8
05/08/12

4444

both jobs (UU37, SP 5/17/12 UU46 only)

UU62 01164

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Organic Extractions Laboratory Analyst Notes

ARI Job No.: UU62

Client ID: Anchor QEA, LLC

Parameter: Pest

Client Project: Jeld Wen - Maulsby Marsh

| Screens: Soil/Sediment/Solid/Other: | Analyst/Date |
|---|---|
| ☐ No Anomalies (standard soil/wet sediment/sand/gravel)= | |
| ☐ Standing Water Decanted (Not shared)= | |
| ☐ Standing Water Homogenized (Shared samples)= | |
| ☐ Clay/Clumps (Difficult to homogenize)= | |
| ☐ Rocks (%+size)? | |
| ☐ Organics (Leaves/sticks/grass)= | |
| ☐ Oily, obvious fuel/sulfur odors= | |
| ☐ Other (Details)= | |
| | |
| | |
| | |
| **Aqueous:** | |
| ☒ No Anomalies J, K | MC/18/12 |
| ☐ Turbid/Color= | |
| ☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead) | |
| ☐ Emulsions (%)= | |
| ☐ Other (Details)= | |
| | |
| | |
| ☐ Other Notes/Comments= (Note problems, concerns, corrective actions). | |
| | |
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| | |

Pesticide Raw Data
Initial Calibration

ARI Job ID: UU52, UU62

**Analytical Resources, Incorporated**
Analytical Chemists and Consultants

# GC Initial Calibration Notes

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
**427S**(Dir Inj) **428S**(EPH) **Other**

Instrument: FID-3A FID-3B FID-4A ~~FID-4B~~ FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date(s): 5/23/2012 Internal Standard ID 1878-3 Expiration 8/1/2012

| | | | |
|---|---|---|---|
| Endrin/DDT Breakdown <15%? | YES / NO / NA | ICV Exceeding ±20%? | YES / NO (1) |
| ICal Meets %RSD & $r^2$ Criteria | YES / NO | ICV Exceeding ±30%? | YES / NO |
| Manual Integrations for ICal? | YES / NO | Linear Fits Used? | YES / NO |
| Minimum Response S/N Met | YES / NO | Quadratic Fits Used? | YES / NO |
| | | Calibration Points Dropped? | YES / NO |

| Primary Source | Standard # | Expiration | Secondary Source | Standard # | Expiration |
|---|---|---|---|---|---|
| INDA | 1982-1 | 12/13/2012 | INDA | 1897-4 | 5/28/2012 |
| WND | 1938-1 | 5/28/2012 | WND | 1935-2 | 5/28/2012 |
| Toxaphene | 1924-5 | 5/28/2012 | HCB/HCBD | 1886-2 | 5/28/2012 |
| Techlor | 1924-4 | 5/28/2012 | 2,4-DDx | 1936-6 | 1/10/2013 |
| IB | 1982-2 | 5/16/2013 | | | |
| DS | 1878-2 | 5/28/2012 | | | |
| | | | | | |
| | | | | | |

**Detail problems, corrective actions and/or other pertinent information below:**

(1) 2,4'-DDE col 2 @ 122.48R, col. 1 ± 20%

**Analyst:** [signature] **Date:** 5/24/2012

**Reviewer:** [signature] **Date:** 5/24/12


UU52:01167

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd6.i/20120523PEST.b/ical-2.b

| | Inject Date/Time | Filename | DF | LabID | ClientID |
|---|---|---|---|---|---|
| 1 | 23-MAY-2012 13:54 | 0523A004.d | 1 | DS | |
| 2 | 23-MAY-2012 14:12 | 0523A005.d | 1 | IB | |
| 3 | 23-MAY-2012 14:29 | 0523A006.d | 1 | INDAE | |
| 4 | 23-MAY-2012 14:47 | 0523A007.d | 1 | INDAA | |
| 5 | 23-MAY-2012 15:05 | 0523A008.d | 1 | INDAB | |
| 6 | 23-MAY-2012 15:23 | 0523A009.d | 1 | INDAC | |
| 7 | 23-MAY-2012 15:41 | 0523A010.d | 1 | INDAD | |
| 8 | 23-MAY-2012 15:58 | 0523A011.d | 1 | INDAF | |
| 9 | 23-MAY-2012 16:16 | 0523A012.d | 1 | INDAG | |
| 10 | 23-MAY-2012 16:34 | 0523A013.d | 1 | INDA ICV | |
| 11 | 23-MAY-2012 16:52 | 0523A014.d | 1 | HCB/HCBD ICV | |
| 12 | 23-MAY-2012 17:10 | 0523A015.d | 1 | TOXAPH 2500 | |
| 13 | 23-MAY-2012 17:27 | 0523A016.d | 1 | WNDE | |
| 14 | 23-MAY-2012 17:45 | 0523A017.d | 1 | WNDA | |
| 15 | 23-MAY-2012 18:03 | 0523A018.d | 1 | WNDB | |
| 16 | 23-MAY-2012 18:21 | 0523A019.d | 1 | WNDC | |
| 17 | 23-MAY-2012 18:39 | 0523A020.d | 1 | WNDD | |
| 18 | 23-MAY-2012 18:56 | 0523A021.d | 1 | WNDF | |
| 19 | 23-MAY-2012 19:14 | 0523A022.d | 1 | WNDG | |
| 20 | 23-MAY-2012 19:32 | 0523A023.d | 1 | WND ICV | |
| 21 | 23-MAY-2012 19:50 | 0523A024.d | 1 | 2/4-DDTS ICV | |
| 22 | 23-MAY-2012 20:08 | 0523A025.d | 1 | ~~TECH 200~~ WND ASSAY | |
| 23 | 23-MAY-2012 20:25 | 0523A026.d | 1 | ~~DDT-RT~~ TECH 200 | |

AR 5/24/2012

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Cal Date : 24-May-2012 08:54 aron
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A017.d
Level 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A018.d
Level 3: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A019.d
Level 4: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A020.d
Level 5: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A016.d
Level 6: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A021.d
Level 7: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A022.d

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 80.000 Level 7 | | | | | | | |
| 1 Hexachlorobutadiene | 1.65636 | 1.50163 | 1.57876 | 1.47074 | 1.41861 | 1.32785 | | |
| | 1.39798 | | | | | | 1.47885 | 7.562 |
| 3 Hexachlorobenzene | 1.35717 | 1.23818 | 1.29125 | 1.21861 | 1.21724 | 1.16879 | | |
| | 1.21654 | | | | | | 1.24397 | 4.961 |
| 4 alpha-BHC | 1.32952 | 1.28947 | 1.40059 | 1.37678 | 1.38380 | 1.34940 | | |
| | 1.40626 | | | | | | 1.36226 | 3.088 |
| 5 gamma-BHC (Lindane) | 1.23891 | 1.10980 | 1.17985 | 1.14103 | 1.15693 | 1.12818 | | |
| | 1.18162 | | | | | | 1.16233 | 3.676 |
| 6 beta-BHC | 0.62504 | 0.51533 | 0.53712 | 0.50492 | 0.50135 | 0.48268 | | |
| | 0.50180 | | | | | | 0.52403 | 9.063 |
| 7 delta-BHC | 0.96154 | 0.87508 | 0.95807 | 0.93364 | 1.00362 | 1.00169 | | |
| | 1.07290 | | | | | | 0.97236 | 6.399 |

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Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Cal Date : 24-May-2012 08:54 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 80.000 Level 7 | | | | | | | |
| 8 Heptachlor | 1.34024 | 1.19727 | 1.25048 | 1.18065 | 1.11896 | 1.05732 | | |
| | 1.04330 | | | | | | 1.16974 | 9.079 |
| 37 Chlorthalonil | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 9 Aldrin | 1.10834 | 1.01443 | 1.06032 | 1.00791 | 0.99236 | 0.94979 | | |
| | 0.96398 | | | | | | 1.01387 | 5.429 |
| 10 Heptachlor Epoxide a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 11 Heptachlor epoxide b | 1.10178 | 1.04733 | 1.03236 | 0.96761 | 0.94708 | 0.89310 | | |
| | 0.89590 | | | | | | 0.98359 | 8.078 |
| 12 gamma-Chlordane | 0.99086 | 0.90832 | 0.96200 | 0.90015 | 0.88933 | 0.85705 | | |
| | 0.88079 | | | | | | 0.91264 | 5.174 |
| 13 alpha-Chlordane | 0.99263 | 0.88405 | 0.90013 | 0.84392 | 0.83263 | 0.79915 | | |
| | 0.82738 | | | | | | 0.86856 | 7.438 |
| 14 Endosulfan I | 1.00548 | 0.87872 | 0.89336 | 0.83530 | 0.81450 | 0.77709 | | |
| | 0.78839 | | | | | | 0.85612 | 9.198 |
| 15 4,4'-DDE | 0.89530 | 0.78678 | 0.80828 | 0.75308 | 0.75728 | 0.72797 | | |
| | 0.75037 | | | | | | 0.78272 | 7.173 |

UU52:01178

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Cal Date : 24-May-2012 08:54 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 80.000 Level 7 | | | | | | | |
| 16 Dieldrin | 1.00557 | 0.90149 | 0.93257 | 0.88795 | 0.85917 | 0.80434 | | |
| | 0.80415 | | | | | | 0.88504 | 8.094 |
| 17 Endrin | 1.61393 | 1.43188 | 1.40621 | 1.36344 | 1.35023 | 1.28452 | | |
| | 1.16341 | | | | | | 1.37337 | 10.080 |
| 18 4,4'-DDD | 1.30959 | 1.15375 | 1.13555 | 1.09241 | 1.14711 | 1.12344 | | |
| | 1.07175 | | | | | | 1.14766 | 6.731 |
| 19 Endosulfan II | 1.63655 | 1.46456 | 1.42963 | 1.38066 | 1.35523 | 1.29779 | | |
| | 1.17600 | | | | | | 1.39149 | 10.310 |
| 20 4,4'-DDT | 1.23923 | 1.11351 | 1.11530 | 1.09696 | 1.13748 | 1.12855 | | |
| | 1.07961 | | | | | | 1.13009 | 4.585 |
| 21 Endrin aldehyde | 1.26354 | 1.11599 | 1.08050 | 1.03768 | 1.03127 | 0.98237 | | |
| | 0.90735 | | | | | | 1.05981 | 10.594 |
| 22 Endosulfan sulfate | 1.20465 | 1.10100 | 1.09062 | 1.06200 | 1.05315 | 1.02103 | | |
| | 0.95133 | | | | | | 1.06911 | 7.279 |
| 23 Methoxychlor | 0.59047 | 0.53992 | 0.50984 | 0.47905 | 0.44187 | 0.40079 | | |
| | +++++ | | | | | | 0.49366 | 13.826 |
| 24 Endrin ketone | 1.58157 | 1.44702 | 1.42930 | 1.36698 | 1.35114 | 1.28218 | | |
| | 1.17655 | | | | | | 1.37639 | 9.353 |

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Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 80.000 Level 7 | | | | | | | |
| 26 Aroclor-1016(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| (5) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 27 Aroclor-1221(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
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Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Cal Date : 24-May-2012 08:54 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | 80.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 28 Aroclor-1232(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (5) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 29 Aroclor-1242(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Origin : Disabled
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Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Cal Date : 24-May-2012 08:54 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | 80.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| (5) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 30 Aroclor-1248(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (5) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 31 Aroclor-1254(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

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Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Cal Date : 24-May-2012 08:54 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | 80.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (5) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 32 Aroclor-1260(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (5) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 33 Aroclor-1262(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Analytical Resources, Inc.

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Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Cal Date : 24-May-2012 08:54 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | 80.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (5) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 34 Aroclor-1268(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (5) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 35 Toxaphene(1) | +++++ | +++++ | +++++ | +++++ | 0.04349 | +++++ | +++++ | 0.04349 | 0.000 |

Analytical Resources, Inc.

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Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Cal Date : 24-May-2012 08:54 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 80.000 Level 7 | | | | | | | |
| (2) | +++++ | +++++ | +++++ | +++++ | 0.06490 | +++++ | | |
| | +++++ | | | | | | 0.06490 | 0.000 |
| (3) | +++++ | +++++ | +++++ | +++++ | 0.06823 | +++++ | | |
| | +++++ | | | | | | 0.06823 | 0.000 |
| (4) | +++++ | +++++ | +++++ | +++++ | 0.05423 | +++++ | | |
| | +++++ | | | | | | 0.05423 | 0.000 |
| (5) | +++++ | +++++ | +++++ | +++++ | 0.07384 | +++++ | | |
| | +++++ | | | | | | 0.07384 | 0.000 |
| 38 2,4-DDE | 0.56456 | 0.56262 | 0.50524 | 0.50560 | 0.48138 | 0.45709 | | |
| | 0.48705 | | | | | | 0.50908 | 7.990 |
| 39 2,4-DDD | 1.10232 | 1.00479 | 0.92062 | 0.88353 | 0.86256 | 0.81665 | | |
| | 0.78417 | | | | | | 0.91066 | 12.161 |
| 40 2,4-DDT | 1.17035 | 1.06156 | 0.97871 | 0.96115 | 0.95821 | 0.91241 | | |
| | 0.88276 | | | | | | 0.98931 | 9.864 |
| 41 Hexachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 42 Oxychlordane | 0.87084 | 0.83597 | 0.77337 | 0.77940 | 0.74349 | 0.71053 | | |
| | 0.75984 | | | | | | 0.78192 | 6.999 |

Analytical Resources, Inc.

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Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Cal Date : 24-May-2012 08:54 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | 80.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 43 trans-Nonachlor | 2.02516 | 1.79344 | 1.62468 | 1.56637 | 1.54157 | 1.45834 | 1.40613 | 1.63081 | 13.112 |
| 44 cis-Nonachlor | 1.89636 | 1.75305 | 1.64779 | 1.62483 | 1.59707 | 1.52164 | 1.47120 | 1.64456 | 8.706 |
| 45 Mirex | 1.29427 | 1.10952 | 0.99581 | 0.94061 | 0.90192 | 0.85210 | 0.82394 | 0.98831 | 16.711 |
| 46 bis-(2-ethylhexyl) Phthalate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 56 Tech-Chlordane(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 47 Trifluralin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 48 Dacthal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Cal Date : 24-May-2012 08:54 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | 80.000 Level 7 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 49 Oxadiazon | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 50 Kelthane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 51 Chlorpyrifos | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 53 Methyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 54 Ethyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| $ 2 Tetrachloro-m-xylene | 1.06053 | 0.98470 | 1.04125 | 0.99245 | 0.97711 | 0.92893 | 0.96432 | 0.99276 | 4.530 |
| $ 25 Decachlorobiphenyl | 1.33438 | 1.19536 | 1.13047 | 1.07991 | 1.03746 | 1.01138 | 0.96371 | 1.10753 | 11.380 |

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd6.i/20120523PEST.b/ical-2.b

ARI Job No.: DS  Method: PEST0523B.m  Instrument: ecd6.i  Date: 23-MAY-2012

| Time | Filename | LabID | ClientId | DF | Manually Integrated Compounds |
|---|---|---|---|---|---|
| 1354 | 0523A004.d | DS | | 1 | NO MANUAL INTEGRATION |
| 1412 | 0523A005.d | IB | | 1 | NO MANUAL INTEGRATION |
| 1429 | 0523A006.d | INDAE | | 1 | NO MANUAL INTEGRATION |
| 1447 | 0523A007.d | INDAA | | 1 | NO MANUAL INTEGRATION |
| 1505 | 0523A008.d | INDAB | | 1 | NO MANUAL INTEGRATION |
| 1523 | 0523A009.d | INDAC | | 1 | NO MANUAL INTEGRATION |
| 1541 | 0523A010.d | INDAD | | 1 | NO MANUAL INTEGRATION |
| 1558 | 0523A011.d | INDAF | | 1 | NO MANUAL INTEGRATION |
| 1616 | 0523A012.d | INDAG | | 1 | NO MANUAL INTEGRATION |
| 1634 | 0523A013.d | INDA ICV | | 1 | NO MANUAL INTEGRATION |
| 1652 | 0523A014.d | HCB/HCBD ICV | | 1 | NO MANUAL INTEGRATION |
| 1710 | 0523A015.d | TOXAPH 2500 | | 1 | NO MANUAL INTEGRATION |
| 1727 | 0523A016.d | WNDE | | 1 | NO MANUAL INTEGRATION |
| 1745 | 0523A017.d | WNDA | | 1 | NO MANUAL INTEGRATION |
| 1803 | 0523A018.d | WNDB | | 1 | NO MANUAL INTEGRATION |
| 1821 | 0523A019.d | WNDC | | 1 | NO MANUAL INTEGRATION |
| 1839 | 0523A020.d | WNDD | | 1 | NO MANUAL INTEGRATION |
| 1856 | 0523A021.d | WNDF | | 1 | NO MANUAL INTEGRATION |
| 1914 | 0523A022.d | WNDG | | 1 | NO MANUAL INTEGRATION |
| 1932 | 0523A023.d | WND ICV | | 1 | NO MANUAL INTEGRATION |
| 1950 | 0523A024.d | 2/4-DDTS ICV | | 1 | NO MANUAL INTEGRATION |

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd6.i/20120523PEST.b/ical-2.b

| Time | Filename | LabID | ClientId | DF | Manually Integrated Compounds |
|---|---|---|---|---|---|
| 2008 | 0523A025.d | TECH 200 | | 1 | NO MANUAL INTEGRATION |
| 2025 | 0523A026.d | DDT RT | | 1 | NO MANUAL INTEGRATION |

UU52:01181

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-2.b
Inst ID: ecd6.i

| ID: | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 |
|---|---|---|---|---|---|---|---|
| FILENAME: | 0523A006 | 0523A007 | 0523A008 | 0523A009 | 0523A010 | 0523A011 | 0523A012 |
| INJ.DATE: | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 |
| INJ.TIME: | 14:29 | 14:47 | 15:05 | 15:23 | 15:41 | 15:58 | 16:16 |

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 Hexachlorobutadiene | 2.112 | 2.112 | 2.112 | 2.112 | 2.112 | 2.112 | 2.113 | 2.113 | 2.063-2.163 | 2.112 | 0.000 |
| * 52 1Bromo-2nitrobenzene | 2.855 | 2.855 | 2.855 | 2.855 | 2.855 | 2.855 | 2.855 | 2.855 | 2.805-2.905 | 2.855 | 0.000 |
| * 55 Hexabromobiphenyl | 9.355 | 9.355 | 9.355 | 9.355 | 9.355 | 9.355 | 9.355 | 9.355 | 9.305-9.405 | 9.355 | 0.000 |
| $ 2 Tetrachloro-m-xylene | 3.588 | 3.589 | 3.589 | 3.588 | 3.588 | 3.588 | 3.588 | 3.588 | 3.538-3.638 | 3.588 | 0.000 |
| 3 Hexachlorobenzene | 3.996 | 3.997 | 3.997 | 3.997 | 3.996 | 3.995 | 3.995 | 3.995 | 3.945-4.045 | 3.996 | 0.001 |
| 4 alpha-BHC | 4.107 | 4.107 | 4.107 | 4.107 | 4.107 | 4.107 | 4.108 | 4.108 | 4.058-4.158 | 4.107 | 0.000 |
| 5 gamma-BHC (Lindane) | 4.428 | 4.428 | 4.428 | 4.428 | 4.428 | 4.428 | 4.429 | 4.429 | 4.379-4.479 | 4.428 | 0.000 |
| 6 beta-BHC | 4.503 | 4.505 | 4.505 | 4.504 | 4.503 | 4.502 | 4.502 | 4.502 | 4.452-4.552 | 4.503 | 0.001 |
| 7 delta-BHC | 4.783 | 4.785 | 4.785 | 4.784 | 4.784 | 4.783 | 4.782 | 4.782 | 4.732-4.832 | 4.784 | 0.001 |
| 8 Heptachlor | 4.849 | 4.849 | 4.849 | 4.848 | 4.849 | 4.849 | 4.849 | 4.849 | 4.799-4.899 | 4.849 | 0.000 |
| 37 Chlorthalonil | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 14.588 | 14.538-14.638 | +++++ | +++++ |
| 9 Aldrin | 5.170 | 5.170 | 5.170 | 5.170 | 5.170 | 5.170 | 5.171 | 5.171 | 5.121-5.221 | 5.170 | 0.000 |
| 10 Heptachlor Epoxide a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 12.680 | 12.630-12.730 | +++++ | +++++ |
| 11 Heptachlor epoxide b | 5.732 | 5.732 | 5.732 | 5.732 | 5.733 | 5.732 | 5.733 | 5.733 | 5.683-5.783 | 5.732 | 0.000 |
| 12 gamma-Chlordane | 5.918 | 5.918 | 5.919 | 5.919 | 5.918 | 5.918 | 5.918 | 5.918 | 5.868-5.968 | 5.918 | 0.000 |
| 13 alpha-Chlordane | 6.057 | 6.057 | 6.058 | 6.057 | 6.057 | 6.057 | 6.057 | 6.057 | 6.007-6.107 | 6.057 | 0.000 |
| 14 Endosulfan I | 6.117 | 6.116 | 6.118 | 6.117 | 6.117 | 6.117 | 6.118 | 6.118 | 6.068-6.168 | 6.117 | 0.000 |

Reviewer 1 AR Date: 5/23/2012
Reviewer 2 Date: 5/24/2012

Scanned

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-2.b
Inst ID: ecd6.i

| | Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 15 4,4'-DDE | 6.209 | 6.212 | 6.212 | 6.211 | 6.211 | 6.209 | 6.208 | 6.208 | 6.158-6.258 | 6.210 | 0.001 |
| | 16 Dieldrin | 6.377 | 6.377 | 6.377 | 6.377 | 6.377 | 6.377 | 6.377 | 6.377 | 6.327-6.427 | 6.377 | 0.000 |
| | 17 Endrin | 6.664 | 6.664 | 6.664 | 6.664 | 6.664 | 6.665 | 6.664 | 6.664 | 6.614-6.714 | 6.664 | 0.000 |
| | 18 4,4'-DDD | 6.749 | 6.751 | 6.752 | 6.752 | 6.751 | 6.749 | 6.749 | 6.749 | 6.699-6.799 | 6.750 | 0.001 |
| | 19 Endosulfan II | 6.857 | 6.857 | 6.857 | 6.857 | 6.857 | 6.858 | 6.857 | 6.857 | 6.807-6.907 | 6.857 | 0.000 |
| | 20 4,4'-DDT | 7.035 | 7.035 | 7.035 | 7.035 | 7.035 | 7.035 | 7.034 | 7.034 | 6.984-7.084 | 7.035 | 0.001 |
| | 21 Endrin aldehyde | 7.158 | 7.158 | 7.159 | 7.158 | 7.159 | 7.158 | 7.158 | 7.158 | 7.108-7.208 | 7.158 | 0.000 |
| | 22 Endosulfan sulfate | 7.404 | 7.404 | 7.405 | 7.404 | 7.404 | 7.405 | 7.404 | 7.404 | 7.354-7.454 | 7.404 | 0.000 |
| | 23 Methoxychlor | 7.629 | 7.630 | 7.630 | 7.630 | 7.630 | 7.630 | 7.629 | 7.629 | 7.579-7.679 | 7.630 | 0.000 |
| | 24 Endrin ketone | 7.881 | 7.882 | 7.882 | 7.882 | 7.882 | 7.882 | 7.881 | 7.881 | 7.831-7.931 | 7.882 | 0.000 |
| $ | 25 Decachlorobiphenyl | 8.908 | 8.909 | 8.908 | 8.909 | 8.908 | 8.909 | 8.908 | 8.908 | 8.858-8.958 | 8.908 | 0.000 |
| | 26 Aroclor-1016 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.475 | 5.425-5.525 | +++++ | +++++ |
| | 27 Aroclor-1221 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.051 | 5.001-5.101 | +++++ | +++++ |
| | 28 Aroclor-1232 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.171 | 5.121-5.221 | +++++ | +++++ |
| | 29 Aroclor-1242 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 1.000 | 0.950-1.050 | +++++ | +++++ |
| | 30 Aroclor-1248 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 1.000 | 0.950-1.050 | +++++ | +++++ |
| | 31 Aroclor-1254 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.025 | 6.975-7.075 | +++++ | +++++ |
| | 32 Aroclor-1260 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.230 | 8.180-8.280 | +++++ | +++++ |
| | 33 Aroclor-1262 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 9.714 | 9.664-9.764 | +++++ | +++++ |
| | 34 Aroclor-1268 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 11.791 | 11.741-11.841 | +++++ | +++++ |
| | 35 Toxaphene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.607 | 6.557-6.657 | +++++ | +++++ |
| | 38 2,4-DDE | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.909 | 5.859-5.959 | +++++ | +++++ |

ECD1SCS.SCS

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-2.b
Inst ID: ecd6.i

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 39 2,4-DDD | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.399 | 6.349-6.449 | +++++ | +++++ |
| 40 2,4-DDT | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.685 | 6.635-6.735 | +++++ | +++++ |
| 41 Hexachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 1.770 | 1.720-1.820 | +++++ | +++++ |
| 42 Oxychlordane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.644 | 5.594-5.694 | +++++ | +++++ |
| 43 trans-Nonachlor | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.006 | 5.956-6.056 | +++++ | +++++ |
| 44 cis-Nonachlor | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.734 | 6.684-6.784 | +++++ | +++++ |
| 45 Mirex | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.863 | 7.813-7.913 | +++++ | +++++ |
| 46 bis-(2-ethylhexyl) Pht | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 21.499 | 21.449-21.549 | +++++ | +++++ |
| 56 Tech-Chlordane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.991 | 5.941-6.041 | +++++ | +++++ |
| 47 Trifluralin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.871 | 4.821-4.921 | +++++ | +++++ |
| 48 Dacthal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.640 | 6.590-6.690 | +++++ | +++++ |
| 49 Oxadiazon | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.115 | 8.065-8.165 | +++++ | +++++ |
| 50 Kelthane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 11.286 | 11.236-11.336 | +++++ | +++++ |
| 51 Chlorpyrifos | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.527 | 6.477-6.577 | +++++ | +++++ |
| 53 Methyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.342 | 6.292-6.392 | +++++ | +++++ |
| 54 Ethyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.841 | 6.791-6.891 | +++++ | +++++ |

UU52:01184

# Analytical Resources, Inc.
## RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-2.b
Inst ID: ecd6.i

| ID: | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 |
|---|---|---|---|---|---|---|---|
| FILENAME: | 0523A016 | 0523A017 | 0523A018 | 0523A019 | 0523A020 | 0523A021 | 0523A022 |
| INJ.DATE: | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 |
| INJ.TIME: | 17:27 | 17:45 | 18:03 | 18:21 | 18:39 | 18:56 | 19:14 |

| | Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 Hexachlorobutadiene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 2.113 | 2.063-2.163 | +++++ | +++++ |
| * | 52 1Bromo-2nitrobenzene | 2.855 | 2.854 | 2.855 | 2.855 | 2.855 | 2.855 | 2.855 | 2.855 | 2.805-2.905 | 2.855 | 0.000 |
| * | 55 Hexabromobiphenyl | 9.355 | 9.355 | 9.355 | 9.355 | 9.355 | 9.355 | 9.355 | 9.355 | 9.305-9.405 | 9.355 | 0.000 |
| $ | 2 Tetrachloro-m-xylene | 3.589 | 3.590 | 3.589 | 3.589 | 3.589 | 3.588 | 3.587 | 3.588 | 3.538-3.638 | 3.589 | 0.001 |
| | 3 Hexachlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 3.995 | 3.945-4.045 | +++++ | +++++ |
| | 4 alpha-BHC | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.108 | 4.058-4.158 | +++++ | +++++ |
| | 5 gamma-BHC (Lindane) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.429 | 4.379-4.479 | +++++ | +++++ |
| | 6 beta-BHC | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.502 | 4.452-4.552 | +++++ | +++++ |
| | 7 delta-BHC | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.782 | 4.732-4.832 | +++++ | +++++ |
| | 8 Heptachlor | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.849 | 4.799-4.899 | +++++ | +++++ |
| | 37 Chlorthalonil | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 14.588 | 14.538-14.638 | +++++ | +++++ |
| | 9 Aldrin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.171 | 5.121-5.221 | +++++ | +++++ |
| | 10 Heptachlor Epoxide a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 12.680 | 12.630-12.730 | +++++ | +++++ |
| | 11 Heptachlor epoxide b | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.733 | 5.683-5.783 | +++++ | +++++ |
| | 12 gamma-Chlordane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.918 | 5.868-5.968 | +++++ | +++++ |
| | 13 alpha-Chlordane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.057 | 6.007-6.107 | +++++ | +++++ |
| | 14 Endosulfan I | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.118 | 6.068-6.168 | +++++ | +++++ |

Reviewer 1 _____ Date: 5/23/2012
Reviewer 2 _____ Date: 5/24/12

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-2.b
Inst ID: ecd6.i

| | Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 15 4,4'-DDE | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.208 | 6.158-6.258 | +++++ | +++++ |
| | 16 Dieldrin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.377 | 6.327-6.427 | +++++ | +++++ |
| | 17 Endrin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.664 | 6.614-6.714 | +++++ | +++++ |
| | 18 4,4'-DDD | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.749 | 6.699-6.799 | +++++ | +++++ |
| | 19 Endosulfan II | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.857 | 6.807-6.907 | +++++ | +++++ |
| | 20 4,4'-DDT | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.034 | 6.984-7.084 | +++++ | +++++ |
| | 21 Endrin aldehyde | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.158 | 7.108-7.208 | +++++ | +++++ |
| | 22 Endosulfan sulfate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.404 | 7.354-7.454 | +++++ | +++++ |
| | 23 Methoxychlor | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.629 | 7.579-7.679 | +++++ | +++++ |
| | 24 Endrin ketone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.881 | 7.831-7.931 | +++++ | +++++ |
| $ | 25 Decachlorobiphenyl | 8.908 | 8.909 | 8.908 | 8.909 | 8.908 | 8.908 | 8.909 | 8.908 | 8.858-8.958 | 8.909 | 0.000 |
| | 26 Aroclor-1016 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.475 | 5.425-5.525 | +++++ | +++++ |
| | 27 Aroclor-1221 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.051 | 5.001-5.101 | +++++ | +++++ |
| | 28 Aroclor-1232 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.171 | 5.121-5.221 | +++++ | +++++ |
| | 29 Aroclor-1242 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 1.000 | 0.950-1.050 | +++++ | +++++ |
| | 30 Aroclor-1248 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 1.000 | 0.950-1.050 | +++++ | +++++ |
| | 31 Aroclor-1254 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.025 | 6.975-7.075 | +++++ | +++++ |
| | 32 Aroclor-1260 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.230 | 8.180-8.280 | +++++ | +++++ |
| | 33 Aroclor-1262 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 9.714 | 9.664-9.764 | +++++ | +++++ |
| | 34 Aroclor-1268 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 11.791 | 11.741-11.841 | +++++ | +++++ |
| | 35 Toxaphene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.607 | 6.557-6.657 | +++++ | +++++ |
| | 38 2,4-DDE | 5.911 | 5.912 | 5.912 | 5.912 | 5.911 | 5.911 | 5.909 | 5.909 | 5.859-5.959 | 5.911 | 0.001 |

ECD6.i 5523.b

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523B.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-2.b
Inst ID: ecd6.i

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 39 2,4-DDD | 6.400 | 6.401 | 6.401 | 6.401 | 6.401 | 6.399 | 6.399 | 6.399 | 6.349-6.449 | 6.400 | 0.001 |
| 40 2,4-DDT | 6.685 | 6.686 | 6.685 | 6.686 | 6.686 | 6.685 | 6.685 | 6.685 | 6.635-6.735 | 6.685 | 0.000 |
| 41 Hexachloroethane | 1.743 | 1.742 | 1.743 | 1.742 | 1.743 | 1.732 | 1.770 | 1.770 | 1.720-1.820 | 1.745 | 0.012 |
| 42 Oxychlordane | 5.644 | 5.644 | 5.643 | 5.643 | 5.644 | 5.643 | 5.644 | 5.644 | 5.594-5.694 | 5.643 | 0.000 |
| 43 trans-Nonachlor | 6.007 | 6.006 | 6.006 | 6.006 | 6.006 | 6.006 | 6.006 | 6.006 | 5.956-6.056 | 6.006 | 0.000 |
| 44 cis-Nonachlor | 6.733 | 6.734 | 6.733 | 6.733 | 6.734 | 6.733 | 6.734 | 6.734 | 6.684-6.784 | 6.734 | 0.000 |
| 45 Mirex | 7.862 | 7.862 | 7.862 | 7.862 | 7.862 | 7.862 | 7.863 | 7.863 | 7.813-7.913 | 7.862 | 0.000 |
| 46 bis-(2-ethylhexyl) Pht | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 21.499 | 21.449-21.549 | +++++ | +++++ |
| 56 Tech-Chlordane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.991 | 5.941-6.041 | +++++ | +++++ |
| 47 Trifluralin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.871 | 4.821-4.921 | +++++ | +++++ |
| 48 Dacthal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.640 | 6.590-6.690 | +++++ | +++++ |
| 49 Oxadiazon | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.115 | 8.065-8.165 | +++++ | +++++ |
| 50 Kelthane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 11.286 | 11.236-11.336 | +++++ | +++++ |
| 51 Chlorpyrifos | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.527 | 6.477-6.577 | +++++ | +++++ |
| 53 Methyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.342 | 6.292-6.392 | +++++ | +++++ |
| 54 Ethyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.841 | 6.791-6.891 | +++++ | +++++ |

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Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Cal Date : 24-May-2012 09:31 aron
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A017.d
Level 2: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A018.d
Level 3: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A019.d
Level 4: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A020.d
Level 5: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A016.d
Level 6: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A021.d
Level 7: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A022.d

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 80.000 Level 7 | | | | | | | |
| 1 Hexachlorobutadiene | 1.88872 | 1.77604 | 1.68503 | 1.78958 | 1.77040 | 1.73608 | | |
| | 1.70256 | | | | | | 1.76406 | 3.816 |
| 3 Hexachlorobenzene | 1.20228 | 1.15344 | 1.04806 | 1.07451 | 1.08289 | 1.07210 | | |
| | 1.06897 | | | | | | 1.10032 | 5.073 |
| 4 alpha-BHC | 1.39612 | 1.53620 | 1.50517 | 1.63944 | 1.68856 | 1.70715 | | |
| | 1.70058 | | | | | | 1.59618 | 7.480 |
| 5 gamma-BHC (Lindane) | 1.26312 | 1.25630 | 1.23450 | 1.35124 | 1.40623 | 1.42837 | | |
| | 1.43301 | | | | | | 1.33897 | 6.469 |
| 6 beta-BHC | 0.60743 | 0.61140 | 0.56388 | 0.58391 | 0.59950 | 0.60228 | | |
| | 0.59916 | | | | | | 0.59537 | 2.747 |
| 7 delta-BHC | 1.08522 | 1.06357 | 1.03298 | 1.13077 | 1.23200 | 1.28885 | | |
| | 1.31839 | | | | | | 1.16454 | 9.829 |

Analytical Resources, Inc.

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Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Cal Date : 24-May-2012 09:31 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 80.000 Level 7 | | | | | | | |
| 8 Heptachlor | 1.46363 | 1.44091 | 1.38829 | 1.50505 | 1.53322 | 1.52778 | | |
| | 1.48762 | | | | | | 1.47807 | 3.492 |
| 9 Aldrin | 1.30408 | 1.27599 | 1.25380 | 1.38088 | 1.42377 | 1.43811 | | |
| | 1.41363 | | | | | | 1.35575 | 5.619 |
| 38 Chlorthalonil | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 10 Heptachlor Epoxide a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 11 Heptachlor epoxide b | 1.23789 | 1.21621 | 1.11886 | 1.20880 | 1.22969 | 1.23007 | | |
| | 1.20943 | | | | | | 1.20728 | 3.358 |
| 12 gamma-Chlordane | 1.38598 | 1.25282 | 1.20540 | 1.29376 | 1.33807 | 1.35141 | | |
| | 1.33602 | | | | | | 1.30906 | 4.773 |
| 13 alpha-Chlordane | 1.30870 | 1.20152 | 1.15871 | 1.24483 | 1.26662 | 1.27409 | | |
| | 1.26599 | | | | | | 1.24578 | 4.033 |
| 14 Endosulfan I | 1.72885 | 1.63360 | 1.56273 | 1.68352 | 1.64388 | 1.62628 | | |
| | 1.52812 | | | | | | 1.62957 | 4.174 |
| 15 4,4'-DDE | 0.70208 | 0.67872 | 0.71553 | 0.78675 | 0.91177 | 0.95210 | | |
| | 0.99862 | | | | | | 0.82079 | 16.014 |

Analytical Resources, Inc.

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Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Cal Date : 24-May-2012 09:31 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 80.000 Level 7 | | | | | | | |
| 16 Dieldrin | 1.27966 | 1.25003 | 1.24004 | 1.33060 | 1.34586 | 1.33253 | | |
| | 1.30342 | | | | | | 1.29745 | 3.235 |
| 17 Endrin | 0.85628 | 0.81804 | 0.84929 | 0.88010 | 0.89526 | 0.87960 | | |
| | 0.84319 | | | | | | 0.86025 | 3.076 |
| 18 4,4'-DDD | 0.62939 | 0.59674 | 0.62860 | 0.66438 | 0.73195 | 0.74735 | | |
| | 0.74295 | | | | | | 0.67734 | 9.245 |
| 19 Endosulfan II | 0.85104 | 0.80549 | 0.82486 | 0.85001 | 0.86262 | 0.84951 | | |
| | 0.81701 | | | | | | 0.83722 | 2.542 |
| 20 4,4'-DDT | 0.68664 | 0.65778 | 0.70238 | 0.74089 | 0.79613 | 0.81592 | | |
| | 0.80730 | | | | | | 0.74386 | 8.567 |
| 21 Endrin aldehyde | 0.72128 | 0.66305 | 0.66577 | 0.67406 | 0.68474 | 0.67136 | | |
| | 0.64594 | | | | | | 0.67517 | 3.486 |
| 22 Methoxychlor | 0.39949 | 0.39217 | 0.38207 | 0.37662 | 0.37263 | 0.37087 | | |
| | 0.35903 | | | | | | 0.37898 | 3.595 |
| 23 Endosulfan sulfate | 0.77329 | 0.71618 | 0.72561 | 0.73532 | 0.74824 | 0.73836 | | |
| | 0.71546 | | | | | | 0.73607 | 2.756 |
| 24 Endrin ketone | 1.04699 | 0.94034 | 0.92552 | 0.91862 | 0.92510 | 0.90208 | | |
| | 0.87329 | | | | | | 0.93314 | 5.852 |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

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Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Cal Date : 24-May-2012 09:31 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | 80.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 26 Aroclor-1016(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (5) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 27 Aroclor-1221(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Cal Date : 24-May-2012 09:31 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | 80.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 28 Aroclor-1232(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (5) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 29 Aroclor-1242(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Cal Date : 24-May-2012 09:31 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 80.000 Level 7 | | | | | | | |
| (5) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| (6) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 30 Aroclor-1248(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| (5) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 31 Aroclor-1254(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Cal Date : 24-May-2012 09:31 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | 80.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (5) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 32 Aroclor-1260(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (5) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 33 Aroclor-1262(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
End Cal Date : 23-MAY-2012 19:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Cal Date : 24-May-2012 09:31 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | 80.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (5) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 34 Aroclor-1268(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (5) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 14:29
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Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Cal Date : 24-May-2012 09:31 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 80.000 Level 7 | | | | | | | |
| 35 Toxaphene(1) | +++++ | +++++ | +++++ | +++++ | 0.03802 | +++++ | | |
| | +++++ | | | | | | 0.03802 | 0.000 |
| (2) | +++++ | +++++ | +++++ | +++++ | 0.02912 | +++++ | | |
| | +++++ | | | | | | 0.02912 | 0.000 |
| (3) | +++++ | +++++ | +++++ | +++++ | 0.02684 | +++++ | | |
| | +++++ | | | | | | 0.02684 | 0.000 |
| (4) | +++++ | +++++ | +++++ | +++++ | 0.02887 | +++++ | | |
| | +++++ | | | | | | 0.02887 | 0.000 |
| (5) | +++++ | +++++ | +++++ | +++++ | 0.04401 | +++++ | | |
| | +++++ | | | | | | 0.04401 | 0.000 |
| (6) | +++++ | +++++ | +++++ | +++++ | 0.03084 | +++++ | | |
| | +++++ | | | | | | 0.03084 | 0.000 |
| 39 2,4-DDE | 0.54233 | 0.50049 | 0.48899 | 0.50758 | 0.54424 | 0.53370 | | |
| | 0.53236 | | | | | | 0.52138 | 4.224 |
| 40 2,4-DDD | 0.53645 | 0.47855 | 0.47289 | 0.49058 | 0.46188 | 0.45681 | | |
| | 0.46607 | | | | | | 0.48046 | 5.643 |
| 41 2,4-DDT | 0.68718 | 0.61840 | 0.60053 | 0.62111 | 0.64140 | 0.63097 | | |
| | 0.63122 | | | | | | 0.63297 | 4.289 |

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Integrator : HP Genie
Method file : /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Cal Date : 24-May-2012 09:31 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | 80.000 Level 7 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 42 Hexachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 43 Oxychlordane | 0.78102 | 0.74991 | 0.72651 | 0.72992 | 0.74863 | 0.72658 | 0.72010 | 0.74038 | 2.872 |
| 44 trans-Nonachlor | 1.04852 | 0.94887 | 0.91452 | 0.93142 | 0.95066 | 0.92504 | 0.90973 | 0.94697 | 5.008 |
| 45 cis-Nonachlor | 1.08923 | 1.02644 | 1.00781 | 1.04071 | 1.07304 | 1.05193 | 1.04900 | 1.04831 | 2.605 |
| 46 Mirex | 0.83026 | 0.73297 | 0.67997 | 0.66455 | 0.66748 | 0.64619 | 0.63953 | 0.69442 | 9.679 |
| 47 bis-(2-ethylhexyl) Phthalate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 59 Tech-Chlordane(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Analytical Resources, Inc.

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| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 80.000 Level 7 | | | | | | | |
| 48 Trifluralin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 49 Dacthal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 50 Oxadiazon | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 51 Kelthane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 53 Chlorpyrifos | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 55 Methyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 56 Ethyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| $ 2 Tetrachloro-m-xylene | 1.34854 | 1.26005 | 1.15136 | 1.18735 | 1.18196 | 1.15978 | | |
| | 0.99719 | | | | | | 1.18375 | 9.087 |
| $ 25 Decachlorobiphenyl | 1.07817 | 0.94842 | 0.90099 | 0.88298 | 0.85491 | 0.82913 | | |
| | 0.79634 | | | | | | 0.89871 | 10.375 |

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd6.i/20120523PEST.b/ical-1.b

ARI Job No.: DS  Method: PEST0523.m  Instrument: ecd6.i  Date: 23-MAY-2012

| Time | Filename | LabID | ClientId | DF | Manually Integrated Compounds |
|---|---|---|---|---|---|
| 1354 | 0523A004.d | DS | | 1 | NO MANUAL INTEGRATION |
| 1412 | 0523A005.d | IB | | 1 | NO MANUAL INTEGRATION |
| 1429 | 0523A006.d | INDAE | | 1 | NO MANUAL INTEGRATION |
| 1447 | 0523A007.d | INDAA | | 1 | NO MANUAL INTEGRATION |
| 1505 | 0523A008.d | INDAB | | 1 | NO MANUAL INTEGRATION |
| 1523 | 0523A009.d | INDAC | | 1 | NO MANUAL INTEGRATION |
| 1541 | 0523A010.d | INDAD | | 1 | NO MANUAL INTEGRATION |
| 1558 | 0523A011.d | INDAF | | 1 | NO MANUAL INTEGRATION |
| 1616 | 0523A012.d | INDAG | | 1 | NO MANUAL INTEGRATION |
| 1634 | 0523A013.d | INDA ICV | | 1 | NO MANUAL INTEGRATION |
| 1652 | 0523A014.d | HCB/HCBD ICV | | 1 | NO MANUAL INTEGRATION |
| 1710 | 0523A015.d | TOXAPH 2500 | | 1 | NO MANUAL INTEGRATION |
| 1727 | 0523A016.d | WNDE | | 1 | NO MANUAL INTEGRATION |
| 1745 | 0523A017.d | WNDA | | 1 | NO MANUAL INTEGRATION |
| 1803 | 0523A018.d | WNDB | | 1 | NO MANUAL INTEGRATION |
| 1821 | 0523A019.d | WNDC | | 1 | NO MANUAL INTEGRATION |
| 1839 | 0523A020.d | WNDD | | 1 | NO MANUAL INTEGRATION |
| 1856 | 0523A021.d | WNDF | | 1 | NO MANUAL INTEGRATION |
| 1914 | 0523A022.d | WNDG | | 1 | NO MANUAL INTEGRATION |
| 1932 | 0523A023.d | WND ICV | | 1 | NO MANUAL INTEGRATION |
| 1950 | 0523A024.d | 2/4-DDTS ICV | | 1 | NO MANUAL INTEGRATION |

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd6.i/20120523PEST.b/ical-1.b

| Time | Filename | LabID | ClientId | DF | Manually Integrated Compounds |
|---|---|---|---|---|---|
| 2008 | 0523A025.d | TECH 200 | | 1 | NO MANUAL INTEGRATION |
| 2025 | 0523A026.d | DDT RT | | 1 | NO MANUAL INTEGRATION |

UU52:01200

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-1.b
Inst ID: ecd6.i

| ID: | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 |
|---|---|---|---|---|---|---|---|
| FILENAME: | 0523A006 | 0523A007 | 0523A008 | 0523A009 | 0523A010 | 0523A011 | 0523A012 |
| INJ.DATE: | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 |
| INJ.TIME: | 14:29 | 14:47 | 15:05 | 15:23 | 15:41 | 15:58 | 16:16 |

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 Hexachlorobutadiene | 2.053 | 2.053 | 2.053 | 2.053 | 2.053 | 2.053 | 2.053 | 2.053 | 2.003-2.103 | 2.053 | 0.000 |
| * 54 1Bromo-2nitrobenzene | 2.797 | 2.796 | 2.796 | 2.796 | 2.796 | 2.797 | 2.797 | 2.797 | 2.747-2.847 | 2.796 | 0.000 |
| * 58 Hexabromobiphenyl | 8.390 | 8.390 | 8.390 | 8.390 | 8.390 | 8.390 | 8.390 | 8.390 | 8.340-8.440 | 8.390 | 0.000 |
| $ 2 Tetrachloro-m-xylene | 3.407 | 3.408 | 3.408 | 3.408 | 3.407 | 3.406 | 3.406 | 3.407 | 3.357-3.457 | 3.407 | 0.001 |
| 3 Hexachlorobenzene | 3.718 | 3.720 | 3.720 | 3.720 | 3.719 | 3.718 | 3.717 | 3.718 | 3.668-3.768 | 3.719 | 0.001 |
| 4 alpha-BHC | 3.847 | 3.846 | 3.847 | 3.847 | 3.846 | 3.846 | 3.847 | 3.847 | 3.797-3.897 | 3.846 | 0.000 |
| 5 gamma-BHC (Lindane) | 4.106 | 4.106 | 4.107 | 4.106 | 4.106 | 4.106 | 4.106 | 4.106 | 4.056-4.156 | 4.106 | 0.000 |
| 6 beta-BHC | 4.184 | 4.188 | 4.187 | 4.186 | 4.185 | 4.183 | 4.182 | 4.184 | 4.134-4.234 | 4.185 | 0.002 |
| 7 delta-BHC | 4.340 | 4.342 | 4.342 | 4.342 | 4.340 | 4.338 | 4.337 | 4.340 | 4.290-4.390 | 4.340 | 0.002 |
| 8 Heptachlor | 4.518 | 4.517 | 4.518 | 4.517 | 4.517 | 4.518 | 4.518 | 4.518 | 4.468-4.568 | 4.518 | 0.000 |
| 9 Aldrin | 4.788 | 4.787 | 4.787 | 4.787 | 4.787 | 4.787 | 4.787 | 4.788 | 4.738-4.838 | 4.787 | 0.000 |
| 38 Chlorthalonil | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 13.627 | 13.577-13.677 | +++++ | +++++ |
| 10 Heptachlor Epoxide a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 10.869 | 10.819-10.919 | +++++ | +++++ |
| 11 Heptachlor epoxide b | 5.346 | 5.346 | 5.346 | 5.346 | 5.345 | 5.346 | 5.346 | 5.346 | 5.296-5.396 | 5.346 | 0.000 |
| 12 gamma-Chlordane | 5.471 | 5.471 | 5.471 | 5.470 | 5.470 | 5.470 | 5.470 | 5.471 | 5.421-5.521 | 5.470 | 0.000 |
| 13 alpha-Chlordane | 5.594 | 5.594 | 5.595 | 5.594 | 5.593 | 5.594 | 5.594 | 5.594 | 5.544-5.644 | 5.594 | 0.000 |
| 14 Endosulfan I | 5.722 | 5.722 | 5.722 | 5.722 | 5.721 | 5.722 | 5.722 | 5.722 | 5.672-5.772 | 5.722 | 0.000 |

Reviewer 1 AR Date: 5/24/2012
Reviewer 2 [signature] Date: 5/24/2012

UU52:01201

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-1.b
Inst ID: ecd6.i

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 15 4,4'-DDE | 5.673 | 5.676 | 5.677 | 5.675 | 5.674 | 5.671 | 5.670 | 5.673 | 5.623-5.723 | 5.674 | 0.003 |
| 16 Dieldrin | 5.947 | 5.946 | 5.947 | 5.946 | 5.946 | 5.946 | 5.946 | 5.947 | 5.896-5.997 | 5.946 | 0.000 |
| 17 Endrin | 6.163 | 6.163 | 6.164 | 6.163 | 6.163 | 6.163 | 6.163 | 6.163 | 6.113-6.213 | 6.163 | 0.000 |
| 18 4,4'-DDD | 6.230 | 6.233 | 6.233 | 6.233 | 6.231 | 6.228 | 6.227 | 6.230 | 6.180-6.280 | 6.231 | 0.002 |
| 19 Endosulfan II | 6.371 | 6.371 | 6.372 | 6.371 | 6.371 | 6.371 | 6.371 | 6.371 | 6.321-6.421 | 6.371 | 0.000 |
| 20 4,4'-DDT | 6.485 | 6.486 | 6.486 | 6.486 | 6.485 | 6.484 | 6.483 | 6.485 | 6.435-6.535 | 6.485 | 0.001 |
| 21 Endrin aldehyde | 6.749 | 6.749 | 6.750 | 6.749 | 6.748 | 6.749 | 6.748 | 6.749 | 6.699-6.799 | 6.749 | 0.000 |
| 22 Methoxychlor | 6.923 | 6.926 | 6.925 | 6.925 | 6.924 | 6.923 | 6.923 | 6.923 | 6.873-6.973 | 6.924 | 0.001 |
| 23 Endosulfan sulfate | 7.138 | 7.138 | 7.139 | 7.138 | 7.138 | 7.138 | 7.138 | 7.138 | 7.088-7.188 | 7.138 | 0.000 |
| 24 Endrin ketone | 7.389 | 7.389 | 7.389 | 7.388 | 7.388 | 7.388 | 7.388 | 7.389 | 7.339-7.439 | 7.388 | 0.000 |
| $ 25 Decachlorobiphenyl | 8.250 | 8.250 | 8.251 | 8.250 | 8.250 | 8.251 | 8.250 | 8.250 | 8.200-8.300 | 8.250 | 0.000 |
| 26 Aroclor-1016 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.355 | 5.305-5.405 | +++++ | +++++ |
| 27 Aroclor-1221 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.881 | 4.831-4.931 | +++++ | +++++ |
| 28 Aroclor-1232 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.359 | 5.309-5.409 | +++++ | +++++ |
| 29 Aroclor-1242 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.348 | 5.298-5.398 | +++++ | +++++ |
| 30 Aroclor-1248 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.072 | 6.022-6.122 | +++++ | +++++ |
| 31 Aroclor-1254 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 1.000 | 0.950-1.050 | +++++ | +++++ |
| 32 Aroclor-1260 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.830 | 7.780-7.880 | +++++ | +++++ |
| 33 Aroclor-1262 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.301 | 8.251-8.351 | +++++ | +++++ |
| 34 Aroclor-1268 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 11.259 | 11.209-11.309 | +++++ | +++++ |
| 35 Toxaphene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.427 | 6.377-6.477 | +++++ | +++++ |
| 39 2,4-DDE | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.343 | 5.293-5.393 | +++++ | +++++ |

UU52:01202

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-1.b
Inst ID: ecd6.i

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 2,4-DDD | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.832 | 5.782-5.882 | +++++ | +++++ |
| 41 2,4-DDT | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.071 | 6.021-6.121 | +++++ | +++++ |
| 42 Hexachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 1.722 | 1.672-1.772 | +++++ | +++++ |
| 43 Oxychlordane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.254 | 5.204-5.304 | +++++ | +++++ |
| 44 trans-Nonachlor | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.582 | 5.532-5.632 | +++++ | +++++ |
| 45 cis-Nonachlor | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.199 | 6.149-6.249 | +++++ | +++++ |
| 46 Mirex | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.065 | 7.015-7.115 | +++++ | +++++ |
| 47 bis-(2-ethylhexyl) Pht | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 20.156 | 20.106-20.206 | +++++ | +++++ |
| 59 Tech-Chlordane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.558 | 4.508-4.608 | +++++ | +++++ |
| 48 Trifluralin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.319 | 6.269-6.369 | +++++ | +++++ |
| 49 Dacthal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 9.936 | 9.886-9.986 | +++++ | +++++ |
| 50 Oxadiazon | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 11.891 | 11.841-11.941 | +++++ | +++++ |
| 51 Kelthane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 14.827 | 14.777-14.877 | +++++ | +++++ |
| 53 Chlorpyrifos | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 9.750 | 9.700-9.800 | +++++ | +++++ |
| 55 Methyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 9.107 | 9.057-9.157 | +++++ | +++++ |
| 56 Ethyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 10.251 | 10.201-10.301 | +++++ | +++++ |

UU52:01203

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-1.b
Inst ID: ecd6.i

| ID: | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 |
|---|---|---|---|---|---|---|---|
| FILENAME: | 0523A016 | 0523A017 | 0523A018 | 0523A019 | 0523A020 | 0523A021 | 0523A022 |
| INJ.DATE: | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 |
| INJ.TIME: | 17:27 | 17:45 | 18:03 | 18:21 | 18:39 | 18:56 | 19:14 |

| | Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 Hexachlorobutadiene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 2.053 | 2.003-2.103 | +++++ | +++++ |
| * | 54 1Bromo-2nitrobenzene | 2.797 | 2.796 | 2.796 | 2.796 | 2.796 | 2.796 | 2.796 | 2.797 | 2.747-2.847 | 2.796 | 0.000 |
| * | 58 Hexabromobiphenyl | 8.390 | 8.390 | 8.390 | 8.390 | 8.389 | 8.390 | 8.389 | 8.390 | 8.340-8.440 | 8.390 | 0.000 |
| $ | 2 Tetrachloro-m-xylene | 3.408 | 3.409 | 3.409 | 3.408 | 3.408 | 3.407 | 3.406 | 3.406 | 3.356-3.456 | 3.408 | 0.001 |
| | 3 Hexachlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 3.717 | 3.667-3.767 | +++++ | +++++ |
| | 4 alpha-BHC | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 3.847 | 3.797-3.897 | +++++ | +++++ |
| | 5 gamma-BHC (Lindane) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.106 | 4.056-4.156 | +++++ | +++++ |
| | 6 beta-BHC | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.182 | 4.132-4.232 | +++++ | +++++ |
| | 7 delta-BHC | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.337 | 4.287-4.387 | +++++ | +++++ |
| | 8 Heptachlor | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.518 | 4.468-4.568 | +++++ | +++++ |
| | 9 Aldrin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.787 | 4.737-4.837 | +++++ | +++++ |
| | 38 Chlorthalonil | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 13.627 | 13.577-13.677 | +++++ | +++++ |
| | 10 Heptachlor Epoxide a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 10.869 | 10.819-10.919 | +++++ | +++++ |
| | 11 Heptachlor epoxide b | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.346 | 5.296-5.396 | +++++ | +++++ |
| | 12 gamma-Chlordane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.470 | 5.420-5.520 | +++++ | +++++ |
| | 13 alpha-Chlordane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.594 | 5.544-5.644 | +++++ | +++++ |
| | 14 Endosulfan I | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.722 | 5.672-5.772 | +++++ | +++++ |

Reviewer 1 AP Date: 5/24/2012
Reviewer 2 AB Date: 5/24/12

SCANNED

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-1.b
Inst ID: ecd6.i

| | Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 15 4,4'-DDE | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.670 | 5.620-5.720 | +++++ | +++++ |
| | 16 Dieldrin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.946 | 5.896-5.996 | +++++ | +++++ |
| | 17 Endrin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.163 | 6.113-6.213 | +++++ | +++++ |
| | 18 4,4'-DDD | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.227 | 6.177-6.277 | +++++ | +++++ |
| | 19 Endosulfan II | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.371 | 6.321-6.421 | +++++ | +++++ |
| | 20 4,4'-DDT | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.483 | 6.433-6.533 | +++++ | +++++ |
| | 21 Endrin aldehyde | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.748 | 6.698-6.798 | +++++ | +++++ |
| | 22 Methoxychlor | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.923 | 6.873-6.973 | +++++ | +++++ |
| | 23 Endosulfan sulfate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.138 | 7.088-7.188 | +++++ | +++++ |
| | 24 Endrin ketone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.388 | 7.338-7.438 | +++++ | +++++ |
| $ | 25 Decachlorobipheny1 | 8.250 | 8.250 | 8.251 | 8.250 | 8.250 | 8.250 | 8.251 | 8.250 | 8.200-8.300 | 8.250 | 0.000 |
| | 26 Aroclor-1016 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.355 | 5.305-5.405 | +++++ | +++++ |
| | 27 Aroclor-1221 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.881 | 4.831-4.931 | +++++ | +++++ |
| | 28 Aroclor-1232 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.359 | 5.309-5.409 | +++++ | +++++ |
| | 29 Aroclor-1242 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.348 | 5.298-5.398 | +++++ | +++++ |
| | 30 Aroclor-1248 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.072 | 6.022-6.122 | +++++ | +++++ |
| | 31 Aroclor-1254 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 1.000 | 0.950-1.050 | +++++ | +++++ |
| | 32 Aroclor-1260 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.830 | 7.780-7.880 | +++++ | +++++ |
| | 33 Aroclor-1262 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.301 | 8.251-8.351 | +++++ | +++++ |
| | 34 Aroclor-1268 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 11.259 | 11.209-11.309 | +++++ | +++++ |
| | 35 Toxaphene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.424 | 6.374-6.474 | +++++ | +++++ |
| | 39 2,4-DDE | 5.343 | 5.346 | 5.345 | 5.344 | 5.344 | 5.342 | 5.341 | 5.343 | 5.293-5.393 | 5.344 | 0.002 |

CONFIDENTIAL

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Batch File: /chem2/ecd6.i/20120523PEST.b/ical-1.b
Inst ID: ecd6.i

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 2,4-DDD | 5.832 | 5.835 | 5.834 | 5.834 | 5.833 | 5.831 | 5.830 | 5.832 | 5.782-5.883 | 5.833 | 0.002 |
| 41 2,4-DDT | 6.070 | 6.071 | 6.070 | 6.070 | 6.070 | 6.069 | 6.068 | 6.070 | 6.020-6.120 | 6.070 | 0.001 |
| 42 Hexachloroethane | 1.708 | 1.720 | 1.720 | 1.720 | 1.719 | 1.720 | 1.719 | 1.708 | 1.658-1.758 | 1.718 | 0.005 |
| 43 Oxychlordane | 5.252 | 5.252 | 5.252 | 5.252 | 5.252 | 5.252 | 5.252 | 5.252 | 5.202-5.302 | 5.252 | 0.000 |
| 44 trans-Nonachlor | 5.581 | 5.581 | 5.581 | 5.580 | 5.580 | 5.581 | 5.580 | 5.581 | 5.531-5.631 | 5.581 | 0.000 |
| 45 cis-Nonachlor | 6.198 | 6.198 | 6.198 | 6.198 | 6.198 | 6.198 | 6.197 | 6.198 | 6.148-6.248 | 6.198 | 0.000 |
| 46 Mirex | 7.063 | 7.063 | 7.063 | 7.063 | 7.063 | 7.063 | 7.063 | 7.063 | 7.013-7.113 | 7.063 | 0.000 |
| 47 bis-(2-ethylhexyl) Pht | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 20.156 | 20.106-20.206 | +++++ | +++++ |
| 59 Tech-Chlordane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.558 | 4.508-4.608 | +++++ | +++++ |
| 48 Trifluralin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.319 | 6.269-6.369 | +++++ | +++++ |
| 49 Dacthal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 9.936 | 9.886-9.986 | +++++ | +++++ |
| 50 Oxadiazon | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 11.891 | 11.841-11.941 | +++++ | +++++ |
| 51 Kelthane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 14.827 | 14.777-14.877 | +++++ | +++++ |
| 53 Chlorpyrifos | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 9.750 | 9.700-9.800 | +++++ | +++++ |
| 55 Methyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 9.107 | 9.057-9.157 | +++++ | +++++ |
| 56 Ethyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 10.251 | 10.201-10.301 | +++++ | +++++ |

UU52:01205

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 2646445 | 4841592 | 82.9 |
| Hexabromobiphenyl | 3761841 | 6506091 | 72.9 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 9546244 | 16226991 | 70.0 |
| Hexabromobiphenyl | 5592240 | 8472750 | 51.5 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |

7E

# 8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20120523PEST

Analysis Date: 23-MAY-2012 13:54 Init. Calib. Date: 23-MAY-2012

GC Column: STX-CLP1 ID: 0.53(mm)

| COMPOUND | RT | AREA |
|---|---|---|
| 4,4'-DDE | 5.673 | 42910 |
| Endrin | 6.163 | 7390015 |
| 4,4'-DDD | 6.230 | 251827 |
| 4,4'-DDT | 6.484 | 6473273 |
| Endrin ketone | 7.388 | 265127 |
| Endrin aldehyde | 6.749 | 74504 |

DDT Percent Breakdown = 4.4 %
((42910+251827) * 100)/(42910+251827+6473273)

Endrin Percent Breakdown = 4.4 %
((74504+265127) * 100)/(74504+265127+7390015)

GC Column: STX-CLP2 ID: 0.53(mm)

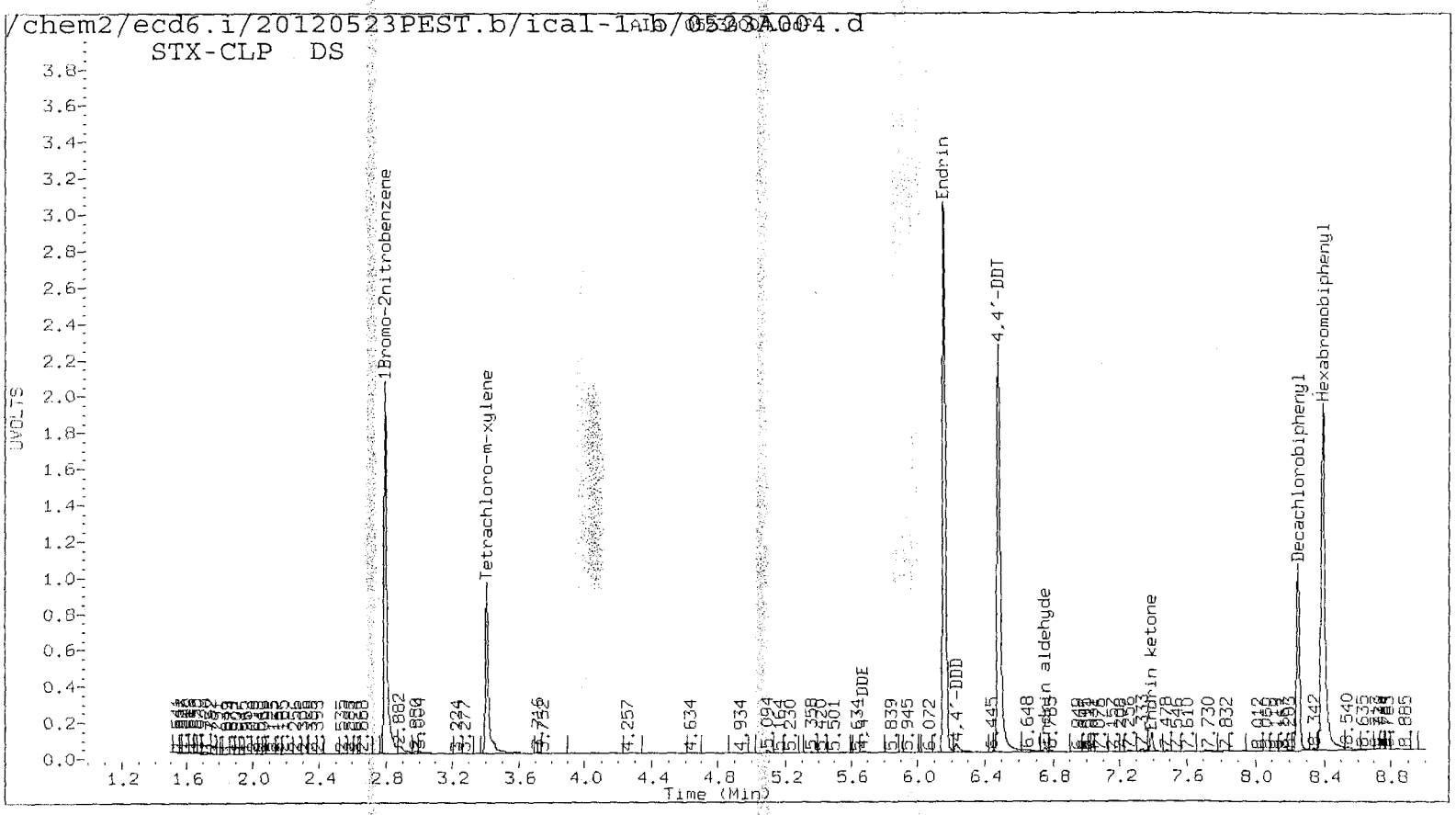
| COMPOUND | RT | AREA |
|---|---|---|
| 4,4'-DDE | 6.210 | 154354 |
| Endrin | 6.664 | 13544217 |
| 4,4'-DDD | 6.750 | 540642 |
| 4,4'-DDT | 7.035 | 11643113 |
| Endrin ketone | 7.881 | 508138 |
| Endrin aldehyde | 7.158 | 236007 |

DDT Percent Breakdown = 5.6 %
((154354+540642) * 100)/(154354+540642+11643113)

Endrin Percent Breakdown = 5.2 %
((236007+508138) * 100)/(236007+508138+13544217)



U052:01208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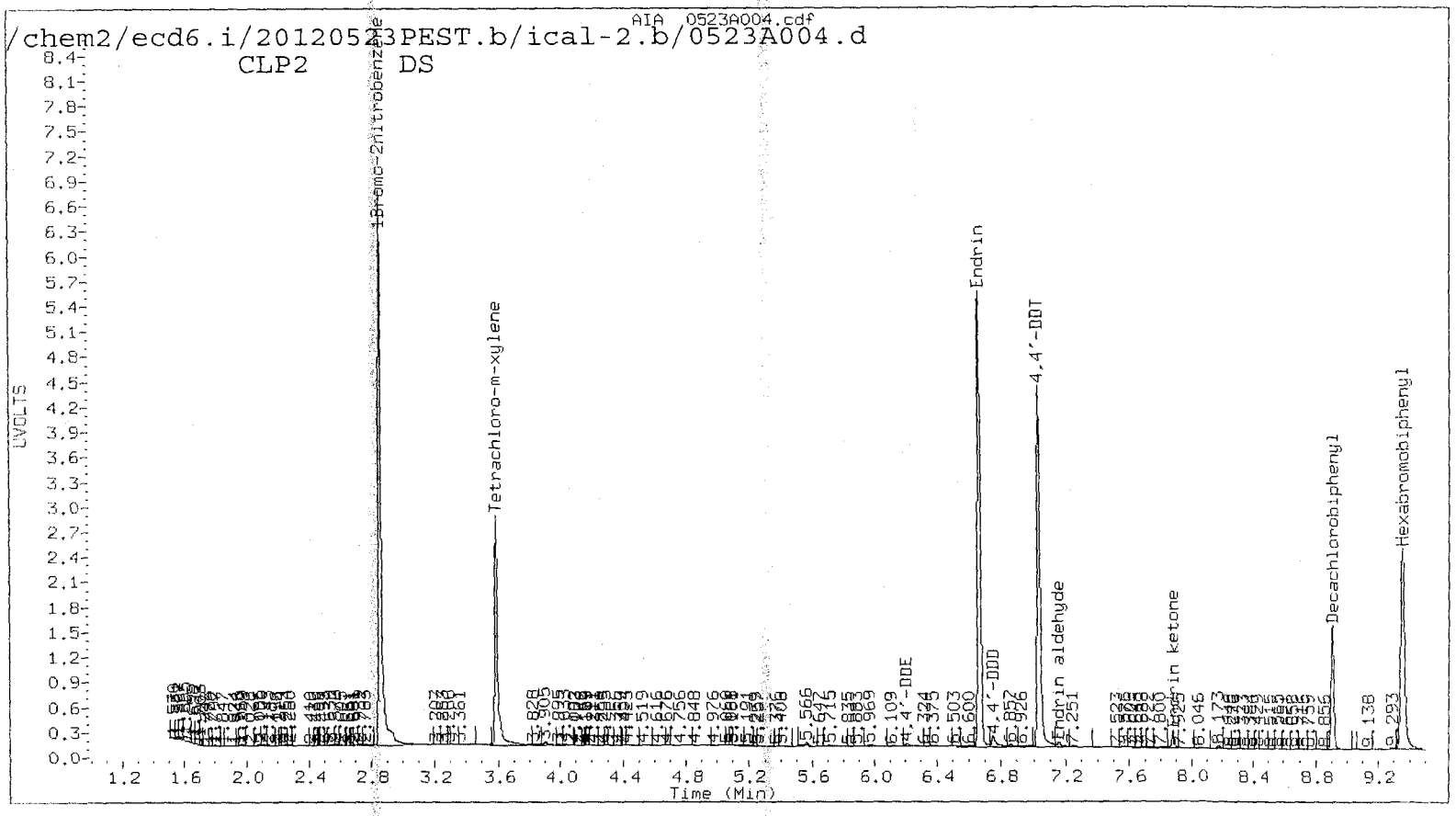
STX-CLP DS
AIA 0523A004.cdf
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
4,4'-DDE
4,4'-DDD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CLP2 DS
AIA 0523A004.cdf
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
4,4'-DDE
4,4'-DDD

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A005.d ARI ID: IB
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A005.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 14:12
Compound Sublist: wpest Report Date: 05/24/2012 10:06
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.796 | 0.000 | 4843734 | 2.854 | 0.000 | 16148392 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| ---- | | | 4.103 | -0.005 | 7417 | 0.0000 | 0.0270 | --- | alpha-BHC |
| ---- | | | 4.471 | -0.031 | 3449 | 0.0000 | 0.0326 | --- | beta-BHC |
| ---- | | | 4.780 | -0.002 | 12743 | 0.0000 | 0.0649 | --- | delta-BHC |
| 4.107 | 0.001 | 2814 | 4.440 | 0.011 | 1046 | 0.0347 | 0.0045 | 154.5* | gamma-BHC (Lindane) |
| ---- | | | 4.847 | -0.003 | 8297 | 0.0000 | 0.0351 | --- | Heptachlor |
| ---- | | | 5.191 | 0.020 | 10199 | 0.0000 | 0.0498 | --- | Aldrin |
| 5.355 | 0.009 | 4713 | 5.714 | -0.019 | 41360 | 0.0645 | 0.2083 | 105.5* | Heptachlor epoxide b |
| ---- | | | 6.144 | 0.027 | 35288 | 0.0000 | 0.2042 | --- | Endosulfan I |
| 5.946 | 0.000 | 1413 | 6.376 | -0.001 | 82677 | 0.0180 | 0.4628 | 185.0* | Dieldrin |
| ---- | | | 6.224 | 0.016 | 36379 | 0.0000 | 0.2303 | --- | 4,4'-DDE |
| ---- | | | 6.659 | -0.006 | 67409 | 0.0000 | 0.4711 | --- | Endrin |
| 6.376 | 0.006 | 1340 | 6.864 | 0.007 | 14850 | 0.0199 | 0.1024 | 134.8* | Endosulfan II |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | 4,4'-DDD |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Endosulfan sulfate |
| 6.488 | 0.004 | 1018 | 7.019 | -0.015 | 10864 | 0.0171 | 0.0923 | 137.6* | 4,4'-DDT |
| 6.957 | 0.034 | 1538 | 7.611 | -0.018 | 3010 | 0.0506 | 0.0585 | 14.6 | Methoxychlor |
| 7.412 | 0.024 | 18078 | 7.909 | 0.027 | 4251 | 0.2414 | 0.0296 | 156.3* | Endrin ketone |
| 6.750 | 0.002 | 1529 | 7.157 | -0.002 | 9829 | 0.0282 | 0.0890 | 103.7* | Endrin aldehyde |
| 5.512 | 0.043 | 17962 | ---- | | | 0.2266 | 0.0000 | --- | gamma-Chlordane |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | alpha-Chlordane |
| 2.046 | -0.007 | 1530 | 2.106 | -0.006 | 15680 | 0.0143 | 0.0525 | 114.3* | Hexachlorobutadiene |
| 3.717 | 0.000 | 36550 | 3.992 | -0.003 | 11843 | 0.5486 | 0.0472 | 168.3* | Hexachlorobenzene |
| 5.229 | -0.023 | 3048 | ---- | | | 0.0513 | 0.0000 | --- | Oxychlordane |
| ---- | | | 5.914 | 0.005 | 4380 | 0.0000 | 0.0426 | --- | 2,4-DDE |
| ---- | | | 5.970 | -0.036 | 103136 | 0.0000 | 0.6069 | --- | trans-Nonachlor |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | 2,4-DDD |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | 2,4-DDT |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | cis-Nonachlor |
| ---- | | | 7.870 | 0.007 | 5530 | 0.0000 | 0.0537 | --- | Mirex |
| 8.389 | 0.000 | 6419201 | 9.355 | -0.001 | 8335866 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 1.719 | -0.001 | 2082 | 1.743 | -0.027 | 2685 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.407 | 0.001 | 2555655 | 3.589 | 0.001 | 7250841 | 35.6577 | 36.1831 | 1.5 | Tetrachloro-m-xylene |
| 8.250 | 0.000 | 2415063 | 8.908 | 0.000 | 3848415 | 33.4904 | 33.3478 | 0.4 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 89.1 | 90.5 | 89.1~ | 130- 0 |
| Decachlorobiphenyl | 83.7 | 83.4 | 83.4~ | 130- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4843734 | 0.0 |
| Hexabromobiphenyl | 6506091 | 6419201 | -1.3 |

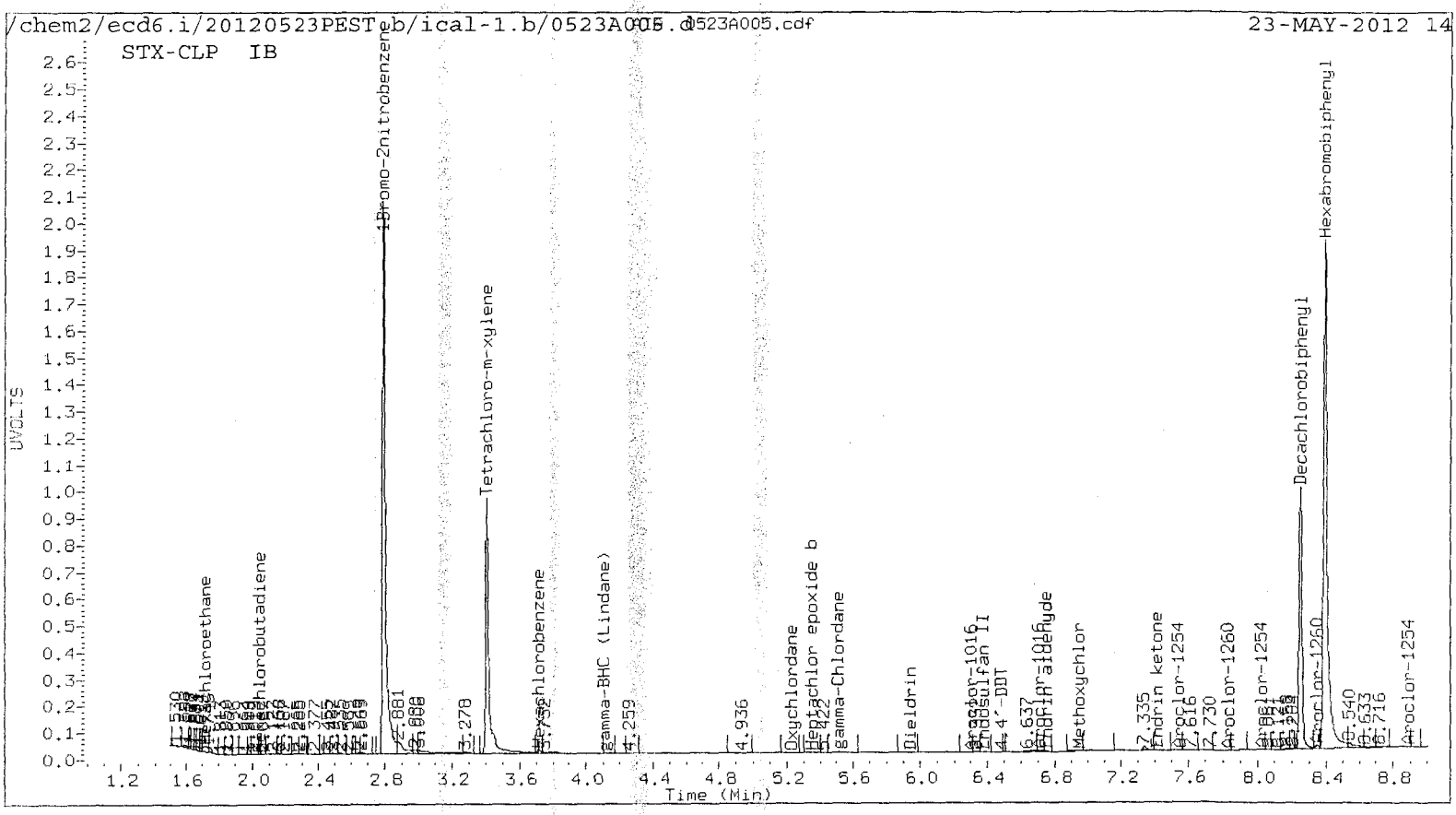
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 16148392 | -0.5 |
| Hexabromobiphenyl | 8472750 | 8335866 | -1.6 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | | STX-CLP Col RT | Shift | Height | Amount | | CLP2 Col RT | Shift | Height | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Toxaphene | 1 | --- | | | 0.000 | 1 | 6.571 | -0.035 | 21189 | 4.676 |
| Toxaphene | 2 | 6.488 | 0.013 | 1018 | 0.436 | 2 | 6.929 | -0.003 | 57794 | 8.547 |
| Toxaphene | 3 | 6.711 | 0.037 | 2730 | 1.267 | 3 | 7.157 | -0.009 | 9829 | 1.383 |
| Toxaphene | 4 | --- | | | 0.000 | 4 | 7.611 | -0.014 | 3010 | 0.533 |
| Toxaphene | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Toxaphene | 6 | 7.412 | 0.037 | 18078 | 7.305 | NS | --- | | | ---- |
| | | Total STX-CLPAve (3 peaks): 3.003 | | | | | Total CLP2Ave (4 peaks): 3.784 | | | RPD = 23 |
| | | Corrected Ave: < 3 Peaks | | | | | Corrected Ave (3 peaks): 2.197 | | | |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| | | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | |
|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | |
| Aroclor-1248 1 | --- | 0.000 | | 1 | --- | 0.000 |
| Aroclor-1248 2 | --- | 0.000 | | 2 | --- | 0.000 |
| Aroclor-1248 3 | --- | 0.000 | | 3 | --- | 0.000 |
| Aroclor-1248 4 | --- | 0.000 | | 4 | --- | 0.000 |
| Aroclor-1248 5 | --- | 0.000 | | 5 | --- | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | |
| Aroclor-1254 1 | --- | 0.000 | | 1 | --- | 0.000 |
| Aroclor-1254 2 | --- | 0.000 | | 2 | --- | 0.000 |
| Aroclor-1254 3 | --- | 0.000 | | 3 | --- | 0.000 |
| Aroclor-1254 4 | --- | 0.000 | | 4 | --- | 0.000 |
| Aroclor-1254 5 | --- | 0.000 | | 5 | --- | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | |
| Aroclor-1260 1 | --- | 0.000 | | 1 | --- | 0.000 |
| Aroclor-1260 2 | --- | 0.000 | | 2 | --- | 0.000 |
| Aroclor-1260 3 | --- | 0.000 | | 3 | --- | 0.000 |
| Aroclor-1260 4 | --- | 0.000 | | 4 | --- | 0.000 |
| Aroclor-1260 5 | --- | 0.000 | | 5 | --- | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | |
| Aroclor-1262 1 | --- | 0.000 | | 1 | --- | 0.000 |
| Aroclor-1262 2 | --- | 0.000 | | 2 | --- | 0.000 |
| Aroclor-1262 3 | --- | 0.000 | | 3 | --- | 0.000 |
| Aroclor-1262 4 | --- | 0.000 | | 4 | --- | 0.000 |
| Aroclor-1262 5 | --- | 0.000 | | 5 | --- | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | |
| Aroclor-1268 1 | --- | 0.000 | | 1 | --- | 0.000 |
| Aroclor-1268 2 | --- | 0.000 | | 2 | --- | 0.000 |
| Aroclor-1268 3 | --- | 0.000 | | 3 | --- | 0.000 |
| Aroclor-1268 4 | --- | 0.000 | | 4 | --- | 0.000 |
| Aroclor-1268 5 | --- | 0.000 | | 5 | --- | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | |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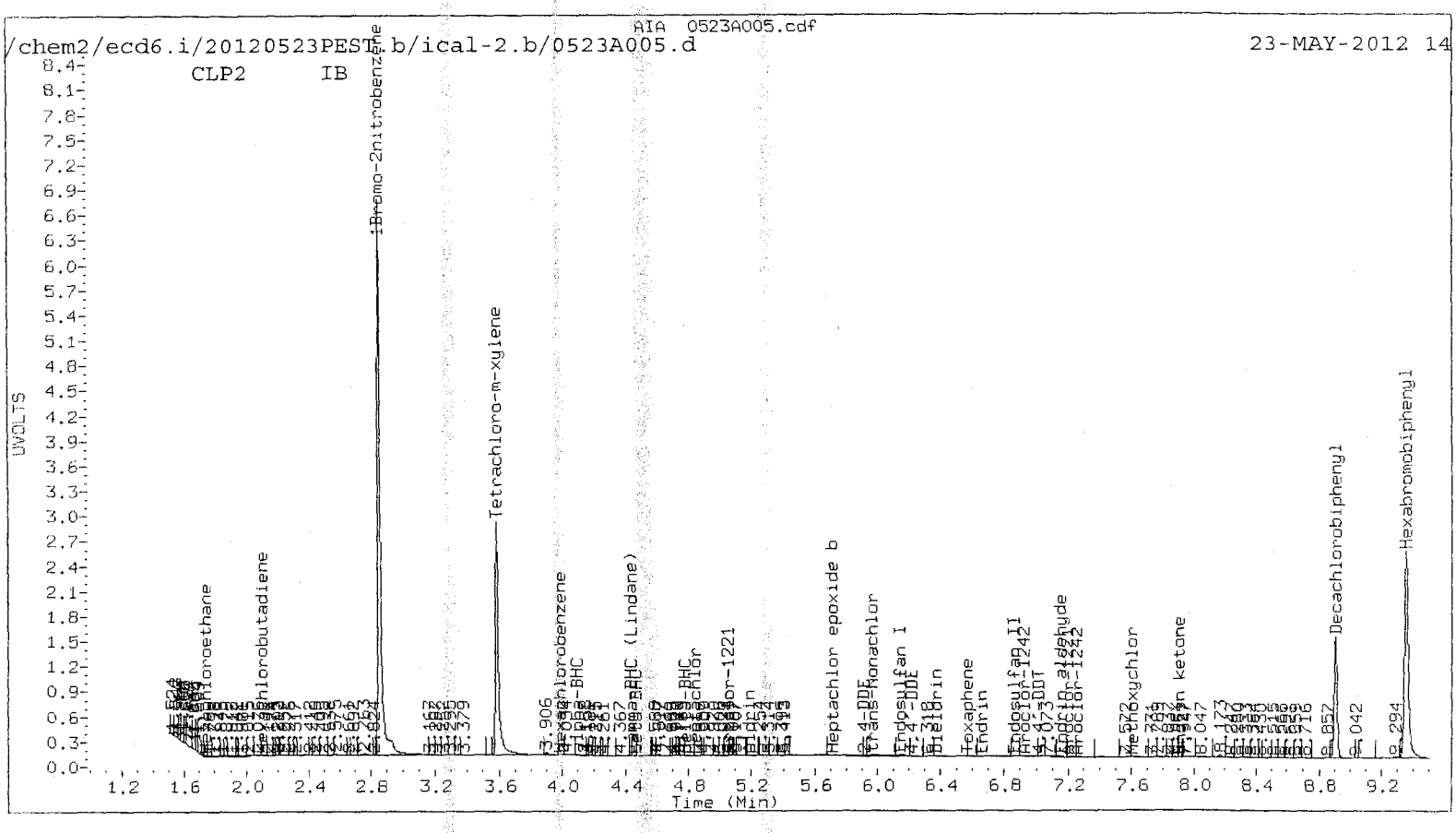
0523A005.cdf
23-MAY-2012 14
STX-CLP IB
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
gamma-BHC (Lindane)
Oxychlordane
Heptachlor epoxide b
gamma-Chlordane
Dieldrin
Aroclor-1016
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endrin ketone
Aroclor-1254
Aroclor-1260
Decachlorobiphenyl
Hexabromobiphenyl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23-MAY-2012 14
CLP2 IB
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
gamma-BHC (Lindane)
Heptachlor epoxide b
trans-Nonachlor
Endosulfan I
4,4'-DDE
Dieldrin
Hexaphene
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

US2:01214

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A006.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A006.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 14:29
Compound Sublist: INDA Report Date: 05/24/2012 10:06
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.797 | 0.000 | 4841592 | 2.855 | 0.000 | 16226991 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.847 | 0.000 | 2043826 | 4.107 | -0.001 | 5613739 | 21.1575 | 20.3163 | 4.1 | alpha-BHC |
| 4.184 | 0.002 | 725632 | 4.503 | 0.001 | 2033842 | 20.1389 | 19.1342 | 5.1 | beta-BHC |
| 4.340 | 0.003 | 1491206 | 4.783 | 0.001 | 4071439 | 21.1585 | 20.6429 | 2.5 | delta-BHC |
| 4.106 | 0.000 | 1702095 | 4.428 | 0.000 | 4693388 | 21.0047 | 19.9071 | 5.4 | gamma-BHC (Lindane) |
| 4.518 | 0.000 | 1855801 | 4.849 | -0.001 | 4539320 | 20.7462 | 19.1316 | 8.1 | Heptachlor |
| 4.788 | 0.000 | 1723325 | 5.170 | 0.000 | 4025734 | 21.0034 | 19.5755 | 7.0 | Aldrin |
| 5.346 | 0.000 | 1488419 | 5.732 | -0.001 | 3842052 | 20.3713 | 19.2575 | 5.6 | Heptachlor epoxide b |
| 5.722 | 0.000 | 1989749 | 6.117 | 0.000 | 3304208 | 20.1756 | 19.0276 | 5.9 | Endosulfan I |
| 5.947 | 0.000 | 3258063 | 6.377 | 0.000 | 6970898 | 41.4926 | 38.8311 | 6.6 | Dieldrin |
| 5.673 | 0.003 | 2207200 | 6.209 | 0.001 | 6144210 | 44.4334 | 38.6998 | 13.8 | 4,4'-DDE |
| 6.163 | 0.000 | 2912313 | 6.664 | -0.001 | 5720079 | 41.6277 | 39.3259 | 5.7 | Endrin |
| 6.371 | 0.000 | 2806136 | 6.857 | 0.000 | 5741272 | 41.2135 | 38.9578 | 5.6 | Endosulfan II |
| 6.230 | 0.002 | 2381080 | 6.749 | 0.001 | 4859578 | 43.2255 | 39.9809 | 7.8 | 4,4'-DDD |
| 7.138 | 0.001 | 2434072 | 7.404 | 0.000 | 4461530 | 40.6618 | 39.4028 | 3.1 | Endosulfan sulfate |
| 6.485 | 0.001 | 2589858 | 7.035 | 0.001 | 4818799 | 42.8107 | 40.2616 | 6.1 | 4,4'-DDT |
| 6.923 | 0.000 | 6060837 | 7.629 | 0.000 | 9359710 | 196.6453 | 179.0205 | 9.4 | Methoxychlor |
| 7.389 | 0.000 | 3009400 | 7.881 | 0.000 | 5723944 | 39.6557 | 39.2662 | 1.0 | Endrin ketone |
| 6.749 | 0.001 | 2227505 | 7.158 | 0.000 | 4368862 | 40.5671 | 38.9228 | 4.1 | Endrin aldehyde |
| 5.471 | 0.001 | 1619597 | 5.918 | 0.000 | 3607799 | 20.4431 | 19.4892 | 4.8 | gamma-Chlordane |
| 5.594 | 0.000 | 1533113 | 6.057 | 0.000 | 3377761 | 20.3346 | 19.1727 | 5.9 | alpha-Chlordane |
| 2.053 | 0.000 | 2142890 | 2.112 | 0.000 | 5754928 | 20.0719 | 19.1853 | 4.5 | Hexachlorobutadiene |
| 3.718 | 0.001 | 1310727 | 3.996 | 0.001 | 4938033 | 19.6831 | 19.5703 | 0.6 | Hexachlorobenzene |
| 8.390 | 0.000 | 6506091 | 9.355 | -0.001 | 8472750 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 3.407 | 0.001 | 2861286 | 3.588 | 0.000 | 7927803 | 39.9397 | 39.3697 | 1.4 | Tetrachloro-m-xylene |
| 8.250 | 0.000 | 2781056 | 8.908 | 0.000 | 4395070 | 38.0507 | 37.4695 | 1.5 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 99.8 | 98.4 | 98.4~ | 115- 0 |
| Decachlorobiphenyl | 95.1 | 93.7 | 93.7~ | 115- 0 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

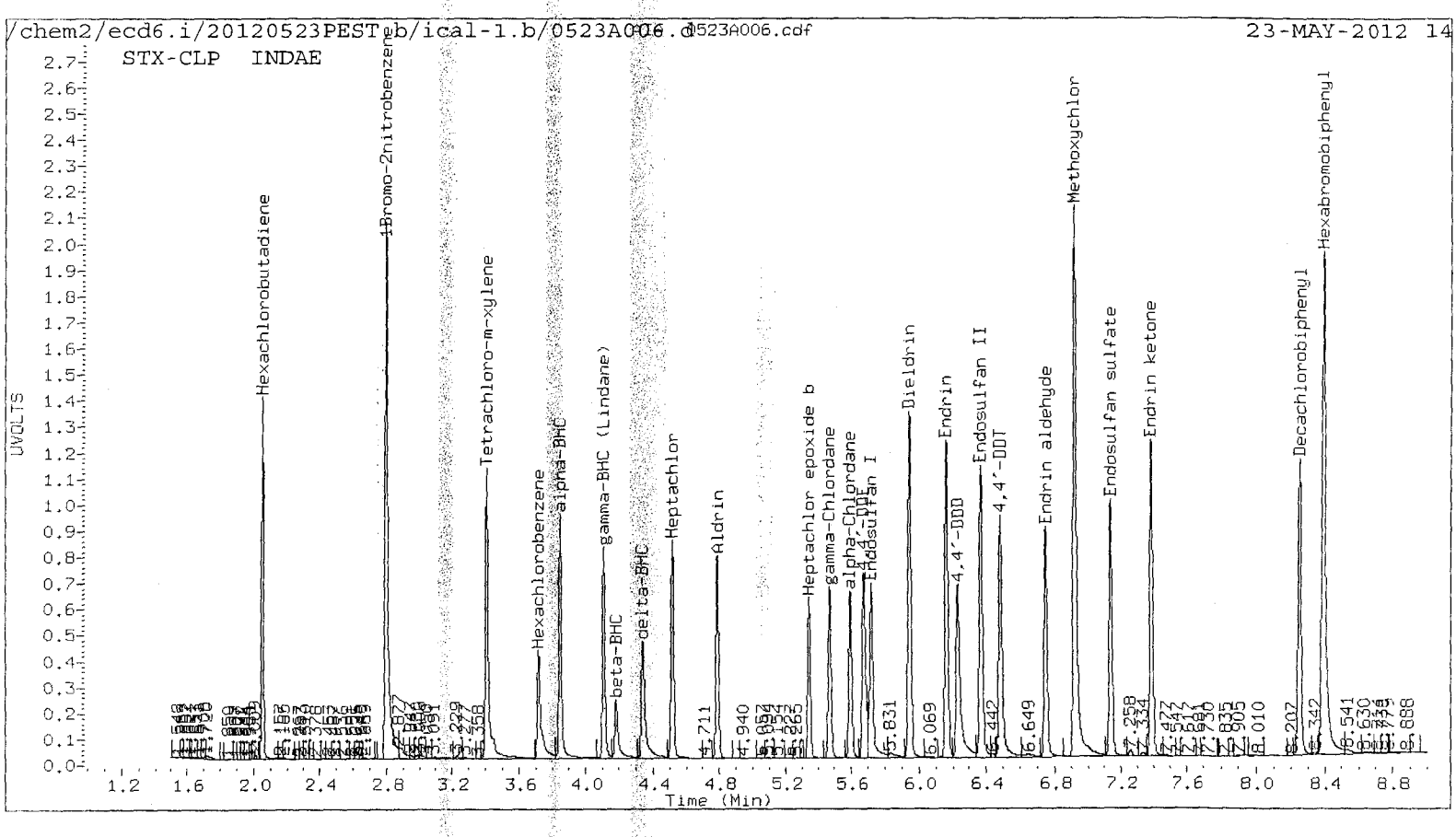
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4841592 | 0.0 |
| Hexabromobiphenyl | 6506091 | 6506091 | 0.0 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 16226991 | 0.0 |
| Hexabromobiphenyl | 8472750 | 8472750 | 0.0 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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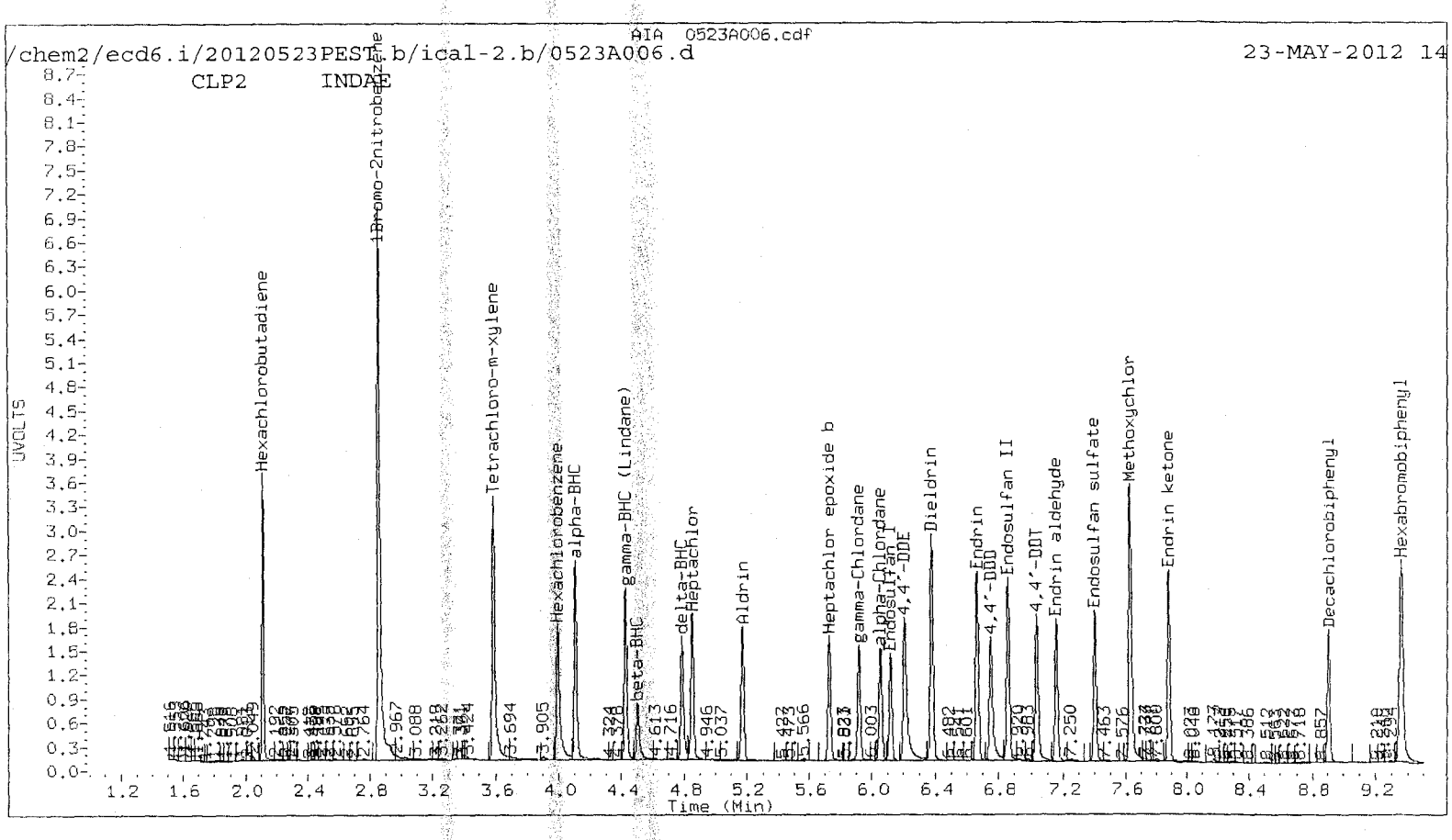
0523A006.cdf
23-MAY-2012 14
STX-CLP INDAE
UWQLTS
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)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23-MAY-2012 14
CLP2 INDAE
UWQLTS
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)

US2 : 01217

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A007.d ARI ID: INDAA
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A007.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 14:47
Compound Sublist: INDA Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.796 | 0.000 | 4662553 | 2.855 | 0.000 | 16229726 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.846 | 0.000 | 101711 | 4.107 | -0.001 | 337153 | 1.0933 | 1.2200 | 10.9 | alpha-BHC |
| 4.188 | 0.005 | 44253 | 4.505 | 0.003 | 158503 | 1.2753 | 1.4909 | 15.6 | beta-BHC |
| 4.342 | 0.005 | 79061 | 4.785 | 0.003 | 243836 | 1.1649 | 1.2361 | 5.9 | delta-BHC |
| 4.106 | 0.000 | 92021 | 4.428 | -0.001 | 314175 | 1.1792 | 1.3324 | 12.2 | gamma-BHC (Lindane) |
| 4.517 | -0.001 | 106629 | 4.849 | -0.001 | 339870 | 1.2378 | 1.4322 | 14.6 | Heptachlor |
| 4.787 | 0.000 | 95005 | 5.170 | -0.001 | 281063 | 1.2024 | 1.3665 | 12.8 | Aldrin |
| 5.346 | 0.000 | 90183 | 5.732 | -0.001 | 279399 | 1.2817 | 1.4002 | 8.8 | Heptachlor epoxide b |
| 5.722 | 0.000 | 125951 | 6.116 | -0.001 | 254978 | 1.3262 | 1.4681 | 10.2 | Endosulfan I |
| 5.946 | 0.000 | 186453 | 6.377 | 0.000 | 510005 | 2.4657 | 2.8405 | 14.1 | Dieldrin |
| 5.676 | 0.007 | 102296 | 6.212 | 0.004 | 454077 | 2.1384 | 2.8596 | 28.9 | 4,4'-DDE |
| 6.163 | 0.000 | 168281 | 6.664 | -0.001 | 411451 | 2.4885 | 2.9379 | 16.6 | Endrin |
| 6.371 | 0.001 | 167251 | 6.857 | 0.000 | 417218 | 2.5413 | 2.9403 | 14.6 | Endosulfan II |
| 6.233 | 0.006 | 123691 | 6.751 | 0.003 | 333864 | 2.3230 | 2.8528 | 20.5 | 4,4'-DDD |
| 7.138 | 0.001 | 151972 | 7.404 | 0.000 | 307110 | 2.6264 | 2.8169 | 7.0 | Endosulfan sulfate |
| 6.486 | 0.003 | 134942 | 7.035 | 0.001 | 315925 | 2.3077 | 2.7414 | 17.2 | 4,4'-DDT |
| 6.926 | 0.003 | 392552 | 7.630 | 0.001 | 752659 | 13.1764 | 14.9513 | 12.6 | Methoxychlor |
| 7.389 | 0.000 | 205761 | 7.882 | 0.000 | 403201 | 2.8050 | 2.8727 | 2.4 | Endrin ketone |
| 6.749 | 0.001 | 141750 | 7.158 | 0.000 | 322123 | 2.6707 | 2.9806 | 11.0 | Endrin aldehyde |
| 5.471 | 0.001 | 100972 | 5.918 | 0.000 | 251271 | 1.3234 | 1.3571 | 2.5 | gamma-Chlordane |
| 5.594 | 0.000 | 95342 | 6.057 | -0.001 | 251721 | 1.3131 | 1.4286 | 8.4 | alpha-Chlordane |
| 2.053 | -0.001 | 137598 | 2.112 | -0.001 | 420036 | 1.3383 | 1.4000 | 4.5 | Hexachlorobutadiene |
| 3.720 | 0.004 | 87589 | 3.997 | 0.002 | 344165 | 1.3658 | 1.3638 | 0.2 | Hexachlorobenzene |
| 8.390 | 0.001 | 6288842 | 9.355 | 0.000 | 8157989 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 3.408 | 0.002 | 196488 | 3.589 | 0.001 | 537877 | 2.8480 | 2.6707 | 6.4 | Tetrachloro-m-xylene |
| 8.250 | 0.000 | 211888 | 8.909 | 0.000 | 340184 | 2.9992 | 3.0121 | 0.4 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 7.1 | 6.7 | 6.7~ | 115- 0 |
| Decachlorobiphenyl | 7.5 | 7.5 | 7.5~ | 115- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

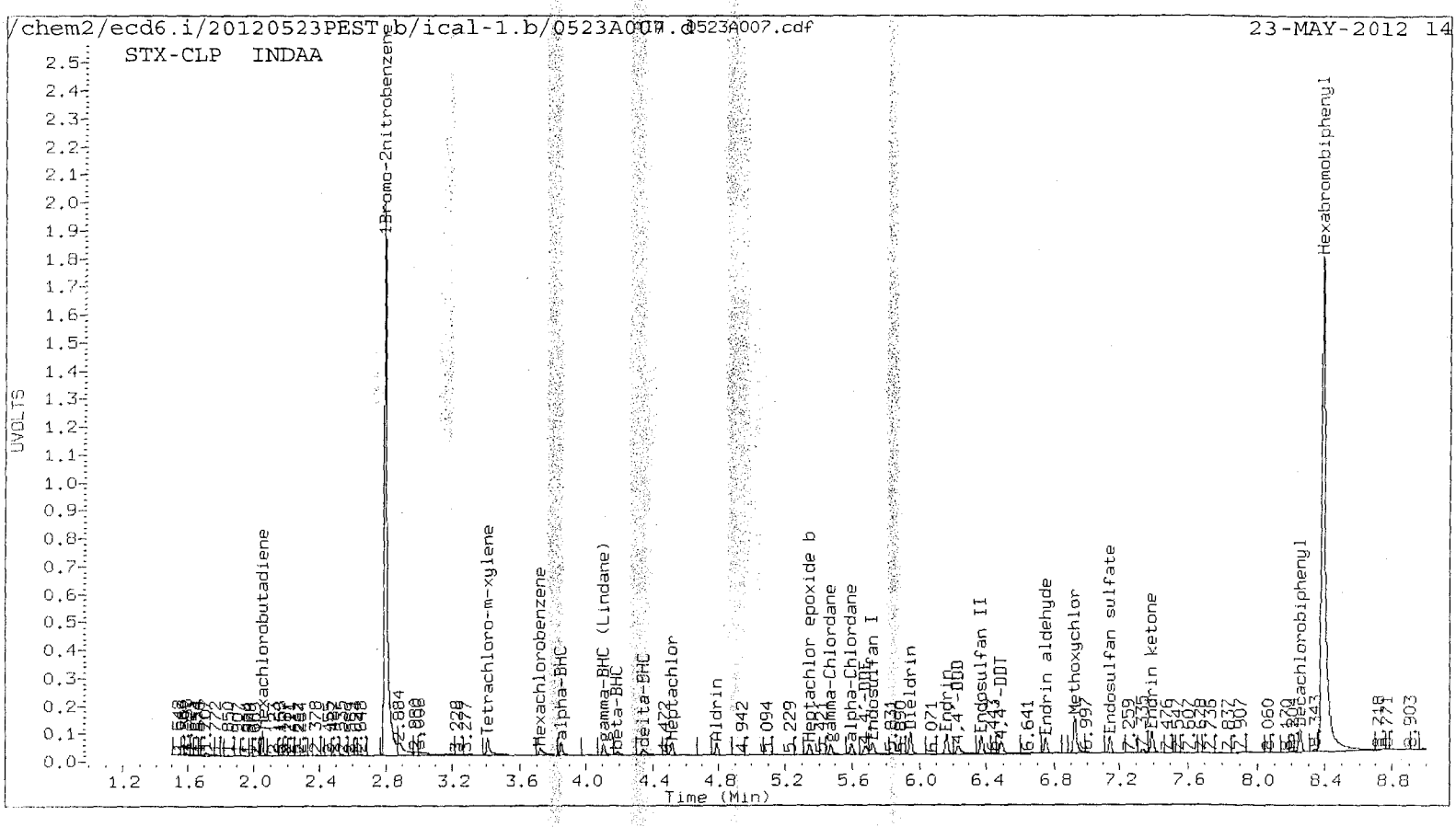
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4662553 | -3.7 |
| Hexabromobiphenyl | 6506091 | 6288842 | -3.3 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 16229726 | 0.0 |
| Hexabromobiphenyl | 8472750 | 8157989 | -3.7 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | STX-CLP Col Peak# | RT | Shift | Height | Amount | CLP2 Col Peak# | RT | Shift | Height | Amount |
|---|---|---|---|---|---|---|---|---|---|---|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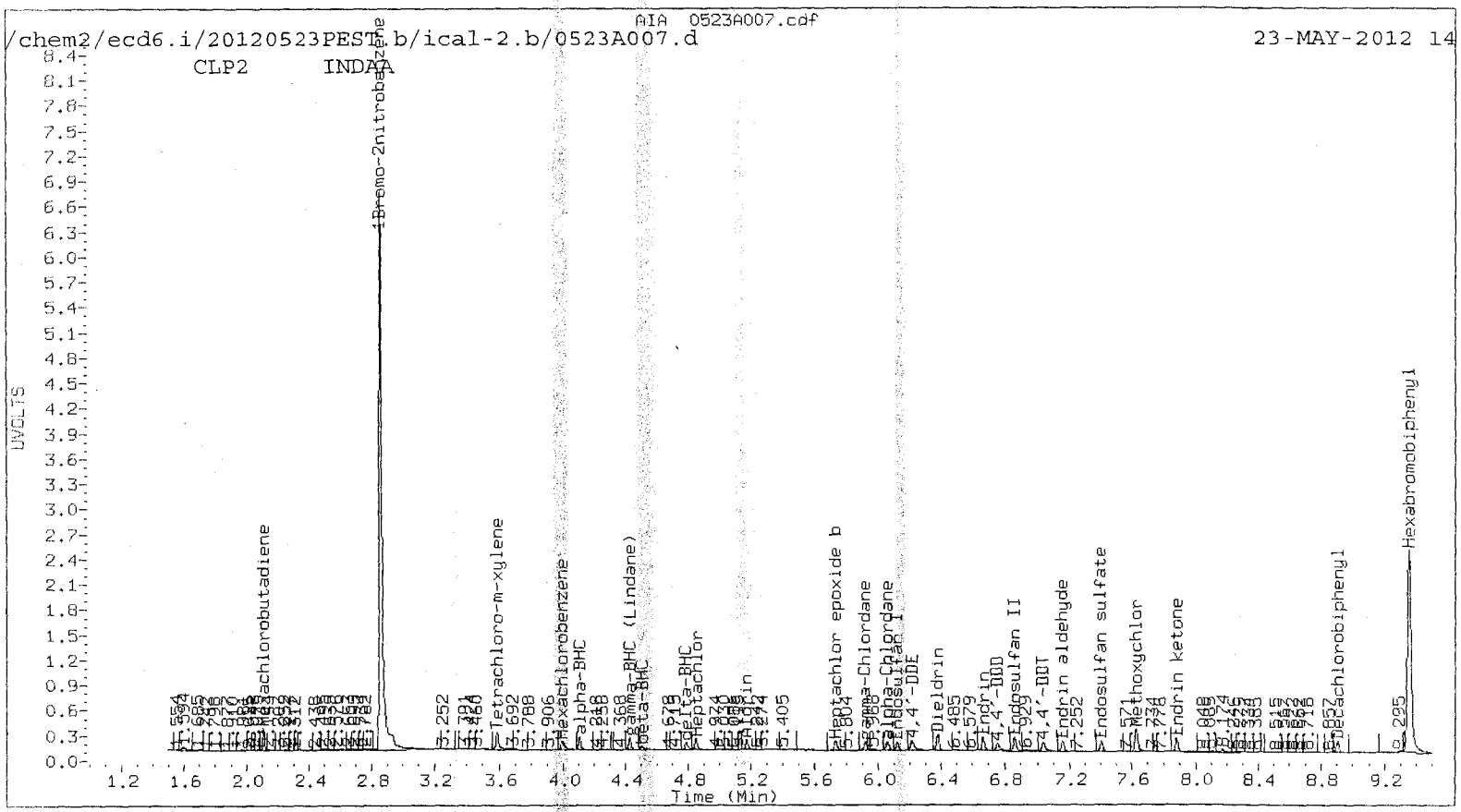
0523A007.cdf
23-MAY-2012 14
STX-CLP INDAA
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDE
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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/chem2/ecd6.i/20120523PEST_b/ical-2.b/0523A007.d
23-MAY-2012 14
CLP2 INDAA
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-Xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDE
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A008.d ARI ID: INDAB
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A008.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 15:05
Compound Sublist: INDA Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.796 | 0.000 | 4901931 | 2.855 | 0.000 | 16989055 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.847 | 0.000 | 235324 | 4.107 | -0.001 | 684591 | 2.4061 | 2.3664 | 1.7 | alpha-BHC |
| 4.187 | 0.005 | 93658 | 4.505 | 0.003 | 273591 | 2.5673 | 2.4585 | 4.3 | beta-BHC |
| 4.342 | 0.005 | 162923 | 4.785 | 0.002 | 464588 | 2.2832 | 2.2499 | 1.5 | delta-BHC |
| 4.107 | 0.000 | 192447 | 4.428 | 0.000 | 589200 | 2.3457 | 2.3870 | 1.7 | gamma-BHC (Lindane) |
| 4.518 | 0.000 | 220726 | 4.849 | -0.001 | 635638 | 2.4371 | 2.5588 | 4.9 | Heptachlor |
| 4.787 | 0.000 | 195463 | 5.170 | -0.001 | 538568 | 2.3529 | 2.5014 | 6.1 | Aldrin |
| 5.346 | 0.001 | 186306 | 5.732 | -0.001 | 556037 | 2.5185 | 2.6620 | 5.5 | Heptachlor epoxide b |
| 5.722 | 0.000 | 250244 | 6.118 | 0.000 | 466522 | 2.5062 | 2.5660 | 2.4 | Endosulfan I |
| 5.947 | 0.001 | 382974 | 6.377 | 0.000 | 957220 | 4.8173 | 5.0930 | 5.6 | Dieldrin |
| 5.677 | 0.007 | 207940 | 6.212 | 0.003 | 835415 | 4.1345 | 5.0259 | 19.5 | 4,4'-DDE |
| 6.164 | 0.001 | 342575 | 6.664 | -0.001 | 776642 | 4.7547 | 5.2130 | 9.2 | Endrin |
| 6.372 | 0.001 | 337318 | 6.857 | 0.000 | 794367 | 4.8105 | 5.2625 | 9.0 | Endosulfan II |
| 6.233 | 0.006 | 249899 | 6.752 | 0.003 | 625787 | 4.4051 | 5.0265 | 13.2 | 4,4'-DDD |
| 7.139 | 0.001 | 299918 | 7.405 | 0.001 | 597175 | 4.8649 | 5.1491 | 5.7 | Endosulfan sulfate |
| 6.486 | 0.003 | 275462 | 7.035 | 0.001 | 603961 | 4.4214 | 4.9266 | 10.8 | 4,4'-DDT |
| 6.925 | 0.002 | 821153 | 7.630 | 0.001 | 1464236 | 25.8700 | 27.3426 | 5.5 | Methoxychlor |
| 7.389 | 0.001 | 393789 | 7.882 | 0.000 | 784857 | 5.0386 | 5.2566 | 4.2 | Endrin ketone |
| 6.750 | 0.001 | 277667 | 7.159 | 0.001 | 605309 | 4.9102 | 5.2650 | 7.0 | Endrin aldehyde |
| 5.471 | 0.001 | 191913 | 5.919 | 0.001 | 482232 | 2.3926 | 2.4881 | 3.9 | gamma-Chlordane |
| 5.595 | 0.001 | 184055 | 6.058 | 0.000 | 469350 | 2.4112 | 2.5446 | 5.4 | alpha-Chlordane |
| 2.053 | -0.001 | 272064 | 2.112 | -0.001 | 797226 | 2.5170 | 2.5385 | 0.9 | Hexachlorobutadiene |
| 3.720 | 0.004 | 176690 | 3.997 | 0.003 | 657359 | 2.6207 | 2.4884 | 5.2 | Hexachlorobenzene |
| 8.390 | 0.001 | 6700380 | 9.355 | 0.000 | 8678314 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 3.408 | 0.002 | 386041 | 3.589 | 0.001 | 1045575 | 5.3223 | 4.9594 | 7.1 | Tetrachloro-m-xylene |
| 8.251 | 0.000 | 397174 | 8.908 | 0.000 | 648359 | 5.2766 | 5.3965 | 2.2 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 13.3 | 12.4 | 12.4~ | 115- 0 |
| Decachlorobiphenyl | 13.2 | 13.5 | 13.2~ | 115- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

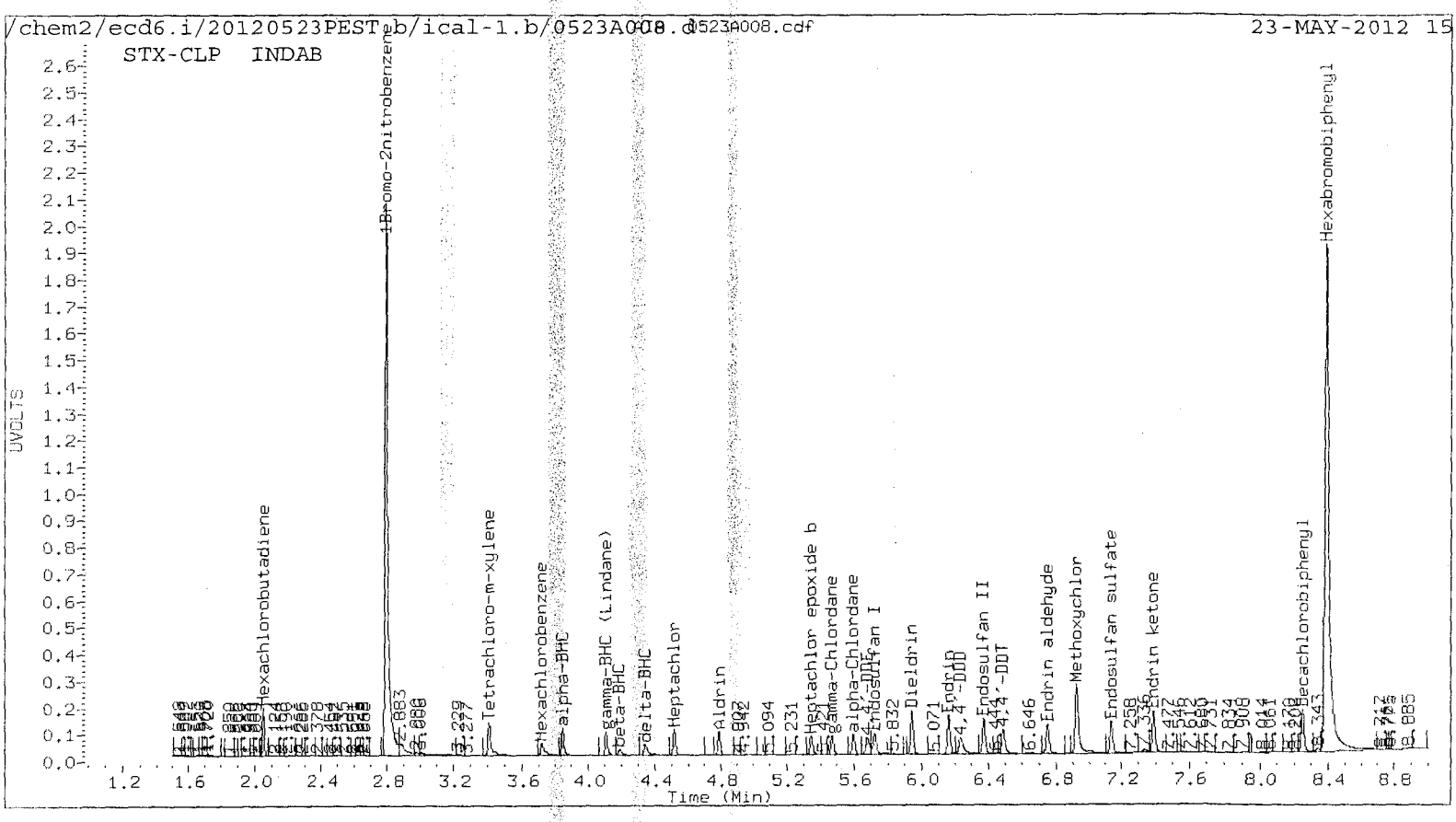
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4901931 | 1.2 |
| Hexabromobiphenyl | 6506091 | 6700380 | 3.0 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 16989055 | 4.7 |
| Hexabromobiphenyl | 8472750 | 8678314 | 2.4 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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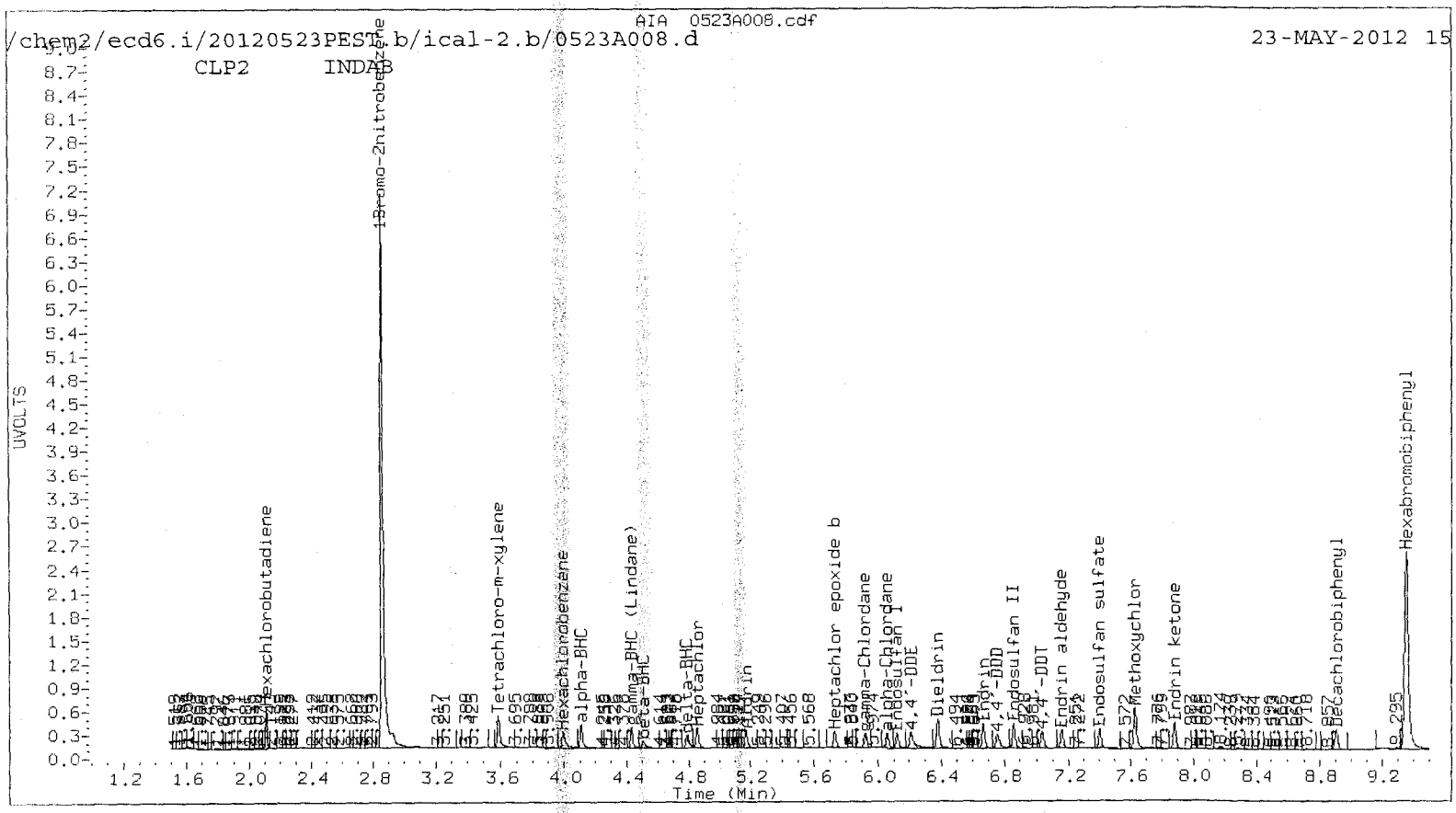
AIA 0523A008.cdf
23-MAY-2012 15
STX-CLP INDAB
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0523A008.cdf
23-MAY-2012 15
CLP2 INDAB
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

USZ:01223

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A009.d ARI ID: INDAC
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A009.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 15:23
Compound Sublist: INDA Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.796 | 0.000 | 5097624 | 2.855 | 0.000 | 15963413 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.847 | 0.000 | 479551 | 4.107 | -0.001 | 1397386 | 4.7149 | 5.1407 | 8.6 | alpha-BHC |
| 4.186 | 0.004 | 179654 | 4.504 | 0.002 | 535896 | 4.7356 | 5.1249 | 7.9 | beta-BHC |
| 4.342 | 0.005 | 329109 | 4.784 | 0.002 | 955882 | 4.4351 | 4.9265 | 10.5 | delta-BHC |
| 4.106 | 0.000 | 393314 | 4.428 | -0.001 | 1177150 | 4.6099 | 5.0753 | 9.6 | gamma-BHC (Lindane) |
| 4.517 | 0.000 | 442312 | 4.848 | -0.001 | 1247616 | 4.6963 | 5.3451 | 12.9 | Heptachlor |
| 4.787 | 0.000 | 399463 | 5.170 | -0.001 | 1057892 | 4.6240 | 5.2290 | 12.3 | Aldrin |
| 5.346 | 0.000 | 356471 | 5.732 | -0.001 | 1029998 | 4.6338 | 5.2479 | 12.4 | Heptachlor epoxide b |
| 5.722 | 0.000 | 497889 | 6.117 | 0.000 | 891315 | 4.7949 | 5.2175 | 8.4 | Endosulfan I |
| 5.946 | 0.000 | 790155 | 6.377 | 0.000 | 1860875 | 9.5575 | 10.5371 | 9.7 | Dieldrin |
| 5.675 | 0.005 | 455937 | 6.211 | 0.003 | 1612866 | 8.7175 | 10.3265 | 16.9 | 4,4'-DDE |
| 6.163 | 0.000 | 708238 | 6.664 | -0.001 | 1520477 | 9.8726 | 10.2391 | 3.6 | Endrin |
| 6.371 | 0.001 | 687864 | 6.857 | 0.000 | 1545804 | 9.8524 | 10.2741 | 4.2 | Endosulfan II |
| 6.233 | 0.005 | 524194 | 6.752 | 0.003 | 1227819 | 9.2804 | 9.8945 | 6.4 | 4,4'-DDD |
| 7.138 | 0.001 | 605096 | 7.404 | 0.000 | 1179240 | 9.8580 | 10.2012 | 3.4 | Endosulfan sulfate |
| 6.486 | 0.002 | 585722 | 7.035 | 0.001 | 1205932 | 9.4423 | 9.8691 | 4.4 | 4,4'-DDT |
| 6.925 | 0.002 | 1593071 | 7.630 | 0.001 | 2756371 | 50.4075 | 51.6396 | 2.4 | Methoxychlor |
| 7.388 | 0.000 | 771804 | 7.882 | 0.000 | 1545443 | 9.9184 | 10.3844 | 4.6 | Endrin ketone |
| 6.749 | 0.000 | 555196 | 7.158 | 0.000 | 1168298 | 9.8608 | 10.1952 | 3.3 | Endrin aldehyde |
| 5.470 | 0.001 | 384042 | 5.919 | 0.001 | 959804 | 4.6040 | 5.2704 | 13.5 | gamma-Chlordane |
| 5.594 | 0.000 | 369166 | 6.057 | -0.001 | 898070 | 4.6505 | 5.1818 | 10.8 | alpha-Chlordane |
| 2.053 | -0.001 | 536853 | 2.112 | -0.001 | 1575145 | 4.7760 | 5.3378 | 11.1 | Hexachlorobutadiene |
| 3.720 | 0.003 | 333914 | 3.997 | 0.002 | 1288296 | 4.7625 | 5.1900 | 8.6 | Hexachlorobenzene |
| 8.390 | 0.000 | 6671309 | 9.355 | 0.000 | 8650070 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 3.408 | 0.002 | 733647 | 3.588 | 0.000 | 2077735 | 9.7264 | 10.4885 | 7.5 | Tetrachloro-m-xylene |
| 8.250 | 0.000 | 751347 | 8.909 | 0.000 | 1222335 | 10.0254 | 10.2072 | 1.8 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 24.3 | 26.2 | 24.3~ | 115- 0 |
| Decachlorobiphenyl | 25.1 | 25.5 | 25.1~ | 115- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

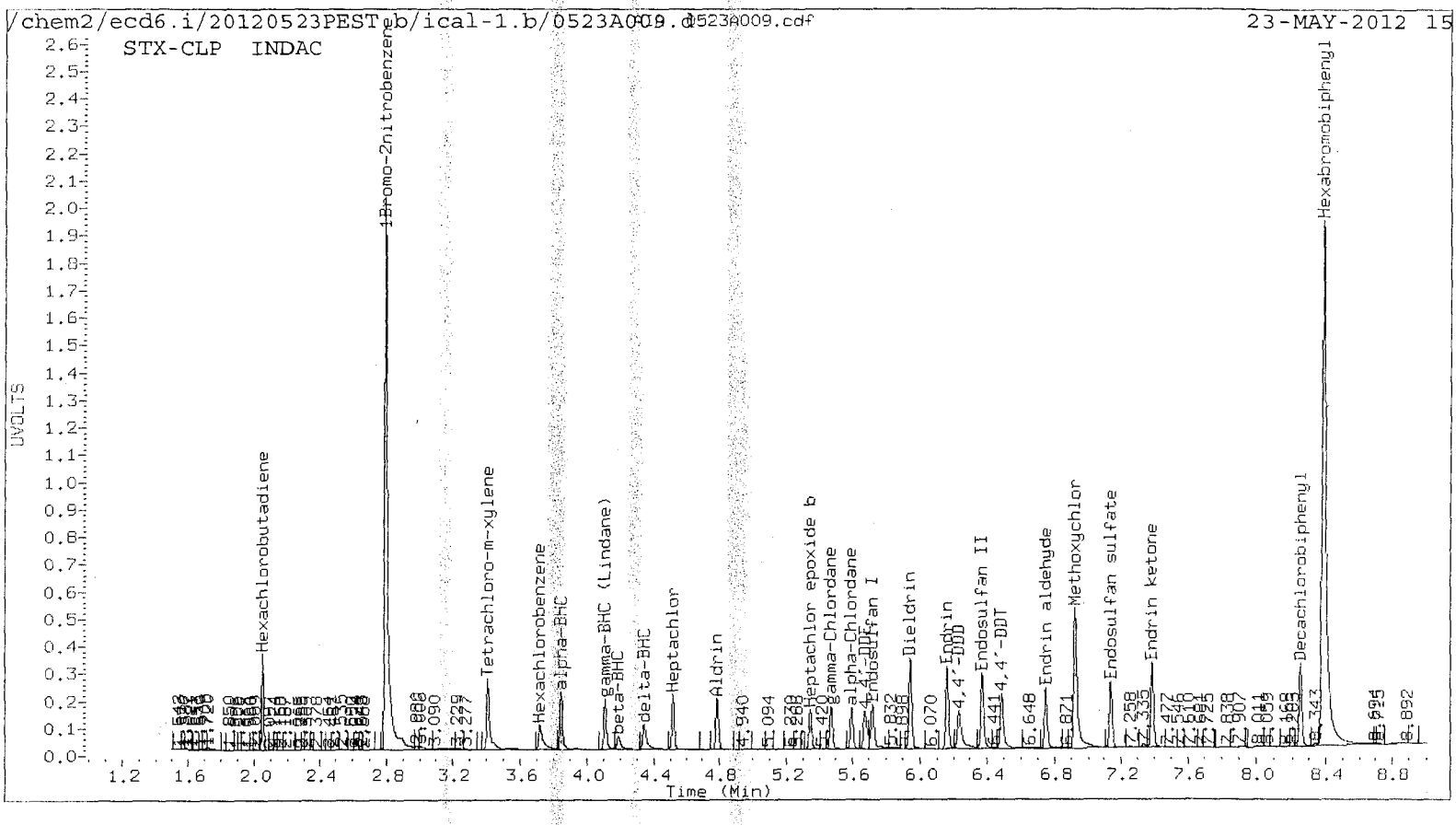
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 5097624 | 5.3 |
| Hexabromobiphenyl | 6506091 | 6671309 | 2.5 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 15963413 | -1.6 |
| Hexabromobiphenyl | 8472750 | 8650070 | 2.1 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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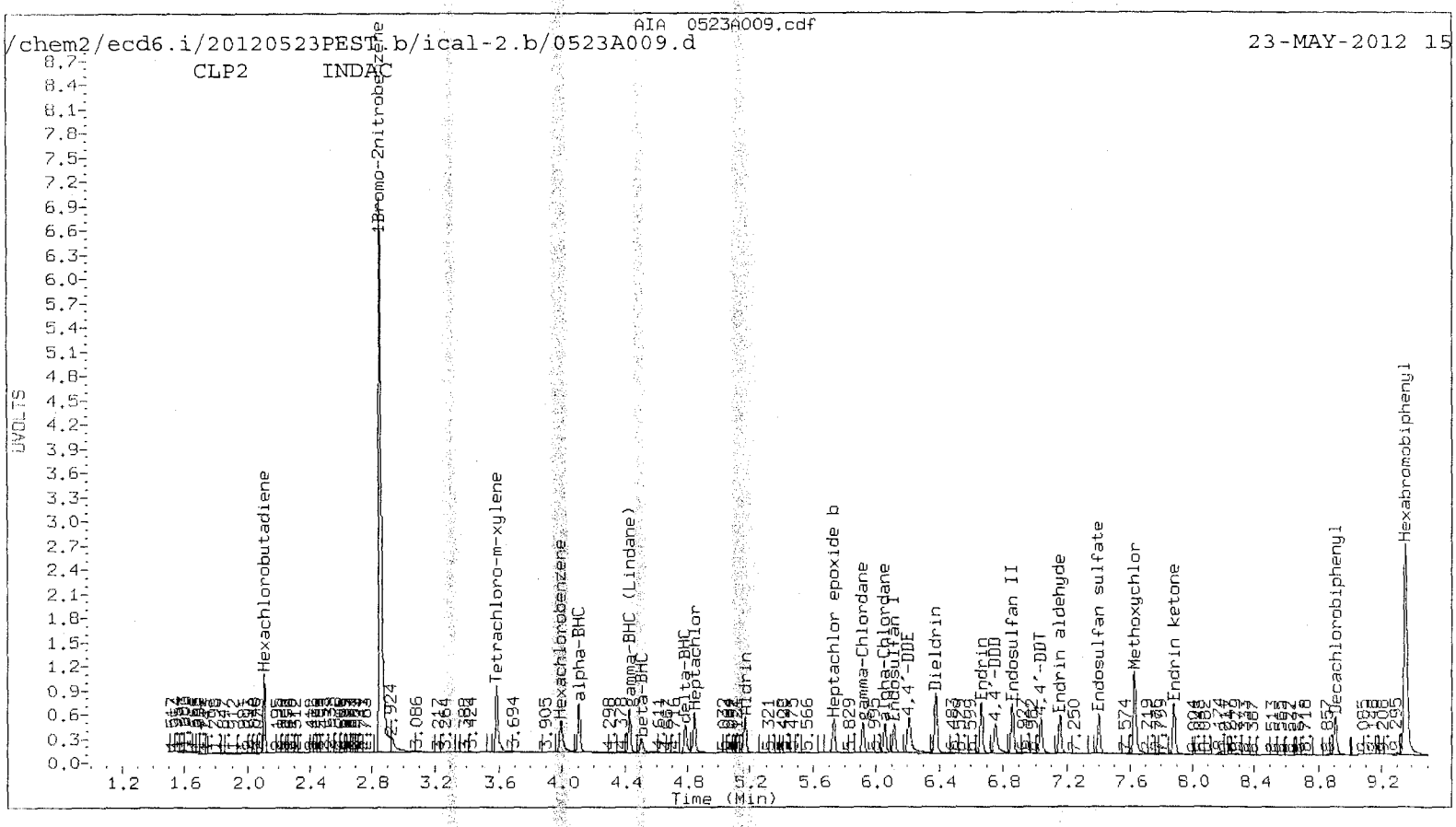
AIA 0523A009.cdf
23-MAY-2012 15
STX-CLP INDAC
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0523A009.cdf
23-MAY-2012 15
CLP2 INDAC
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A010.d ARI ID: INDAD
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A010.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 15:41
Compound Sublist: INDA Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.796 | 0.000 | 4846850 | 2.855 | 0.000 | 16200736 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.846 | -0.001 | 993264 | 4.107 | -0.001 | 2788103 | 10.2710 | 10.1066 | 1.6 | alpha-BHC |
| 4.185 | 0.003 | 353763 | 4.503 | 0.001 | 1022509 | 9.8075 | 9.6353 | 1.8 | beta-BHC |
| 4.340 | 0.003 | 685083 | 4.784 | 0.001 | 1890714 | 9.7100 | 9.6018 | 1.1 | delta-BHC |
| 4.106 | 0.000 | 818658 | 4.428 | -0.001 | 2310686 | 10.0917 | 9.8167 | 2.8 | gamma-BHC (Lindane) |
| 4.517 | -0.001 | 911843 | 4.849 | -0.001 | 2390915 | 10.1825 | 10.0932 | 0.9 | Heptachlor |
| 4.787 | 0.000 | 836615 | 5.170 | -0.001 | 2041103 | 10.1854 | 9.9411 | 2.4 | Aldrin |
| 5.345 | 0.000 | 732359 | 5.733 | 0.000 | 1959508 | 10.0126 | 9.8375 | 1.8 | Heptachlor epoxide b |
| 5.721 | 0.000 | 1019972 | 6.117 | 0.000 | 1691554 | 10.3311 | 9.7568 | 5.7 | Endosulfan I |
| 5.946 | -0.001 | 1612307 | 6.377 | 0.000 | 3596377 | 20.5110 | 20.0659 | 2.2 | Dieldrin |
| 5.674 | 0.005 | 953312 | 6.211 | 0.003 | 3050124 | 19.1704 | 19.2426 | 0.4 | 4,4'-DDE |
| 6.163 | -0.001 | 1438323 | 6.664 | 0.000 | 2937191 | 20.4615 | 19.8554 | 3.0 | Endrin |
| 6.371 | 0.000 | 1389143 | 6.857 | 0.000 | 2974275 | 20.3055 | 19.8443 | 2.3 | Endosulfan II |
| 6.231 | 0.003 | 1085771 | 6.751 | 0.002 | 2353314 | 19.6173 | 19.0372 | 3.0 | 4,4'-DDD |
| 7.138 | 0.000 | 1201708 | 7.404 | 0.000 | 2287814 | 19.9797 | 19.8670 | 0.6 | Endosulfan sulfate |
| 6.485 | 0.001 | 1210817 | 7.035 | 0.002 | 2363116 | 19.9201 | 19.4136 | 2.6 | 4,4'-DDT |
| 6.924 | 0.001 | 3077505 | 7.630 | 0.001 | 5159905 | 99.3770 | 97.0402 | 2.4 | Methoxychlor |
| 7.388 | 0.000 | 1501282 | 7.882 | 0.000 | 2944817 | 19.6890 | 19.8633 | 0.9 | Endrin ketone |
| 6.748 | 0.000 | 1101601 | 7.159 | 0.001 | 2235417 | 19.9671 | 19.5823 | 1.9 | Endrin aldehyde |
| 5.470 | 0.000 | 783831 | 5.918 | 0.000 | 1822894 | 9.8831 | 9.8631 | 0.2 | gamma-Chlordane |
| 5.593 | 0.000 | 754191 | 6.057 | 0.000 | 1709018 | 9.9924 | 9.7164 | 2.8 | alpha-Chlordane |
| 2.053 | -0.001 | 1084226 | 2.112 | -0.001 | 2978384 | 10.1446 | 9.9452 | 2.0 | Hexachlorobutadiene |
| 3.719 | 0.002 | 651001 | 3.996 | 0.001 | 2467801 | 9.7654 | 9.7962 | 0.3 | Hexachlorobenzene |
| 8.390 | 0.000 | 6537086 | 9.355 | -0.001 | 8616973 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 3.407 | 0.001 | 1438731 | 3.588 | 0.000 | 4019617 | 20.0610 | 19.9939 | 0.3 | Tetrachloro-m-xylene |
| 8.250 | 0.000 | 1443026 | 8.908 | 0.000 | 2326383 | 19.6500 | 19.5013 | 0.8 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 50.2 | 50.0 | 50.0~ | 115- 0 |
| Decachlorobiphenyl | 49.1 | 48.8 | 48.8~ | 115- 0 |

~ Indicates recovery outside QC Limits

UU52:01227

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4846850 | 0.1 |
| Hexabromobiphenyl | 6506091 | 6537086 | 0.5 |

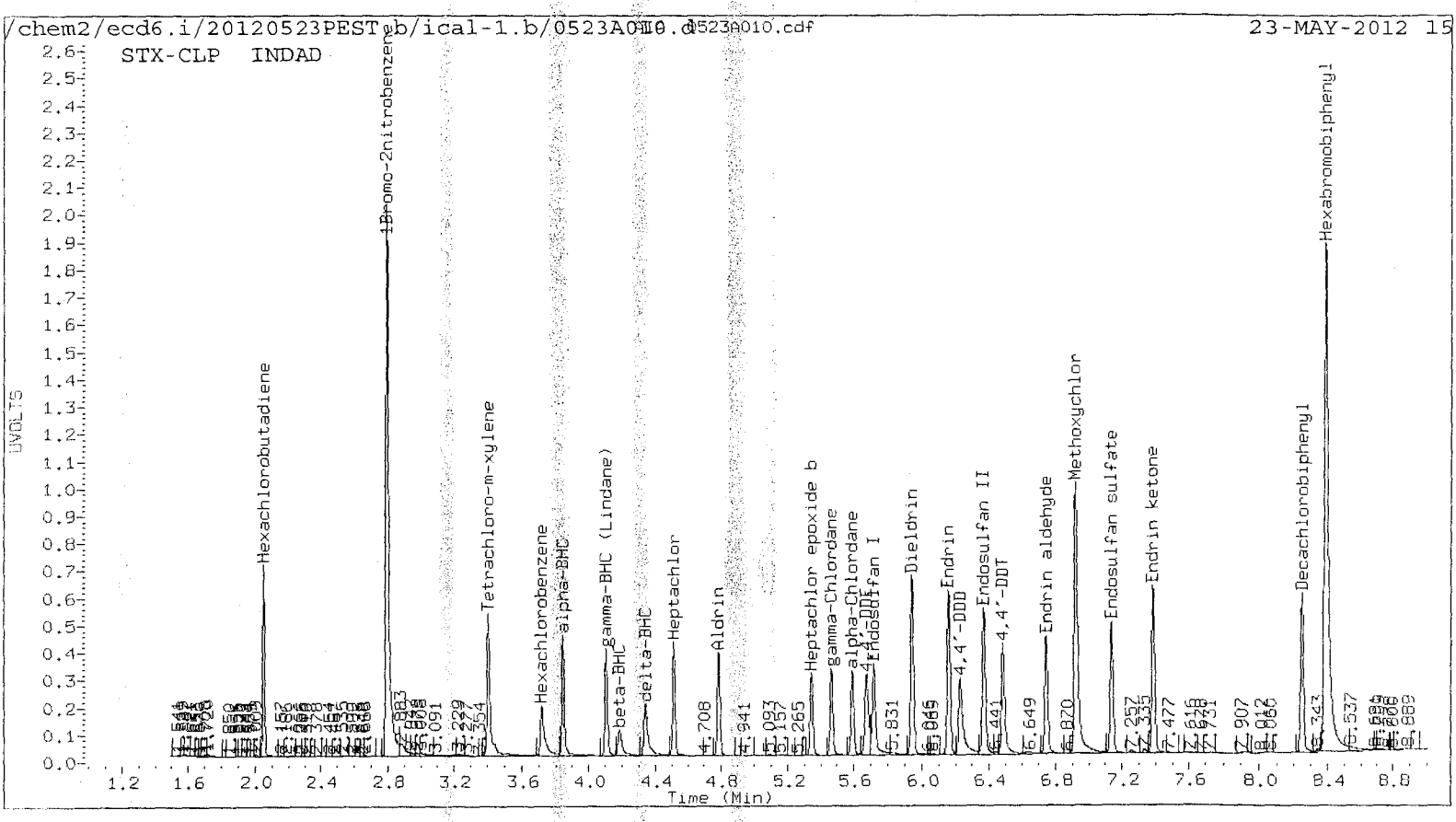
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 16200736 | -0.2 |
| Hexabromobiphenyl | 8472750 | 8616973 | 1.7 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |

UU52:01228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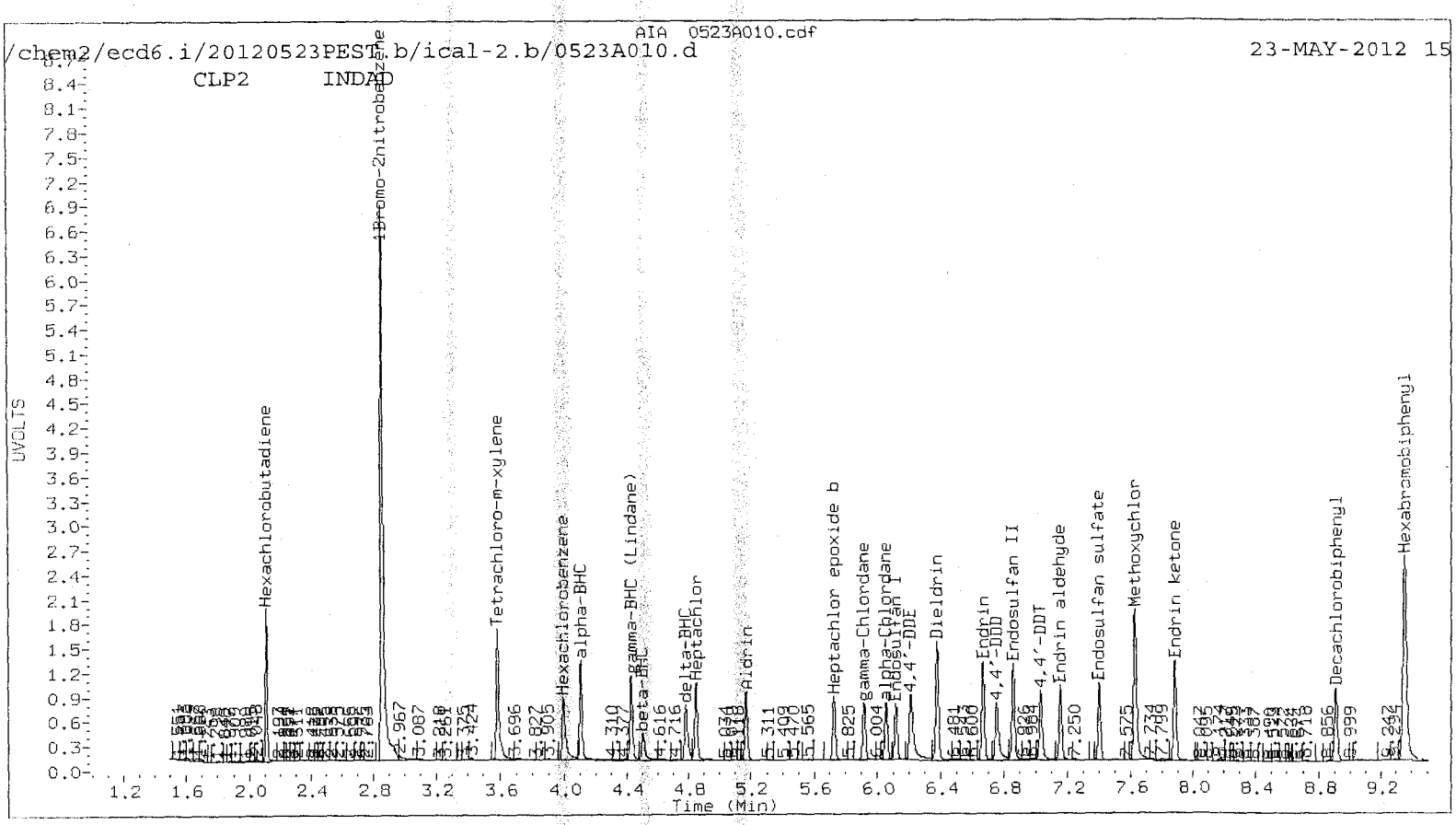
0523A010.cdf
23-MAY-2012 15
STX-CLP INDAD
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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23-MAY-2012 15
CLP2 INDAD
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

USS2 : 01225

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A011.d ARI ID: INDAF
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A011.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 15:58
Compound Sublist: INDA Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.797 | 0.000 | 4867401 | 2.855 | 0.000 | 16682441 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.846 | 0.000 | 4154693 | 4.107 | 0.000 | 11255646 | 42.7810 | 39.6224 | 7.7 | alpha-BHC |
| 4.183 | 0.001 | 1465758 | 4.502 | 0.000 | 4026104 | 40.4643 | 36.8432 | 9.4 | beta-BHC |
| 4.338 | 0.001 | 3136677 | 4.783 | 0.000 | 8355316 | 44.2699 | 41.2064 | 7.2 | delta-BHC |
| 4.106 | 0.000 | 3476213 | 4.428 | -0.001 | 9410438 | 42.6707 | 38.8249 | 9.4 | gamma-BHC (Lindane) |
| 4.518 | 0.000 | 3718148 | 4.849 | 0.000 | 8819322 | 41.3451 | 36.1556 | 13.4 | Heptachlor |
| 4.787 | 0.000 | 3499920 | 5.170 | -0.001 | 7922388 | 42.4298 | 37.4716 | 12.4 | Aldrin |
| 5.346 | 0.000 | 2993614 | 5.732 | 0.000 | 7449545 | 40.7550 | 36.3198 | 11.5 | Heptachlor epoxide b |
| 5.722 | 0.000 | 3957874 | 6.117 | 0.000 | 6481871 | 39.9192 | 36.3075 | 9.5 | Endosulfan I |
| 5.946 | 0.000 | 6485958 | 6.377 | 0.000 | 13418392 | 82.1630 | 72.7059 | 12.2 | Dieldrin |
| 5.671 | 0.002 | 4634253 | 6.209 | 0.001 | 12144345 | 92.7979 | 74.4039 | 22.0 | 4,4'-DDE |
| 6.163 | 0.000 | 5814366 | 6.665 | 0.000 | 11084332 | 81.7990 | 74.8243 | 8.9 | Endrin |
| 6.371 | 0.000 | 5615499 | 6.858 | 0.000 | 11198816 | 81.1746 | 74.6130 | 8.4 | Endosulfan II |
| 6.228 | 0.001 | 4940166 | 6.749 | 0.000 | 9694313 | 88.2691 | 78.3118 | 12.0 | 4,4'-DDD |
| 7.138 | 0.000 | 4880727 | 7.405 | 0.001 | 8810610 | 80.2489 | 76.4021 | 4.9 | Endosulfan sulfate |
| 6.484 | 0.000 | 5393463 | 7.035 | 0.001 | 9738463 | 87.7497 | 79.8911 | 9.4 | 4,4'-DDT |
| 6.923 | 0.000 | 12257760 | 7.630 | 0.001 | 17292597 | 391.4383 | 324.7559 | 18.6 | Methoxychlor |
| 7.388 | 0.000 | 5962994 | 7.882 | 0.001 | 11064087 | 77.3376 | 74.5239 | 3.7 | Endrin ketone |
| 6.749 | 0.000 | 4437890 | 7.158 | 0.000 | 8476984 | 79.5487 | 74.1538 | 7.0 | Endrin aldehyde |
| 5.470 | 0.000 | 3288931 | 5.918 | 0.000 | 7148864 | 41.2940 | 37.5635 | 9.5 | gamma-Chlordane |
| 5.594 | 0.000 | 3100743 | 6.057 | 0.000 | 6665901 | 40.9089 | 36.8037 | 10.6 | alpha-Chlordane |
| 2.053 | 0.000 | 4225104 | 2.112 | 0.000 | 11075928 | 39.3656 | 35.9159 | 9.2 | Hexachlorobutadiene |
| 3.718 | 0.001 | 2609181 | 3.995 | 0.000 | 9749094 | 38.9742 | 37.5825 | 3.6 | Hexachlorobenzene |
| 8.390 | 0.001 | 6610265 | 9.355 | -0.001 | 8629150 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 3.406 | 0.000 | 5645105 | 3.588 | 0.000 | 15496769 | 78.3802 | 74.8564 | 4.6 | Tetrachloro-m-xylene |
| 8.251 | 0.000 | 5480778 | 8.909 | 0.000 | 8727379 | 73.8068 | 73.0553 | 1.0 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 196.0 | 187.1 | 187.1~ | 115- 0 |
| Decachlorobiphenyl | 184.5 | 182.6 | 182.6~ | 115- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

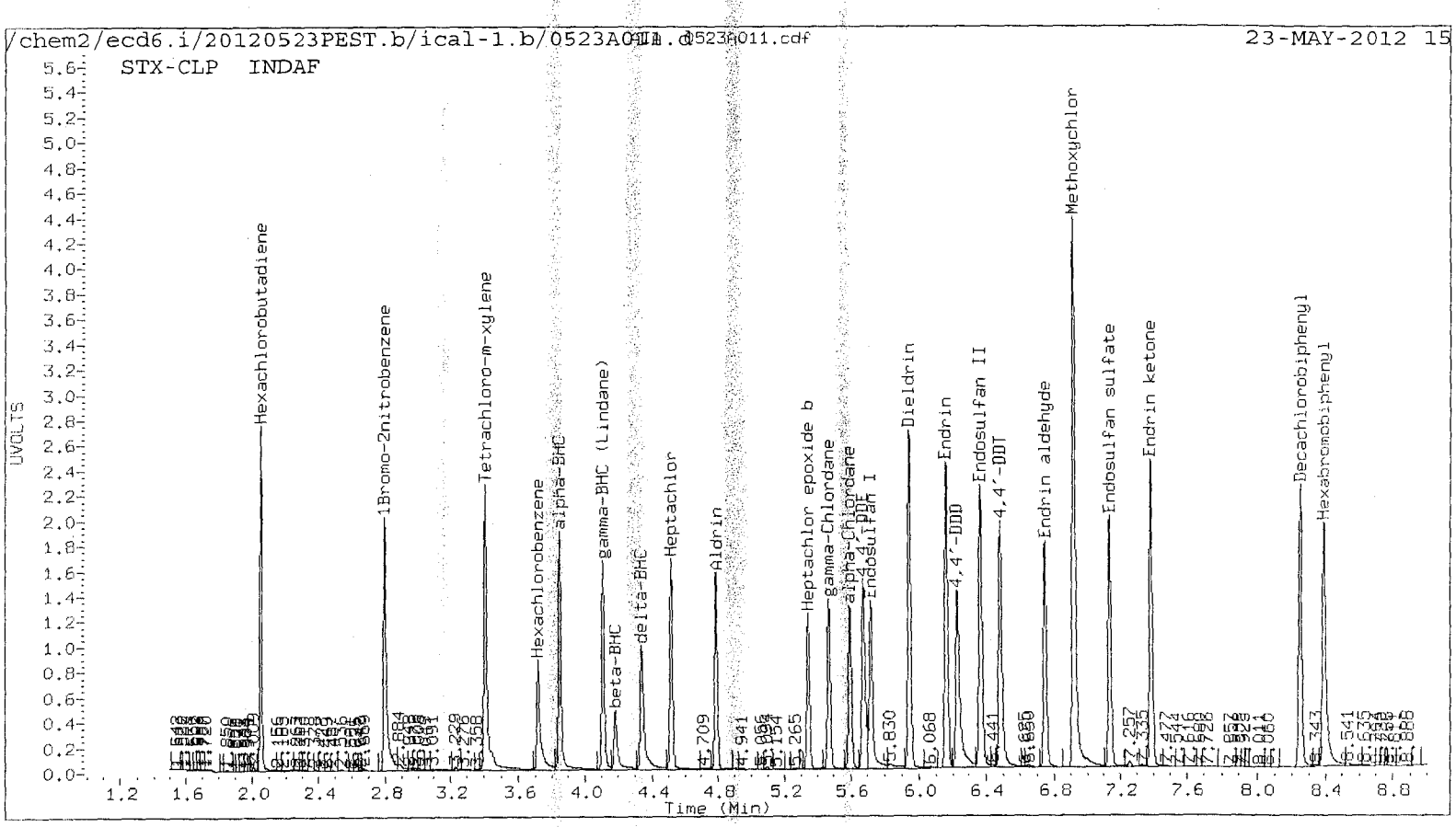
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4867401 | 0.5 |
| Hexabromobiphenyl | 6506091 | 6610265 | 1.6 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 16682441 | 2.8 |
| Hexabromobiphenyl | 8472750 | 8629150 | 1.8 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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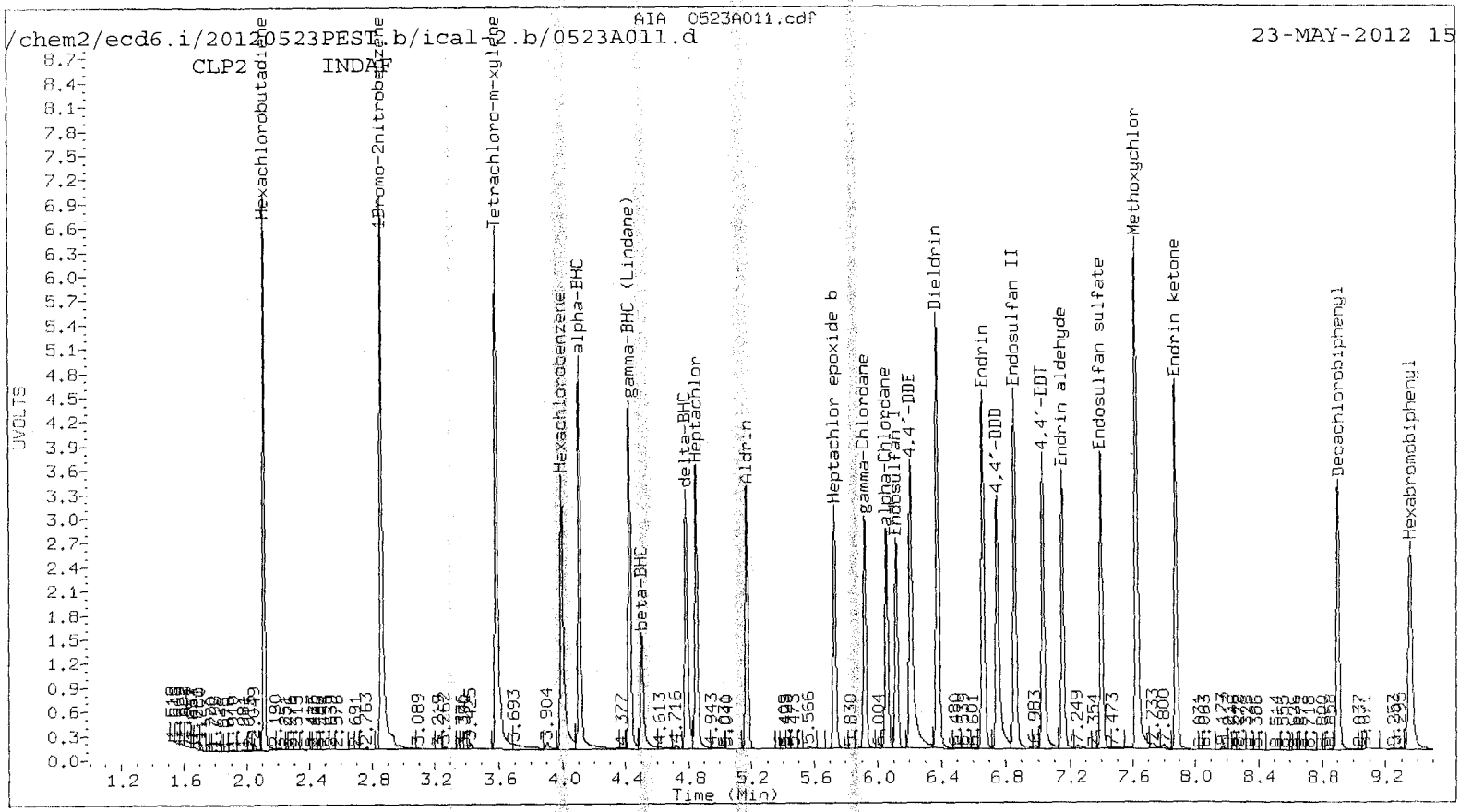
AIA 0523A011.cdf
23-MAY-2012 15
STX-CLP INDAF
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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/chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A011.d
23-MAY-2012 15
CLP2 INDAF
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

UU52:01232

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A012.d ARI ID: INDAG
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A012.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 16:16
Compound Sublist: INDA Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.797 | 0.001 | 4944488 | 2.855 | 0.000 | 15540466 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.847 | 0.000 | 8408496 | 4.108 | 0.000 | 21853886 | 85.2327 | 82.5837 | 3.2 | alpha-BHC |
| 4.182 | 0.000 | 2962525 | 4.502 | 0.000 | 7798154 | 80.5095 | 76.6054 | 5.0 | beta-BHC |
| 4.337 | 0.000 | 6518750 | 4.782 | 0.000 | 16673404 | 90.5689 | 88.2716 | 2.6 | delta-BHC |
| 4.106 | 0.000 | 7085521 | 4.429 | 0.000 | 18362931 | 85.6191 | 81.3276 | 5.1 | gamma-BHC (Lindane) |
| 4.518 | 0.000 | 7355541 | 4.849 | 0.000 | 16213440 | 80.5171 | 71.3527 | 12.1 | Heptachlor |
| 4.787 | 0.000 | 6989667 | 5.171 | 0.000 | 14980751 | 83.4153 | 76.0634 | 9.2 | Aldrin |
| 5.346 | 0.000 | 5980009 | 5.733 | 0.000 | 13922744 | 80.1425 | 72.8676 | 9.5 | Heptachlor epoxide b |
| 5.722 | 0.000 | 7555767 | 6.118 | 0.000 | 12252001 | 75.0195 | 73.6714 | 1.8 | Endosulfan I |
| 5.946 | 0.000 | 12889489 | 6.377 | 0.000 | 24993829 | 160.7362 | 145.3776 | 10.0 | Dieldrin |
| 5.670 | 0.000 | 9875323 | 6.208 | 0.000 | 23322294 | 194.6640 | 153.3869 | 23.7 | 4,4'-DDE |
| 6.163 | 0.000 | 11557288 | 6.664 | 0.000 | 20579878 | 156.8271 | 135.5383 | 14.6 | Endrin |
| 6.371 | 0.000 | 11198451 | 6.857 | 0.000 | 20802640 | 156.1381 | 135.2219 | 14.4 | Endosulfan II |
| 6.227 | 0.000 | 10183310 | 6.749 | 0.000 | 18958552 | 175.4994 | 149.4176 | 16.1 | 4,4'-DDD |
| 7.138 | 0.000 | 9806489 | 7.404 | 0.000 | 16828418 | 155.5205 | 142.3734 | 8.8 | Endosulfan sulfate |
| 6.483 | 0.000 | 11065375 | 7.034 | 0.000 | 19097615 | 173.6454 | 152.8528 | 12.7 | 4,4'-DDT |
| 6.923 | 0.000 | 24605198 | 7.629 | 0.000 | 31657500 | 757.8766 | 580.0423 | 26.6 | Methoxychlor |
| 7.388 | 0.000 | 11969831 | 7.881 | 0.000 | 20812352 | 149.7387 | 136.7689 | 9.1 | Endrin ketone |
| 6.748 | 0.000 | 8853574 | 7.158 | 0.000 | 16050444 | 153.0717 | 136.9826 | 11.1 | Endrin aldehyde |
| 5.470 | 0.000 | 6605916 | 5.918 | 0.000 | 13687865 | 81.6471 | 77.2077 | 5.6 | gamma-Chlordane |
| 5.594 | 0.000 | 6259683 | 6.057 | 0.000 | 12857873 | 81.2980 | 76.2074 | 6.5 | alpha-Chlordane |
| 2.053 | 0.000 | 8418309 | 2.113 | 0.000 | 21725328 | 77.2112 | 75.6256 | 2.1 | Hexachlorobutadiene |
| 3.717 | 0.000 | 5285530 | 3.995 | 0.000 | 18905591 | 77.7207 | 78.2361 | 0.7 | Hexachlorobenzene |
| 8.390 | 0.001 | 6853296 | 9.355 | -0.001 | 8844674 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 3.406 | 0.000 | 9861175 | 3.588 | 0.000 | 29972046 | 134.7842 | 155.4174 | 14.2 | Tetrachloro-m-xylene |
| 8.250 | 0.000 | 10915123 | 8.908 | 0.000 | 17047413 | 141.7757 | 139.2235 | 1.8 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 337.0 | 388.5 | 337.0~ | 115- 0 |
| Decachlorobiphenyl | 354.4 | 348.1 | 348.1~ | 115- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4944488 | 2.1 |
| Hexabromobiphenyl | 6506091 | 6853296 | 5.3 |

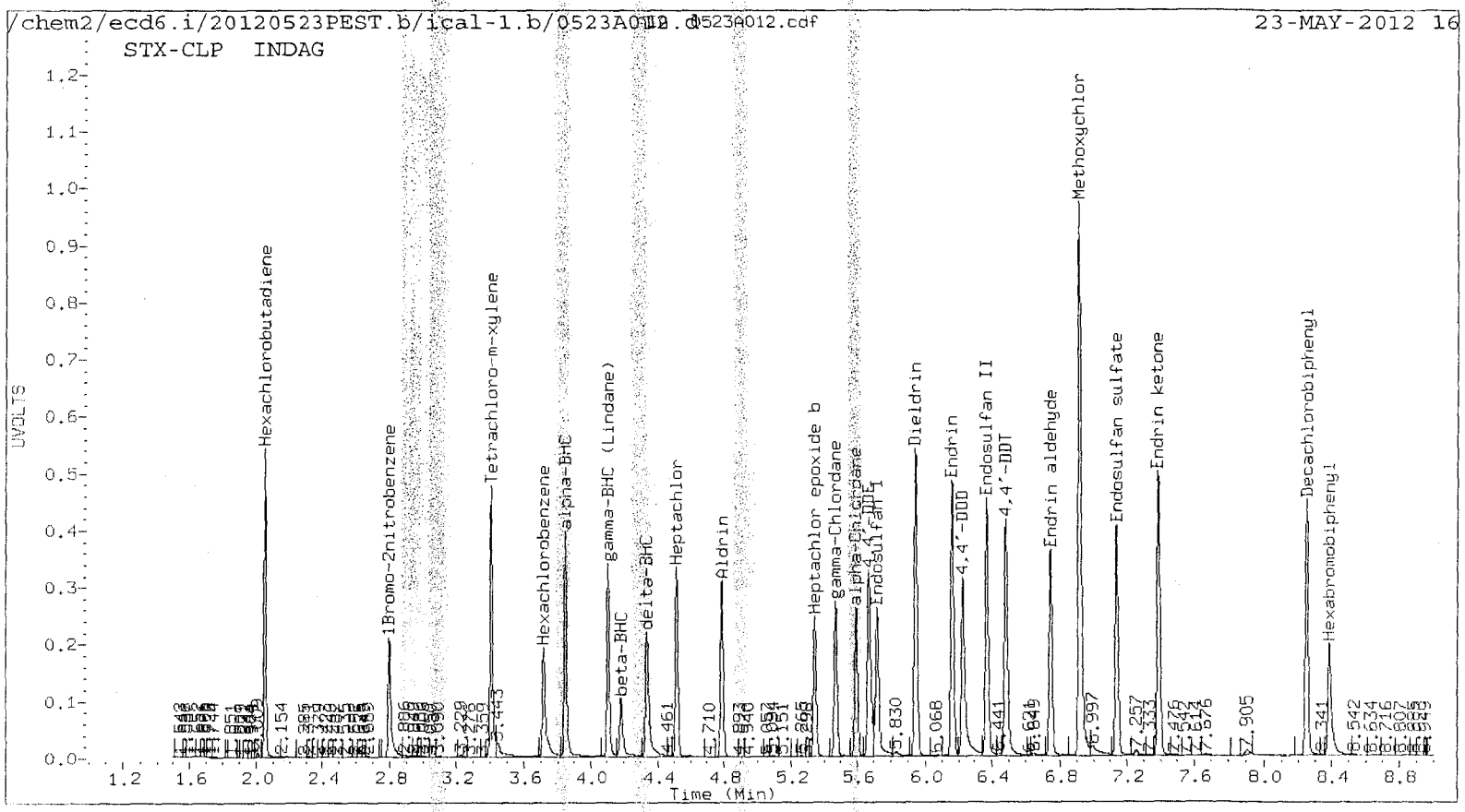
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 15540466 | -4.2 |
| Hexabromobiphenyl | 8472750 | 8844674 | 4.4 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |

UU52:01234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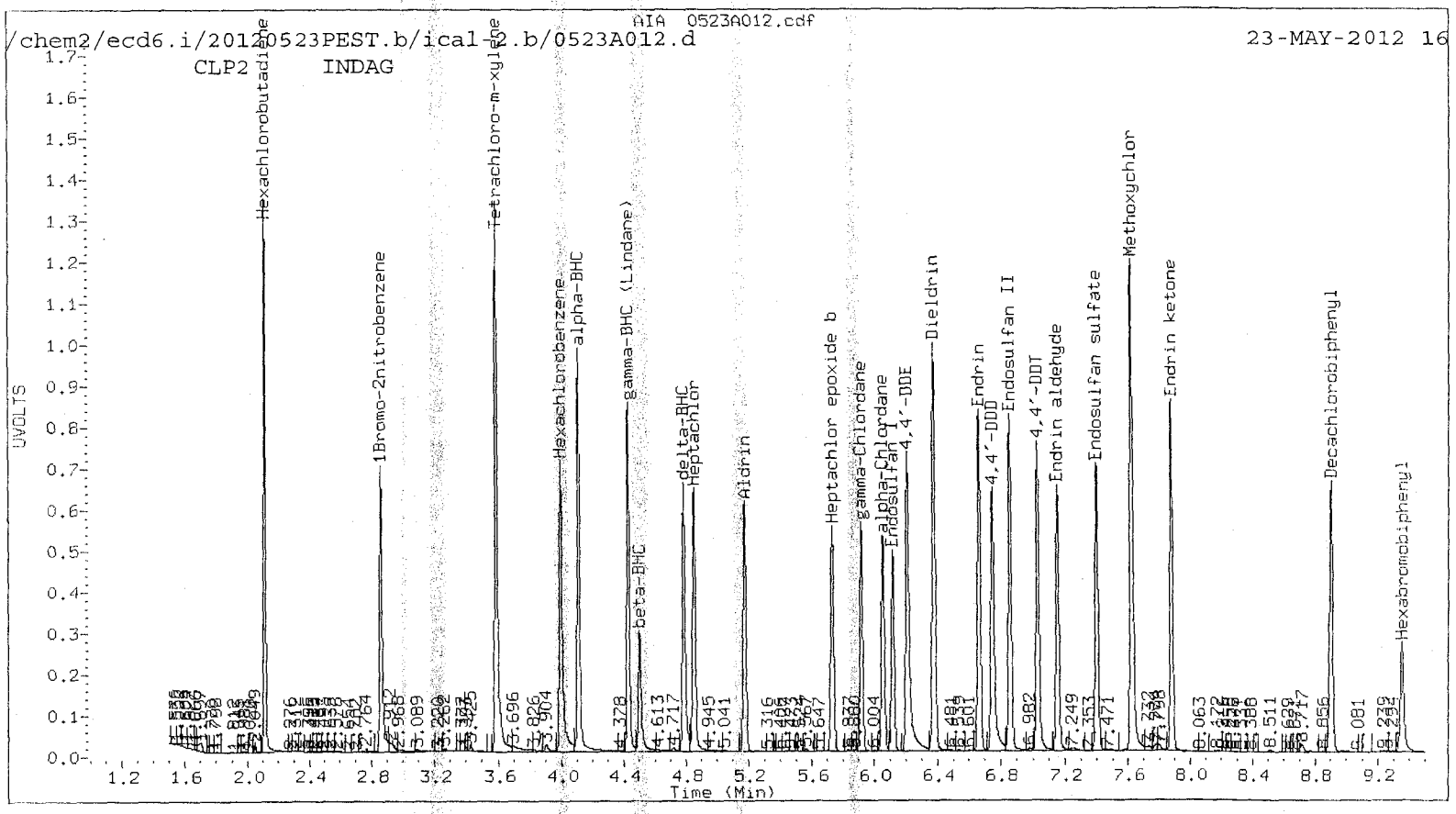
0523A012.cdf
23-MAY-2012 16
STX-CLP INDAG
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
4,4'-DDD
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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0523A012.cdf
23-MAY-2012 16
CLP2 INDAG
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
4,4'-DDD
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A015.d ARI ID: TOXAPH 2500
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A015.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 17:10
Compound Sublist: TOXAPH Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.796 | 0.000 | 4791619 | 2.855 | 0.000 | 16477086 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 8.391 | 0.001 | 6609775 | 9.356 | 0.000 | 8490411 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 3.407 | 0.001 | 2344294 | 3.589 | 0.001 | 6723393 | 33.0645 | 32.8818 | 0.6 | Tetrachloro-m-xylene |
| 8.251 | 0.000 | 2573992 | 8.908 | 0.000 | 3958796 | 34.6652 | 33.6799 | 2.9 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 82.7 | 82.2 | 82.2~ | 150- 0 |
| Decachlorobiphenyl | 86.7 | 84.2 | 84.2~ | 150- 0 |

~ Indicates recovery outside QC Limits

UU52:01236

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4791619 | -1.0 |
| Hexabromobiphenyl | 6506091 | 6609775 | 1.6 |

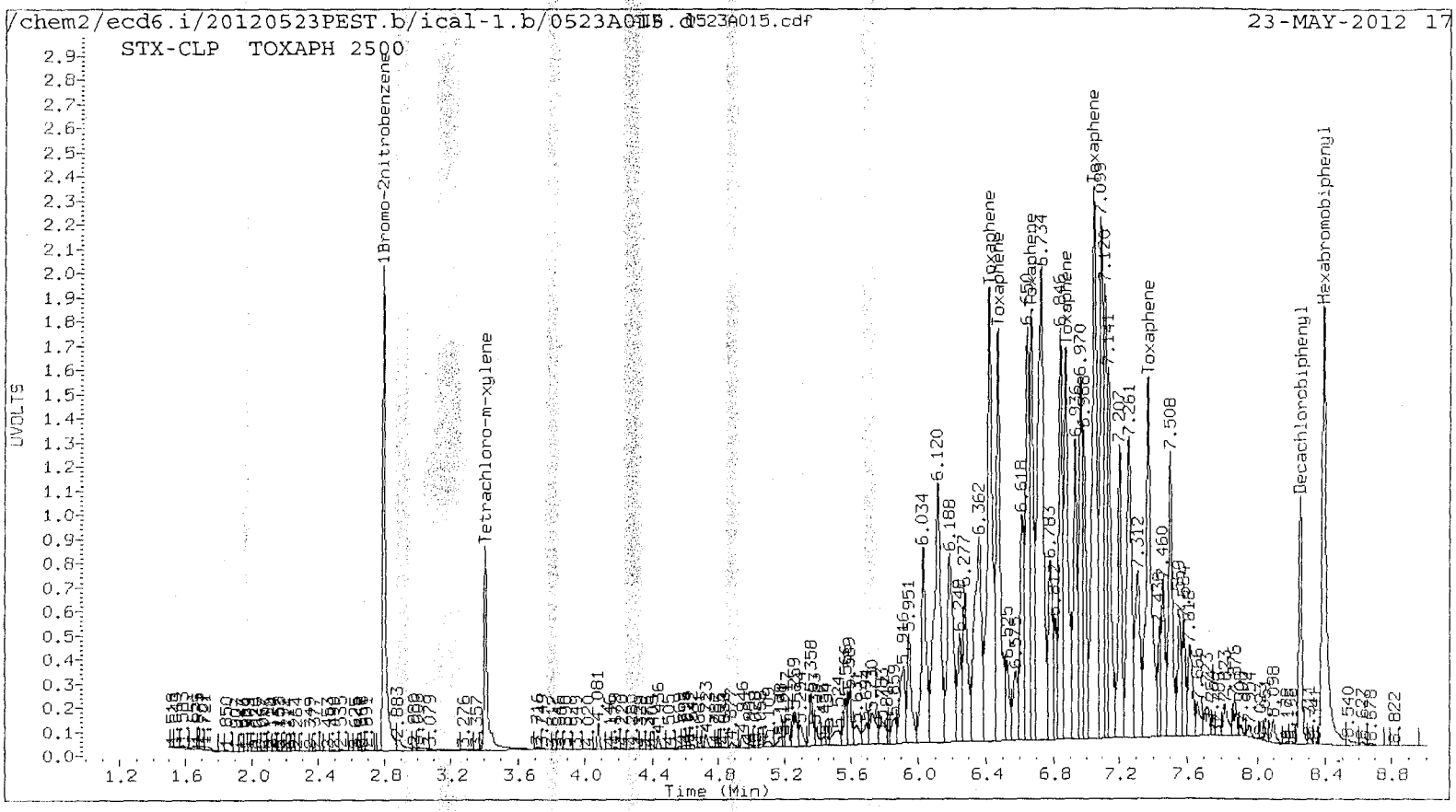
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 16477086 | 1.5 |
| Hexabromobiphenyl | 8472750 | 8490411 | 0.2 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount | |
| Toxaphene | 1 | 6.424 | 0.000 | 7853407 | 2500.000 | 1 | 6.607 | 0.000 | 11538802 | 2500.000 | |
| Toxaphene | 2 | 6.475 | 0.000 | 6015509 | 2500.000 | 2 | 6.931 | 0.000 | 17218598 | 2500.000 | |
| Toxaphene | 3 | 6.673 | 0.000 | 5544783 | 2500.000 | 3 | 7.165 | 0.000 | 18102742 | 2500.000 | |
| Toxaphene | 4 | 6.877 | 0.000 | 5963483 | 2500.000 | 4 | 7.625 | 0.000 | 14389141 | 2500.000 | |
| Toxaphene | 5 | 7.056 | 0.000 | 9090085 | 2500.000 | 5 | 7.670 | 0.000 | 19591746 | 2500.000 | |
| Toxaphene | 6 | 7.375 | 0.000 | 6370712 | 2500.000 | NS | --- | | | ---- | |
| Total STX-CLPAve (6 peaks): 2500.000 | | | | | | Total CLP2Ave (5 peaks): 2500.000 | | | | RPD = 0 | |
| Corrected Ave (6 peaks): 2500.000 | | | | | | Corrected Ave (5 peaks): 2500.000 | | | | RPD = 0 | |

UU52:01237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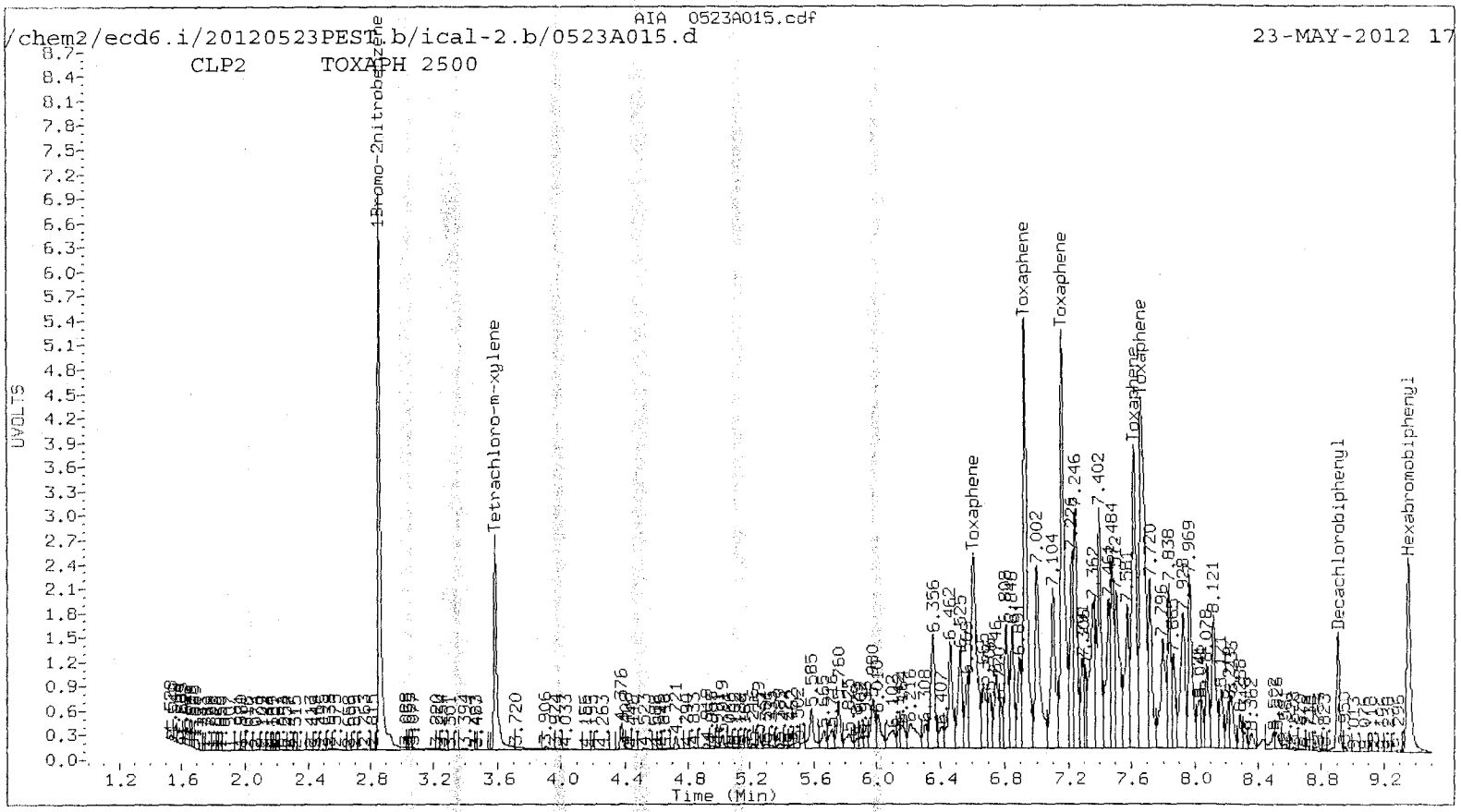
AIA 0523A015.cdf
23-MAY-2012 17
STX-CLP TOXAPH 2500
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl
UVOLTS
Time (Min)


/chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A015.d
AIA 0523A015.cdf
23-MAY-2012 17
CLP2 TOXAPH 2500
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl
UVOLTS
Time (Min)

US2:01238

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A016.d ARI ID: WNDE
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A016.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 17:27
Compound Sublist: WND Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 1.708 | -0.012 | 1684 | 1.743 | -0.027 | 2287 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 2.797 | 0.001 | 4835108 | 2.855 | 0.001 | 16832865 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 5.252 | 0.000 | 2484749 | 5.644 | 0.000 | 6257539 | 40.4455 | 38.0341 | 6.1 | Oxychlordane |
| 5.343 | 0.002 | 1806359 | 5.911 | 0.002 | 4051512 | 41.7532 | 37.8239 | 9.9 | 2,4-DDE |
| 5.581 | 0.000 | 3155299 | 6.007 | 0.000 | 6711636 | 40.1560 | 37.8112 | 6.0 | trans-Nonachlor |
| 5.832 | 0.002 | 1533008 | 6.400 | 0.002 | 3755364 | 38.4530 | 37.8870 | 1.5 | 2,4-DDD |
| 6.070 | 0.001 | 2128849 | 6.685 | 0.000 | 4171793 | 40.5326 | 38.7425 | 4.5 | 2,4-DDT |
| 6.198 | 0.000 | 3561502 | 6.733 | 0.000 | 6953265 | 40.9438 | 38.8449 | 5.3 | cis-Nonachlor |
| 7.063 | 0.000 | 2215404 | 7.862 | 0.000 | 3926734 | 38.4481 | 36.5034 | 5.2 | Mirex |
| 8.390 | 0.000 | 6638127 | 9.355 | -0.001 | 8707514 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 3.408 | 0.002 | 2519639 | 3.589 | 0.001 | 7470290 | 35.2179 | 35.7624 | 1.5 | Tetrachloro-m-xylene |
| 8.250 | 0.000 | 2589198 | 8.908 | 0.000 | 4073118 | 34.7210 | 33.7885 | 2.7 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 88.0 | 89.4 | 88.0~ | 150- 0 |
| Decachlorobiphenyl | 86.8 | 84.5 | 84.5~ | 150- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

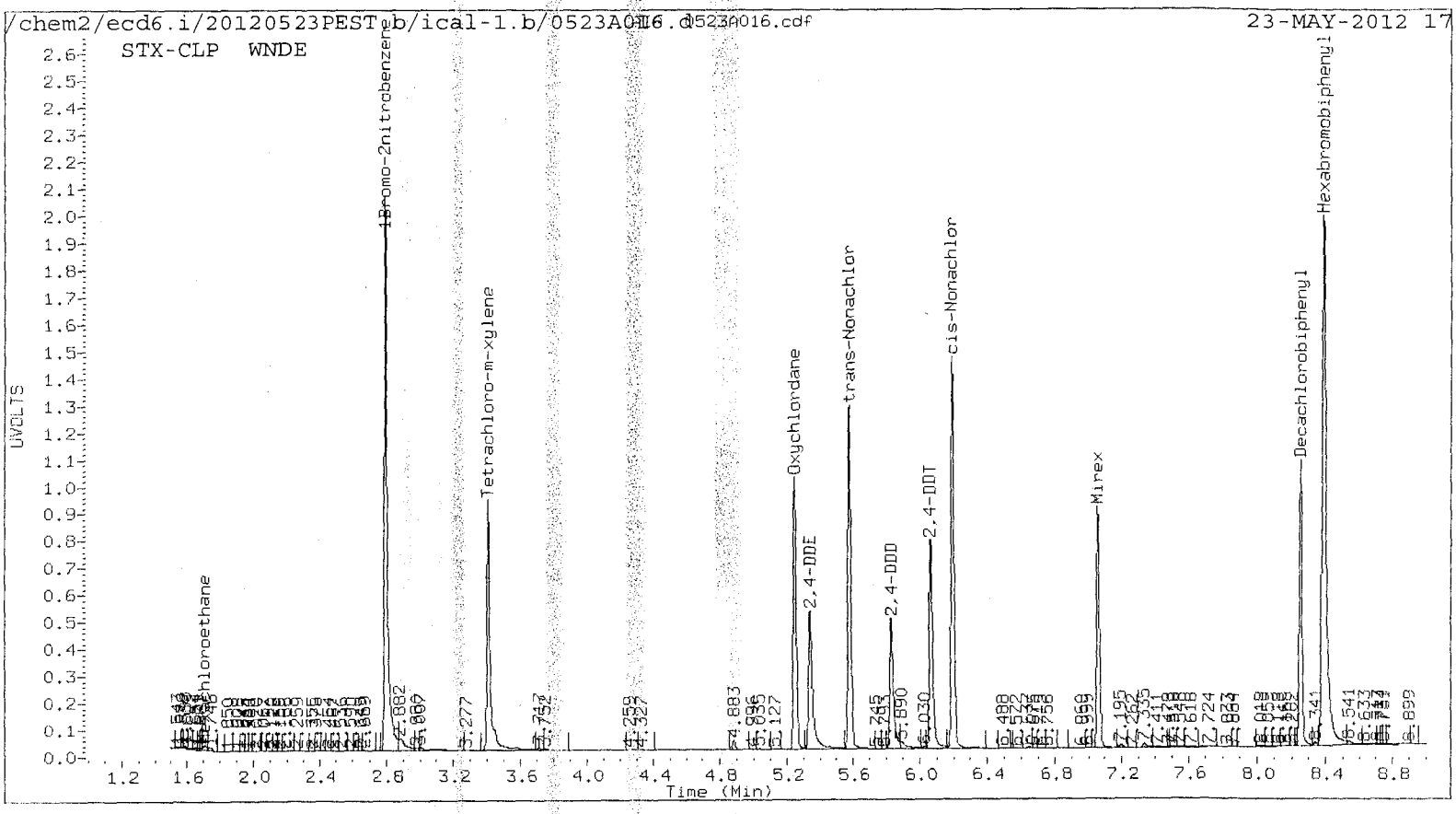
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4835108 | -0.1 |
| Hexabromobiphenyl | 6506091 | 6638127 | 2.0 |

Column 2

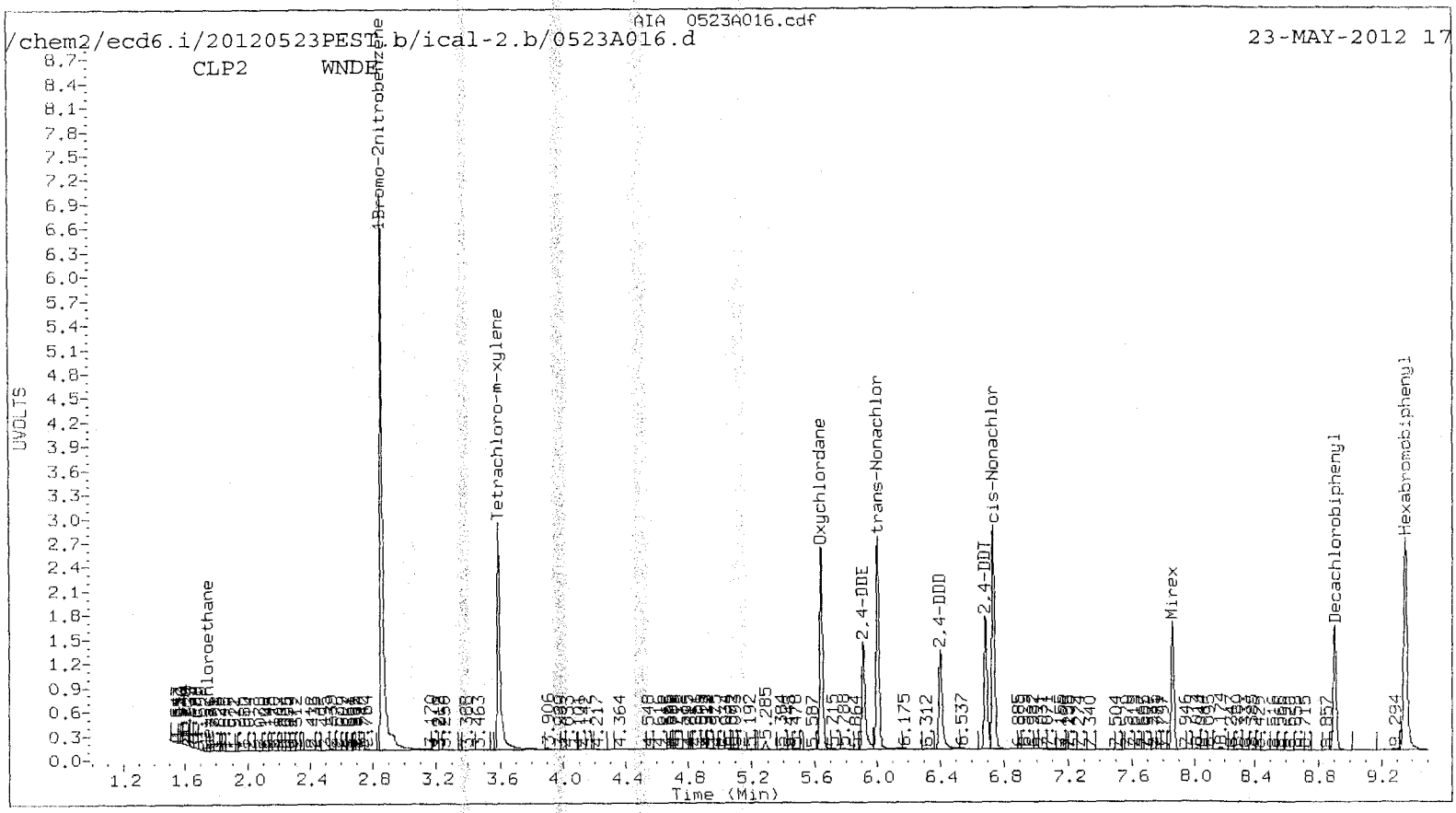
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 16832865 | 3.7 |
| Hexabromobiphenyl | 8472750 | 8707514 | 2.8 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | STX-CLP Col Peak# | RT | Shift | Height | Amount | CLP2 Col Peak# | RT | Shift | Height | Amount |
|---|---|---|---|---|---|---|---|---|---|---|




AIA 0523A016.cdf



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A017.d ARI ID: WNDA
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A017.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 17:45
Compound Sublist: WND Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 1.720 | 0.001 | 671 | 1.742 | -0.028 | 5350 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 2.796 | 0.000 | 4751592 | 2.854 | 0.000 | 16405407 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 5.252 | 0.001 | 160052 | 5.644 | 0.000 | 446452 | 2.6372 | 2.7843 | 5.4 | Oxychlordane |
| 5.346 | 0.004 | 111139 | 5.912 | 0.002 | 289432 | 2.6005 | 2.7725 | 6.4 | 2,4-DDE |
| 5.581 | 0.001 | 214870 | 6.006 | 0.000 | 538166 | 2.7681 | 3.1045 | 11.5 | trans-Nonachlor |
| 5.835 | 0.004 | 109933 | 6.401 | 0.002 | 292931 | 2.7913 | 3.0262 | 8.1 | 2,4-DDD |
| 6.071 | 0.002 | 140821 | 6.686 | 0.001 | 311009 | 2.7141 | 2.9575 | 8.6 | 2,4-DDT |
| 6.198 | 0.001 | 223213 | 6.734 | 0.000 | 503939 | 2.5976 | 2.8828 | 10.4 | cis-Nonachlor |
| 7.063 | 0.000 | 170143 | 7.862 | 0.000 | 343940 | 2.9890 | 3.2739 | 9.1 | Mirex |
| 8.390 | 0.000 | 6557663 | 9.355 | 0.000 | 8503685 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 3.409 | 0.003 | 175117 | 3.590 | 0.002 | 492485 | 2.4907 | 2.4191 | 2.9 | Tetrachloro-m-xylene |
| 8.250 | 0.000 | 205878 | 8.909 | 0.001 | 295996 | 2.7947 | 2.5143 | 10.6 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 6.2 | 6.0 | 6.0~ | 150- 0 |
| Decachlorobiphenyl | 7.0 | 6.3 | 6.3~ | 150- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

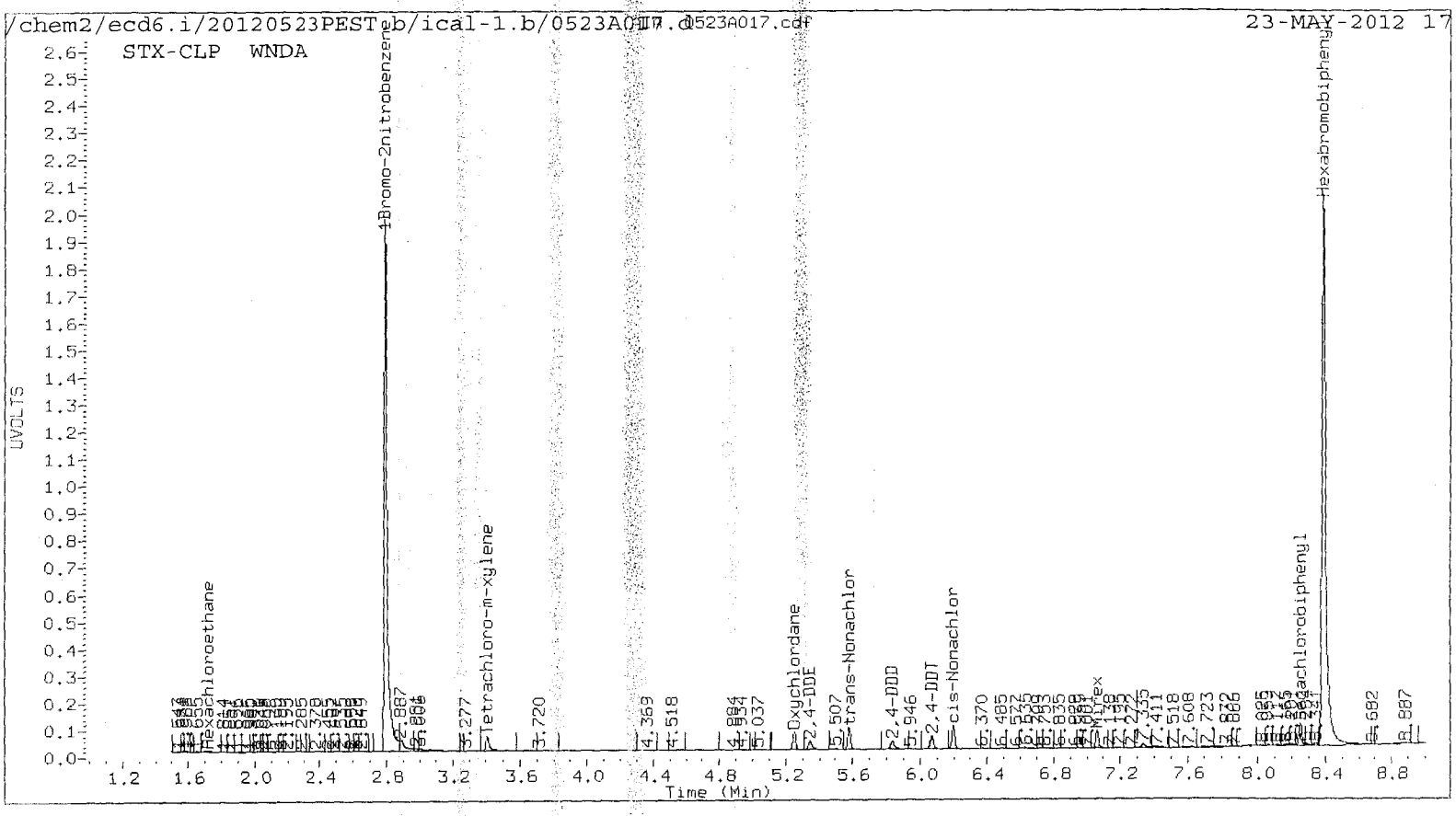
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4751592 | -1.9 |
| Hexabromobiphenyl | 6506091 | 6557663 | 0.8 |

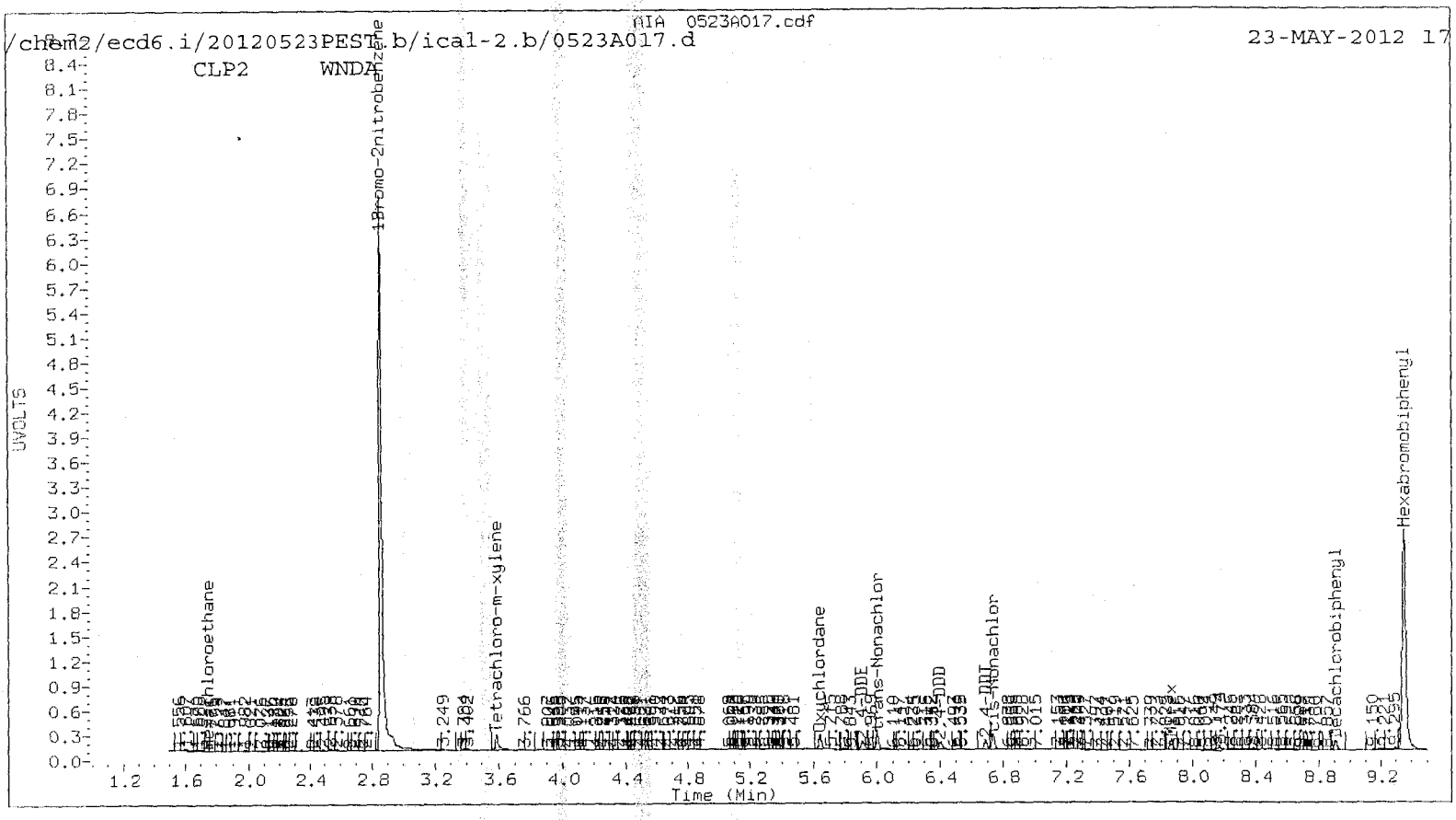
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 16405407 | 1.1 |
| Hexabromobiphenyl | 8472750 | 8503685 | 0.4 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | STX-CLP Col Peak# | RT | Shift | Height | Amount | CLP2 Col Peak# | RT | Shift | Height | Amount |
|---|---|---|---|---|---|---|---|---|---|---|


/chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A017.d
0523A017.cdf
23-MAY-2012 17
STX-CLP WNDA
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Hexachlorobiphenyl
Hexabromobiphenyl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/chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A017.d
23-MAY-2012 17
CLP2 WNDA
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
trans-Nonachlor
cis-Nonachlor
Hexachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A018.d ARI ID: WNDB
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A018.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 18:03
Compound Sublist: WND Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 1.720 | 0.001 | 716 | 1.743 | -0.027 | 6360 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 2.796 | 0.000 | 4969001 | 2.855 | 0.000 | 16776826 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 5.252 | 0.000 | 310432 | 5.643 | -0.001 | 876559 | 5.0644 | 5.3456 | 5.4 | Oxychlordane |
| 5.345 | 0.004 | 207183 | 5.912 | 0.003 | 589932 | 4.7996 | 5.5259 | 14.1 | 2,4-DDE |
| 5.581 | 0.000 | 392794 | 6.006 | 0.000 | 973333 | 5.0101 | 5.4986 | 9.3 | trans-Nonachlor |
| 5.834 | 0.004 | 198101 | 6.401 | 0.002 | 545319 | 4.9801 | 5.5168 | 10.2 | 2,4-DDD |
| 6.070 | 0.002 | 255993 | 6.685 | 0.000 | 576129 | 4.8849 | 5.3652 | 9.4 | 2,4-DDT |
| 6.198 | 0.000 | 424902 | 6.733 | 0.000 | 951412 | 4.8957 | 5.3298 | 8.5 | cis-Nonachlor |
| 7.063 | 0.000 | 303419 | 7.862 | -0.001 | 602158 | 5.2776 | 5.6132 | 6.2 | Mirex |
| 8.390 | 0.000 | 6623328 | 9.355 | 0.000 | 8683498 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 3.409 | 0.003 | 343862 | 3.589 | 0.001 | 979087 | 4.6768 | 4.7028 | 0.6 | Tetrachloro-m-xylene |
| 8.251 | 0.000 | 371153 | 8.908 | 0.000 | 591458 | 4.9883 | 4.9200 | 1.4 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 11.7 | 11.8 | 11.7~ | 150- 0 |
| Decachlorobiphenyl | 12.5 | 12.3 | 12.3~ | 150- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

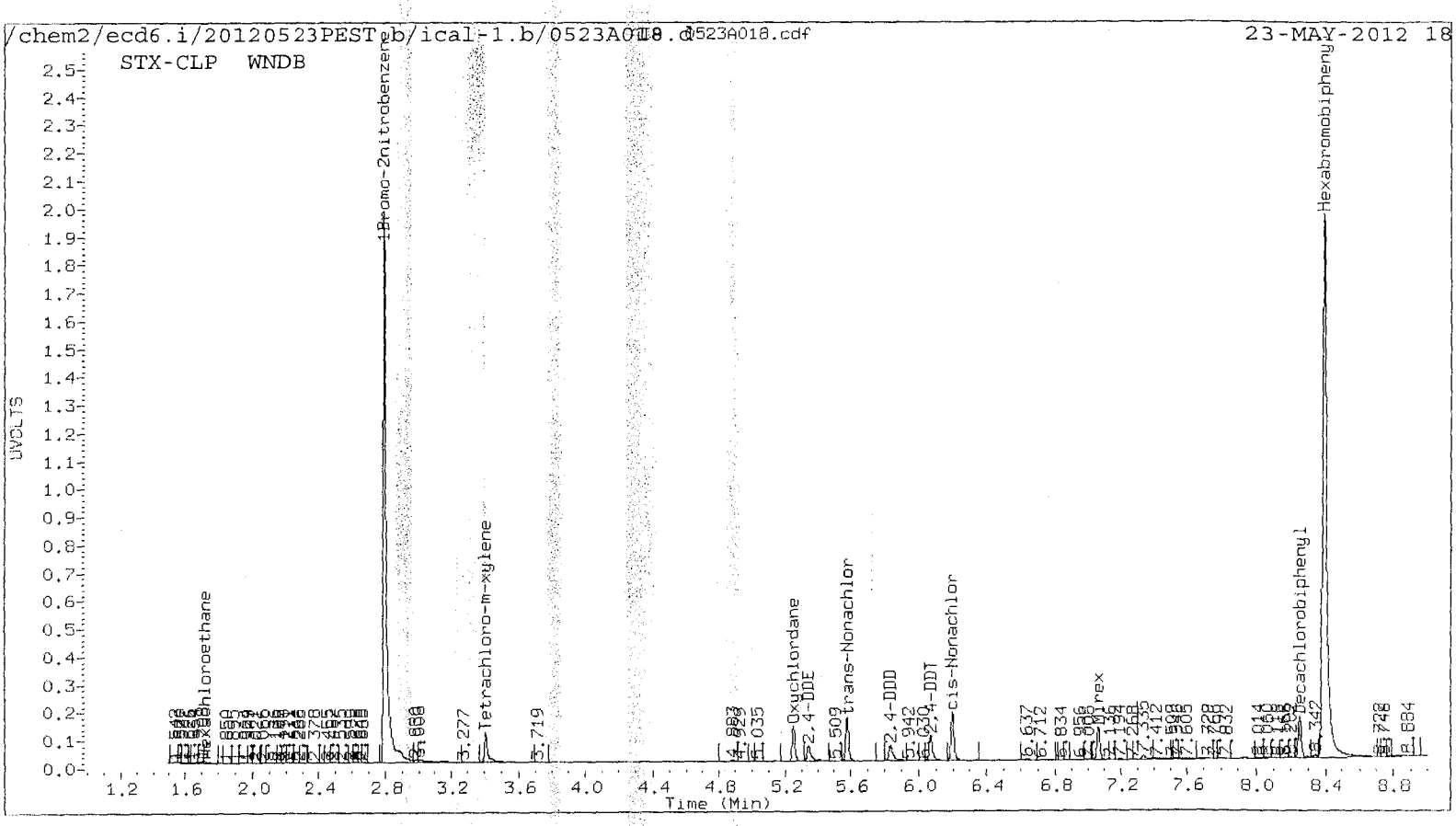
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4969001 | 2.6 |
| Hexabromobiphenyl | 6506091 | 6623328 | 1.8 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 16776826 | 3.4 |
| Hexabromobiphenyl | 8472750 | 8683498 | 2.5 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | STX-CLP Col Peak# | RT | Shift | Height | Amount | CLP2 Col Peak# | RT | Shift | Height | Amount |
|---|---|---|---|---|---|---|---|---|---|---|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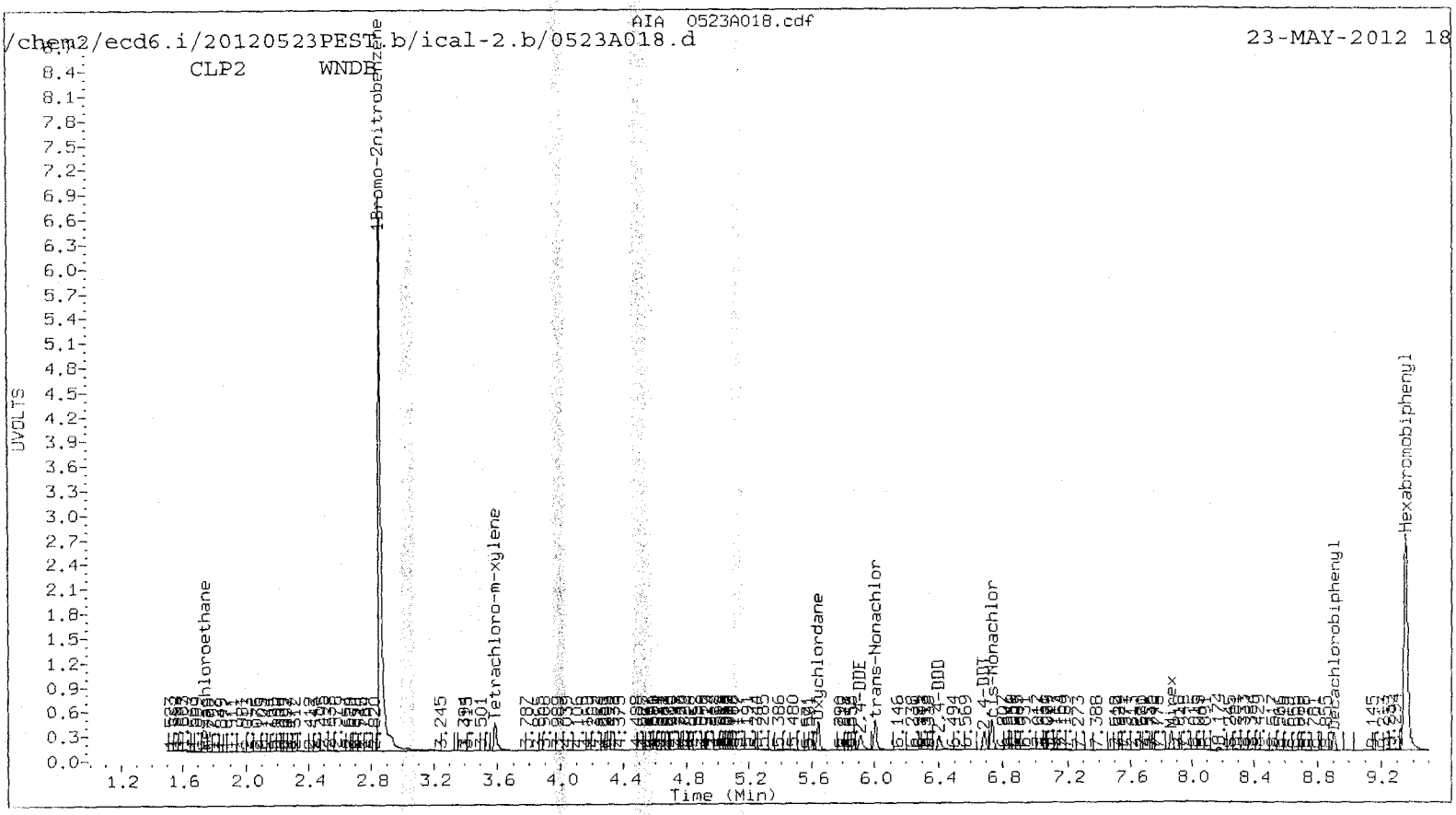
0523A018.cdf
23-MAY-2012 18
STX-CLP WNDB
UVOLTS
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)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23-MAY-2012 18
CLP2 WNDB
UVOLTS
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)

UU52:01247

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A019.d ARI ID: WNDC
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A019.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 18:21
Compound Sublist: WND Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 1.720 | 0.001 | 771 | 1.742 | -0.027 | 3926 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 2.796 | 0.000 | 5151057 | 2.855 | 0.001 | 17441474 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 5.252 | 0.000 | 621951 | 5.643 | -0.001 | 1686093 | 9.8127 | 9.8907 | 0.8 | Oxychlordane |
| 5.344 | 0.003 | 418608 | 5.912 | 0.002 | 1101527 | 9.3786 | 9.9247 | 5.7 | 2,4-DDE |
| 5.580 | 0.000 | 782897 | 6.006 | -0.001 | 1834116 | 9.6574 | 9.9624 | 3.1 | trans-Nonachlor |
| 5.834 | 0.004 | 404832 | 6.401 | 0.002 | 1039292 | 9.8425 | 10.1093 | 2.7 | 2,4-DDD |
| 6.070 | 0.002 | 514099 | 6.686 | 0.001 | 1104875 | 9.4875 | 9.8929 | 4.2 | 2,4-DDT |
| 6.198 | 0.000 | 862764 | 6.733 | 0.000 | 1860209 | 9.6137 | 10.0196 | 4.1 | cis-Nonachlor |
| 7.063 | 0.000 | 582103 | 7.862 | 0.000 | 1124184 | 9.7919 | 10.0759 | 2.9 | Mirex |
| 8.390 | 0.000 | 6848602 | 9.355 | 0.000 | 9031272 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 3.408 | 0.002 | 645430 | 3.589 | 0.002 | 1954069 | 8.4681 | 9.0283 | 6.4 | Tetrachloro-m-xylene |
| 8.250 | 0.000 | 700459 | 8.909 | 0.000 | 1118341 | 9.1044 | 8.9446 | 1.8 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 21.2 | 22.6 | 21.2~ | 150- 0 |
| Decachlorobiphenyl | 22.8 | 22.4 | 22.4~ | 150- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

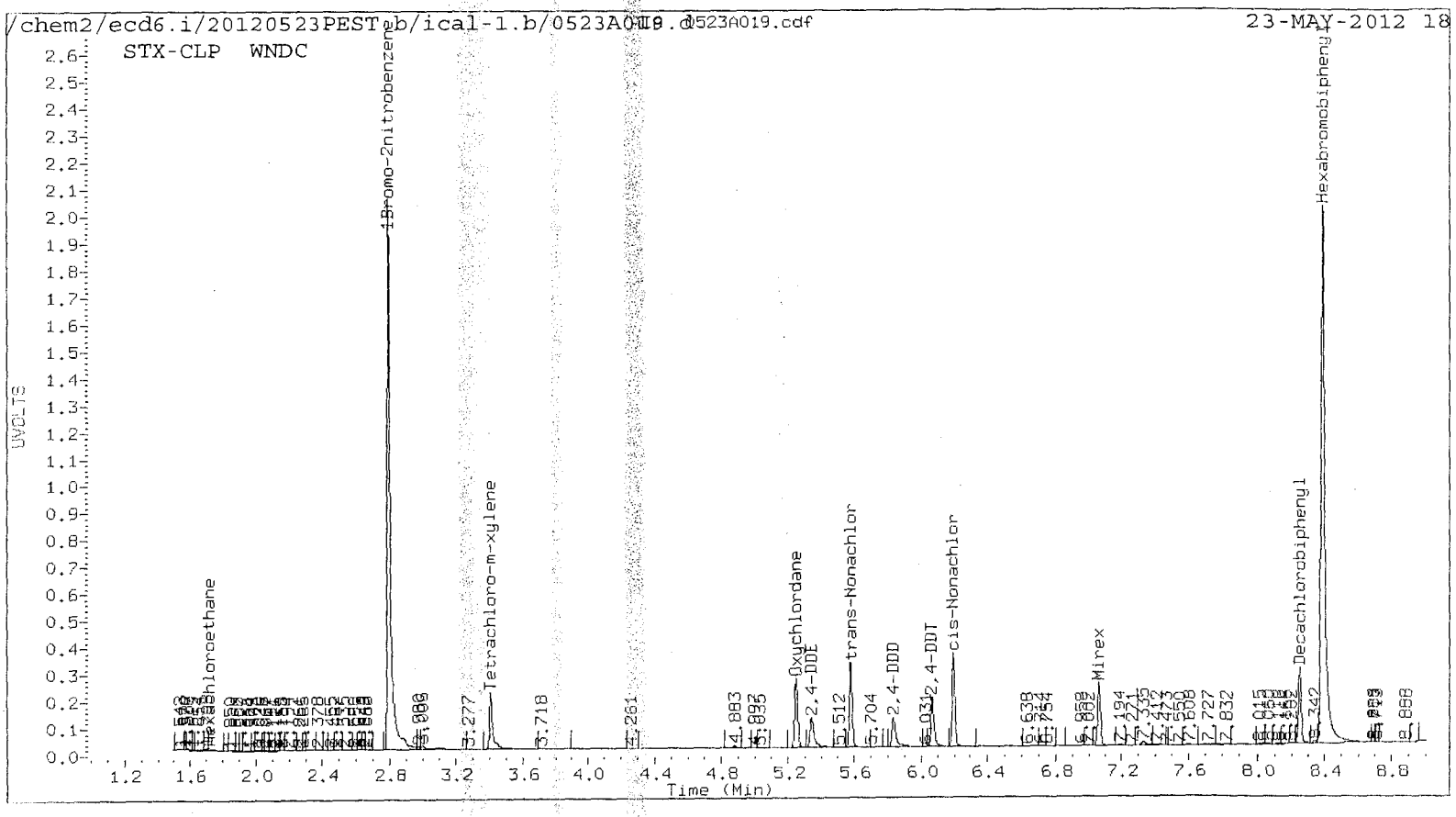
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 5151057 | 6.4 |
| Hexabromobiphenyl | 6506091 | 6848602 | 5.3 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 17441474 | 7.5 |
| Hexabromobiphenyl | 8472750 | 9031272 | 6.6 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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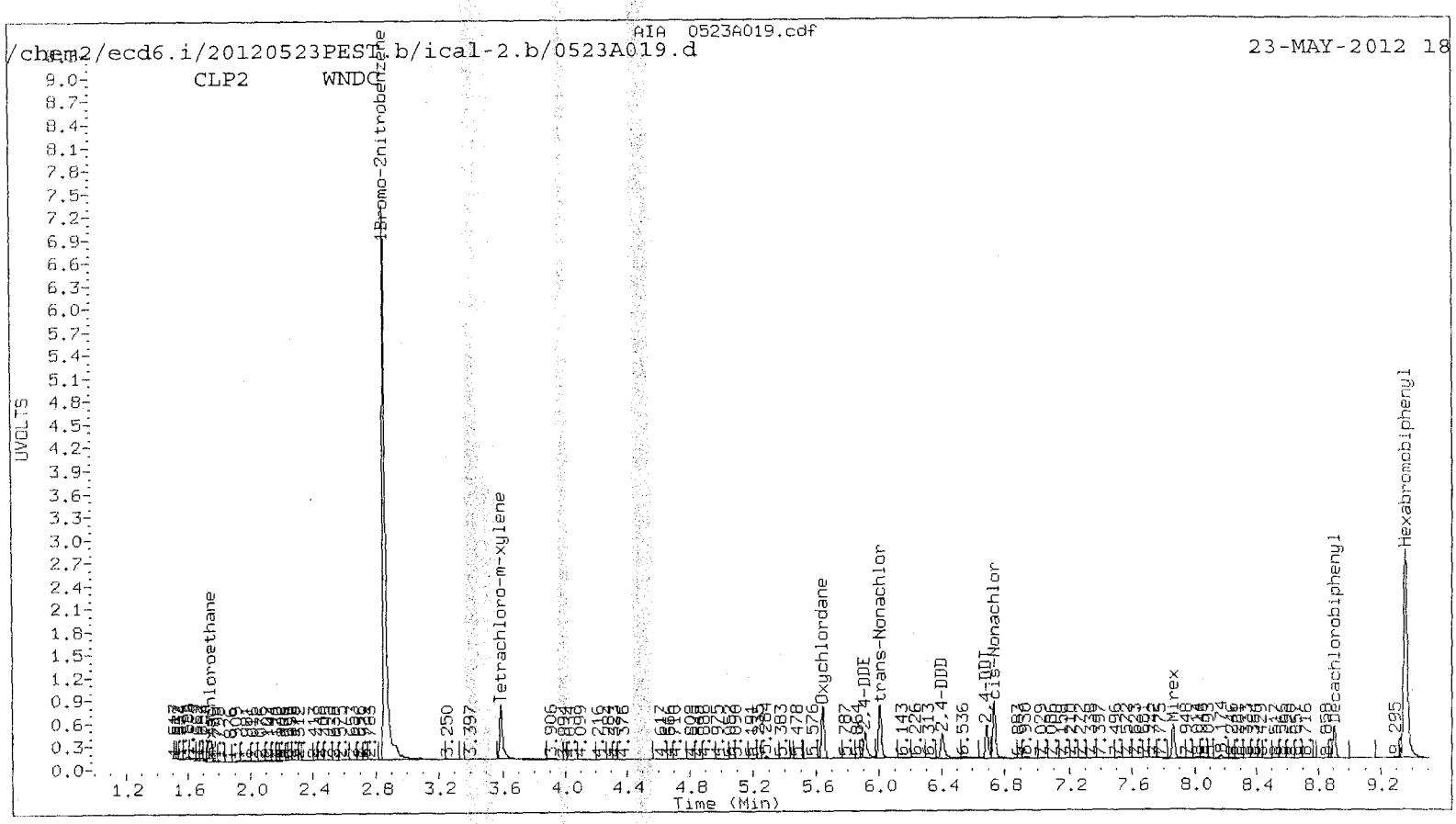
AIA 0523A019.cdf
23-MAY-2012 18
STX-CLP WNDC
UVOLTS
Time (Min)
Chloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0523A019.cdf
23-MAY-2012 18
CLP2 WNDC
UVOLTS
Time (Min)
Chloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
4,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

UU52:01256

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A020.d ARI ID: WNDD
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A020.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 18:39
Compound Sublist: WND Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 1.719 | 0.000 | 980 | 1.743 | -0.027 | 2643 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 2.796 | 0.000 | 5139758 | 2.855 | 0.000 | 16765159 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 5.252 | 0.000 | 1244004 | 5.644 | 0.000 | 3266712 | 19.7173 | 19.9357 | 1.1 | Oxychlordane |
| 5.344 | 0.003 | 865078 | 5.911 | 0.002 | 2119113 | 19.4706 | 19.8634 | 2.0 | 2,4-DDE |
| 5.580 | 0.000 | 1587428 | 6.006 | 0.000 | 3518750 | 19.6717 | 19.2097 | 2.4 | trans-Nonachlor |
| 5.833 | 0.003 | 836100 | 6.401 | 0.002 | 1984803 | 20.4213 | 19.4042 | 5.1 | 2,4-DDD |
| 6.070 | 0.001 | 1058554 | 6.686 | 0.001 | 2159167 | 19.6251 | 19.4308 | 1.0 | 2,4-DDT |
| 6.198 | 0.000 | 1773690 | 6.734 | 0.000 | 3650085 | 19.8551 | 19.7600 | 0.5 | cis-Nonachlor |
| 7.063 | 0.000 | 1132590 | 7.862 | -0.001 | 2113030 | 19.1396 | 19.0347 | 0.5 | Mirex |
| 8.389 | 0.000 | 6817214 | 9.355 | -0.001 | 8985763 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 3.408 | 0.002 | 1273314 | 3.589 | 0.001 | 3833481 | 16.7427 | 18.4261 | 9.6 | Tetrachloro-m-xylene |
| 8.250 | 0.000 | 1338360 | 8.908 | 0.000 | 2144309 | 17.4759 | 17.2373 | 1.4 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 41.9 | 46.1 | 41.9~ | 150- 0 |
| Decachlorobiphenyl | 43.7 | 43.1 | 43.1~ | 150- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

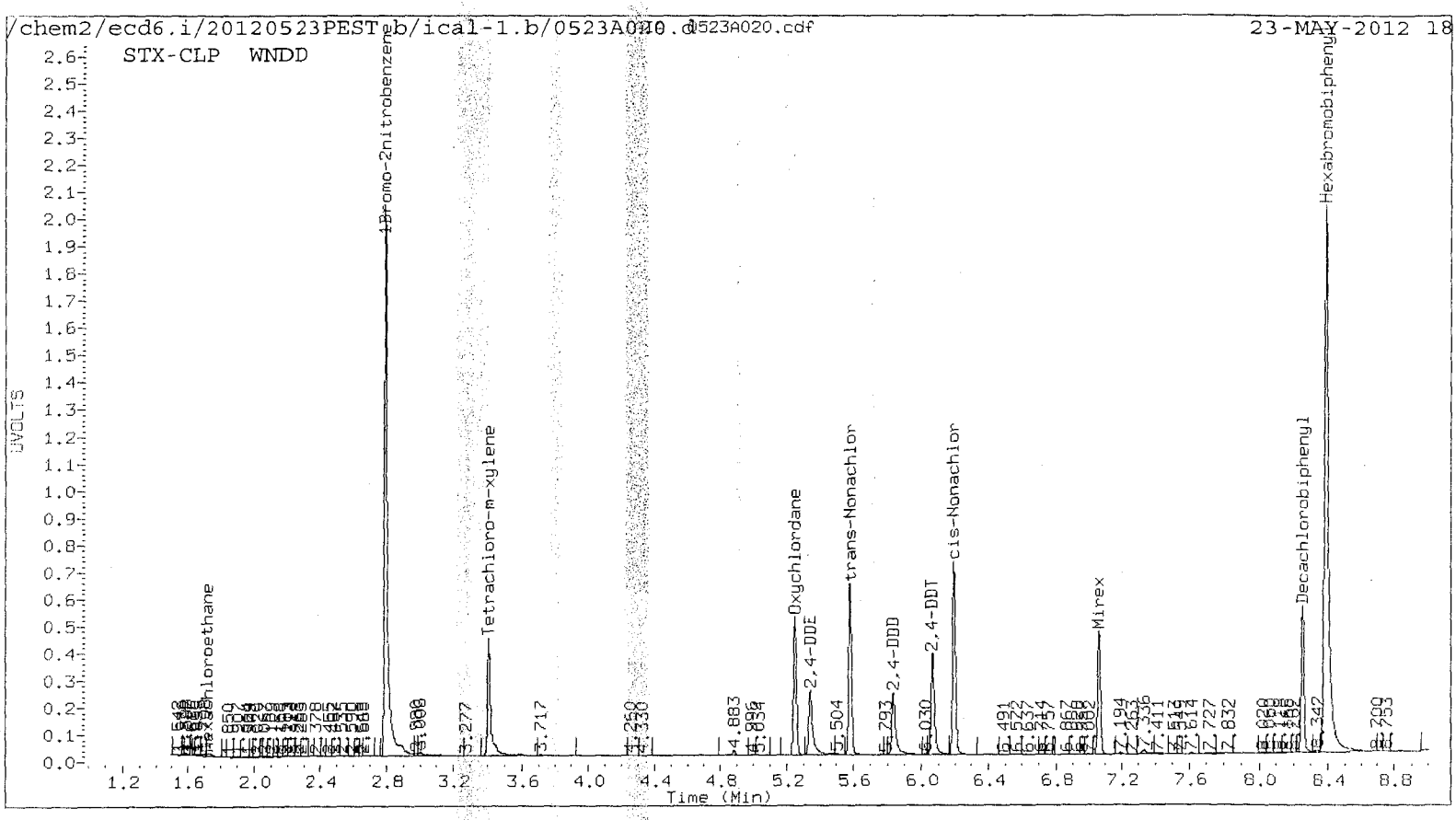
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 5139758 | 6.2 |
| Hexabromobiphenyl | 6506091 | 6817214 | 4.8 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 16765159 | 3.3 |
| Hexabromobiphenyl | 8472750 | 8985763 | 6.1 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | STX-CLP Col Peak# | RT | Shift | Height | Amount | CLP2 Col Peak# | RT | Shift | Height | Amount |
|---|---|---|---|---|---|---|---|---|---|---|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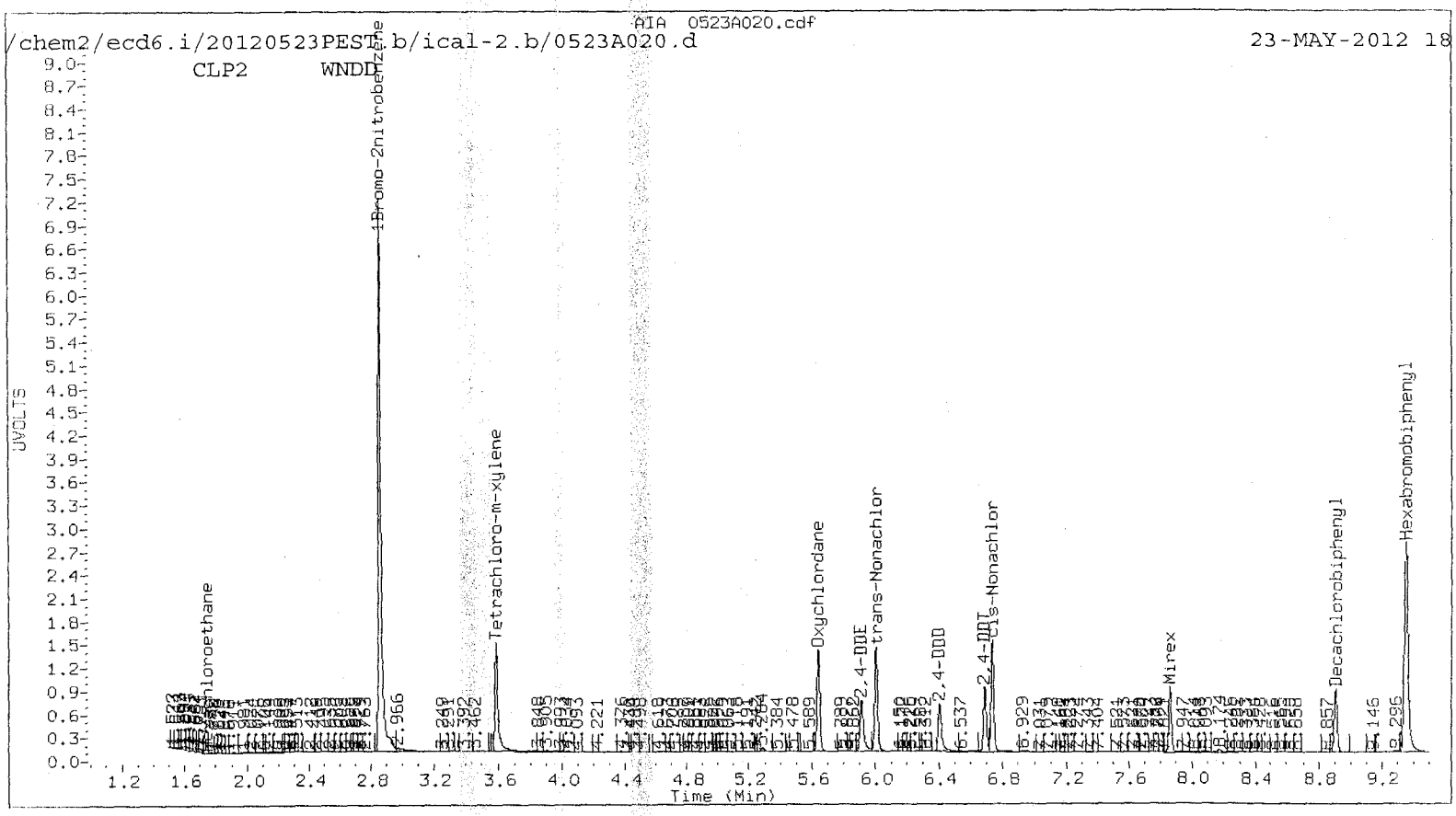
0523A020.cdf
23-MAY-2012 18
STX-CLP WNDD
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl
UVOLTS
Time (Min)


AIA 0523A020.cdf
/chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A020.d
23-MAY-2012 18
CLP2 WNDD
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl
UVOLTS
Time (Min)

UU52:01253

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A021.d ARI ID: WNDF
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A021.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 18:56
Compound Sublist: WND Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 1.720 | 0.000 | 1878 | 1.732 | -0.038 | 1290 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 2.796 | 0.000 | 4866835 | 2.855 | 0.000 | 17245332 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 5.252 | 0.000 | 4874124 | 5.643 | 0.000 | 12253281 | 78.5091 | 72.6956 | 7.7 | Oxychlordane |
| 5.342 | 0.001 | 3580207 | 5.911 | 0.001 | 7882613 | 81.8897 | 71.8300 | 13.1 | 2,4-DDE |
| 5.581 | 0.000 | 6205415 | 6.006 | 0.000 | 13100457 | 78.1477 | 71.5392 | 8.8 | trans-Nonachlor |
| 5.831 | 0.001 | 3064380 | 6.399 | 0.000 | 7336096 | 76.0613 | 71.7413 | 5.8 | 2,4-DDD |
| 6.069 | 0.000 | 4232688 | 6.685 | 0.000 | 8196343 | 79.7465 | 73.7819 | 7.8 | 2,4-DDT |
| 6.198 | 0.000 | 7056608 | 6.733 | 0.000 | 13669155 | 80.2761 | 74.0205 | 8.1 | cis-Nonachlor |
| 7.063 | 0.000 | 4334801 | 7.862 | -0.001 | 7654587 | 74.4434 | 68.9746 | 7.6 | Mirex |
| 8.390 | 0.000 | 6708266 | 9.355 | 0.000 | 8983150 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 3.407 | 0.001 | 4847655 | 3.588 | 0.001 | 14619710 | 67.3158 | 68.3147 | 1.5 | Tetrachloro-m-xylene |
| 8.250 | 0.000 | 5034638 | 8.908 | 0.000 | 8129576 | 66.8084 | 65.3695 | 2.2 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 168.3 | 170.8 | 168.3~ | 150- 0 |
| Decachlorobiphenyl | 167.0 | 163.4 | 163.4~ | 150- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

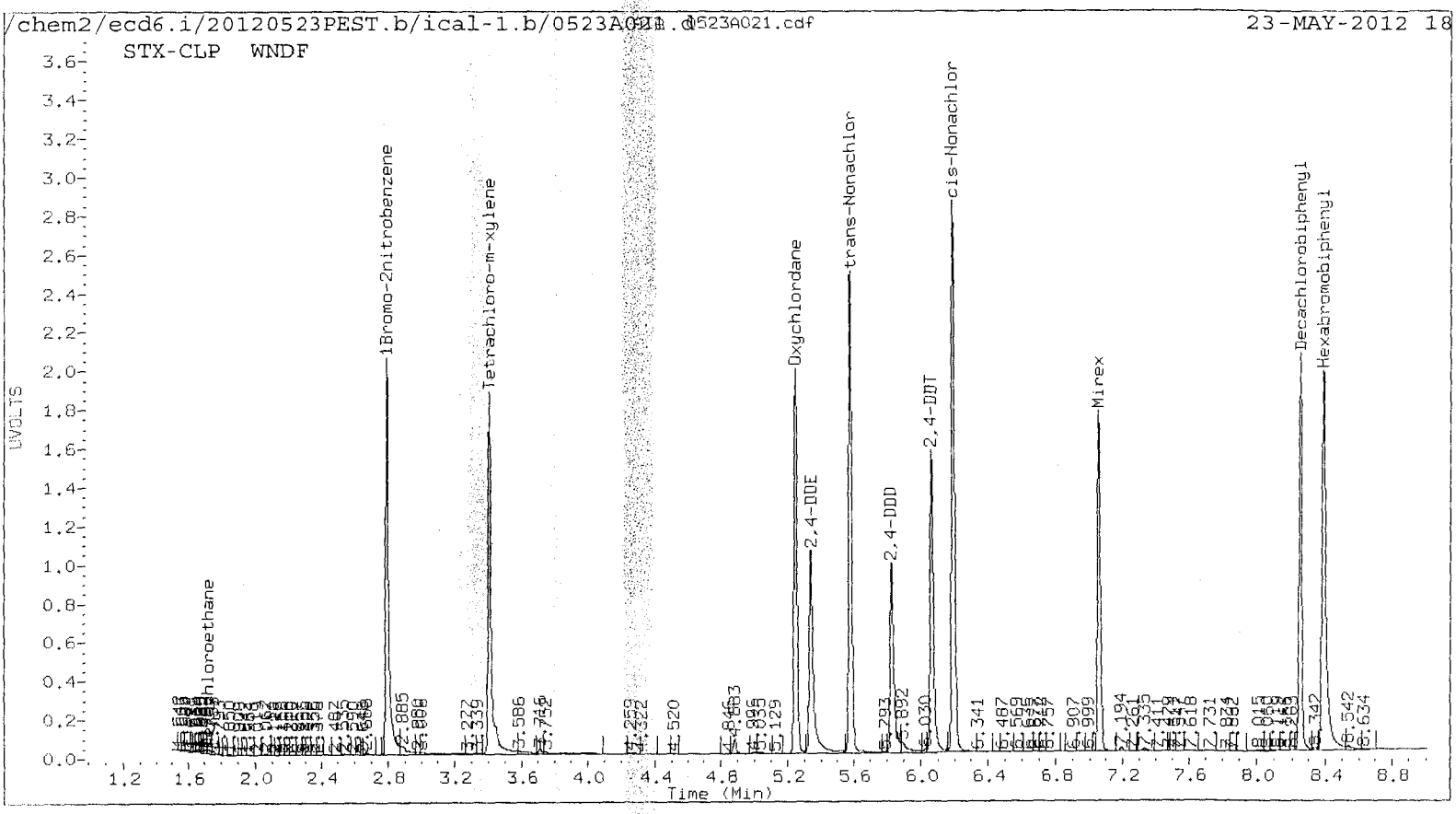
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4866835 | 0.5 |
| Hexabromobiphenyl | 6506091 | 6708266 | 3.1 |

Column 2

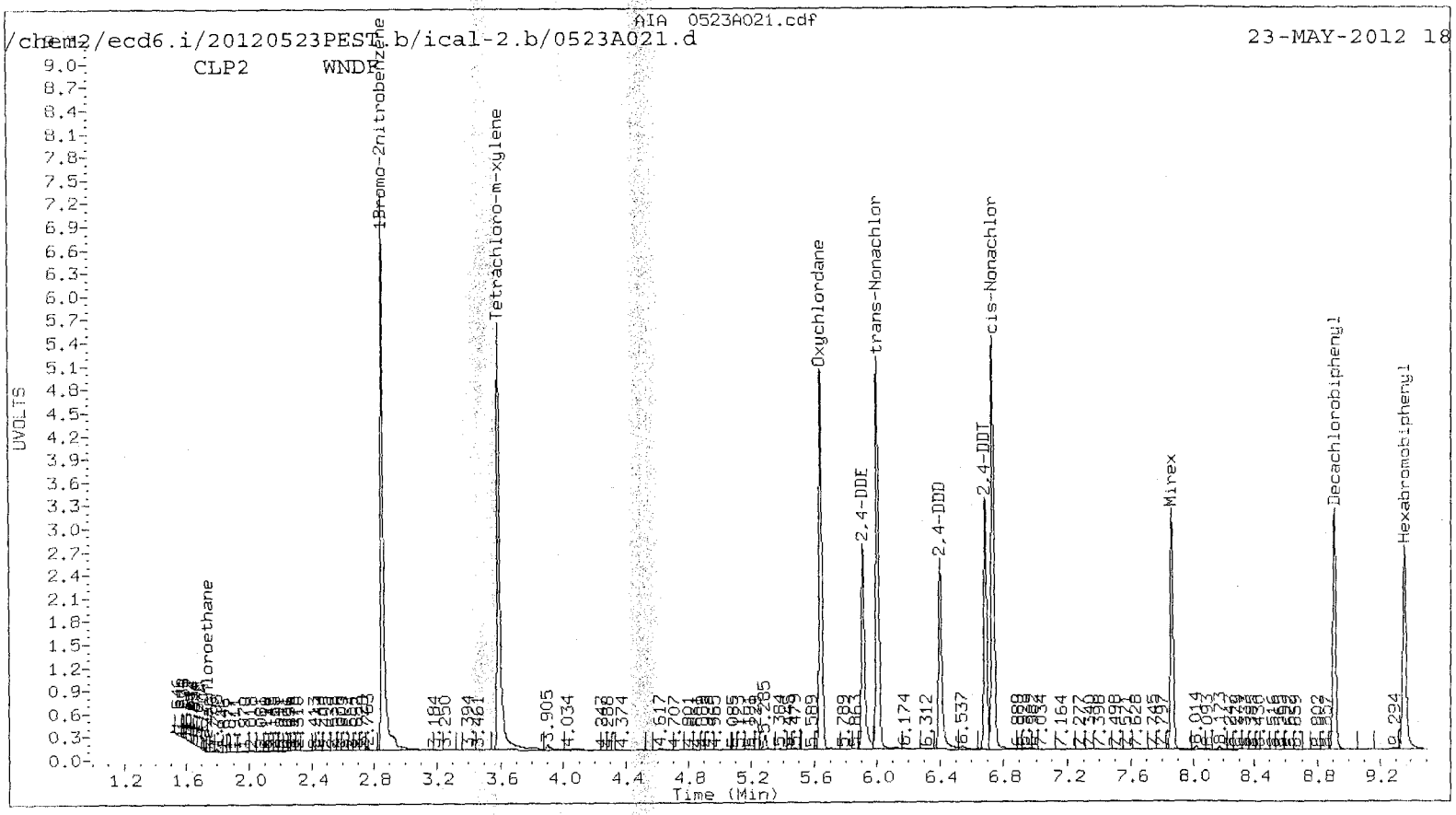
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 17245332 | 6.3 |
| Hexabromobiphenyl | 8472750 | 8983150 | 6.0 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | STX-CLP Col Peak# | RT | Shift | Height | Amount | CLP2 Col Peak# | RT | Shift | Height | Amount |
|---|---|---|---|---|---|---|---|---|---|---|




AIA 0523A021.cdf




US2: 61256

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A022.d ARI ID: WNDG
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A022.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 19:14
Compound Sublist: WND Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 1.719 | 0.000 | 3456 | 1.770 | 0.000 | 10682 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 2.796 | 0.000 | 4729578 | 2.855 | 0.000 | 15111899 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 5.252 | 0.000 | 9440579 | 5.644 | 0.000 | 22965237 | 155.6168 | 155.4817 | 0.1 | Oxychlordane |
| 5.341 | 0.000 | 6979272 | 5.909 | 0.000 | 14720365 | 163.3676 | 153.0759 | 6.5 | 2,4-DDE |
| 5.580 | 0.000 | 11926612 | 6.006 | 0.000 | 24656545 | 153.7081 | 137.9560 | 10.8 | trans-Nonachlor |
| 5.830 | 0.000 | 6110160 | 6.399 | 0.000 | 13750429 | 155.2059 | 137.7752 | 11.9 | 2,4-DDD |
| 6.068 | 0.000 | 8275364 | 6.685 | 0.000 | 15479328 | 159.5573 | 142.7686 | 11.1 | 2,4-DDT |
| 6.197 | 0.000 | 13752448 | 6.734 | 0.000 | 25797699 | 160.1050 | 143.1338 | 11.2 | cis-Nonachlor |
| 7.063 | 0.000 | 8384360 | 7.863 | 0.000 | 14447903 | 147.3537 | 133.3898 | 9.9 | Mirex |
| 8.389 | 0.000 | 6555048 | 9.355 | 0.000 | 8767543 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 3.406 | 0.000 | 9514710 | 3.587 | 0.000 | 27715764 | 135.9580 | 147.7934 | 8.3 | Tetrachloro-m-xylene |
| 8.251 | 0.000 | 9704386 | 8.909 | 0.000 | 15533401 | 131.7847 | 127.9749 | 2.9 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 339.9 | 369.5 | 339.9~ | 150- 0 |
| Decachlorobiphenyl | 329.5 | 319.9 | 319.9~ | 150- 0 |

~ Indicates recovery outside QC Limits

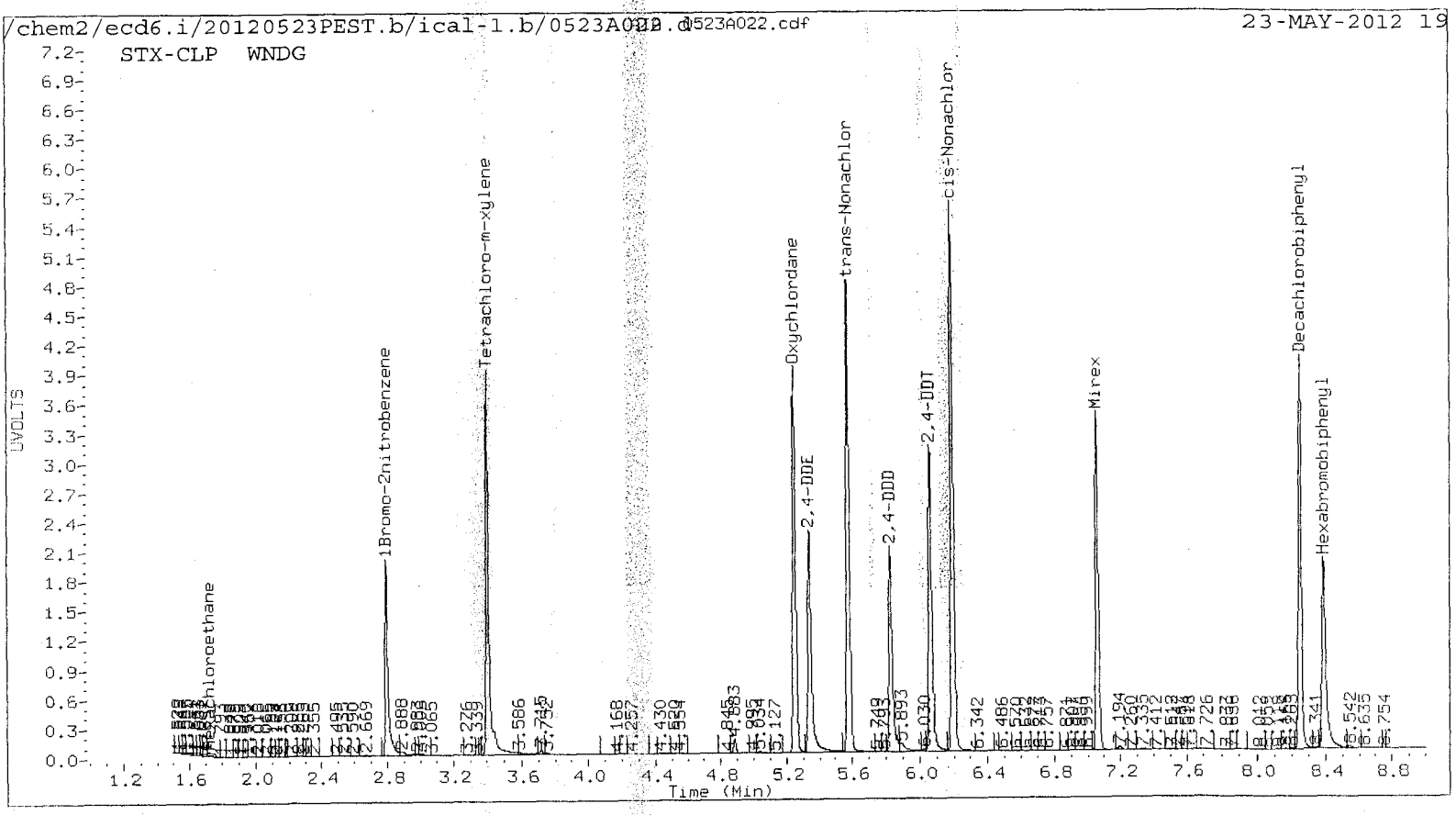
INTERNAL STANDARD SUMMARY

| Standard Cpnd | Column 1 Standard Area* | Column 1 Sample Area | Column 1 %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4729578 | -2.3 |
| Hexabromobiphenyl | 6506091 | 6555048 | 0.8 |

| Standard Cpnd | Column 2 Standard Area* | Column 2 Sample Area | Column 2 %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 15111899 | -6.9 |
| Hexabromobiphenyl | 8472750 | 8767543 | 3.5 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | STX-CLP Col Peak# | RT | Shift | Height | Amount | CLP2 Col Peak# | RT | Shift | Height | Amount |
|---|---|---|---|---|---|---|---|---|---|---|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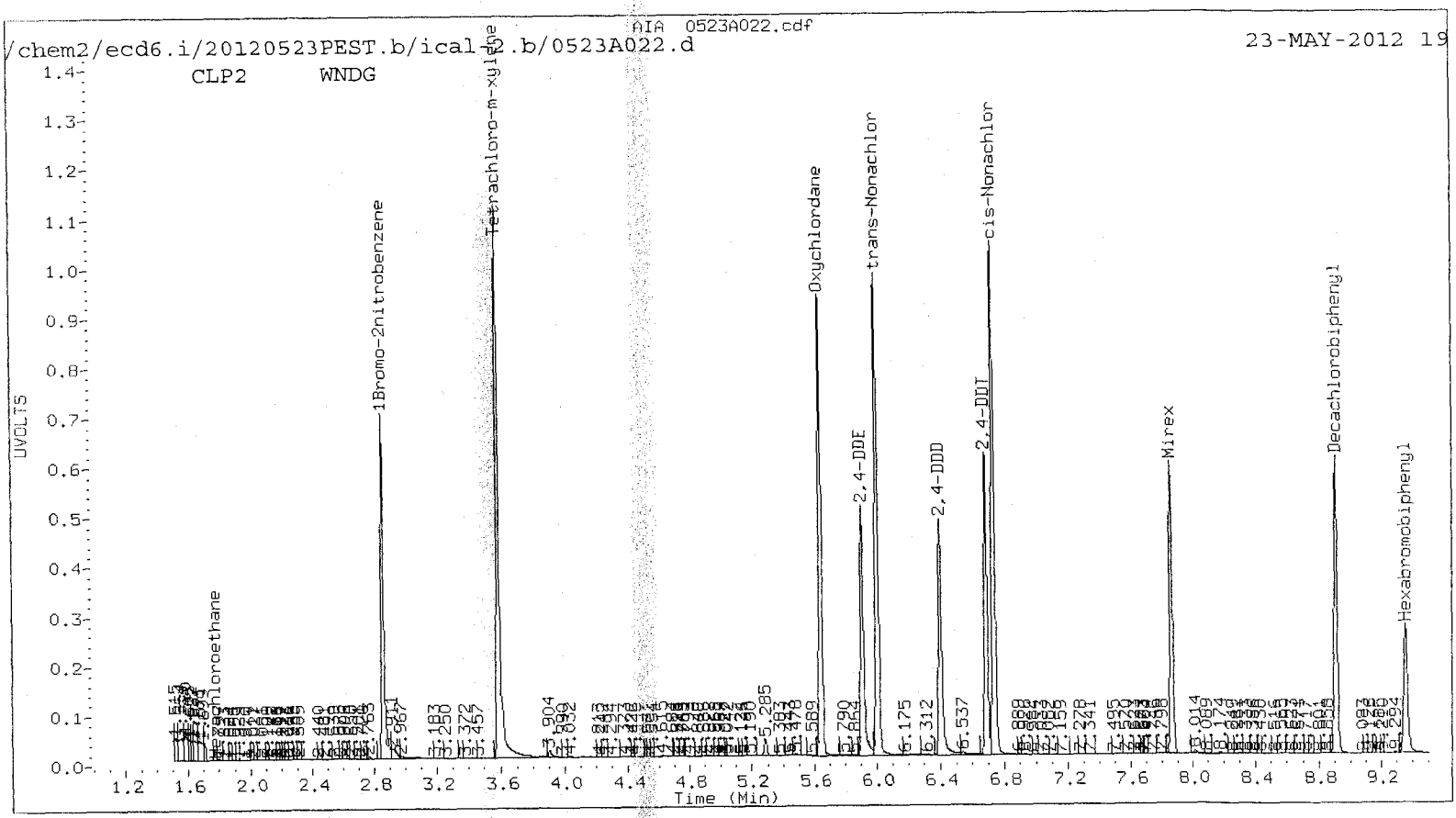
0523A022.cdf
23-MAY-2012 19
STX-CLP WNDG
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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/chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A022.d
23-MAY-2012 19
CLP2 WNDG
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

UU52 : 01253

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A025.d ARI ID: WND ASSAY
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A025.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 20:08
Compound Sublist: WND Report Date: 05/24/2012 10:39
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 1.720 | 0.001 | 899 | 1.770 | 0.000 | 6947 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 2.797 | 0.001 | 4602996 | 2.855 | 0.001 | 16499244 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 5.252 | 0.000 | 2329206 | 5.644 | 0.000 | 6100747 | 39.7784 | 37.8309 | 5.0 | Oxychlordane |
| 5.345 | 0.004 | 1686660 | 5.912 | 0.003 | 3882022 | 40.9039 | 36.9744 | 10.1 | 2,4-DDE |
| 5.581 | 0.001 | 3038443 | 6.007 | 0.000 | 6772217 | 40.5707 | 37.7448 | 7.2 | trans-Nonachlor |
| 5.834 | 0.004 | 1543766 | 6.401 | 0.003 | 3587514 | 40.6274 | 35.8069 | 12.6 | 2,4-DDD |
| 6.070 | 0.002 | 1856634 | 6.686 | 0.001 | 3712658 | 37.0883 | 34.1102 | 8.4 | 2,4-DDT |
| 6.198 | 0.001 | 3299011 | 6.734 | 0.001 | 6708178 | 39.7915 | 37.0752 | 7.1 | cis-Nonachlor |
| 7.063 | 0.000 | 2065376 | 7.863 | 0.000 | 3769199 | 37.6073 | 34.6645 | 8.1 | Mirex |
| 8.392 | 0.003 | 6326954 | 9.357 | 0.002 | 8801559 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 3.408 | 0.002 | 2315465 | 3.589 | 0.001 | 7254307 | 33.9961 | 35.4307 | 4.1 | Tetrachloro-m-xylene |
| 8.251 | 0.001 | 2428829 | 8.909 | 0.000 | 4124811 | 34.1724 | 33.8517 | 0.9 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 85.0 | 88.6 | 85.0~ | 150- 0 |
| Decachlorobiphenyl | 85.4 | 84.6 | 84.6~ | 150- 0 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

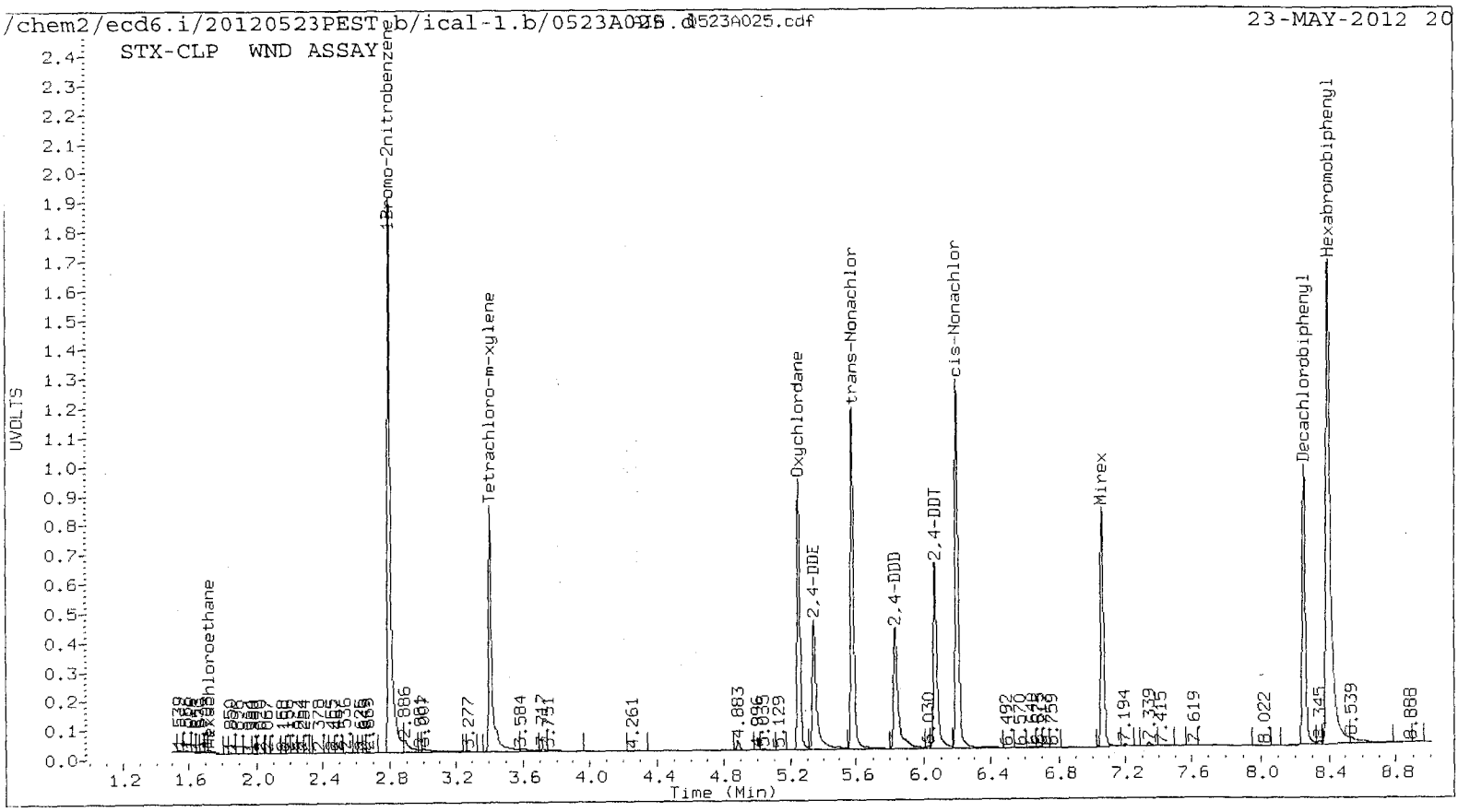
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4602996 | -4.9 |
| Hexabromobiphenyl | 6506091 | 6326954 | -2.8 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 16499244 | 1.7 |
| Hexabromobiphenyl | 8472750 | 8801559 | 3.9 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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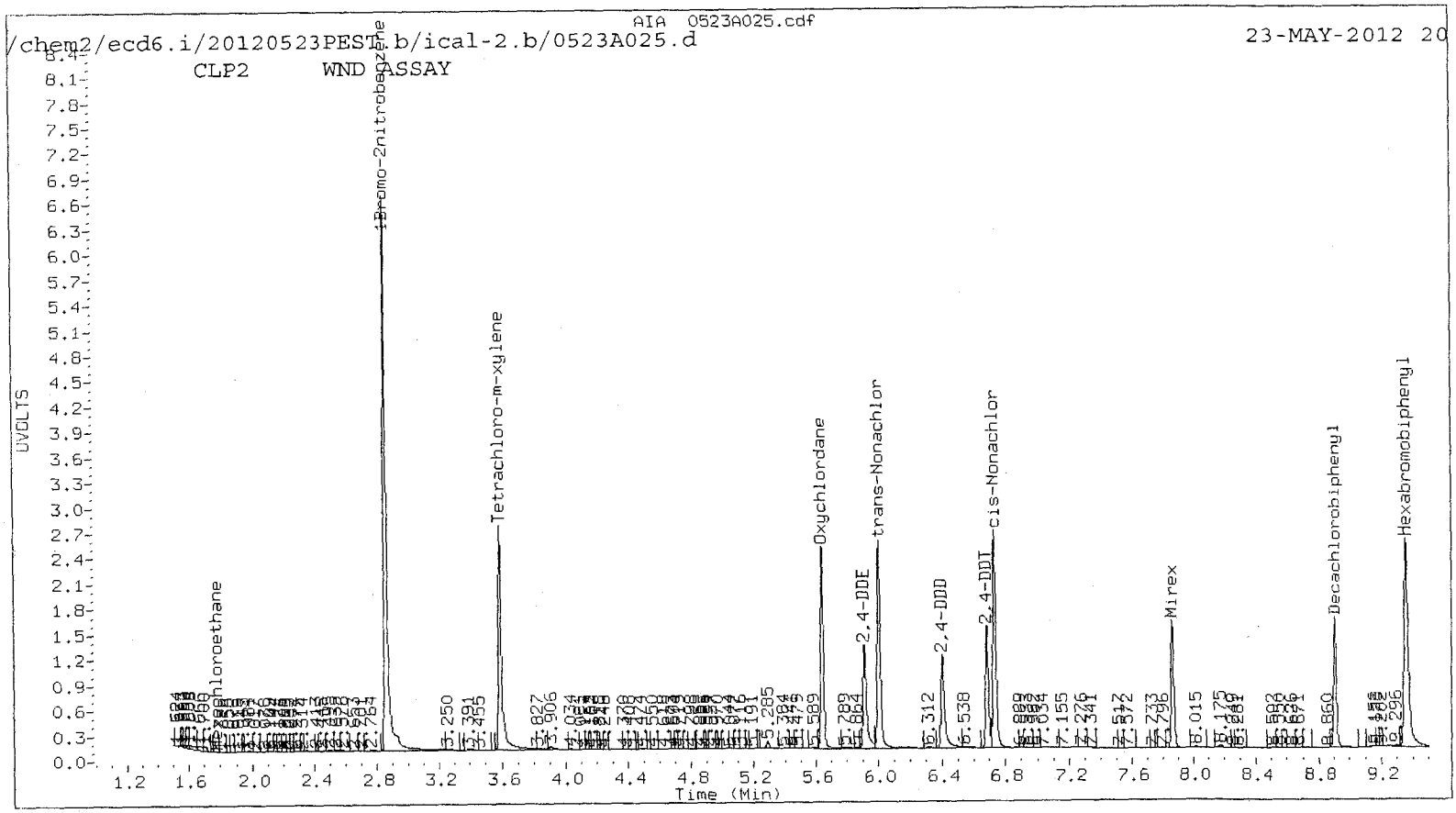
0523A025.cdf
23-MAY-2012 20
STX-CLP WND ASSAY
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl


AIA 0523A025.cdf
/chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A025.d
23-MAY-2012 20
CLP2 WND ASSAY
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

USS2 : 01252

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A026.d ARI ID: TECH 200
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A026.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 20:25
Compound Sublist: wpest Report Date: 05/24/2012 10:39
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.796 | 0.000 | 4562991 | 2.855 | 0.000 | 15945583 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.868 | 0.021 | 4566 | 4.138 | 0.030 | 107658 | 0.0502 | 0.3965 | 155.1* | alpha-BHC |
| 4.201 | 0.018 | 22822 | 4.488 | -0.014 | 8161 | 0.6721 | 0.0781 | 158.3* | beta-BHC |
| 4.354 | 0.017 | 20484 | 4.776 | -0.006 | 12166 | 0.3084 | 0.0628 | 132.4* | delta-BHC |
| 4.082 | -0.024 | 52422 | 4.444 | 0.015 | 73059 | 0.6864 | 0.3154 | 74.1* | gamma-BHC (Lindane) |
| 4.518 | 0.000 | 764991 | 4.849 | 0.000 | 2019507 | 9.0741 | 8.6617 | 4.6 | Heptachlor |
| 4.803 | 0.016 | 10336 | 5.189 | 0.019 | 8218 | 0.1337 | 0.0407 | 106.7* | Aldrin |
| 5.356 | 0.011 | 187675 | 5.759 | 0.026 | 109557 | 2.7255 | 0.5588 | 131.9* | Heptachlor epoxide b |
| 5.746 | 0.024 | 51193 | 6.117 | -0.001 | 93422 | 0.5508 | 0.5475 | 0.6 | Endosulfan I |
| 5.969 | 0.023 | 64282 | 6.384 | 0.007 | 493987 | 0.8686 | 2.8003 | 105.3* | Dieldrin |
| 5.673 | 0.003 | 124031 | 6.191 | -0.017 | 222137 | 2.6493 | 1.4238 | 60.2* | 4,4'-DDE |
| 6.144 | -0.019 | 24645 | 6.664 | 0.000 | 85347 | 0.3646 | 0.5703 | 44.0* | Endrin |
| 6.376 | 0.005 | 41123 | 6.840 | -0.017 | 104854 | 0.6252 | 0.6915 | 10.1 | Endosulfan II |
| 6.273 | 0.046 | 46367 | ---- | | | 0.8713 | 0.0000 | --- | 4,4'-DDD |
| 7.145 | 0.007 | 18680 | 7.427 | 0.023 | 14630 | 0.3230 | 0.1256 | 88.0* | Endosulfan sulfate |
| 6.537 | 0.053 | 128160 | 7.042 | 0.008 | 58596 | 2.1929 | 0.4758 | 128.7* | 4,4'-DDT |
| 6.941 | 0.017 | 10757 | 7.614 | -0.015 | 2291 | 0.3613 | 0.0426 | 157.8* | Methoxychlor |
| 7.415 | 0.027 | 12454 | 7.888 | 0.007 | 35341 | 0.1699 | 0.2356 | 32.4 | Endrin ketone |
| 6.778 | 0.030 | 8806 | 7.192 | 0.034 | 227112 | 0.1660 | 1.9666 | 168.9* | Endrin aldehyde |
| 5.472 | 0.002 | 1881074 | 5.919 | 0.001 | 3838053 | 25.1933 | 21.0989 | 17.7 | gamma-Chlordane |
| 5.590 | -0.003 | 2972544 | 6.058 | 0.000 | 3216479 | 41.8338 | 18.5794 | 77.0* | alpha-Chlordane |
| 2.067 | 0.013 | 12736 | 2.111 | -0.002 | 14490 | 0.1266 | 0.0492 | 88.1* | Hexachlorobutadiene |
| 3.718 | 0.001 | 49842 | 3.998 | 0.003 | 30473 | 0.7942 | 0.1229 | 146.4* | Hexachlorobenzene |
| 5.287 | 0.036 | 296791 | 5.622 | -0.022 | 23697 | 5.1022 | 0.1520 | 188.4* | Oxychlordane |
| 5.392 | 0.051 | 347500 | 5.956 | 0.047 | 171367 | 8.4832 | 1.6889 | 133.6* | 2,4-DDE |
| ---- | | | 6.007 | 0.001 | 3209415 | 0.0000 | 18.0608 | --- | trans-Nonachlor |
| 5.823 | -0.007 | 51398 | ---- | | | 1.3616 | 0.0000 | --- | 2,4-DDD |
| 6.109 | 0.041 | 78135 | 6.693 | 0.008 | 32652 | 1.5712 | 0.3029 | 135.4* | 2,4-DDT |
| 6.198 | 0.001 | 358108 | 6.734 | 0.001 | 682292 | 4.3480 | 3.8075 | 13.3 | cis-Nonachlor |
| 7.018 | -0.045 | 3063 | 7.833 | -0.029 | 59967 | 0.0561 | 0.5568 | 163.4* | Mirex |
| 8.393 | 0.004 | 6285326 | 9.357 | 0.002 | 8717161 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 1.721 | 0.001 | 2424 | 1.771 | 0.001 | 11565 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.408 | 0.002 | 2197447 | 3.589 | 0.001 | 5651184 | 32.5462 | 28.5592 | 13.0 | Tetrachloro-m-xylene |
| 8.252 | 0.001 | 2383811 | 8.909 | 0.000 | 4031615 | 33.7611 | 33.4072 | 1.1 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 81.4 | 71.4 | 71.4~ | 130- 0 |
| Decachlorobiphenyl | 84.4 | 83.5 | 83.5~ | 130- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4562991 | -5.8 |
| Hexabromobiphenyl | 6506091 | 6285326 | -3.4 |

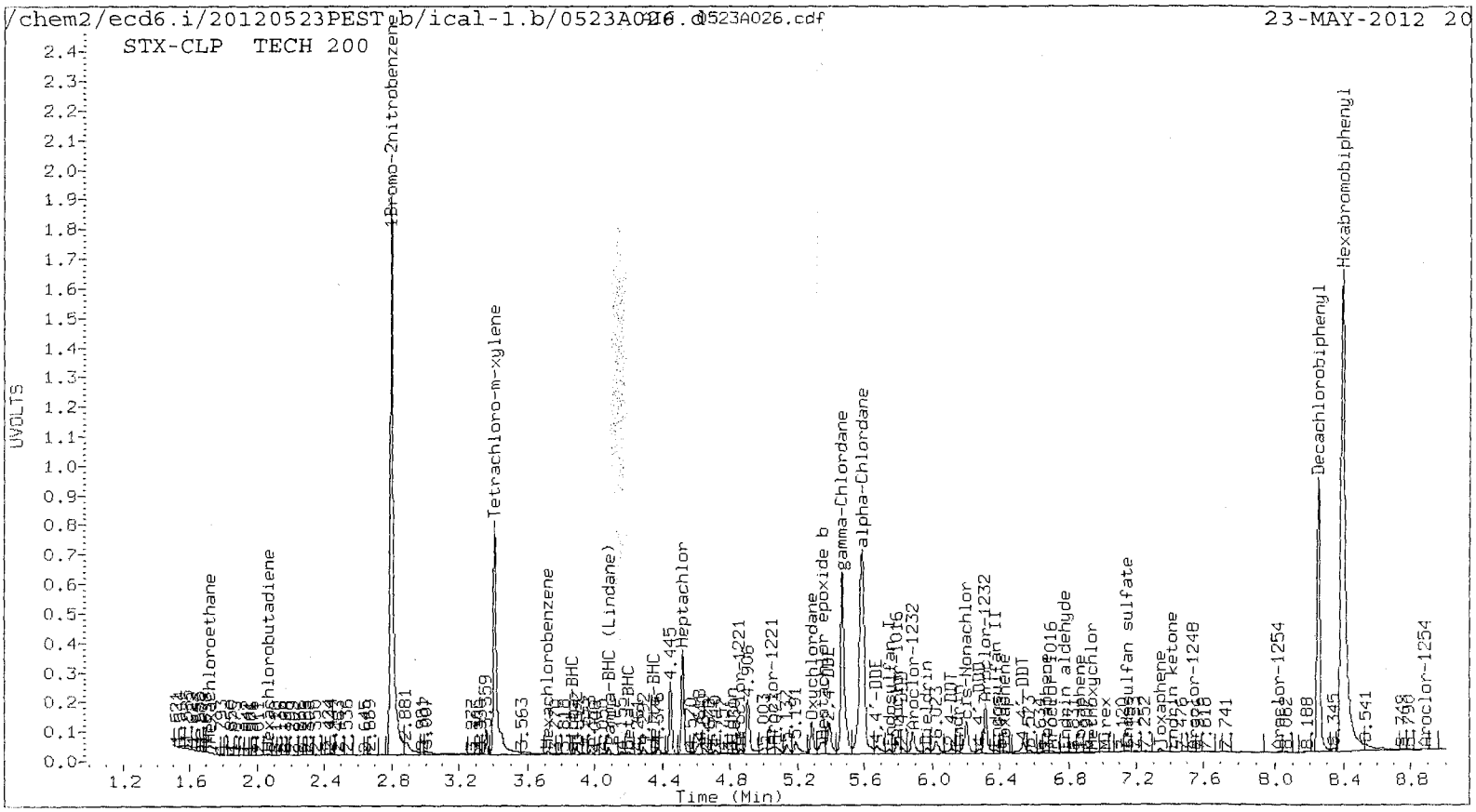
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 15945583 | -1.7 |
| Hexabromobiphenyl | 8472750 | 8717161 | 2.9 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 6.430 | 0.006 | 18562 | 6.214 | 1 | 6.586 | -0.021 | 41377 | 8.732 |
| Toxaphene | 2 | --- | | | 0.000 | 2 | 6.904 | -0.028 | 1044538 | 147.713 |
| Toxaphene | 3 | 6.670 | -0.004 | 19581 | 9.284 | 3 | 7.192 | 0.027 | 227112 | 30.548 |
| Toxaphene | 4 | 6.865 | -0.012 | 10318 | 4.549 | 4 | 7.614 | -0.011 | 2291 | 0.388 |
| Toxaphene | 5 | 7.018 | -0.038 | 3063 | 0.886 | 5 | 7.668 | -0.002 | 20492 | 2.547 |
| Toxaphene | 6 | 7.339 | -0.036 | 49325 | 20.355 | NS | --- | | | ---- |
| Total STX-CLPAve (5 peaks): 8.258 | | | | | | Total CLP2Ave (5 peaks): 37.986 | | | | RPD = 129* |
| Corrected Ave (4 peaks): 5.233 | | | | | | Corrected Ave (4 peaks): 10.554 | | | | RPD = 67* |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | |
|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | |
| Aroclor-1248 1 | --- | 0.000 | | 1 | --- | 0.000 |
| Aroclor-1248 2 | --- | 0.000 | | 2 | --- | 0.000 |
| Aroclor-1248 3 | --- | 0.000 | | 3 | --- | 0.000 |
| Aroclor-1248 4 | --- | 0.000 | | 4 | --- | 0.000 |
| Aroclor-1248 5 | --- | 0.000 | | 5 | --- | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | |
| Aroclor-1254 1 | --- | 0.000 | | 1 | --- | 0.000 |
| Aroclor-1254 2 | --- | 0.000 | | 2 | --- | 0.000 |
| Aroclor-1254 3 | --- | 0.000 | | 3 | --- | 0.000 |
| Aroclor-1254 4 | --- | 0.000 | | 4 | --- | 0.000 |
| Aroclor-1254 5 | --- | 0.000 | | 5 | --- | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | |
| Aroclor-1260 1 | --- | 0.000 | | 1 | --- | 0.000 |
| Aroclor-1260 2 | --- | 0.000 | | 2 | --- | 0.000 |
| Aroclor-1260 3 | --- | 0.000 | | 3 | --- | 0.000 |
| Aroclor-1260 4 | --- | 0.000 | | 4 | --- | 0.000 |
| Aroclor-1260 5 | --- | 0.000 | | 5 | --- | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | |
| Aroclor-1262 1 | --- | 0.000 | | 1 | --- | 0.000 |
| Aroclor-1262 2 | --- | 0.000 | | 2 | --- | 0.000 |
| Aroclor-1262 3 | --- | 0.000 | | 3 | --- | 0.000 |
| Aroclor-1262 4 | --- | 0.000 | | 4 | --- | 0.000 |
| Aroclor-1262 5 | --- | 0.000 | | 5 | --- | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | |
| Aroclor-1268 1 | --- | 0.000 | | 1 | --- | 0.000 |
| Aroclor-1268 2 | --- | 0.000 | | 2 | --- | 0.000 |
| Aroclor-1268 3 | --- | 0.000 | | 3 | --- | 0.000 |
| Aroclor-1268 4 | --- | 0.000 | | 4 | --- | 0.000 |
| Aroclor-1268 5 | --- | 0.000 | | 5 | --- | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | |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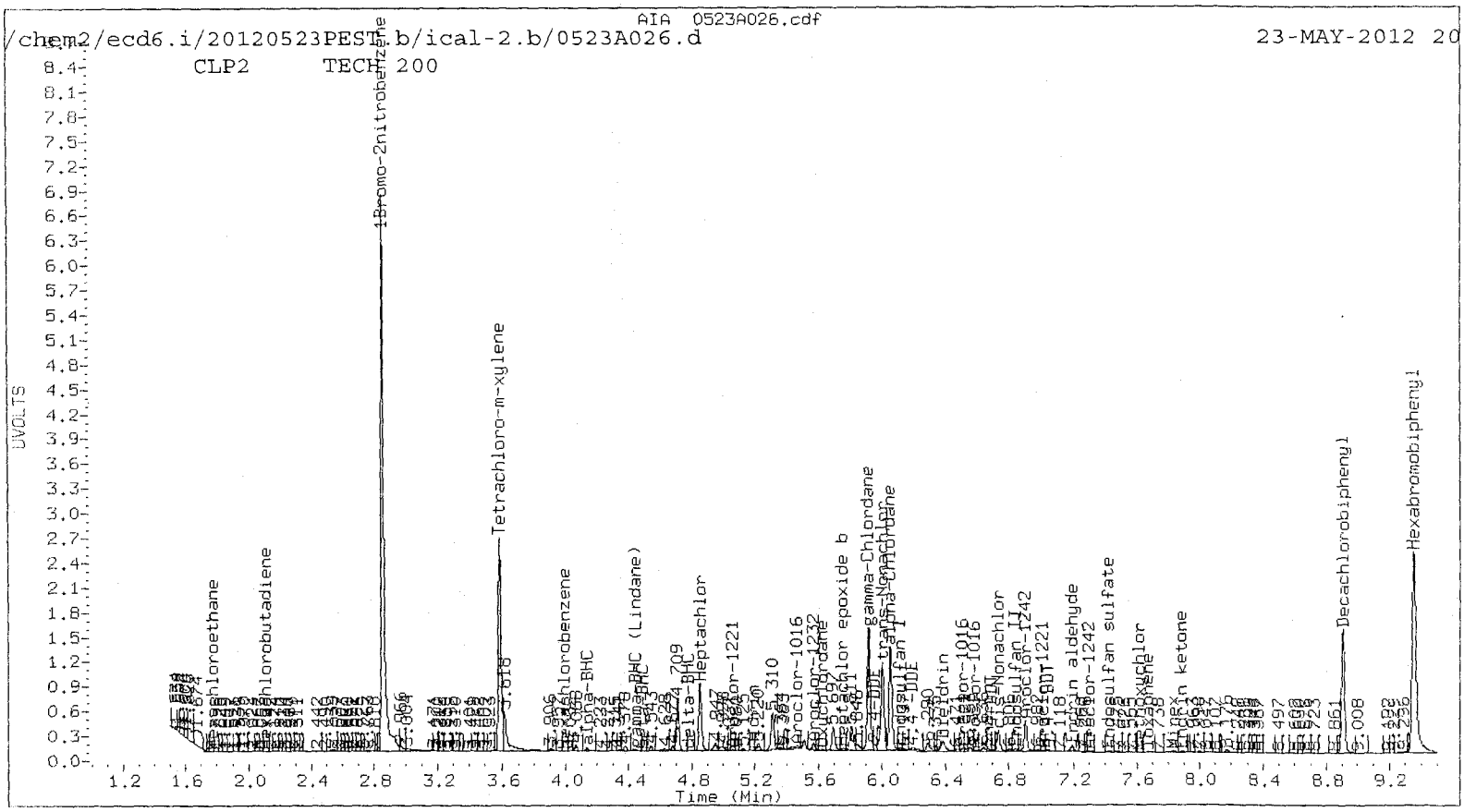
STX-CLP TECH 200
UVOLTS
Time (Min)
Hexachloroethane
Hexachlorobutadiene
4Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
beta-BHC
gamma-BHC (Lindane)
Heptachlor
4.445
Aroclor-1221
Oxychlordane
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Aroclor-1232
Dieldrin
4,4'-DDT
Endrin aldehyde
Endosulfan II
Aroclor-1248
Endosulfan sulfate
Toxaphene
Endrin ketone
Aroclor-1254
Decachlorobiphenyl
Hexabromobiphenyl
Aroclor-1254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/chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A026.d
23-MAY-2012 20
CLP2 TECH 200
UVOLTS
Time (Min)
Hexachloroethane
Hexachlorobutadiene
4Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
beta-BHC
gamma-BHC (Lindane)
Heptachlor
Aroclor-1221
Oxychlordane
Aroclor-1016
Aroclor-1232
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Aroclor-1248
Dieldrin
4,4'-DDT
Endrin aldehyde
Endosulfan II
Aroclor-1242
Endosulfan sulfate
Toxaphene
Endrin ketone
Aroclor-1254
Decachlorobiphenyl
Hexabromobiphenyl

UU52:01267

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

AR 5/24/2012

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Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 16:34
Compound Sublist: INDA Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col RT | Shift | Response | CLP2 Col RT | Shift | Response | STX-CLP on col | CLP2 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 2.796 | 0.000 | 4744837 | 2.854 | 0.000 | 15077669 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.846 | 0.000 | 3740489 | 4.106 | -0.001 | 10016820 | 39.5109 | 39.0145 | 1.3 | alpha-BHC |
| 4.182 | -0.001 | 1418882 | 4.501 | -0.001 | 3844948 | 40.1820 | 38.9303 | 3.2 | beta-BHC |
| 4.336 | -0.001 | 3152314 | 4.781 | -0.002 | 8096829 | 45.6398 | 44.1816 | 3.2 | delta-BHC |
| 4.106 | 0.000 | 3321451 | 4.427 | -0.001 | 8882954 | 41.8241 | 40.5493 | 3.1 | gamma-BHC (Lindane) |
| 4.517 | -0.001 | 3518724 | 4.848 | -0.001 | 8066590 | 40.1383 | 36.5894 | 9.3 | Heptachlor |
| 4.787 | 0.000 | 3319989 | 5.170 | -0.001 | 7324048 | 41.2882 | 38.3286 | 7.4 | Aldrin |
| 5.345 | 0.000 | 2867166 | 5.731 | -0.001 | 6872610 | 40.0418 | 37.0733 | 7.7 | Heptachlor epoxide b |
| 5.721 | -0.001 | 3248579 | 6.117 | -0.001 | 6025435 | 33.6116 | 37.3431 | 10.5 | Endosulfan I |
| 5.946 | -0.001 | 3116730 | 6.376 | -0.001 | 6592318 | 40.5021 | 39.5214 | 2.5 | Dieldrin |
| 5.669 | -0.001 | 2281319 | 6.208 | 0.000 | 5954112 | 46.8620 | 40.3612 | 14.9 | 4,4'-DDE |
| 6.162 | -0.001 | 2815270 | 6.664 | -0.001 | 5555736 | 40.5389 | 38.5579 | 5.0 | Endrin |
| 6.370 | -0.001 | 2644000 | 6.857 | 0.000 | 5358089 | 39.1200 | 36.7021 | 6.4 | Endosulfan II |
| 6.228 | 0.001 | 2250397 | 6.748 | 0.000 | 4648327 | 41.1559 | 38.6052 | 6.4 | 4,4'-DDD |
| 7.138 | 0.000 | 2303614 | 7.404 | 0.000 | 4349758 | 38.7677 | 38.7796 | 0.0 | Endosulfan sulfate |
| 6.483 | 0.000 | 2516300 | 7.034 | 0.000 | 4637108 | 41.9031 | 39.1106 | 6.9 | 4,4'-DDT |
| 6.923 | 0.000 | 1250896 | 7.629 | 0.000 | 2140991 | 40.8865 | 41.3381 | 1.1 | Methoxychlor |
| 7.388 | 0.000 | 2786124 | 7.882 | 0.000 | 5326344 | 36.9856 | 36.8849 | 0.3 | Endrin ketone |
| 6.748 | -0.001 | 2009177 | 7.158 | 0.000 | 3955687 | 36.8622 | 35.5757 | 3.6 | Endrin aldehyde |
| 5.469 | 0.000 | 3093617 | 5.918 | 0.000 | 6669679 | 39.8450 | 38.7757 | 2.7 | gamma-Chlordane |
| 5.593 | 0.000 | 2988150 | 6.057 | -0.001 | 6378947 | 40.4417 | 38.9679 | 3.7 | alpha-Chlordane |
| 2.052 | -0.002 | 2714 | 2.110 | -0.003 | 18116 | ~~0.0259~~ | ~~0.0650~~ | ~~85.9*~~ | Hexachlorobutadiene |
| 3.715 | -0.002 | 40895 | 3.987 | -0.008 | 15471 | ~~0.6266~~ | ~~0.0660~~ | ~~161.9*~~ | Hexachlorobenzene |
| 8.388 | -0.002 | 6458219 | 9.354 | -0.001 | 8393228 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 3.407 | 0.000 | 2075561 | 3.587 | 0.000 | 6793897 | 29.5628 | 36.3105 | 20.5 | Tetrachloro-m-xylene |
| 8.250 | 0.000 | 2434582 | 8.908 | 0.000 | 3931074 | 33.5571 | 33.8313 | 0.8 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 73.9 | 90.8 | 73.9~ | 115- 0 |
| Decachlorobiphenyl | 83.9 | 84.6 | 83.9~ | 115- 0 |

~ Indicates recovery outside QC Limits

UU52:01268

INTERNAL STANDARD SUMMARY

Column 1

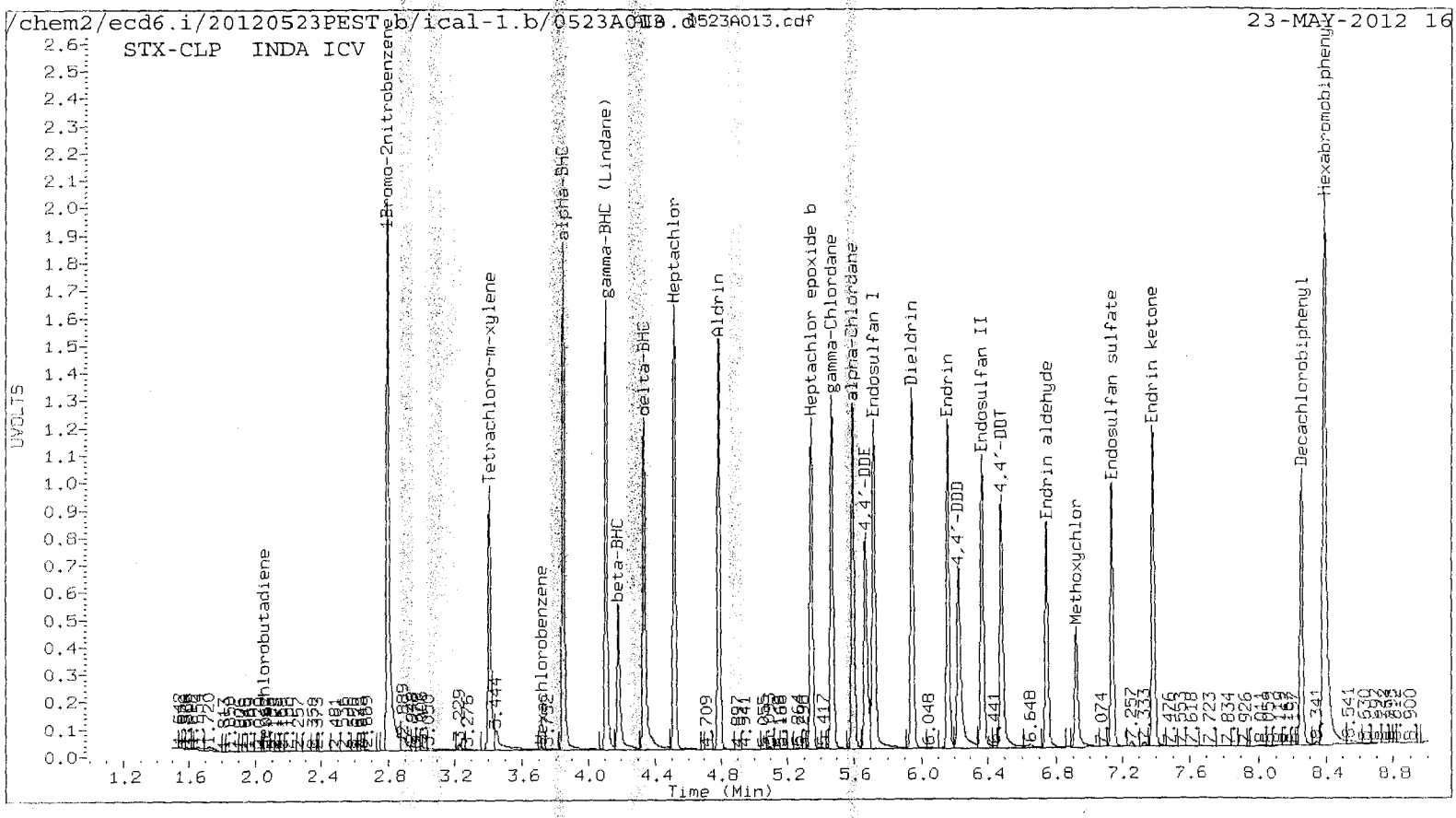
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4744837 | -2.0 |
| Hexabromobiphenyl | 6506091 | 6458219 | -0.7 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 15077669 | -7.1 |
| Hexabromobiphenyl | 8472750 | 8393228 | -0.9 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | STX-CLP Col Peak# | RT | Shift | Height | Amount | CLP2 Col Peak# | RT | Shift | Height | Amount |
|---|---|---|---|---|---|---|---|---|---|---|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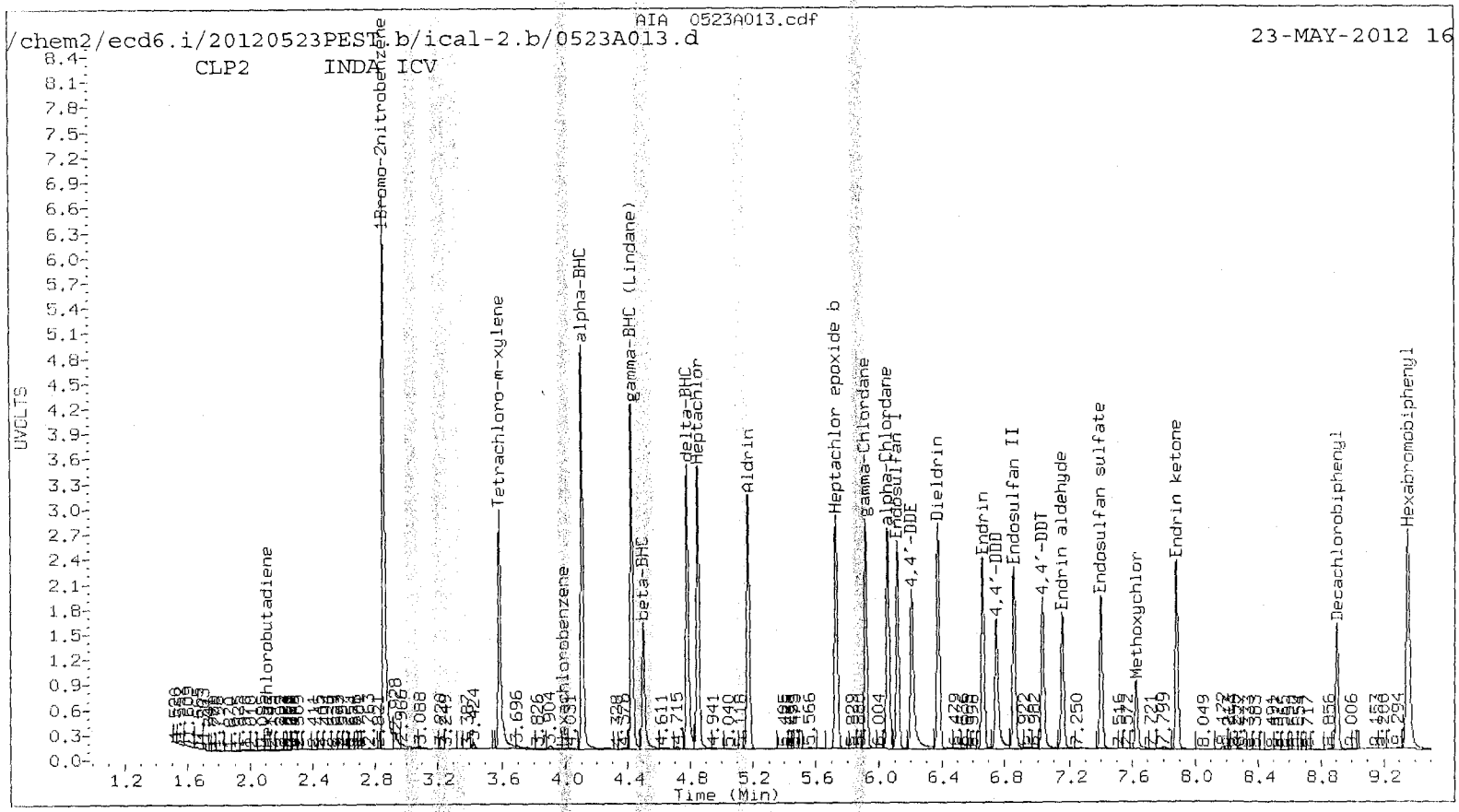
AIA 0523A013.cdf
23-MAY-2012 16
STX-CLP INDA ICV
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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23-MAY-2012 16
CLP2 INDA ICV
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

AR 5/24/2012

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A014.d ARI ID: HCB/HCBD ICV
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A014.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 16:52
Compound Sublist: INDA Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

HCB 40.8 & HCBD 46.8

| STX-CLP Col RT | Shift | Response | CLP2 Col RT | Shift | Response | STX-CLP on col | CLP2 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 2.796 | 0.000 | 4813617 | 2.854 | 0.000 | 15147530 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.882 | 0.035 | 74200 | ---- | | | ~~8.7726~~ | 0.0000 | --- | alpha-BHC |
| 4.196 | 0.013 | 8533 | 4.501 | -0.001 | 7590 | 0.2382 | 0.0765 | ~~102.8*~~ | beta-BHC |
| 4.320 | -0.017 | 22232 | 4.781 | -0.002 | 6349 | 0.3173 | 0.0345 | 160.8* | delta-BHC |
| 4.107 | 0.001 | 15516 | ---- | | | 0.1926 | 0.0000 | --- | gamma-BHC (Lindane) |
| 4.521 | 0.003 | 8762 | 4.841 | -0.008 | 7809 | 0.0985 | 0.0353 | 94.6* | Heptachlor |
| 4.809 | 0.022 | 6216 | 5.190 | 0.019 | 91775 | 0.0762 | 0.4781 | 145.0* | Aldrin |
| 5.353 | 0.007 | 3288 | 5.718 | -0.015 | 44903 | 0.0453 | 0.2411 | 136.8* | Heptachlor epoxide b |
| ---- | | | 6.135 | 0.017 | 24824 | 0.0000 | 0.1531 | --- | Endosulfan I |
| 5.946 | 0.000 | 4698 | 6.375 | -0.002 | 17842 | 0.0602 | 0.1065 | 55.6* | Dieldrin |
| 5.666 | -0.004 | 9735 | 6.207 | -0.001 | 67201 | 0.1971 | 0.4534 | 78.8* | 4,4'-DDE |
| 6.121 | -0.042 | 1742 | 6.683 | 0.019 | 16250 | 0.0241 | 0.1090 | 127.6* | Endrin |
| 6.370 | -0.001 | 1446 | 6.853 | -0.004 | 31013 | 0.0206 | 0.2054 | 163.6* | Endosulfan II |
| 6.227 | 0.000 | 5374 | 6.746 | -0.003 | 33975 | 0.0945 | 0.2728 | 97.1* | 4,4'-DDD |
| 7.139 | 0.001 | 4247 | 7.385 | -0.019 | 6543 | 0.0687 | 0.0564 | 19.6 | Endosulfan sulfate |
| 6.481 | -0.003 | 5176 | 7.036 | 0.002 | 29597 | 0.0828 | 0.2414 | 97.8* | 4,4'-DDT |
| 6.922 | -0.001 | 4680 | 7.624 | -0.005 | 15622 | 0.1470 | 0.2917 | 65.9* | Methoxychlor |
| 7.408 | 0.019 | 17271 | 7.874 | -0.007 | 14340 | 0.2203 | 0.0960 | 78.6* | Endrin ketone |
| 6.746 | -0.002 | 2882 | 7.156 | -0.002 | 22890 | 0.0508 | 0.1991 | 118.7* | Endrin aldehyde |
| 5.482 | 0.013 | 28861 | 5.937 | 0.019 | 233541 | 0.3664 | 1.3515 | 114.7* | gamma-Chlordane |
| 5.630 | 0.036 | 3656 | 6.080 | 0.023 | 17613 | ~~0.0488~~ | 0.1071 | ~~74.8*~~ | alpha-Chlordane |
| 2.053 | 0.000 | 4860171 | 2.113 | 0.000 | 12472927 | 45.7885 | 44.5444 | 2.8 | Hexachlorobutadiene |
| 3.716 | -0.001 | 2811369 | 3.994 | -0.001 | 10233887 | 42.4635 | 43.4490 | 2.3 | Hexachlorobenzene |
| 8.387 | -0.003 | 6719941 | 9.354 | -0.001 | 8680249 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 3.405 | -0.001 | 2881297 | 3.587 | -0.001 | 7867666 | 40.4528 | 41.8554 | 3.4 | Tetrachloro-m-xylene |
| 8.250 | -0.001 | 2792370 | 8.909 | 0.000 | 4460695 | 36.9897 | 37.1199 | 0.4 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 101.1 | 104.6 | 101.1~ | 115- 0 |
| Decachlorobiphenyl | 92.5 | 92.8 | 92.5~ | 115- 0 |

~ Indicates recovery outside QC Limits

UU52:01271

## INTERNAL STANDARD SUMMARY

Column 1

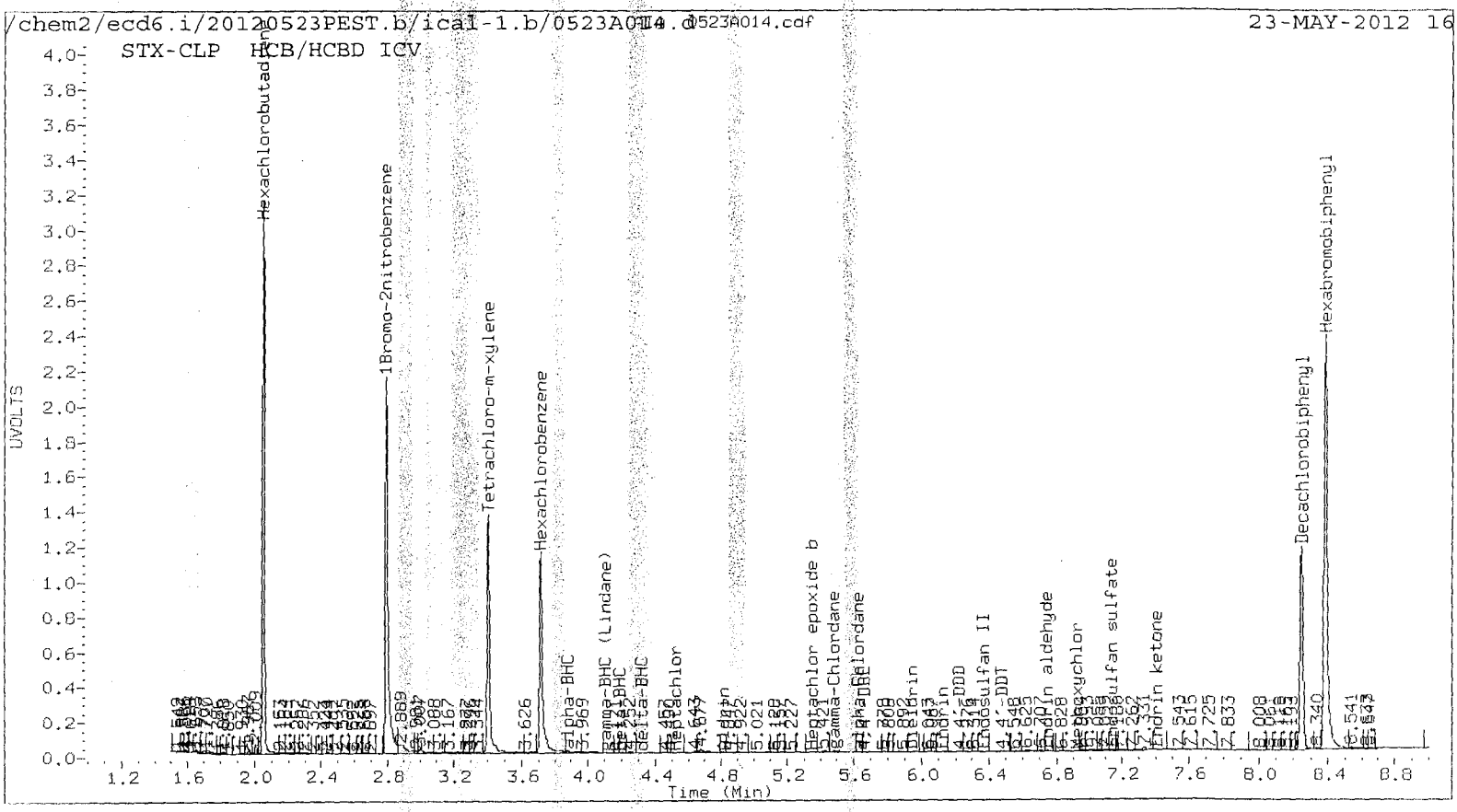
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4813617 | -0.6 |
| Hexabromobiphenyl | 6506091 | 6719941 | 3.3 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 15147530 | -6.7 |
| Hexabromobiphenyl | 8472750 | 8680249 | 2.4 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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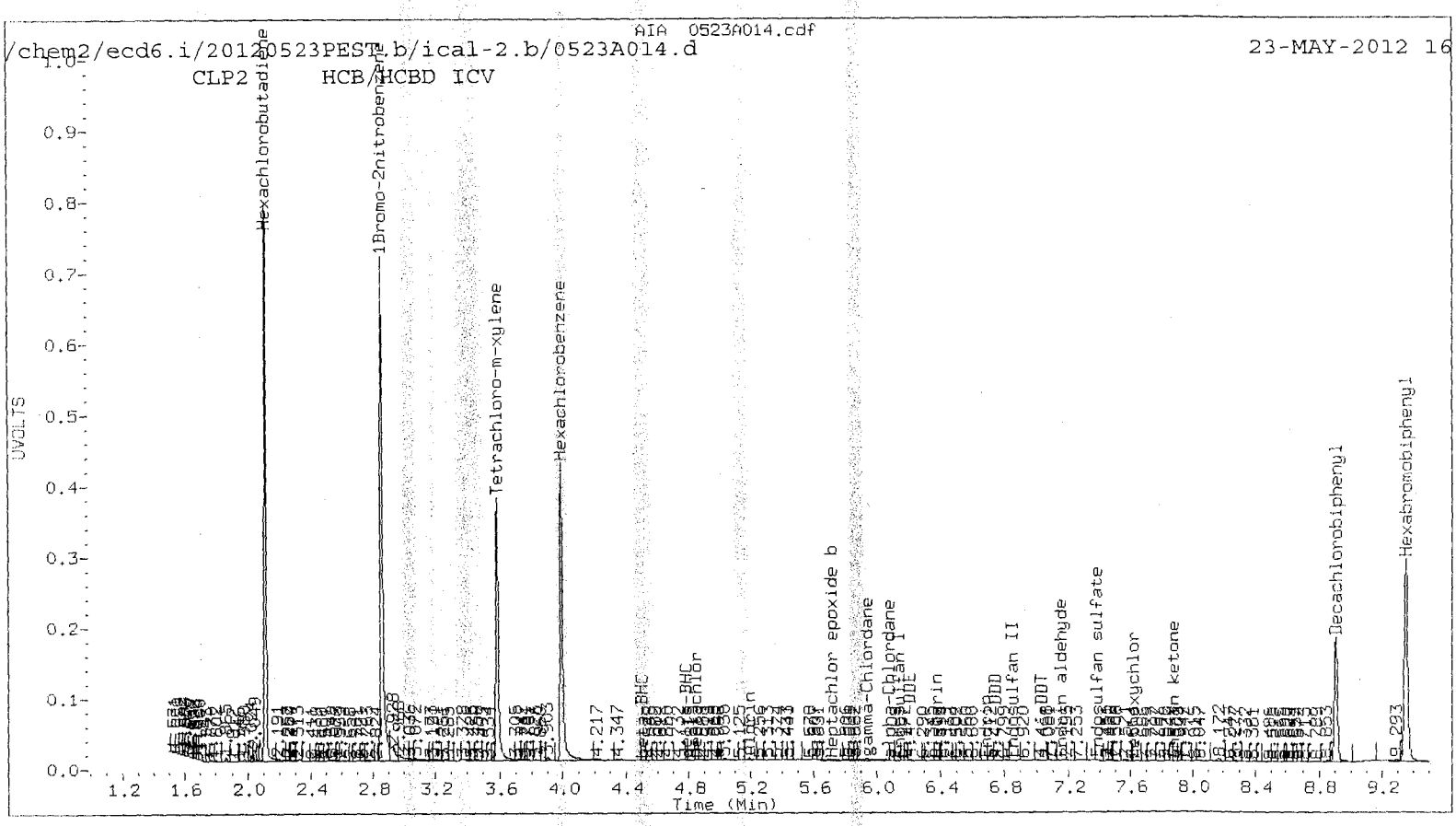
0523A014.cdf
23-MAY-2012 16
STX-CLP HCB/HCBD ICV
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
Heptachlor
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endrin
Endosulfan II
DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl


AIA 0523A014.cdf
/chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A014.d
23-MAY-2012 16
CLP2 HCB/HCBD ICV
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
DDE
Endrin
Endosulfan II
DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

UU52:01273

AR 5/23/2012

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A023.d ARI ID: WND ICV
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A023.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 19:32
Compound Sublist: WND Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

50ppb

| STX-CLP Col RT | Shift | Response | CLP2 Col RT | Shift | Response | STX-CLP on col | CLP2 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 1.721 | 0.002 | 1363 | 1.770 | 0.000 | 8294 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 2.796 | 0.000 | 4525140 | 2.855 | 0.000 | 16193143 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 5.251 | 0.000 | 3122271 | 5.643 | 0.000 | 7974775 | 53.6853 | 50.3865 | 6.3 | Oxychlordane |
| 5.340 | -0.001 | 13190248 | 5.909 | 0.000 | 27150924 | ~~322.0590~~ | ~~263.4879~~ | 20.0 | 2,4-DDE |
| 5.580 | 0.000 | 4049948 | 6.006 | 0.000 | 9335345 | 54.4447 | 53.7092 | 1.4 | trans-Nonachlor |
| 5.830 | 0.000 | 12579834 | 6.399 | 0.001 | 25636065 | ~~333.3169~~ | ~~264.1292~~ | 23.2 | 2,4-DDD |
| 6.069 | 0.000 | 15913707 | 6.685 | 0.000 | 28488322 | ~~320.0573~~ | ~~270.1829~~ | 16.9 | 2,4-DDT |
| 6.198 | 0.000 | 4446500 | 6.733 | 0.000 | 8786545 | 53.9970 | 50.1291 | 7.4 | cis-Nonachlor |
| 7.063 | 0.000 | 2722870 | 7.863 | 0.000 | 4878990 | 49.9166 | 46.3189 | 7.5 | Mirex |
| 8.390 | 0.001 | 6284187 | 9.356 | 0.000 | 8526437 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 3.407 | 0.001 | 2408999 | 3.588 | 0.000 | 7319008 | 35.9779 | 36.4224 | 1.2 | Tetrachloro-m-xylene |
| 8.251 | 0.000 | 2508707 | 8.908 | 0.000 | 4138276 | 35.5364 | 35.0581 | 1.4 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 89.9 | 91.1 | 89.9~ | 150- 0 |
| Decachlorobiphenyl | 88.8 | 87.6 | 87.6~ | 150- 0 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

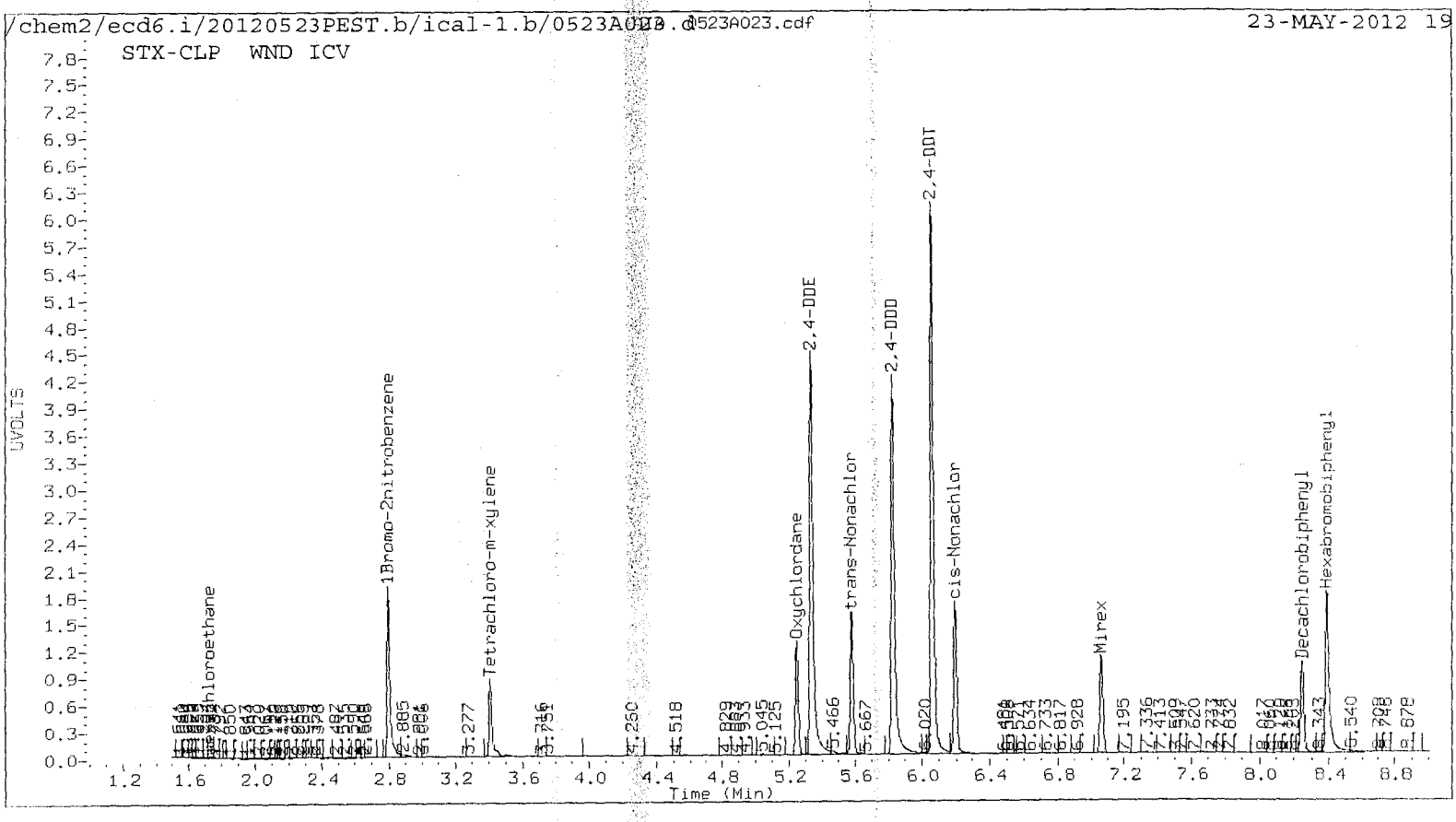
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4525140 | -6.5 |
| Hexabromobiphenyl | 6506091 | 6284187 | -3.4 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 16193143 | -0.2 |
| Hexabromobiphenyl | 8472750 | 8526437 | 0.6 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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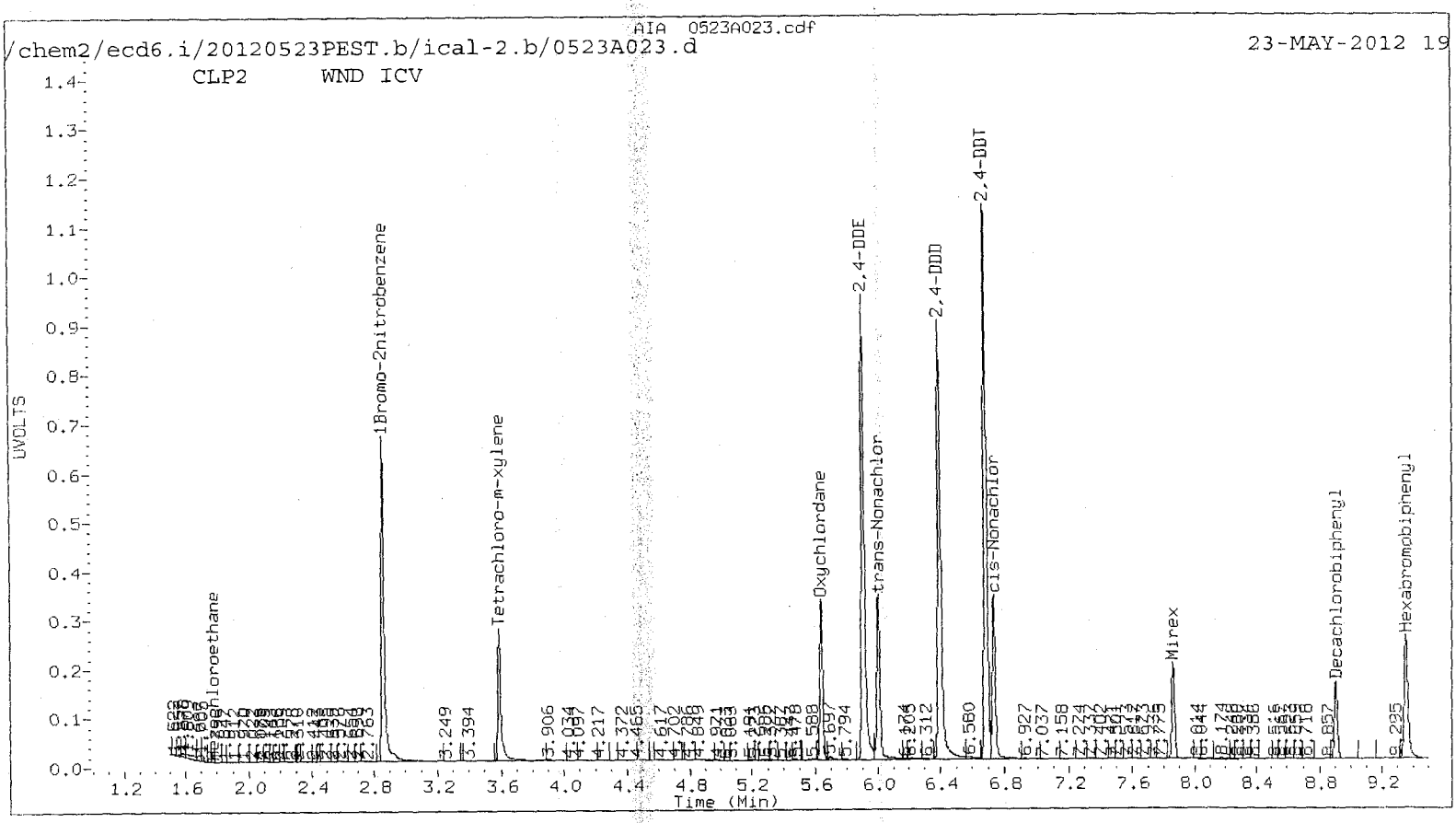
AIA 0523A023.cdf
23-MAY-2012 19
STX-CLP WND ICV
UVOLTS
Time (Min)
Chloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
cis-Nonachlor
2,4-DDT
Mirex
Decachlorobiphenyl
Hexabromobiphenyl


/chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A023.d
AIA 0523A023.cdf
23-MAY-2012 19
CLP2 WND ICV
UVOLTS
Time (Min)
Chloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
cis-Nonachlor
2,4-DDT
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

AR 5f23b2z

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/ical-1.b/0523A024.d ARI ID: 2/4-DDTS ICV
Data file 2: /chem2/ecd6.i/20120523PEST.b/ical-2.b/0523A024.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 23-MAY-2012 19:50
Compound Sublist: WND Report Date: 05/24/2012 10:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

50 ppb

| STX-CLP Col RT | Shift | Response | CLP2 Col RT | Shift | Response | STX-CLP on col | CLP2 on col | | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|---|
| 1.721 | 0.001 | 3034 | 1.742 | -0.028 | 6815 | 0.0000 | 0.0000 | | --- | Hexachloroethane |
| 2.796 | 0.000 | 4534400 | 2.855 | 0.000 | 15076973 | 80.0000 | 80.0000 | | 0.0 | 1Bromo-2nitrobenzene |
| 5.258 | 0.007 | 1403 | 5.630 | -0.014 | 5932 | ~~0.0231~~ | ~~0.0403~~ | NS | ~~54.2*~~ | Oxychlordane |
| 5.340 | -0.001 | 2417190 | 5.909 | -0.001 | 5870298 | 56.4624 | 61.1862 | 122% | 8.0 | 2,4-DDE |
| 5.629 | 0.048 | 3931 | ---- | | | ~~0.0506~~ | ~~0.0000~~ | NS | --- | trans-Nonachlor |
| 5.829 | -0.001 | 2209283 | 6.398 | -0.001 | 5057267 | 56.0015 | 51.3668 | ✓ | 8.6 | 2,4-DDD |
| 6.068 | -0.001 | 2847308 | 6.684 | -0.001 | 5751501 | 54.7844 | 53.7742 | | 1.9 | 2,4-DDT |
| 6.226 | 0.029 | 18076 | 6.745 | 0.011 | 80826 | ~~0.2100~~ | ~~0.4546~~ | NS | ~~73.6*~~ | cis-Nonachlor |
| ---- | | | 7.850 | -0.013 | 3694 | ~~0.0000~~ | ~~0.0346~~ | | --- | Mirex |
| 8.387 | -0.002 | 6568755 | 9.354 | -0.002 | 8649007 | 80.0000 | 80.0000 | | 0.0 | Hexabromobiphenyl |
| 3.405 | -0.001 | 5854 | 3.589 | 0.001 | 8032 | ~~0.0872~~ | ~~0.0429~~ | | ~~68.1*~~ | Tetrachloro-m-xylene |
| 8.251 | 0.001 | 4680 | 8.906 | -0.002 | 3815 | ~~0.0634~~ | ~~0.0319~~ | NS | ~~66.2*~~ | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 0.2 | 0.1 | 0.1~ | 150- 0 |
| Decachlorobiphenyl | 0.2 | 0.1 | 0.1~ | 150- 0 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

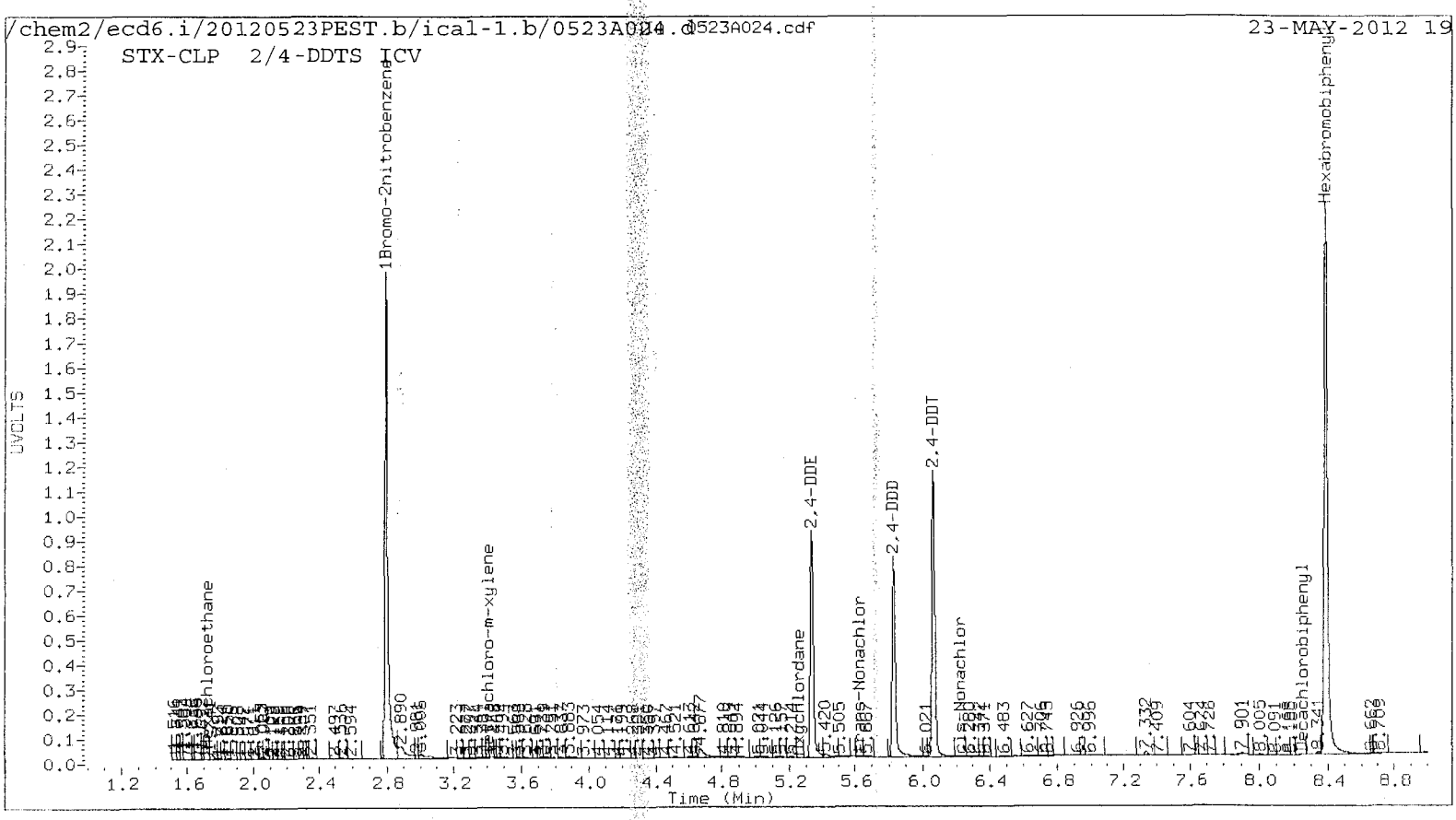
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4534400 | -6.3 |
| Hexabromobiphenyl | 6506091 | 6568755 | 1.0 |

Column 2

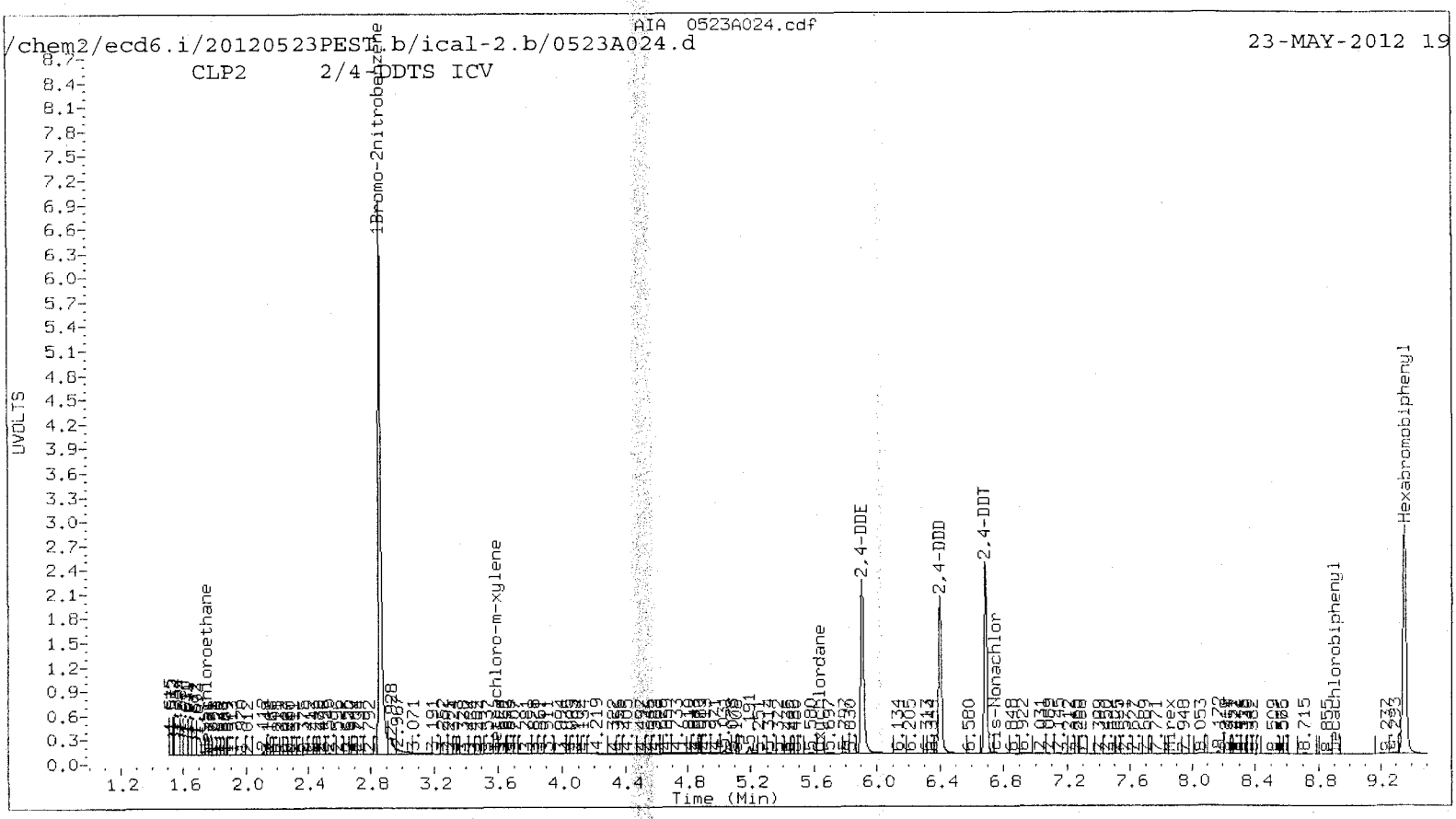
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 15076973 | -7.1 |
| Hexabromobiphenyl | 8472750 | 8649007 | 2.1 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | STX-CLP Col Peak# | RT | Shift | Height | Amount | CLP2 Col Peak# | RT | Shift | Height | Amount |
|---|---|---|---|---|---|---|---|---|---|---|




AIA 0523A024.cdf



**Analytical Resources, Incorporated**
Analytical Chemists and Consultants

# GC Initial Calibration Notes

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
**427S**(Dir Inj) **428S**(EPH) **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 ~~FID-7~~ FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date(s): ~~5/25/2012~~ ~~1878-3~~ AR 5/29/12 Internal Standard ID 1878-3 Expiration 8/1/2012

| | | | |
|---|---|---|---|
| Endrin/DDT Breakdown <15%? | YES / NO / NA | ICV Exceeding ±20%? | YES / NO |
| ICal Meets %RSD & $r^2$ Criteria | YES / NO | ICV Exceeding ±30%? | YES / NO |
| Manual Integrations for ICal? | YES / NO | Linear Fits Used? | YES / NO |
| Minimum Response S/N Met | YES / NO | Quadratic Fits Used? | YES / NO |
| | | Calibration Points Dropped? | YES / NO |

| Primary Source | Standard # | Expiration | Secondary Source | Standard # | Expiration |
|---|---|---|---|---|---|
| INDA | 1982-1 | 12/13/2012 | INDA | 1897-4 | 5/28/12 |
| WND | 1982-3 | 1/21/2013 | HCB/HCBD | 1886-2 | 5/28/12 |
| AR 5/29/12 ~~Toxaphene~~ | | | WND | 1935-2 | 5/28/12 |
| Toxaphene | 1924-5 | 5/28/12 | op DDTs | 1936-6 | 1/10/2013 |
| DS | 1878-2 | 5/28/12 | | | |
| IB | 1982-2 | 5/16/2013 | | | |
| Technlordane | 1924-4 | 5/28/12 | | | |
| | | | | | |

**Detail problems, corrective actions and/or other pertinent information below:**

Col 1 4,4'-DDE quadratic - forced

**Analyst:** _____ **Date:** 5/29/2012

**Reviewer:** _____ **Date:** 5/29/12



UU52:01280

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Cal Date : 29-May-2012 08:15 aron
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A017.d
Level 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A018.d
Level 3: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A019.d
Level 4: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A020.d
Level 5: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A016.d
Level 6: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A021.d
Level 7: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A022.d

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | 80.000 Level 7 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 1 Hexachlorobutadiene | 2.91911 | 2.57877 | 2.45230 | 2.36284 | 2.63356 | 2.37915 | 2.37127 | 2.52814 | 8.016 |
| 3 Hexachlorobenzene | 1.77193 | 1.55661 | 1.46839 | 1.42382 | 1.62132 | 1.42748 | 1.41606 | 1.52652 | 8.709 |
| 4 alpha-BHC | 1.68968 | 1.56515 | 1.57592 | 1.61859 | 1.77818 | 1.71551 | 1.71103 | 1.66487 | 4.789 |
| 5 gamma-BHC (Lindane) | 1.47022 | 1.34730 | 1.32848 | 1.33684 | 1.43315 | 1.40787 | 1.41085 | 1.39067 | 3.881 |
| 6 beta-BHC | 0.77651 | 0.72234 | 0.69329 | 0.66864 | 0.69014 | 0.65759 | 0.65116 | 0.69424 | 6.287 |
| 7 delta-BHC | 1.22178 | 1.12992 | 1.15981 | 1.15128 | 1.30197 | 1.29989 | 1.33375 | 1.22834 | 6.812 |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Cal Date : 29-May-2012 08:15 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 80.000 Level 7 | | | | | | | |
| 8 Heptachlor | 1.32761 | 1.28843 | 1.21128 | 1.25702 | 1.29836 | 1.26258 | | |
| | 1.21489 | | | | | | 1.26574 | 3.390 |
| 37 Chlorthalonil | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 9 Aldrin | 1.62648 | 1.49827 | 1.49178 | 1.51583 | 1.65007 | 1.58552 | | |
| | 1.57079 | | | | | | 1.56268 | 4.019 |
| 10 Heptachlor Epoxide a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 11 Heptachlor epoxide b | 1.47012 | 1.35814 | 1.28484 | 1.24394 | 1.29933 | 1.24314 | | |
| | 1.21837 | | | | | | 1.30256 | 6.689 |
| 12 gamma-Chlordane | 1.51441 | 1.38765 | 1.34451 | 1.35105 | 1.41189 | 1.39728 | | |
| | 1.40257 | | | | | | 1.40134 | 4.001 |
| 13 alpha-Chlordane | 1.49475 | 1.35633 | 1.45951 | 1.32537 | 1.42514 | 1.39023 | | |
| | 1.39345 | | | | | | 1.40640 | 4.154 |
| 14 Endosulfan I | 1.37667 | 1.25039 | 1.31719 | 1.20131 | 1.27183 | 1.23083 | | |
| | 1.21167 | | | | | | 1.26570 | 4.947 |
| 15 4,4'-DDE | 1.50933 | 1.38793 | 1.47610 | 1.40342 | 1.59024 | 1.52213 | | |
| | 1.50578 | | | | | | 1.48499 | 4.733 |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Cal Date : 29-May-2012 08:15 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | 80.000 Level 7 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 16 Dieldrin | 1.43928 | 1.32499 | 1.32098 | 1.31646 | 1.40466 | 1.32487 | 1.28972 | 1.34585 | 4.035 |
| 17 Endrin | 1.04979 | 0.94291 | 0.93298 | 0.93240 | 1.01973 | 0.90546 | 0.88797 | 0.95304 | 6.243 |
| 18 4,4'-DDD | 0.98821 | 0.87431 | 0.86287 | 0.83813 | 0.89046 | 0.81283 | 0.80196 | 0.86697 | 7.189 |
| 19 Endosulfan II | 1.12037 | 1.00305 | 1.00097 | 1.01073 | 1.06304 | 0.97333 | 0.93519 | 1.01524 | 5.947 |
| 20 4,4'-DDT | 0.47835 | 0.45131 | 0.49254 | 0.51784 | 0.58345 | 0.61053 | 0.65072 | 0.54068 | 13.826 |
| 21 Endrin aldehyde | 1.00531 | 0.88064 | 0.84381 | 0.83054 | 0.87899 | 0.79253 | 0.77807 | 0.85856 | 8.804 |
| 22 Endosulfan sulfate | 0.92238 | 0.83797 | 0.82787 | 0.83077 | 0.88949 | 0.82951 | 0.83256 | 0.85293 | 4.404 |
| 23 Methoxychlor | 0.27747 | 0.26382 | 0.27164 | 0.27385 | 0.28796 | 0.27628 | 0.28145 | 0.27607 | 2.755 |
| 24 Endrin ketone | 1.00700 | 0.92070 | 0.89839 | 0.90757 | 0.94827 | 0.88657 | 0.87986 | 0.92119 | 4.796 |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Cal Date : 29-May-2012 08:15 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 80.000 Level 7 | | | | | | | |
| (3) | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (4) | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (5) | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 34 Aroclor-1268(1) | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (2) | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (3) | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (4) | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| (5) | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 35 Toxaphene(1) | +++++ +++++ | +++++ | +++++ | +++++ | 0.04710 | +++++ | 0.04710 | 0.000 |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Cal Date : 29-May-2012 08:15 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 80.000 Level 7 | | | | | | | |
| (2) | +++++ | +++++ | +++++ | +++++ | 0.05196 | +++++ | | |
| | +++++ | | | | | | 0.05196 | 0.000 |
| (3) | +++++ | +++++ | +++++ | +++++ | 0.02234 | +++++ | | |
| | +++++ | | | | | | 0.02234 | 0.000 |
| (4) | +++++ | +++++ | +++++ | +++++ | 0.04374 | +++++ | | |
| | +++++ | | | | | | 0.04374 | 0.000 |
| (5) | +++++ | +++++ | +++++ | +++++ | 0.01686 | +++++ | | |
| | +++++ | | | | | | 0.01686 | 0.000 |
| 38 2,4-DDE | 0.94934 | 0.91486 | 0.84586 | 0.84646 | 0.89835 | 0.87334 | | |
| | 0.85928 | | | | | | 0.88393 | 4.385 |
| 39 2,4-DDD | 0.72470 | 0.66264 | 0.60525 | 0.59057 | 0.60008 | 0.56786 | | |
| | 0.56429 | | | | | | 0.61648 | 9.364 |
| 40 2,4-DDT | 0.56874 | 0.53458 | 0.51363 | 0.52252 | 0.54254 | 0.54935 | | |
| | 0.57306 | | | | | | 0.54349 | 4.085 |
| 41 Hexachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 42 Oxychlordane | 1.09556 | 1.05511 | 0.98585 | 0.99247 | 1.03484 | 1.02691 | | |
| | 1.01016 | | | | | | 1.02870 | 3.702 |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Cal Date : 29-May-2012 08:15 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | 80.000 Level 7 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 43 trans-Nonachlor | 1.29490 | 1.24526 | 1.10026 | 1.15126 | 1.14730 | 1.14321 | 1.15133 | 1.17622 | 5.786 |
| 44 cis-Nonachlor | 1.30313 | 1.27356 | 1.22391 | 1.24925 | 1.28290 | 1.28582 | 1.30353 | 1.27458 | 2.278 |
| 45 Mirex | 1.01475 | 0.85912 | 0.77889 | 0.77323 | 0.76999 | 0.76987 | 0.78870 | 0.82208 | 11.026 |
| 46 bis-(2-ethylhexyl) Phthalate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 47 Trifluralin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 48 Dacthal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 49 Oxadiazon | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 50 Kelthane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 51 Chlorpyrifos | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Cal Date : 29-May-2012 08:15 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 80.000 Level 7 | | | | | | | |
| 53 Methyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 54 Ethyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| $ 2 Tetrachloro-m-xylene | 2.06021 | 1.90428 | 1.86022 | 1.85806 | 2.13050 | 1.85441 | | |
| | 1.79176 | | | | | | 1.92278 | 6.451 |
| $ 25 Decachlorobiphenyl | 1.67509 | 1.43412 | 1.35395 | 1.25892 | 1.34592 | 1.18598 | | |
| | 1.15910 | | | | | | 1.34473 | 13.031 |

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd8.i/20120525PEST.b/ical-2.b

ARI Job No.: DS  Method: PEST0525B.m  Instrument: ecd8.i  Date: 25-MAY-2012

| Time | Filename | LabID | ClientId | DF | Manually Integrated Compounds |
|---|---|---|---|---|---|
| 1434 | 0524A004.d | DS | | 1 | 4,4'-DDE, |
| 1453 | 0524A005.d | IB | | 1 | NO MANUAL INTEGRATION |
| 1512 | 0524A006.d | INDAE | | 1 | NO MANUAL INTEGRATION |
| 1531 | 0524A007.d | INDAA | | 1 | NO MANUAL INTEGRATION |
| 1550 | 0524A008.d | INDAB | | 1 | NO MANUAL INTEGRATION |
| 1609 | 0524A009.d | INDAC | | 1 | NO MANUAL INTEGRATION |
| 1628 | 0524A010.d | INDAD | | 1 | NO MANUAL INTEGRATION |
| 1647 | 0524A011.d | INDAF | | 1 | NO MANUAL INTEGRATION |
| 1706 | 0524A012.d | IDNAG | | 1 | NO MANUAL INTEGRATION |
| 1725 | 0524A013.d | INDA ICV | | 1 | NO MANUAL INTEGRATION |
| 1743 | 0524A014.d | HCB/HCBD ICV | | 1 | NO MANUAL INTEGRATION |
| 1802 | 0524A015.d | TOXAPH 2500 | | 1 | NO MANUAL INTEGRATION |
| 1821 | 0524A016.d | WNDE | | 1 | NO MANUAL INTEGRATION |
| 1840 | 0524A017.d | WNDA | | 1 | NO MANUAL INTEGRATION |
| 1859 | 0524A018.d | WNDB | | 1 | NO MANUAL INTEGRATION |
| 1918 | 0524A019.d | WNDC | | 1 | NO MANUAL INTEGRATION |
| 1937 | 0524A020.d | WNDD | | 1 | NO MANUAL INTEGRATION |
| 1956 | 0524A021.d | WNDF | | 1 | NO MANUAL INTEGRATION |
| 2014 | 0524A022.d | WNDG | | 1 | NO MANUAL INTEGRATION |
| 2033 | 0524A023.d | WND ICV | | 1 | NO MANUAL INTEGRATION |
| 2052 | 0524A024.d | OPDDTS ICV | | 1 | NO MANUAL INTEGRATION |

ECS 2 6 2012

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd8.i/20120525PEST.b/ical-2.b

| Time | Filename | LabID | ClientId | DF | Manually Integrated Compounds |
|---|---|---|---|---|---|
| 2111 | 0524A025.d DDT RT | | | 1 | NO MANUAL INTEGRATION |
| 2130 | 0524A026.d TECH 200 | | | 1 | NO MANUAL INTEGRATION |

UU52:01289

Report Date : 29-May-2012 08:21



Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-2.b
Inst ID: ecd8.i

| ID: | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 |
|---|---|---|---|---|---|---|---|
| FILENAME: | 0524A006 | 0524A007 | 0524A008 | 0524A009 | 0524A010 | 0524A011 | 0524A012 |
| INJ.DATE: | 25-MAY-2012 | 25-MAY-2012 | 25-MAY-2012 | 25-MAY-2012 | 25-MAY-2012 | 25-MAY-2012 | 25-MAY-2012 |
| INJ.TIME: | 15:12 | 15:31 | 15:50 | 16:09 | 16:28 | 16:47 | 17:06 |

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 Hexachlorobutadiene | 2.035 | 2.035 | 2.037 | 2.037 | 2.036 | 2.036 | 2.037 | 2.037 | 1.987-2.087 | 2.036 | 0.001 |
| * 52 1Bromo-2nitrobenzene | 3.295 | 3.295 | 3.295 | 3.295 | 3.295 | 3.296 | 3.296 | 3.296 | 3.246-3.346 | 3.295 | 0.000 |
| * 55 Hexabromobiphenyl | 10.431 | 10.432 | 10.433 | 10.433 | 10.433 | 10.433 | 10.432 | 10.433 | 10.383-10.483 | 10.432 | 0.001 |
| $ 2 Tetrachloro-m-xylene | 4.297 | 4.298 | 4.298 | 4.298 | 4.298 | 4.299 | 4.299 | 4.299 | 4.249-4.349 | 4.298 | 0.001 |
| 3 Hexachlorobenzene | 4.790 | 4.791 | 4.792 | 4.791 | 4.791 | 4.791 | 4.791 | 4.791 | 4.741-4.841 | 4.791 | 0.001 |
| 4 alpha-BHC | 4.928 | 4.928 | 4.929 | 4.929 | 4.928 | 4.929 | 4.929 | 4.929 | 4.879-4.979 | 4.929 | 0.001 |
| 5 gamma-BHC (Lindane) | 5.281 | 5.282 | 5.283 | 5.283 | 5.282 | 5.283 | 5.283 | 5.283 | 5.233-5.333 | 5.282 | 0.001 |
| 6 beta-BHC | 5.366 | 5.367 | 5.368 | 5.368 | 5.367 | 5.367 | 5.366 | 5.366 | 5.316-5.416 | 5.367 | 0.001 |
| 7 delta-BHC | 5.652 | 5.654 | 5.655 | 5.654 | 5.654 | 5.654 | 5.653 | 5.653 | 5.603-5.703 | 5.653 | 0.001 |
| 8 Heptachlor | 5.712 | 5.713 | 5.714 | 5.713 | 5.713 | 5.714 | 5.713 | 5.713 | 5.663-5.763 | 5.713 | 0.001 |
| 37 Chlorthalonil | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 14.588 | 14.538-14.638 | +++++ | +++++ |
| 9 Aldrin | 6.027 | 6.028 | 6.029 | 6.029 | 6.028 | 6.029 | 6.028 | 6.028 | 5.978-6.078 | 6.028 | 0.001 |
| 10 Heptachlor Epoxide a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 12.680 | 12.630-12.730 | +++++ | +++++ |
| 11 Heptachlor epoxide b | 6.566 | 6.567 | 6.567 | 6.567 | 6.567 | 6.568 | 6.567 | 6.567 | 6.517-6.617 | 6.567 | 0.001 |
| 12 gamma-Chlordane | 6.745 | 6.746 | 6.746 | 6.746 | 6.745 | 6.747 | 6.746 | 6.746 | 6.696-6.796 | 6.746 | 0.001 |
| 13 alpha-Chlordane | 6.880 | 6.881 | 6.882 | 6.882 | 6.881 | 6.882 | 6.882 | 6.882 | 6.832-6.932 | 6.881 | 0.001 |
| 14 Endosulfan I | 6.941 | 6.942 | 6.942 | 6.942 | 6.942 | 6.943 | 6.942 | 6.942 | 6.892-6.992 | 6.942 | 0.001 |

Reviewer 1 AR Date: 5/29/2012 AR
Reviewer 2 [signature] Date: 5/29/12

UU52:01290

Report Date : 29-May-2012 08:21

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-2.b
Inst ID: ecd8.i

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 15 4,4'-DDE | 7.024 | 7.028 | 7.028 | 7.027 | 7.026 | 7.025 | 7.023 | 7.023 | 6.973-7.073 | 7.026 | 0.002 |
| 16 Dieldrin | 7.197 | 7.199 | 7.199 | 7.199 | 7.198 | 7.200 | 7.199 | 7.199 | 7.149-7.249 | 7.199 | 0.001 |
| 17 Endrin | 7.488 | 7.489 | 7.490 | 7.490 | 7.489 | 7.490 | 7.490 | 7.490 | 7.440-7.540 | 7.489 | 0.001 |
| 18 4,4'-DDD | 7.566 | 7.569 | 7.569 | 7.569 | 7.568 | 7.566 | 7.564 | 7.564 | 7.514-7.614 | 7.567 | 0.002 |
| 19 Endosulfan II | 7.684 | 7.686 | 7.686 | 7.686 | 7.686 | 7.686 | 7.686 | 7.686 | 7.636-7.736 | 7.686 | 0.001 |
| 20 4,4'-DDT | 7.858 | 7.861 | 7.861 | 7.861 | 7.860 | 7.859 | 7.858 | 7.858 | 7.808-7.908 | 7.860 | 0.001 |
| 21 Endrin aldehyde | 7.997 | 7.999 | 7.999 | 7.999 | 7.998 | 7.998 | 7.999 | 7.999 | 7.949-8.049 | 7.998 | 0.001 |
| 22 Endosulfan sulfate | 8.257 | 8.259 | 8.259 | 8.259 | 8.258 | 8.259 | 8.258 | 8.258 | 8.208-8.308 | 8.258 | 0.001 |
| 23 Methoxychlor | 8.487 | 8.489 | 8.489 | 8.489 | 8.489 | 8.489 | 8.487 | 8.487 | 8.437-8.537 | 8.488 | 0.001 |
| 24 Endrin ketone | 8.779 | 8.781 | 8.780 | 8.781 | 8.780 | 8.781 | 8.780 | 8.780 | 8.730-8.830 | 8.780 | 0.000 |
| $ 25 Decachlorobiphenyl | 9.921 | 9.922 | 9.922 | 9.922 | 9.922 | 9.922 | 9.921 | 9.921 | 9.871-9.971 | 9.922 | 0.001 |
| 26 Aroclor-1016 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.619 | 5.569-5.669 | +++++ | +++++ |
| 27 Aroclor-1221 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.588 | 4.538-4.638 | +++++ | +++++ |
| 28 Aroclor-1232 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.174 | 5.124-5.224 | +++++ | +++++ |
| 29 Aroclor-1242 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.749 | 5.699-5.799 | +++++ | +++++ |
| 30 Aroclor-1248 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.914 | 5.864-5.964 | +++++ | +++++ |
| 31 Aroclor-1254 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.552 | 6.502-6.602 | +++++ | +++++ |
| 32 Aroclor-1260 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.335 | 7.285-7.385 | +++++ | +++++ |
| 33 Aroclor-1262 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.526 | 7.476-7.576 | +++++ | +++++ |
| 34 Aroclor-1268 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.793 | 8.743-8.843 | +++++ | +++++ |
| 35 Toxaphene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.759 | 7.709-7.809 | +++++ | +++++ |
| 38 2,4-DDE | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.736 | 6.686-6.786 | +++++ | +++++ |

152759-2510

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-2.b
Inst ID: ecd8.i

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 39 2,4-DDD | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.215 | 7.165-7.265 | +++++ | +++++ |
| 40 2,4-DDT | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.503 | 7.453-7.553 | +++++ | +++++ |
| 41 Hexachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 1.752 | 1.702-1.802 | +++++ | +++++ |
| 42 Oxychlordane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.482 | 6.432-6.532 | +++++ | +++++ |
| 43 trans-Nonachlor | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.832 | 6.782-6.882 | +++++ | +++++ |
| 44 cis-Nonachlor | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.557 | 7.507-7.607 | +++++ | +++++ |
| 45 Mirex | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.759 | 8.709-8.809 | +++++ | +++++ |
| 46 bis-(2-ethylhexyl) Pht | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 21.499 | 21.449-21.549 | +++++ | +++++ |
| 47 Trifluralin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.871 | 4.821-4.921 | +++++ | +++++ |
| 48 Dacthal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.640 | 6.590-6.690 | +++++ | +++++ |
| 49 Oxadiazon | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.115 | 8.065-8.165 | +++++ | +++++ |
| 50 Kelthane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 11.286 | 11.236-11.336 | +++++ | +++++ |
| 51 Chlorpyrifos | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.527 | 6.477-6.577 | +++++ | +++++ |
| 53 Methyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.342 | 6.292-6.392 | +++++ | +++++ |
| 54 Ethyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.841 | 6.791-6.891 | +++++ | +++++ |

UU52:01292

Report Date : 29-May-2012 08:21

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-2.b
Inst ID: ecd8.i

| ID: | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 |
|---|---|---|---|---|---|---|---|
| FILENAME: | 0524A016 | 0524A017 | 0524A018 | 0524A019 | 0524A020 | 0524A021 | 0524A022 |
| INJ.DATE: | 25-MAY-2012 | 25-MAY-2012 | 25-MAY-2012 | 25-MAY-2012 | 25-MAY-2012 | 25-MAY-2012 | 25-MAY-2012 |
| INJ.TIME: | 18:21 | 18:40 | 18:59 | 19:18 | 19:37 | 19:56 | 20:14 |

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 Hexachlorobutadiene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 2.037 | 1.987-2.087 | +++++ | +++++ |
| * 52 1Bromo-2nitrobenzene | 3.295 | 3.296 | 3.295 | 3.295 | 3.297 | 3.297 | 3.296 | 3.296 | 3.246-3.346 | 3.296 | 0.001 |
| * 55 Hexabromobiphenyl | 10.431 | 10.430 | 10.431 | 10.431 | 10.433 | 10.435 | 10.433 | 10.433 | 10.383-10.483 | 10.432 | 0.002 |
| $ 2 Tetrachloro-m-xylene | 4.297 | 4.298 | 4.298 | 4.298 | 4.299 | 4.299 | 4.300 | 4.299 | 4.249-4.349 | 4.298 | 0.001 |
| 3 Hexachlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.791 | 4.741-4.841 | +++++ | +++++ |
| 4 alpha-BHC | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.929 | 4.879-4.979 | +++++ | +++++ |
| 5 gamma-BHC (Lindane) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.283 | 5.233-5.333 | +++++ | +++++ |
| 6 beta-BHC | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.366 | 5.316-5.416 | +++++ | +++++ |
| 7 delta-BHC | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.653 | 5.603-5.703 | +++++ | +++++ |
| 8 Heptachlor | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.713 | 5.663-5.763 | +++++ | +++++ |
| 37 Chlorthalonil | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 14.588 | 14.538-14.638 | +++++ | +++++ |
| 9 Aldrin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.028 | 5.978-6.078 | +++++ | +++++ |
| 10 Heptachlor Epoxide a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 12.680 | 12.630-12.730 | +++++ | +++++ |
| 11 Heptachlor epoxide b | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.567 | 6.517-6.617 | +++++ | +++++ |
| 12 gamma-Chlordane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.746 | 6.696-6.796 | +++++ | +++++ |
| 13 alpha-Chlordane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.882 | 6.832-6.932 | +++++ | +++++ |
| 14 Endosulfan I | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.942 | 6.892-6.992 | +++++ | +++++ |

Reviewer 1 AL Date: 5/29/2012
Reviewer 2 [illegible] Date: 5/29/12

UU52:01293

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-2.b
Inst ID: ecd8.i

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 15 4,4'-DDE | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.023 | 6.973-7.073 | +++++ | +++++ |
| 16 Dieldrin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.199 | 7.149-7.249 | +++++ | +++++ |
| 17 Endrin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.490 | 7.440-7.540 | +++++ | +++++ |
| 18 4,4'-DDD | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.564 | 7.514-7.614 | +++++ | +++++ |
| 19 Endosulfan II | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.686 | 7.636-7.736 | +++++ | +++++ |
| 20 4,4'-DDT | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.858 | 7.808-7.908 | +++++ | +++++ |
| 21 Endrin aldehyde | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.999 | 7.949-8.049 | +++++ | +++++ |
| 22 Endosulfan sulfate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.258 | 8.208-8.308 | +++++ | +++++ |
| 23 Methoxychlor | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.487 | 8.437-8.537 | +++++ | +++++ |
| 24 Endrin ketone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.780 | 8.730-8.830 | +++++ | +++++ |
| $ 25 Decachlorobiphenyl | 9.921 | 9.921 | 9.922 | 9.922 | 9.924 | 9.925 | 9.923 | 9.921 | 9.871-9.971 | 9.922 | 0.001 |
| 26 Aroclor-1016 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.619 | 5.569-5.669 | +++++ | +++++ |
| 27 Aroclor-1221 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.588 | 4.538-4.638 | +++++ | +++++ |
| 28 Aroclor-1232 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.174 | 5.124-5.224 | +++++ | +++++ |
| 29 Aroclor-1242 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.749 | 5.699-5.799 | +++++ | +++++ |
| 30 Aroclor-1248 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.914 | 5.864-5.964 | +++++ | +++++ |
| 31 Aroclor-1254 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.552 | 6.502-6.602 | +++++ | +++++ |
| 32 Aroclor-1260 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.335 | 7.285-7.385 | +++++ | +++++ |
| 33 Aroclor-1262 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.526 | 7.476-7.576 | +++++ | +++++ |
| 34 Aroclor-1268 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.793 | 8.743-8.843 | +++++ | +++++ |
| 35 Toxaphene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.759 | 7.709-7.809 | +++++ | +++++ |
| 38 2,4-DDE | 6.735 | 6.735 | 6.736 | 6.735 | 6.737 | 6.738 | 6.736 | 6.736 | 6.686-6.786 | 6.736 | 0.001 |

UU52:01294

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525B.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-2.b
Inst ID: ecd8.i

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 39 2,4-DDD | 7.215 | 7.216 | 7.216 | 7.216 | 7.218 | 7.217 | 7.215 | 7.215 | 7.165-7.265 | 7.216 | 0.001 |
| 40 2,4-DDT | 7.501 | 7.501 | 7.502 | 7.501 | 7.504 | 7.504 | 7.503 | 7.503 | 7.453-7.553 | 7.502 | 0.001 |
| 41 Hexachloroethane | 1.747 | 1.751 | 1.749 | 1.751 | 1.749 | 1.754 | 1.752 | 1.752 | 1.702-1.802 | 1.750 | 0.002 |
| 42 Oxychlordane | 6.480 | 6.479 | 6.480 | 6.479 | 6.482 | 6.483 | 6.482 | 6.482 | 6.432-6.532 | 6.481 | 0.001 |
| 43 trans-Nonachlor | 6.829 | 6.829 | 6.830 | 6.829 | 6.831 | 6.833 | 6.832 | 6.832 | 6.782-6.882 | 6.830 | 0.001 |
| 44 cis-Nonachlor | 7.555 | 7.554 | 7.555 | 7.554 | 7.557 | 7.558 | 7.557 | 7.557 | 7.507-7.607 | 7.556 | 0.001 |
| 45 Mirex | 8.758 | 8.757 | 8.758 | 8.758 | 8.760 | 8.761 | 8.759 | 8.759 | 8.709-8.809 | 8.759 | 0.002 |
| 46 bis-(2-ethylhexyl) Pht | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 21.499 | 21.449-21.549 | +++++ | +++++ |
| 47 Trifluralin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.871 | 4.821-4.921 | +++++ | +++++ |
| 48 Dacthal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.640 | 6.590-6.690 | +++++ | +++++ |
| 49 Oxadiazon | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.115 | 8.065-8.165 | +++++ | +++++ |
| 50 Kelthane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 11.286 | 11.236-11.336 | +++++ | +++++ |
| 51 Chlorpyrifos | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.527 | 6.477-6.577 | +++++ | +++++ |
| 53 Methyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.342 | 6.292-6.392 | +++++ | +++++ |
| 54 Ethyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.841 | 6.791-6.891 | +++++ | +++++ |

UU52:01295

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A017.d
Level 2: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A018.d
Level 3: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A019.d
Level 4: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A020.d
Level 5: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A016.d
Level 6: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A021.d
Level 7: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A022.d

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | 80.000 Level 7 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 1 Hexachlorobutadiene | 2.34878 | 2.22828 | 2.72236 | 2.25813 | 2.52789 | 2.35305 | 2.64564 | 2.44059 | 7.908 |
| 3 Hexachlorobenzene | 1.51117 | 1.37478 | 1.32049 | 1.33270 | 1.48020 | 1.36080 | 1.43647 | 1.40237 | 5.297 |
| 4 alpha-BHC | 1.33331 | 1.30654 | 1.35607 | 1.48914 | 1.69579 | 1.72746 | 1.84513 | 1.53620 | 14.214 |
| 5 gamma-BHC (Lindane) | 1.18744 | 1.12664 | 1.09843 | 1.17937 | 1.34846 | 1.35528 | 1.44505 | 1.24867 | 10.640 |
| 6 beta-BHC | 0.73035 | 0.65030 | 0.52207 | 0.57279 | 0.55449 | 0.54845 | 0.56099 | 0.59135 | 12.361 |
| 7 delta-BHC | 1.10318 | 1.05349 | 1.03892 | 1.13704 | 1.32126 | 1.37226 | 1.52269 | 1.22126 | 15.176 |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | 80.000 Level 7 | RRF | % RSD | |
|---|---|---|---|---|---|---|---|---|---|---|
| 8 Heptachlor | 1.16702 | 1.12084 | 1.11214 | 1.19922 | 1.33371 | 1.31416 | 1.37270 | 1.23140 | 8.703 | |
| 9 Aldrin | 1.34812 | 1.30074 | 1.32391 | 1.41685 | 1.57726 | 1.60024 | 1.68526 | 1.46462 | 10.514 | |
| 38 Chlorthalonil | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 10 Heptachlor Epoxide a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | |
| 11 Heptachlor epoxide b | 1.32784 | 1.23103 | 1.22111 | 1.27111 | 1.36780 | 1.35610 | 1.40643 | 1.31163 | 5.455 | |
| 12 gamma-Chlordane | 1.30541 | 1.22266 | 1.20343 | 1.25727 | 1.38157 | 1.36690 | 1.45247 | 1.31282 | 6.981 | |
| 13 alpha-Chlordane | 1.29118 | 1.23307 | 1.34518 | 1.30036 | 1.42301 | 1.39638 | 1.48530 | 1.35350 | 6.421 | |
| 14 Endosulfan I | 2.01649 | 2.28009 | 2.10309 | 2.12921 | 2.17621 | 1.95338 | 1.80460 | 2.06615 | 7.571 | |
| 15 4,4'-DDE | 0.71917 | 0.71540 | 0.84000 | 0.86831 | 1.17420 | 1.25640 | 1.47844 | 1.00742 | 29.430 | <- |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | 80.000 Level 7 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 16 Dieldrin | 1.28561 | 1.30371 | 1.31936 | 1.40713 | 1.53463 | 1.45964 | 1.50374 | 1.40197 | 7.211 |
| 17 Endrin | 0.81805 | 0.78017 | 0.78481 | 0.82808 | 0.97751 | 0.91175 | 0.98350 | 0.86913 | 10.070 |
| 18 4,4'-DDD | 0.85445 | 0.73465 | 0.63328 | 0.62739 | 0.71596 | 0.66127 | 0.72561 | 0.70752 | 11.068 |
| 19 Endosulfan II | 0.90660 | 0.84697 | 0.81824 | 0.85598 | 0.97883 | 0.90018 | 0.94946 | 0.89375 | 6.438 |
| 20 4,4'-DDT | 0.38951 | 0.40328 | 0.39039 | 0.44897 | 0.54873 | 0.55365 | 0.62298 | 0.47965 | 19.716 |
| 21 Endrin aldehyde | 0.74496 | 0.68383 | 0.65992 | 0.67296 | 0.75668 | 0.70730 | 0.75328 | 0.71127 | 5.692 |
| 22 Methoxychlor | 0.26067 | 0.24817 | 0.25211 | 0.25583 | 0.28711 | 0.28482 | 0.31703 | 0.27225 | 9.211 |
| 23 Endosulfan sulfate | 0.74751 | 0.70039 | 0.69434 | 0.69404 | 0.80702 | 0.76194 | 0.82559 | 0.74726 | 7.279 |
| 24 Endrin ketone | 1.13707 | 0.96228 | 0.87888 | 0.84297 | 0.92050 | 0.85841 | 0.90396 | 0.92915 | 10.762 |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 80.000 Level 7 | | | | | | | |
| 35 Toxaphene(1) | +++++ | +++++ | +++++ | +++++ | 0.04017 | +++++ | | |
| | +++++ | | | | | | 0.04017 | 0.000 |
| (2) | +++++ | +++++ | +++++ | +++++ | 0.02802 | +++++ | | |
| | +++++ | | | | | | 0.02802 | 0.000 |
| (3) | +++++ | +++++ | +++++ | +++++ | 0.02539 | +++++ | | |
| | +++++ | | | | | | 0.02539 | 0.000 |
| (4) | +++++ | +++++ | +++++ | +++++ | 0.04226 | +++++ | | |
| | +++++ | | | | | | 0.04226 | 0.000 |
| (5) | +++++ | +++++ | +++++ | +++++ | 0.03298 | +++++ | | |
| | +++++ | | | | | | 0.03298 | 0.000 |
| (6) | +++++ | +++++ | +++++ | +++++ | 0.02391 | +++++ | | |
| | +++++ | | | | | | 0.02391 | 0.000 |
| 39 2,4-DDE | 0.64988 | 0.61961 | 0.57249 | 0.59082 | 0.66134 | 0.66488 | | |
| | 0.69400 | | | | | | 0.63614 | 6.845 |
| 40 2,4-DDD | 0.49881 | 0.48537 | 0.41561 | 0.41210 | 0.45904 | 0.44475 | | |
| | 0.46367 | | | | | | 0.45419 | 7.205 |
| 41 2,4-DDT | 0.46557 | 0.44832 | 0.40077 | 0.42378 | 0.46850 | 0.47784 | | |
| | 0.51216 | | | | | | 0.45670 | 8.007 |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron
Curve Type : Average

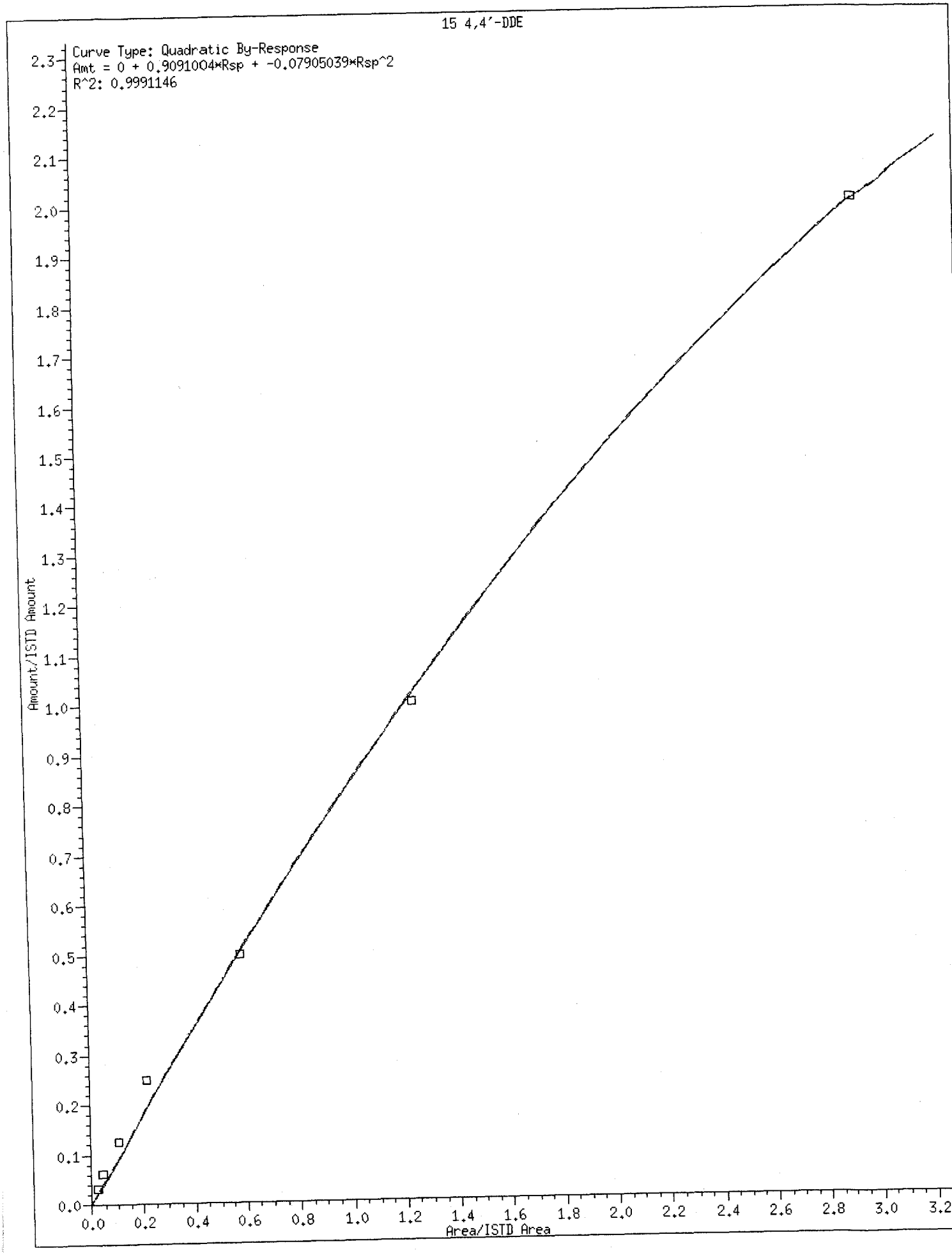
| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | 80.000 Level 7 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|
| 42 Hexachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 43 Oxychlordane | 0.80130 | 0.77864 | 0.72384 | 0.76824 | 0.82434 | 0.85339 | 0.89108 | 0.80583 | 6.940 |
| 44 trans-Nonachlor | 0.94111 | 0.87461 | 0.78610 | 0.85154 | 0.93144 | 0.97849 | 1.02639 | 0.91281 | 8.904 |
| 45 cis-Nonachlor | 0.97468 | 0.94956 | 0.89805 | 0.99130 | 1.07707 | 1.16703 | 1.22741 | 1.04073 | 11.610 |
| 46 Mirex | 0.74177 | 0.64061 | 0.56842 | 0.57644 | 0.59676 | 0.58873 | 0.61132 | 0.61772 | 9.660 |
| 47 bis-(2-ethylhexyl) Phthalate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 48 Trifluralin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 49 Dacthal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 50 Oxadiazon | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron
Curve Type : Average

| Compound | 1.250 Level 1 | 2.500 Level 2 | 5.000 Level 3 | 10.000 Level 4 | 20.000 Level 5 | 40.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 80.000 Level 7 | | | | | | | |
| 51 Kelthane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 53 Chlorpyrifos | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 55 Methyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| 56 Ethyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | | | | | | +++++ | +++++ |
| $ 2 Tetrachloro-m-xylene | 1.15602 | 1.07347 | 1.05521 | 1.08545 | 1.22492 | 1.14344 | | |
| | 1.18849 | | | | | | 1.13243 | 5.587 |
| $ 25 Decachlorobiphenyl | 1.56359 | 1.35337 | 1.26811 | 1.24542 | 1.40361 | 1.27810 | | |
| | 1.34970 | | | | | | 1.35170 | 8.065 |


15 4,4'-DDE
Curve Type: Quadratic By-Response
Amt = 0 + 0.909100 4*Rsp + -0.07905039*Rsp^2
R^2: 0.9991146
Amount/ISTD Amount
Area/ISTD Area
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
2.2
2.3
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron

Calibration File Names:
Level 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A017.d
Level 2: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A018.d
Level 3: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A019.d
Level 4: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A020.d
Level 5: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A016.d
Level 6: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A021.d
Level 7: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A022.d

| Compound | 1 Level 1 / 80 Level 7 | 2 Level 2 | 5 Level 3 | 10 Level 4 | 20 Level 5 | 40 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 Hexachlorobutadiene | 2.34878 | 2.22828 | 2.72236 | 2.25813 | 2.52789 | 2.35305 | | | | | |
| | 2.64564 | | | | | | AVRG | | 2.44059 | | 7.90839 |
| 3 Hexachlorobenzene | 1.51117 | 1.37478 | 1.32049 | 1.33270 | 1.48020 | 1.36080 | | | | | |
| | 1.43647 | | | | | | AVRG | | 1.40237 | | 5.29687 |
| 4 alpha-BHC | 1.33331 | 1.30654 | 1.35607 | 1.48914 | 1.69579 | 1.72746 | | | | | |
| | 1.84513 | | | | | | AVRG | | 1.53620 | | 14.21367 |
| 5 gamma-BHC (Lindane) | 1.18744 | 1.12664 | 1.09843 | 1.17937 | 1.34846 | 1.35528 | | | | | |
| | 1.44505 | | | | | | AVRG | | 1.24867 | | 10.63983 |

UU52:01303

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron

| Compound | 1 Level 1 | 2 Level 2 | 5 Level 3 | 10 Level 4 | 20 Level 5 | 40 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 80 Level 7 | | | | | | | | | | |
| 6 beta-BHC | 0.73035 | 0.65030 | 0.52207 | 0.57279 | 0.55449 | 0.54845 | | | | | |
| | 0.56099 | | | | | | AVRG | | 0.59135 | | 12.36122 |
| 7 delta-BHC | 1.10318 | 1.05349 | 1.03892 | 1.13704 | 1.32126 | 1.37226 | | | | | |
| | 1.52269 | | | | | | AVRG | | 1.22126 | | 15.17567 |
| 8 Heptachlor | 1.16702 | 1.12084 | 1.11214 | 1.19922 | 1.33371 | 1.31416 | | | | | |
| | 1.37270 | | | | | | AVRG | | 1.23140 | | 8.70286 |
| 9 Aldrin | 1.34812 | 1.30074 | 1.32391 | 1.41685 | 1.57726 | 1.60024 | | | | | |
| | 1.68526 | | | | | | AVRG | | 1.46462 | | 10.51374 |
| 38 Chlorthalonil | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+00 | | 0.000e+00 |
| 10 Heptachlor Epoxide a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+00 | | 0.000e+00 |
| 11 Heptachlor epoxide b | 1.32784 | 1.23103 | 1.22111 | 1.27111 | 1.36780 | 1.35610 | | | | | |
| | 1.40643 | | | | | | AVRG | | 1.31163 | | 5.45471 |

ARC 5-2515

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron

| Compound | 1 Level 1 | 2 Level 2 | 5 Level 3 | 10 Level 4 | 20 Level 5 | 40 Level 6 | 80 Level 7 | Curve | Coefficients b | Coefficients m1 | Coefficients m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 gamma-Chlordane | 1.30541 | 1.22266 | 1.20343 | 1.25727 | 1.38157 | 1.36690 | 1.45247 | AVRG | | 1.31282 | | 6.98053 |
| 13 alpha-Chlordane | 1.29118 | 1.23307 | 1.34518 | 1.30036 | 1.42301 | 1.39638 | 1.48530 | AVRG | | 1.35350 | | 6.42129 |
| 14 Endosulfan I | 2.01649 | 2.28009 | 2.10309 | 2.12921 | 2.17621 | 1.95338 | 1.80460 | AVRG | | 2.06615 | | 7.57083 |
| 15 4,4'-DDE | 20007 | 39965 | 91795 | 186729 | 491054 | 1122077 | 2596728 | QUAD | 0.000e+00 | 0.90910 | -0.07905 | 0.99911 |
| 16 Dieldrin | 1.28561 | 1.30371 | 1.31936 | 1.40713 | 1.53463 | 1.45964 | 1.50374 | AVRG | | 1.40197 | | 7.21136 |
| 17 Endrin | 0.81805 | 0.78017 | 0.78481 | 0.82808 | 0.97751 | 0.91175 | 0.98350 | AVRG | | 0.86913 | | 10.07001 |
| 18 4,4'-DDD | 0.85445 | 0.73465 | 0.63328 | 0.62739 | 0.71596 | 0.66127 | 0.72561 | AVRG | | 0.70752 | | 11.06831 |

CONFIDENTIAL

Report Date : 29-May-2012 09:10

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron

| Compound | 1 Level 1 | 2 Level 2 | 5 Level 3 | 10 Level 4 | 20 Level 5 | 40 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 80 Level 7 | | | | | | | | | | |
| 19 Endosulfan II | 0.90660 | 0.84697 | 0.81824 | 0.85598 | 0.97883 | 0.90018 | AVRG | | 0.89375 | | 6.43801 |
| | 0.94946 | | | | | | | | | | |
| 20 4,4'-DDT | 0.38951 | 0.40328 | 0.39039 | 0.44897 | 0.54873 | 0.55365 | AVRG | | 0.47965 | | 19.71634 |
| | 0.62298 | | | | | | | | | | |
| 21 Endrin aldehyde | 0.74496 | 0.68383 | 0.65992 | 0.67296 | 0.75668 | 0.70730 | AVRG | | 0.71127 | | 5.69218 |
| | 0.75328 | | | | | | | | | | |
| 22 Methoxychlor | 0.26067 | 0.24817 | 0.25211 | 0.25583 | 0.28711 | 0.28482 | AVRG | | 0.27225 | | 9.21119 |
| | 0.31703 | | | | | | | | | | |
| 23 Endosulfan sulfate | 0.74751 | 0.70039 | 0.69434 | 0.69404 | 0.80702 | 0.76194 | AVRG | | 0.74726 | | 7.27914 |
| | 0.82559 | | | | | | | | | | |
| 24 Endrin ketone | 1.13707 | 0.96228 | 0.87888 | 0.84297 | 0.92050 | 0.85841 | AVRG | | 0.92915 | | 10.76204 |
| | 0.90396 | | | | | | | | | | |
| 26 Aroclor-1016(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 |
| | +++++ | | | | | | | | | | |

0516:2SCN

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron

| Compound | 1 Level 1 / 80 Level 7 | 2 Level 2 | 5 Level 3 | 10 Level 4 | 20 Level 5 | 40 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (4) | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 |
| (5) | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 |
| 35 Toxaphene(1) | +++++ +++++ | +++++ | +++++ | +++++ | 0.04017 | +++++ | AVRG | | 0.04017 | | 0.000e+00 |
| (2) | +++++ +++++ | +++++ | +++++ | +++++ | 0.02802 | +++++ | AVRG | | 0.02802 | | 0.000e+00 |
| (3) | +++++ +++++ | +++++ | +++++ | +++++ | 0.02539 | +++++ | AVRG | | 0.02539 | | 0.000e+00 |
| (4) | +++++ +++++ | +++++ | +++++ | +++++ | 0.04226 | +++++ | AVRG | | 0.04226 | | 0.000e+00 |
| (5) | +++++ +++++ | +++++ | +++++ | +++++ | 0.03298 | +++++ | AVRG | | 0.03298 | | 0.000e+00 |

UU52:01307

Report Date : 29-May-2012 09:10

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron

| Compound | 1 Level 1 / 80 Level 7 | 2 Level 2 | 5 Level 3 | 10 Level 4 | 20 Level 5 | 40 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (6) | +++++ +++++ | +++++ | +++++ | +++++ | 0.02391 | +++++ | AVRG | | 0.02391 | | 0.000e+00 |
| 39 2,4-DDE | 0.64988 0.69400 | 0.61961 | 0.57249 | 0.59082 | 0.66134 | 0.66488 | AVRG | | 0.63614 | | 6.84503 |
| 40 2,4-DDD | 0.49881 0.46367 | 0.48537 | 0.41561 | 0.41210 | 0.45904 | 0.44475 | AVRG | | 0.45419 | | 7.20462 |
| 41 2,4-DDT | 0.46557 0.51216 | 0.44832 | 0.40077 | 0.42378 | 0.46850 | 0.47784 | AVRG | | 0.45670 | | 8.00674 |
| 42 Hexachloroethane | +++++ +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 |
| 43 Oxychlordane | 0.80130 0.89108 | 0.77864 | 0.72384 | 0.76824 | 0.82434 | 0.85339 | AVRG | | 0.80583 | | 6.94015 |
| 44 trans-Nonachlor | 0.94111 1.02639 | 0.87461 | 0.78610 | 0.85154 | 0.93144 | 0.97849 | AVRG | | 0.91281 | | 8.90355 |

UU52:01308

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron

| Compound | 1<br>Level 1<br>80<br>Level 7 | 2<br>Level 2 | 5<br>Level 3 | 10<br>Level 4 | 20<br>Level 5 | 40<br>Level 6 | Curve | Coefficients<br>b | m1 | m2 | %RSD<br>or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 45 cis-Nonachlor | 0.97468<br>1.22741 | 0.94956 | 0.89805 | 0.99130 | 1.07707 | 1.16703 | AVRG | | 1.04073 | | 11.61010 |
| 46 Mirex | 0.74177<br>0.61132 | 0.64061 | 0.56842 | 0.57644 | 0.59676 | 0.58873 | AVRG | | 0.61772 | | 9.66047 |
| 47 bis-(2-ethylhexyl) Phthalate | +++++<br>+++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 |
| 48 Trifluralin | +++++<br>+++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 |
| 49 Dacthal | +++++<br>+++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 |
| 50 Oxadiazon | +++++<br>+++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 |
| 51 Kelthane | +++++<br>+++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+00 | | 0.000e+00 |

UU52:01309

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAY-2012 15:12
End Cal Date : 25-MAY-2012 20:14
Quant Method : ISTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Cal Date : 29-May-2012 09:07 aron

| Compound | 1 Level 1 | 2 Level 2 | 5 Level 3 | 10 Level 4 | 20 Level 5 | 40 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 80 Level 7 | | | | | | | | | | |
| 53 Chlorpyrifos | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+00 | | 0.000e+00 |
| 55 Methyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+00 | | 0.000e+00 |
| 56 Ethyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+00 | | 0.000e+00 |
| $ 2 Tetrachloro-m-xylene | 1.15602 | 1.07347 | 1.05521 | 1.08545 | 1.22492 | 1.14344 | | | | | |
| | 1.18849 | | | | | | AVRG | | 1.13243 | | 5.58734 |
| $ 25 Decachlorobiphenyl | 1.56359 | 1.35337 | 1.26811 | 1.24542 | 1.40361 | 1.27810 | | | | | |
| | 1.34970 | | | | | | AVRG | | 1.35170 | | 8.06450 |

STL1525

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd8.i/20120525PEST.b/ical-1.b

ARI Job No.: DS  Method: PEST0525.m  Instrument: ecd8.i  Date: 25-MAY-2012

| Time | Filename | LabID | ClientId | DF | Manually Integrated Compounds |
|---|---|---|---|---|---|
| 1434 | 0524A004.d | DS | | 1 | 4,4'-DDE, 4,4'-DDD, |
| 1453 | 0524A005.d | IB | | 1 | NO MANUAL INTEGRATION |
| 1512 | 0524A006.d | INDAE | | 1 | NO MANUAL INTEGRATION |
| 1531 | 0524A007.d | INDAA | | 1 | Endosulfan I, |
| 1550 | 0524A008.d | INDAB | | 1 | NO MANUAL INTEGRATION |
| 1609 | 0524A009.d | INDAC | | 1 | NO MANUAL INTEGRATION |
| 1628 | 0524A010.d | INDAD | | 1 | Hexachlorobutadiene, |
| 1647 | 0524A011.d | INDAF | | 1 | NO MANUAL INTEGRATION |
| 1706 | 0524A012.d | IDNAG | | 1 | Hexachlorobutadiene, |
| 1725 | 0524A013.d | INDA ICV | | 1 | NO MANUAL INTEGRATION |
| 1743 | 0524A014.d | HCB/HCBD ICV | | 1 | Hexachlorobutadiene, |
| 1802 | 0524A015.d | TOXAPH 2500 | | 1 | NO MANUAL INTEGRATION |
| 1821 | 0524A016.d | WNDE | | 1 | NO MANUAL INTEGRATION |
| 1840 | 0524A017.d | WNDA | | 1 | NO MANUAL INTEGRATION |
| 1859 | 0524A018.d | WNDB | | 1 | NO MANUAL INTEGRATION |
| 1918 | 0524A019.d | WNDC | | 1 | NO MANUAL INTEGRATION |
| 1937 | 0524A020.d | WNDD | | 1 | NO MANUAL INTEGRATION |
| 1956 | 0524A021.d | WNDF | | 1 | NO MANUAL INTEGRATION |
| 2014 | 0524A022.d | WNDG | | 1 | NO MANUAL INTEGRATION |
| 2033 | 0524A023.d | WND ICV | | 1 | NO MANUAL INTEGRATION |
| 2052 | 0524A024.d | OPDDTS ICV | | 1 | NO MANUAL INTEGRATION |

UU52:01311

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd8.i/20120525PEST.b/ical-1.b

| Time | Filename | LabID | ClientId | DF | Manually Integrated Compounds |
|---|---|---|---|---|---|
| 2111 | 0524A025.d | DDT RT | | 1 | NO MANUAL INTEGRATION |
| 2130 | 0524A026.d | TECH 200 | | 1 | NO MANUAL INTEGRATION |

UU52:01312

Report Date : 29-May-2012 09:22



Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-1.b
Inst ID: ecd8.i

| ID: | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 |
|---|---|---|---|---|---|---|---|
| FILENAME: | 0524A006 | 0524A007 | 0524A008 | 0524A009 | 0524A010 | 0524A011 | 0524A012 |
| INJ.DATE: | 25-MAY-2012 | 25-MAY-2012 | 25-MAY-2012 | 25-MAY-2012 | 25-MAY-2012 | 25-MAY-2012 | 25-MAY-2012 |
| INJ.TIME: | 15:12 | 15:31 | 15:50 | 16:09 | 16:28 | 16:47 | 17:06 |

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 Hexachlorobutadiene | 1.727 | 1.728 | 1.728 | 1.728 | 1.727 | 1.728 | 1.728 | 1.728 | 1.678-1.778 | 1.728 | 0.000 |
| * 54 1Bromo-2nitrobenzene | 3.028 | 3.029 | 3.029 | 3.029 | 3.029 | 3.029 | 3.029 | 3.030 | 2.980-3.080 | 3.029 | 0.000 |
| * 58 Hexabromobiphenyl | 9.138 | 9.138 | 9.137 | 9.137 | 9.138 | 9.138 | 9.137 | 9.138 | 9.088-9.188 | 9.138 | 0.000 |
| $ 2 Tetrachloro-m-xylene | 3.896 | 3.896 | 3.897 | 3.896 | 3.896 | 3.896 | 3.897 | 3.897 | 3.847-3.947 | 3.896 | 0.000 |
| 3 Hexachlorobenzene | 4.287 | 4.288 | 4.288 | 4.288 | 4.287 | 4.287 | 4.287 | 4.287 | 4.237-4.337 | 4.287 | 0.000 |
| 4 alpha-BHC | 4.452 | 4.452 | 4.453 | 4.453 | 4.452 | 4.453 | 4.453 | 4.453 | 4.403-4.503 | 4.453 | 0.000 |
| 5 gamma-BHC (Lindane) | 4.754 | 4.755 | 4.756 | 4.755 | 4.755 | 4.755 | 4.755 | 4.755 | 4.705-4.805 | 4.755 | 0.000 |
| 6 beta-BHC | 4.846 | 4.848 | 4.848 | 4.848 | 4.847 | 4.846 | 4.846 | 4.846 | 4.796-4.896 | 4.847 | 0.001 |
| 7 delta-BHC | 5.010 | 5.012 | 5.013 | 5.012 | 5.011 | 5.011 | 5.011 | 5.011 | 4.961-5.061 | 5.011 | 0.001 |
| 8 Heptachlor | 5.200 | 5.201 | 5.202 | 5.201 | 5.200 | 5.201 | 5.201 | 5.201 | 5.151-5.251 | 5.201 | 0.000 |
| 9 Aldrin | 5.476 | 5.476 | 5.477 | 5.477 | 5.476 | 5.477 | 5.477 | 5.477 | 5.427-5.527 | 5.477 | 0.001 |
| 38 Chlorthalonil | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 13.627 | 13.577-13.677 | +++++ | +++++ |
| 10 Heptachlor Epoxide a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 10.869 | 10.819-10.919 | +++++ | +++++ |
| 11 Heptachlor epoxide b | 6.028 | 6.028 | 6.029 | 6.029 | 6.028 | 6.029 | 6.028 | 6.028 | 5.978-6.078 | 6.028 | 0.001 |
| 12 gamma-Chlordane | 6.142 | 6.142 | 6.143 | 6.143 | 6.142 | 6.143 | 6.142 | 6.142 | 6.092-6.192 | 6.143 | 0.000 |
| 13 alpha-Chlordane | 6.261 | 6.262 | 6.262 | 6.263 | 6.262 | 6.263 | 6.262 | 6.262 | 6.212-6.312 | 6.262 | 0.001 |
| 14 Endosulfan I | 6.384 | 6.385 | 6.385 | 6.385 | 6.385 | 6.385 | 6.385 | 6.385 | 6.335-6.435 | 6.385 | 0.000 |

Reviewer 1 AR Date: 5/29/2012
Reviewer 2 BB Date: 5/29/12

UU52:01313

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-1.b
Inst ID: ecd8.i

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 15 4,4'-DDE | 6.339 | 6.346 | 6.345 | 6.344 | 6.343 | 6.339 | 6.336 | 6.336 | 6.286-6.386 | 6.342 | 0.004 |
| 16 Dieldrin | 6.601 | 6.601 | 6.602 | 6.602 | 6.601 | 6.602 | 6.601 | 6.601 | 6.551-6.651 | 6.601 | 0.000 |
| 17 Endrin | 6.811 | 6.812 | 6.812 | 6.813 | 6.812 | 6.813 | 6.812 | 6.812 | 6.762-6.862 | 6.812 | 0.001 |
| 18 4,4'-DDD | 6.878 | 6.888 | 6.885 | 6.882 | 6.881 | 6.877 | 6.874 | 6.874 | 6.824-6.924 | 6.881 | 0.005 |
| 19 Endosulfan II | 7.015 | 7.016 | 7.017 | 7.017 | 7.016 | 7.016 | 7.015 | 7.015 | 6.965-7.065 | 7.016 | 0.001 |
| 20 4,4'-DDT | 7.125 | 7.129 | 7.129 | 7.128 | 7.127 | 7.125 | 7.123 | 7.123 | 7.073-7.173 | 7.127 | 0.002 |
| 21 Endrin aldehyde | 7.395 | 7.397 | 7.397 | 7.397 | 7.396 | 7.397 | 7.396 | 7.396 | 7.346-7.446 | 7.396 | 0.001 |
| 22 Methoxychlor | 7.562 | 7.565 | 7.565 | 7.564 | 7.564 | 7.563 | 7.561 | 7.561 | 7.511-7.611 | 7.563 | 0.002 |
| 23 Endosulfan sulfate | 7.795 | 7.797 | 7.796 | 7.797 | 7.796 | 7.796 | 7.796 | 7.796 | 7.746-7.846 | 7.796 | 0.001 |
| 24 Endrin ketone | 8.056 | 8.058 | 8.057 | 8.058 | 8.057 | 8.057 | 8.057 | 8.057 | 8.007-8.107 | 8.057 | 0.001 |
| $ 25 Decachlorobiphenyl | 8.980 | 8.981 | 8.981 | 8.981 | 8.980 | 8.981 | 8.980 | 8.980 | 8.930-9.030 | 8.981 | 0.001 |
| 26 Aroclor-1016 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.066 | 5.016-5.116 | +++++ | +++++ |
| 27 Aroclor-1221 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.080 | 4.030-4.130 | +++++ | +++++ |
| 28 Aroclor-1232 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.266 | 4.216-4.316 | +++++ | +++++ |
| 29 Aroclor-1242 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.170 | 5.120-5.220 | +++++ | +++++ |
| 30 Aroclor-1248 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.516 | 5.466-5.566 | +++++ | +++++ |
| 31 Aroclor-1254 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.848 | 5.798-5.898 | +++++ | +++++ |
| 32 Aroclor-1260 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.598 | 6.548-6.648 | +++++ | +++++ |
| 33 Aroclor-1262 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.599 | 6.549-6.649 | +++++ | +++++ |
| 34 Aroclor-1268 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.995 | 7.945-8.045 | +++++ | +++++ |
| 35 Toxaphene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.068 | 7.018-7.118 | +++++ | +++++ |
| 39 2,4-DDE | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.027 | 5.977-6.077 | +++++ | +++++ |

PEST-1525

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-1.b
Inst ID: ecd8.i

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 2,4-DDD | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.491 | 6.441-6.541 | +++++ | +++++ |
| 41 2,4-DDT | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.718 | 6.668-6.768 | +++++ | +++++ |
| 42 Hexachloroethane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 1.769 | 1.719-1.819 | +++++ | +++++ |
| 43 Oxychlordane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.939 | 5.889-5.989 | +++++ | +++++ |
| 44 trans-Nonachlor | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.249 | 6.199-6.299 | +++++ | +++++ |
| 45 cis-Nonachlor | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.844 | 6.794-6.894 | +++++ | +++++ |
| 46 Mirex | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.709 | 7.659-7.759 | +++++ | +++++ |
| 47 bis-(2-ethylhexyl) Pht | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 20.156 | 20.106-20.206 | +++++ | +++++ |
| 48 Trifluralin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.319 | 6.269-6.369 | +++++ | +++++ |
| 49 Dacthal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 9.936 | 9.886-9.986 | +++++ | +++++ |
| 50 Oxadiazon | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 11.891 | 11.841-11.941 | +++++ | +++++ |
| 51 Kelthane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 14.827 | 14.777-14.877 | +++++ | +++++ |
| 53 Chlorpyrifos | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 9.750 | 9.700-9.800 | +++++ | +++++ |
| 55 Methyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 9.107 | 9.057-9.157 | +++++ | +++++ |
| 56 Ethyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 10.251 | 10.201-10.301 | +++++ | +++++ |

STL2525

Report Date : 29-May-2012 09:23

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-1.b
Inst ID: ecd8.i

| ID: | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 |
|---|---|---|---|---|---|---|---|
| FILENAME: | 0524A016 | 0524A017 | 0524A018 | 0524A019 | 0524A020 | 0524A021 | 0524A022 |
| INJ.DATE: | 25-MAY-2012 | 25-MAY-2012 | 25-MAY-2012 | 25-MAY-2012 | 25-MAY-2012 | 25-MAY-2012 | 25-MAY-2012 |
| INJ.TIME: | 18:21 | 18:40 | 18:59 | 19:18 | 19:37 | 19:56 | 20:14 |

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 Hexachlorobutadiene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 1.728 | 1.678-1.778 | +++++ | +++++ |
| * 54 1Bromo-2nitrobenzene | 3.028 | 3.029 | 3.029 | 3.029 | 3.030 | 3.030 | 3.030 | 3.030 | 2.980-3.080 | 3.029 | 0.001 |
| * 58 Hexabromobiphenyl | 9.137 | 9.135 | 9.136 | 9.136 | 9.139 | 9.140 | 9.138 | 9.138 | 9.088-9.188 | 9.137 | 0.002 |
| $ 2 Tetrachloro-m-xylene | 3.896 | 3.896 | 3.896 | 3.896 | 3.898 | 3.898 | 3.898 | 3.897 | 3.847-3.947 | 3.897 | 0.001 |
| 3 Hexachlorobenzene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.287 | 4.237-4.337 | +++++ | +++++ |
| 4 alpha-BHC | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.453 | 4.403-4.503 | +++++ | +++++ |
| 5 gamma-BHC (Lindane) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.755 | 4.705-4.805 | +++++ | +++++ |
| 6 beta-BHC | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.846 | 4.796-4.896 | +++++ | +++++ |
| 7 delta-BHC | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.011 | 4.961-5.061 | +++++ | +++++ |
| 8 Heptachlor | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.201 | 5.151-5.251 | +++++ | +++++ |
| 9 Aldrin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.477 | 5.427-5.527 | +++++ | +++++ |
| 38 Chlorthalonil | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 13.627 | 13.577-13.677 | +++++ | +++++ |
| 10 Heptachlor Epoxide a | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 10.869 | 10.819-10.919 | +++++ | +++++ |
| 11 Heptachlor epoxide b | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.028 | 5.978-6.078 | +++++ | +++++ |
| 12 gamma-Chlordane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.142 | 6.092-6.192 | +++++ | +++++ |
| 13 alpha-Chlordane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.262 | 6.212-6.312 | +++++ | +++++ |
| 14 Endosulfan I | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.385 | 6.335-6.435 | +++++ | +++++ |

Reviewer 1 AR Date: 5/29/2012
Reviewer 2 Date: 5/29/12

9 15 29 . 2 5 5 5

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-1.b
Inst ID: ecd8.i

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 15 4,4'-DDE | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.336 | 6.286-6.386 | +++++ | +++++ |
| 16 Dieldrin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.601 | 6.551-6.651 | +++++ | +++++ |
| 17 Endrin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.812 | 6.762-6.862 | +++++ | +++++ |
| 18 4,4'-DDD | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.874 | 6.824-6.924 | +++++ | +++++ |
| 19 Endosulfan II | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.015 | 6.965-7.065 | +++++ | +++++ |
| 20 4,4'-DDT | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.123 | 7.073-7.173 | +++++ | +++++ |
| 21 Endrin aldehyde | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.396 | 7.346-7.446 | +++++ | +++++ |
| 22 Methoxychlor | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.561 | 7.511-7.611 | +++++ | +++++ |
| 23 Endosulfan sulfate | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.796 | 7.746-7.846 | +++++ | +++++ |
| 24 Endrin ketone | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.057 | 8.007-8.107 | +++++ | +++++ |
| $ 25 Decachlorobiphenyl | 8.979 | 8.979 | 8.980 | 8.979 | 8.982 | 8.983 | 8.981 | 8.980 | 8.930-9.030 | 8.981 | 0.002 |
| 26 Aroclor-1016 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.066 | 5.016-5.116 | +++++ | +++++ |
| 27 Aroclor-1221 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.080 | 4.030-4.130 | +++++ | +++++ |
| 28 Aroclor-1232 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.266 | 4.216-4.316 | +++++ | +++++ |
| 29 Aroclor-1242 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.170 | 5.120-5.220 | +++++ | +++++ |
| 30 Aroclor-1248 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.516 | 5.466-5.566 | +++++ | +++++ |
| 31 Aroclor-1254 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.848 | 5.798-5.898 | +++++ | +++++ |
| 32 Aroclor-1260 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.598 | 6.548-6.648 | +++++ | +++++ |
| 33 Aroclor-1262 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.599 | 6.549-6.649 | +++++ | +++++ |
| 34 Aroclor-1268 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.995 | 7.945-8.045 | +++++ | +++++ |
| 35 Toxaphene | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 7.068 | 7.018-7.118 | +++++ | +++++ |
| 39 2,4-DDE | 6.027 | 6.027 | 6.028 | 6.028 | 6.029 | 6.028 | 6.027 | 6.027 | 5.977-6.077 | 6.028 | 0.001 |

UU52:01317

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Batch File: /chem2/ecd8.i/20120525PEST.b/ical-1.b
Inst ID: ecd8.i

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 2,4-DDD | 6.492 | 6.493 | 6.495 | 6.494 | 6.496 | 6.494 | 6.491 | 6.491 | 6.441-6.541 | 6.494 | 0.001 |
| 41 2,4-DDT | 6.717 | 6.718 | 6.719 | 6.718 | 6.720 | 6.720 | 6.718 | 6.718 | 6.668-6.768 | 6.719 | 0.001 |
| 42 Hexachloroethane | 1.765 | 1.774 | 1.763 | 1.772 | 1.766 | 1.777 | 1.769 | 1.769 | 1.719-1.819 | 1.769 | 0.005 |
| 43 Oxychlordane | 5.936 | 5.936 | 5.937 | 5.937 | 5.939 | 5.939 | 5.939 | 5.939 | 5.889-5.989 | 5.938 | 0.001 |
| 44 trans-Nonachlor | 6.247 | 6.247 | 6.248 | 6.248 | 6.250 | 6.250 | 6.249 | 6.249 | 6.199-6.299 | 6.249 | 0.001 |
| 45 cis-Nonachlor | 6.842 | 6.843 | 6.843 | 6.843 | 6.845 | 6.845 | 6.844 | 6.844 | 6.794-6.894 | 6.844 | 0.001 |
| 46 Mirex | 7.707 | 7.707 | 7.708 | 7.707 | 7.710 | 7.710 | 7.709 | 7.709 | 7.659-7.759 | 7.708 | 0.001 |
| 47 bis-(2-ethylhexyl) Pht | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 20.156 | 20.106-20.206 | +++++ | +++++ |
| 48 Trifluralin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.319 | 6.269-6.369 | +++++ | +++++ |
| 49 Dacthal | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 9.936 | 9.886-9.986 | +++++ | +++++ |
| 50 Oxadiazon | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 11.891 | 11.841-11.941 | +++++ | +++++ |
| 51 Kelthane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 14.827 | 14.777-14.877 | +++++ | +++++ |
| 53 Chlorpyrifos | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 9.750 | 9.700-9.800 | +++++ | +++++ |
| 55 Methyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 9.107 | 9.057-9.157 | +++++ | +++++ |
| 56 Ethyl Parathion | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 10.251 | 10.201-10.301 | +++++ | +++++ |

UU52:01318

INTERNAL STANDARD SUMMARY

ISTD updated & new macro saved

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1452529 | 836406 | -42.4 |
| Hexabromobiphenyl | 1939335 | 1091107 | -43.7 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1873046 | 1248621 | -33.3 |
| Hexabromobiphenyl | 2080354 | 1339634 | -35.6 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | STX-CLP Col Peak# | RT | Shift | Height | Amount | CLP2 Col Peak# | RT | Shift | Height | Amount |
|---|---|---|---|---|---|---|---|---|---|---|

7E

# 8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: DS ARI Job No.: 20120525PEST

Analysis Date: 25-MAY-2012 14:34 Init. Calib. Date: 25-MAY-2012

GC Column: STX-CLP1 ID: 0.53(mm)

| COMPOUND | RT | AREA |
|---|---|---|
| 4,4'-DDE | 6.341 | 9743 |
| Endrin | 6.813 | 1398088 |
| 4,4'-DDD | 6.880 | 69143 |
| 4,4'-DDT | 7.127 | 741637 |
| Endrin ketone | 8.058 | 60664 |
| Endrin aldehyde | 7.398 | 23226 |

DDT Percent Breakdown = 9.6 %
((9743+69143) * 100)/(9743+69143+741637)

Endrin Percent Breakdown = 5.7 %
((23226+60664) * 100)/(23226+60664+1398088)

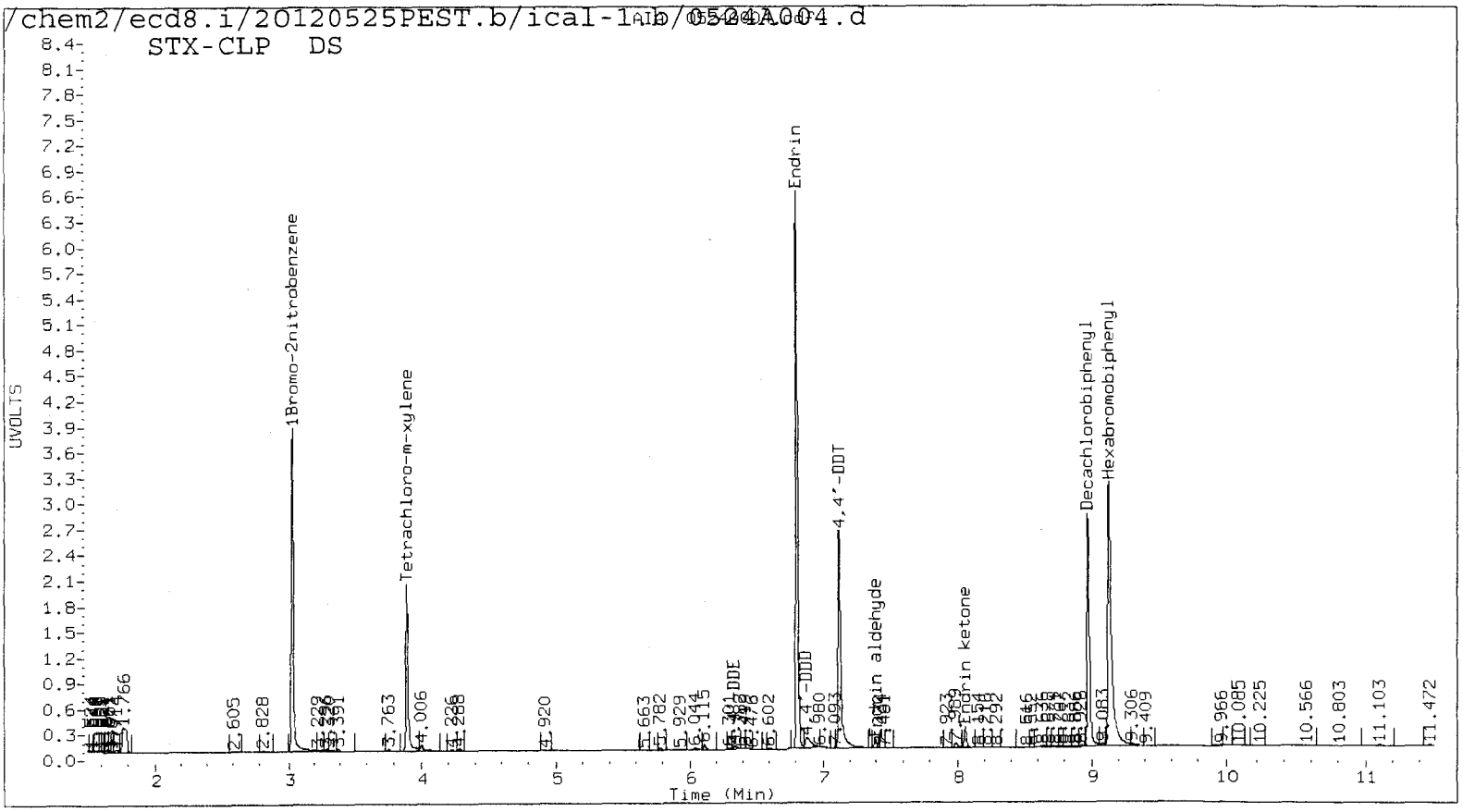
GC Column: STX-CLP2 ID: 0.53(mm)

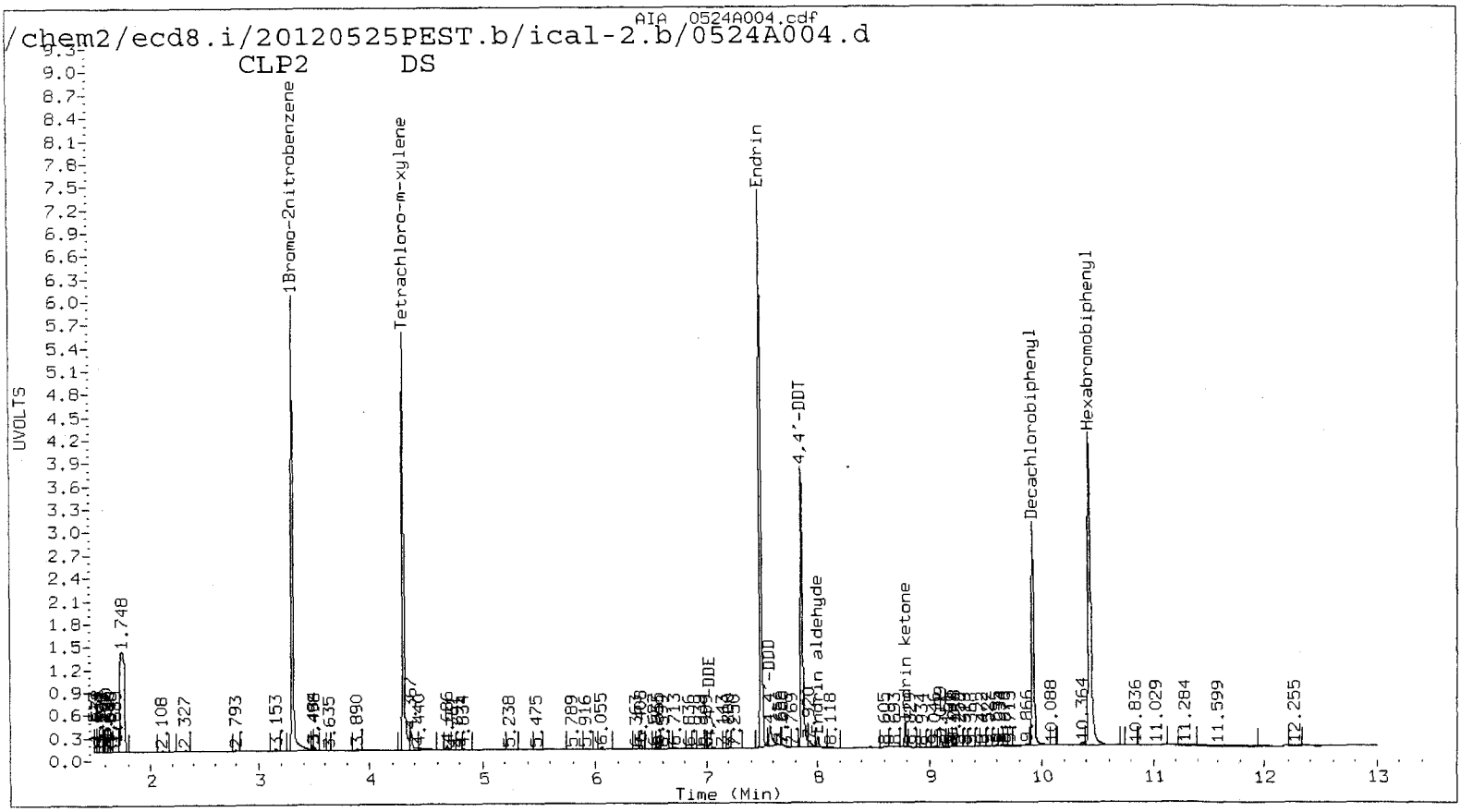
| COMPOUND | RT | AREA |
|---|---|---|
| 4,4'-DDE | 7.026 | 29884 |
| Endrin | 7.490 | 1615155 |
| 4,4'-DDD | 7.568 | 102761 |
| 4,4'-DDT | 7.860 | 933004 |
| Endrin ketone | 8.782 | 77706 |
| Endrin aldehyde | 7.999 | 40367 |

DDT Percent Breakdown = 12.4 %
((29884+102761) * 100)/(29884+102761+933004)

Endrin Percent Breakdown = 6.8 %
((40367+77706) * 100)/(40367+77706+1615155)

Form VII Pest-1


/chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A004.d
AIA 0524A004.cdf
STX-CLP DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl


/chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A004.d
AIA 0524A004.cdf
CLP2 DS
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Endrin
4,4'-DDT
Endrin aldehyde
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

UU52:0132H

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A005.d ARI ID: IB
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A005.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 14:53
Compound Sublist: wpest Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP on col | CLP2 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | | | | |
| 3.028 | -0.002 | 847392 | 3.294 | -0.002 | 1216529 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | alpha-BHC |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | beta-BHC |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | delta-BHC |
| ---- | | | 5.237 | -0.046 | 1103 | 0.0000 | 0.0522 | --- | gamma-BHC (Lindane) |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Heptachlor |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Aldrin |
| 6.044 | 0.016 | 2260 | 6.554 | -0.013 | 4525 | 0.1627 | 0.2284 | 33.6 | Heptachlor epoxide b A B |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Endosulfan I |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Dieldrin |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | 4,4'-DDE |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Endrin |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Endosulfan II |
| 6.900 | 0.026 | 11414 | ---- | | | 1.1892 | 0.0000 | --- | 4,4'-DDD |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Endosulfan sulfate |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | 4,4'-DDT |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Methoxychlor |
| 8.076 | 0.020 | 9194 | ---- | | | 0.7294 | 0.0000 | --- | Endrin ketone |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Endrin aldehyde |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | gamma-Chlordane |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | alpha-Chlordane |
| 1.717 | -0.011 | 6136 | ---- | | | 0.2374 | 0.0000 | --- | Hexachlorobutadiene |
| 4.286 | -0.001 | 5376 | 4.833 | 0.042 | 1758 | 0.3619 | 0.0757 | 130.8* | Hexachlorobenzene A B |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Oxychlordane |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | 2,4-DDE |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | trans-Nonachlor |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | 2,4-DDD |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | 2,4-DDT |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | cis-Nonachlor |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Mirex |
| 9.137 | -0.001 | 1085236 | 10.432 | -0.001 | 1332632 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 1.774 | 0.005 | 22305 | 1.749 | -0.002 | 5680769 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.895 | -0.001 | 451145 | 4.297 | -0.002 | 1182415 | 37.6106 | 40.4397 | 7.2 | Tetrachloro-m-xylene A B |
| 8.980 | 0.000 | 663852 | 9.922 | 0.000 | 777465 | 36.2040 | 34.7078 | 4.2 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 94.0 | 101.1 | 94.0 | 29-110 |
| Decachlorobiphenyl | 90.5 | 86.8 | 86.8 | 18-151 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 847392 | 1.3 |
| Hexabromobiphenyl | 1091107 | 1085236 | -0.5 |

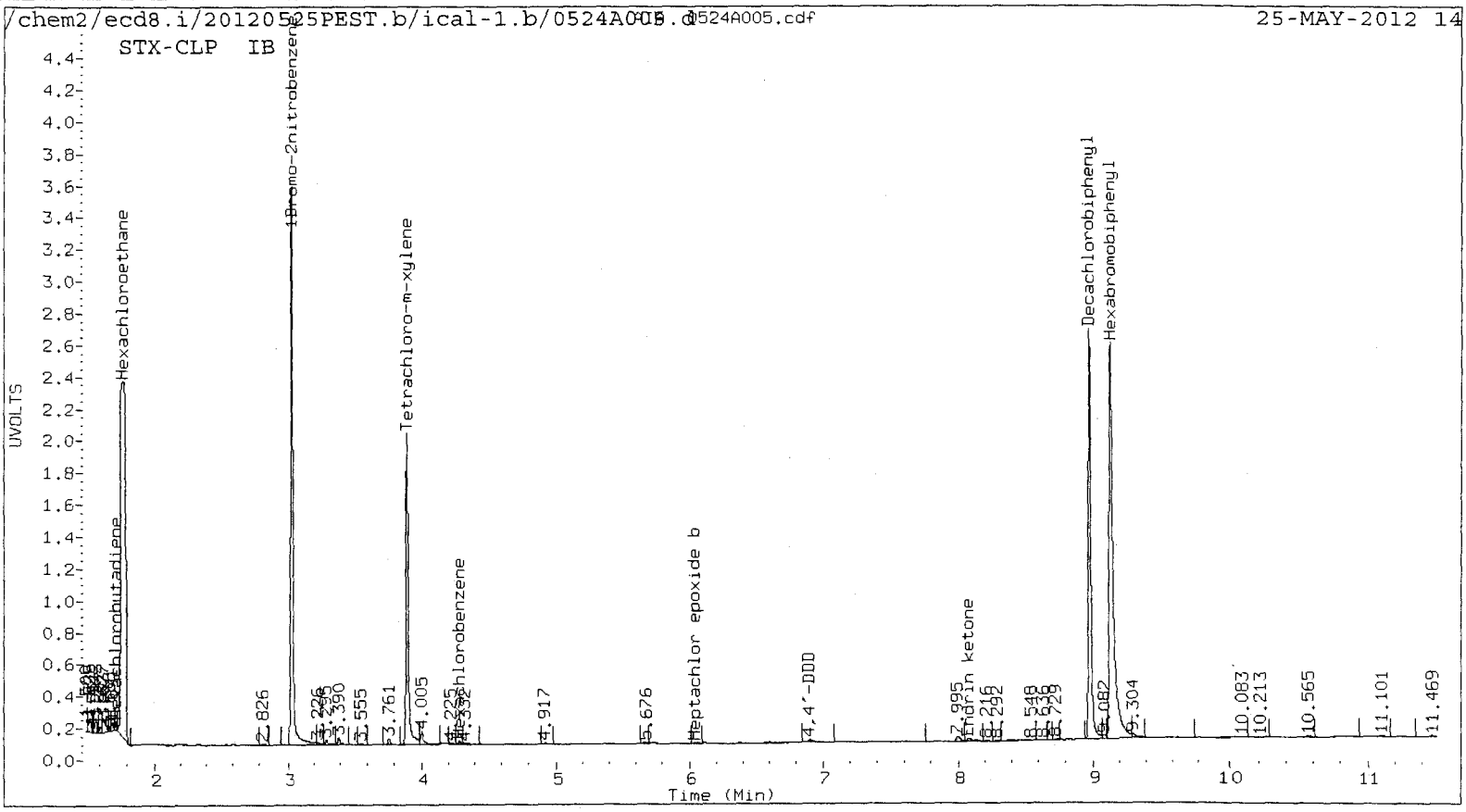
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1216529 | -2.6 |
| Hexabromobiphenyl | 1339634 | 1332632 | -0.5 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | STX-CLP Col Peak# | RT | Shift | Height | Amount | CLP2 Col Peak# | RT | Shift | Height | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Toxaphene | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Toxaphene | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Toxaphene | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Toxaphene | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Toxaphene | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Toxaphene | 6 | --- | | | 0.000 | NS | --- | | | ---- |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Aroclor-1248 1 | --- | 0.000 | 1 | --- | 0.000 |
| Aroclor-1248 2 | --- | 0.000 | 2 | --- | 0.000 |
| Aroclor-1248 3 | --- | 0.000 | 3 | --- | 0.000 |
| Aroclor-1248 4 | --- | 0.000 | 4 | --- | 0.000 |
| Aroclor-1248 5 | --- | 0.000 | 5 | --- | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | CLP2Ave: <3 Quant Peaks | |
| Aroclor-1254 1 | --- | 0.000 | 1 | --- | 0.000 |
| Aroclor-1254 2 | --- | 0.000 | 2 | --- | 0.000 |
| Aroclor-1254 3 | --- | 0.000 | 3 | --- | 0.000 |
| Aroclor-1254 4 | --- | 0.000 | 4 | --- | 0.000 |
| Aroclor-1254 5 | --- | 0.000 | 5 | --- | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | CLP2Ave: <3 Quant Peaks | |
| Aroclor-1260 1 | --- | 0.000 | 1 | --- | 0.000 |
| Aroclor-1260 2 | --- | 0.000 | 2 | --- | 0.000 |
| Aroclor-1260 3 | --- | 0.000 | 3 | --- | 0.000 |
| Aroclor-1260 4 | --- | 0.000 | 4 | --- | 0.000 |
| Aroclor-1260 5 | --- | 0.000 | 5 | --- | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | CLP2Ave: <3 Quant Peaks | |
| Aroclor-1262 1 | --- | 0.000 | 1 | --- | 0.000 |
| Aroclor-1262 2 | --- | 0.000 | 2 | --- | 0.000 |
| Aroclor-1262 3 | --- | 0.000 | 3 | --- | 0.000 |
| Aroclor-1262 4 | --- | 0.000 | 4 | --- | 0.000 |
| Aroclor-1262 5 | --- | 0.000 | 5 | --- | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | CLP2Ave: <3 Quant Peaks | |
| Aroclor-1268 1 | --- | 0.000 | 1 | --- | 0.000 |
| Aroclor-1268 2 | --- | 0.000 | 2 | --- | 0.000 |
| Aroclor-1268 3 | --- | 0.000 | 3 | --- | 0.000 |
| Aroclor-1268 4 | --- | 0.000 | 4 | --- | 0.000 |
| Aroclor-1268 5 | --- | 0.000 | 5 | --- | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | CLP2Ave: <3 Quant Peaks | |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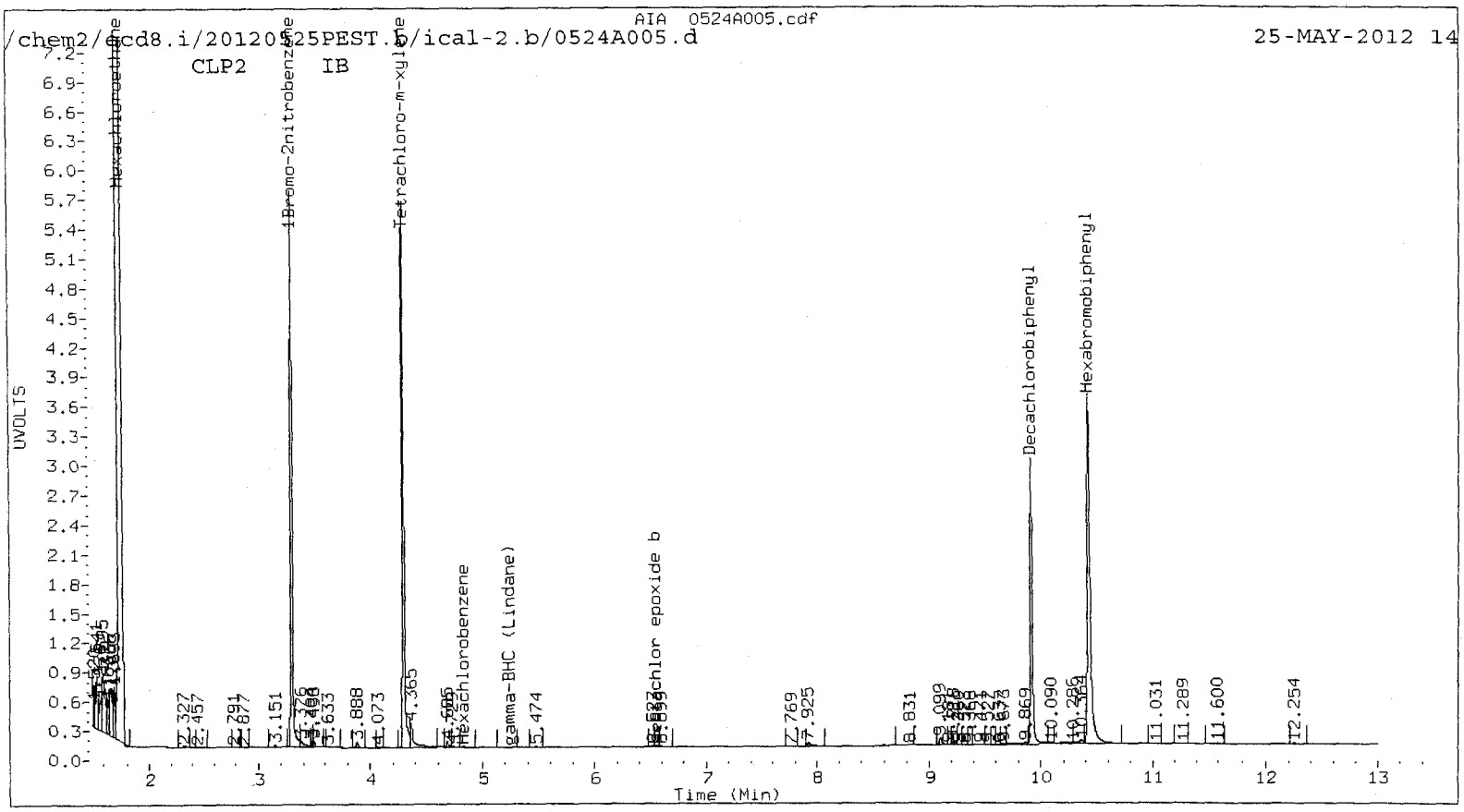
AIA 0524A005.cdf
25-MAY-2012 14
STX-CLP IB
UVOLTS
Time (Min)
Hexachloroethane
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
Heptachlor epoxide b
4,4'-DDD
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl
2.826
3.761
4.005
4.917
5.676
7.995
9.082
9.304
10.083
10.213
10.565
11.101
11.469


/chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A005.d
AIA 0524A005.cdf
25-MAY-2012 14
CLP2 IB
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
gamma-BHC (Lindane)
Heptachlor epoxide b
Decachlorobiphenyl
Hexabromobiphenyl
3.151
3.888
4.073
4.365
5.474
7.769
7.925
8.831
9.869
10.090
10.286
11.031
11.289
11.600
12.254

USZ: 8A325

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A006.d ARI ID: INDAE
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A006.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 15:12
Compound Sublist: INDA Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.028 | -0.002 | 836406 | 3.295 | -0.002 | 1248621 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.452 | -0.001 | 354593 | 4.928 | -0.002 | 555068 | 22.0777 | 21.3612 | 3.3 | alpha-BHC A B |
| 4.846 | 0.000 | 115945 | 5.366 | -0.001 | 215432 | 18.7534 | 19.8820 | 5.8 | beta-BHC A B |
| 5.010 | -0.001 | 276278 | 5.652 | -0.001 | 406417 | 21.6376 | 21.1988 | 2.0 | delta-BHC A B |
| 4.754 | -0.001 | 281964 | 5.281 | -0.001 | 447366 | 21.5983 | 20.6109 | 4.7 | gamma-BHC (Lindane) A B |
| 5.200 | -0.001 | 278881 | 5.712 | -0.001 | 405290 | 21.6617 | 20.5155 | 5.4 | Heptachlor A B |
| 5.476 | -0.001 | 329807 | 6.027 | -0.001 | 515077 | 21.5381 | 21.1185 | 2.0 | Aldrin A B |
| 6.028 | -0.001 | 286008 | 6.566 | -0.001 | 405594 | 20.8564 | 19.9505 | 4.4 | Heptachlor epoxide b A B |
| 6.384 | 0.000 | 455048 | 6.941 | -0.001 | 397007 | 21.0653 | 20.0968 | 4.7 | Endosulfan I A B |
| 6.601 | 0.000 | 641787 | 7.197 | -0.002 | 876942 | 43.7848 | 41.7478 | 4.8 | Dieldrin A B |
| 6.339 | 0.003 | 491054 | 7.024 | 0.001 | 992803 | 40.5188 | 42.8350 | 5.6 | 4,4'-DDE A B |
| 6.811 | 0.000 | 533282 | 7.488 | -0.002 | 683033 | 44.9880 | 42.7993 | 5.0 | Endrin A B |
| 7.015 | 0.000 | 534002 | 7.684 | -0.002 | 712041 | 43.8077 | 41.8832 | 4.5 | Endosulfan II A B |
| 6.878 | 0.004 | 390594 | 7.566 | 0.001 | 596442 | 40.4773 | 41.0837 | 1.5 | 4,4'-DDD A B |
| 7.795 | -0.001 | 440270 | 8.257 | -0.001 | 595793 | 43.1986 | 41.7142 | 3.5 | Endosulfan sulfate A B |
| 7.125 | 0.002 | 299363 | 7.858 | 0.000 | 390805 | 45.7615 | 43.1644 | 5.8 | 4,4'-DDT A B |
| 7.562 | 0.001 | 783166 | 8.487 | 0.000 | 964416 | 210.9175 | 208.6184 | 1.1 | Methoxychlor A B |
| 8.056 | -0.001 | 502181 | 8.779 | -0.001 | 635167 | 39.6274 | 41.1757 | 3.8 | Endrin ketone A B |
| 7.395 | -0.001 | 412807 | 7.997 | -0.002 | 588760 | 42.5532 | 40.9518 | 3.8 | Endrin aldehyde A B |
| 6.142 | -0.001 | 288889 | 6.745 | -0.001 | 440728 | 21.0475 | 20.1506 | 4.4 | gamma-Chlordane A B |
| 6.261 | 0.000 | 297554 | 6.880 | -0.002 | 444865 | 21.0272 | 20.2666 | 3.7 | alpha-Chlordane A B |
| 1.727 | -0.001 | 528586 | 2.035 | -0.002 | 822080 | 20.7154 | 20.8340 | 0.6 | Hexachlorobutadiene A B |
| 4.287 | 0.000 | 309513 | 4.790 | -0.001 | 506105 | 21.1100 | 21.2422 | 0.6 | Hexachlorobenzene A B |
| 9.138 | -0.001 | 1091107 | 10.431 | -0.002 | 1339634 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 3.896 | -0.001 | 512264 | 4.297 | -0.001 | 1330096 | 43.2669 | 44.3213 | 2.4 | Tetrachloro-m-xylene A B |
| 8.980 | 0.000 | 765744 | 9.921 | 0.000 | 901520 | 41.5362 | 40.0355 | 3.7 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 108.2 | 110.8 | 108.2 | 85-115 |
| Decachlorobiphenyl | 103.8 | 100.1 | 100.1 | 85-115 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

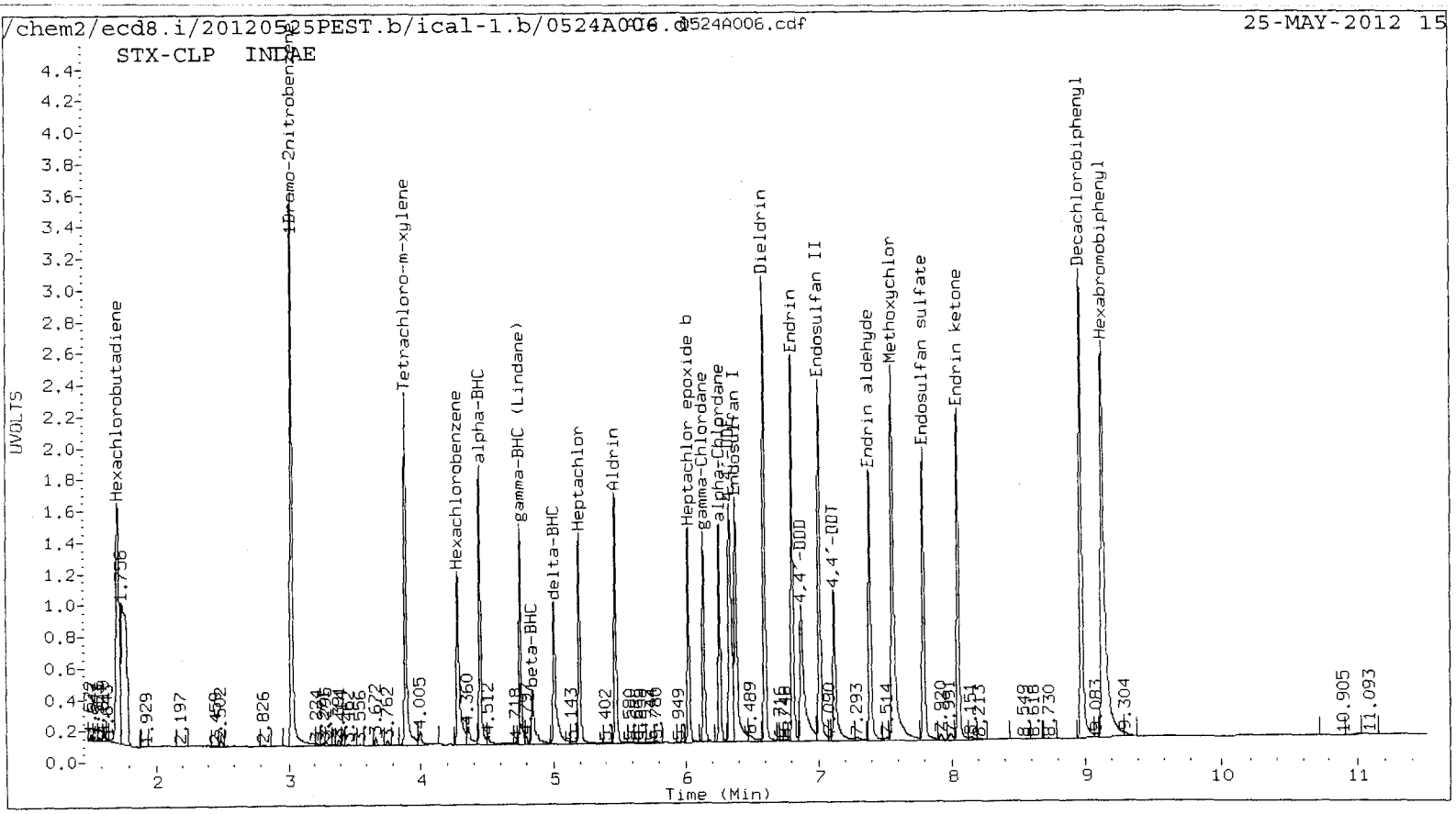
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 836406 | 0.0 |
| Hexabromobiphenyl | 1091107 | 1091107 | 0.0 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1248621 | 0.0 |
| Hexabromobiphenyl | 1339634 | 1339634 | 0.0 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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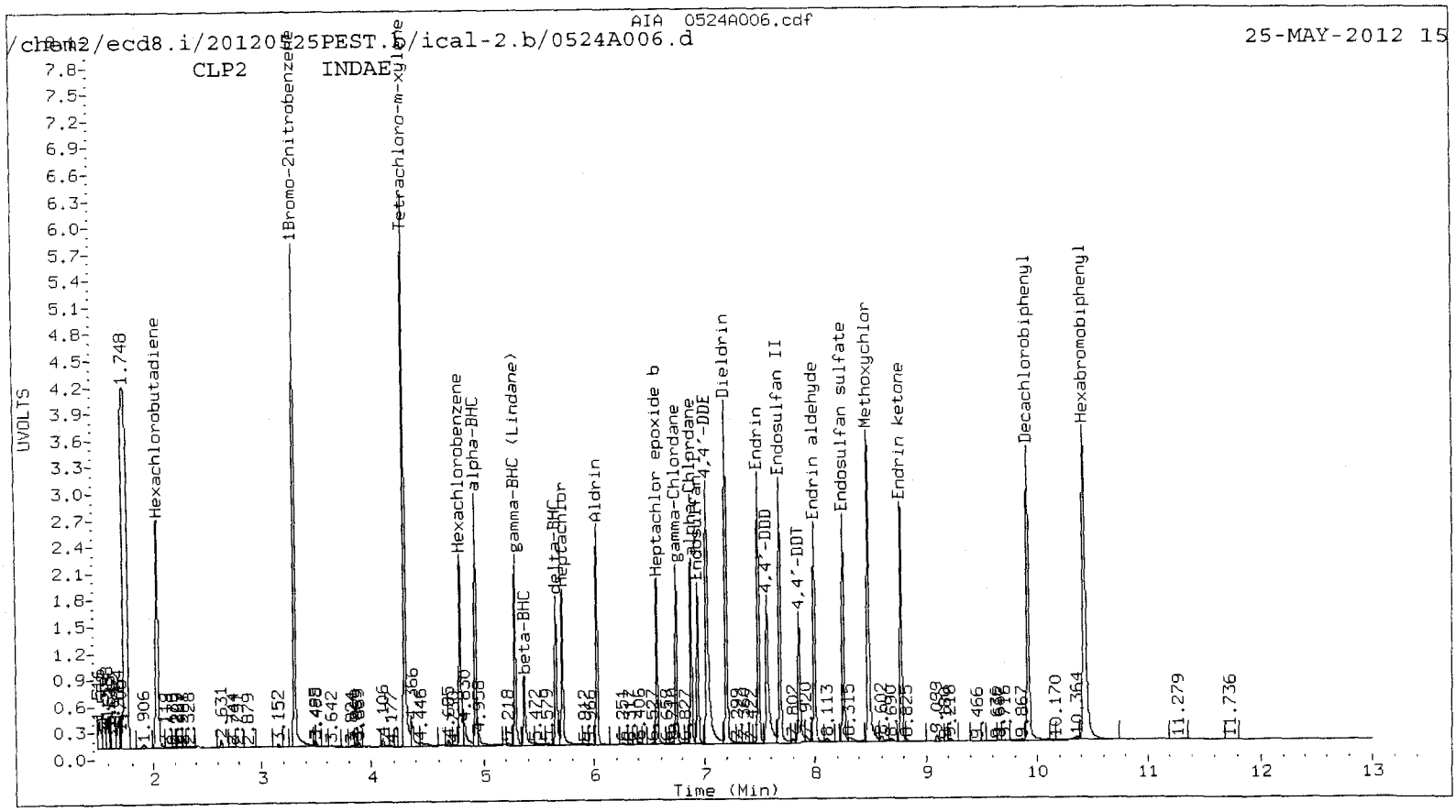
AIA 0524A006.cdf
25-MAY-2012 15
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0524A006.cdf
25-MAY-2012 15
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

US2:01329

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A007.d ARI ID: INDAA
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A007.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 15:31
Compound Sublist: INDA Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.029 | -0.001 | 890226 | 3.295 | -0.002 | 1353989 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.452 | -0.001 | 18546 | 4.928 | -0.001 | 35747 | 1.0849 | 1.2686 | 15.6 | alpha-BHC A B |
| 4.848 | 0.002 | 10159 | 5.367 | 0.001 | 16428 | 1.5438 | 1.3981 | 9.9 | beta-BHC A B |
| 5.012 | 0.001 | 15345 | 5.654 | 0.001 | 25848 | 1.1291 | 1.2433 | 9.6 | delta-BHC A B |
| 4.755 | -0.001 | 16517 | 5.282 | -0.001 | 31104 | 1.1887 | 1.3215 | 10.6 | gamma-BHC (Lindane) A B |
| 5.201 | 0.000 | 16233 | 5.713 | 0.000 | 28087 | 1.1847 | 1.3111 | 10.1 | Heptachlor A B |
| 5.476 | -0.001 | 18752 | 6.028 | -0.001 | 34410 | 1.1506 | 1.3010 | 12.3 | Aldrin A B |
| 6.028 | 0.000 | 18470 | 6.567 | 0.000 | 31102 | 1.2654 | 1.4108 | 10.9 | Heptachlor epoxide b A B |
| 6.385 | 0.001 | 28049 | 6.942 | 0.000 | 29125 | 1.2200 | 1.3596 | 10.8 | Endosulfan I A BM |
| 6.601 | 0.000 | 35765 | 7.199 | 0.000 | 60899 | 2.2925 | 2.6736 | 15.3 | Dieldrin A B |
| 6.346 | 0.010 | 20007 | 7.028 | 0.005 | 63863 | 1.6313 | 2.5410 | 43.6* | 4,4'-DDE A B |
| 6.812 | 0.000 | 31171 | 7.489 | -0.001 | 48429 | 2.3531 | 2.7538 | 15.7 | Endrin A B |
| 7.016 | 0.001 | 34545 | 7.686 | 0.000 | 51685 | 2.5359 | 2.7589 | 8.4 | Endosulfan II A B |
| 6.888 | 0.014 | 32558 | 7.569 | 0.005 | 45588 | 3.0192 | 2.8496 | 5.8 | 4,4'-DDD A B |
| 7.797 | 0.001 | 28483 | 8.259 | 0.000 | 42551 | 2.5008 | 2.7035 | 7.8 | Endosulfan sulfate A B |
| 7.129 | 0.006 | 14842 | 7.861 | 0.003 | 22067 | 2.0302 | 2.2118 | 8.6 | 4,4'-DDT A B |
| 7.565 | 0.004 | 49662 | 8.489 | 0.002 | 64002 | 11.9682 | 12.5637 | 4.9 | Methoxychlor A B |
| 8.058 | 0.001 | 43327 | 8.781 | 0.000 | 46455 | 3.0594 | 2.7329 | 11.3 | Endrin ketone A B |
| 7.397 | 0.001 | 28386 | 7.999 | 0.000 | 46377 | 2.6184 | 2.9273 | 11.1 | Endrin aldehyde A B |
| 6.142 | 0.000 | 18158 | 6.746 | 0.000 | 32039 | 1.2430 | 1.3509 | 8.3 | gamma-Chlordane A B |
| 6.262 | 0.000 | 17960 | 6.881 | 0.000 | 31623 | 1.1924 | 1.3285 | 10.8 | alpha-Chlordane A B |
| 1.728 | 0.000 | 32671 | 2.035 | -0.002 | 61757 | 1.2030 | 1.4433 | 18.2 | Hexachlorobutadiene A B |
| 4.288 | 0.000 | 21020 | 4.791 | 0.000 | 37487 | 1.3470 | 1.4510 | 7.4 | Hexachlorobenzene A B |
| 9.138 | -0.001 | 1219330 | 10.432 | -0.001 | 1476221 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 3.896 | 0.000 | 32160 | 4.298 | -0.001 | 87172 | 2.5521 | 2.6787 | 4.8 | Tetrachloro-m-xylene A B |
| 8.981 | 0.001 | 59579 | 9.922 | 0.001 | 77275 | 2.8919 | 3.1142 | 7.4 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 6.4 | 6.7 | 6.4~ | 85-115 |
| Decachlorobiphenyl | 7.2 | 7.8 | 7.2~ | 85-115 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

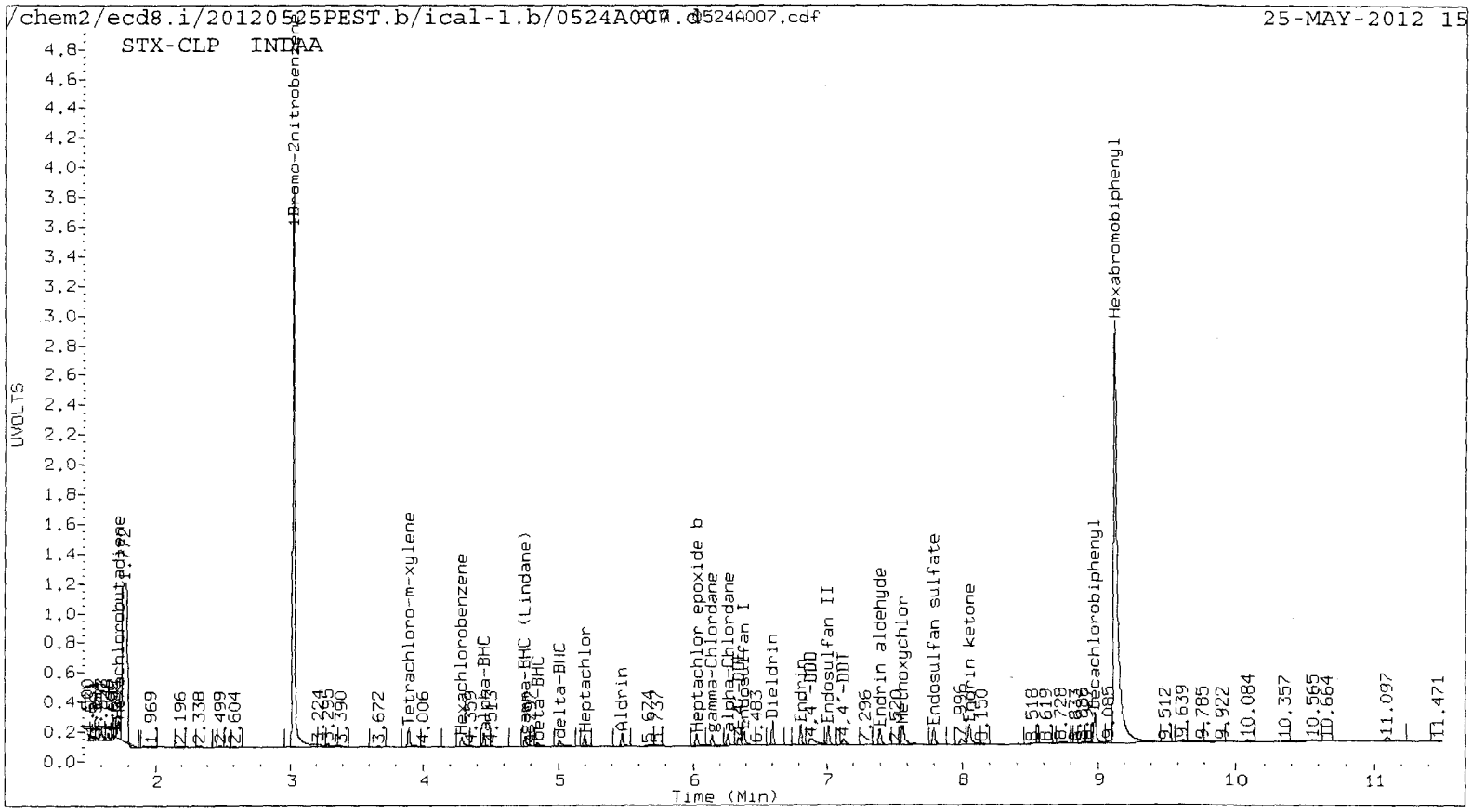
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 890226 | 6.4 |
| Hexabromobiphenyl | 1091107 | 1219330 | 11.8 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1353989 | 8.4 |
| Hexabromobiphenyl | 1339634 | 1476221 | 10.2 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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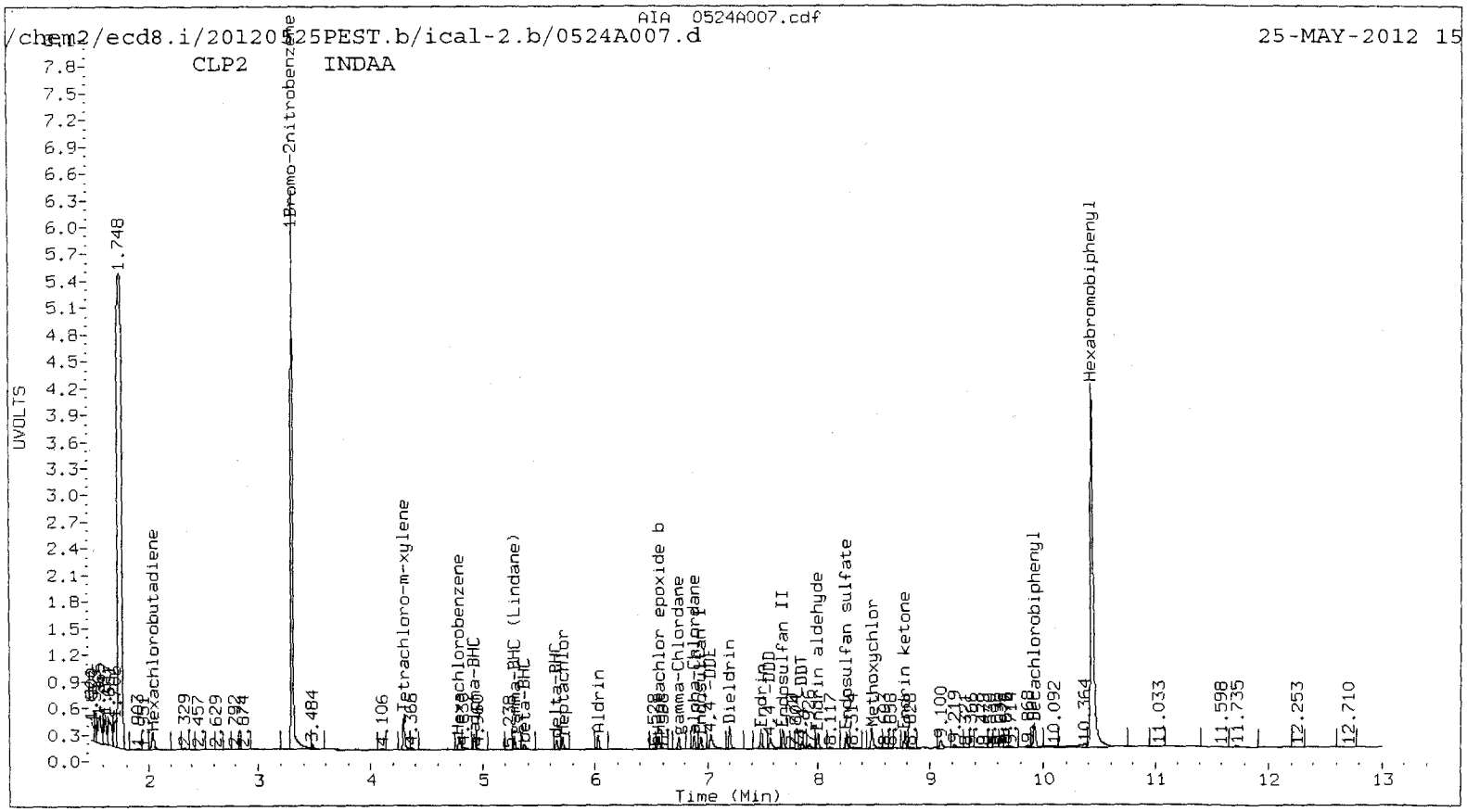
0524A007.cdf
25-MAY-2012 15
STX-CLP INDAA
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Hexabromobiphenyl
Decachlorobiphenyl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25-MAY-2012 15
CLP2 INDAA
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Hexabromobiphenyl
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A008.d ARI ID: INDAB
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A008.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 15:50
Compound Sublist: INDA Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.029 | -0.001 | 893818 | 3.295 | -0.001 | 1375217 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.453 | 0.000 | 36494 | 4.929 | 0.000 | 67263 | 2.1262 | 2.3503 | 10.0 | alpha-BHC A B |
| 4.848 | 0.002 | 18164 | 5.368 | 0.002 | 31043 | 2.7492 | 2.6012 | 5.5 | beta-BHC A B |
| 5.013 | 0.002 | 29426 | 5.655 | 0.002 | 48559 | 2.1566 | 2.2997 | 6.4 | delta-BHC A B |
| 4.756 | 0.000 | 31469 | 5.283 | 0.000 | 57901 | 2.2557 | 2.4220 | 7.1 | gamma-BHC (Lindane) A B |
| 5.202 | 0.000 | 31307 | 5.714 | 0.000 | 55371 | 2.2755 | 2.5448 | 11.2 | Heptachlor A B |
| 5.477 | 0.000 | 36332 | 6.029 | 0.001 | 64389 | 2.2203 | 2.3970 | 7.7 | Aldrin A B |
| 6.029 | 0.000 | 34385 | 6.567 | 0.000 | 58367 | 2.3464 | 2.6067 | 10.5 | Heptachlor epoxide b A B |
| 6.385 | 0.000 | 63687 | 6.942 | 0.000 | 53736 | 2.7589 | 2.4698 | 11.1 | Endosulfan I A B |
| 6.602 | 0.000 | 72830 | 7.199 | 0.000 | 113884 | 4.6496 | 4.9225 | 5.7 | Dieldrin A B |
| 6.345 | 0.009 | 39965 | 7.028 | 0.005 | 119294 | 3.2392 | 4.6732 | 36.2 | 4,4'-DDE A B |
| 6.812 | 0.000 | 60279 | 7.490 | 0.000 | 88961 | 4.4883 | 4.9469 | 9.7 | Endrin A B |
| 7.017 | 0.001 | 65440 | 7.686 | 0.000 | 94635 | 4.7383 | 4.9400 | 4.2 | Endosulfan II A B |
| 6.885 | 0.011 | 56762 | 7.569 | 0.004 | 82488 | 5.1918 | 5.0423 | 2.9 | 4,4'-DDD A B |
| 7.796 | 0.000 | 54115 | 8.259 | 0.000 | 79060 | 4.6864 | 4.9123 | 4.7 | Endosulfan sulfate A B |
| 7.129 | 0.005 | 31159 | 7.861 | 0.003 | 42580 | 4.2039 | 4.1736 | 0.7 | 4,4'-DDT A B |
| 7.565 | 0.004 | 95874 | 8.489 | 0.002 | 124453 | 22.7893 | 23.8909 | 4.7 | Methoxychlor A B |
| 8.057 | 0.000 | 74349 | 8.780 | 0.000 | 86865 | 5.1782 | 4.9973 | 3.6 | Endrin ketone A B |
| 7.397 | 0.001 | 52835 | 7.999 | 0.000 | 83086 | 4.8071 | 5.1286 | 6.5 | Endrin aldehyde A B |
| 6.143 | 0.001 | 34151 | 6.746 | 0.000 | 59635 | 2.3283 | 2.4756 | 6.1 | gamma-Chlordane A B |
| 6.262 | 0.001 | 34442 | 6.882 | 0.000 | 58289 | 2.2776 | 2.4110 | 5.7 | alpha-Chlordane A B |
| 1.728 | 0.000 | 62240 | 2.037 | -0.001 | 110824 | 2.2825 | 2.5501 | 11.1 | Hexachlorobutadiene A B |
| 4.288 | 0.001 | 38400 | 4.792 | 0.001 | 66896 | 2.4508 | 2.5493 | 3.9 | Hexachlorobenzene A B |
| 9.137 | -0.001 | 1236219 | 10.433 | -0.001 | 1509551 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 3.897 | 0.000 | 59968 | 4.298 | 0.000 | 163675 | 4.7397 | 4.9519 | 4.4 | Tetrachloro-m-xylene A B |
| 8.981 | 0.001 | 104566 | 9.922 | 0.001 | 135305 | 5.0062 | 5.3324 | 6.3 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 11.8 | 12.4 | 11.8~ | 85-115 |
| Decachlorobiphenyl | 12.5 | 13.3 | 12.5~ | 85-115 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

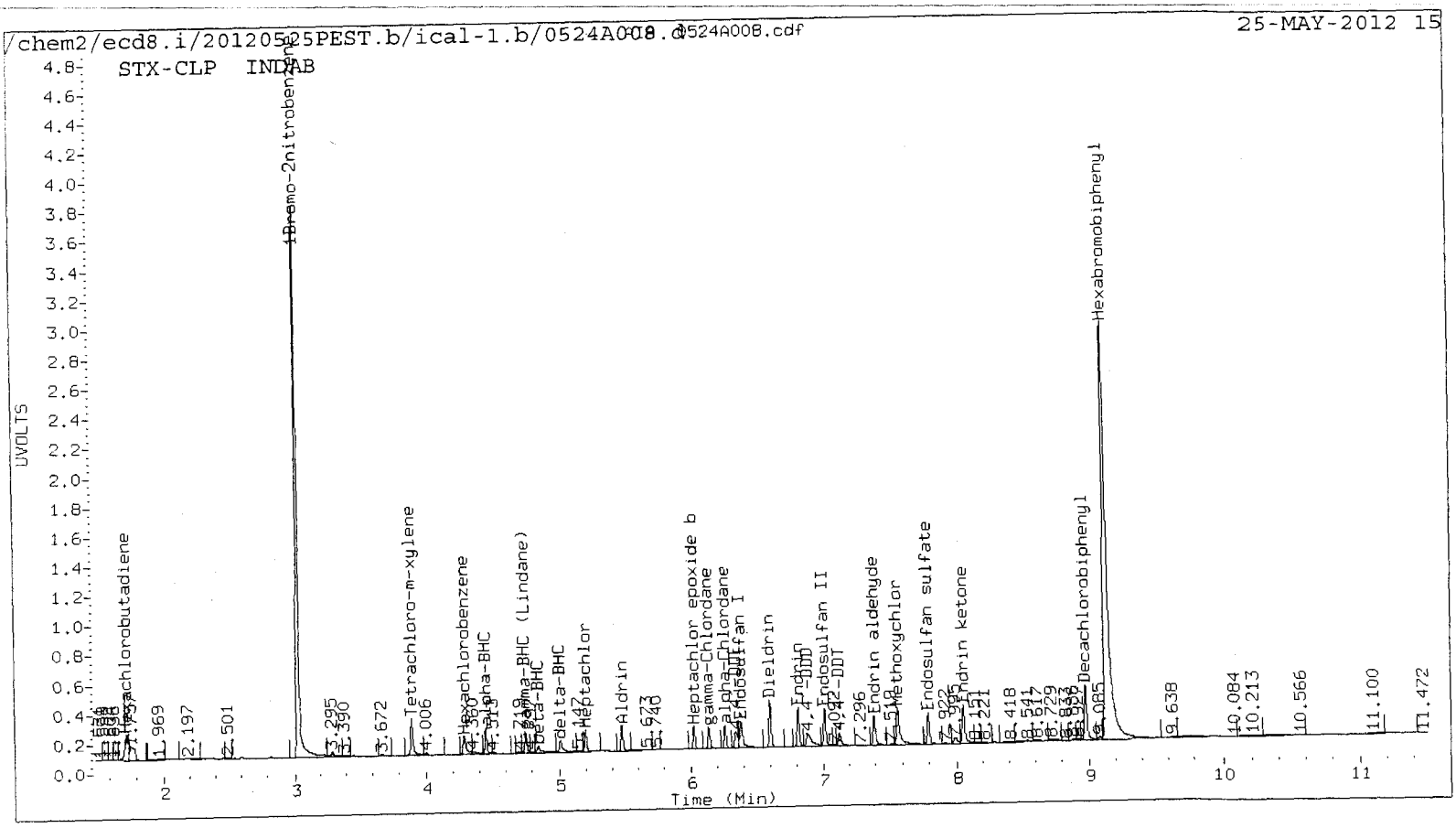
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 893818 | 6.9 |
| Hexabromobiphenyl | 1091107 | 1236219 | 13.3 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1375217 | 10.1 |
| Hexabromobiphenyl | 1339634 | 1509551 | 12.7 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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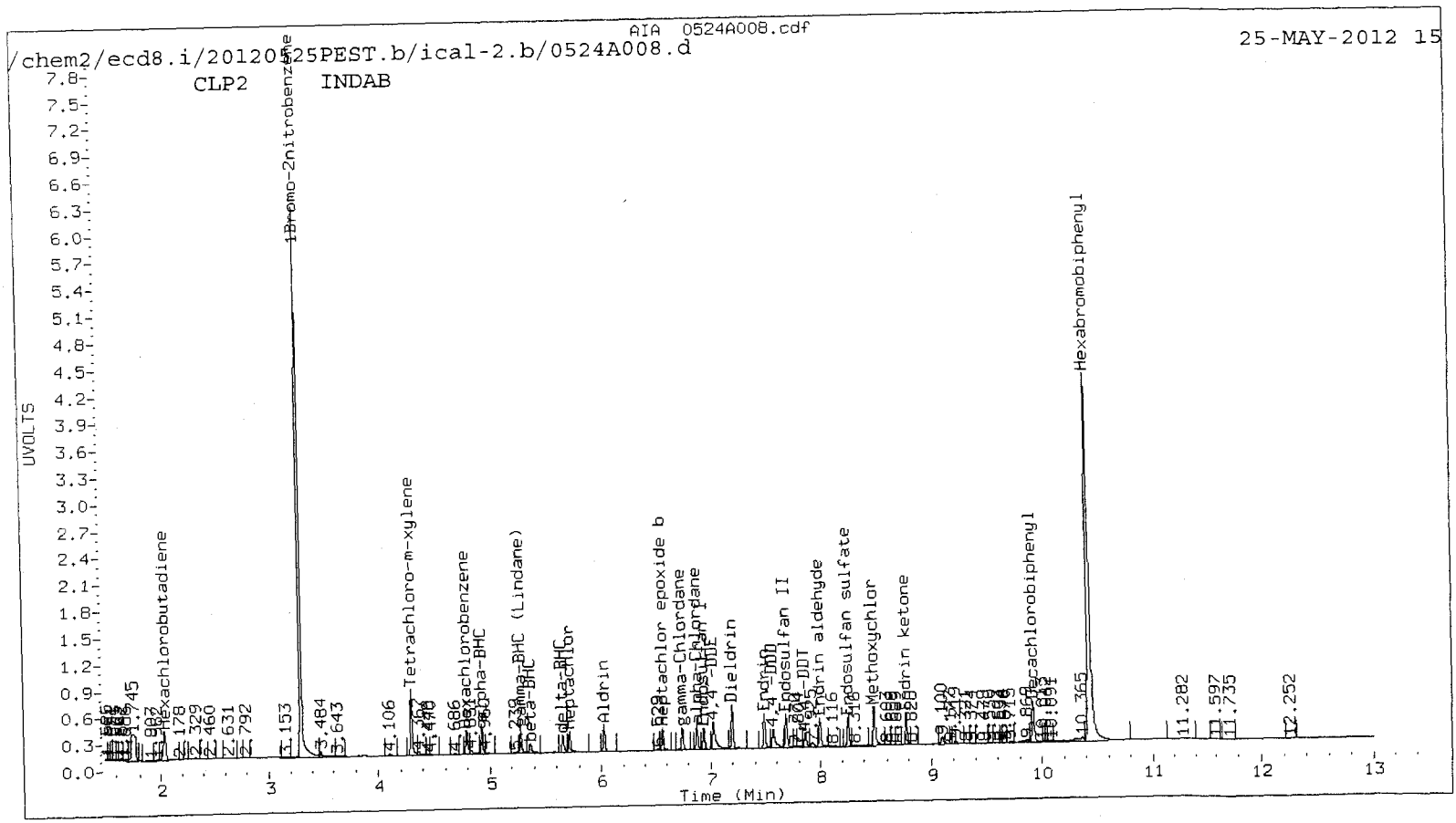
0524A008.cdf
25-MAY-2012 15
STX-CLP INDAB
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
Endrin
4,4'-DDE
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0524A008.cdf
25-MAY-2012 15
CLP2 INDAB
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
Endrin
4,4'-DDE
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

US2:01345

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A009.d ARI ID: INDAC
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A009.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Injection Date: 25-MAY-2012 16:09
Compound Sublist: INDA
Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul
Matrix: SOIL
Operator: ar
Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.029 | -0.001 | 874235 | 3.295 | -0.001 | 1357862 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.453 | 0.000 | 74095 | 4.929 | 0.000 | 133743 | 4.4137 | 4.7329 | 7.0 | alpha-BHC A B |
| 4.848 | 0.002 | 28526 | 5.368 | 0.001 | 58837 | 4.4143 | 4.9932 | 12.3 | beta-BHC A B |
| 5.012 | 0.001 | 56766 | 5.654 | 0.001 | 98429 | 4.2534 | 4.7210 | 10.4 | delta-BHC A B |
| 4.755 | 0.000 | 60018 | 5.283 | 0.000 | 112743 | 4.3984 | 4.7764 | 8.2 | gamma-BHC (Lindane) A B |
| 5.201 | 0.000 | 60767 | 5.713 | 0.000 | 102797 | 4.5158 | 4.7849 | 5.8 | Heptachlor A B |
| 5.477 | 0.000 | 72338 | 6.029 | 0.000 | 126602 | 4.5196 | 4.7732 | 5.5 | Aldrin A B |
| 6.029 | 0.001 | 66721 | 6.567 | 0.000 | 109040 | 4.6549 | 4.9320 | 5.8 | Heptachlor epoxide b A B |
| 6.385 | 0.001 | 114912 | 6.942 | 0.000 | 111785 | 5.0894 | 5.2034 | 2.2 | Endosulfan I A B |
| 6.602 | 0.001 | 144179 | 7.199 | 0.000 | 224213 | 9.4107 | 9.8152 | 4.2 | Dieldrin A B |
| 6.344 | 0.008 | 91795 | 7.027 | 0.004 | 250542 | 7.5667 | 9.9401 | 27.1 | 4,4'-DDE A B |
| 6.813 | 0.001 | 118793 | 7.490 | 0.000 | 174661 | 9.0299 | 9.7896 | 8.1 | Endrin A B |
| 7.017 | 0.002 | 123852 | 7.686 | 0.000 | 187389 | 9.1551 | 9.8595 | 7.4 | Endosulfan II A B |
| 6.882 | 0.008 | 95856 | 7.569 | 0.004 | 161536 | 8.9507 | 9.9528 | 10.6 | 4,4'-DDD A B |
| 7.797 | 0.001 | 105098 | 8.259 | 0.001 | 154982 | 9.2918 | 9.7061 | 4.4 | Endosulfan sulfate A B |
| 7.128 | 0.005 | 59091 | 7.861 | 0.002 | 92206 | 8.1391 | 9.1096 | 11.3 | 4,4'-DDT A B |
| 7.564 | 0.004 | 190801 | 8.489 | 0.002 | 254268 | 46.3013 | 49.1988 | 6.1 | Methoxychlor A B |
| 8.058 | 0.001 | 133031 | 8.781 | 0.000 | 168184 | 9.4589 | 9.7524 | 3.1 | Endrin ketone A B |
| 7.397 | 0.001 | 99888 | 7.999 | 0.000 | 157966 | 9.2779 | 9.8282 | 5.8 | Endrin aldehyde A B |
| 6.143 | 0.000 | 65755 | 6.746 | 0.000 | 114104 | 4.5834 | 4.7972 | 4.6 | gamma-Chlordane A B |
| 6.263 | 0.001 | 73500 | 6.882 | 0.000 | 123863 | 4.9693 | 5.1888 | 4.3 | alpha-Chlordane A B |
| 1.728 | 0.000 | 148749 | 2.037 | -0.001 | 208118 | 5.5773 | 4.8500 | 13.9 | Hexachlorobutadiene A B |
| 4.288 | 0.000 | 72151 | 4.791 | 0.000 | 124617 | 4.7080 | 4.8096 | 2.1 | Hexachlorobenzene A B |
| 9.137 | -0.001 | 1210916 | 10.433 | 0.000 | 1497654 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 3.896 | 0.000 | 115313 | 4.298 | -0.001 | 315740 | 9.3181 | 9.6746 | 3.8 | Tetrachloro-m-xylene A B |
| 8.981 | 0.001 | 191947 | 9.922 | 0.001 | 253469 | 9.3816 | 10.0686 | 7.1 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 23.3 | 24.2 | 23.3~ | 85-115 |
| Decachlorobiphenyl | 23.5 | 25.2 | 23.5~ | 85-115 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

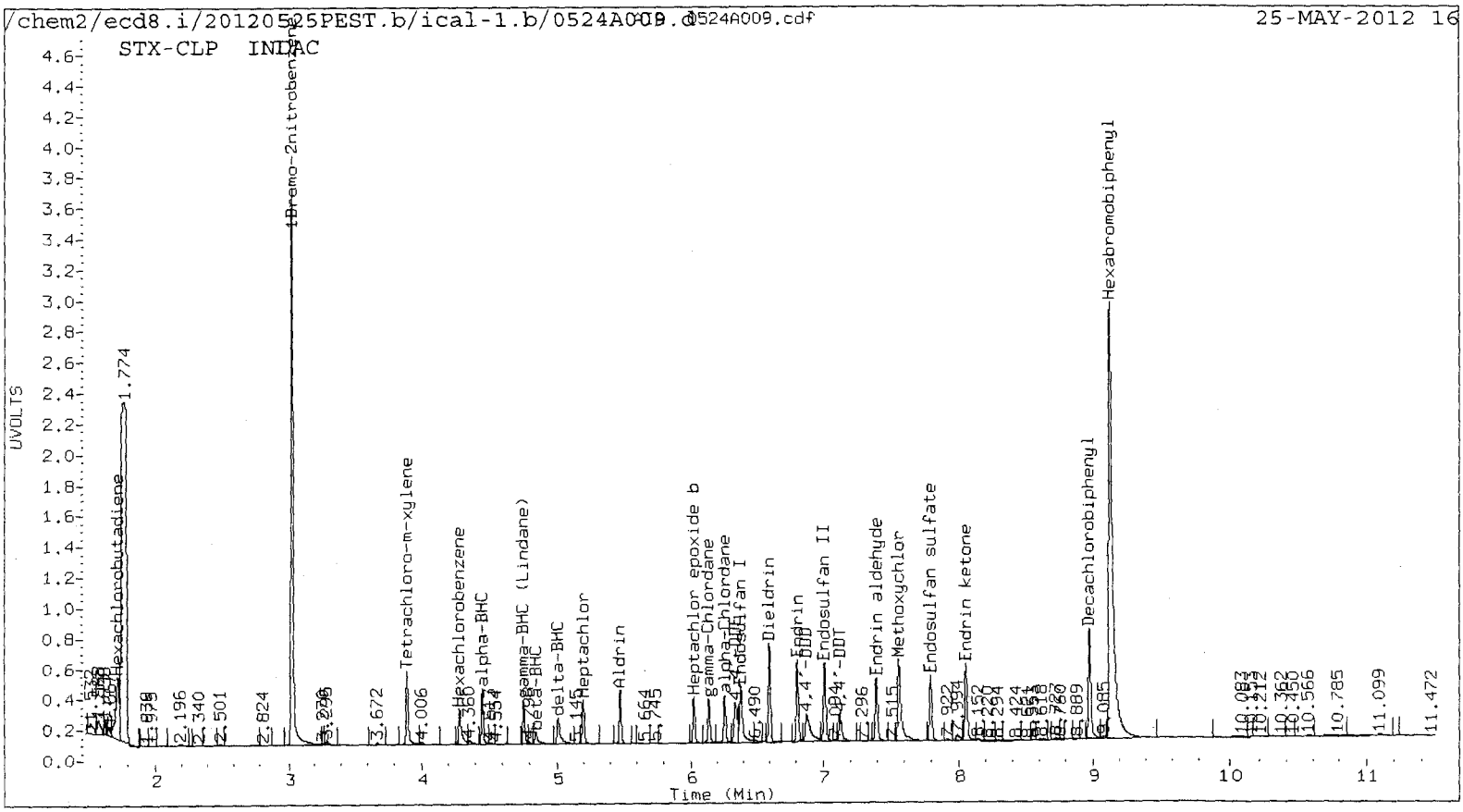
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 874235 | 4.5 |
| Hexabromobiphenyl | 1091107 | 1210916 | 11.0 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1357862 | 8.7 |
| Hexabromobiphenyl | 1339634 | 1497654 | 11.8 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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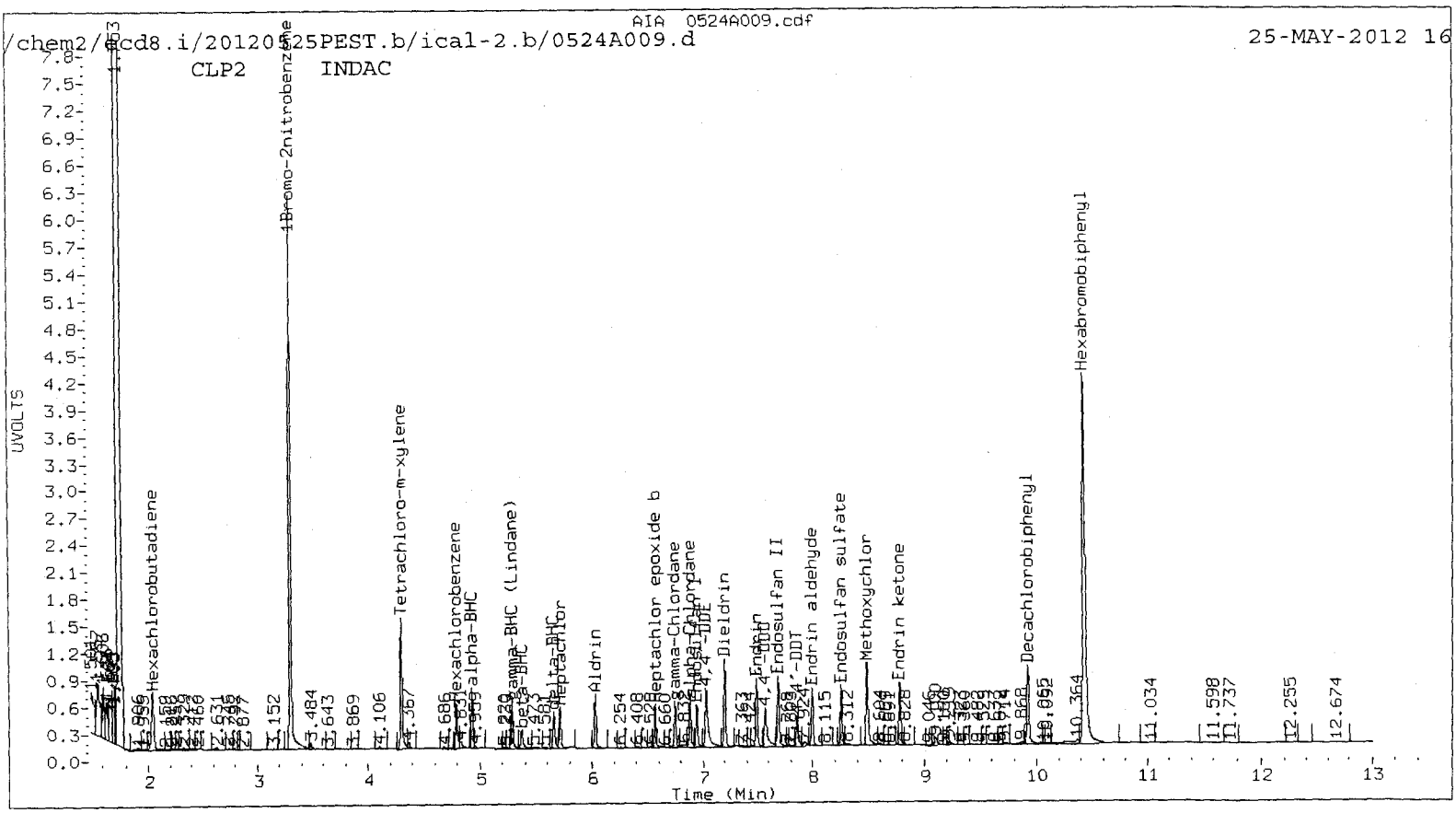
0524A009.cdf
25-MAY-2012 16
STX-CLP INDAC
UVOLTS
Time (Min)
Hexachlorobutadiene
1.774
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDE
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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25-MAY-2012 16
CLP2 INDAC
UVOLTS
Time (Min)
Hexachlorobutadiene
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDE
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

UU52:01338

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A010.d ARI ID: INDAD
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A010.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 16:28
Compound Sublist: INDA Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.029 | -0.001 | 860198 | 3.295 | -0.001 | 1348234 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.452 | -0.001 | 160119 | 4.928 | -0.001 | 272779 | 9.6936 | 9.7220 | 0.3 | alpha-BHC A B |
| 4.847 | 0.001 | 61589 | 5.367 | 0.001 | 112686 | 9.6861 | 9.6313 | 0.6 | beta-BHC A B |
| 5.011 | 0.000 | 122260 | 5.654 | 0.001 | 194025 | 9.3104 | 9.3727 | 0.7 | delta-BHC A B |
| 4.755 | -0.001 | 126812 | 5.282 | 0.000 | 225296 | 9.4451 | 9.6129 | 1.8 | gamma-BHC (Lindane) A B |
| 5.200 | -0.001 | 128946 | 5.713 | 0.000 | 211844 | 9.7387 | 9.9311 | 2.0 | Heptachlor A B |
| 5.476 | -0.001 | 152346 | 6.028 | 0.000 | 255462 | 9.6738 | 9.7002 | 0.3 | Aldrin A B |
| 6.028 | 0.000 | 136676 | 6.567 | 0.000 | 209641 | 9.6911 | 9.5500 | 1.5 | Heptachlor epoxide b A B |
| 6.385 | 0.000 | 228943 | 6.942 | 0.000 | 202456 | 10.3052 | 9.4913 | 8.2 | Endosulfan I A B |
| 6.601 | 0.000 | 302602 | 7.198 | -0.001 | 443723 | 20.0735 | 19.5632 | 2.6 | Dieldrin A B |
| 6.343 | 0.007 | 186729 | 7.026 | 0.003 | 473035 | 15.4896 | 18.9014 | 19.8 | 4,4'-DDE A B |
| 6.812 | 0.000 | 245959 | 7.489 | -0.001 | 341328 | 19.0555 | 19.5669 | 2.6 | Endrin A B |
| 7.016 | 0.001 | 254245 | 7.686 | -0.001 | 370002 | 19.1548 | 19.9111 | 3.9 | Endosulfan II A B |
| 6.881 | 0.007 | 186349 | 7.568 | 0.004 | 306819 | 17.7350 | 19.3348 | 8.6 | 4,4'-DDD A B |
| 7.796 | 0.000 | 206145 | 8.258 | 0.000 | 304123 | 18.5755 | 19.4802 | 4.8 | Endosulfan sulfate A B |
| 7.127 | 0.004 | 133354 | 7.860 | 0.002 | 189570 | 18.7209 | 19.1554 | 2.3 | 4,4'-DDT A B |
| 7.564 | 0.003 | 379932 | 8.489 | 0.001 | 501245 | 93.9686 | 99.1959 | 5.4 | Methoxychlor A B |
| 8.057 | 0.000 | 250382 | 8.780 | 0.000 | 332240 | 18.1450 | 19.7043 | 8.2 | Endrin ketone A B |
| 7.396 | 0.001 | 199885 | 7.998 | 0.000 | 304041 | 18.9227 | 19.3474 | 2.2 | Endrin aldehyde A B |
| 6.142 | 0.000 | 135188 | 6.745 | 0.000 | 227692 | 9.5769 | 9.6412 | 0.7 | gamma-Chlordane A B |
| 6.262 | 0.000 | 139821 | 6.881 | 0.000 | 223363 | 9.6074 | 9.4238 | 1.9 | alpha-Chlordane A B |
| 1.727 | -0.001 | 242805 | 2.036 | -0.001 | 398207 | 9.2524 | 9.3461 | 1.0 | Hexachlorobutadiene A BM |
| 4.287 | 0.000 | 143298 | 4.791 | 0.000 | 239956 | 9.5032 | 9.3273 | 1.9 | Hexachlorobenzene A B |
| 9.138 | 0.000 | 1188090 | 10.433 | -0.001 | 1464302 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 3.896 | -0.001 | 233425 | 4.298 | -0.001 | 626276 | 19.1703 | 19.3268 | 0.8 | Tetrachloro-m-xylene A B |
| 8.980 | 0.000 | 369918 | 9.922 | 0.001 | 460858 | 18.4275 | 18.7237 | 1.6 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 47.9 | 48.3 | 47.9~ | 85-115 |
| Decachlorobiphenyl | 46.1 | 46.8 | 46.1~ | 85-115 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

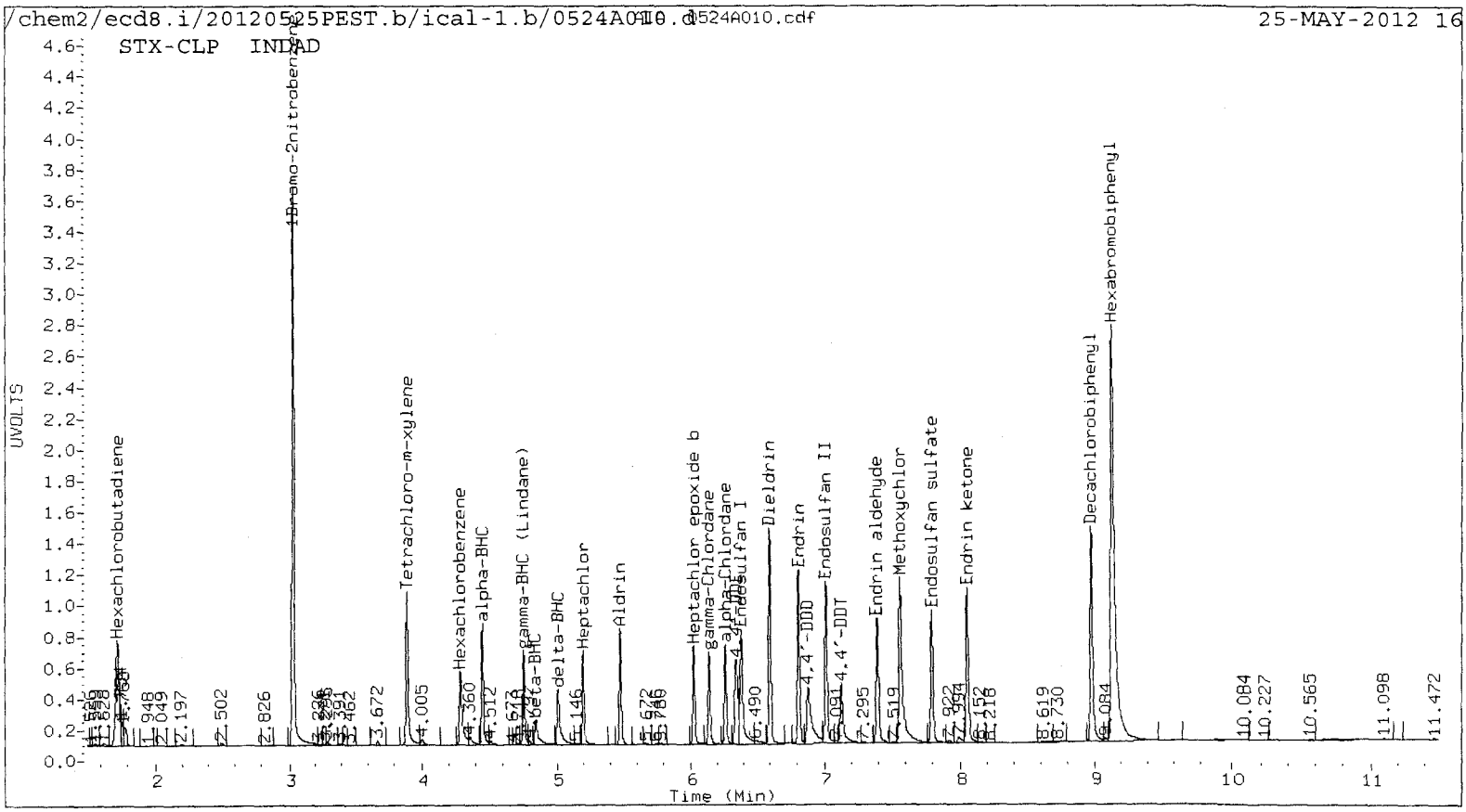
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 860198 | 2.8 |
| Hexabromobiphenyl | 1091107 | 1188090 | 8.9 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1348234 | 8.0 |
| Hexabromobiphenyl | 1339634 | 1464302 | 9.3 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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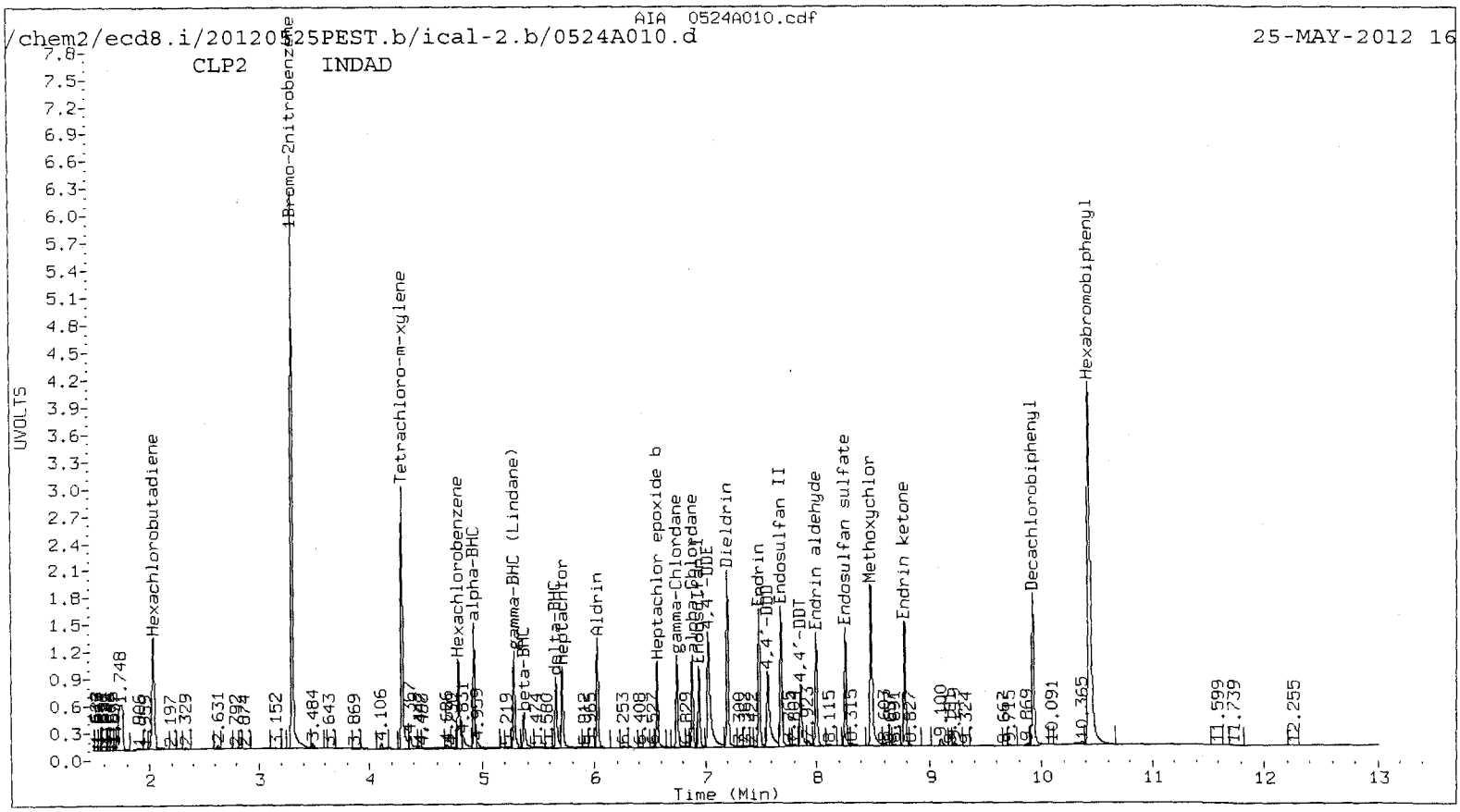
0524A010.cdf
25-MAY-2012 16
STX-CLP INDAD
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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25-MAY-2012 16
CLP2 INDAD
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A011.d ARI ID: INDAF
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A011.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 16:47
Compound Sublist: INDA Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.029 | -0.001 | 893087 | 3.296 | -0.001 | 1357917 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.453 | 0.000 | 771385 | 4.929 | 0.000 | 1164761 | 44.9799 | 41.2168 | 8.7 | alpha-BHC A B |
| 4.846 | 0.000 | 244908 | 5.367 | 0.001 | 446476 | 37.0984 | 37.8883 | 2.1 | beta-BHC A B |
| 5.011 | 0.001 | 612776 | 5.654 | 0.001 | 882569 | 44.9457 | 42.3298 | 6.0 | delta-BHC A B |
| 4.755 | 0.000 | 605193 | 5.283 | 0.000 | 955882 | 43.4153 | 40.4945 | 7.0 | gamma-BHC (Lindane) A B |
| 5.201 | 0.000 | 586829 | 5.714 | 0.000 | 857238 | 42.6884 | 39.9001 | 6.8 | Heptachlor A B |
| 5.477 | 0.000 | 714575 | 6.029 | 0.001 | 1076504 | 43.7037 | 40.5848 | 7.4 | Aldrin A B |
| 6.029 | 0.001 | 605557 | 6.568 | 0.001 | 844040 | 41.3561 | 38.1754 | 8.0 | Heptachlor epoxide b A B |
| 6.385 | 0.001 | 872271 | 6.943 | 0.000 | 835683 | 37.8168 | 38.8981 | 2.8 | Endosulfan I A B |
| 6.602 | 0.001 | 1303586 | 7.200 | 0.001 | 1799063 | 83.2906 | 78.7529 | 5.6 | Dieldrin A B |
| 6.339 | 0.003 | 1122077 | 7.025 | 0.002 | 2066932 | 81.3929 | 82.0010 | 0.7 | 4,4'-DDE A B |
| 6.813 | 0.001 | 1104330 | 7.490 | 0.000 | 1398097 | 83.9237 | 76.0067 | 9.9 | Endrin A B |
| 7.016 | 0.001 | 1090311 | 7.686 | 0.000 | 1502885 | 80.5755 | 76.6974 | 4.9 | Endosulfan II A B |
| 6.877 | 0.003 | 800939 | 7.566 | 0.002 | 1255067 | 74.7706 | 75.0047 | 0.3 | 4,4'-DDD A B |
| 7.796 | 0.000 | 922879 | 8.259 | 0.000 | 1280823 | 81.5719 | 77.8032 | 4.7 | Endosulfan sulfate A B |
| 7.125 | 0.002 | 670592 | 7.859 | 0.001 | 942700 | 92.3434 | 90.3357 | 2.2 | 4,4'-DDT A B |
| 7.563 | 0.002 | 1724904 | 8.489 | 0.001 | 2132946 | 418.4746 | 400.3023 | 4.4 | Methoxychlor A B |
| 8.057 | 0.000 | 1039726 | 8.781 | 0.000 | 1368926 | 73.9094 | 76.9932 | 4.1 | Endrin ketone A B |
| 7.397 | 0.001 | 856694 | 7.998 | 0.000 | 1223726 | 79.5529 | 73.8481 | 7.4 | Endrin aldehyde A B |
| 6.143 | 0.001 | 610381 | 6.747 | 0.001 | 948695 | 41.6479 | 39.8842 | 4.3 | gamma-Chlordane A B |
| 6.263 | 0.001 | 623544 | 6.882 | 0.001 | 943909 | 41.2673 | 39.5402 | 4.3 | alpha-Chlordane A B |
| 1.728 | 0.000 | 1050737 | 2.036 | -0.001 | 1615344 | 38.5652 | 37.6426 | 2.4 | Hexachlorobutadiene A B |
| 4.287 | 0.000 | 607655 | 4.791 | 0.000 | 969201 | 38.8142 | 37.4050 | 3.7 | Hexachlorobenzene A B |
| 9.138 | 0.000 | 1211217 | 10.433 | 0.000 | 1544067 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 3.896 | 0.000 | 1021192 | 4.299 | 0.000 | 2518141 | 80.7779 | 77.1556 | 4.6 | Tetrachloro-m-xylene A B |
| 8.981 | 0.001 | 1548060 | 9.922 | 0.001 | 1831237 | 75.6442 | 70.5561 | 7.0 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 201.9 | 192.9 | 192.9~ | 85-115 |
| Decachlorobiphenyl | 189.1 | 176.4 | 176.4~ | 85-115 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

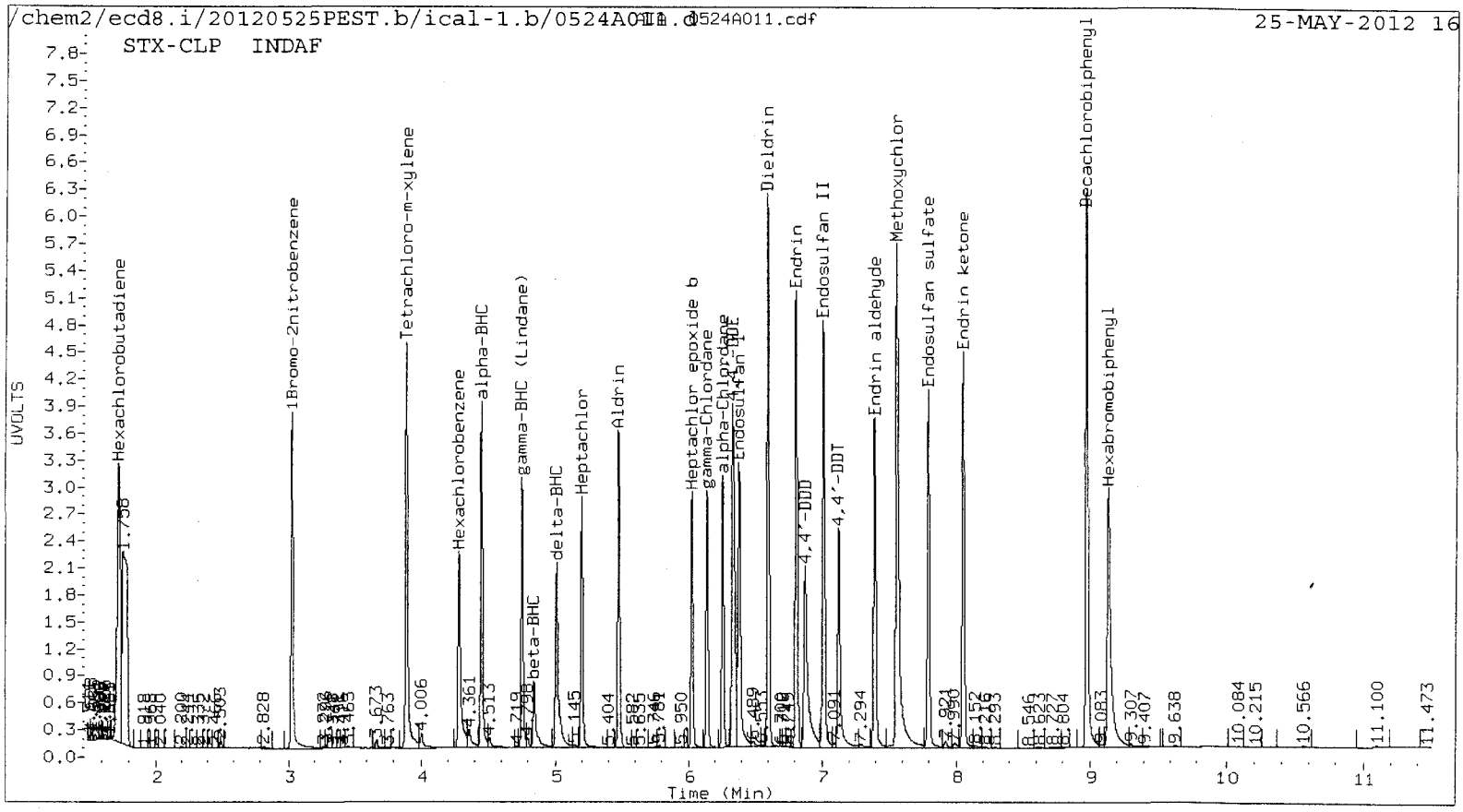
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 893087 | 6.8 |
| Hexabromobiphenyl | 1091107 | 1211217 | 11.0 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1357917 | 8.8 |
| Hexabromobiphenyl | 1339634 | 1544067 | 15.3 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | STX-CLP Col Peak# | RT | Shift | Height | Amount | CLP2 Col Peak# | RT | Shift | Height | Amount |
|---|---|---|---|---|---|---|---|---|---|---|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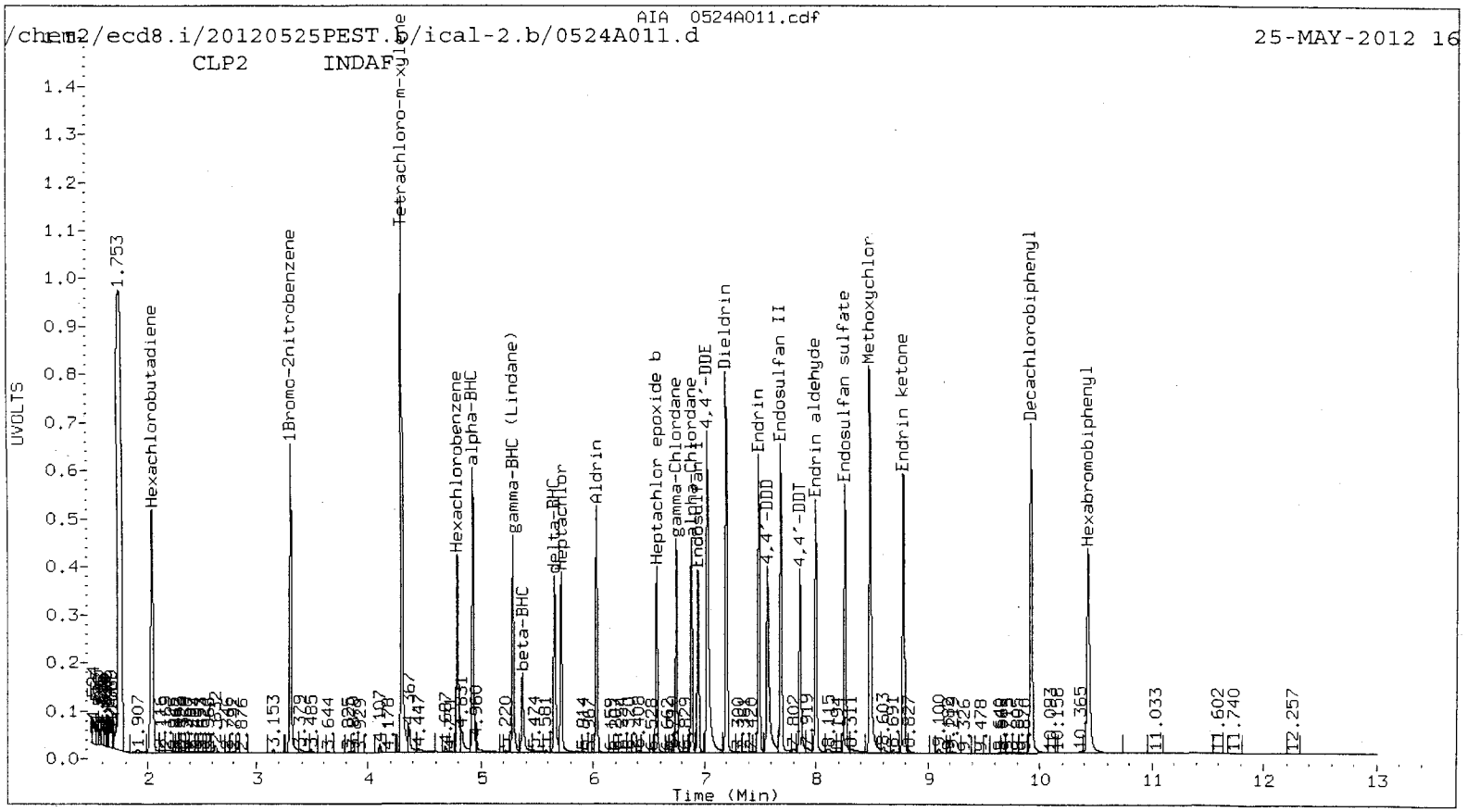
AIA 0524A011.cdf
25-MAY-2012 16
STX-CLP INDAF
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl


AIA 0524A011.cdf
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25-MAY-2012 16
CLP2 INDAF
UVOLTS
Time (Min)
1.753
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

UU52:01344

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A012.d ARI ID: IDNAG
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A012.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m
Injection Date: 25-MAY-2012 17:06
Compound Sublist: INDA
Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul
Matrix: SOIL
Operator: ar
Dilution Factor: 1.000

| STX-CLP Col RT | Shift | Response | CLP2 Col RT | Shift | Response | STX-CLP on col | CLP2 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 3.029 | -0.001 | 878201 | 3.296 | -0.001 | 1350929 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.453 | 0.000 | 1620398 | 4.929 | 0.000 | 2311478 | 96.0879 | 82.2182 | 15.6 | alpha-BHC A B |
| 4.846 | 0.000 | 492660 | 5.366 | 0.000 | 879673 | 75.8926 | 75.0358 | 1.1 | beta-BHC A B |
| 5.011 | 0.000 | 1337229 | 5.653 | 0.000 | 1801798 | 99.7453 | 86.8648 | 13.8 | delta-BHC A B |
| 4.755 | 0.000 | 1269047 | 5.283 | 0.000 | 1905960 | 92.5821 | 81.1609 | 13.1 | gamma-BHC (Lindane) A B |
| 5.201 | 0.000 | 1205503 | 5.713 | 0.000 | 1641236 | 89.1797 | 76.7864 | 14.9 | Heptachlor A B |
| 5.477 | 0.000 | 1479994 | 6.028 | 0.000 | 2122025 | 92.0513 | 80.4153 | 13.5 | Aldrin A B |
| 6.028 | 0.000 | 1235125 | 6.567 | 0.000 | 1645929 | 85.7818 | 74.8294 | 13.6 | Heptachlor epoxide b A B |
| 6.385 | 0.000 | 1584803 | 6.942 | 0.000 | 1636879 | 69.8729 | 76.5851 | 9.2 | Endosulfan I A B |
| 6.601 | 0.000 | 2641180 | 7.199 | 0.000 | 3484640 | 171.6145 | 153.3271 | 11.3 | Dieldrin A B |
| 6.336 | 0.000 | 2596728 | 7.023 | 0.000 | 4068405 | 159.7559 | 162.2400 | 1.5 | 4,4'-DDE A B |
| 6.812 | 0.000 | 2259416 | 7.490 | 0.000 | 2716376 | 181.0557 | 149.0759 | 19.4 | Endrin A B |
| 7.015 | 0.000 | 2181207 | 7.686 | 0.000 | 2860846 | 169.9729 | 147.3846 | 14.2 | Endosulfan II A B |
| 6.874 | 0.000 | 1666967 | 7.564 | 0.000 | 2453269 | 164.0927 | 148.0027 | 10.3 | 4,4'-DDD A B |
| 7.796 | 0.000 | 1896653 | 8.258 | 0.000 | 2546892 | 176.7722 | 156.1787 | 12.4 | Endosulfan sulfate A B |
| 7.123 | 0.000 | 1431195 | 7.858 | 0.000 | 1990621 | 207.8149 | 192.5650 | 7.6 | 4,4'-DDT A B |
| 7.561 | 0.000 | 3641575 | 8.487 | 0.000 | 4304884 | 931.5881 | 815.5914 | 13.3 | Methoxychlor A B |
| 8.057 | 0.000 | 2076680 | 8.780 | 0.000 | 2691574 | 155.6614 | 152.8206 | 1.8 | Endrin ketone A B |
| 7.396 | 0.000 | 1730531 | 7.999 | 0.000 | 2380194 | 169.4495 | 145.0008 | 15.6 | Endrin aldehyde A B |
| 6.142 | 0.000 | 1275557 | 6.746 | 0.000 | 1894777 | 88.5099 | 80.0705 | 10.0 | gamma-Chlordane A B |
| 6.262 | 0.000 | 1304395 | 6.882 | 0.000 | 1882452 | 87.7905 | 79.2636 | 10.2 | alpha-Chlordane A B |
| 1.728 | 0.000 | 2323402 | 2.037 | 0.000 | 3203415 | 86.7213 | 75.0359 | 14.4 | Hexachlorobutadiene A BM |
| 4.287 | 0.000 | 1261511 | 4.791 | 0.000 | 1912998 | 81.9453 | 74.2114 | 9.9 | Hexachlorobenzene A B |
| 9.137 | -0.001 | 1148660 | 10.432 | -0.002 | 1529548 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 3.897 | 0.000 | 2087470 | 4.299 | 0.000 | 4841084 | 167.9211 | 149.0976 | 11.9 | Tetrachloro-m-xylene A |
| 8.980 | 0.000 | 3100686 | 9.921 | 0.000 | 3545811 | 159.7630 | 137.9141 | 14.7 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 419.8 | 372.7 | 372.7~ | 85-115 |
| Decachlorobiphenyl | 399.4 | 344.8 | 344.8~ | 85-115 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

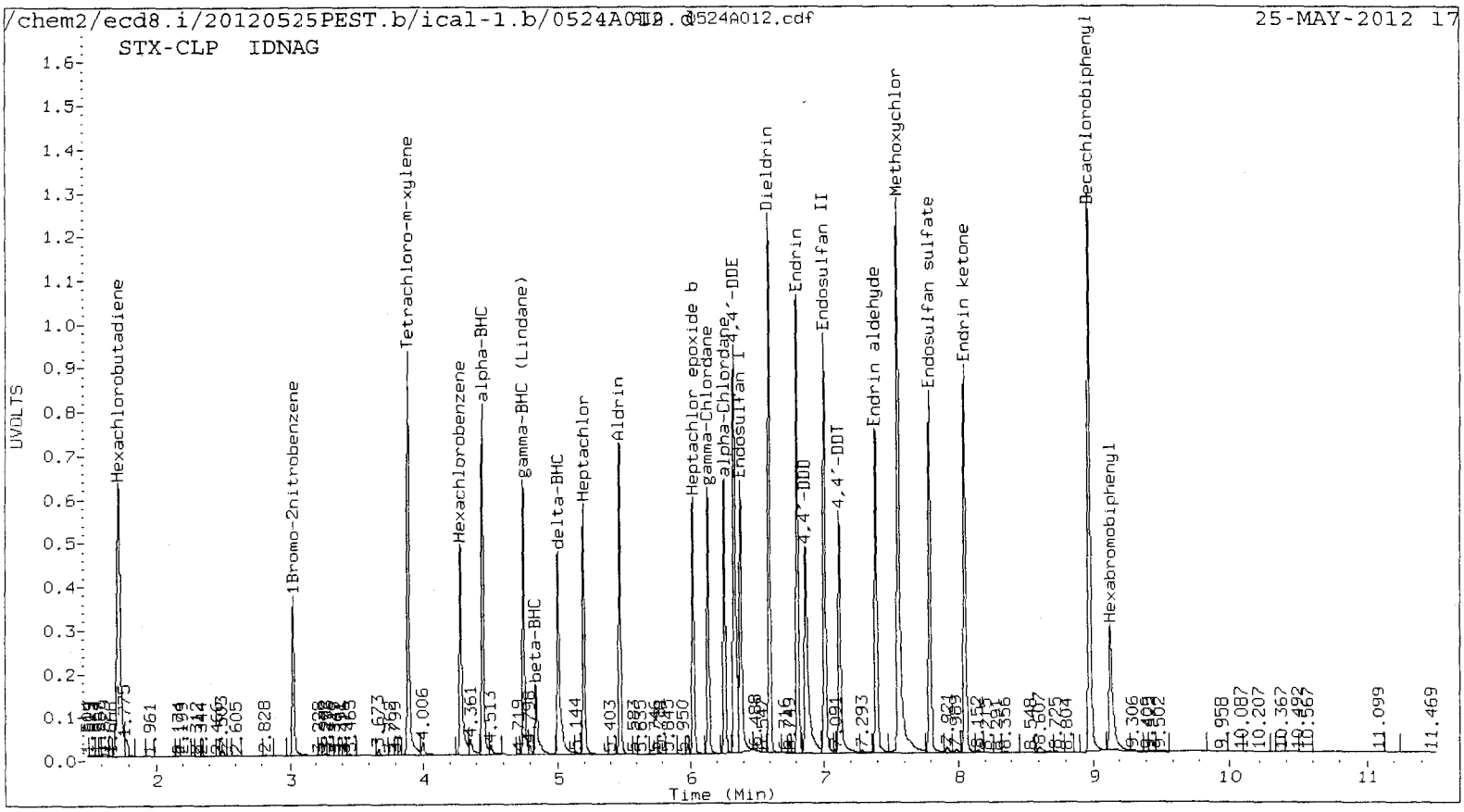
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 878201 | 5.0 |
| Hexabromobiphenyl | 1091107 | 1148660 | 5.3 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1350929 | 8.2 |
| Hexabromobiphenyl | 1339634 | 1529548 | 14.2 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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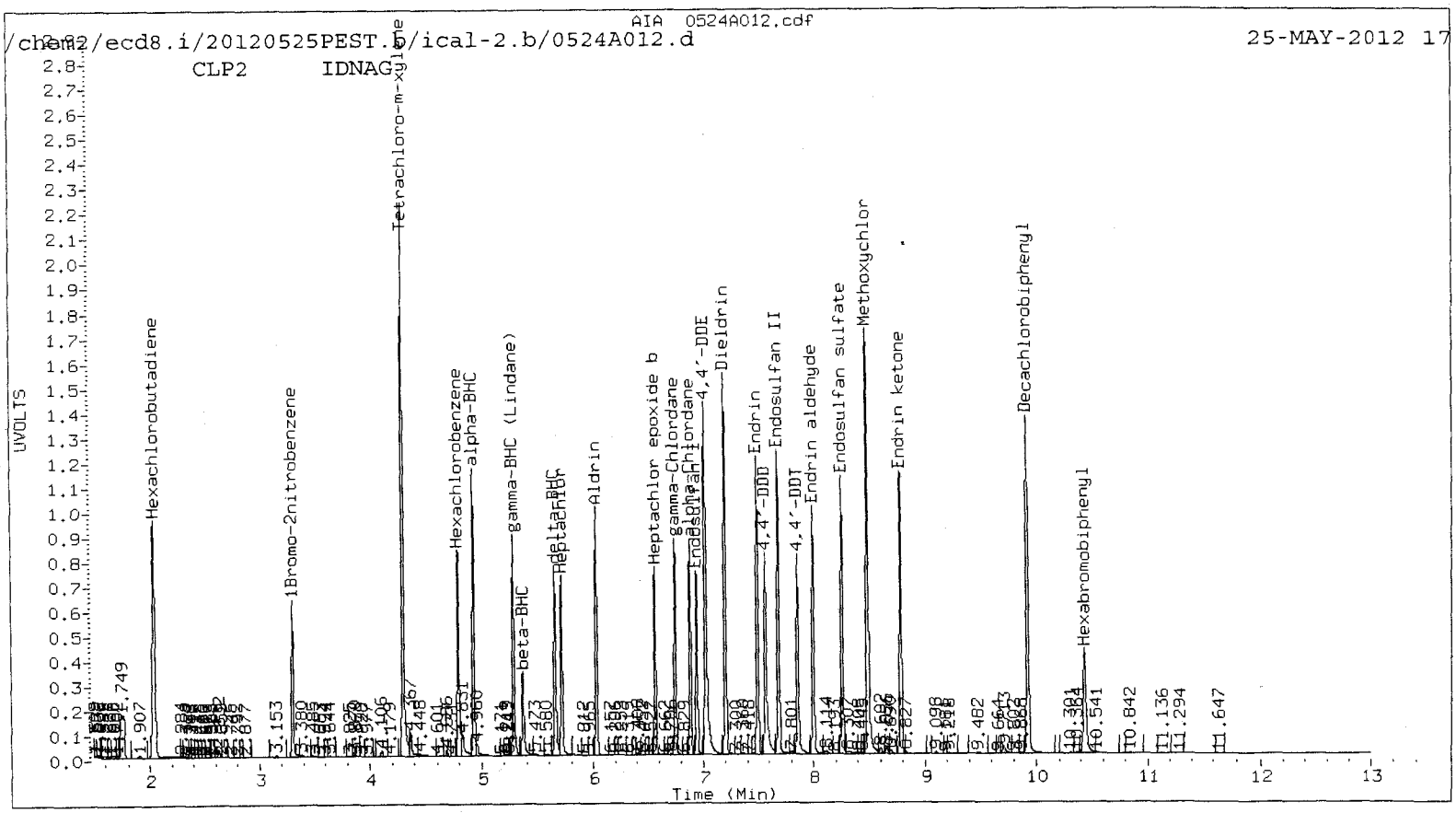
AIA 0524A012.cdf
25-MAY-2012 17
STX-CLP IDNAG
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
4,4'-DDD
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0524A012.cdf
25-MAY-2012 17
CLP2 IDNAG
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
4,4'-DDD
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A015.d ARI ID: TOXAPH 2500
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A015.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 18:02
Compound Sublist: TOXAPH Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.028 | -0.002 | 916675 | 3.294 | -0.002 | 1457356 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 9.139 | 0.000 | 1213703 | 10.432 | -0.001 | 1606848 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 3.895 | -0.002 | 428478 | 4.297 | -0.002 | 1133580 | 33.0211 | 32.3629 | 2.0 | Tetrachloro-m-xylene A B |
| 8.980 | -0.001 | 725410 | 9.921 | 0.000 | 873970 | 35.3737 | 32.3577 | 8.9 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 82.6 | 80.9 | 80.9 | 0-110 |
| Decachlorobiphenyl | 88.4 | 80.9 | 80.9 | 0-151 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 916675 | 9.6 |
| Hexabromobiphenyl | 1091107 | 1213703 | 11.2 |

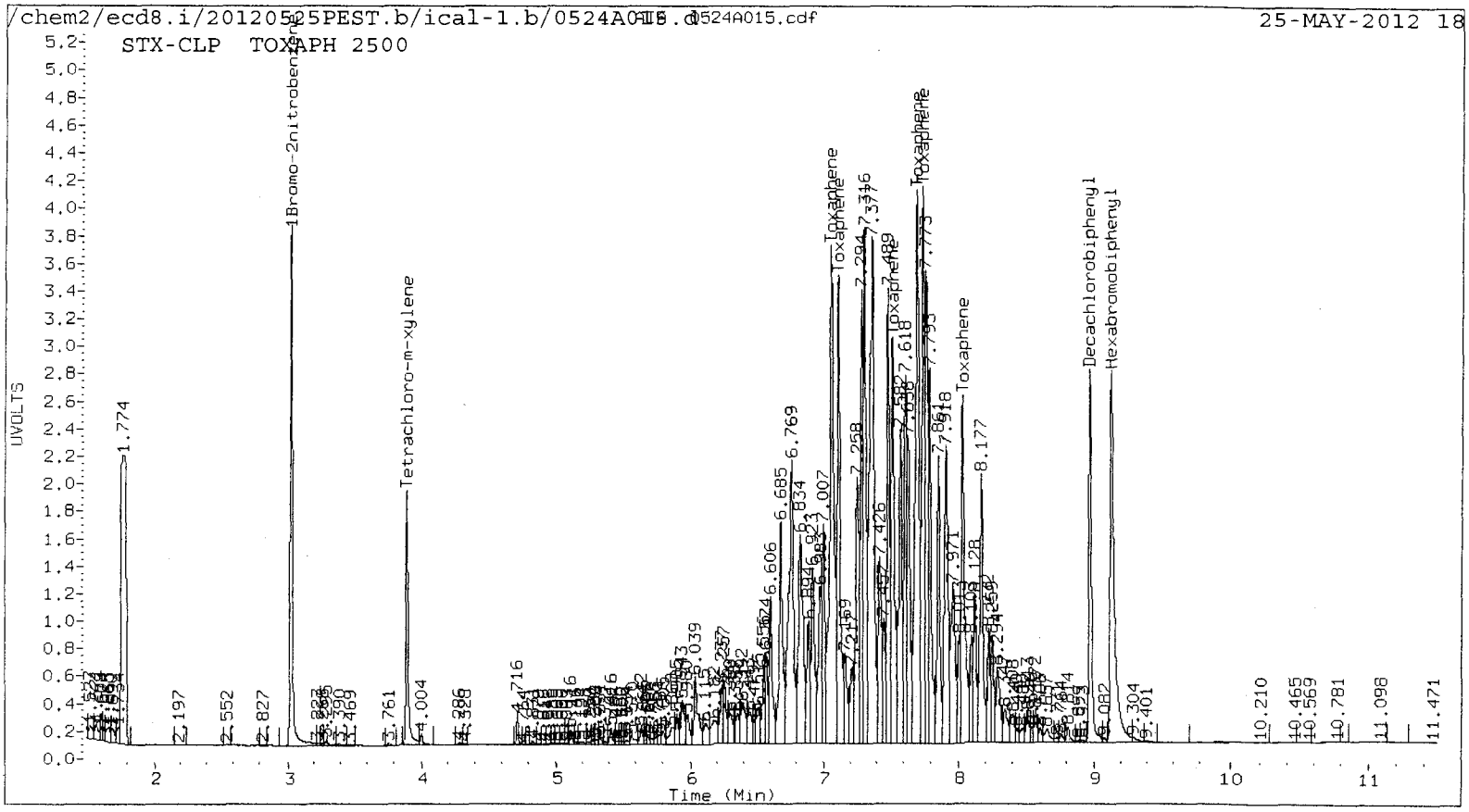
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1457356 | 16.7 |
| Hexabromobiphenyl | 1339634 | 1606848 | 19.9 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 7.068 | 0.000 | 1523624 | 2500.000 | 1 | 7.759 | 0.000 | 2365245 | 2500.000 |
| Toxaphene | 2 | 7.119 | 0.000 | 1062718 | 2500.000 | 2 | 8.002 | 0.000 | 2609268 | 2500.000 |
| Toxaphene | 3 | 7.523 | 0.000 | 962854 | 2500.000 | 3 | 8.254 | 0.000 | 1121826 | 2500.000 |
| Toxaphene | 4 | 7.705 | 0.000 | 1602672 | 2500.000 | 4 | 8.496 | 0.000 | 2196199 | 2500.000 |
| Toxaphene | 5 | 7.750 | 0.000 | 1250930 | 2500.000 | 5 | 9.040 | 0.000 | 846765 | 2500.000 |
| Toxaphene | 6 | 8.038 | 0.000 | 906765 | 2500.000 | NS | --- | | | ---- |

Total STX-CLPAve (6 peaks): 2500.000 Total CLP2Ave (5 peaks): 2500.000 RPD = 0
Corrected Ave (6 peaks): 2500.000 Corrected Ave (5 peaks): 2500.000 RPD = 0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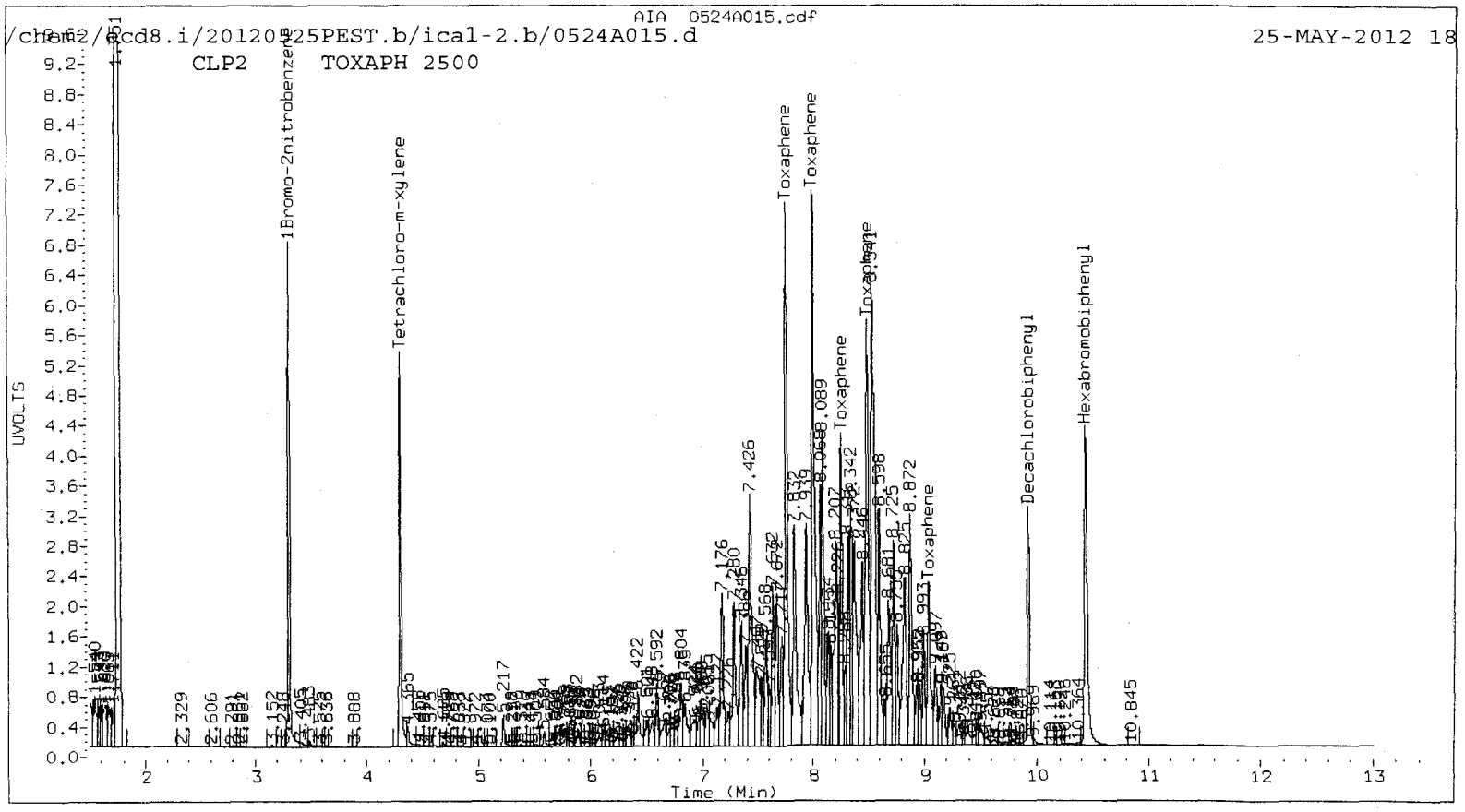
AIA 0524A015.cdf
25-MAY-2012 18
STX-CLP TOXAPH 2500
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0524A015.cdf
25-MAY-2012 18
CLP2 TOXAPH 2500
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Toxaphene
Decachlorobiphenyl
Hexabromobiphenyl

US2:01356

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A016.d ARI ID: WNDE
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A016.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 18:21
Compound Sublist: WND Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 1.765 | -0.003 | 3156 | 1.747 | -0.004 | 763948 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.028 | -0.001 | 834385 | 3.295 | -0.002 | 1356458 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 5.936 | -0.002 | 469978 | 6.480 | -0.002 | 701860 | 40.9186 | 40.2388 | 1.7 | Oxychlordane A B |
| 6.027 | 0.000 | 377046 | 6.735 | -0.001 | 609285 | 41.5840 | 40.6526 | 2.3 | 2,4-DDE A B |
| 6.247 | -0.002 | 531042 | 6.829 | -0.002 | 864245 | 40.8165 | 39.0167 | 4.5 | trans-Nonachlor A B |
| 6.492 | 0.001 | 261710 | 7.215 | 0.000 | 452031 | 40.4268 | 38.9356 | 3.8 | 2,4-DDD A B |
| 6.717 | -0.001 | 267104 | 7.501 | -0.002 | 408690 | 41.0329 | 39.9304 | 2.7 | 2,4-DDT A B |
| 6.842 | -0.002 | 614069 | 7.555 | -0.002 | 966388 | 41.3968 | 40.2609 | 2.8 | cis-Nonachlor A B |
| 7.707 | -0.003 | 340229 | 8.758 | -0.002 | 580025 | 38.6426 | 37.4656 | 3.1 | Mirex A B |
| 9.137 | -0.002 | 1140256 | 10.431 | -0.002 | 1506571 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 3.896 | -0.001 | 392182 | 4.297 | -0.001 | 1033712 | 33.2047 | 31.7069 | 4.6 | Tetrachloro-m-xylene A B |
| 8.979 | -0.001 | 646500 | 9.921 | 0.000 | 815816 | 33.5565 | 32.2150 | 4.1 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 83.0 | 79.3 | 79.3 | 29-110 |
| Decachlorobiphenyl | 83.9 | 80.5 | 80.5 | 18-151 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

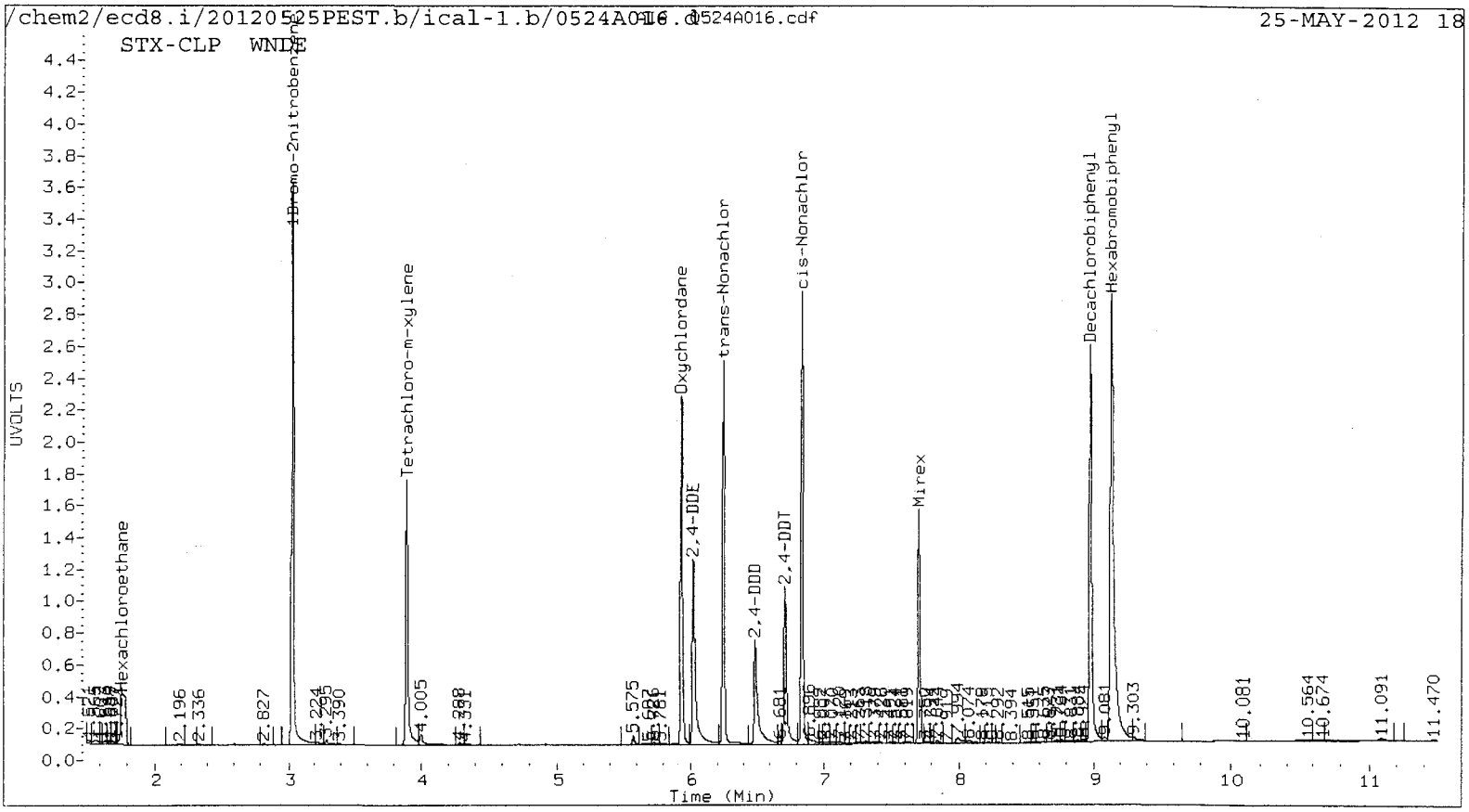
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 834385 | -0.2 |
| Hexabromobiphenyl | 1091107 | 1140256 | 4.5 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1356458 | 8.6 |
| Hexabromobiphenyl | 1339634 | 1506571 | 12.5 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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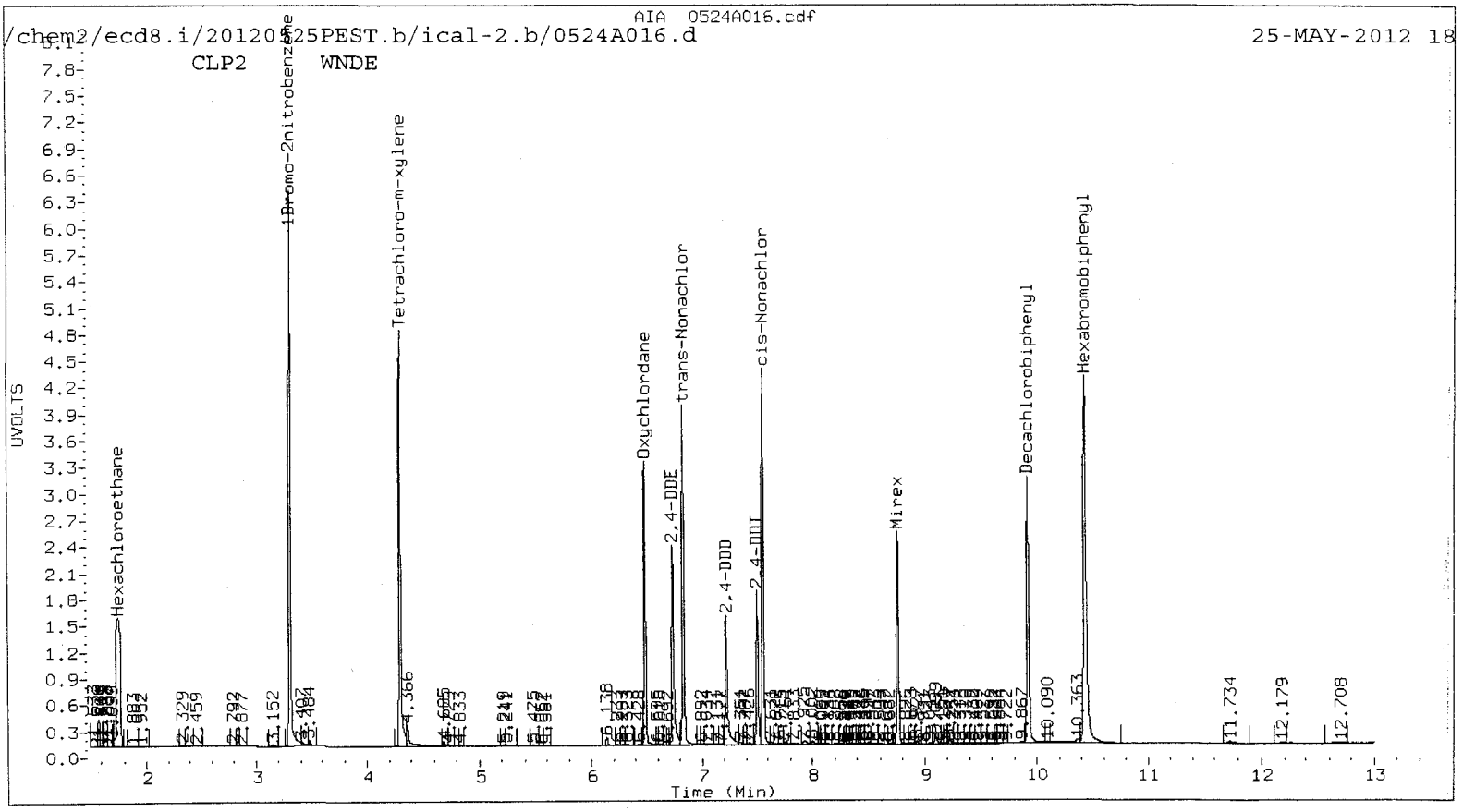
AIA 0524A016.cdf
25-MAY-2012 18
STX-CLP WNDE
UVOLTS
Time (Min)
Hexachloroethane
4Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0524A016.cdf
25-MAY-2012 18
CLP2 WNDE
UVOLTS
Time (Min)
Hexachloroethane
4Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

US2:01354

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A017.d ARI ID: WNDA
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A017.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 18:40
Compound Sublist: WND Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP on col | CLP2 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | | | | |
| 1.774 | 0.005 | 13763 | 1.751 | -0.001 | 3479251 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.029 | -0.001 | 917368 | 3.296 | -0.001 | 1508923 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 5.936 | -0.003 | 31820 | 6.479 | -0.003 | 51660 | 2.4859 | 2.6625 | 6.9 | Oxychlordane A B |
| 6.027 | 0.000 | 25807 | 6.735 | -0.001 | 44765 | 2.5540 | 2.6850 | 5.0 | 2,4-DDE A B |
| 6.247 | -0.002 | 37372 | 6.829 | -0.002 | 67068 | 2.5775 | 2.7523 | 6.6 | trans-Nonachlor A B |
| 6.493 | 0.002 | 19808 | 7.216 | 0.001 | 37535 | 2.7456 | 2.9388 | 6.8 | 2,4-DDD A B |
| 6.718 | 0.000 | 18488 | 7.501 | -0.001 | 29457 | 2.5485 | 2.6161 | 2.6 | 2,4-DDT A B |
| 6.843 | -0.002 | 38705 | 7.554 | -0.003 | 67494 | 2.3413 | 2.5560 | 8.8 | cis-Nonachlor A B |
| 7.707 | -0.002 | 29456 | 8.757 | -0.002 | 52558 | 3.0020 | 3.0859 | 2.8 | Mirex A B |
| 9.135 | -0.003 | 1270740 | 10.430 | -0.003 | 1657404 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 3.896 | 0.000 | 26365 | 4.298 | -0.001 | 72980 | 2.0303 | 2.0123 | 0.9 | Tetrachloro-m-xylene A B |
| 8.979 | -0.001 | 52472 | 9.921 | 0.000 | 68295 | 2.4439 | 2.4514 | 0.3 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 5.1 | 5.0 | 5.0~ | 29-110 |
| Decachlorobiphenyl | 6.1 | 6.1 | 6.1~ | 18-151 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

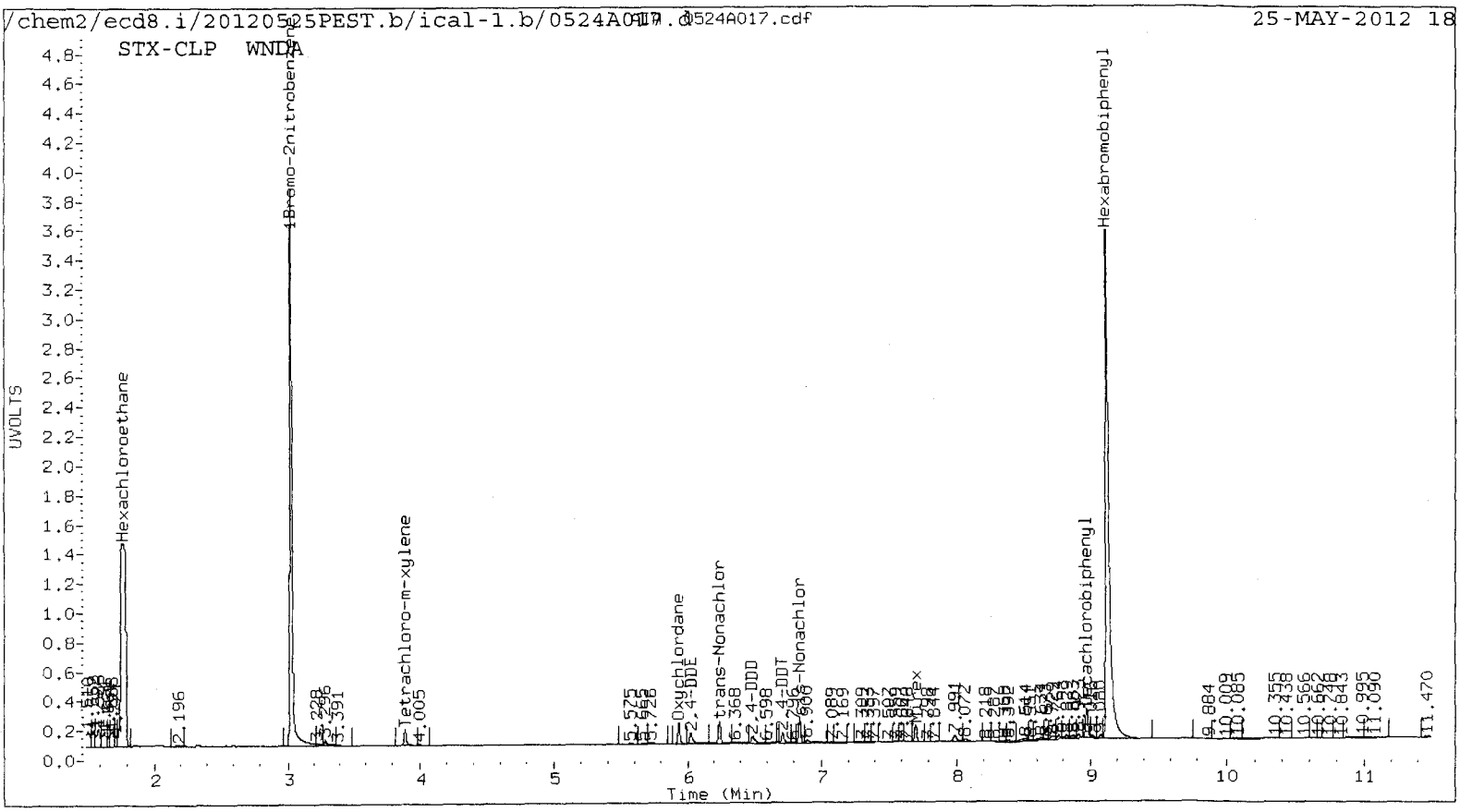
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 917368 | 9.7 |
| Hexabromobiphenyl | 1091107 | 1270740 | 16.5 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1508923 | 20.8 |
| Hexabromobiphenyl | 1339634 | 1657404 | 23.7 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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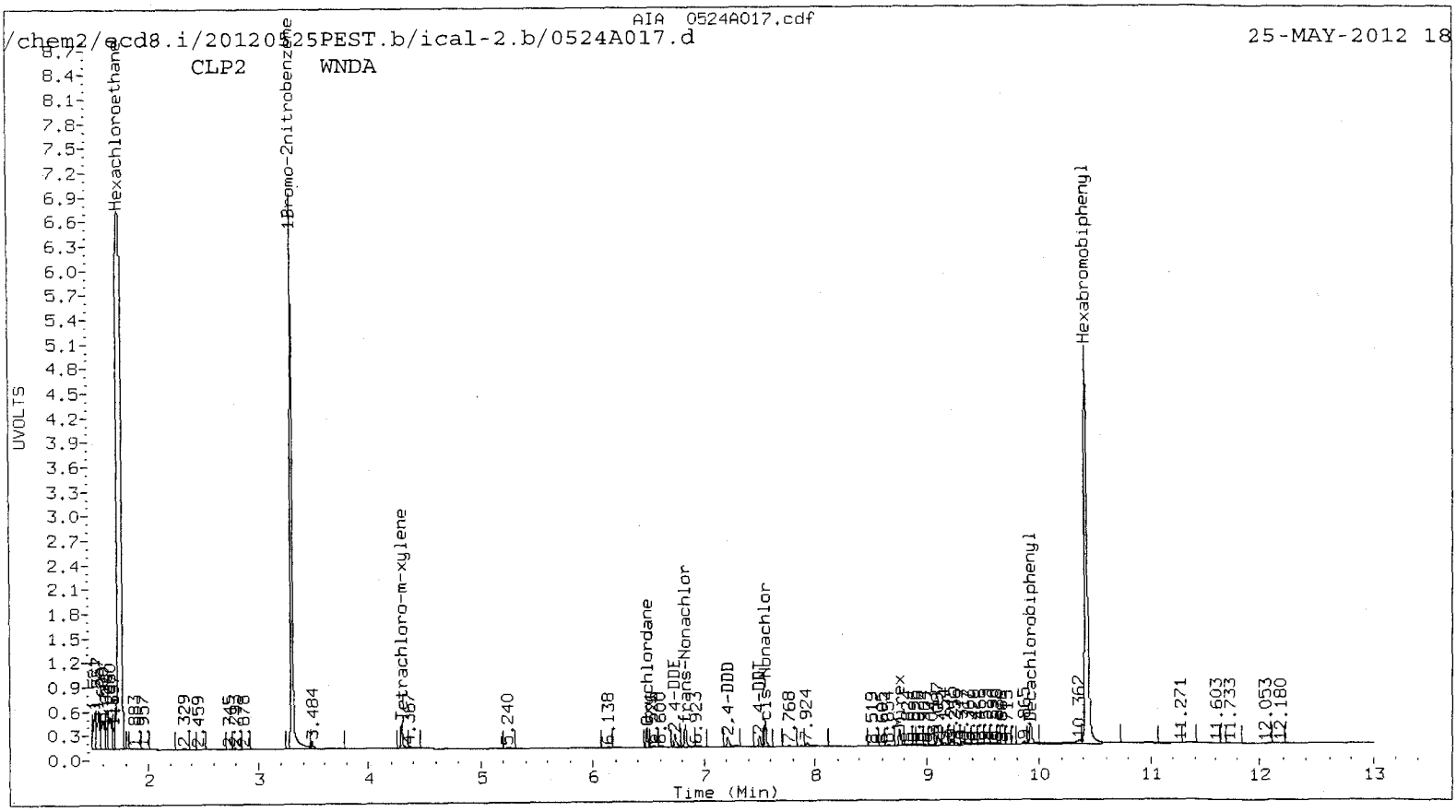
0524A017.cdf
25-MAY-2012 18
STX-CLP WNDA
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4'-DDE
trans-Nonachlor
2,4-DDD
2,4'-DDT
cis-Nonachlor
Hexachlorobiphenyl
Hexabromobiphenyl


AIA 0524A017.cdf
/chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A017.d
25-MAY-2012 18
CLP2 WNDA
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4'-DDE
trans-Nonachlor
2,4-DDD
2,4'-DDT
cis-Nonachlor
Hexachlorobiphenyl
Hexabromobiphenyl

UU52:01355

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A018.d ARI ID: WNDB
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A018.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 18:59
Compound Sublist: WND Report Date: 05/29/2012 09:16
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 1.763 | -0.005 | 970 | 1.749 | -0.003 | 195630 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.029 | -0.001 | 954109 | 3.295 | -0.001 | 1572890 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 5.937 | -0.002 | 65071 | 6.480 | -0.002 | 103723 | 4.8313 | 5.1283 | 6.0 | Oxychlordane A B |
| 6.028 | 0.001 | 51781 | 6.736 | 0.000 | 89936 | 4.8701 | 5.1750 | 6.1 | 2,4-DDE A B |
| 6.248 | -0.001 | 73091 | 6.830 | -0.002 | 135254 | 4.7907 | 5.2935 | 10.0 | trans-Nonachlor A B |
| 6.495 | 0.004 | 40562 | 7.216 | 0.001 | 71973 | 5.3432 | 5.3744 | 0.6 | 2,4-DDD A B |
| 6.719 | 0.001 | 37466 | 7.502 | -0.001 | 58064 | 4.9082 | 4.9181 | 0.2 | 2,4-DDT A B |
| 6.843 | -0.001 | 79355 | 7.555 | -0.002 | 138328 | 4.5620 | 4.9960 | 9.1 | cis-Nonachlor A B |
| 7.708 | -0.002 | 53536 | 8.758 | -0.001 | 93313 | 5.1853 | 5.2253 | 0.8 | Mirex A B |
| 9.136 | -0.002 | 1337121 | 10.431 | -0.003 | 1737844 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 3.896 | -0.001 | 53881 | 4.298 | -0.001 | 149127 | 3.9895 | 3.9447 | 1.1 | Tetrachloro-m-xylene A B |
| 8.980 | 0.000 | 100513 | 9.922 | 0.000 | 132550 | 4.4490 | 4.5376 | 2.0 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 10.0 | 9.9 | 9.9~ | 29-110 |
| Decachlorobiphenyl | 11.1 | 11.3 | 11.1~ | 18-151 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

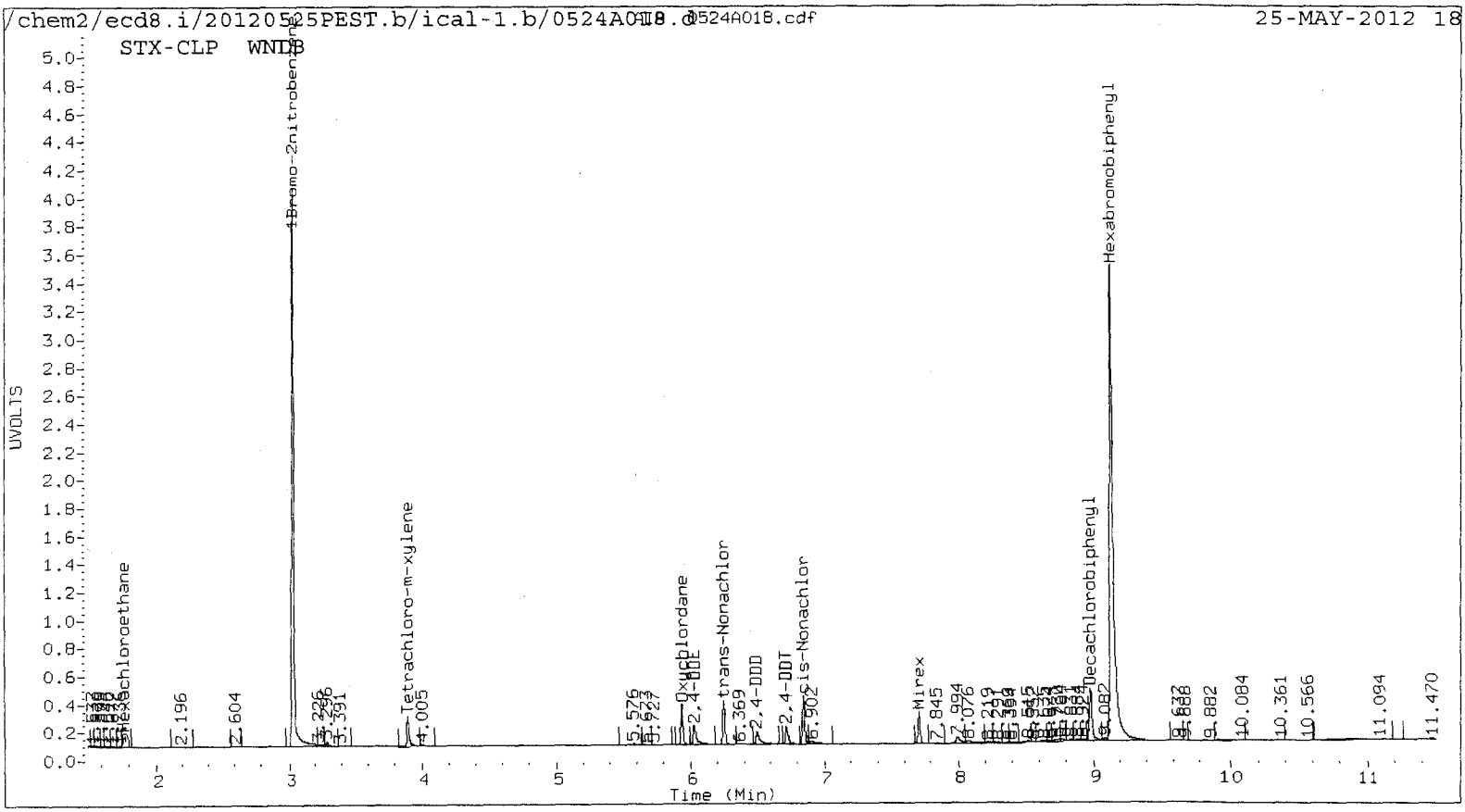
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 954109 | 14.1 |
| Hexabromobiphenyl | 1091107 | 1337121 | 22.5 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1572890 | 26.0 |
| Hexabromobiphenyl | 1339634 | 1737844 | 29.7 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | STX-CLP Col Peak# | RT | Shift | Height | Amount | CLP2 Col Peak# | RT | Shift | Height | Amount |
|---|---|---|---|---|---|---|---|---|---|---|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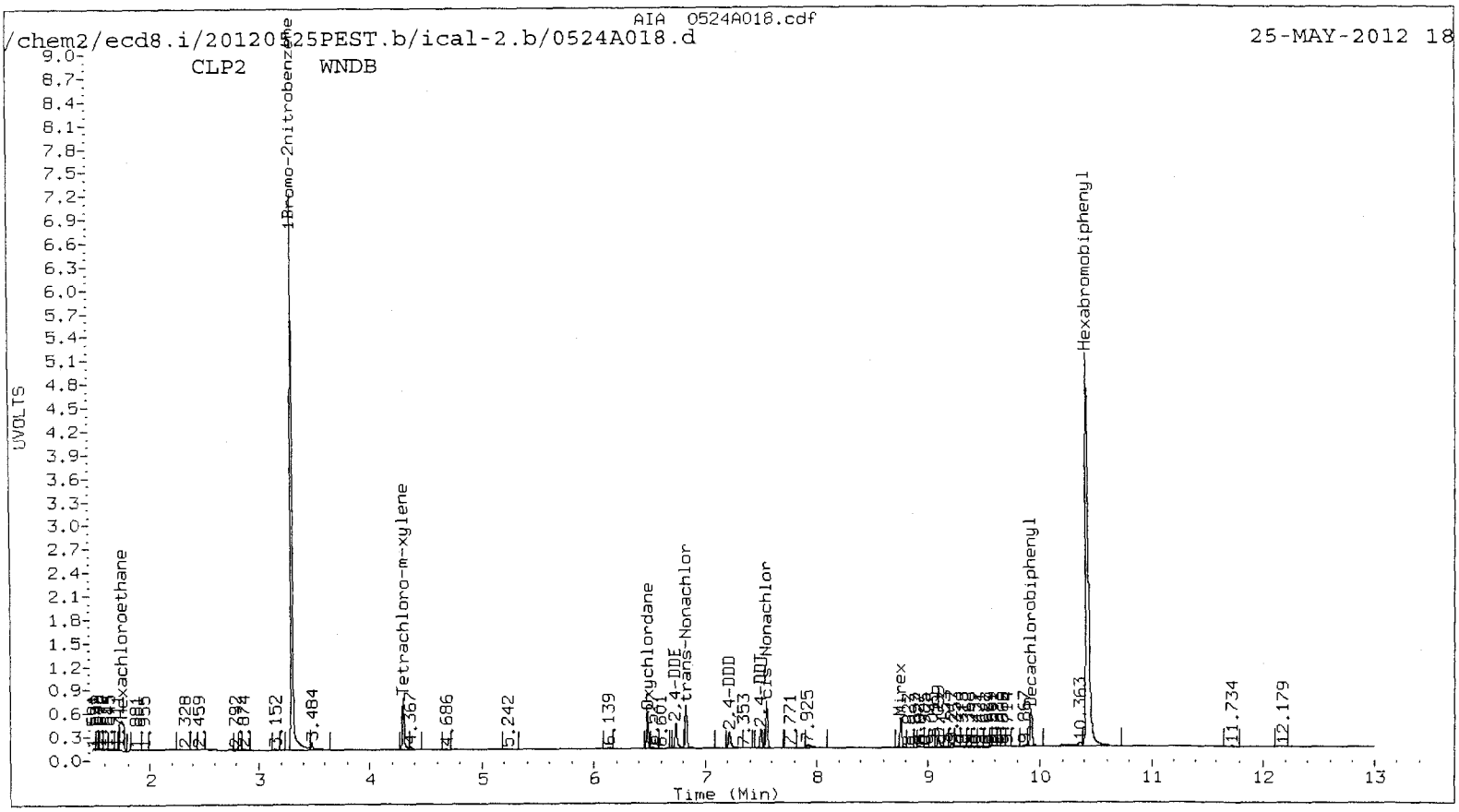
AIA 0524A018.cdf
25-MAY-2012 18
STX-CLP WNDB
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl


/chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A018.d
AIA 0524A018.cdf
25-MAY-2012 18
CLP2 WNDB
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

US2:01359

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A019.d ARI ID: WNDC
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A019.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 19:18
Compound Sublist: WND Report Date: 05/29/2012 09:16
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 1.772 | 0.004 | 15693 | 1.751 | -0.001 | 3809274 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.029 | -0.001 | 1016707 | 3.295 | -0.002 | 1666113 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 5.937 | -0.002 | 130385 | 6.479 | -0.003 | 205318 | 8.9825 | 9.5835 | 6.5 | Oxychlordane A B |
| 6.028 | 0.001 | 103122 | 6.735 | -0.001 | 176162 | 8.9993 | 9.5693 | 6.1 | 2,4-DDE A B |
| 6.248 | -0.002 | 141599 | 6.829 | -0.003 | 249964 | 8.6118 | 9.3542 | 8.3 | trans-Nonachlor A B |
| 6.494 | 0.003 | 74864 | 7.216 | 0.001 | 137504 | 9.1506 | 9.8177 | 7.0 | 2,4-DDD A B |
| 6.718 | 0.000 | 72190 | 7.501 | -0.002 | 116689 | 8.7752 | 9.4505 | 7.4 | 2,4-DDT A B |
| 6.843 | -0.002 | 161765 | 7.554 | -0.003 | 278056 | 8.6290 | 9.6024 | 10.7 | cis-Nonachlor A B |
| 7.707 | -0.003 | 102390 | 8.758 | -0.002 | 176954 | 9.2020 | 9.4747 | 2.9 | Mirex A B |
| 9.136 | -0.002 | 1441035 | 10.431 | -0.002 | 1817495 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 3.896 | -0.001 | 106976 | 4.298 | -0.001 | 295031 | 7.4331 | 7.3676 | 0.9 | Tetrachloro-m-xylene A B |
| 8.979 | -0.001 | 206660 | 9.922 | 0.001 | 257305 | 8.4877 | 8.4223 | 0.8 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 18.6 | 18.4 | 18.4~ | 29-110 |
| Decachlorobiphenyl | 21.2 | 21.1 | 21.1 | 18-151 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

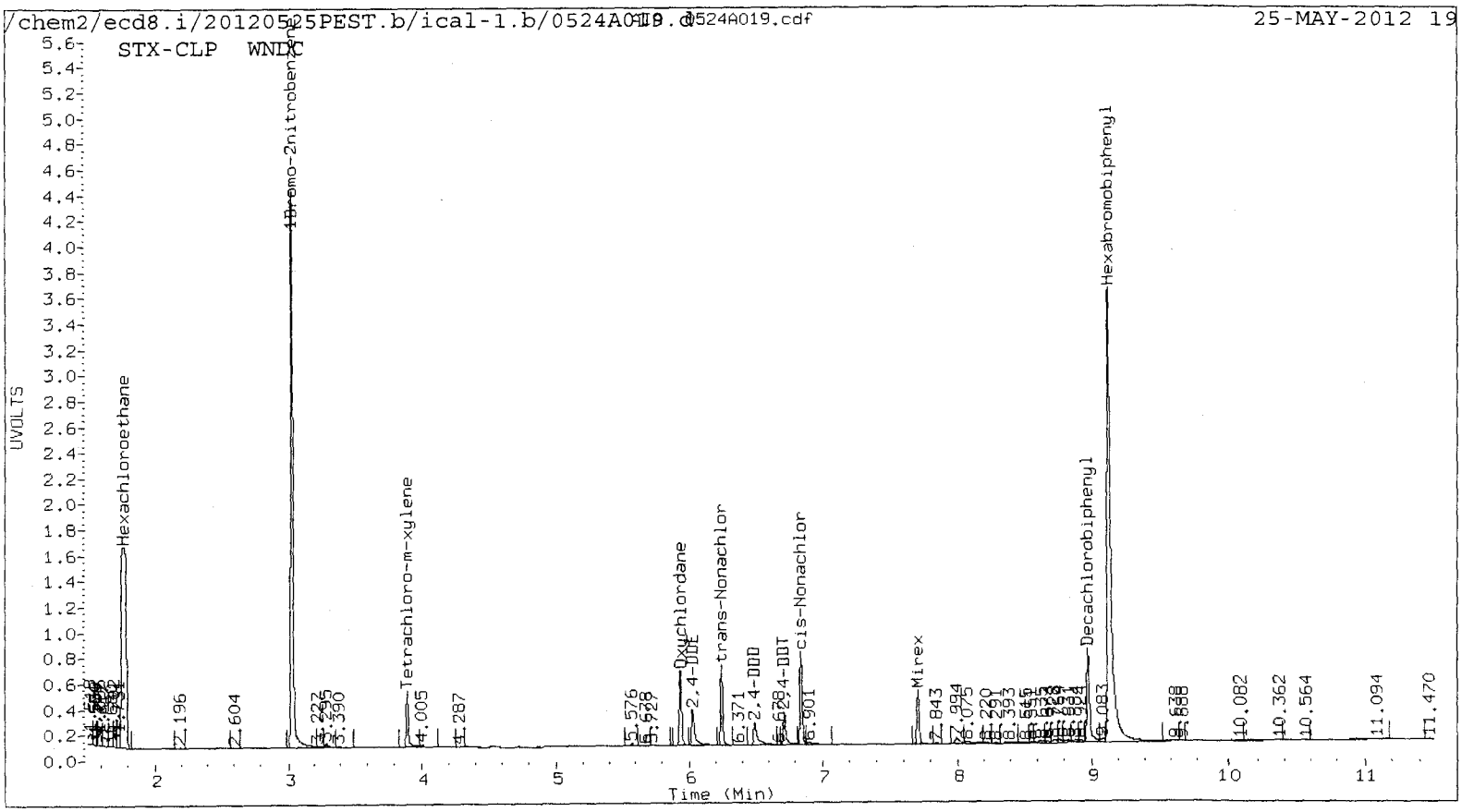
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 1016707 | 21.6 |
| Hexabromobiphenyl | 1091107 | 1441035 | 32.1 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1666113 | 33.4 |
| Hexabromobiphenyl | 1339634 | 1817495 | 35.7 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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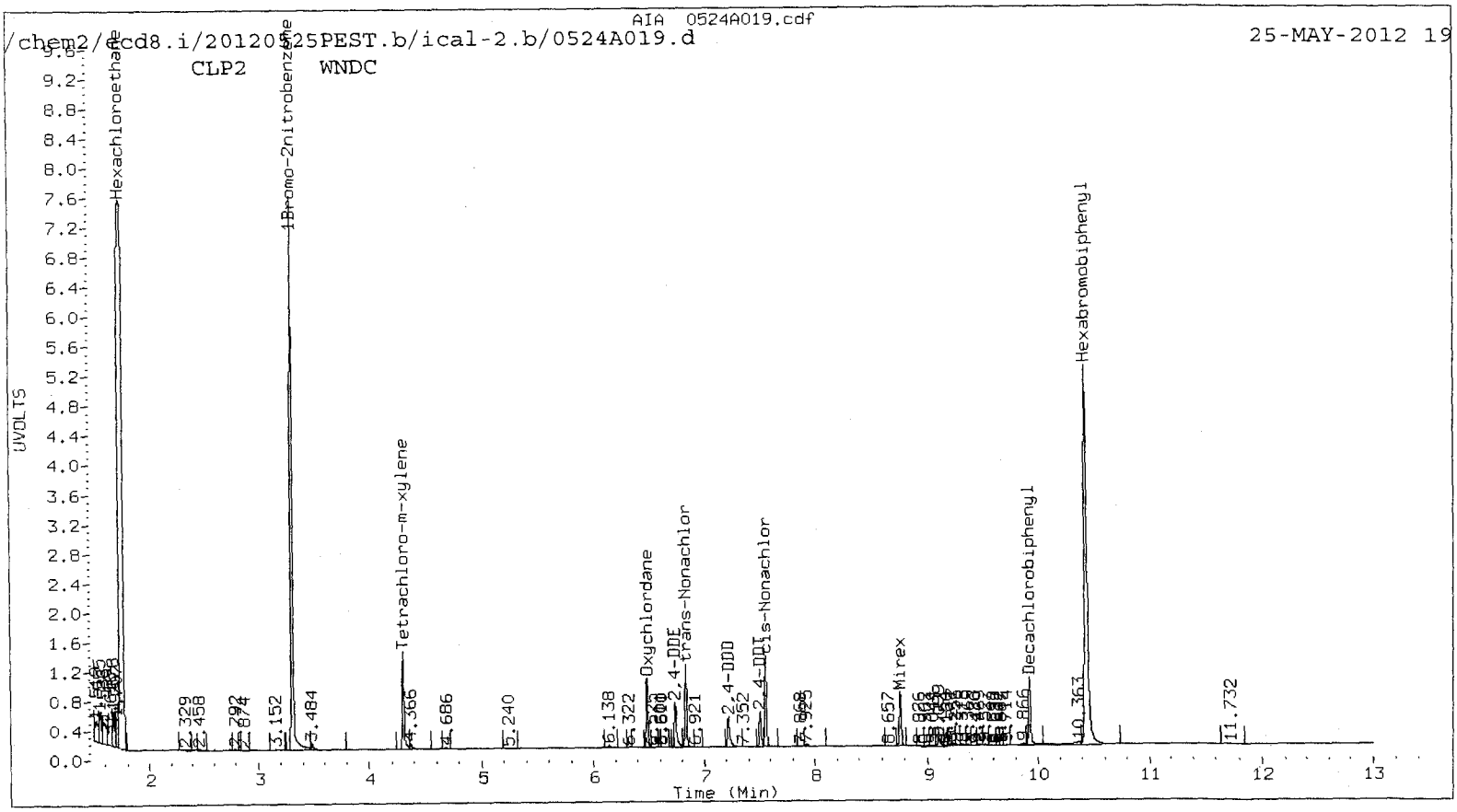
AIA 0524A019.cdf
25-MAY-2012 19
STX-CLP WNDC
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0524A019.cdf
25-MAY-2012 19
CLP2 WNDC
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

USS2: 01362

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A020.d ARI ID: WNDD
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A020.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 19:37
Compound Sublist: WND Report Date: 05/29/2012 09:16
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 1.766 | -0.002 | 1462 | 1.749 | -0.003 | 315644 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.030 | 0.000 | 957727 | 3.297 | 0.000 | 1586601 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 5.939 | 0.000 | 253429 | 6.482 | 0.000 | 393665 | 19.0671 | 19.2957 | 1.2 | Oxychlordane A B |
| 6.029 | 0.002 | 194899 | 6.737 | 0.001 | 335749 | 18.5749 | 19.1523 | 3.1 | 2,4-DDE A B |
| 6.250 | 0.000 | 280908 | 6.831 | 0.000 | 499153 | 18.6576 | 19.5757 | 4.8 | trans-Nonachlor A B |
| 6.496 | 0.004 | 135945 | 7.218 | 0.003 | 256056 | 18.1467 | 19.1594 | 5.4 | 2,4-DDD A B |
| 6.720 | 0.002 | 139797 | 7.504 | 0.001 | 226550 | 18.5582 | 19.2284 | 3.5 | 2,4-DDT A B |
| 6.845 | 0.001 | 327010 | 7.557 | 0.000 | 541637 | 19.0501 | 19.6024 | 2.9 | cis-Nonachlor A B |
| 7.710 | 0.000 | 190155 | 8.760 | 0.001 | 335251 | 18.6633 | 18.8116 | 0.8 | Mirex A B |
| 9.139 | 0.000 | 1319523 | 10.433 | 0.000 | 1734283 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 3.898 | 0.001 | 208195 | 4.299 | 0.000 | 563747 | 15.3570 | 14.7835 | 3.8 | Tetrachloro-m-xylene A B |
| 8.982 | 0.002 | 362065 | 9.924 | 0.003 | 467926 | 16.2398 | 16.0514 | 1.2 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 38.4 | 37.0 | 37.0 | 29-110 |
| Decachlorobiphenyl | 40.6 | 40.1 | 40.1 | 18-151 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

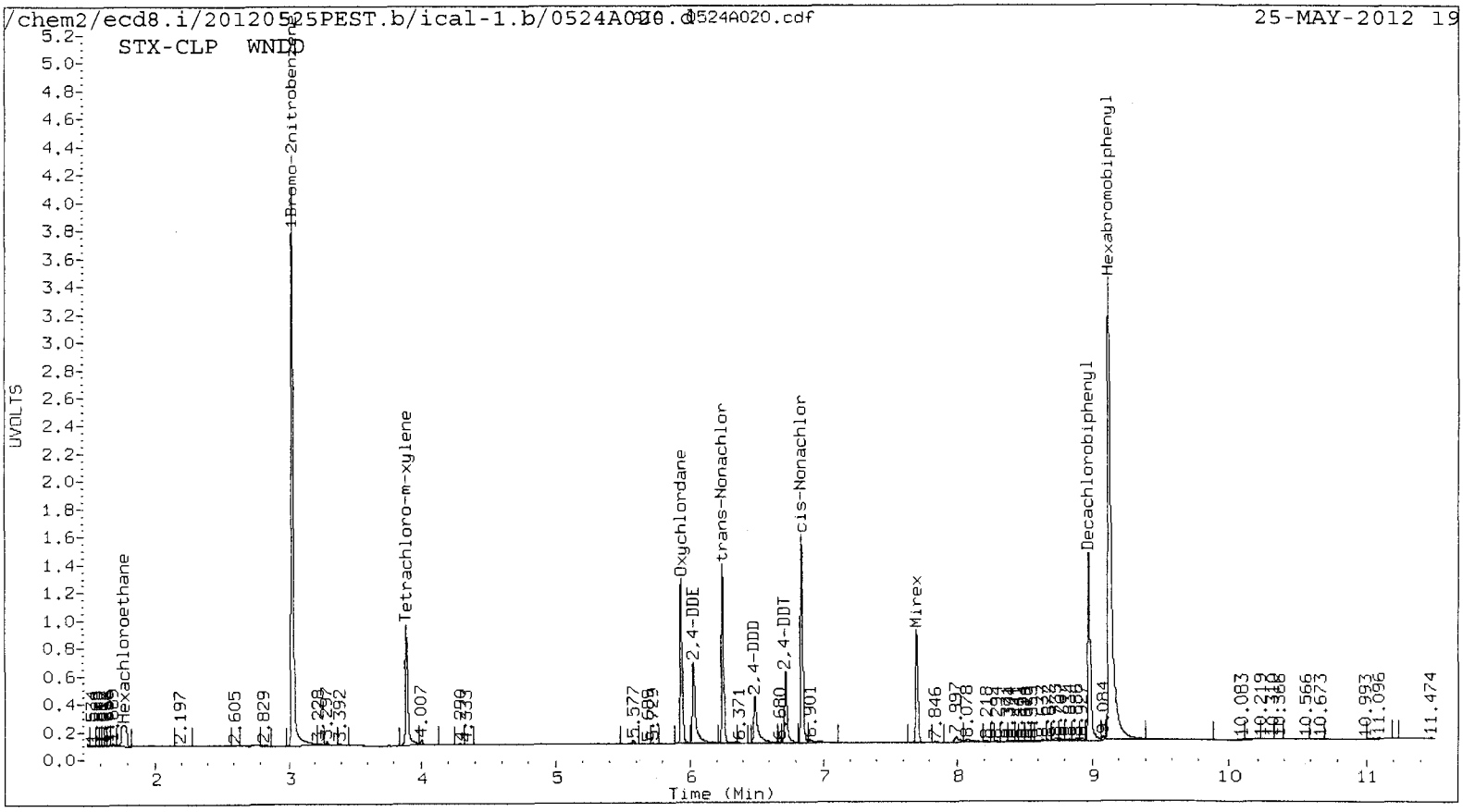
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 957727 | 14.5 |
| Hexabromobiphenyl | 1091107 | 1319523 | 20.9 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1586601 | 27.1 |
| Hexabromobiphenyl | 1339634 | 1734283 | 29.5 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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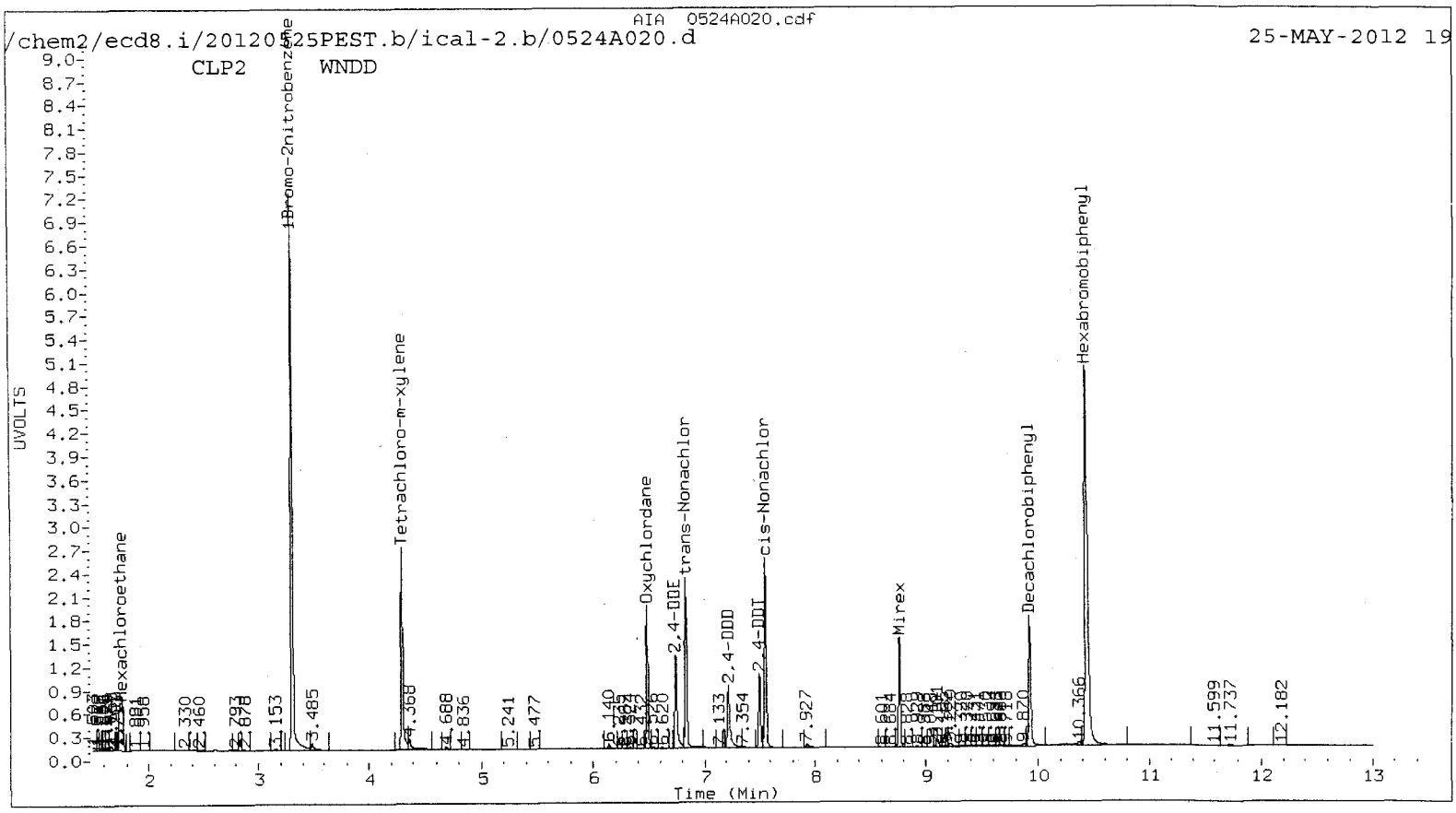
0524A020.cdf
25-MAY-2012 19
STX-CLP WNDD
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl


AIA 0524A020.cdf
/chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A020.d
25-MAY-2012 19
CLP2 WNDD
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

UU52:01365

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A021.d ARI ID: WNDF
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A021.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 19:56
Compound Sublist: WND Report Date: 05/29/2012 09:16
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

| STX-CLP Col RT | Shift | Response | CLP2 Col RT | Shift | Response | STX-CLP on col | CLP2 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 1.777 | 0.008 | 20363 | 1.754 | 0.002 | 4921648 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.030 | 0.000 | 978714 | 3.297 | 0.000 | 1573708 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 5.939 | 0.000 | 1139905 | 6.483 | 0.001 | 1616055 | 84.7213 | 79.8606 | 5.9 | Oxychlordane A B |
| 6.028 | 0.001 | 888111 | 6.738 | 0.002 | 1374375 | 83.6141 | 79.0414 | 5.6 | 2,4-DDE A B |
| 6.250 | 0.001 | 1307010 | 6.833 | 0.001 | 2034531 | 85.7563 | 77.7550 | 9.8 | trans-Nonachlor A B |
| 6.494 | 0.002 | 594067 | 7.217 | 0.002 | 1010597 | 78.3366 | 73.6897 | 6.1 | 2,4-DDD A B |
| 6.720 | 0.002 | 638271 | 7.504 | 0.001 | 977657 | 83.7024 | 80.8625 | 3.5 | 2,4-DDT A B |
| 6.845 | 0.001 | 1558853 | 7.558 | 0.001 | 2288337 | 89.7090 | 80.7054 | 10.6 | cis-Nonachlor A B |
| 7.710 | 0.001 | 786392 | 8.761 | 0.002 | 1370111 | 76.2455 | 74.9191 | 1.8 | Mirex A B |
| 9.140 | 0.002 | 1335739 | 10.435 | 0.002 | 1779668 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 3.898 | 0.001 | 925705 | 4.299 | 0.001 | 2306813 | 66.8184 | 60.9886 | 9.1 | Tetrachloro-m-xylene A B |
| 8.983 | 0.003 | 1491855 | 9.925 | 0.003 | 1838863 | 66.1021 | 61.4705 | 7.3 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 167.0 | 152.5 | 152.5~ | 29-110 |
| Decachlorobiphenyl | 165.3 | 153.7 | 153.7~ | 18-151 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 978714 | 17.0 |
| Hexabromobiphenyl | 1091107 | 1335739 | 22.4 |

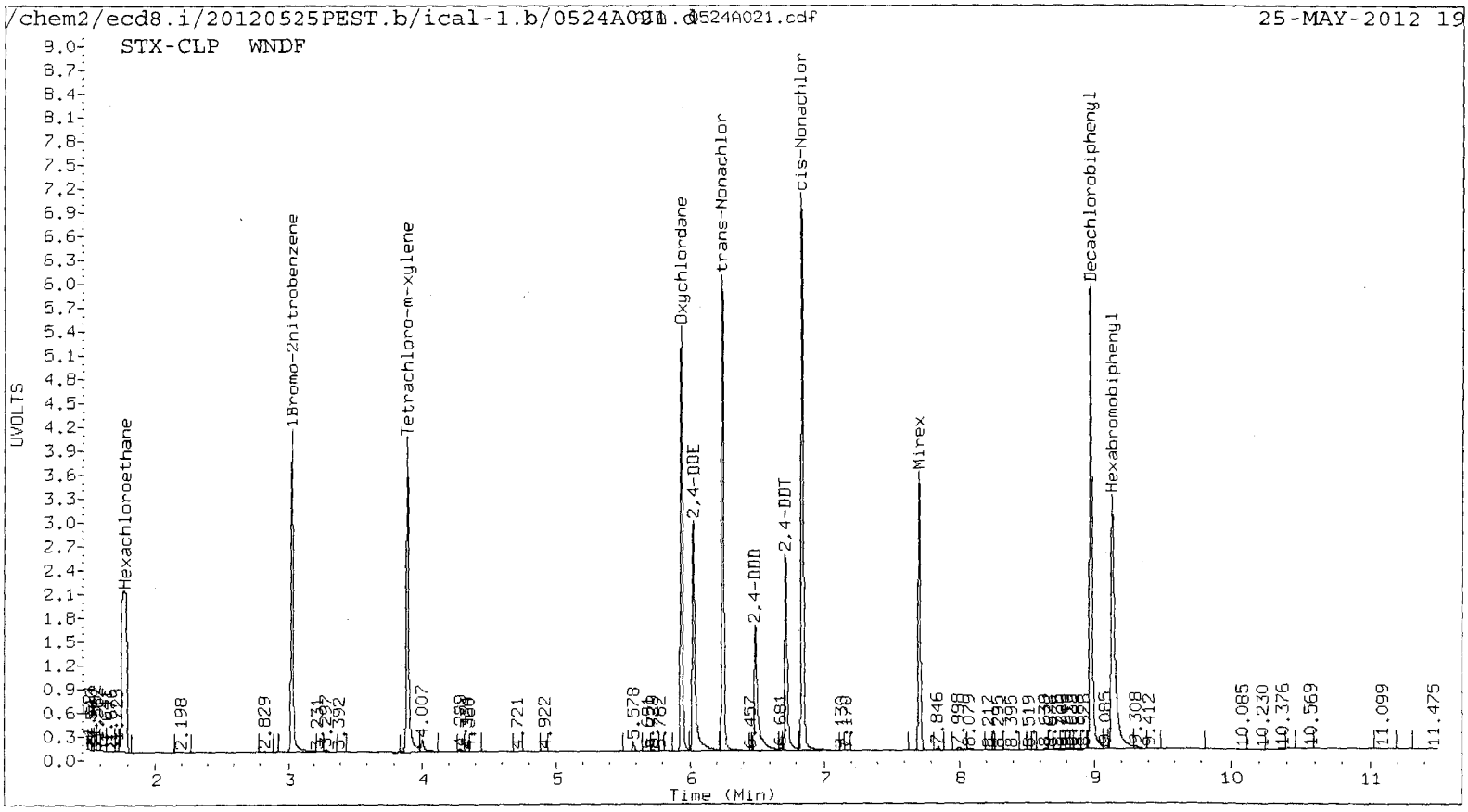
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1573708 | 26.0 |
| Hexabromobiphenyl | 1339634 | 1779668 | 32.8 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |

UU52:01367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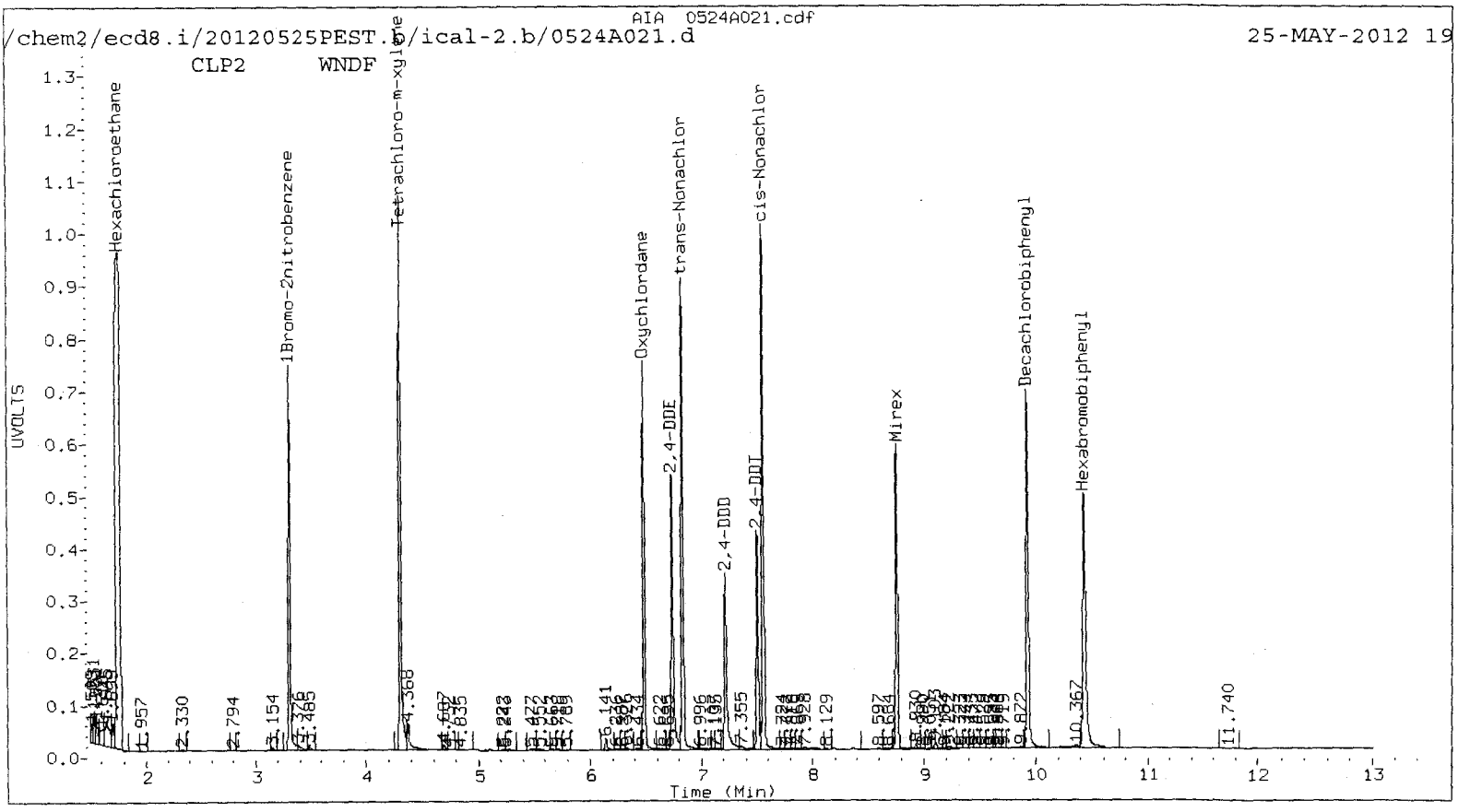
AIA 0524A021.cdf
25-MAY-2012 19
STX-CLP WNDF
UVOLTS
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)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25-MAY-2012 19
CLP2 WNDF
UVOLTS
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl
Time (Min)

US2:01368

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A022.d ARI ID: WNDG
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A022.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 20:14
Compound Sublist: WND Report Date: 05/29/2012 09:16
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 1.769 | 0.000 | 7888 | 1.752 | 0.000 | 1985631 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.030 | 0.000 | 965763 | 3.296 | 0.000 | 1560131 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 5.939 | 0.000 | 2355793 | 6.482 | 0.000 | 3151975 | 176.9256 | 157.1166 | 11.9 | Oxychlordane A B |
| 6.027 | 0.000 | 1834774 | 6.736 | 0.000 | 2681189 | 174.5520 | 155.5393 | 11.5 | 2,4-DDE A B |
| 6.249 | 0.000 | 2713521 | 6.832 | 0.000 | 4007548 | 179.9080 | 156.6144 | 13.8 | trans-Nonachlor A B |
| 6.491 | 0.000 | 1225822 | 7.215 | 0.000 | 1964186 | 163.3378 | 146.4539 | 10.9 | 2,4-DDD A B |
| 6.718 | 0.000 | 1354026 | 7.503 | 0.000 | 1994720 | 179.4278 | 168.7064 | 6.2 | 2,4-DDT A B |
| 6.844 | 0.000 | 3244974 | 7.557 | 0.000 | 4537321 | 188.7000 | 163.6331 | 14.2 | cis-Nonachlor A B |
| 7.709 | 0.000 | 1616194 | 8.759 | 0.000 | 2745322 | 158.3429 | 153.5039 | 3.1 | Mirex A B |
| 9.138 | 0.000 | 1321879 | 10.433 | 0.000 | 1740403 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 3.898 | 0.001 | 1911588 | 4.300 | 0.001 | 4490775 | 139.8308 | 119.7625 | 15.5 | Tetrachloro-m-xylene A |
| 8.981 | 0.001 | 3049671 | 9.923 | 0.001 | 3594851 | 136.5436 | 122.8817 | 10.5 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 349.6 | 299.4 | 299.4~ | 29-110 |
| Decachlorobiphenyl | 341.4 | 307.2 | 307.2~ | 18-151 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

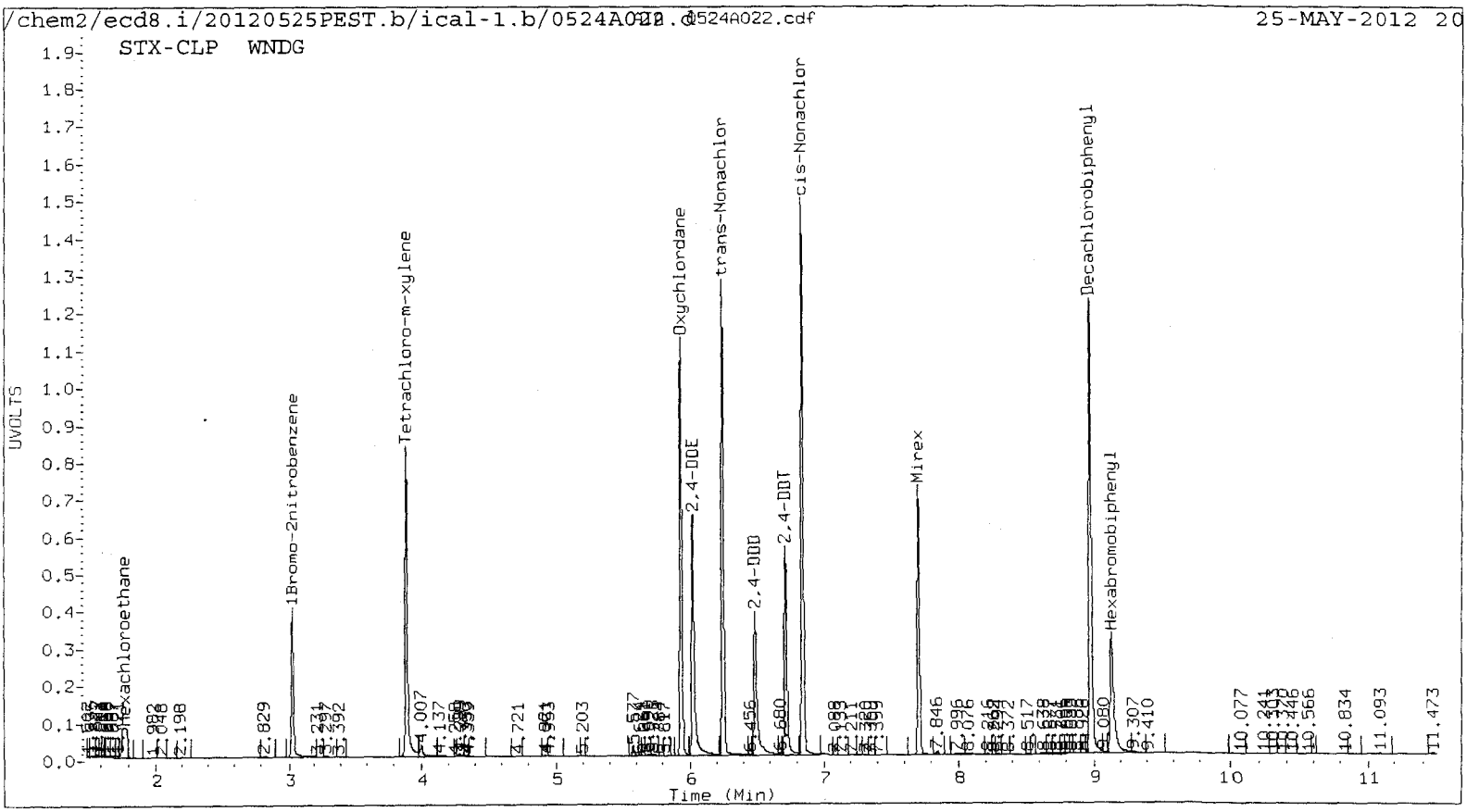
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 965763 | 15.5 |
| Hexabromobiphenyl | 1091107 | 1321879 | 21.2 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1560131 | 24.9 |
| Hexabromobiphenyl | 1339634 | 1740403 | 29.9 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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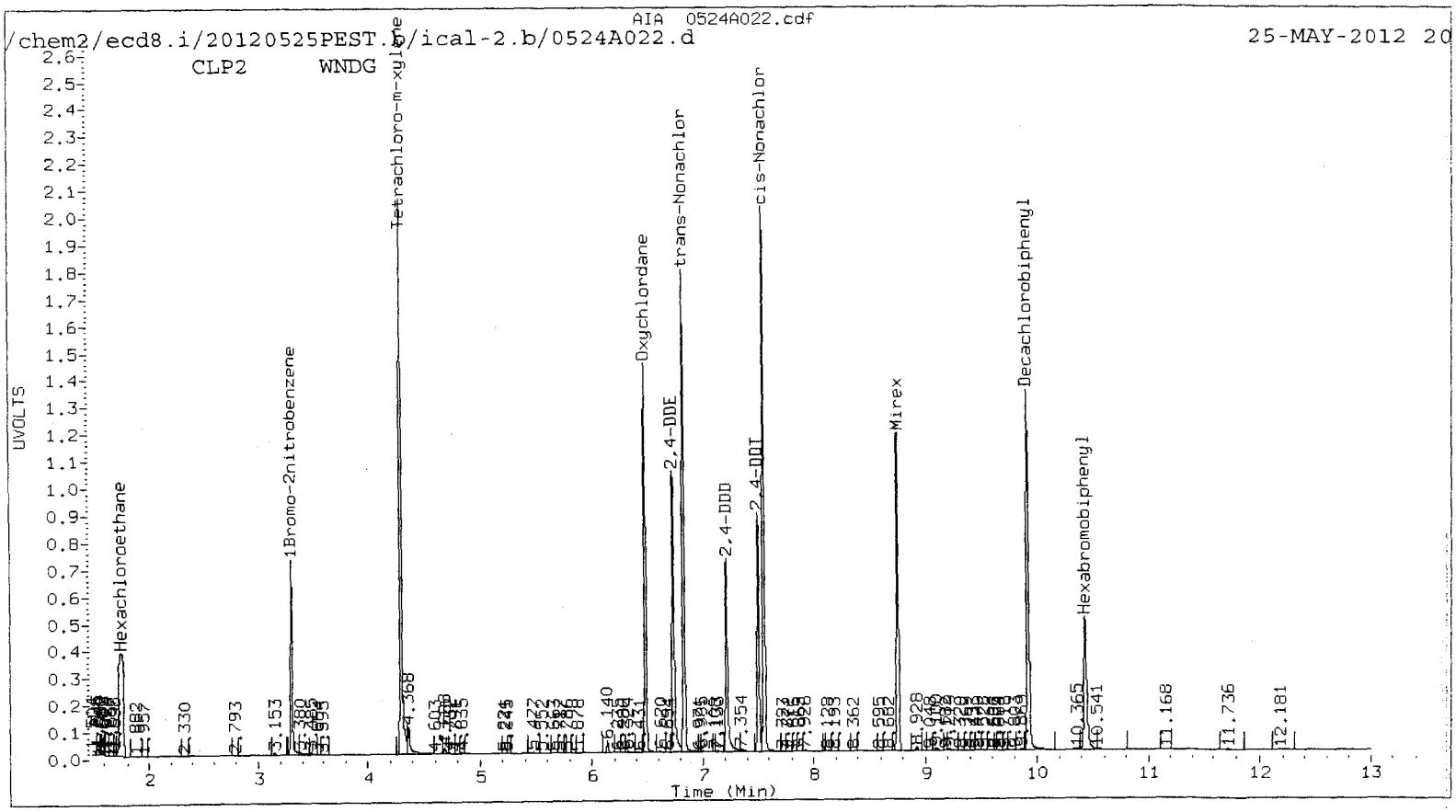
AIA 0524A022.cdf
25-MAY-2012 20
STX-CLP WNDG
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
trans-Nonachlor
cis-Nonachlor
2,4-DDE
2,4-DDD
2,4-DDT
Mirex
Decachlorobiphenyl
Hexabromobiphenyl


/chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A022.d
AIA 0524A022.cdf
25-MAY-2012 20
CLP2 WNDG
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
trans-Nonachlor
cis-Nonachlor
2,4-DDE
2,4-DDD
2,4-DDT
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A025.d ARI ID: DDT RT
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A025.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 21:11
Compound Sublist: wpest Report Date: 05/29/2012 09:16
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.030 | 0.000 | 970671 | 3.296 | 0.000 | 1648261 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | alpha-BHC |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | beta-BHC |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | delta-BHC |
| ---- | | | 5.242 | -0.041 | 2005 | 0.0000 | 0.0700 | --- | gamma-BHC (Lindane) |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Heptachlor |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Aldrin |
| ---- | | | 6.556 | -0.011 | 7586 | 0.0000 | 0.2827 | --- | Heptachlor epoxide b |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Endosulfan I |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Dieldrin |
| 6.343 | 0.007 | 828475 | 7.027 | 0.004 | 1409394 | 57.4670 | 46.0652 | 22.0 | 4,4'-DDE A B |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Endrin |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Endosulfan II |
| 6.884 | 0.010 | 529654 | 7.570 | 0.006 | 929264 | 44.4712 | 47.7368 | 7.1 | 4,4'-DDD A B |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Endosulfan sulfate |
| 7.129 | 0.006 | 401503 | 7.861 | 0.003 | 641468 | 49.7268 | 52.8389 | 6.1 | 4,4'-DDT A B |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Methoxychlor |
| 8.083 | 0.026 | 7913 | ---- | | | 0.5059 | 0.0000 | --- | Endrin ketone |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Endrin aldehyde |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | gamma-Chlordane |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | alpha-Chlordane |
| 1.720 | -0.008 | 15989 | ---- | | | 0.5399 | 0.0000 | --- | Hexachlorobutadiene |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Hexachlorobenzene |
| ---- | | | 6.431 | -0.051 | 5824 | 0.0000 | 0.2748 | --- | Oxychlordane |
| 6.028 | 0.001 | 542698 | 6.736 | 0.000 | 926072 | 50.6786 | 50.8502 | 0.3 | 2,4-DDE A B |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | trans-Nonachlor |
| 6.493 | 0.002 | 381915 | 7.216 | 0.001 | 618699 | 49.9517 | 44.6966 | 11.1 | 2,4-DDD A B |
| 6.719 | 0.001 | 371489 | 7.503 | 0.000 | 597480 | 48.3207 | 48.9609 | 1.3 | 2,4-DDT A B |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | cis-Nonachlor |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Mirex |
| 9.142 | 0.004 | 1346689 | 10.436 | 0.002 | 1796277 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 1.776 | 0.007 | 19560 | 1.753 | 0.002 | 4765183 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| ---- | | | 4.335 | 0.036 | 1029 | 0.0000 | 0.0260 | --- | Tetrachloro-m-xylene |
| 8.983 | 0.003 | 17914 | 9.925 | 0.003 | 29176 | 0.7873 | 0.9663 | 20.4 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 0.0 | 0.1 | 0.0~ | 29-110 |
| Decachlorobiphenyl | 2.0 | 2.4 | 2.0~ | 18-151 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 970671 | 16.1 |
| Hexabromobiphenyl | 1091107 | 1346689 | 23.4 |

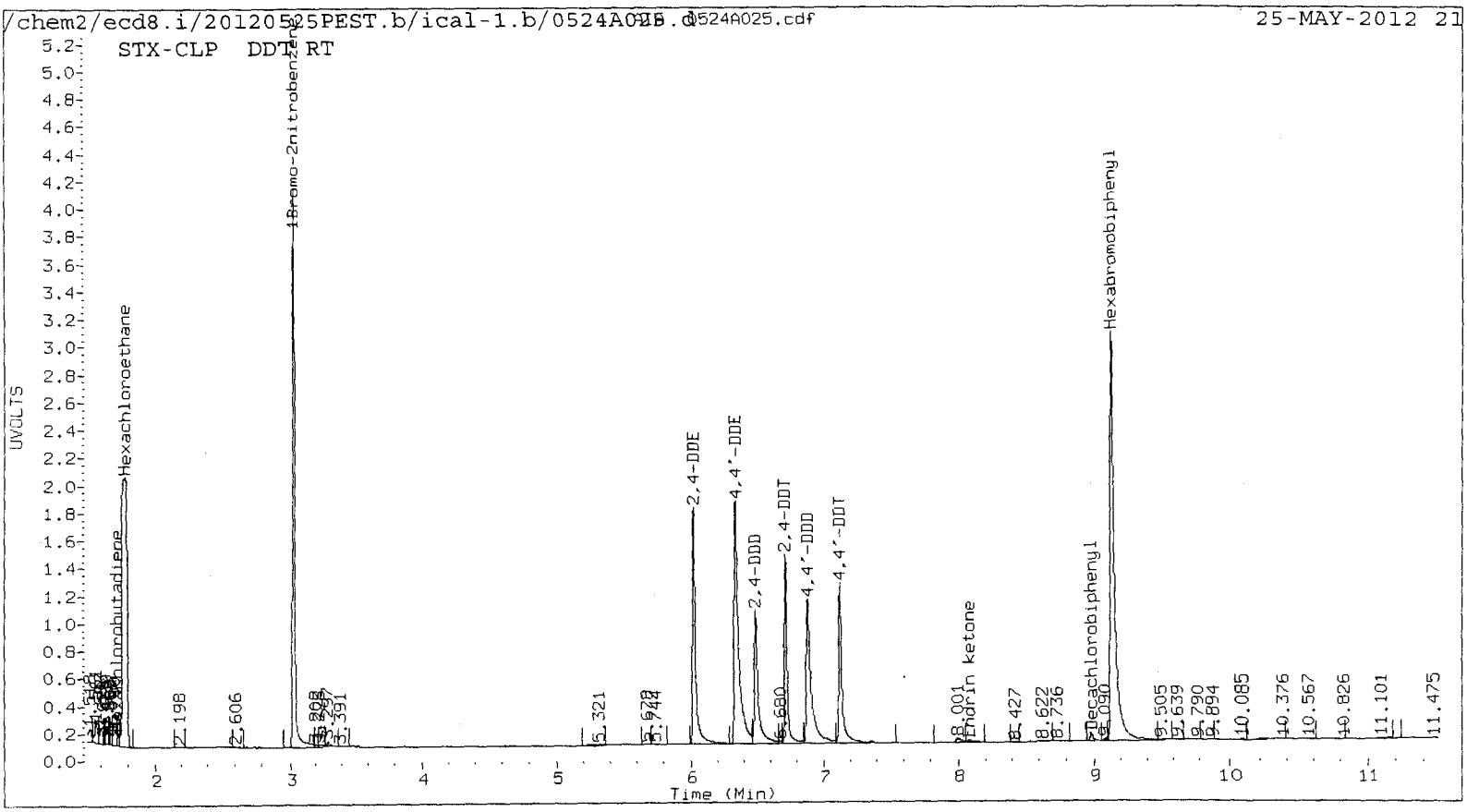
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1648261 | 32.0 |
| Hexabromobiphenyl | 1339634 | 1796277 | 34.1 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Toxaphene | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Toxaphene | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Toxaphene | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Toxaphene | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Toxaphene | 6 | --- | | | 0.000 | NS | --- | | | ---- |
| | | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| | | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |
| | | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | |

| | | | | | |
|---|---|---|---|---|---|
| Aroclor-1248 1 | --- | 0.000 | 1 | --- | 0.000 |
| Aroclor-1248 2 | --- | 0.000 | 2 | --- | 0.000 |
| Aroclor-1248 3 | --- | 0.000 | 3 | --- | 0.000 |
| Aroclor-1248 4 | --- | 0.000 | 4 | --- | 0.000 |
| Aroclor-1248 5 | --- | 0.000 | 5 | --- | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | CLP2Ave: <3 Quant Peaks | |
| Aroclor-1254 1 | --- | 0.000 | 1 | --- | 0.000 |
| Aroclor-1254 2 | --- | 0.000 | 2 | --- | 0.000 |
| Aroclor-1254 3 | --- | 0.000 | 3 | --- | 0.000 |
| Aroclor-1254 4 | --- | 0.000 | 4 | --- | 0.000 |
| Aroclor-1254 5 | --- | 0.000 | 5 | --- | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | CLP2Ave: <3 Quant Peaks | |
| Aroclor-1260 1 | --- | 0.000 | 1 | --- | 0.000 |
| Aroclor-1260 2 | --- | 0.000 | 2 | --- | 0.000 |
| Aroclor-1260 3 | --- | 0.000 | 3 | --- | 0.000 |
| Aroclor-1260 4 | --- | 0.000 | 4 | --- | 0.000 |
| Aroclor-1260 5 | --- | 0.000 | 5 | --- | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | CLP2Ave: <3 Quant Peaks | |
| Aroclor-1262 1 | --- | 0.000 | 1 | --- | 0.000 |
| Aroclor-1262 2 | --- | 0.000 | 2 | --- | 0.000 |
| Aroclor-1262 3 | --- | 0.000 | 3 | --- | 0.000 |
| Aroclor-1262 4 | --- | 0.000 | 4 | --- | 0.000 |
| Aroclor-1262 5 | --- | 0.000 | 5 | --- | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | CLP2Ave: <3 Quant Peaks | |
| Aroclor-1268 1 | --- | 0.000 | 1 | --- | 0.000 |
| Aroclor-1268 2 | --- | 0.000 | 2 | --- | 0.000 |
| Aroclor-1268 3 | --- | 0.000 | 3 | --- | 0.000 |
| Aroclor-1268 4 | --- | 0.000 | 4 | --- | 0.000 |
| Aroclor-1268 5 | --- | 0.000 | 5 | --- | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | CLP2Ave: <3 Quant Peaks | |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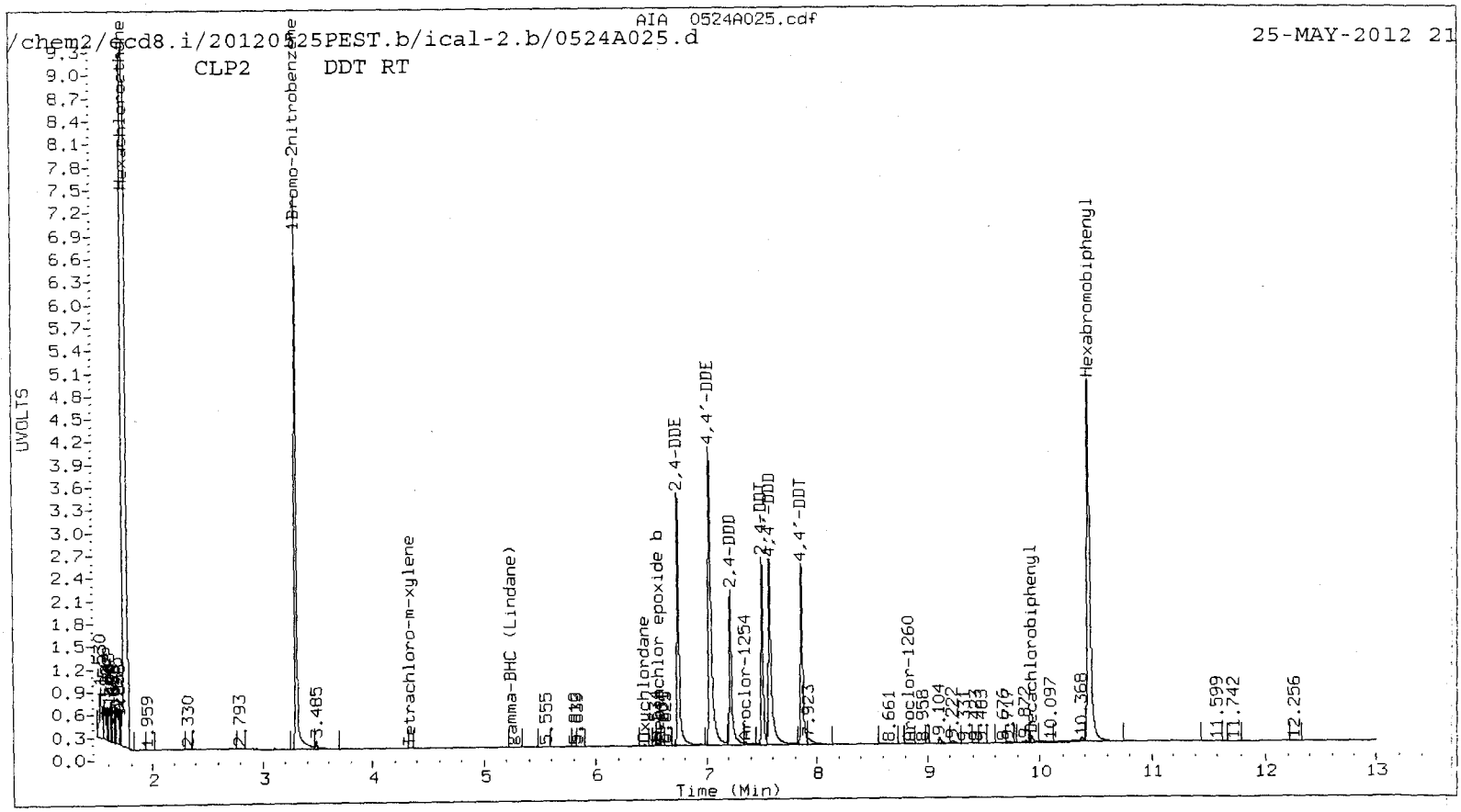
AIA 0524A025.cdf
25-MAY-2012 21
STX-CLP DDT RT
UVOLTS
Time (Min)
Hexachloroethane
Hexachlorobutadiene
1Bromo-2nitrobenzene
2,4-DDE
4,4'-DDE
2,4-DDD
2,4-DDT
4,4'-DDD
4,4'-DDT
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl


/chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A025.d
AIA 0524A025.cdf
25-MAY-2012 21
CLP2 DDT RT
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
gamma-BHC (Lindane)
Oxychlordane
Heptachlor epoxide b
2,4-DDE
4,4'-DDE
2,4-DDD
2,4'-DDT
4,4'-DDT
Aroclor-1254
Aroclor-1260
Decachlorobiphenyl
Hexabromobiphenyl

UU52:01376

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A026.d ARI ID: TECH 200
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A026.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 21:30
Compound Sublist: wpest Report Date: 05/29/2012 09:16
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.029 | -0.001 | 1032950 | 3.296 | -0.001 | 1750849 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| ---- | | | 4.962 | 0.033 | 15440 | 0.0000 | 0.4237 | --- | alpha-BHC |
| 4.860 | 0.014 | 4151 | 5.400 | 0.033 | 16210 | 0.5437 | 1.0669 | 65.0* | beta-BHC A B |
| 5.028 | 0.017 | 4408 | 5.643 | -0.010 | 3680 | 0.2795 | 0.1369 | 68.5* | delta-BHC A B |
| 4.768 | 0.012 | 1346 | 5.296 | 0.013 | 7222 | 0.0835 | 0.2373 | 95.9* | gamma-BHC (Lindane) A B |
| 5.201 | 0.000 | 133970 | 5.713 | 0.000 | 240385 | 8.4260 | 8.6777 | 2.9 | Heptachlor A B |
| 5.488 | 0.011 | 2796 | 5.985 | -0.044 | 16877 | 0.1479 | 0.4935 | 107.8* | Aldrin A B |
| 6.039 | 0.011 | 45161 | 6.593 | 0.026 | 25416 | 2.6666 | 0.8916 | 99.8* | Heptachlor epoxide b A B |
| 6.408 | 0.023 | 11878 | 6.942 | -0.001 | 16272 | 0.4452 | 0.5874 | 27.5 | Endosulfan I A B |
| 6.620 | 0.019 | 14112 | 7.206 | 0.007 | 50674 | 0.7796 | 1.7204 | 75.3* | Dieldrin A B |
| 6.338 | 0.002 | 23519 | 7.034 | 0.011 | 29018 | 1.6526 | 0.8929 | 59.7* | 4,4'-DDE A B |
| 6.792 | -0.019 | 4812 | 7.490 | 0.001 | 23313 | 0.3221 | 1.0520 | 106.2* | Endrin A B |
| 7.020 | 0.005 | 9010 | 7.672 | -0.014 | 19424 | 0.5864 | 0.8228 | 33.5 | Endosulfan II A B |
| 6.918 | 0.044 | 15534 | ---- | | | 1.2772 | 0.0000 | --- | 4,4'-DDD |
| 7.797 | 0.002 | 3641 | 8.261 | 0.002 | 1900 | 0.2834 | 0.0958 | 99.0* | Endosulfan sulfate A B |
| 7.141 | 0.018 | 3157 | 7.874 | 0.016 | 12178 | 0.3829 | 0.9686 | 86.7* | 4,4'-DDT A B |
| 7.587 | 0.026 | 1750 | ---- | | | 0.3739 | 0.0000 | --- | Methoxychlor |
| 8.078 | 0.022 | 17994 | 8.784 | 0.004 | 7865 | 1.1265 | 0.3672 | 101.7* | Endrin ketone A B |
| 7.421 | 0.025 | 1687 | 8.036 | 0.037 | 44201 | 0.1380 | 2.2141 | 176.5* | Endrin aldehyde A B |
| 6.144 | 0.001 | 428202 | 6.783 | 0.038 | 32151 | 25.2613 | 1.0483 | 184.1* | gamma-Chlordane A B |
| 6.260 | -0.001 | 687610 | 6.882 | 0.000 | 578091 | 39.3455 | 18.7815 | 70.8* | alpha-Chlordane A B |
| 1.708 | -0.020 | 28995 | 2.040 | 0.003 | 1057 | 0.9201 | 0.0191 | 191.9* | Hexachlorobutadiene A B |
| 4.288 | 0.000 | 4878 | 4.791 | 0.000 | 3694 | 0.2694 | 0.1106 | 83.6* | Hexachlorobenzene A B |
| 5.930 | -0.009 | 3571 | 6.501 | 0.019 | 6676 | 0.2578 | 0.2965 | 14.0 | Oxychlordane A B |
| 5.972 | -0.055 | 66304 | 6.746 | 0.010 | 661508 | 6.0630 | 34.1948 | 139.8* | 2,4-DDE A B |
| ---- | | | 6.831 | 0.000 | 542158 | 0.0000 | 19.8228 | --- | trans-Nonachlor |
| 6.483 | -0.009 | 10944 | 7.184 | -0.031 | 13898 | 1.4017 | 0.9695 | 36.4 | 2,4-DDD A B |
| 6.673 | -0.045 | 31130 | 7.461 | -0.042 | 25043 | 3.9651 | 1.9816 | 66.7* | 2,4-DDT A B |
| 6.843 | -0.001 | 72668 | 7.557 | 0.000 | 120538 | 4.0617 | 4.0671 | 0.1 | cis-Nonachlor A B |
| ---- | | | 8.727 | -0.033 | 8927 | 0.0000 | 0.4670 | --- | Mirex |
| 9.139 | 0.000 | 1375257 | 10.434 | 0.000 | 1860213 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 1.775 | 0.007 | 7948 | 1.752 | 0.000 | 1997129 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.897 | 0.000 | 437726 | 4.298 | 0.000 | 1084724 | 29.9366 | 25.7769 | 14.9 | Tetrachloro-m-xylene A B |
| 8.981 | 0.001 | 729118 | 9.923 | 0.002 | 920809 | 31.3779 | 29.4485 | 6.3 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 74.8 | 64.4 | 64.4 | 29-110 |
| Decachlorobiphenyl | 78.4 | 73.6 | 73.6 | 18-151 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 1032950 | 23.5 |
| Hexabromobiphenyl | 1091107 | 1375257 | 26.0 |

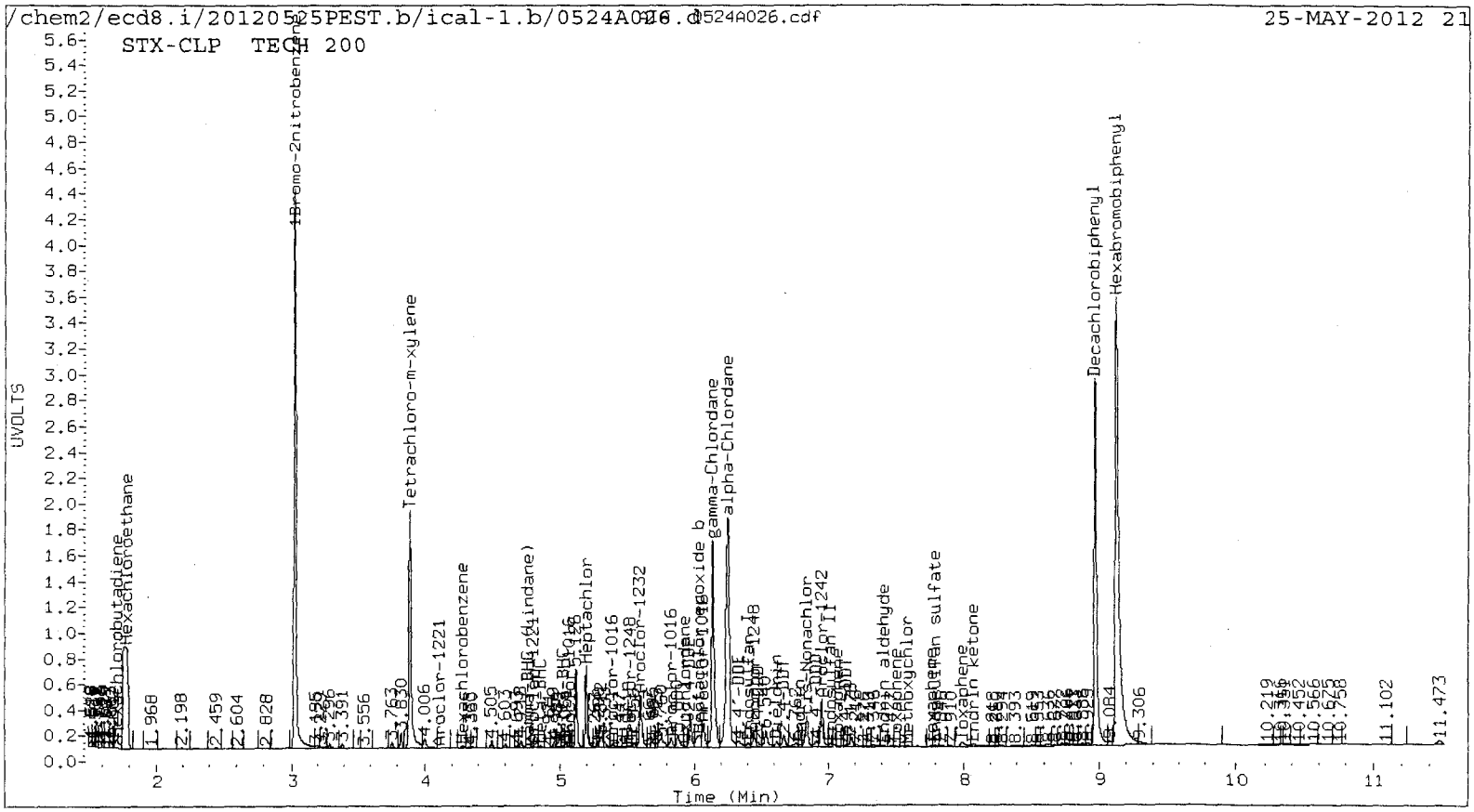
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1750849 | 40.2 |
| Hexabromobiphenyl | 1339634 | 1860213 | 38.9 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 7.073 | 0.004 | 3562 | 5.158 | 1 | 7.734 | -0.025 | 159794 | 145.894 |
| Toxaphene | 2 | 7.141 | 0.022 | 3157 | 6.554 | 2 | 8.036 | 0.034 | 44201 | 36.582 |
| Toxaphene | 3 | 7.511 | -0.012 | 1253 | 2.871 | 3 | 8.261 | 0.006 | 1900 | 3.657 |
| Toxaphene | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Toxaphene | 5 | 7.772 | 0.021 | 1978 | 3.489 | 5 | 9.046 | 0.007 | 5179 | 13.208 |
| Toxaphene | 6 | 7.997 | -0.041 | 21664 | 52.712 | NS | --- | | | ---- |
| | Total STX-CLPAve (5 peaks): 14.157 | | | | | Total CLP2Ave (4 peaks): 49.835 | | | RPD = 112* | |
| | Corrected Ave (4 peaks): 4.518 | | | | | Corrected Ave (3 peaks): 17.816 | | | RPD = 119* | |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1248 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1248 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1248 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1248 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1254 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1254 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1254 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1254 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1260 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1260 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1260 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1260 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1262 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1262 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1262 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1262 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1268 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1268 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1268 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1268 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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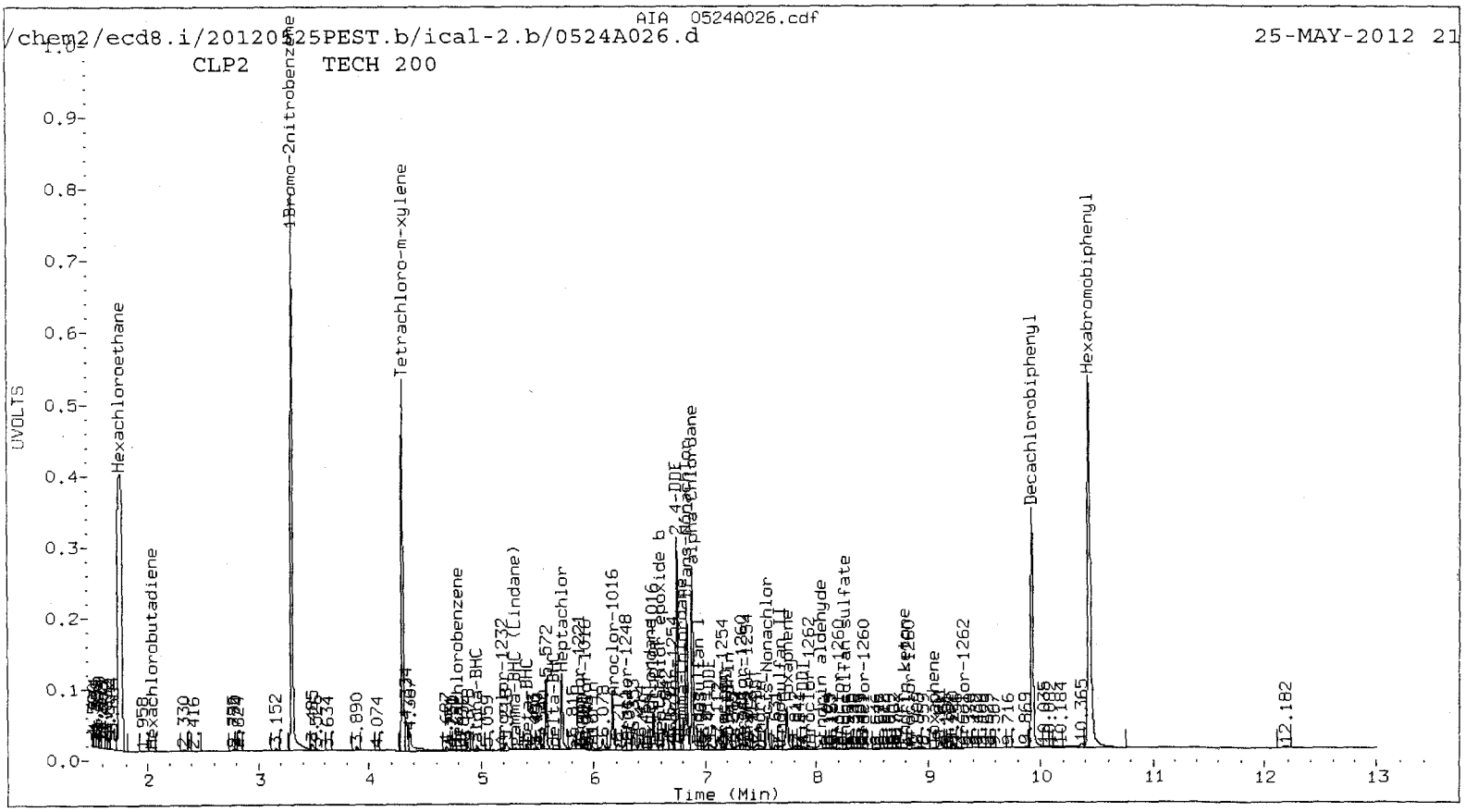
0524A026.cdf
25-MAY-2012 21
STX-CLP TECH 200
UVOLTS
Time (Min)
Hexachloroethane
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobutadiene
Aroclor-1221
Hexachlorobenzene
Heptachlor
gamma-Chlordane
alpha-Chlordane
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0524A026.cdf
25-MAY-2012 21
CLP2 TECH 200
UVOLTS
Time (Min)
Hexachloroethane
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobutadiene
Hexachlorobenzene
Heptachlor
Decachlorobiphenyl
Hexabromobiphenyl

DU52:01381

AR-5bg/2012

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A013.d ARI ID: INDA ICV
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A013.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 17:25
Compound Sublist: INDA Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

40ppb

| STX-CLP Col RT | Shift | Response | CLP2 Col RT | Shift | Response | STX-CLP on col | CLP2 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 3.028 | -0.002 | 932869 | 3.295 | -0.002 | 1487234 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.453 | 0.000 | 759722 | 4.929 | 0.000 | 1172696 | 42.4107 | 37.8893 | 11.3 | alpha-BHC A B |
| 4.846 | 0.000 | 251541 | 5.367 | 0.000 | 468953 | 36.4783 | 36.3354 | 0.4 | beta-BHC A B |
| 5.010 | -0.001 | 654624 | 5.653 | 0.000 | 943352 | 45.9676 | 41.3109 | 10.7 | delta-BHC A B |
| 4.755 | 0.000 | 609793 | 5.283 | 0.000 | 984267 | 41.8798 | 38.0714 | 9.5 | gamma-BHC (Lindane) A B |
| 5.201 | 0.000 | 587136 | 5.714 | 0.001 | 878394 | 40.8893 | 37.3298 | 9.1 | Heptachlor A B |
| 5.477 | 0.000 | 729063 | 6.029 | 0.000 | 1104202 | 42.6883 | 38.0093 | 11.6 | Aldrin A B |
| 6.029 | 0.001 | 611152 | 6.567 | 0.000 | 870609 | 39.9583 | 35.9532 | 10.6 | Heptachlor epoxide b A B |
| 6.385 | 0.001 | 716362 | 6.943 | 0.001 | 844344 | 29.7330 | 35.8839 | 18.7 | Endosulfan I A B |
| 6.602 | 0.001 | 637502 | 7.199 | 0.000 | 918051 | 38.9952 | 36.6928 | 6.1 | Dieldrin A B |
| 6.337 | 0.001 | 567268 | 7.024 | 0.001 | 1062400 | 41.8867 | 38.4836 | 8.5 | 4,4'-DDE A B |
| 6.812 | 0.000 | 544819 | 7.490 | 0.000 | 727017 | 39.2976 | 37.5465 | 4.6 | Endrin A B |
| 7.016 | 0.001 | 515562 | 7.686 | 0.000 | 760226 | 36.1627 | 36.8560 | 1.9 | Endosulfan II A B |
| 6.876 | 0.002 | 387276 | 7.566 | 0.001 | 652217 | 34.3147 | 37.0275 | 7.6 | 4,4'-DDD A B |
| 7.796 | 0.001 | 441044 | 8.258 | 0.000 | 678819 | 37.0003 | 39.1717 | 5.7 | Endosulfan sulfate A B |
| 7.125 | 0.001 | 312174 | 7.859 | 0.001 | 469101 | 40.8011 | 42.7034 | 4.6 | 4,4'-DDT A B |
| 7.562 | 0.001 | 163353 | 8.488 | 0.001 | 234161 | 37.6149 | 41.7478 | 10.4 | Methoxychlor A B |
| 8.057 | 0.000 | 487442 | 8.781 | 0.000 | 676135 | 32.8876 | 36.1257 | 9.4 | Endrin ketone A B |
| 7.397 | 0.001 | 404061 | 7.999 | 0.000 | 607288 | 35.6127 | 34.8145 | 2.3 | Endrin aldehyde A B |
| 6.143 | 0.000 | 625284 | 6.746 | 0.001 | 974452 | 40.8454 | 37.4049 | 8.8 | gamma-Chlordane A B |
| 6.262 | 0.001 | 636032 | 6.882 | 0.000 | 983945 | 40.2987 | 37.6334 | 6.8 | alpha-Chlordane A B |
| 1.704 | -0.024 | 16200 | ---- | | | ~~0.5692~~ | ~~0.0000~~ | --- | Hexachlorobutadiene |
| 4.287 | 0.000 | 3786 | 4.804 | 0.013 | 1552 | ~~0.2315~~ | ~~0.0547~~ | ~~123.6*~~ | Hexachlorobenzene A B |
| 9.135 | -0.004 | 1276127 | 10.431 | -0.003 | 1625382 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 3.896 | -0.001 | 415652 | 4.298 | -0.001 | 1131559 | 31.4766 | 31.6562 | 0.6 | Tetrachloro-m-xylene A B |
| 8.980 | 0.000 | 693847 | 9.922 | 0.001 | 866132 | 32.1795 | 31.7019 | 1.5 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 78.7 | 79.1 | 78.7~ | 85-115 |
| Decachlorobiphenyl | 80.4 | 79.3 | 79.3~ | 85-115 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

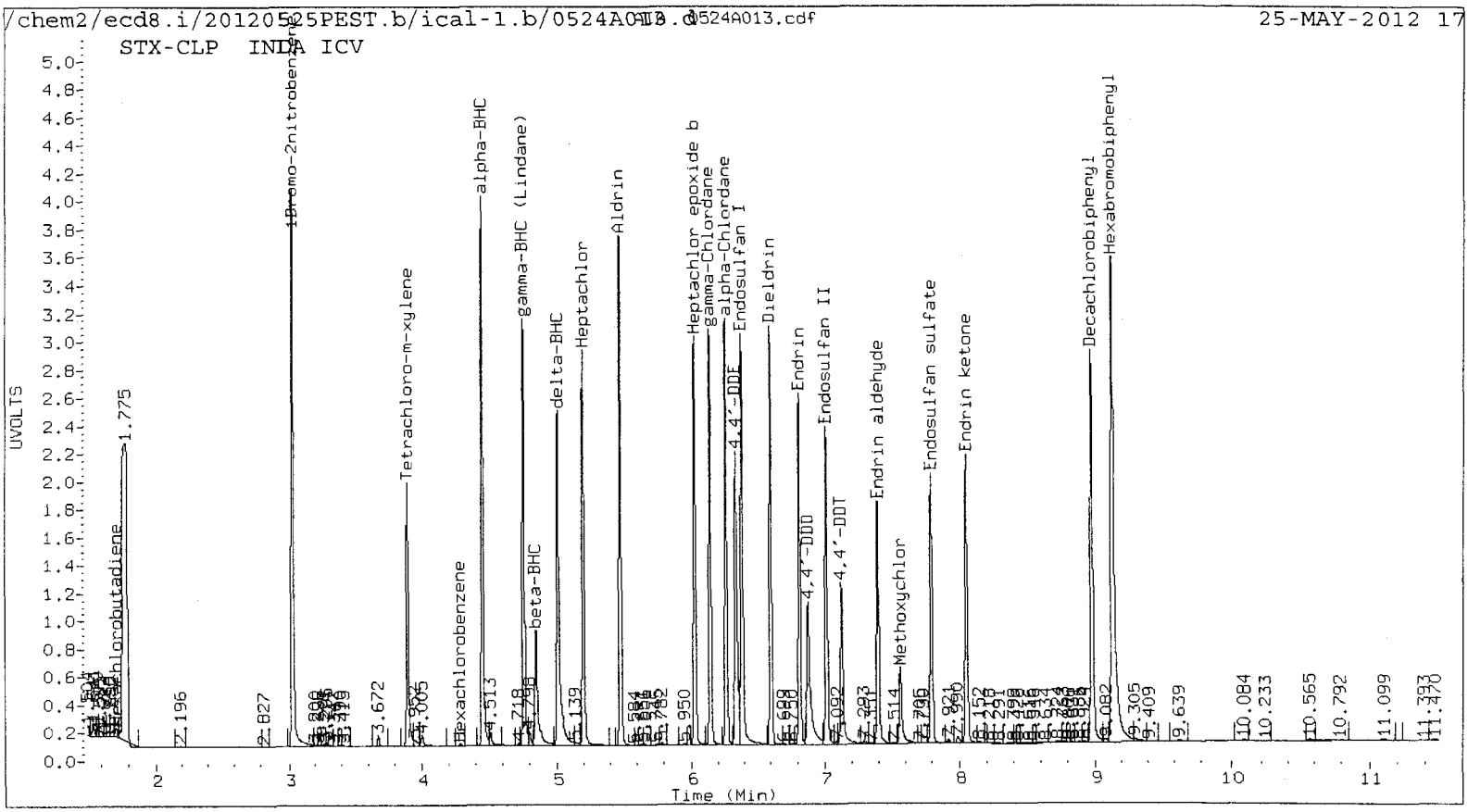
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 932869 | 11.5 |
| Hexabromobiphenyl | 1091107 | 1276127 | 17.0 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1487234 | 19.1 |
| Hexabromobiphenyl | 1339634 | 1625382 | 21.3 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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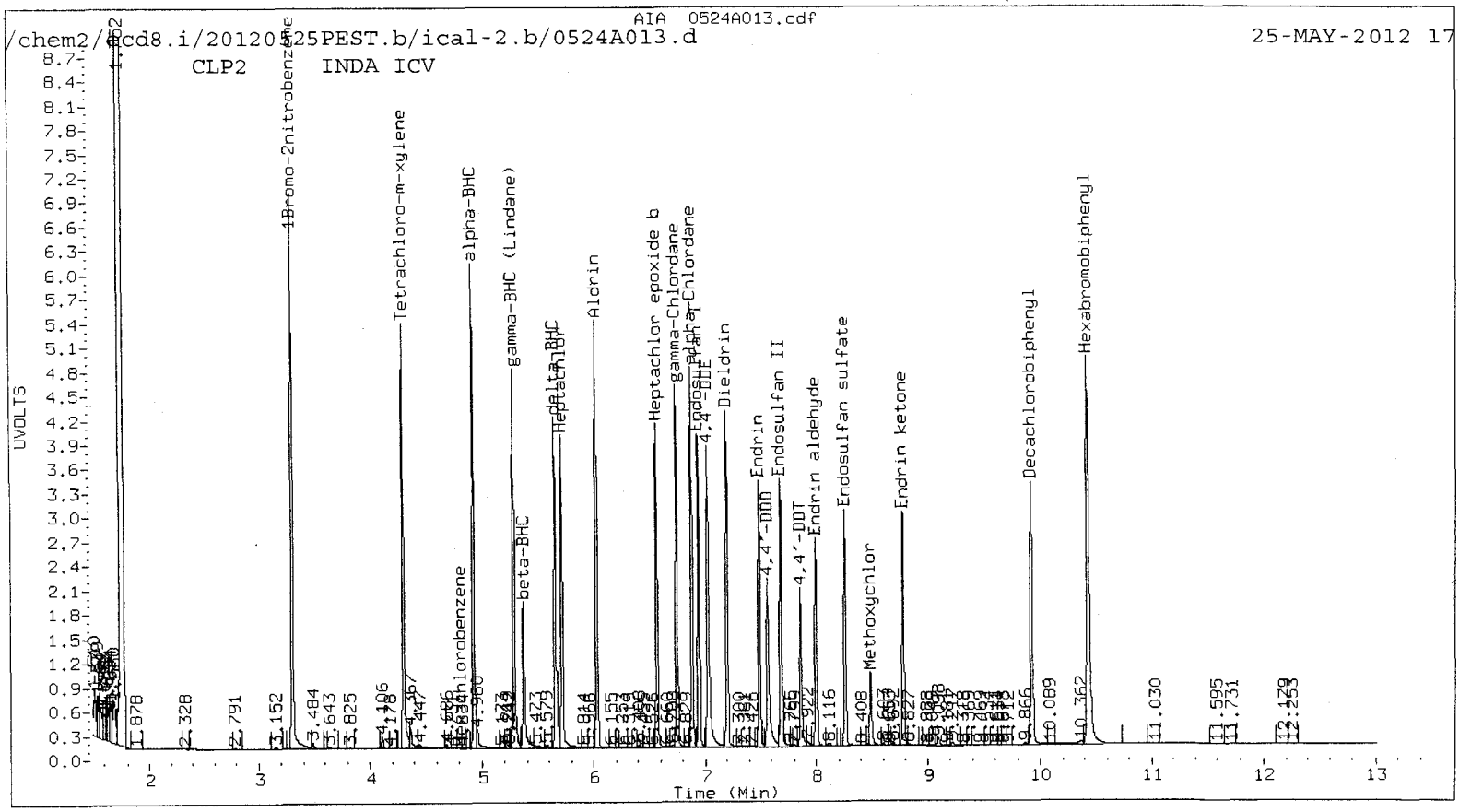
AIA 0524A013.cdf
25-MAY-2012 17
STX-CLP INDA ICV
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl


AIA 0524A013.cdf
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25-MAY-2012 17
CLP2 INDA ICV
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

UU52:01384

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

AR 5/29/2012

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A014.d ARI ID: HCB/HCBD ICV
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A014.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 17:43
Compound Sublist: INDA Report Date: 05/29/2012 09:15
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

HCB 40.8 & HCBD 46.8

| STX-CLP Col RT | Shift | Response | CLP2 Col RT | Shift | Response | STX-CLP on col | CLP2 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 3.029 | -0.001 | 892508 | 3.295 | -0.001 | 1427760 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| ---- | | | ---- | | | ~~0.0000~~ | ~~0.0000~~ | --- | alpha-BHC |
| 4.826 | -0.020 | 1065 | ---- | | | 0.1614 | 0.0000 | --- | beta-BHC |
| 5.011 | 0.000 | 1216 | 5.609 | -0.044 | 1327 | 0.0892 | 0.0605 | 38.3 | delta-BHC A B |
| ---- | | | 5.237 | -0.045 | 4942 | 0.0000 | 0.1991 | --- | gamma-BHC (Lindane) |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Heptachlor |
| ---- | | | 6.054 | 0.026 | 2574 | 0.0000 | 0.0923 | --- | Aldrin |
| 6.043 | 0.015 | 1380 | 6.555 | -0.012 | 1856 | 0.0943 | 0.0798 | 16.6 | Heptachlor epoxide b A B |
| 6.365 | -0.020 | 1420 | ---- | | | 0.0616 | 0.0000 | --- | Endosulfan I |
| ---- | | | 7.227 | 0.028 | 1512 | 0.0000 | 0.0629 | --- | Dieldrin |
| 6.335 | -0.001 | 2500 | ---- | | | 0.2037 | 0.0000 | --- | 4,4'-DDE |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Endrin |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Endosulfan II |
| 6.891 | 0.017 | 10480 | ---- | | | 0.9230 | 0.0000 | --- | 4,4'-DDD |
| 7.797 | 0.002 | 2944 | ---- | | | 0.2455 | 0.0000 | --- | Endosulfan sulfate |
| 7.125 | 0.002 | 2505 | 7.869 | 0.011 | 1922 | 0.3254 | 0.1748 | ~~60.2*~~ | 4,4'-DDT A B |
| 7.551 | -0.010 | 1920 | ---- | | | 0.4395 | 0.0000 | --- | Methoxychlor |
| 8.069 | 0.013 | 13898 | ---- | | | 0.9321 | 0.0000 | --- | Endrin ketone |
| 7.396 | 0.000 | 1817 | 7.996 | -0.003 | 1491 | 0.1592 | 0.0854 | ~~60.3*~~ | Endrin aldehyde A B |
| 6.114 | -0.028 | 3826 | ---- | | | 0.2612 | 0.0000 | --- | gamma-Chlordane |
| ---- | | | ---- | | | ~~0.0000~~ | ~~0.0000~~ | --- | alpha-Chlordane |
| 1.728 | 0.000 | 1318722 | 2.036 | -0.001 | 1836197 | 48.4324 | 40.6961 ✓ | 17.4 | Hexachlorobutadiene A BM |
| 4.287 | 0.000 | 622261 | 4.790 | -0.001 | 985735 | 39.7729 | 36.1821 ✓ | 9.5 | Hexachlorobenzene A B |
| 9.132 | -0.006 | 1283811 | 10.429 | -0.005 | 1626638 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 3.896 | 0.000 | 471201 | 4.298 | -0.001 | 1222679 | 37.2969 | 35.6302 | 4.6 | Tetrachloro-m-xylene A B |
| 8.979 | -0.001 | 765007 | 9.922 | 0.001 | 947027 | 35.2675 | 34.6360 | 1.8 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 93.2 | 89.1 | 89.1 | 85-115 |
| Decachlorobiphenyl | 88.2 | 86.6 | 86.6 | 85-115 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

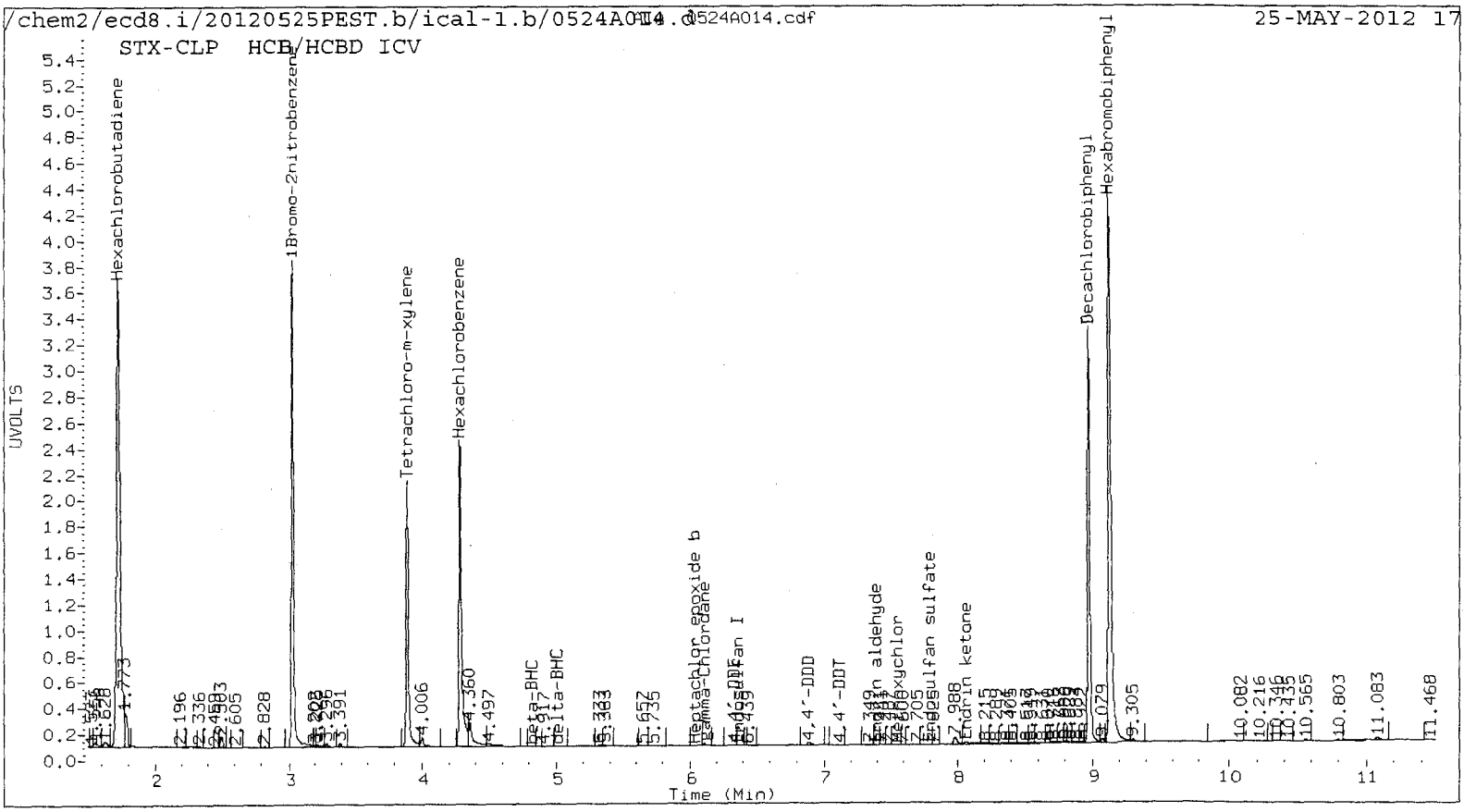
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 892508 | 6.7 |
| Hexabromobiphenyl | 1091107 | 1283811 | 17.7 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1427760 | 14.3 |
| Hexabromobiphenyl | 1339634 | 1626638 | 21.4 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | STX-CLP Col Peak# | RT | Shift | Height | Amount | CLP2 Col Peak# | RT | Shift | Height | Amount |
|---|---|---|---|---|---|---|---|---|---|---|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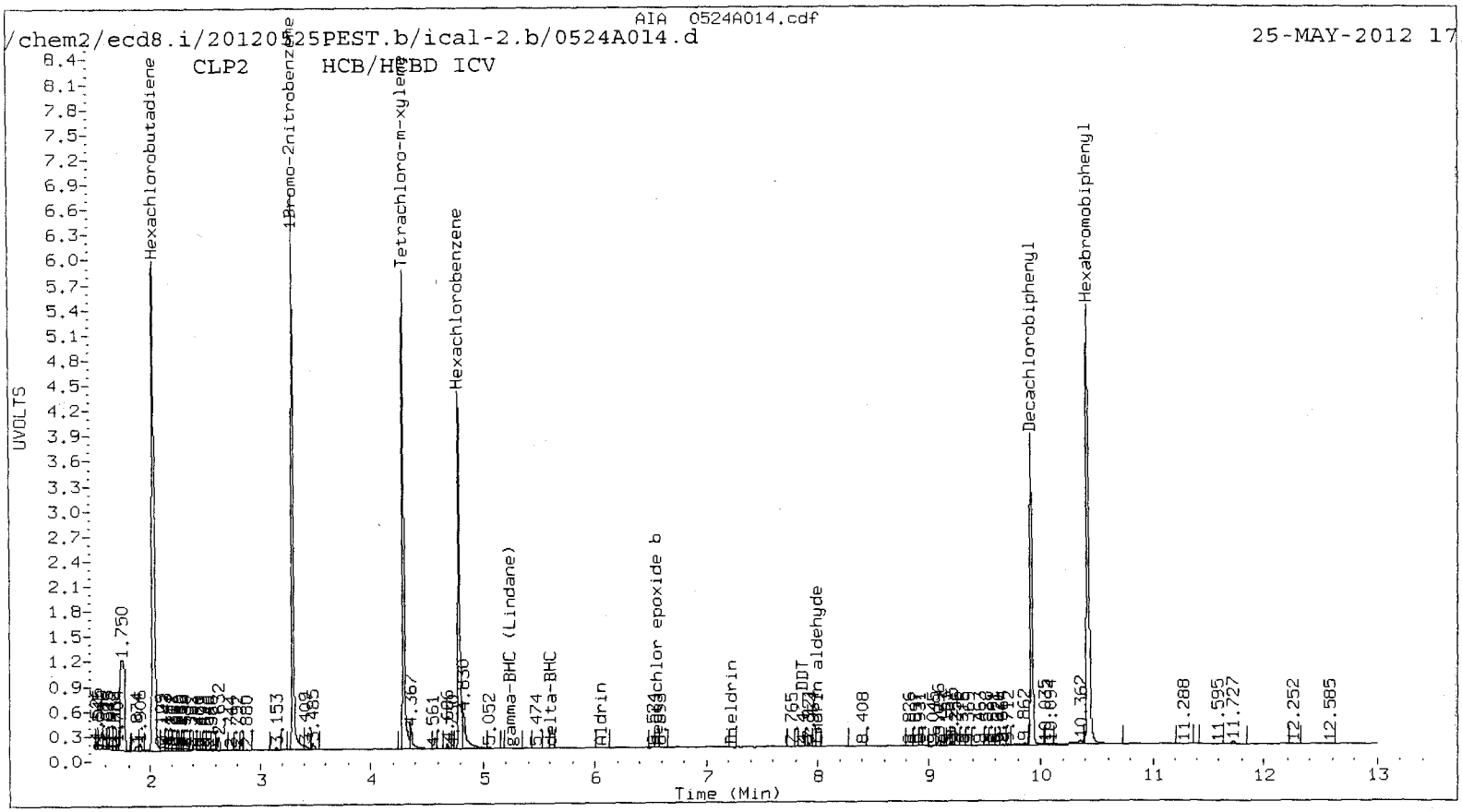
0524A014.cdf
25-MAY-2012 17
STX-CLP HCB/HCBD ICV
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
Decachlorobiphenyl
Hexabromobiphenyl


AIA 0524A014.cdf
/chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A014.d
25-MAY-2012 17
CLP2 HCB/HCBD ICV
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
gamma-BHC (Lindane)
Decachlorobiphenyl
Hexabromobiphenyl

UU52:01387

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

AR 5/29/2012

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A023.d ARI ID: WND ICV
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A023.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 20:33
Compound Sublist: WND Report Date: 05/29/2012 09:16
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

50ppb

| STX-CLP Col RT | Shift | Response | CLP2 Col RT | Shift | Response | STX-CLP on col | CLP2 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 1.776 | 0.008 | 20892 | 1.752 | 0.000 | 5159601 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.031 | 0.001 | 965292 | 3.297 | 0.000 | 1605656 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 5.938 | -0.001 | 747620 | 6.482 | 0.000 | 1091823 | 58.2781 | 52.8811 ✓ | 9.7 | Oxychlordane A B |
| 6.026 | -0.001 | 3895811 | 6.736 | 0.000 | 5317346 | ~~384.6898~~ | ~~299.7203~~ | 24.8 | 2,4-DDE A B |
| 6.249 | 0.000 | 867555 | 6.831 | 0.000 | 1512977 | 59.7014 | 59.9433 | 0.4 | trans-Nonachlor A B |
| 6.490 | -0.001 | 2574530 | 7.215 | 0.000 | 3912586 | ~~356.0637~~ | ~~295.7587~~ | 18.5 | 2,4-DDD A B |
| 6.718 | 0.000 | 2894196 | 7.503 | 0.001 | 4016794 | ~~398.0717~~ | ~~344.4171~~ | 14.5 | 2,4-DDT A B |
| 6.844 | 0.000 | 988012 | 7.557 | 0.000 | 1544186 | 59.6339 | 56.4582 ✓ | 5.5 | cis-Nonachlor A B |
| 7.710 | 0.000 | 510747 | 8.760 | 0.001 | 913412 | 51.9376 | 51.7784 ✓ | 0.3 | Mirex A B |
| 9.140 | 0.002 | 1273565 | 10.434 | 0.001 | 1716700 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 3.898 | 0.001 | 446071 | 4.299 | 0.001 | 1165869 | 32.6456 | 30.2105 ✓ | 7.7 | Tetrachloro-m-xylene A B |
| 8.982 | 0.002 | 744399 | 9.924 | 0.002 | 949248 | 34.5935 | 32.8959 ✓ | 5.0 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 81.6 | 75.5 ✓ | 75.5 | 29-110 |
| Decachlorobiphenyl | 86.5 | 82.2 | 82.2 | 18-151 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

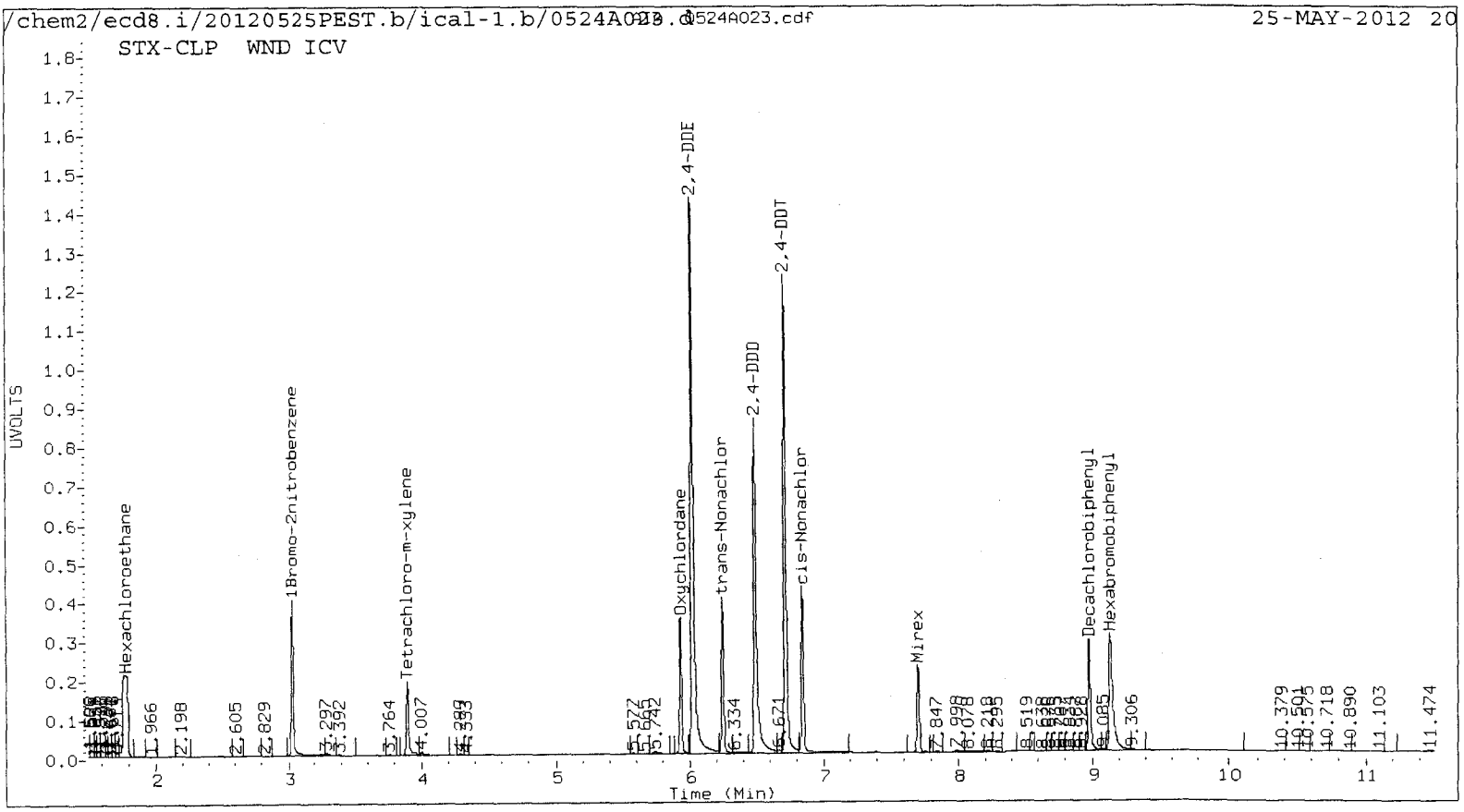
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 965292 | 15.4 |
| Hexabromobiphenyl | 1091107 | 1273565 | 16.7 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1605656 | 28.6 |
| Hexabromobiphenyl | 1339634 | 1716700 | 28.1 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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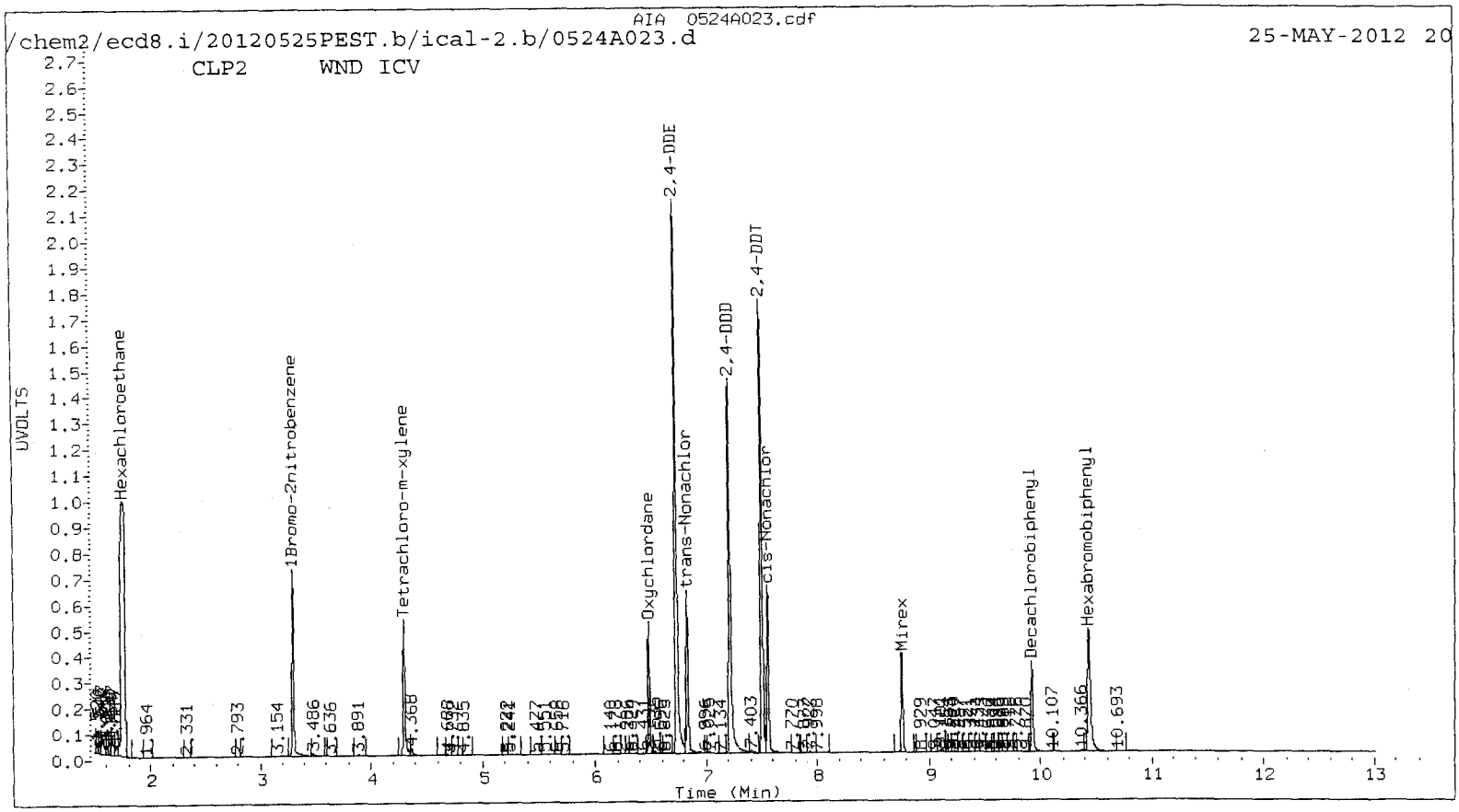
0524A023.cdf
25-MAY-2012 20
STX-CLP WND ICV
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl


AIA 0524A023.cdf
/chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A023.d
25-MAY-2012 20
CLP2 WND ICV
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
trans-Nonachlor
2,4-DDD
2,4-DDT
cis-Nonachlor
Mirex
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

AR 5/29/2012

Data file 1: /chem2/ecd8.i/20120525PEST.b/ical-1.b/0524A024.d ARI ID: OPDDTS ICV
Data file 2: /chem2/ecd8.i/20120525PEST.b/ical-2.b/0524A024.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 25-MAY-2012 20:52
Compound Sublist: WND Report Date: 05/29/2012 09:16
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

50 ppb

| STX-CLP Col RT | Shift | Response | CLP2 Col RT | Shift | Response | STX-CLP on col | CLP2 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 1.772 | 0.003 | 3322 | 1.749 | -0.003 | 782460 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.029 | -0.001 | 961204 | 3.296 | -0.001 | 1621863 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| ---- | | | 6.429 | -0.053 | 5294 | 0.0000 | 0.2538 | --- | Oxychlordane |
| 6.026 | -0.001 | 597143 | 6.736 | 0.000 | 977377 | 54.4776 | 54.5408 | 0.1 | 2,4-DDE A B |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | trans-Nonachlor |
| 6.490 | -0.001 | 398711 | 7.215 | 0.000 | 694461 | 50.9465 | 50.2336 | 1.4 | 2,4-DDD A B |
| 6.718 | 0.000 | 446247 | 7.503 | 0.000 | 715186 | 56.7068 | 58.6810 | 3.4 | 2,4-DDT A B |
| ---- | | | 7.564 | 0.007 | 6570 | 0.0000 | 0.2299 | --- | cis-Nonachlor |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | Mirex |
| 9.135 | -0.004 | 1378461 | 10.432 | -0.002 | 1793995 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| ---- | | | 4.302 | 0.003 | 1237 | 0.0000 | 0.0317 | --- | Tetrachloro-m-xylene |
| ---- | | | 9.925 | 0.004 | 2575 | 0.0000 | 0.0854 | --- | Decachlorobiphenyl |

NS

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 0.0 | 0.1 | 0.0~ | 29-110 |
| Decachlorobiphenyl | 0.0 | 0.2 | 0.0~ | 18-151 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

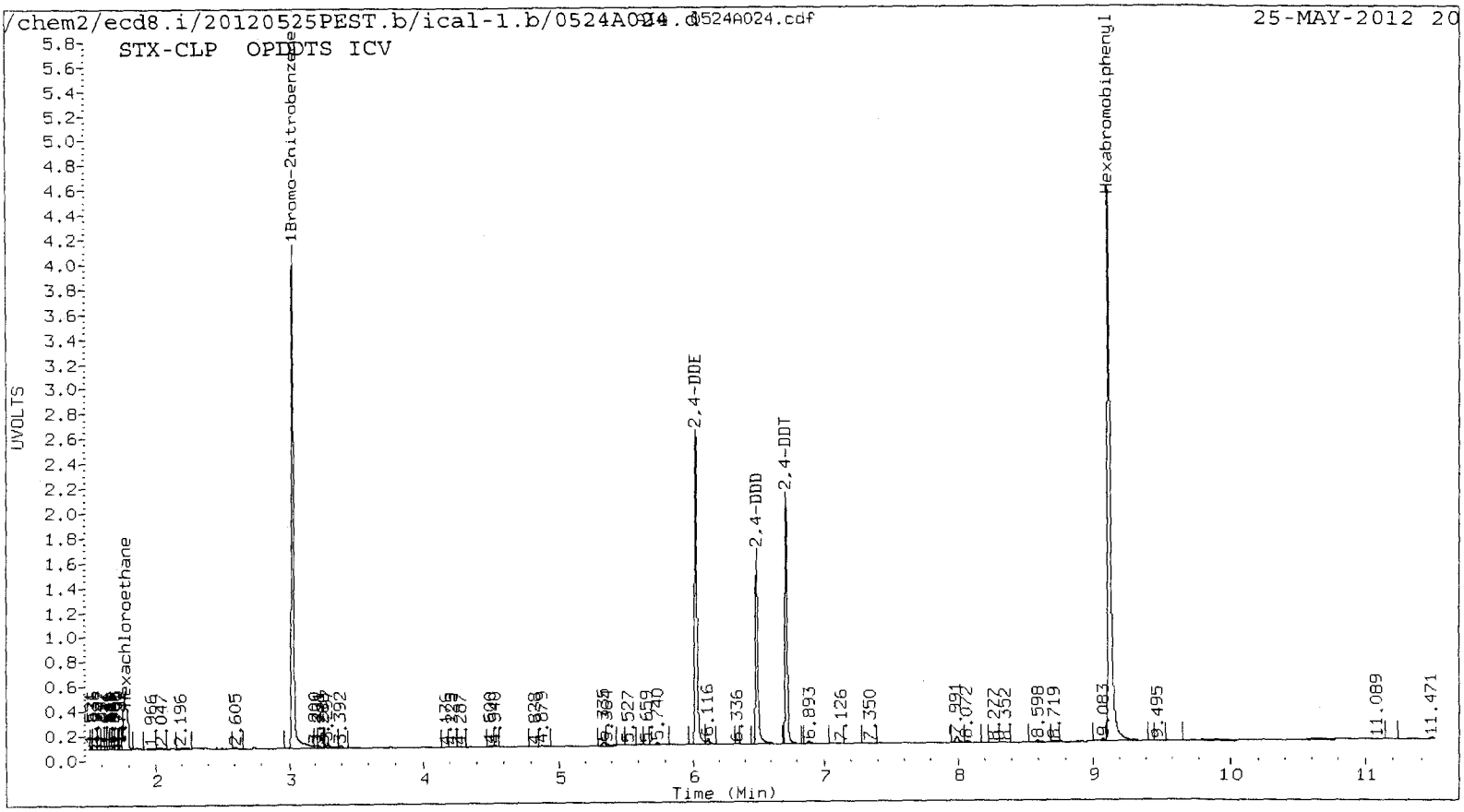
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 961204 | 14.9 |
| Hexabromobiphenyl | 1091107 | 1378461 | 26.3 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1621863 | 29.9 |
| Hexabromobiphenyl | 1339634 | 1793995 | 33.9 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | STX-CLP Col Peak# | RT | Shift | Height | Amount | CLP2 Col Peak# | RT | Shift | Height | Amount |
|---|---|---|---|---|---|---|---|---|---|---|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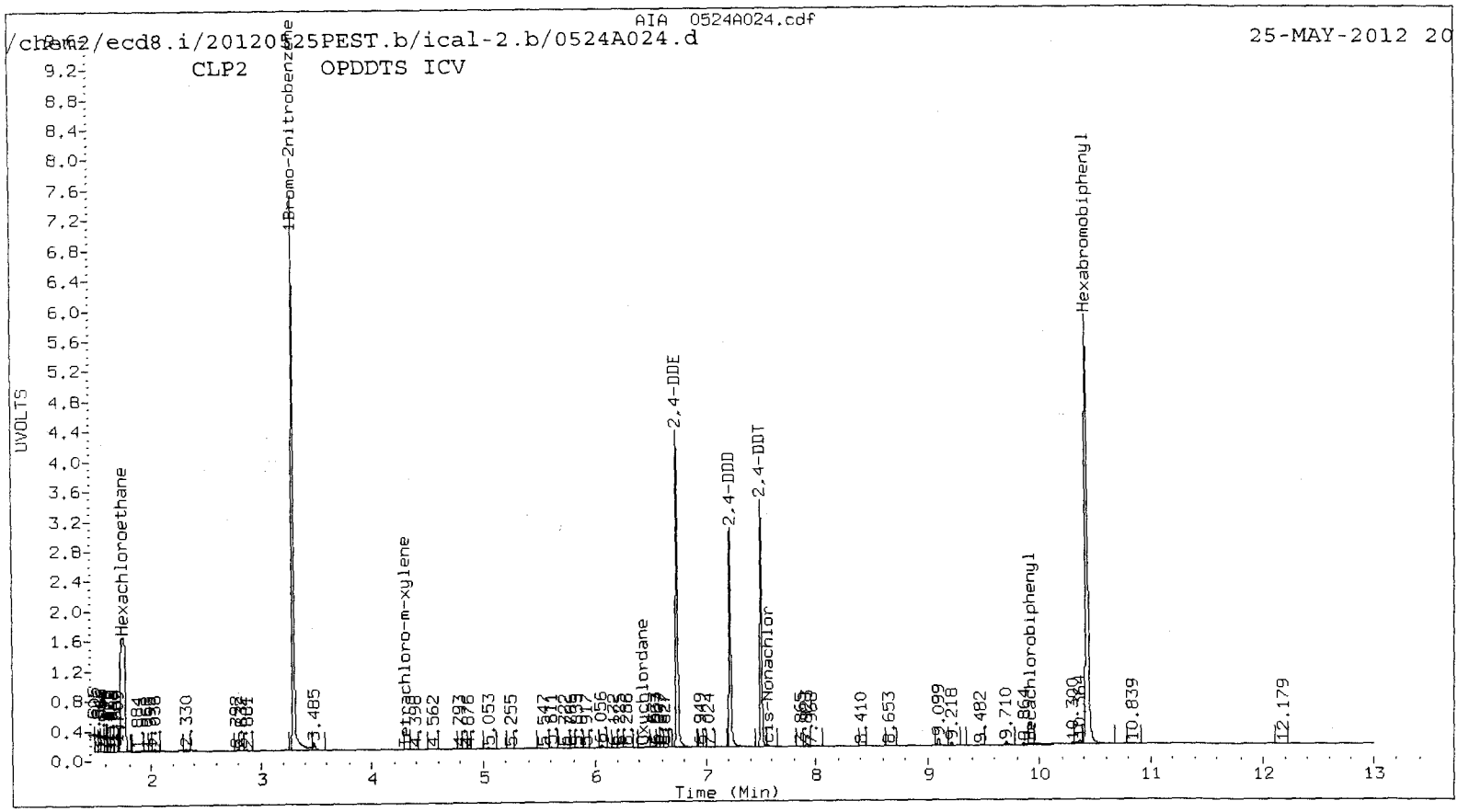
AIA 0524A024.cdf
25-MAY-2012 20
STX-CLP OPDDTS ICV
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
2,4-DDE
2,4-DDD
2,4-DDT
Hexabromobiphenyl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AIA 0524A024.cdf
25-MAY-2012 20
CLP2 OPDDTS ICV
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Oxychlordane
2,4-DDE
2,4-DDD
2,4-DDT
cis-Nonachlor
Polychlorobiphenyl
Hexabromobiphenyl

UU52:01393

# ATTACHMENT E-2 (continued)
# CHEMISTRY LABORATORY REPORTS

Provided separately due to large file sizes.

Pesticide Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: UU52, UU62

# GC Analyst Notes / Corrective Action Log

ARI Project ID: UU52 Client ID: Anchor

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
**427S**(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): 12.5g/25mL FV

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 (ECD8)

Dates: Curve: 5/25/2012 Analysis Start: 5/25/2012

Endrin/DDT Breakdown <15%? (YES) NO / NA ① Method Blank In Control? (YES) / NO

ICal Meets RF & %RSD Criteria? (YES) / NO LCS/LCSD Recovery In Control? (YES) / NO

CCal Meets RF & %RSD Criteria? (YES) NO ① Surrogate Recovery In Control? (YES) NO ②

Manual Integrations for ICal? (YES) / NO Samps Diluted out Manual Integrations for Samples? (YES) / NO

Internal Standard Meets Criteria? (YES) / NO / NA Special Analysis Criteria Met? (YES) / NO / NA Lvl 4 VDP

**Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):**

① See adjoining run log

② Samp G 10x Tcmx 1st col positive interference & DCBP 1st col out low due to interference.

Flags - Samp G 10x B-BHC opposite shifts & background interference and Endrin Aldehyde opposite shifts

- Acid cleaned PCB extracts were run prior to these samps & included for file

**Additional Details on Reverse: Yes / (No)**

**Analyst:** **Date:** 5/29/2012

**Reviewer:** **Date:** 5/29/12

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd8.i/20120525PEST.b/ical-2.b

| | Inject Date/Time | Filename | DF | LabID | ClientID |
|---|---|---|---|---|---|
| 1 | 25-MAY-2012 14:34 | 0524A004.d | 1 | DS | |
| 2 | 25-MAY-2012 14:53 | 0524A005.d | 1 | IB | |
| 3 | 25-MAY-2012 15:12 | 0524A006.d | 1 | INDAE | |
| 4 | 25-MAY-2012 15:31 | 0524A007.d | 1 | INDAA | |
| 5 | 25-MAY-2012 15:50 | 0524A008.d | 1 | INDAB | |
| 6 | 25-MAY-2012 16:09 | 0524A009.d | 1 | INDAC | |
| 7 | 25-MAY-2012 16:28 | 0524A010.d | 1 | INDAD | |
| 8 | 25-MAY-2012 16:47 | 0524A011.d | 1 | INDAF | |
| 9 | 25-MAY-2012 17:06 | 0524A012.d | 1 | IDNAG | |
| 10 | 25-MAY-2012 17:25 | 0524A013.d | 1 | INDA ICV | |
| 11 | 25-MAY-2012 17:43 | 0524A014.d | 1 | HCB/HCBD ICV | |
| 12 | 25-MAY-2012 18:02 | 0524A015.d | 1 | TOXAPH 2500 | |
| 13 | 25-MAY-2012 18:21 | 0524A016.d | 1 | WNDE | |
| 14 | 25-MAY-2012 18:40 | 0524A017.d | 1 | WNDA | |
| 15 | 25-MAY-2012 18:59 | 0524A018.d | 1 | WNDB | |
| 16 | 25-MAY-2012 19:18 | 0524A019.d | 1 | WNDC | |
| 17 | 25-MAY-2012 19:37 | 0524A020.d | 1 | WNDD | |
| 18 | 25-MAY-2012 19:56 | 0524A021.d | 1 | WNDF | |
| 19 | 25-MAY-2012 20:14 | 0524A022.d | 1 | WNDG | |
| 20 | 25-MAY-2012 20:33 | 0524A023.d | 1 | WND ICV | |
| 21 | 25-MAY-2012 20:52 | 0524A024.d | 1 | OPDDTS ICV | |
| 22 | 25-MAY-2012 21:11 | 0524A025.d | 1 | DDT RT | |
| 23 | 25-MAY-2012 21:30 | 0524A026.d | 1 | TECH 200 | |
| 24 | 25-MAY-2012 21:49 | 0524A027.d | 1 | DS - Passes | |
| 25 | 25-MAY-2012 22:08 | 0524A028.d | 1 | IB - LRL | |
| 26 | 25-MAY-2012 22:27 | 0524A029.d | 1 | INDAE - HCB↓$C_2$ | |
| 27 | 25-MAY-2012 22:46 | 0524A030.d | 1 | UU57MBW2 | |
| 28 | 25-MAY-2012 23:04 | 0524A031.d | 1 | UU57LCSW2 | |
| 29 | 25-MAY-2012 23:23 | 0524A032.d | 1 | UU57LCSDW2 | |
| 30 | 25-MAY-2012 23:42 | 0524A033.d | 5 | UU57I | |
| 31 | 26-MAY-2012 00:01 | 0524A034.d | 2 | US34G | |
| 32 | 26-MAY-2012 00:20 | 0524A035.d | 1 | WND ICV | |
| 33 | 26-MAY-2012 00:39 | 0524A036.d | 1 | TECH 200 | |
| 34 | 26-MAY-2012 00:58 | 0524A037.d | 1 | DS - Passes | |
| 35 | 26-MAY-2012 01:17 | 0524A038.d | 1 | INDAE - HCB↓$C_2$ | |
| 36 | 26-MAY-2012 01:35 | 0524A039.d | 1 | UU52MBS1 | UU52MBS1 |
| 37 | 26-MAY-2012 01:54 | 0524A040.d | 1 | UU52A | MS001-SS-120515 |
| 38 | 26-MAY-2012 02:13 | 0524A041.d | 1 | UU52B | MS101-SS-120515 |
| 39 | 26-MAY-2012 02:32 | 0524A042.d | 1 | UU52C Acid Cleaned | MS002-SS-120515 |
| 40 | 26-MAY-2012 02:51 | 0524A043.d | 1 | UU52D | MS003-SS-120515 |
| 41 | 26-MAY-2012 03:10 | 0524A044.d | 1 | UU52E | MS004-SS-120515 |
| 42 | 26-MAY-2012 03:29 | 0524A045.d | 1 | UU52F PCB Exts | MS005-SS-120515 |
| 43 | 26-MAY-2012 03:48 | 0524A046.d | 1 | UU52G | MS006-SS-120515 |
| 44 | 26-MAY-2012 04:07 | 0524A047.d | 1 | UU52H | MS007-SS-120515 |
| 45 | 26-MAY-2012 04:25 | 0524A048.d | 1 | UU52I | MS008-SS-120515 |
| 46 | 26-MAY-2012 04:44 | 0524A049.d | 1 | UU52J | MS009-SS-120515 |
| 47 | 26-MAY-2012 05:03 | 0524A050.d | 1 | WND ICV | |
| 48 | 26-MAY-2012 05:22 | 0524A051.d | 1 | TECH 200 | |
| 49 | 26-MAY-2012 05:41 | 0524A052.d | 1 | DS - Passes | |
| 50 | 26-MAY-2012 06:00 | 0524A053.d | 1 | INDAE - HCB↓$C_1$ & TCMX↓$C_1$ | |

| | Inject Date/Time | Filename | DF | LabID | ClientID | |
|---|---|---|---|---|---|---|
| 51 | 26-MAY-2012 06:19 | 0524A054.d | 1 | UU52MBS1 | UU52MBS1 | |
| 52 | 26-MAY-2012 06:38 | 0524A055.d | 1 | UU52LCSS1 | UU52LCSS1 | |
| 53 | 26-MAY-2012 06:56 | 0524A056.d | 100 | UU52A | MS001-SS-120515 | |
| 54 | 26-MAY-2012 07:15 | 0524A057.d | 100 | UU52B | MS101-SS-120515 | |
| 55 | 26-MAY-2012 07:34 | 0524A058.d | 100 | UU52C | MS002-SS-120515 | |
| 56 | 26-MAY-2012 07:53 | 0524A059.d | 100 | UU52CMS | MS002-SS-120515 | MS |
| 57 | 26-MAY-2012 08:12 | 0524A060.d | 100 | UU52CMSD | MS002-SS-120515 | MSD |
| 58 | 26-MAY-2012 08:31 | 0524A061.d | 100 | UU52D | MS003-SS-120515 | |
| 59 | 26-MAY-2012 08:50 | 0524A062.d | 100 | UU52E | MS004-SS-120515 | |
| 60 | 26-MAY-2012 09:09 | 0524A063.d | 100 | UU52F | MS005-SS-120515 | |
| 61 | 26-MAY-2012 09:27 | 0524A064.d | 1 | DCM | | |
| 62 | 26-MAY-2012 09:46 | 0524A065.d | 1 | WND ICV | | |
| 63 | 26-MAY-2012 10:05 | 0524A066.d | 1 | TECH 200 | | |
| 64 | 26-MAY-2012 10:24 | 0524A067.d | 1 | DS — DDT bal >15% @ 27.5 & 40.6% | | |
| 65 | 26-MAY-2012 10:43 | 0524A068.d | 1 | INDAE — DDE ↓$C_1$, DDT ↓$C_2$, Methoxychlor ↓$C_2$, HCBD ↓$C_1$, HCB ↓$C_1$, | | |
| 66 | 26-MAY-2012 11:02 | 0524A069.d | 10 | UU52G | MS006-SS-120515 | TCMX ↓$C_1$ & DCBP ↓$C_1$ |
| 67 | 26-MAY-2012 11:21 | 0524A070.d | 100 | UU52H | MS007-SS-120515 | |
| 68 | 26-MAY-2012 11:40 | 0524A071.d | 100 | UU52I | MS008-SS-120515 | |
| 69 | 26-MAY-2012 11:59 | 0524A072.d | 100 | UU52J | MS009-SS-120515 | |
| 70 | 26-MAY-2012 12:18 | 0524A073.d | 1 | DCM | | |
| 71 | 26-MAY-2012 12:36 | 0524A074.d | 1 | WND ICV | | |
| 72 | 26-MAY-2012 12:55 | 0524A075.d | 1 | TECH 200 | | |
| 73 | 26-MAY-2012 13:14 | 0524A076.d | 1 | DS — DDT bal >15% @ 48.1 & 65.8% | | |
| 74 | 26-MAY-2012 13:33 | 0524A077.d | 1 | INDAE — DDE ↓$C_1$, DDD ↑$C_2$, DDT ↓bc, Methoxychlor ↓bc, | | |
| 75 | 26-MAY-2012 13:52 | 0524A078.d | 1 | TOXAPH 2500 - NR | Endrin ketone ↓$C_2$, HCBD ↓bc, | |
| 76 | 26-MAY-2012 14:11 | 0524A079.d | 1 | WNDE - NR | HCB ↓bc, TCMX ↓$C_1$ & DCBP ↓$C_1$, | |

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A038.d ARI ID: INDAE
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A038.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 01:17
Compound Sublist: INDA Report Date: 05/29/2012 09:31
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.031 | 0.001 | 1070501 | 3.297 | 0.001 | 1741963 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.456 | 0.003 | 429239 | 4.931 | 0.002 | 722590 | 20.8811 | 19.9326 | 4.6 | alpha-BHC A B |
| 4.851 | 0.005 | 147881 | 5.370 | 0.004 | 287963 | 18.6884 | 19.0492 | 1.9 | beta-BHC A B |
| 5.015 | 0.005 | 330005 | 5.657 | 0.004 | 520086 | 20.1936 | 19.4449 | 3.8 | delta-BHC A B |
| 4.758 | 0.003 | 332321 | 5.285 | 0.003 | 618698 | 19.8891 | 20.4317 | 2.7 | gamma-BHC (Lindane) A B |
| 5.204 | 0.003 | 342151 | 5.716 | 0.003 | 617481 | 20.7646 | 22.4043 | 7.6 | Heptachlor A B |
| 5.480 | 0.003 | 417815 | 6.032 | 0.003 | 670288 | 21.3187 | 19.6989 | 7.9 | Aldrin A B |
| 6.031 | 0.003 | 354172 | 6.570 | 0.003 | 559602 | 20.1793 | 19.7303 | 2.2 | Heptachlor epoxide b A B |
| 6.388 | 0.004 | 597302 | 6.945 | 0.003 | 545985 | 21.6040 | 19.8108 | 8.7 | Endosulfan I A B |
| 6.605 | 0.004 | 806432 | 7.202 | 0.003 | 1194807 | 42.9864 | 40.7711 | 5.3 | Dieldrin A B |
| 6.350 | 0.014 | 464236 | 7.031 | 0.008 | 1181503 | 30.3501 | 36.5395 | 18.5 | 4,4'-DDE A B |
| 6.815 | 0.004 | 658723 | 7.493 | 0.003 | 915073 | 44.1555 | 39.7433 | 10.5 | Endrin A B |
| 7.020 | 0.004 | 652423 | 7.689 | 0.003 | 1007618 | 42.5282 | 41.0813 | 3.5 | Endosulfan II A B |
| 6.886 | 0.012 | 457313 | 7.572 | 0.007 | 799250 | 37.6566 | 38.1591 | 1.3 | 4,4'-DDD A B |
| 7.800 | 0.004 | 532333 | 8.262 | 0.004 | 872322 | 41.5026 | 42.3330 | 2.0 | Endosulfan sulfate A B |
| 7.132 | 0.008 | 384736 | 7.864 | 0.006 | 608403 | 46.7312 | 46.5769 | 0.3 | 4,4'-DDT A BN |
| 7.568 | 0.007 | 1025797 | 8.493 | 0.005 | 1539273 | 219.5136 | 230.7903 | 5.0 | Methoxychlor A B |
| 8.060 | 0.004 | 617425 | 8.784 | 0.004 | 971323 | 38.7134 | 43.6446 | 12.0 | Endrin ketone A B |
| 7.400 | 0.004 | 513777 | 8.002 | 0.004 | 780824 | 42.0825 | 37.6445 | 11.1 | Endrin aldehyde A B |
| 6.146 | 0.003 | 359847 | 6.749 | 0.004 | 615824 | 20.4841 | 20.1820 | 1.5 | gamma-Chlordane A B |
| 6.265 | 0.004 | 367832 | 6.885 | 0.003 | 585569 | 20.3093 | 19.1215 | 6.0 | alpha-Chlordane A B |
| 1.729 | 0.001 | 599657 | 2.037 | 0.000 | 925889 | 18.3616 | 16.8193 | 8.8 | Hexachlorobutadiene A B |
| 4.291 | 0.004 | 311424 | 4.794 | 0.003 | 510872 | 16.5955 | 15.3696 | 7.7 | Hexachlorobenzene A B |
| 9.145 | 0.007 | 1373176 | 10.438 | 0.005 | 1932735 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 3.899 | 0.002 | 531188 | 4.301 | 0.002 | 1355338 | 35.0542 | 32.3720 | 8.0 | Tetrachloro-m-xylene A B |
| 8.985 | 0.005 | 843044 | 9.926 | 0.005 | 1101511 | 36.3357 | 33.9057 | 6.9 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 87.6 | 80.9 | 80.9~ | 85-115 |
| Decachlorobiphenyl | 90.8 | 84.8 | 84.8~ | 85-115 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

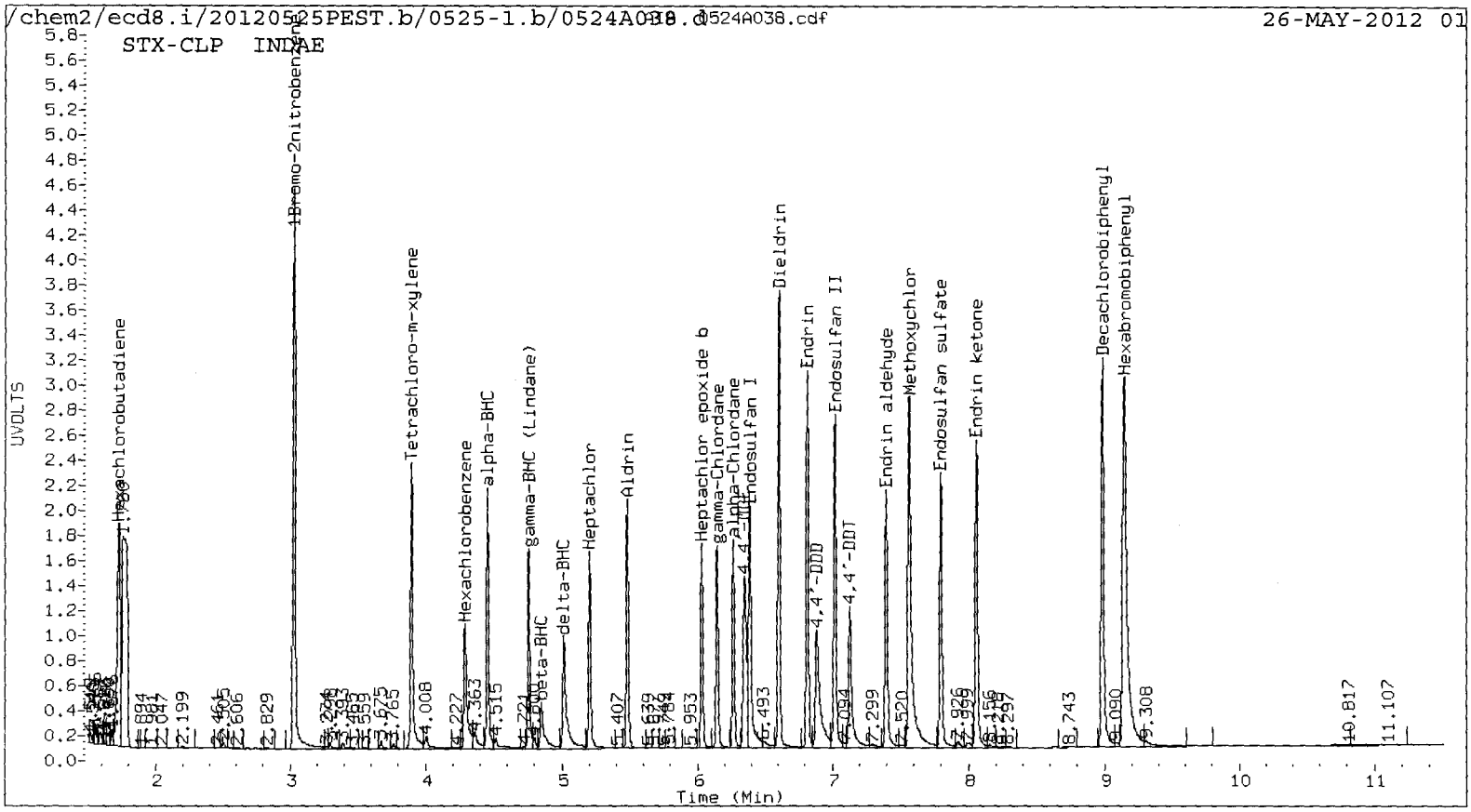
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 1070501 | 28.0 |
| Hexabromobiphenyl | 1091107 | 1373176 | 25.9 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1741963 | 39.5 |
| Hexabromobiphenyl | 1339634 | 1932735 | 44.3 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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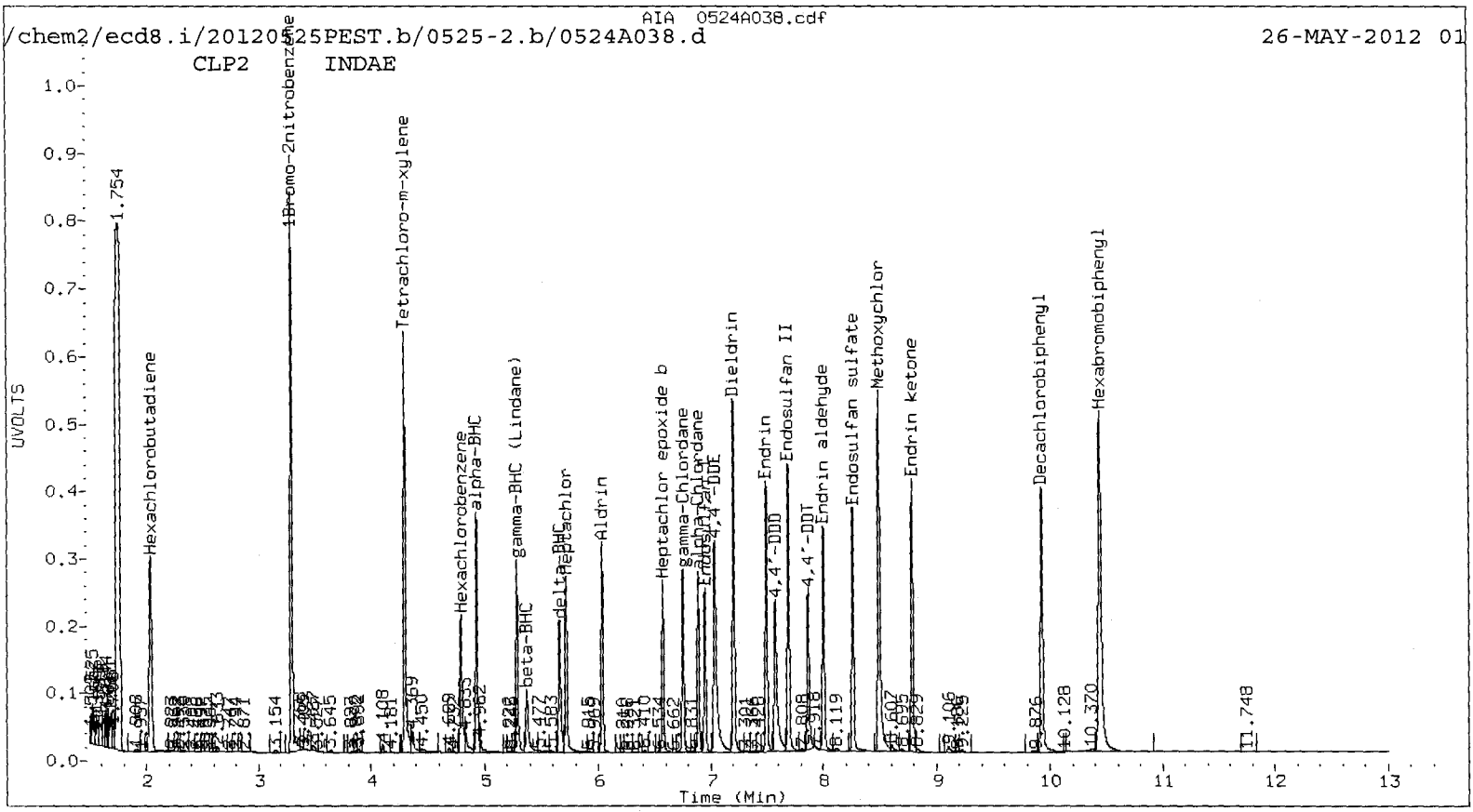
0524A038.cdf
26-MAY-2012 01
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1.754
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
4.008
Hexachlorobenzene
4.363
alpha-BHC
4.515
gamma-BHC (Lindane)
4.721
beta-BHC
4.800
delta-BHC
4.953
Heptachlor
5.407
Aldrin
5.639
5.784
Heptachlor epoxide b
5.953
gamma-Chlordane
6.084
alpha-Chlordane
6.194
4,4'-DDE
6.247
Endosulfan I
6.493
Dieldrin
6.743
Endrin
6.894
4,4'-DDD
7.094
Endosulfan II
7.299
4,4'-DDT
7.520
Endrin aldehyde
7.926
Methoxychlor
7.969
Endosulfan sulfate
8.156
8.257
Endrin ketone
8.743
Decachlorobiphenyl
9.090
Hexabromobiphenyl
9.308
10.817
11.107


AIA 0524A038.cdf
/chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A038.d
26-MAY-2012 01
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1.754
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
4.450
Hexachlorobenzene
4.633
alpha-BHC
4.962
gamma-BHC (Lindane)
5.223
beta-BHC
5.473
delta-BHC
5.583
Heptachlor
5.915
Aldrin
6.534
Heptachlor epoxide b
6.662
gamma-Chlordane
6.831
alpha-Chlordane
6.941
4,4'-DDE
7.301
Dieldrin
7.808
4,4'-DDD
7.918
Endosulfan II
8.119
4,4'-DDT
8.329
Endrin aldehyde
8.607
Endosulfan sulfate
8.829
Methoxychlor
9.106
Endrin ketone
9.876
Decachlorobiphenyl
10.128
10.370
Hexabromobiphenyl
11.748

UU52 : 014466

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A053.d ARI ID: INDAE
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A053.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 06:00
Compound Sublist: INDA Report Date: 05/29/2012 10:50
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.030 | 0.000 | 1236508 | 3.296 | 0.000 | 1702782 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.454 | 0.001 | 504550 | 4.930 | 0.001 | 731244 | 21.2495 | 20.6355 | 2.9 | alpha-BHC A B |
| 4.848 | 0.002 | 174787 | 5.368 | 0.002 | 280856 | 19.1232 | 19.0066 | 0.6 | beta-BHC A B |
| 5.012 | 0.002 | 402777 | 5.655 | 0.002 | 567071 | 21.3377 | 21.6895 | 1.6 | delta-BHC A B |
| 4.757 | 0.001 | 431729 | 5.284 | 0.001 | 608614 | 22.3696 | 20.5612 | 8.4 | gamma-BHC (Lindane) A B |
| 5.203 | 0.002 | 438315 | 5.714 | 0.001 | 538743 | 23.0293 | 19.9972 | 14.1 | Heptachlor A B |
| 5.479 | 0.001 | 474227 | 6.030 | 0.002 | 651998 | 20.9485 | 19.6024 | 6.6 | Aldrin A B |
| 6.030 | 0.002 | 414043 | 6.569 | 0.002 | 507625 | 20.4234 | 18.3096 | 10.9 | Heptachlor epoxide b A B |
| 6.387 | 0.002 | 572187 | 6.944 | 0.002 | 487564 | 17.9171 | 18.0981 | 1.0 | Endosulfan I A B |
| 6.604 | 0.003 | 939908 | 7.201 | 0.002 | 1048746 | 43.3749 | 36.6105 | 16.9 | Dieldrin A B |
| 6.340 | 0.004 | 594178 | 7.026 | 0.003 | 1171415 | 33.4877 | 37.0611 | 10.1 | 4,4'-DDE A B |
| 6.815 | 0.003 | 782815 | 7.491 | 0.002 | 790436 | 47.4195 | 36.3680 | 26.4 | Endrin A B |
| 7.019 | 0.003 | 778793 | 7.688 | 0.002 | 890843 | 45.8761 | 38.4763 | 17.5 | Endosulfan II A B |
| 6.880 | 0.006 | 580478 | 7.568 | 0.004 | 747896 | 43.1946 | 37.8269 | 13.3 | 4,4'-DDD A B |
| 7.798 | 0.003 | 658149 | 8.260 | 0.002 | 750075 | 46.3695 | 38.5612 | 18.4 | Endosulfan sulfate A B |
| 7.128 | 0.004 | 401580 | 7.861 | 0.003 | 532147 | 44.0790 | 43.1574 | 2.1 | 4,4'-DDT A BMN |
| 7.565 | 0.004 | 1166369 | 8.490 | 0.002 | 1245025 | 225.5549 | 197.7534 | 13.1 | Methoxychlor A BM |
| 8.059 | 0.003 | 828130 | 8.783 | 0.002 | 772654 | 46.9236 | 36.7786 | 24.2 | Endrin ketone A B |
| 7.399 | 0.003 | 594461 | 8.000 | 0.001 | 706440 | 44.0014 | 36.0801 | 19.8 | Endrin aldehyde A B |
| 6.144 | 0.002 | 430395 | 6.748 | 0.002 | 566513 | 21.2108 | 18.9932 | 11.0 | gamma-Chlordane A B |
| 6.264 | 0.002 | 416242 | 6.884 | 0.002 | 554289 | 19.8967 | 18.5166 | 7.2 | alpha-Chlordane A B |
| 1.729 | 0.001 | 638094 | 2.037 | 0.000 | 899159 | 16.9154 | 16.7096 | 1.2 | Hexachlorobutadiene A B |
| 4.288 | 0.001 | 337658 | 4.792 | 0.001 | 538811 | 15.5778 | 16.5831 | 6.3 | Hexachlorobenzene A B |
| 9.139 | 0.001 | 1519532 | 10.436 | 0.002 | 1824435 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A BM |
| 3.897 | 0.000 | 550547 | 4.299 | 0.000 | 1385564 | 31.4540 | 33.8554 | 7.4 | Tetrachloro-m-xylene A B |
| 8.983 | 0.003 | 822950 | 9.925 | 0.004 | 1016381 | 32.0534 | 33.1424 | 3.3 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 78.6 | 84.6 | 78.6~ | 85-115 |
| Decachlorobiphenyl | 80.1 | 82.9 | 80.1~ | 85-115 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

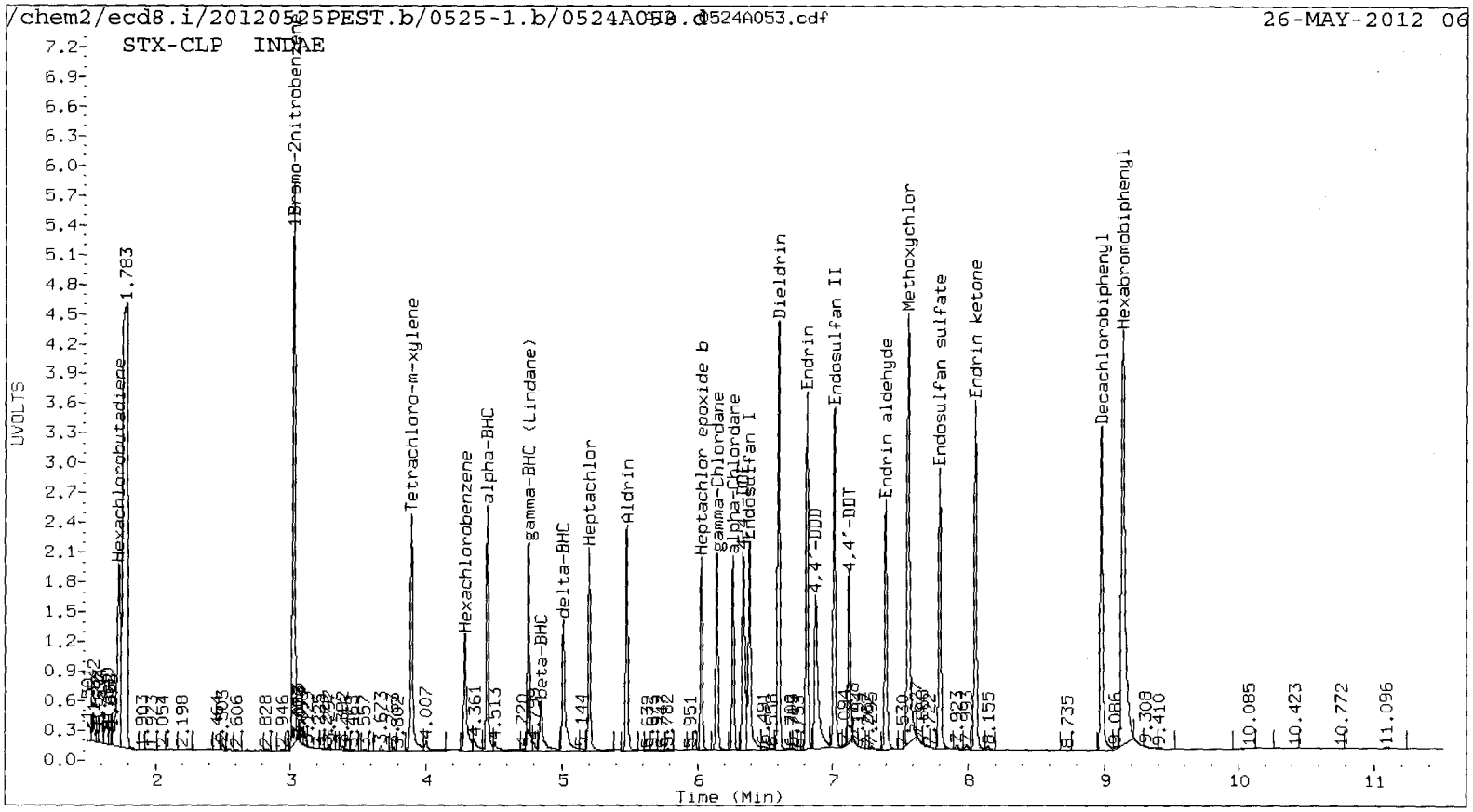
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 1236508 | 47.8 |
| Hexabromobiphenyl | 1091107 | 1519532 | 39.3 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1702782 | 36.4 |
| Hexabromobiphenyl | 1339634 | 1824435 | 36.2 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | STX-CLP Col Peak# | RT | Shift | Height | Amount | CLP2 Col Peak# | RT | Shift | Height | Amount |
|---|---|---|---|---|---|---|---|---|---|---|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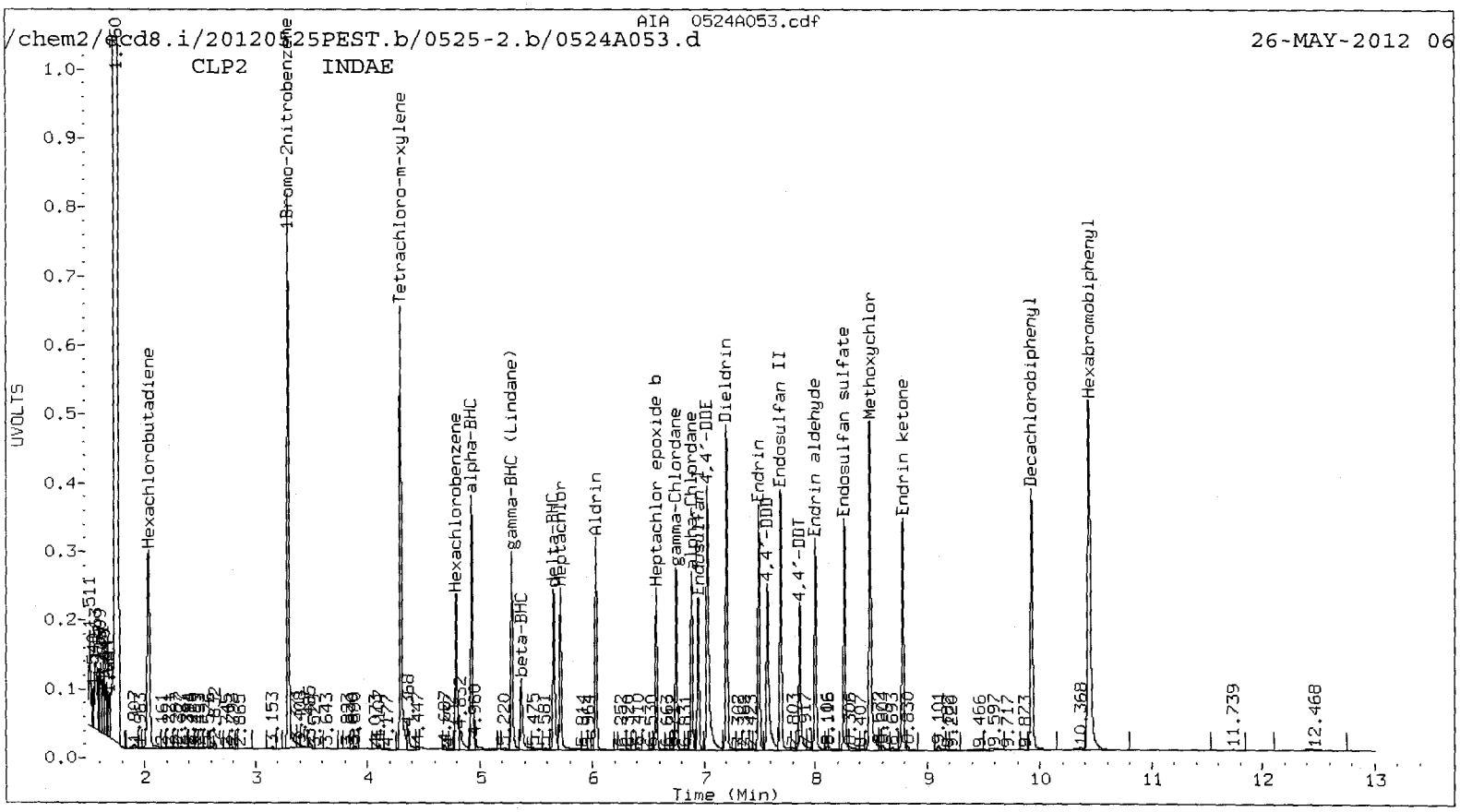
26-MAY-2012 06
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1.783
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDD
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0524A053.cdf
26-MAY-2012 06
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

AR 5/29/12

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A059.d ARI ID: UU52CMS
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A059.d Client ID: MS002-SS-120515 MS
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 07:53
Compound Sublist: wpest Report Date: 05/29/2012 12:32
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 100.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.031 | 0.001 | 1542820 | 3.297 | 0.001 | 1933553 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.454 | 0.001 | 24328 | 4.932 | 0.003 | 19165 | 0.8212 | 0.4763 | 53.2* | alpha-BHC A B |
| 4.867 | 0.021 | 196618 | 5.366 | -0.001 | 5052 | 17.2407 | 0.3011 | 193.1* | beta-BHC A B |
| 5.024 | 0.013 | 28930 | 5.647 | -0.006 | 21618 | 1.2283 | 0.7282 | 51.1* | delta-BHC A B |
| 4.757 | 0.002 | 14563 | 5.268 | -0.014 | 51343 | 0.6048 | 1.5275 | 86.6* | gamma-BHC (Lindane) A B |
| 5.206 | 0.004 | 15748 | 5.717 | 0.003 | 8619 | 0.6631 | 0.2817 | 80.7* | Heptachlor A B |
| 5.480 | 0.003 | 4644 | 6.014 | -0.015 | 42939 | 0.1644 | 1.1369 | 149.5* | Aldrin A B |
| 6.034 | 0.006 | 14905 | 6.569 | 0.002 | 14407 | 0.5892 | 0.4576 | 25.1 | Heptachlor epoxide b A B |
| 6.396 | 0.012 | 11632 | 6.949 | 0.007 | 14731 | 0.2919 | 0.4815 | 49.0* | Endosulfan I A B |
| 6.605 | 0.003 | 11139 | 7.202 | 0.003 | 16180 | 0.4120 | 0.4974 | 18.8 | Dieldrin A B |
| 6.336 | 0.000 | 13791 | 7.025 | 0.001 | 15925 | 0.6496 | 0.4437 | 37.7 | 4,4'-DDE A B |
| 6.818 | 0.006 | 5352 | 7.495 | 0.005 | 14622 | 0.2793 | 0.5701 | 68.5* | Endrin A B |
| 7.019 | 0.004 | 8183 | 7.690 | 0.004 | 21201 | 0.4152 | 0.7760 | 60.6* | Endosulfan II A B |
| 6.874 | 0.000 | 25015 | 7.565 | 0.001 | 15854 | 1.6034 | 0.6795 | 80.9* | 4,4'-DDD A B |
| 7.801 | 0.006 | 11603 | 8.256 | -0.002 | 16202 | 0.7042 | 0.7059 | 0.2 | Endosulfan sulfate A B |
| 7.128 | 0.004 | 13890 | 7.865 | 0.007 | 24748 | 1.3133 | 1.7008 | 25.7 | 4,4'-DDT A B |
| 7.562 | 0.002 | 30292 | 8.490 | 0.002 | 13419 | 5.0459 | 1.8062 | 94.6* | Methoxychlor A B |
| 8.065 | 0.009 | 23664 | 8.786 | 0.006 | 15606 | 1.1550 | 0.6295 | 58.9* | Endrin ketone A B |
| 7.396 | 0.000 | 25449 | 8.001 | 0.002 | 5506 | 1.6226 | 0.2383 | 148.8* | Endrin aldehyde A B |
| 6.144 | 0.002 | 12498 | 6.768 | 0.022 | 17228 | 0.4937 | 0.5087 | 3.0 | gamma-Chlordane A B |
| 6.266 | 0.005 | 5333 | 6.885 | 0.003 | 9787 | 0.2043 | 0.2879 | 34.0 | alpha-Chlordane A B |
| 1.729 | 0.001 | 22169 | 2.038 | 0.001 | 7787 | 0.4710 | 0.1275 | 114.8* | Hexachlorobutadiene A B |
| 4.287 | 0.000 | 17114 | 4.793 | 0.002 | 17740 | 0.6328 | 0.4808 | 27.3 | Hexachlorobenzene A B |
| 5.940 | 0.001 | 5620 | 6.470 | -0.012 | 54714 | 0.3163 | 2.2006 | 149.7* | Oxychlordane A B |
| 5.988 | -0.039 | 4251 | 6.730 | -0.006 | 7254 | 0.3031 | 0.3395 | 11.3 | 2,4-DDE A B |
| 6.214 | -0.036 | 76441 | 6.822 | -0.010 | 46505 | 3.7977 | 1.4692 | 88.4* | trans-Nonachlor A B |
| 6.481 | -0.011 | 6536 | 7.242 | 0.027 | 14806 | 0.6526 | 0.8924 | 31.0 | 2,4-DDD A B |
| 6.692 | -0.026 | 4299 | 7.527 | 0.025 | 11755 | 0.4269 | 0.8037 | 61.2* | 2,4-DDT A B |
| 6.842 | -0.002 | 7284 | 7.600 | 0.043 | 4344 | 0.3174 | 0.1266 | 85.9* | cis-Nonachlor A B |
| 7.694 | -0.015 | 15171 | 8.761 | 0.002 | 6656 | 1.1138 | 0.3009 | 114.9* | Mirex A B |
| 9.133 | -0.005 | 1764083 | 10.433 | -0.001 | 2152932 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 1.768 | -0.001 | 24953 | 1.760 | 0.008 | 5888346 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.898 | 0.002 | 24169 | 4.302 | 0.003 | 17453 | 1.1067 | 0.3756 | 98.7* | Tetrachloro-m-xylene A B |
| 8.985 | 0.005 | 15979 | 9.929 | 0.008 | 14020 | 0.5361 | 0.3874 | 32.2 | Decachlorobiphenyl A B |

CD

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 2.8 | 0.9 | 0.9~ | 29-110 |
| Decachlorobiphenyl | 1.3 | 1.0 | 1.0~ | 18-151 |
| 4,4'-DDE | 0.0 | 0.0 | 0.0~ | 0- 0 |
| Endrin | 1396286.9 | 2850637.8 | 1396286.9~ | 10-200 |
| 4,4'-DDD | 0.0 | 0.0 | 0.0~ | 0- 0 |
| 4,4'-DDT | 6566328.6 | 8504164.1 | 6566328.6~ | 0- 0 |
| Endrin ketone | 0.0 | 0.0 | 0.0~ | 0- 0 |
| Endrin aldehyde | 0.0 | 0.0 | 0.0~ | 0- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 1542820 | 84.5 |
| Hexabromobiphenyl | 1091107 | 1764083 | 61.7 |

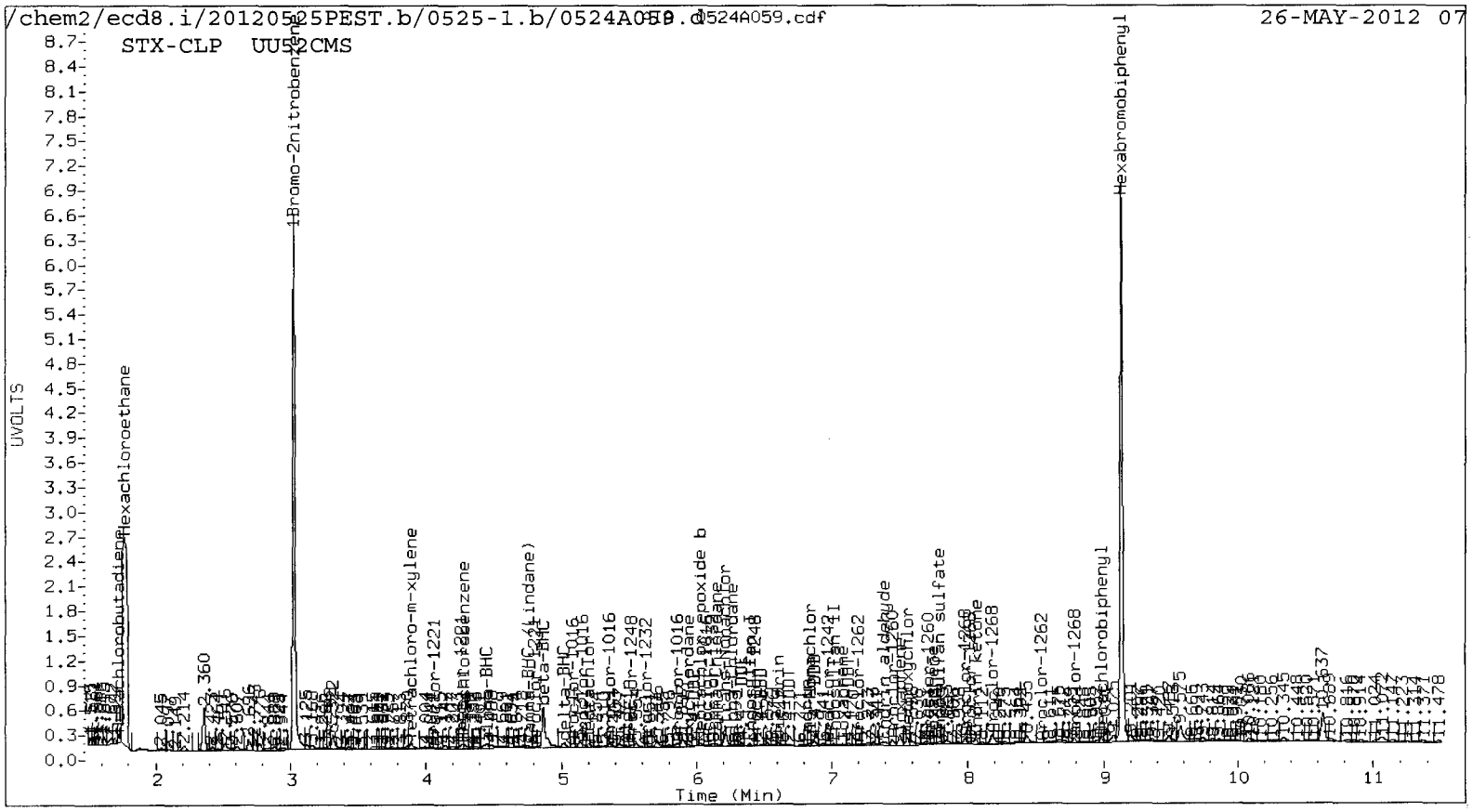
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1933553 | 54.9 |
| Hexabromobiphenyl | 1339634 | 2152932 | 60.7 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 7.086 | 0.018 | 14666 | 16.556 | 1 | 7.752 | -0.007 | 6396 | 5.046 |
| Toxaphene | 2 | 7.128 | 0.009 | 13890 | 22.481 | 2 | 8.001 | 0.000 | 5506 | 3.937 |
| Toxaphene | 3 | 7.510 | -0.013 | 43096 | 76.986 | 3 | 8.256 | 0.002 | 16202 | 26.948 |
| Toxaphene | 4 | 7.694 | -0.010 | 15171 | 16.282 | 4 | 8.490 | -0.006 | 13419 | 11.401 |
| Toxaphene | 5 | 7.752 | 0.001 | 5102 | 7.016 | 5 | 9.030 | -0.009 | 5864 | 12.922 |
| Toxaphene | 6 | 8.021 | -0.016 | 6680 | 12.672 | NS | --- | | | ---- |
| Total STX-CLPAve (6 peaks): 25.332 | | | | | | Total CLP2Ave (5 peaks): 12.051 | | | | RPD = 71* |
| Corrected Ave (5 peaks): 15.001 | | | | | | Corrected Ave (4 peaks): 8.326 | | | | RPD = 57* |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1248 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1248 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1248 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1248 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1254 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1254 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1254 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1254 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1260 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1260 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1260 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1260 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1262 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1262 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1262 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1262 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1268 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1268 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1268 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1268 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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26-MAY-2012 07
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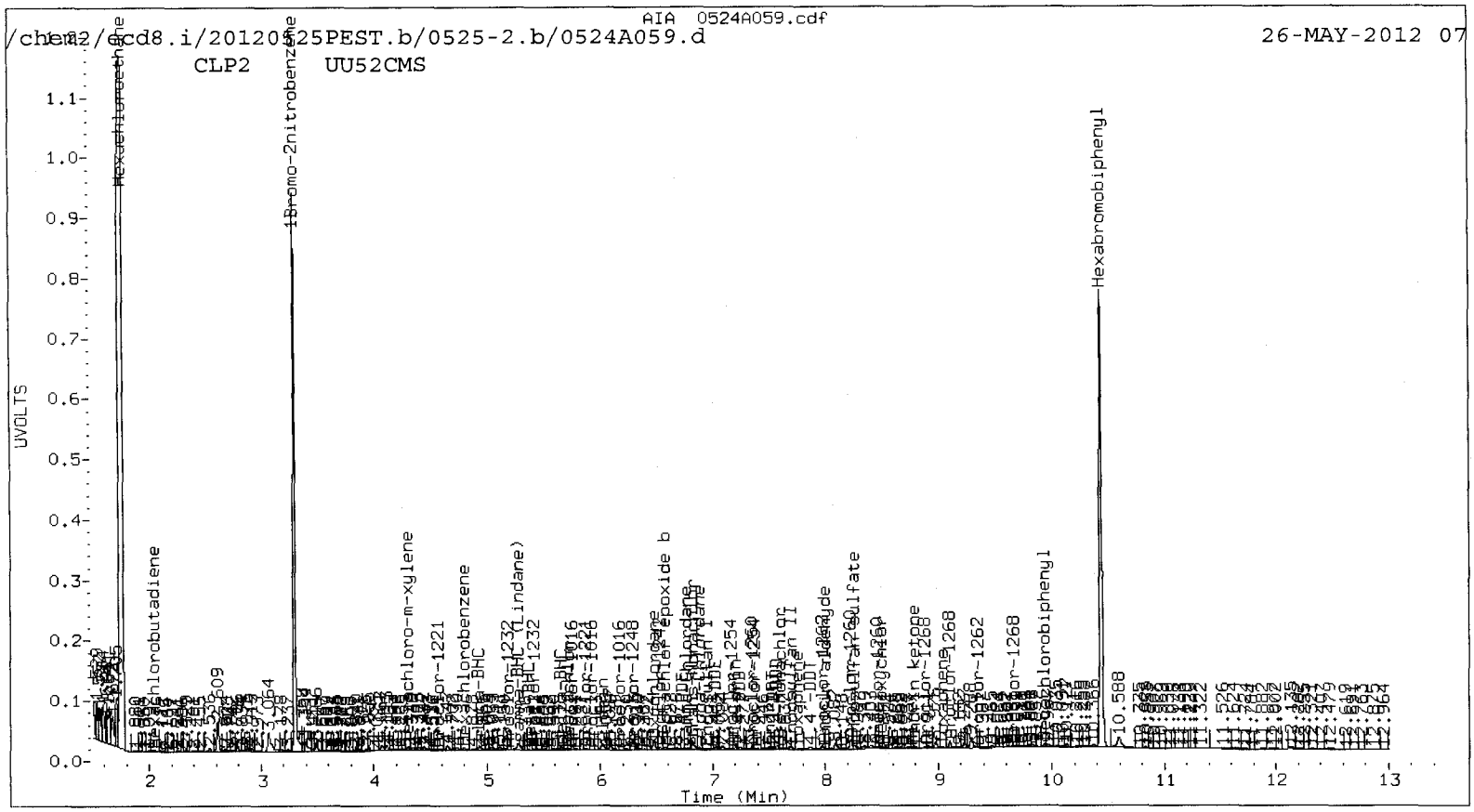
UVOLTS
Time (Min)
Hexachlorobutadiene
Hexachloroethane
1Bromo-2nitrobenzene
Hexabromobiphenyl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26-MAY-2012 07
CLP2 UU52CMS
UVOLTS
Time (Min)
Hexachlorobutadiene
Hexachloroethane
1Bromo-2nitrobenzene
Hexabromobiphenyl
10.588

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A060.d ARI ID: UU52CMSD
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A060.d Client ID: MS002-SS-120515 MSD
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 08:12
Compound Sublist: wpest Report Date: 05/29/2012 12:32
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 100.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.032 | 0.002 | 1496969 | 3.299 | 0.002 | 1900593 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.454 | 0.001 | 13409 | 4.932 | 0.003 | 17838 | 0.4665 | 0.4510 | 3.4 | alpha-BHC A B |
| 4.868 | 0.022 | 139572 | 5.366 | 0.000 | 4422 | 12.6134 | 0.2681 | 191.7* | beta-BHC A B |
| 5.024 | 0.013 | 18303 | 5.648 | -0.005 | 14451 | 0.8009 | 0.4952 | 47.2* | delta-BHC A B |
| 4.758 | 0.002 | 9106 | 5.284 | 0.001 | 20196 | 0.3897 | 0.6113 | 44.3* | gamma-BHC (Lindane) A B |
| 5.206 | 0.004 | 11307 | 5.718 | 0.004 | 4410 | 0.4907 | 0.1467 | 108.0* | Heptachlor A B |
| 5.481 | 0.004 | 3384 | 6.015 | -0.014 | 34398 | 0.1235 | 0.9265 | 153.0* | Aldrin A B |
| 6.034 | 0.006 | 12044 | 6.571 | 0.004 | 14031 | 0.4907 | 0.4534 | 7.9 | Heptachlor epoxide b A B |
| 6.396 | 0.011 | 10119 | 6.949 | 0.007 | 13464 | 0.2617 | 0.4478 | 52.4* | Endosulfan I A B |
| 6.605 | 0.004 | 9915 | 7.204 | 0.005 | 15104 | 0.3779 | 0.4724 | 22.2 | Dieldrin A B |
| 6.336 | 0.000 | 11166 | 7.026 | 0.003 | 14316 | 0.5421 | 0.4058 | 28.8 | 4,4'-DDE A B |
| 6.818 | 0.006 | 4569 | 7.495 | 0.006 | 13323 | 0.2405 | 0.5251 | 74.3* | Endrin A B |
| 7.020 | 0.005 | 6512 | 7.691 | 0.005 | 19269 | 0.3334 | 0.7129 | 72.5* | Endosulfan II A B |
| 6.874 | 0.000 | 21599 | 7.566 | 0.002 | 14969 | 1.3966 | 0.6485 | 73.2* | 4,4'-DDD A B |
| 7.801 | 0.006 | 5186 | 8.258 | -0.001 | 14734 | 0.3175 | 0.6488 | 68.6* | Endosulfan sulfate A B |
| 7.128 | 0.005 | 8980 | 7.868 | 0.010 | 22754 | 0.8565 | 1.5807 | 59.4* | 4,4'-DDT A B |
| 7.564 | 0.003 | 14286 | 8.490 | 0.003 | 11751 | 2.4006 | 1.5988 | 40.1* | Methoxychlor A B |
| 8.066 | 0.009 | 15235 | 8.786 | 0.006 | 13467 | 0.7502 | 0.5491 | 30.9 | Endrin ketone A B |
| 7.396 | 0.000 | 13400 | 8.001 | 0.003 | 4754 | 0.8619 | 0.2080 | 122.2* | Endrin aldehyde A B |
| 6.146 | 0.003 | 11922 | 6.753 | 0.007 | 4719 | 0.4853 | 0.1417 | 109.6* | gamma-Chlordane A B |
| 6.266 | 0.004 | 4903 | 6.886 | 0.004 | 9529 | 0.1936 | 0.2852 | 38.3 | alpha-Chlordane A B |
| 1.698 | -0.030 | 10435 | 2.039 | 0.002 | 6677 | 0.2285 | 0.1112 | 69.1* | Hexachlorobutadiene A B |
| 4.288 | 0.001 | 12529 | 4.794 | 0.003 | 13847 | 0.4775 | 0.3818 | 22.3 | Hexachlorobenzene A B |
| 5.941 | 0.002 | 4226 | 6.473 | -0.009 | 44539 | 0.2399 | 1.8225 | 153.5* | Oxychlordane A B |
| 5.986 | -0.041 | 2456 | 6.732 | -0.004 | 6735 | 0.1766 | 0.3207 | 57.9* | 2,4-DDE A B |
| 6.215 | -0.035 | 59742 | 6.823 | -0.009 | 38762 | 2.9942 | 1.2378 | 83.0* | trans-Nonachlor A B |
| 6.481 | -0.010 | 5279 | 7.243 | 0.028 | 15347 | 0.5317 | 0.9351 | 55.0* | 2,4-DDD A B |
| 6.690 | -0.028 | 3664 | 7.529 | 0.026 | 9627 | 0.3670 | 0.6653 | 57.8* | 2,4-DDT A B |
| 6.843 | -0.001 | 6030 | 7.602 | 0.045 | 4929 | 0.2651 | 0.1452 | 58.4* | cis-Nonachlor A B |
| 7.696 | -0.013 | 5741 | 8.762 | 0.002 | 6469 | 0.4252 | 0.2956 | 36.0 | Mirex A B |
| 9.134 | -0.005 | 1748676 | 10.432 | -0.001 | 2129930 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 1.768 | -0.001 | 7337 | 1.759 | 0.007 | 1867269 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.899 | 0.002 | 16058 | 4.302 | 0.004 | 16543 | 0.7578 | 0.3621 | 70.7* | Tetrachloro-m-xylene A B |
| 8.985 | 0.005 | 12041 | 9.928 | 0.007 | 13701 | 0.4076 | 0.3827 | 6.3 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 1.9 | 0.9 | 0.9~ | 29-110 |
| Decachlorobiphenyl | 1.0 | 1.0 | 1.0~ | 18-151 |
| 4,4'-DDE | 0.0 | 0.0 | 0.0~ | 0- 0 |
| Endrin | 1202511.9 | 2625350.6 | 1202511.9~ | 10-200 |
| 4,4'-DDD | 0.0 | 0.0 | 0.0~ | 0- 0 |
| 4,4'-DDT | 4282588.7 | 7903577.2 | 4282588.7~ | 0- 0 |
| Endrin ketone | 0.0 | 0.0 | 0.0~ | 0- 0 |
| Endrin aldehyde | 0.0 | 0.0 | 0.0~ | 0- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 1496969 | 79.0 |
| Hexabromobiphenyl | 1091107 | 1748676 | 60.3 |

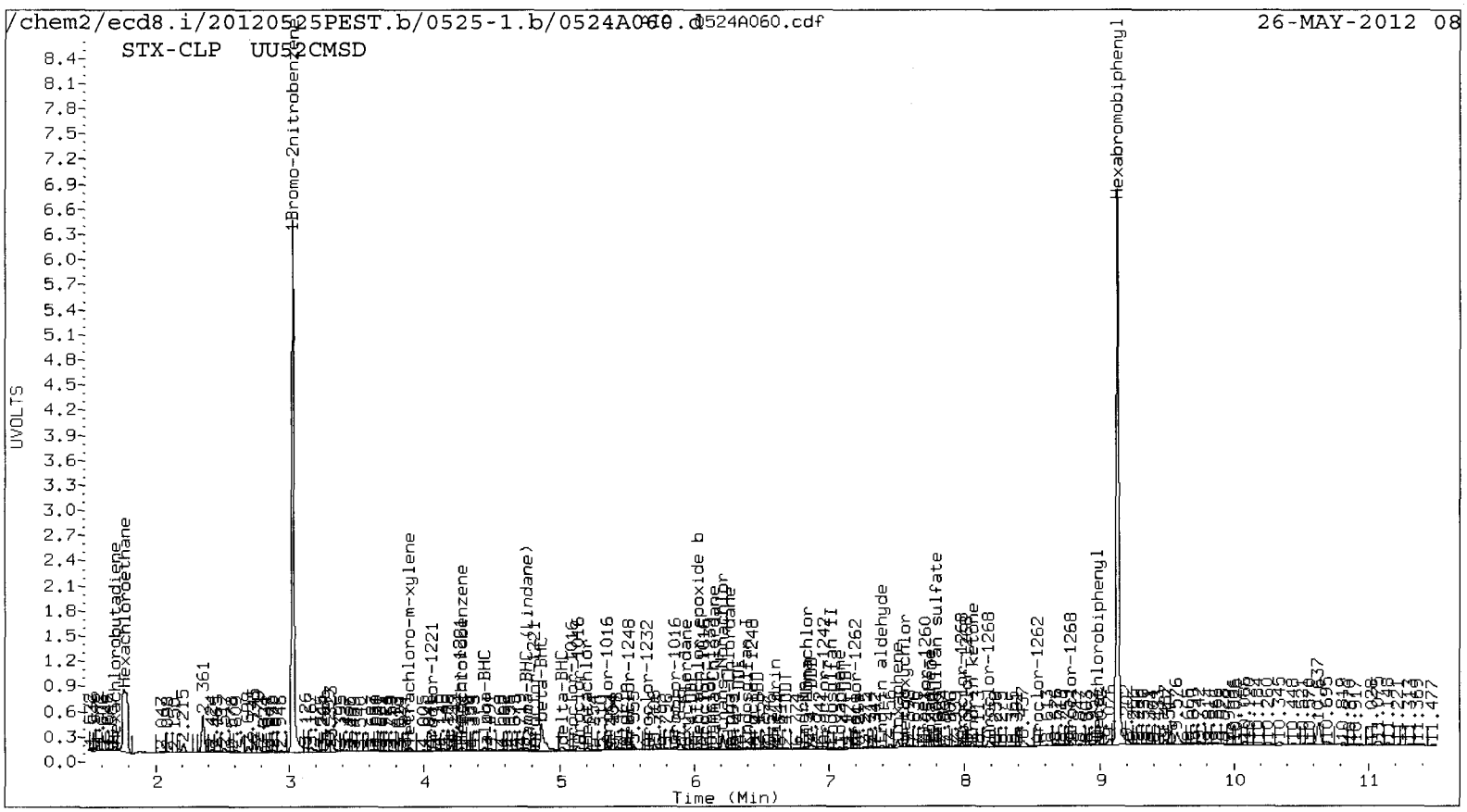
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1900593 | 52.2 |
| Hexabromobiphenyl | 1339634 | 2129930 | 59.0 |

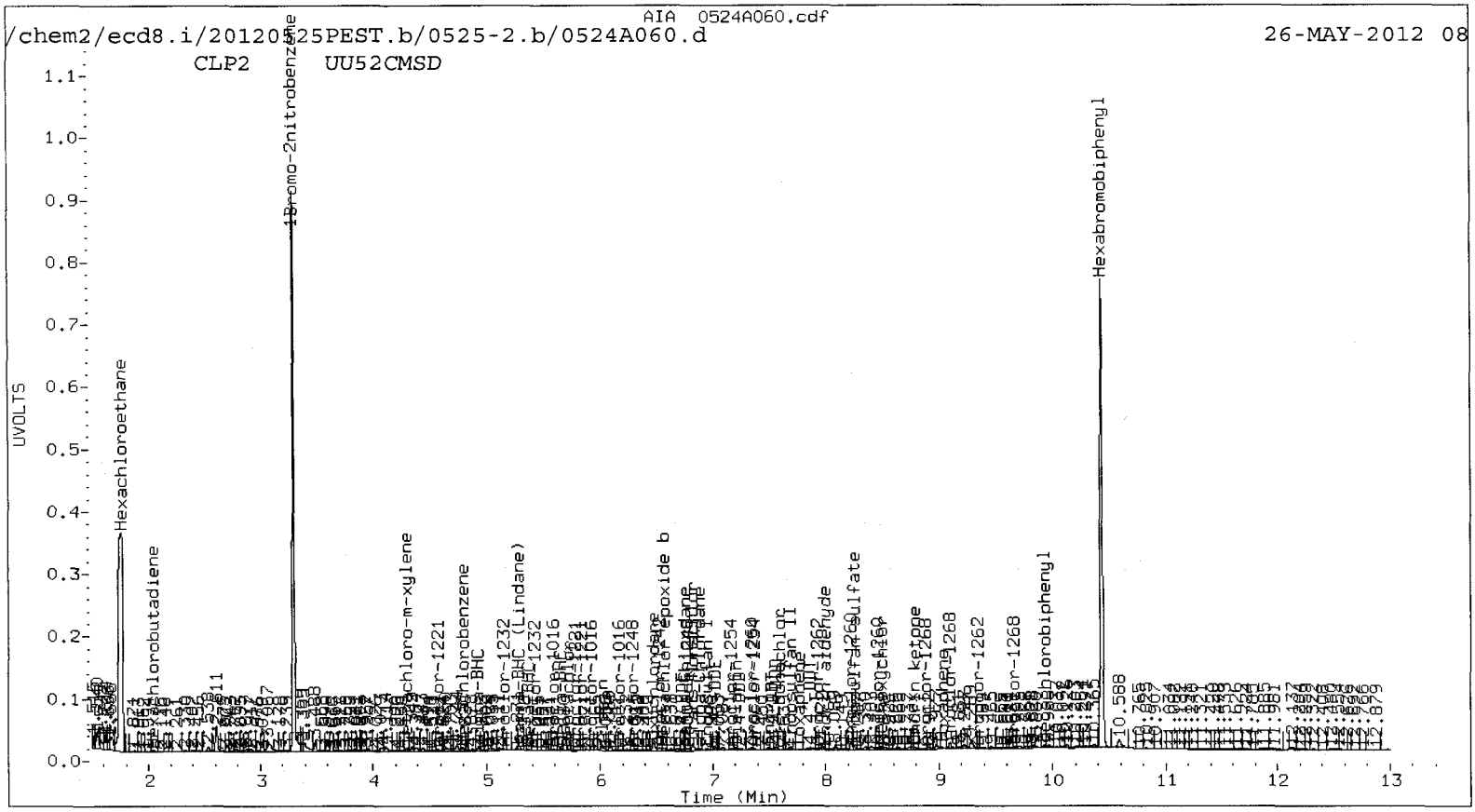
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 7.086 | 0.017 | 10103 | 11.506 | 1 | 7.770 | 0.011 | 5859 | 4.672 |
| Toxaphene | 2 | 7.128 | 0.009 | 8980 | 14.662 | 2 | 8.001 | 0.000 | 4754 | 3.436 |
| Toxaphene | 3 | 7.511 | -0.011 | 29416 | 53.011 | 3 | 8.258 | 0.003 | 14734 | 24.771 |
| Toxaphene | 4 | 7.696 | -0.008 | 5741 | 6.216 | 4 | 8.490 | -0.006 | 11751 | 10.092 |
| Toxaphene | 5 | 7.752 | 0.002 | 1095 | 1.519 | 5 | 9.031 | -0.008 | 8236 | 18.344 |
| Toxaphene | 6 | 8.021 | -0.017 | 1779 | 3.404 | NS | --- | | | ---- |
| | Total STX-CLPAve (6 peaks): 15.053 | | | | | Total CLP2Ave (5 peaks): 12.263 | | | RPD = 20 | |
| | Corrected Ave (5 peaks): 7.461 | | | | | Corrected Ave (4 peaks): 9.136 | | | RPD = 20 | |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1248 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1248 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1248 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1248 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1254 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1254 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1254 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1254 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1260 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1260 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1260 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1260 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1262 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1262 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1262 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1262 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1268 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1268 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1268 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1268 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |




AIA 0524A060.cdf



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A056.d ARI ID: UU52A
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A056.d Client ID: MS001-SS-120515
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 06:56
Compound Sublist: wpest Report Date: 05/29/2012 12:32
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 100.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.031 | 0.001 | 1465559 | 3.297 | 0.001 | 1800758 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.449 | -0.004 | 25123 | 4.930 | 0.001 | 27995 | 0.8927 | 0.7470 | 17.8 | alpha-BHC A B |
| 4.866 | 0.019 | 244397 | 5.362 | -0.004 | 10517 | 22.5600 | 0.6730 | 188.4* | beta-BHC A B |
| 5.025 | 0.014 | 21304 | 5.643 | -0.009 | 17725 | 0.9522 | 0.6411 | 39.1 | delta-BHC A B |
| 4.718 | -0.037 | 27957 | 5.267 | -0.016 | 69309 | 1.2222 | 2.2141 | 57.7* | gamma-BHC (Lindane) A B |
| 5.206 | 0.005 | 14478 | 5.747 | 0.034 | 3431 | 0.6418 | 0.1204 | 136.8* | Heptachlor A B |
| 5.516 | 0.039 | 13019 | 6.012 | -0.017 | 44129 | 0.4852 | 1.2546 | 88.4* | Aldrin A B |
| 6.035 | 0.007 | 15771 | 6.561 | -0.006 | 13204 | 0.6564 | 0.4503 | 37.2 | Heptachlor epoxide b A B |
| 6.396 | 0.012 | 14302 | 6.956 | 0.014 | 11316 | 0.3779 | 0.3972 | 5.0 | Endosulfan I A B |
| 6.576 | -0.025 | 14648 | 7.197 | -0.002 | 9581 | 0.5703 | 0.3163 | 57.3* | Dieldrin A B |
| 6.332 | -0.004 | 12675 | 7.024 | 0.000 | 8944 | 0.6285 | 0.2676 | 80.6* | 4,4'-DDE A B |
| 6.770 | -0.042 | 11147 | 7.468 | -0.021 | 2335 | 0.6276 | 0.0961 | 146.9* | Endrin A B |
| 6.971 | -0.044 | 12353 | 7.691 | 0.005 | 23297 | 0.6763 | 0.9000 | 28.4 | Endosulfan II A B |
| 6.871 | -0.003 | 27713 | 7.564 | -0.001 | 15010 | 1.9166 | 0.6790 | 95.4* | 4,4'-DDD A B |
| 7.772 | -0.024 | 3623 | 8.250 | -0.009 | 16389 | 0.2372 | 0.7536 | 104.2* | Endosulfan sulfate A B |
| 7.138 | 0.014 | 10641 | 7.867 | 0.009 | 17850 | 1.0856 | 1.2948 | 17.6 | 4,4'-DDT A B |
| 7.557 | -0.004 | 13999 | 8.484 | -0.004 | 5346 | 2.5161 | 0.7596 | 107.2* | Methoxychlor A B |
| 8.066 | 0.009 | 19193 | 8.798 | 0.018 | 10843 | 1.0108 | 0.4616 | 74.6* | Endrin ketone A B |
| 7.390 | -0.006 | 18934 | 7.969 | -0.030 | 26149 | 1.3026 | 1.1945 | 8.7 | Endrin aldehyde A B |
| 6.154 | 0.012 | 9800 | 6.767 | 0.021 | 15830 | 0.4075 | 0.5019 | 20.8 | gamma-Chlordane A B |
| 6.291 | 0.029 | 8194 | 6.919 | 0.038 | 5574 | 0.3305 | 0.1761 | 61.0* | alpha-Chlordane A B |
| 1.726 | -0.002 | 13085 | 1.995 | -0.042 | 4696 | 0.2927 | 0.0825 | 112.0* | Hexachlorobutadiene A B |
| 4.272 | -0.015 | 26433 | 4.788 | -0.003 | 15840 | 1.0289 | 0.4610 | 76.2* | Hexachlorobenzene A B |
| 5.895 | -0.044 | 49303 | 6.469 | -0.013 | 68844 | 2.9938 | 2.9731 | 0.7 | Oxychlordane A B |
| 5.985 | -0.042 | 4802 | 6.727 | -0.009 | 10255 | 0.3694 | 0.5154 | 33.0 | 2,4-DDE A B |
| 6.212 | -0.037 | 103927 | 6.820 | -0.012 | 68044 | 5.5711 | 2.2689 | 84.2* | trans-Nonachlor A B |
| 6.479 | -0.012 | 8318 | 7.239 | 0.024 | 21721 | 0.8961 | 1.3819 | 42.6* | 2,4-DDD A B |
| 6.687 | -0.031 | 4131 | 7.525 | 0.022 | 21594 | 0.4426 | 1.5583 | 111.5* | 2,4-DDT A B |
| 6.841 | -0.004 | 7620 | 7.598 | 0.041 | 6075 | 0.3583 | 0.1869 | 62.9* | cis-Nonachlor A B |
| 7.693 | -0.016 | 19977 | 8.763 | 0.003 | 12438 | 1.5824 | 0.5934 | 90.9* | Mirex A B |
| 9.132 | -0.006 | 1634931 | 10.431 | -0.002 | 2039779 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 1.767 | -0.001 | 8073 | 1.760 | 0.008 | 1964937 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.898 | 0.002 | 32485 | 4.301 | 0.002 | 22887 | 1.5659 | 0.5288 | 99.0* | Tetrachloro-m-xylene A B |
| 8.983 | 0.003 | 21279 | 9.927 | 0.005 | 26886 | 0.7703 | 0.7842 | 1.8 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 3.9 | 1.3 | 1.3~ | 29-110 |
| Decachlorobiphenyl | 1.9 | 2.0 | 1.9~ | 18-151 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 1465559 | 75.2 |
| Hexabromobiphenyl | 1091107 | 1634931 | 49.8 |

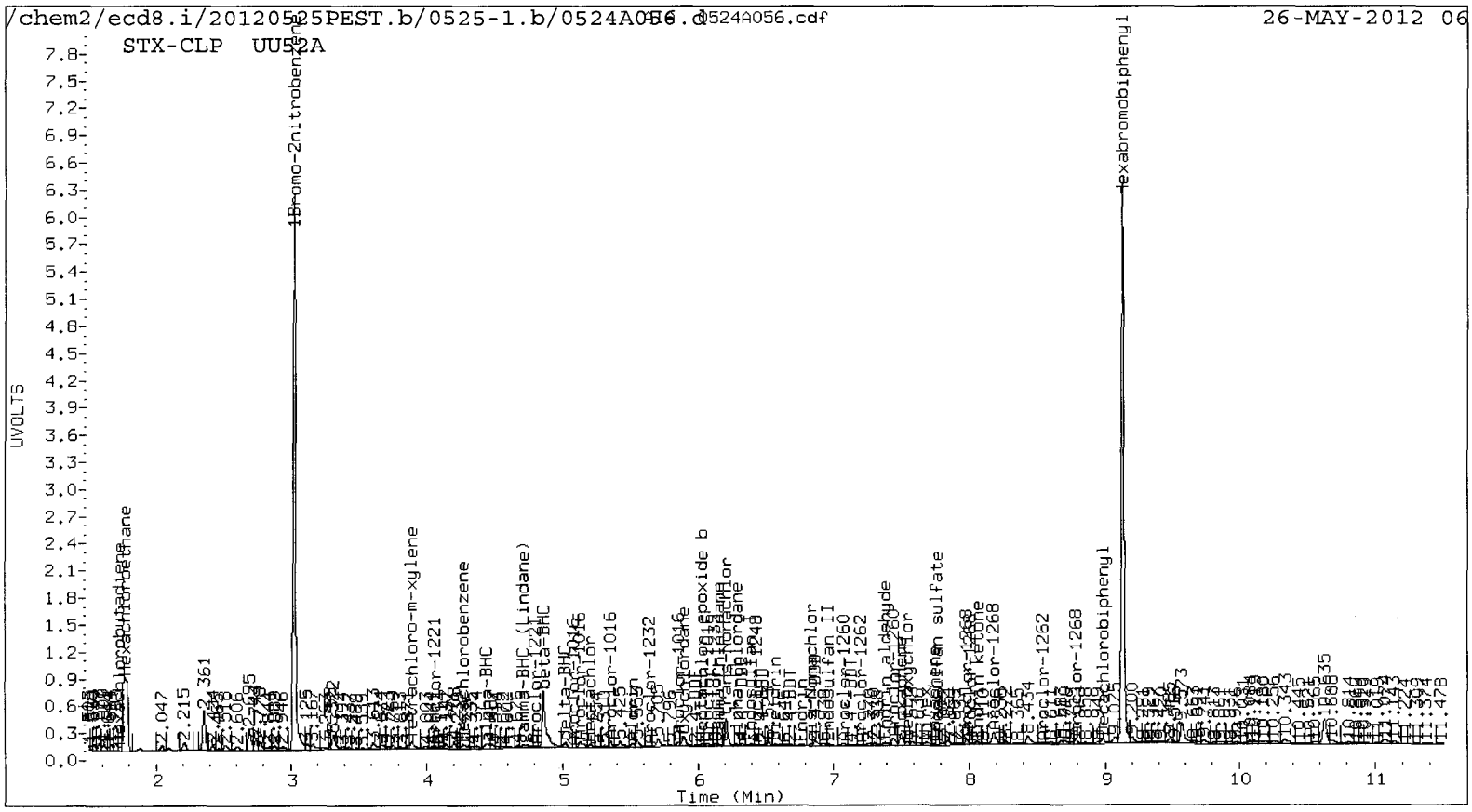
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1800758 | 44.2 |
| Hexabromobiphenyl | 1339634 | 2039779 | 52.3 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 7.082 | 0.013 | 15238 | 18.561 | 1 | 7.768 | 0.009 | 8017 | 6.676 |
| Toxaphene | 2 | 7.138 | 0.019 | 10641 | 18.583 | 2 | 7.969 | -0.032 | 26149 | 19.736 |
| Toxaphene | 3 | 7.509 | -0.014 | 45526 | 87.751 | 3 | 8.250 | -0.005 | 16389 | 28.772 |
| Toxaphene | 4 | 7.693 | -0.012 | 19977 | 23.133 | 4 | 8.484 | -0.012 | 5346 | 4.794 |
| Toxaphene | 5 | 7.748 | -0.002 | 4602 | 6.828 | 5 | 9.028 | -0.011 | 9722 | 22.611 |
| Toxaphene | 6 | 8.017 | -0.021 | 5731 | 11.730 | NS | --- | | | ---- |
| Total STX-CLPAve (6 peaks): 27.764 | | | | | | Total CLP2Ave (5 peaks): 16.518 | | | | RPD = 51* |
| Corrected Ave (5 peaks): 15.767 | | | | | | Corrected Ave (4 peaks): 13.454 | | | | RPD = 16 |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1248 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1248 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1248 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1248 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1254 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1254 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1254 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1254 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1260 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1260 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1260 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1260 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1262 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1262 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1262 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1262 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1268 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1268 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1268 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1268 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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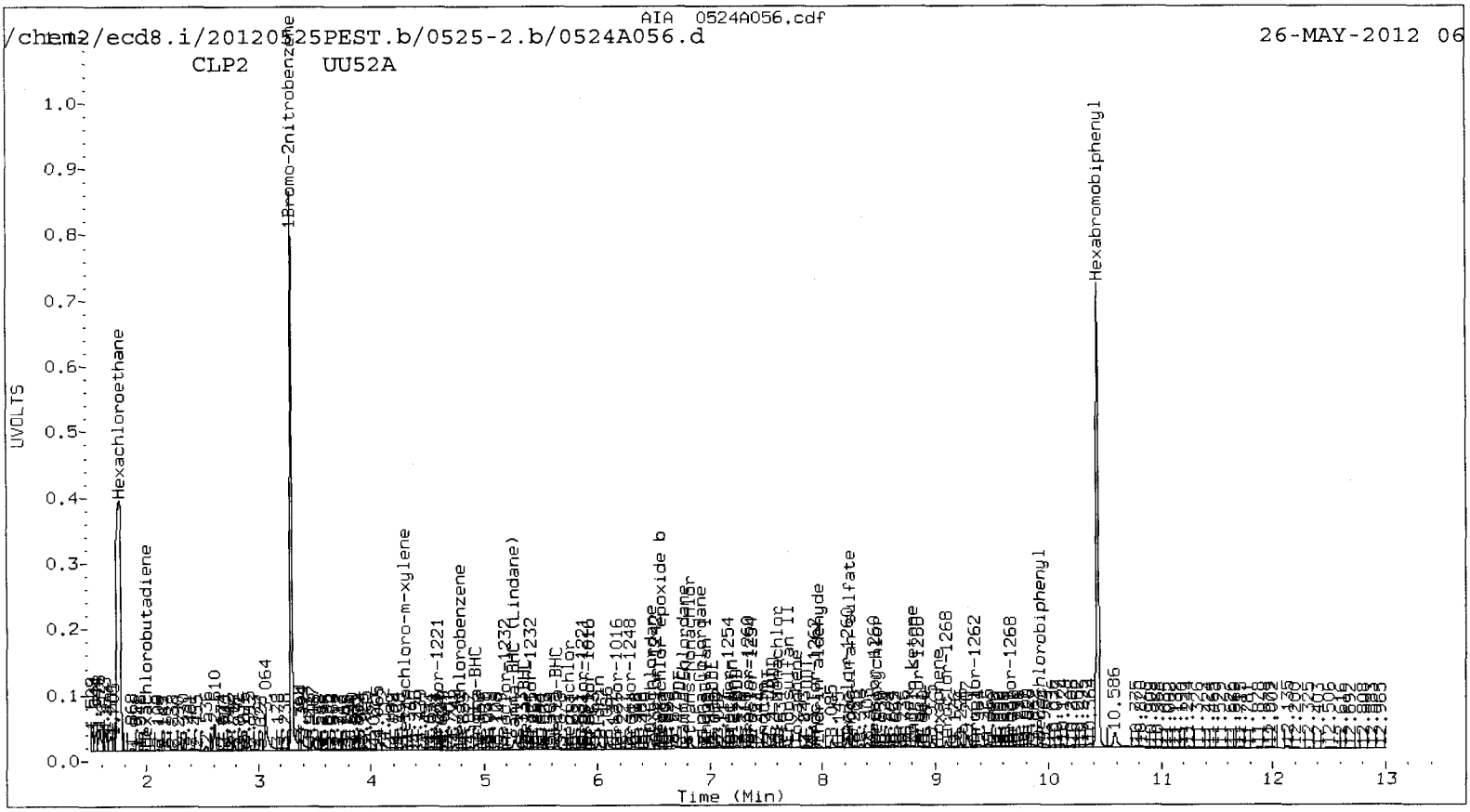
26-MAY-2012 06
STX-CLP UU52A
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
Hexachloro-m-xylene
Hexachlorobenzene
Hexabromobiphenyl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26-MAY-2012 06
CLP2 UU52A
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
Hexachloro-m-xylene
Hexachlorobenzene
Hexabromobiphenyl
10.586

UU52: 0148

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A057.d ARI ID: UU52B
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A057.d Client ID: MS101-SS-120515
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 07:15
Compound Sublist: wpest Report Date: 05/29/2012 12:32
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 100.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.030 | 0.000 | 1509170 | 3.296 | 0.000 | 1864073 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.448 | -0.005 | 22526 | 4.929 | 0.000 | 25225 | 0.7773 | 0.6502 | 17.8 | alpha-BHC A B |
| 4.864 | 0.018 | 166057 | 5.360 | -0.006 | 7268 | 14.8856 | 0.4493 | 188.3* | beta-BHC A B |
| 5.023 | 0.013 | 20157 | 5.641 | -0.011 | 13556 | 0.8749 | 0.4736 | 59.5* | delta-BHC A B |
| 4.740 | -0.016 | 13376 | 5.265 | -0.018 | 55098 | 0.5678 | 1.7003 | 99.9* | gamma-BHC (Lindane) A B |
| 5.204 | 0.003 | 11064 | 5.745 | 0.032 | 798 | 0.4763 | 0.0271 | 178.5* | Heptachlor A B |
| 5.479 | 0.001 | 1666 | 6.010 | -0.018 | 31092 | 0.0603 | 0.8539 | 173.6* | Aldrin A B |
| 6.036 | 0.008 | 15245 | 6.560 | -0.007 | 11854 | 0.6161 | 0.3906 | 44.8* | Heptachlor epoxide b A B |
| 6.395 | 0.010 | 14378 | 6.957 | 0.015 | 9235 | 0.3689 | 0.3131 | 16.3 | Endosulfan I A B |
| 6.595 | -0.006 | 5626 | 7.194 | -0.005 | 8028 | 0.2127 | 0.2560 | 18.5 | Dieldrin A B |
| 6.331 | -0.005 | 12394 | 7.022 | -0.001 | 7562 | 0.5968 | 0.2185 | 92.8* | 4,4'-DDE A B |
| 6.768 | -0.044 | 10404 | 7.466 | -0.023 | 2231 | 0.5582 | 0.0888 | 145.1* | Endrin A B |
| 6.970 | -0.046 | 8961 | 7.689 | 0.003 | 20587 | 0.4675 | 0.7688 | 48.7* | Endosulfan II A B |
| 6.870 | -0.004 | 25992 | 7.562 | -0.003 | 12913 | 1.7130 | 0.5647 | 100.8* | 4,4'-DDD A B |
| 7.772 | -0.024 | 3901 | 8.248 | -0.011 | 12721 | 0.2434 | 0.5654 | 79.6* | Endosulfan sulfate A B |
| 7.138 | 0.015 | 10617 | 7.841 | -0.017 | 10155 | 1.0321 | 0.7121 | 36.7 | 4,4'-DDT A B |
| 7.553 | -0.008 | 14472 | 8.456 | -0.031 | 13484 | 2.4786 | 1.8517 | 29.0 | Methoxychlor A B |
| 8.064 | 0.007 | 19459 | 8.796 | 0.016 | 8931 | 0.9765 | 0.3676 | 90.6* | Endrin ketone A B |
| 7.389 | -0.007 | 15520 | 7.968 | -0.030 | 23641 | 1.0174 | 1.0439 | 2.6 | Endrin aldehyde A B |
| 6.154 | 0.012 | 9393 | 6.767 | 0.021 | 14277 | 0.3793 | 0.4372 | 14.2 | gamma-Chlordane A B |
| 6.289 | 0.028 | 7949 | 6.919 | 0.038 | 5149 | 0.3113 | 0.1571 | 65.8* | alpha-Chlordane A B |
| 1.710 | -0.018 | 44239 | 1.991 | -0.047 | 4768 | 0.9609 | 0.0810 | 168.9* | Hexachlorobutadiene A B |
| 4.270 | -0.018 | 18757 | 4.786 | -0.005 | 14570 | 0.7090 | 0.4096 | 53.5* | Hexachlorobenzene A B |
| 5.936 | -0.003 | 7457 | 6.467 | -0.014 | 61251 | 0.4315 | 2.5554 | 142.2* | Oxychlordane A B |
| 5.981 | -0.046 | 4669 | 6.725 | -0.011 | 8858 | 0.3422 | 0.4301 | 22.8 | 2,4-DDE A B |
| 6.210 | -0.039 | 93923 | 6.818 | -0.013 | 57881 | 4.7977 | 1.8656 | 88.0* | trans-Nonachlor A B |
| 6.478 | -0.014 | 8958 | 7.238 | 0.023 | 16908 | 0.9196 | 1.0398 | 12.3 | 2,4-DDD A B |
| 6.685 | -0.033 | 4869 | 7.526 | 0.023 | 15958 | 0.4972 | 1.1132 | 76.5* | 2,4-DDT A B |
| 6.840 | -0.005 | 7464 | 7.598 | 0.040 | 3923 | 0.3344 | 0.1167 | 96.5* | cis-Nonachlor A B |
| 7.713 | 0.003 | 6801 | 8.760 | 0.001 | 8863 | 0.5134 | 0.4087 | 22.7 | Mirex A B |
| 9.130 | -0.008 | 1715727 | 10.429 | -0.005 | 2110184 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 1.767 | -0.002 | 18474 | 1.760 | 0.008 | 4370158 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.897 | 0.000 | 27348 | 4.300 | 0.001 | 20413 | 1.2802 | 0.4556 | 95.0* | Tetrachloro-m-xylene A B |
| 8.981 | 0.001 | 14441 | 9.925 | 0.004 | 15905 | 0.4982 | 0.4484 | 10.5 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 3.2 | 1.1 | 1.1~ | 29-110 |
| Decachlorobiphenyl | 1.2 | 1.1 | 1.1~ | 18-151 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 1509170 | 80.4 |
| Hexabromobiphenyl | 1091107 | 1715727 | 57.2 |

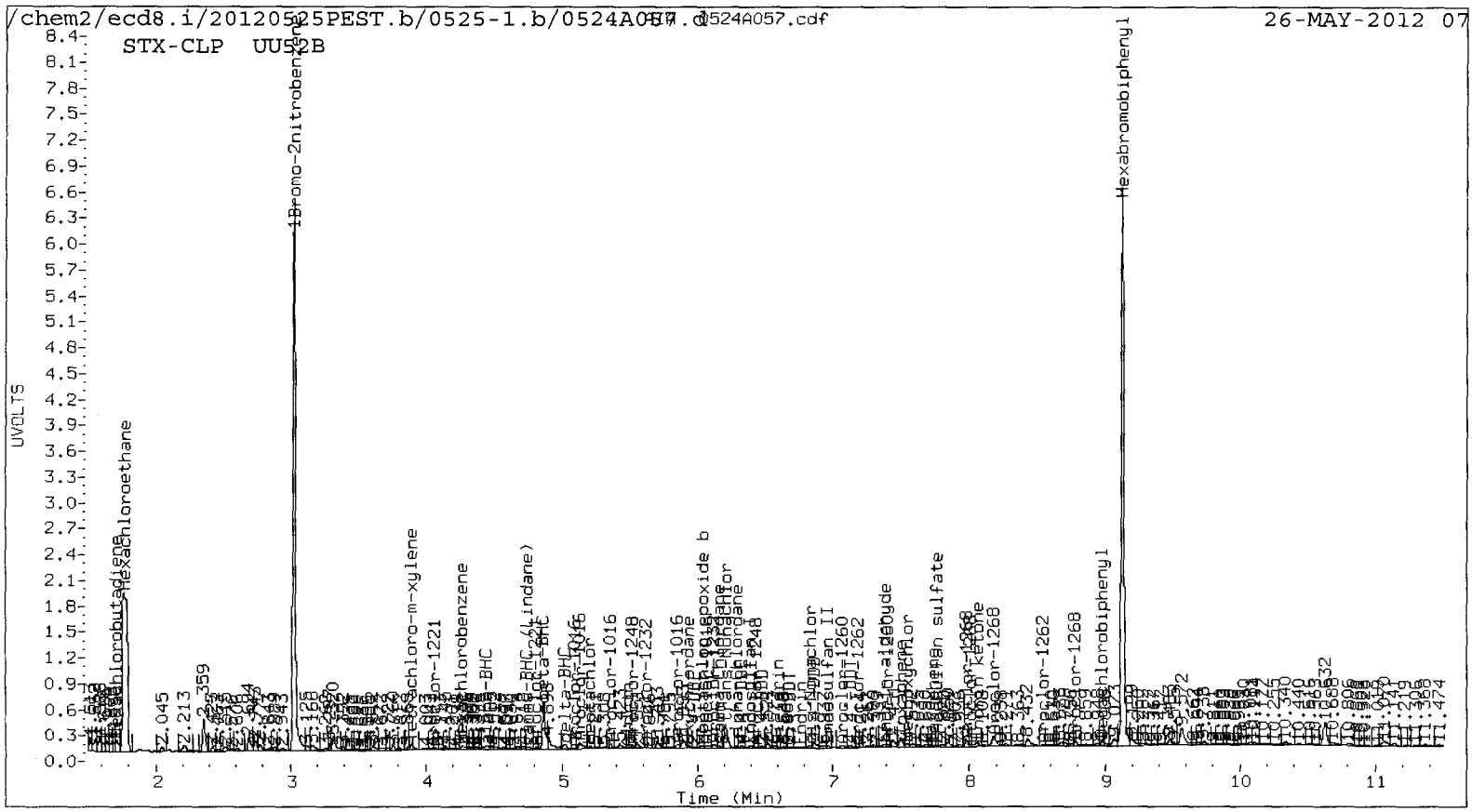
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1864073 | 49.3 |
| Hexabromobiphenyl | 1339634 | 2110184 | 57.5 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 7.080 | 0.012 | 13257 | 15.388 | 1 | 7.766 | 0.006 | 4908 | 3.950 |
| Toxaphene | 2 | 7.138 | 0.019 | 10617 | 17.668 | 2 | 7.968 | -0.033 | 23641 | 17.248 |
| Toxaphene | 3 | 7.507 | -0.016 | 42749 | 78.519 | 3 | 8.248 | -0.006 | 12721 | 21.587 |
| Toxaphene | 4 | 7.713 | 0.008 | 6801 | 7.505 | 4 | 8.528 | 0.032 | 16065 | 13.925 |
| Toxaphene | 5 | 7.746 | -0.004 | 4772 | 6.747 | 5 | 9.027 | -0.013 | 8418 | 18.926 |
| Toxaphene | 6 | 8.016 | -0.022 | 5117 | 9.981 | NS | --- | | | ---- |
| Total STX-CLPAve (6 peaks): 22.635 | | | | | | Total CLP2Ave (5 peaks): 15.127 | | | | RPD = 40 |
| Corrected Ave (5 peaks): 11.458 | | | | | | Corrected Ave (5 peaks): 15.127 | | | | RPD = 28 |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1248 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1248 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1248 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1248 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1254 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1254 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1254 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1254 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1260 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1260 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1260 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1260 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1262 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1262 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1262 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1262 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1268 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1268 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1268 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1268 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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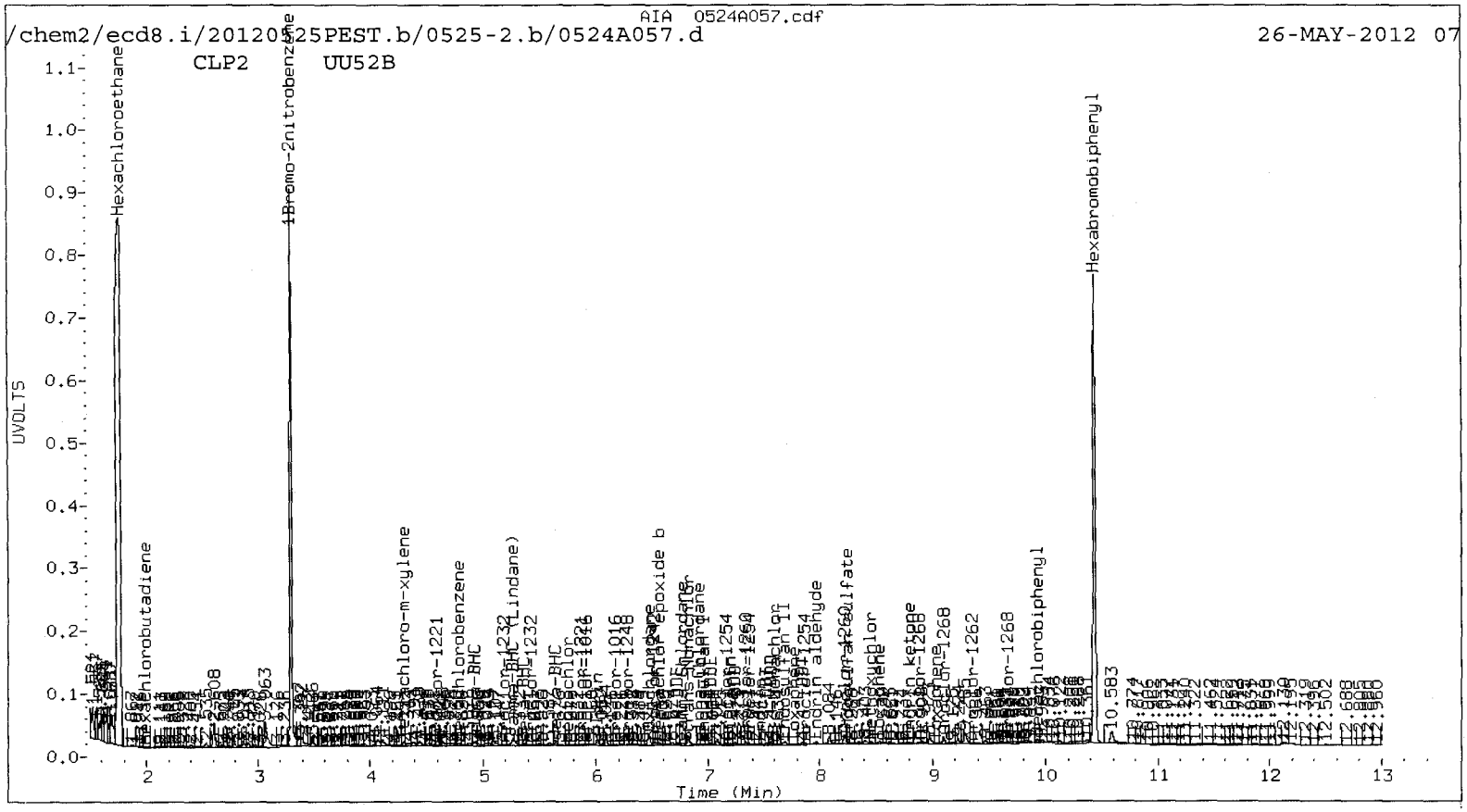
UVOLTS
Time (Min)
Hexachloroethane
Hexachlorobutadiene
1Bromo-2nitrobenzene
Hexabromobiphenyl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26-MAY-2012 07
CLP2 UU52B
UVOLTS
Time (Min)
Hexachloroethane
1Bromo-2nitrobenzene
Hexachlorobutadiene
Hexabromobiphenyl

UU52:01423

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A058.d ARI ID: UU52C
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A058.d Client ID: MS002-SS-120515
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 07:34
Compound Sublist: wpest Report Date: 05/29/2012 12:32
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 100.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.030 | 0.000 | 1537602 | 3.296 | 0.000 | 1918734 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.448 | -0.005 | 15101 | 4.931 | 0.002 | 13696 | 0.5114 | 0.3430 | 39.4 | alpha-BHC A B |
| 4.866 | 0.020 | 113741 | 5.361 | -0.005 | 3470 | 10.0074 | 0.2084 | 191.8* | beta-BHC A B |
| 5.024 | 0.013 | 19706 | 5.643 | -0.010 | 16058 | 0.8395 | 0.5451 | 42.5* | delta-BHC A B |
| 4.744 | -0.011 | 10001 | 5.267 | -0.016 | 39040 | 0.4167 | 1.1705 | 95.0* | gamma-BHC (Lindane) A B |
| 5.206 | 0.005 | 10974 | 5.743 | 0.030 | 1341 | 0.4637 | 0.0442 | 165.2* | Heptachlor A B |
| 5.515 | 0.038 | 8554 | 6.011 | -0.017 | 38805 | 0.3039 | 1.0354 | 109.2* | Aldrin A B |
| 6.036 | 0.008 | 10042 | 6.561 | -0.006 | 8631 | 0.3984 | 0.2763 | 36.2 | Heptachlor epoxide b A B |
| 6.396 | 0.011 | 9462 | 6.953 | 0.011 | 7980 | 0.2383 | 0.2629 | 9.8 | Endosulfan I A B |
| 6.597 | -0.004 | 3834 | 7.196 | -0.003 | 8001 | 0.1423 | 0.2479 | 54.1* | Dieldrin A B |
| 6.332 | -0.004 | 7265 | 7.024 | 0.000 | 6829 | 0.3435 | 0.1917 | 56.7* | 4,4'-DDE A B |
| 6.769 | -0.042 | 8227 | 7.469 | -0.021 | 2923 | 0.4267 | 0.1139 | 115.7* | Endrin A B |
| 6.968 | -0.047 | 10866 | 7.688 | 0.002 | 16616 | 0.5480 | 0.6078 | 10.4 | Endosulfan II A B |
| 6.870 | -0.004 | 19282 | 7.562 | -0.002 | 8912 | 1.2284 | 0.3818 | 105.2* | 4,4'-DDD A B |
| 7.769 | -0.026 | 4086 | 8.285 | 0.026 | 7711 | 0.2465 | 0.3358 | 30.7 | Endosulfan sulfate A B |
| 7.136 | 0.013 | 6502 | 7.842 | -0.016 | 10217 | 0.6110 | 0.7018 | 13.8 | 4,4'-DDT A B |
| 7.557 | -0.003 | 11592 | 8.456 | -0.032 | 11017 | 1.9192 | 1.4822 | 25.7 | Methoxychlor A B |
| 8.035 | -0.021 | 4220 | 8.793 | 0.013 | 4636 | 0.2047 | 0.1869 | 9.1 | Endrin ketone A B |
| 7.389 | -0.007 | 16948 | 7.969 | -0.030 | 22873 | 1.0740 | 0.9894 | 8.2 | Endrin aldehyde A B |
| 6.130 | -0.013 | 16657 | 6.766 | 0.020 | 15904 | 0.6602 | 0.4732 | 33.0 | gamma-Chlordane A B |
| 6.290 | 0.029 | 5559 | 6.877 | -0.005 | 4007 | 0.2137 | 0.1188 | 57.1* | alpha-Chlordane A B |
| 1.698 | -0.030 | 27908 | 1.996 | -0.041 | 3338 | 0.5950 | 0.0551 | 166.1* | Hexachlorobutadiene A B |
| 4.271 | -0.016 | 22076 | 4.782 | -0.009 | 10235 | 0.8190 | 0.2796 | 98.2* | Hexachlorobenzene A B |
| 5.938 | -0.001 | 5093 | 6.469 | -0.013 | 46912 | 0.2849 | 1.9014 | 147.9* | Oxychlordane A B |
| 5.984 | -0.043 | 3340 | 6.728 | -0.008 | 7920 | 0.2367 | 0.3736 | 44.9* | 2,4-DDE A B |
| 6.211 | -0.038 | 65756 | 6.819 | -0.012 | 42748 | 3.2470 | 1.3498 | 82.5* | trans-Nonachlor A B |
| 6.478 | -0.013 | 6313 | 7.239 | 0.024 | 15521 | 0.6265 | 0.9351 | 39.5 | 2,4-DDD A B |
| 6.690 | -0.028 | 4463 | 7.526 | 0.023 | 16221 | 0.4405 | 1.1085 | 86.3* | 2,4-DDT A B |
| 6.841 | -0.004 | 6710 | 7.599 | 0.041 | 4571 | 0.2906 | 0.1332 | 74.3* | cis-Nonachlor A B |
| 7.712 | 0.003 | 6250 | 8.759 | 0.000 | 7165 | 0.4560 | 0.3237 | 33.9 | Mirex A B |
| 9.130 | -0.008 | 1774891 | 10.429 | -0.004 | 2154033 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 1.765 | -0.003 | 3440 | 1.755 | 0.003 | 802440 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.898 | 0.001 | 19207 | 4.300 | 0.002 | 17746 | 0.8825 | 0.3848 | 78.5* | Tetrachloro-m-xylene A B |
| 8.982 | 0.002 | 13943 | 9.926 | 0.005 | 19214 | 0.4650 | 0.5307 | 13.2 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 2.2 | 1.0 | 1.0~ | 29-110 |
| Decachlorobiphenyl | 1.2 | 1.3 | 1.2~ | 18-151 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 1537602 | 83.8 |
| Hexabromobiphenyl | 1091107 | 1774891 | 62.7 |

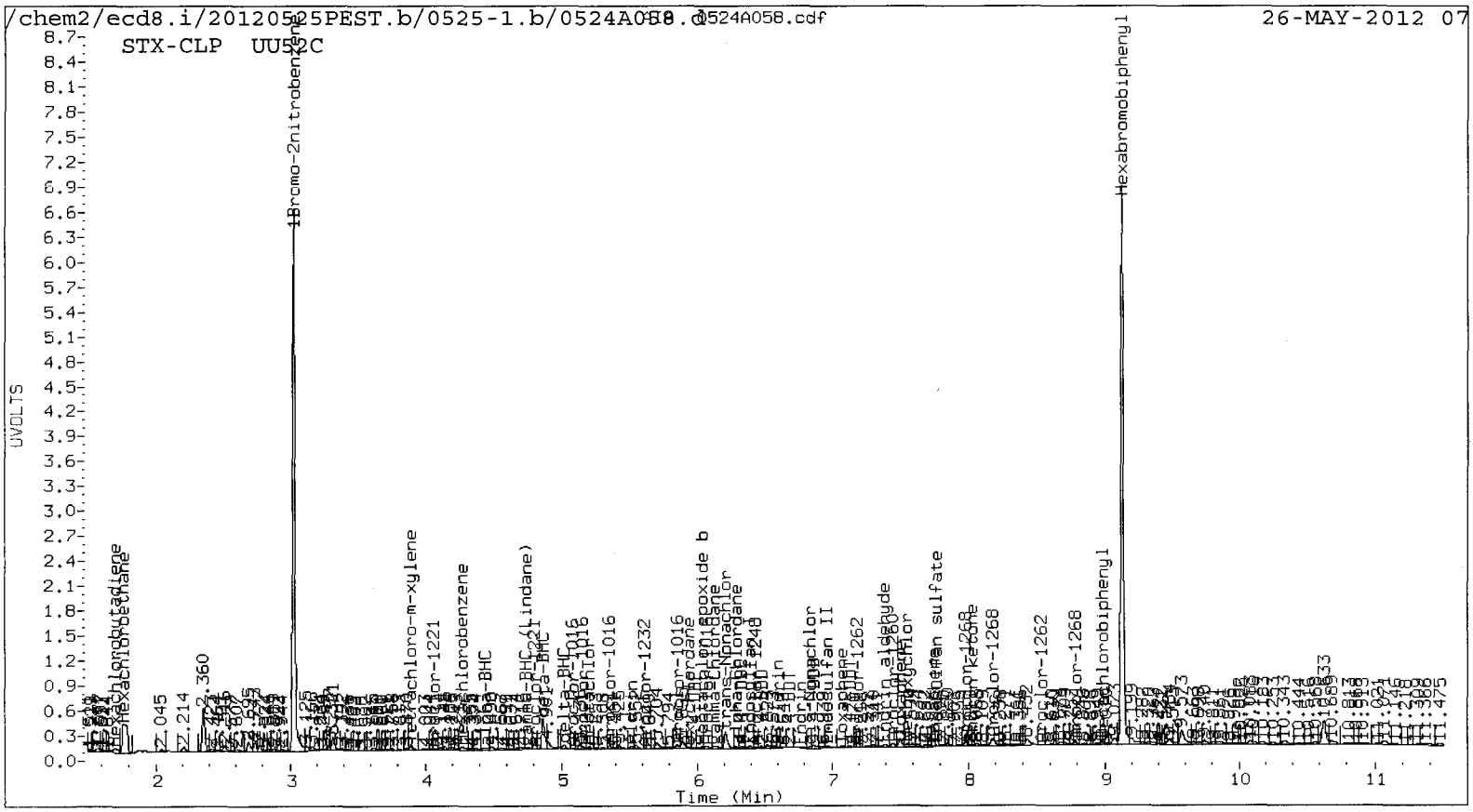
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1918734 | 53.7 |
| Hexabromobiphenyl | 1339634 | 2154033 | 60.8 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 7.080 | 0.011 | 9778 | 10.971 | 1 | 7.751 | -0.008 | 7066 | 5.571 |
| Toxaphene | 2 | 7.136 | 0.017 | 6502 | 10.459 | 2 | 7.969 | -0.033 | 22873 | 16.348 |
| Toxaphene | 3 | 7.507 | -0.016 | 35009 | 62.158 | 3 | 8.285 | 0.030 | 7711 | 12.819 |
| Toxaphene | 4 | 7.712 | 0.007 | 6250 | 6.667 | 4 | 8.529 | 0.033 | 13353 | 11.339 |
| Toxaphene | 5 | 7.750 | -0.001 | 3550 | 4.851 | 5 | 9.029 | -0.010 | 7570 | 16.672 |
| Toxaphene | 6 | 8.035 | -0.003 | 4220 | 7.957 | NS | --- | | | ---- |
| | Total STX-CLPAve (6 peaks): 17.177 | | | | | Total CLP2Ave (5 peaks): 12.550 | | | | RPD = 31 |
| | Corrected Ave (5 peaks): 8.181 | | | | | Corrected Ave (5 peaks): 12.550 | | | | RPD = 42* |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1248 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1248 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1248 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1248 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1254 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1254 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1254 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1254 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1260 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1260 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1260 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1260 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1262 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1262 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1262 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1262 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1268 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1268 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1268 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1268 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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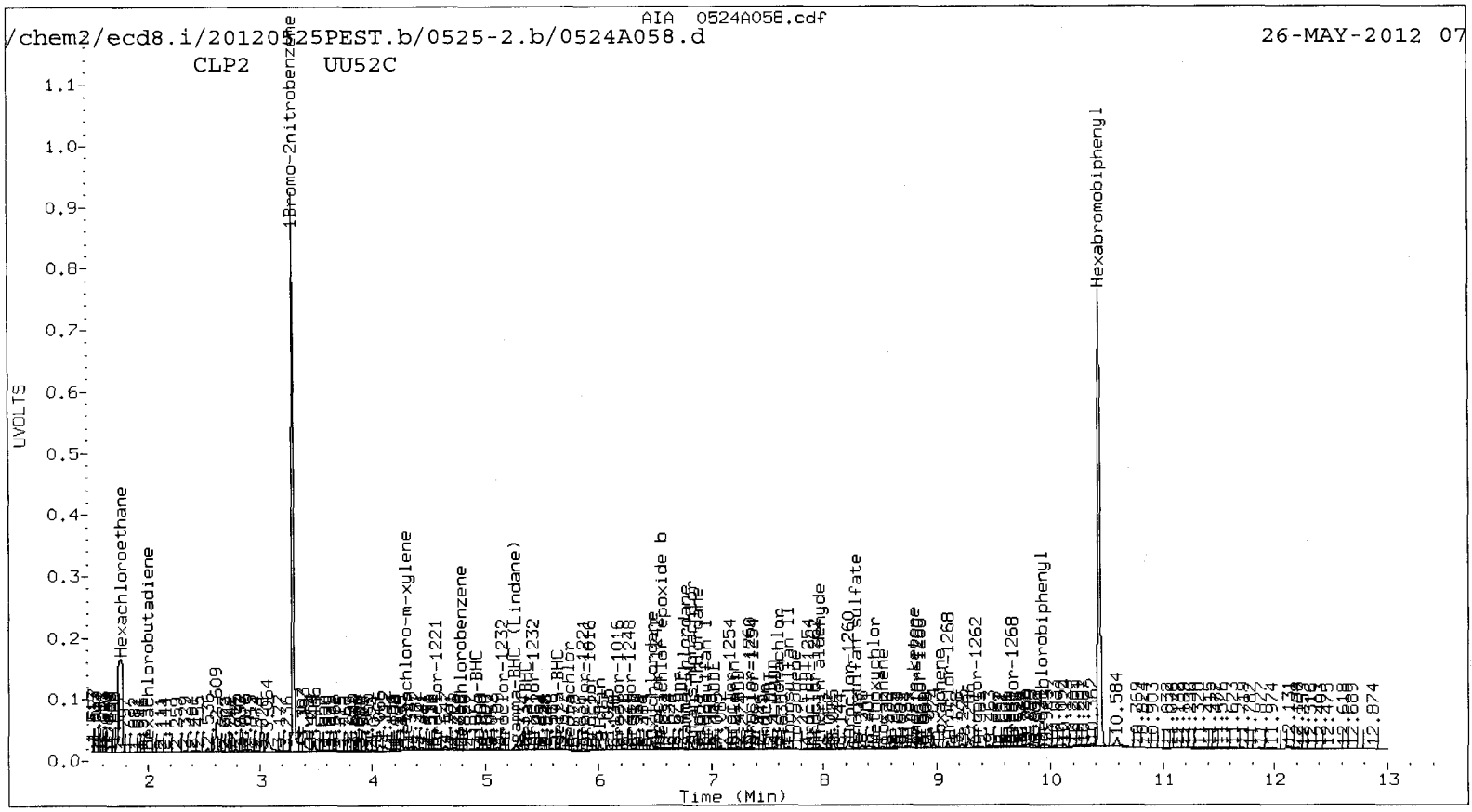
STX-CLP UU52C
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachlorobutadiene
Hexachloroethane
Tetrachloro-m-xylene
Hexachlorobenzene
Hexabromobiphenyl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26-MAY-2012 07
CLP2 UU52C
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
Tetrachloro-m-xylene
Hexachlorobenzene
Hexabromobiphenyl
10.584

UU52:914428

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

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Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 08:31
Compound Sublist: wpest Report Date: 05/29/2012 12:32
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 100.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.031 | 0.001 | 1588078 | 3.297 | 0.001 | 2015578 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.429 | -0.024 | 26079 | 4.932 | 0.003 | 7284 | 0.8552 | 0.1737 | 132.5* | alpha-BHC A B |
| 4.867 | 0.021 | 96671 | 5.361 | -0.005 | 3024 | 8.2351 | 0.1729 | 191.8* | beta-BHC A B |
| 5.024 | 0.013 | 31807 | 5.644 | -0.009 | 18616 | 1.3120 | 0.6015 | 74.3* | delta-BHC A B |
| 4.751 | -0.004 | 10632 | 5.278 | -0.005 | 40912 | 0.4290 | 1.1677 | 92.5* | gamma-BHC (Lindane) A B |
| 5.205 | 0.004 | 20006 | 5.745 | 0.032 | 2497 | 0.8184 | 0.0783 | 165.1* | Heptachlor A B |
| 5.454 | -0.023 | 11211 | 6.012 | -0.017 | 35902 | 0.3856 | 0.9119 | 81.1* | Aldrin A B |
| 6.039 | 0.011 | 20794 | 6.560 | -0.007 | 3233 | 0.7986 | 0.0985 | 156.1* | Heptachlor epoxide b A B |
| 6.396 | 0.011 | 9084 | 6.956 | 0.014 | 2869 | 0.2215 | 0.0900 | 84.4* | Endosulfan I A B |
| 6.575 | -0.026 | 11468 | 7.199 | 0.000 | 3081 | 0.4121 | 0.0909 | 127.7* | Dieldrin A B |
| 6.333 | -0.003 | 4516 | 7.026 | 0.003 | 2654 | 0.2068 | 0.0709 | 97.8* | 4,4'-DDE A B |
| 6.772 | -0.040 | 11068 | 7.494 | 0.005 | 7370 | 0.5620 | 0.2780 | 67.6* | Endrin A B |
| 7.018 | 0.003 | 4499 | 7.688 | 0.002 | 13724 | 0.2221 | 0.4859 | 74.5* | Endosulfan II A B |
| 6.870 | -0.004 | 32060 | 7.564 | -0.001 | 7261 | 1.9995 | 0.3010 | 147.7* | 4,4'-DDD A B |
| 7.771 | -0.024 | 4914 | 8.286 | 0.028 | 4428 | 0.2902 | 0.1866 | 43.5* | Endosulfan sulfate A B |
| 7.131 | 0.008 | 8694 | 7.840 | -0.018 | 16051 | 0.7999 | 1.0670 | 28.6 | 4,4'-DDT A B |
| 7.560 | -0.001 | 5582 | 8.456 | -0.031 | 13076 | 0.9048 | 1.7023 | 61.2* | Methoxychlor A B |
| 8.068 | 0.011 | 9538 | 8.737 | -0.044 | 10236 | 0.4530 | 0.3994 | 12.6 | Endrin ketone A B |
| 7.409 | 0.013 | 9766 | 7.971 | -0.028 | 21730 | 0.6059 | 0.9096 | 40.1* | Endrin aldehyde A B |
| 6.123 | -0.020 | 12131 | 6.765 | 0.019 | 8193 | 0.4655 | 0.2321 | 66.9* | gamma-Chlordane A B |
| 6.292 | 0.030 | 6435 | 6.879 | -0.002 | 840 | 0.2395 | 0.0237 | 164.0* | alpha-Chlordane A B |
| 1.730 | 0.002 | 11736 | ---- | | | 0.2423 | 0.0000 | --- | Hexachlorobutadiene |
| 4.268 | -0.019 | 44234 | 4.781 | -0.010 | 13720 | 1.5890 | 0.3567 | 126.7* | Hexachlorobenzene A B |
| 5.940 | 0.001 | 4706 | 6.469 | -0.013 | 36766 | 0.2577 | 1.4186 | 138.5* | Oxychlordane A B |
| 5.985 | -0.042 | 5576 | 6.729 | -0.007 | 5305 | 0.3868 | 0.2382 | 47.5* | 2,4-DDE A B |
| 6.213 | -0.037 | 40958 | 6.820 | -0.011 | 19342 | 1.9800 | 0.5910 | 108.0* | trans-Nonachlor A B |
| 6.479 | -0.012 | 8417 | 7.240 | 0.025 | 12642 | 0.8178 | 0.7370 | 10.4 | 2,4-DDD A B |
| 6.693 | -0.025 | 5446 | 7.525 | 0.023 | 8741 | 0.5262 | 0.5780 | 9.4 | 2,4-DDT A B |
| ---- | | | 7.600 | 0.042 | 1912 | 0.0000 | 0.0539 | --- | cis-Nonachlor |
| 7.690 | -0.020 | 2812 | 8.764 | 0.004 | 15022 | 0.2009 | 0.6567 | 106.3* | Mirex A B |
| 9.131 | -0.007 | 1812949 | 10.431 | -0.002 | 2225921 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 1.766 | -0.002 | 13461 | 1.756 | 0.004 | 3264188 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.898 | 0.001 | 31190 | 4.301 | 0.002 | 20926 | 1.3875 | 0.4320 | 105.0* | Tetrachloro-m-xylene A B |
| 8.985 | 0.005 | 26847 | 9.927 | 0.006 | 19249 | 0.8765 | 0.5145 | 52.0* | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 3.5 | 1.1 | 1.1~ | 29-110 |
| Decachlorobiphenyl | 2.2 | 1.3 | 1.3~ | 18-151 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 1588078 | 89.9 |
| Hexabromobiphenyl | 1091107 | 1812949 | 66.2 |

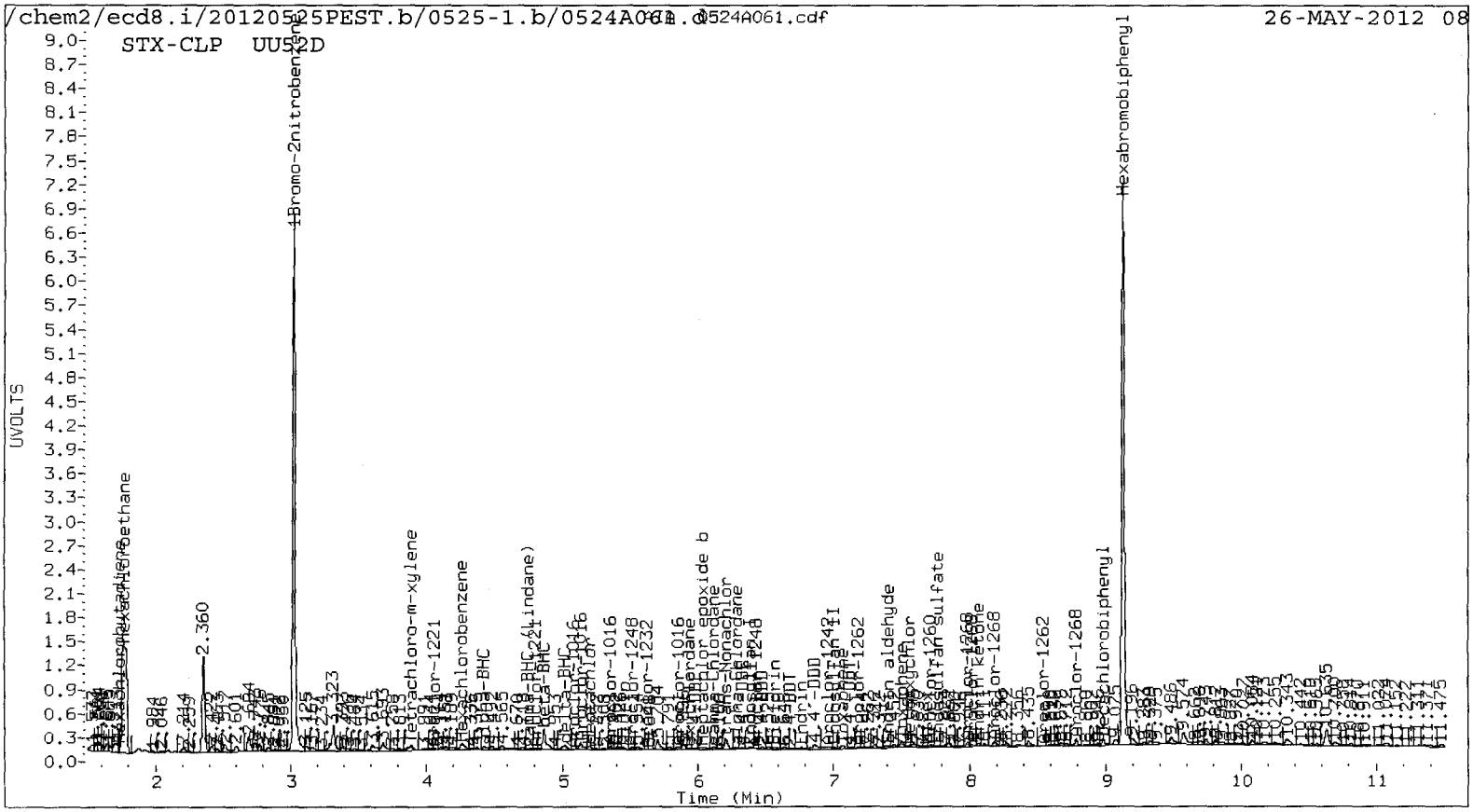
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 2015578 | 61.4 |
| Hexabromobiphenyl | 1339634 | 2225921 | 66.2 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 7.079 | 0.011 | 16527 | 18.154 | 1 | 7.752 | -0.007 | 5985 | 4.567 |
| Toxaphene | 2 | 7.131 | 0.012 | 8694 | 13.693 | 2 | 7.971 | -0.031 | 21730 | 15.030 |
| Toxaphene | 3 | 7.508 | -0.015 | 25349 | 44.062 | 3 | 8.223 | -0.032 | 33516 | 53.918 |
| Toxaphene | 4 | 7.718 | 0.013 | 6876 | 7.181 | 4 | 8.531 | 0.035 | 9234 | 7.588 |
| Toxaphene | 5 | 7.771 | 0.021 | 4914 | 6.575 | 5 | 9.029 | -0.011 | 8764 | 18.679 |
| Toxaphene | 6 | 8.019 | -0.018 | 6629 | 12.235 | NS | --- | | | ---- |
| Total STX-CLPAve (6 peaks): 16.983 | | | | | | Total CLP2Ave (5 peaks): 19.956 | | | | RPD = 16 |
| Corrected Ave (5 peaks): 11.568 | | | | | | Corrected Ave (4 peaks): 11.466 | | | | RPD = 1 |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1248 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1248 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1248 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1248 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1254 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1254 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1254 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1254 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1260 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1260 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1260 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1260 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1262 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1262 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1262 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1262 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1268 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1268 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1268 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1268 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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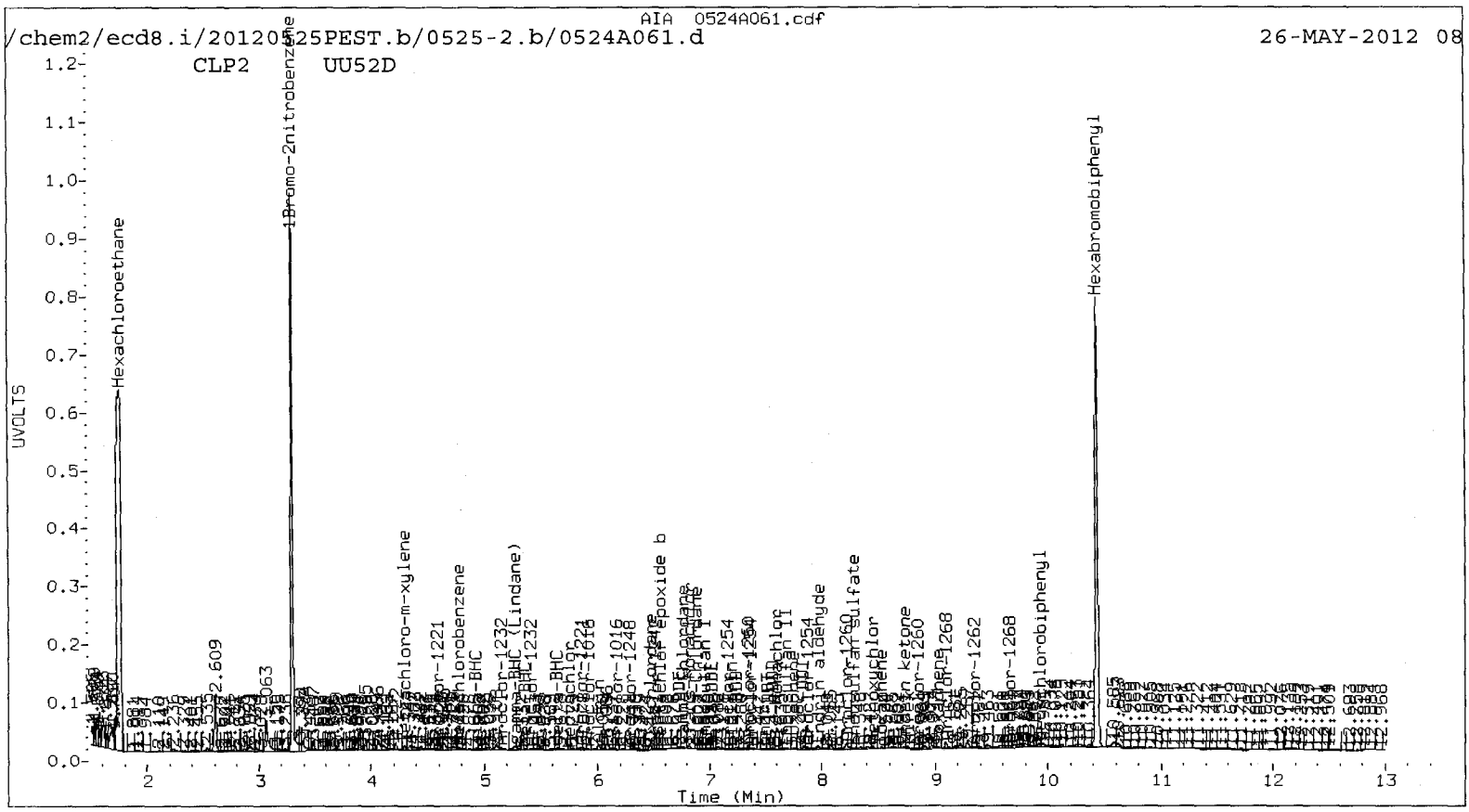
26-MAY-2012 08
STX-CLP UU52D
UVOLTS
Time (Min)
Hexachloroethane
2.360
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
Hexabromobiphenyl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26-MAY-2012 08
CLP2 UU52D
UVOLTS
Time (Min)
Hexachloroethane
2.609
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A062.d ARI ID: UU52E
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A062.d Client ID: MS004-SS-120515
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 08:50
Compound Sublist: wpest Report Date: 05/29/2012 12:32
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 100.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.032 | 0.002 | 1590197 | 3.298 | 0.001 | 1990201 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.432 | -0.021 | 18754 | 4.931 | 0.002 | 9072 | 0.6142 | 0.2190 | 94.8* | alpha-BHC A B |
| 4.866 | 0.020 | 216093 | 5.363 | -0.003 | 4806 | 18.3838 | 0.2783 | 194.0* | beta-BHC A B |
| 5.025 | 0.014 | 23953 | 5.645 | -0.008 | 16054 | 0.9867 | 0.5254 | 61.0* | delta-BHC A B |
| 4.767 | 0.012 | 4649 | 5.268 | -0.015 | 51053 | 0.1873 | 1.4757 | 154.9* | gamma-BHC (Lindane) A B |
| 5.207 | 0.006 | 17691 | 5.748 | 0.035 | 2574 | 0.7228 | 0.0818 | 159.3* | Heptachlor A B |
| 5.454 | -0.023 | 10765 | 6.012 | -0.016 | 35559 | 0.3698 | 0.9147 | 84.8* | Aldrin A B |
| 6.042 | 0.014 | 12765 | 6.562 | -0.005 | 5314 | 0.4896 | 0.1640 | 99.6* | Heptachlor epoxide b A B |
| 6.397 | 0.012 | 12387 | 6.951 | 0.009 | 4874 | 0.3016 | 0.1548 | 64.3* | Endosulfan I A B |
| 6.576 | -0.025 | 11005 | 7.196 | -0.003 | 6384 | 0.3949 | 0.1907 | 69.8* | Dieldrin A B |
| 6.334 | -0.002 | 7921 | 7.028 | 0.005 | 2786 | 0.3621 | 0.0754 | 131.1* | 4,4'-DDE A B |
| 6.772 | -0.040 | 12065 | 7.449 | -0.041 | 2971 | 0.6204 | 0.1124 | 138.7* | Endrin A B |
| 7.017 | 0.002 | 5885 | 7.689 | 0.003 | 18432 | 0.2943 | 0.6543 | 75.9* | Endosulfan II A B |
| 6.872 | -0.002 | 19474 | 7.563 | -0.001 | 3982 | 1.2302 | 0.1655 | 152.6* | 4,4'-DDD A B |
| 7.772 | -0.023 | 6604 | 8.287 | 0.029 | 7516 | 0.3950 | 0.3176 | 21.7 | Endosulfan sulfate A B |
| 7.140 | 0.016 | 18065 | 7.843 | -0.016 | 12924 | 1.6833 | 0.8615 | 64.6* | 4,4'-DDT A B |
| 7.560 | -0.001 | 10398 | 8.457 | -0.030 | 12732 | 1.7071 | 1.6621 | 2.7 | Methoxychlor A B |
| 8.036 | -0.021 | 5767 | 8.802 | 0.021 | 4020 | 0.2774 | 0.1573 | 55.3* | Endrin ketone A B |
| 7.391 | -0.005 | 23949 | 7.972 | -0.026 | 24092 | 1.5049 | 1.0113 | 39.2 | Endrin aldehyde A B |
| 6.129 | -0.013 | 11969 | 6.769 | 0.023 | 8345 | 0.4587 | 0.2394 | 62.8* | gamma-Chlordane A B |
| 6.294 | 0.032 | 8266 | 6.927 | 0.045 | 3320 | 0.3072 | 0.0949 | 105.6* | alpha-Chlordane A B |
| 1.700 | -0.028 | 37165 | 1.992 | -0.045 | 4918 | 0.7661 | 0.0782 | 163.0* | Hexachlorobutadiene A B |
| 4.270 | -0.017 | 28314 | 4.783 | -0.008 | 13855 | 1.0157 | 0.3648 | 94.3* | Hexachlorobenzene A B |
| 5.938 | -0.001 | 5754 | 6.470 | -0.012 | 60464 | 0.3192 | 2.3627 | 152.4* | Oxychlordane A B |
| 5.985 | -0.042 | 5877 | 6.730 | -0.006 | 4915 | 0.4129 | 0.2235 | 59.5* | 2,4-DDE A B |
| 6.214 | -0.036 | 102518 | 6.821 | -0.010 | 52345 | 5.0196 | 1.6039 | 103.1* | trans-Nonachlor A B |
| 6.480 | -0.011 | 6508 | 7.242 | 0.027 | 14264 | 0.6404 | 0.8339 | 26.2 | 2,4-DDD A B |
| 6.693 | -0.025 | 2802 | 7.526 | 0.024 | 12612 | 0.2742 | 0.8363 | 101.2* | 2,4-DDT A B |
| 6.839 | -0.006 | 10548 | 7.599 | 0.042 | 2004 | 0.4530 | 0.0567 | 155.5* | cis-Nonachlor A B |
| 7.691 | -0.018 | 18452 | 8.765 | 0.005 | 32083 | 1.3351 | 1.4065 | 5.2 | Mirex A B |
| 9.133 | -0.006 | 1789929 | 10.432 | -0.001 | 2219745 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 1.766 | -0.003 | 5190 | 1.756 | 0.004 | 1201374 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.898 | 0.002 | 27052 | 4.301 | 0.003 | 15107 | 1.2018 | 0.3158 | 116.8* | Tetrachloro-m-xylene A B |
| 8.986 | 0.005 | 26606 | 9.928 | 0.007 | 22749 | 0.8797 | 0.6087 | 36.3 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 3.0 | 0.8 | 0.8~ | 29-110 |
| Decachlorobiphenyl | 2.2 | 1.5 | 1.5~ | 18-151 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 1590197 | 90.1 |
| Hexabromobiphenyl | 1091107 | 1789929 | 64.0 |

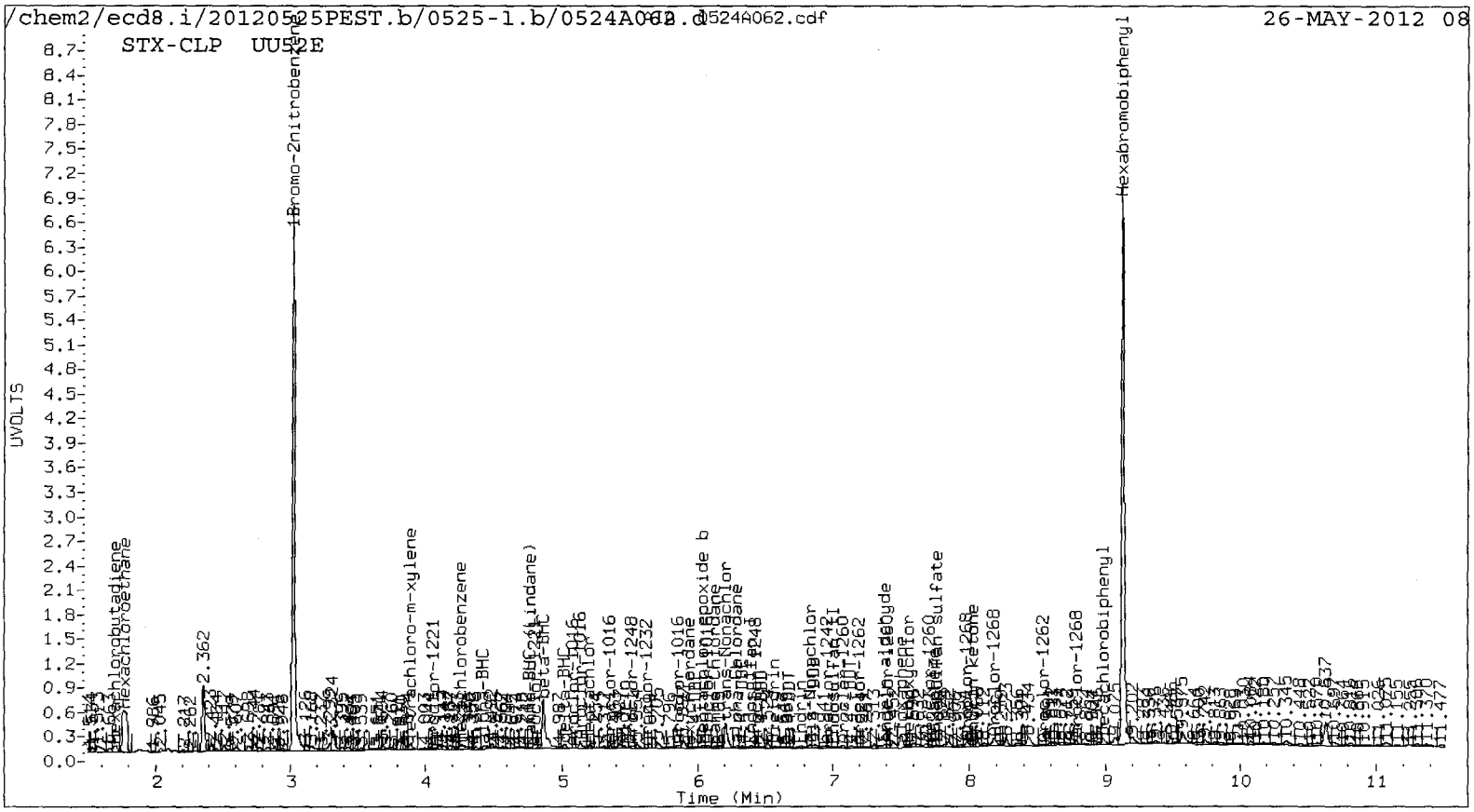
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1990201 | 59.4 |
| Hexabromobiphenyl | 1339634 | 2219745 | 65.7 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 7.081 | 0.013 | 17321 | 19.271 | 1 | 7.755 | -0.005 | 6011 | 4.599 |
| Toxaphene | 2 | 7.140 | 0.021 | 18065 | 28.816 | 2 | 7.972 | -0.029 | 24092 | 16.710 |
| Toxaphene | 3 | 7.508 | -0.015 | 58503 | 102.999 | 3 | 8.223 | -0.032 | 66520 | 107.310 |
| Toxaphene | 4 | 7.718 | 0.013 | 9010 | 9.531 | 4 | 8.531 | 0.035 | 18490 | 15.236 |
| Toxaphene | 5 | 7.751 | 0.000 | 5871 | 7.956 | 5 | 9.030 | -0.009 | 13242 | 28.302 |
| Toxaphene | 6 | 8.036 | -0.002 | 5767 | 10.781 | NS | --- | | | ---- |
| Total STX-CLPAve (6 peaks): 29.892 | | | | | | Total CLP2Ave (5 peaks): 34.431 | | | | RPD = 14 |
| Corrected Ave (5 peaks): 15.271 | | | | | | Corrected Ave (4 peaks): 16.212 | | | | RPD = 6 |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1248 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1248 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1248 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1248 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1254 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1254 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1254 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1254 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1260 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1260 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1260 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1260 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1262 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1262 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1262 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1262 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1268 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1268 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1268 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1268 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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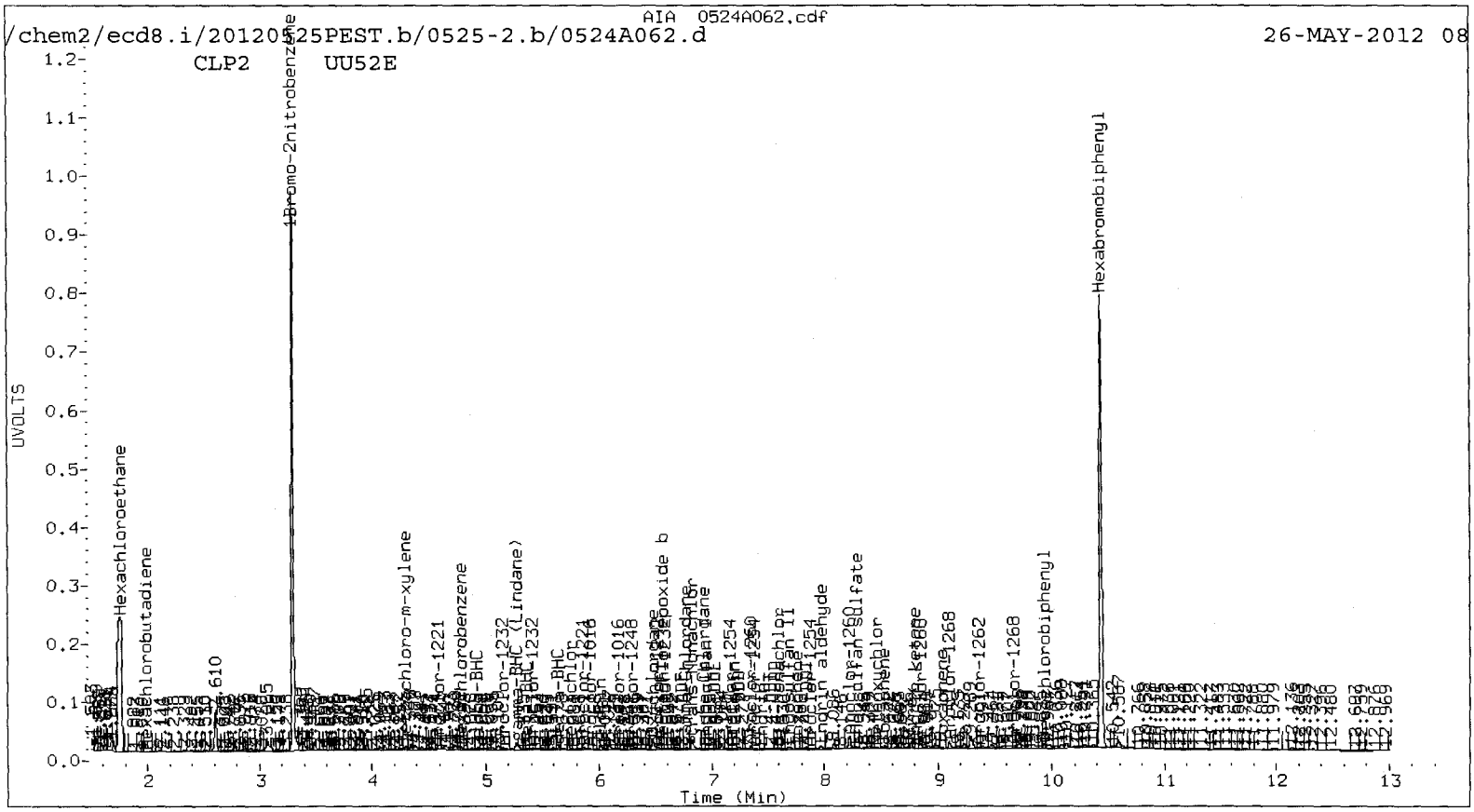
AIA 0524A062.cdf
26-MAY-2012 08
STX-CLP UU52E
UVOLTS
Time (Min)
Hexachlorobutadiene
Hexachloroethane
1Bromo-2nitrobenzene
Hexabromobiphenyl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AIA 0524A062.cdf
26-MAY-2012 08
CLP2 UU52E
UVOLTS
Time (Min)
Hexachlorobutadiene
Hexachloroethane
1Bromo-2nitrobenzene
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A063.d ARI ID: UU52F
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A063.d Client ID: MS005-SS-120515
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 09:09
Compound Sublist: wpest Report Date: 05/29/2012 12:32
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 100.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.031 | 0.002 | 1570030 | 3.297 | 0.001 | 1986131 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.441 | -0.012 | 15111 | 4.930 | 0.001 | 12700 | 0.5012 | 0.3073 | 48.0* | alpha-BHC A B |
| 4.866 | 0.020 | 181262 | 5.361 | -0.006 | 6702 | 15.6187 | 0.3888 | 190.3* | beta-BHC A B |
| 5.023 | 0.013 | 28391 | 5.644 | -0.009 | 10841 | 1.1845 | 0.3555 | 107.7* | delta-BHC A B |
| 4.737 | -0.019 | 6584 | 5.267 | -0.016 | 43991 | 0.2687 | 1.2742 | 130.3* | gamma-BHC (Lindane) A B |
| 5.205 | 0.004 | 8392 | 5.750 | 0.037 | 412 | 0.3473 | 0.0131 | 185.4* | Heptachlor A B |
| 5.515 | 0.038 | 5482 | 6.012 | -0.016 | 21440 | 0.1907 | 0.5526 | 97.4* | Aldrin A B |
| 6.040 | 0.012 | 15676 | 6.565 | -0.002 | 3756 | 0.6090 | 0.1161 | 135.9* | Heptachlor epoxide b A B |
| 6.397 | 0.012 | 10575 | 6.929 | -0.013 | 2743 | 0.2608 | 0.0873 | 99.7* | Endosulfan I A B |
| 6.579 | -0.022 | 10480 | 7.198 | -0.001 | 8575 | 0.3809 | 0.2566 | 39.0 | Dieldrin A B |
| 6.333 | -0.003 | 7600 | 7.027 | 0.004 | 2972 | 0.3519 | 0.0806 | 125.4* | 4,4'-DDE A B |
| 6.772 | -0.040 | 10334 | 7.449 | -0.040 | 6243 | 0.5060 | 0.2386 | 71.8* | Endrin A B |
| 7.005 | -0.010 | 4531 | 7.692 | 0.006 | 21116 | 0.2157 | 0.7576 | 111.3* | Endosulfan II A B |
| 6.871 | -0.003 | 23991 | 7.564 | -0.001 | 6875 | 1.4429 | 0.2888 | 133.3* | 4,4'-DDD A B |
| 7.778 | -0.018 | 2353 | 8.287 | 0.028 | 9669 | 0.1340 | 0.4129 | 102.0* | Endosulfan sulfate A B |
| 7.141 | 0.017 | 12639 | 7.869 | 0.011 | 11456 | 1.1213 | 0.7718 | 36.9 | 4,4'-DDT A B |
| 7.561 | 0.000 | 20036 | 8.482 | -0.006 | 4698 | 3.1317 | 0.6199 | 133.9* | Methoxychlor A B |
| 8.066 | 0.010 | 21302 | 8.803 | 0.023 | 2769 | 0.9756 | 0.1095 | 159.6* | Endrin ketone A B |
| 7.411 | 0.015 | 16115 | 7.966 | -0.033 | 16313 | 0.9641 | 0.6921 | 32.9 | Endrin aldehyde A B |
| 6.128 | -0.014 | 14775 | 6.769 | 0.023 | 8569 | 0.5735 | 0.2463 | 79.8* | gamma-Chlordane A B |
| 6.289 | 0.028 | 7488 | ---- | | | 0.2819 | 0.0000 | --- | alpha-Chlordane |
| 1.724 | -0.004 | 12302 | 2.070 | 0.033 | 1219 | 0.2569 | 0.0194 | 171.9* | Hexachlorobutadiene A B |
| 4.270 | -0.018 | 25414 | 4.791 | 0.000 | 8167 | 0.9234 | 0.2155 | 124.3* | Hexachlorobenzene A B |
| 5.896 | -0.043 | 38529 | 6.470 | -0.012 | 55726 | 2.0345 | 2.1820 | 7.0 | Oxychlordane A B |
| 5.984 | -0.043 | 3498 | 6.729 | -0.007 | 3769 | 0.2340 | 0.1717 | 30.7 | 2,4-DDE A B |
| 6.213 | -0.037 | 101049 | 6.821 | -0.011 | 53299 | 4.7106 | 1.6505 | 96.2* | trans-Nonachlor A B |
| 6.480 | -0.011 | 5629 | 7.242 | 0.027 | 11368 | 0.5274 | 0.6717 | 24.1 | 2,4-DDD A B |
| 6.694 | -0.024 | 3011 | 7.525 | 0.023 | 15809 | 0.2805 | 1.0595 | 116.3* | 2,4-DDT A B |
| 6.841 | -0.003 | 9812 | 7.598 | 0.041 | 9909 | 0.4012 | 0.2832 | 34.5 | cis-Nonachlor A B |
| 7.692 | -0.017 | 13897 | 8.765 | 0.005 | 23749 | 0.9573 | 1.0523 | 9.4 | Mirex A B |
| 9.133 | -0.006 | 1880039 | 10.434 | 0.000 | 2196333 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 1.767 | -0.001 | 16320 | 1.758 | 0.006 | 3974373 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.897 | 0.001 | 40520 | 4.302 | 0.003 | 13649 | 1.8232 | 0.2859 | 145.8* | Tetrachloro-m-xylene A B |
| 8.984 | 0.004 | 13972 | 9.929 | 0.008 | 19846 | 0.4399 | 0.5376 | 20.0 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 4.6 | 0.7 | 0.7~ | 29-110 |
| Decachlorobiphenyl | 1.1 | 1.3 | 1.1~ | 18-151 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 1570030 | 87.7 |
| Hexabromobiphenyl | 1091107 | 1880039 | 72.3 |

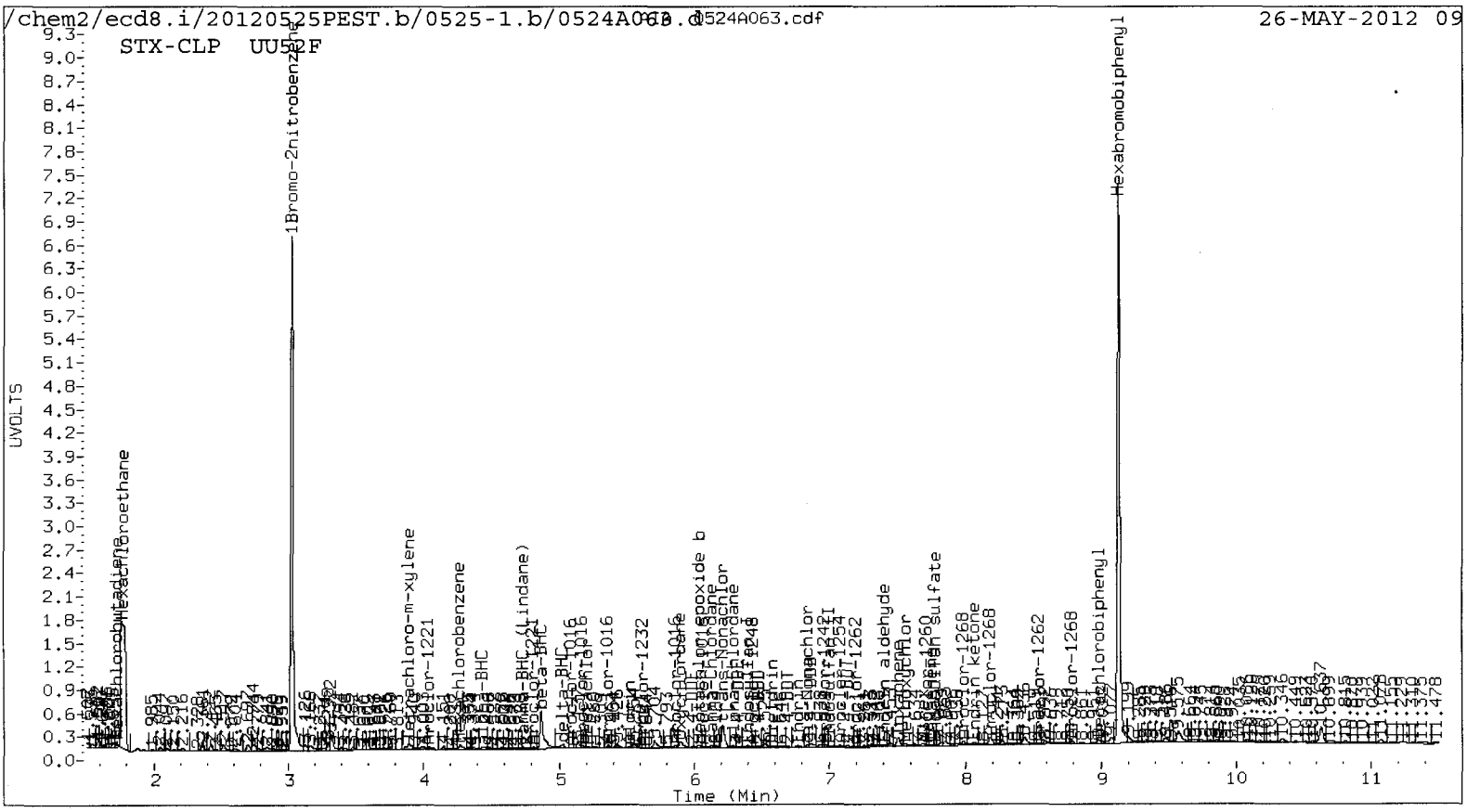
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1986131 | 59.1 |
| Hexabromobiphenyl | 1339634 | 2196333 | 64.0 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 7.082 | 0.014 | 10966 | 11.616 | 1 | 7.769 | 0.010 | 8296 | 6.415 |
| Toxaphene | 2 | 7.141 | 0.022 | 12639 | 19.195 | 2 | 7.966 | -0.035 | 16313 | 11.435 |
| Toxaphene | 3 | 7.510 | -0.013 | 44670 | 74.877 | 3 | 8.224 | -0.031 | 57711 | 94.091 |
| Toxaphene | 4 | 7.692 | -0.013 | 13897 | 13.995 | 4 | 8.482 | -0.014 | 4698 | 3.913 |
| Toxaphene | 5 | 7.752 | 0.001 | 3934 | 5.076 | 5 | 9.030 | -0.010 | 9127 | 19.714 |
| Toxaphene | 6 | 8.066 | 0.028 | 21302 | 37.915 | NS | --- | | | ---- |
| | Total STX-CLPAve (6 peaks): 27.112 | | | | | Total CLP2Ave (5 peaks): 27.114 | | | | RPD = 0 |
| | Corrected Ave (5 peaks): 17.559 | | | | | Corrected Ave (4 peaks): 10.369 | | | | RPD = 51* |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1248 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1248 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1248 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1248 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1254 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1254 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1254 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1254 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1260 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1260 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1260 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1260 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1262 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1262 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1262 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1262 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1268 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1268 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1268 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1268 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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0524A063.cdf
26-MAY-2012 09
STX-CLP UU52F
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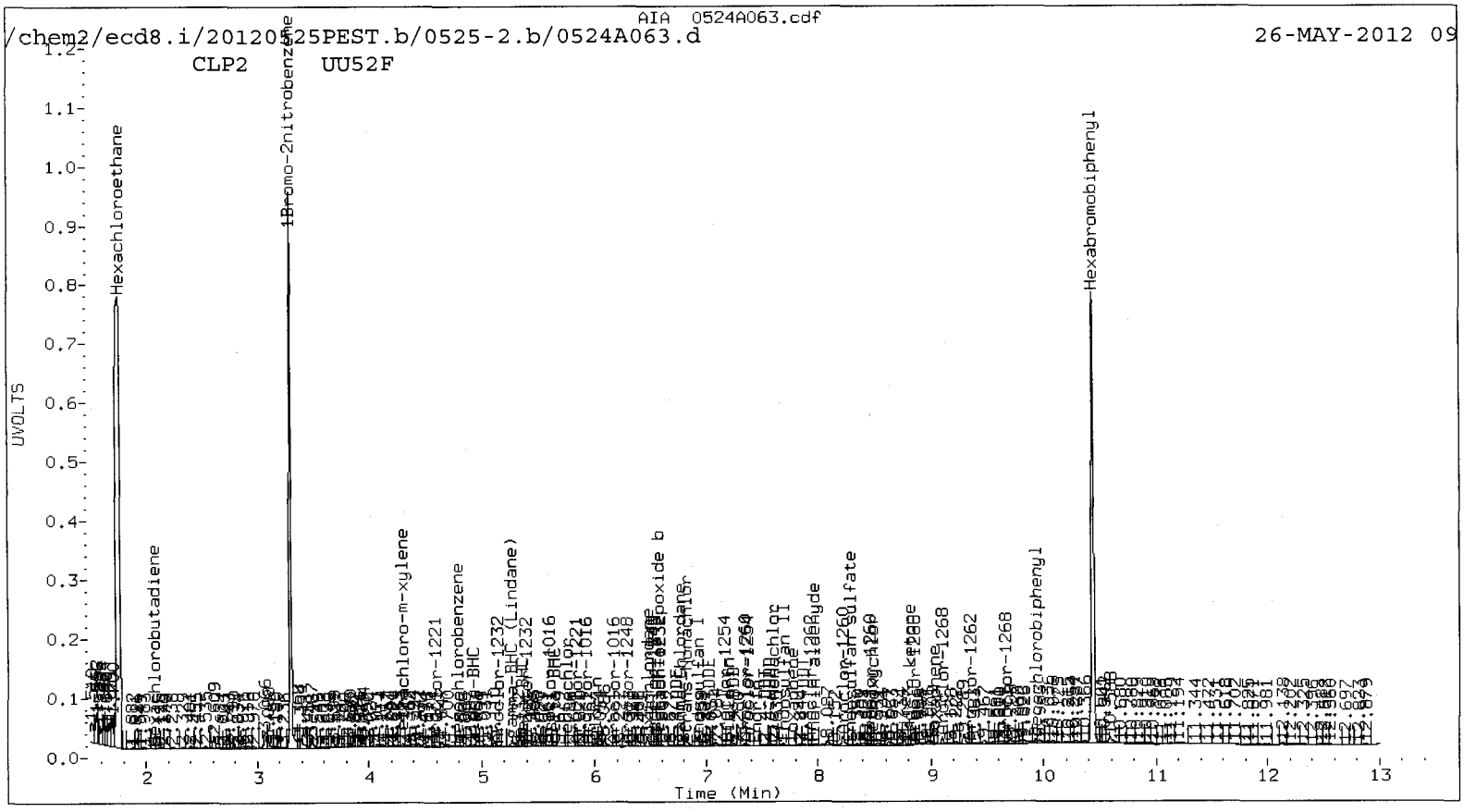
Hexachloroethane
Hexachlorobutadiene
Hexachlorobenzene
Hexabromobiphenyl
UVOLTS
Time (Min)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26-MAY-2012 09
CLP2 UU52F
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
Hexachlorobenzene
Hexabromobiphenyl
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A068.d ARI ID: INDAE
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A068.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 10:43
Compound Sublist: INDA Report Date: 05/29/2012 12:07
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.030 | 0.001 | 1381366 | 3.297 | 0.000 | 1734872 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.454 | 0.001 | 500892 | 4.931 | 0.001 | 710473 | 18.8832 | 19.6785 | 4.1 | alpha-BHC A B |
| 4.848 | 0.002 | 165047 | 5.369 | 0.003 | 278013 | 16.1639 | 18.4663 | 13.3 | beta-BHC A B |
| 5.013 | 0.002 | 369249 | 5.656 | 0.003 | 524252 | 17.5102 | 19.6808 | 11.7 | delta-BHC A B |
| 4.757 | 0.002 | 417302 | 5.284 | 0.002 | 586593 | 19.3547 | 19.4507 | 0.5 | gamma-BHC (Lindane) A B |
| 5.203 | 0.002 | 418050 | 5.715 | 0.002 | 494921 | 19.6613 | 18.0308 | 8.7 | Heptachlor A B |
| 5.479 | 0.002 | 468698 | 6.031 | 0.002 | 639279 | 18.5331 | 18.8644 | 1.8 | Aldrin A B |
| 6.030 | 0.002 | 412288 | 6.569 | 0.002 | 538560 | 18.2042 | 19.0660 | 4.6 | Heptachlor epoxide b A B |
| 6.387 | 0.003 | 572317 | 6.944 | 0.002 | 516626 | 16.0419 | 18.8221 | 15.9 | Endosulfan I A B |
| 6.604 | 0.003 | 937305 | 7.201 | 0.002 | 1136629 | 38.7188 | 38.9444 | 0.6 | Dieldrin A B |
| 6.341 | 0.005 | 579092 | 7.027 | 0.004 | 1218087 | 29.3774 | 37.8248 | 25.1 | 4,4'-DDE A B |
| 6.815 | 0.003 | 792865 | 7.492 | 0.002 | 870671 | 42.4960 | 39.2882 | 7.8 | Endrin A B |
| 7.019 | 0.003 | 802799 | 7.688 | 0.002 | 985128 | 41.8430 | 41.7293 | 0.3 | Endosulfan II A B |
| 6.880 | 0.006 | 672586 | 7.568 | 0.004 | 911306 | 44.2836 | 45.2043 | 2.1 | 4,4'-DDD A B |
| 7.798 | 0.003 | 667664 | 8.261 | 0.002 | 779581 | 41.6214 | 39.3064 | 5.7 | Endosulfan sulfate A B |
| 7.129 | 0.005 | 334052 | 7.861 | 0.003 | 303855 | 32.4433 | 24.1683 | 29.2 | 4,4'-DDT A B |
| 7.564 | 0.004 | 1088953 | 8.490 | 0.002 | 973177 | 186.3273 | 151.5980 | 20.6 | Methoxychlor A B |
| 8.059 | 0.003 | 796840 | 8.782 | 0.002 | 763479 | 39.9499 | 35.6421 | 11.4 | Endrin ketone A B |
| 7.399 | 0.003 | 591093 | 8.000 | 0.002 | 749313 | 38.7123 | 37.5329 | 3.1 | Endrin aldehyde A B |
| 6.145 | 0.003 | 425226 | 6.748 | 0.002 | 568424 | 18.7585 | 18.7047 | 0.3 | gamma-Chlordane A B |
| 6.264 | 0.003 | 413015 | 6.884 | 0.002 | 559449 | 17.6722 | 18.3432 | 3.7 | alpha-Chlordane A B |
| 1.728 | 0.000 | 622266 | 2.037 | 0.000 | 891406 | 14.7660 | 16.2591 | 9.6 | Hexachlorobutadiene A B |
| 4.289 | 0.002 | 329666 | 4.793 | 0.002 | 527060 | 13.6142 | 15.9214 | 15.6 | Hexachlorobenzene A B |
| 9.140 | 0.002 | 1717350 | 10.435 | 0.002 | 1860256 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 3.898 | 0.001 | 525242 | 4.300 | 0.001 | 1362995 | 26.8615 | 32.6879 | 19.6 | Tetrachloro-m-xylene A B |
| 8.982 | 0.002 | 855414 | 9.925 | 0.004 | 1071644 | 29.4800 | 34.2716 | 15.0 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 67.2 | 81.7 | 67.2~ | 85-115 |
| Decachlorobiphenyl | 73.7 | 85.7 | 73.7~ | 85-115 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

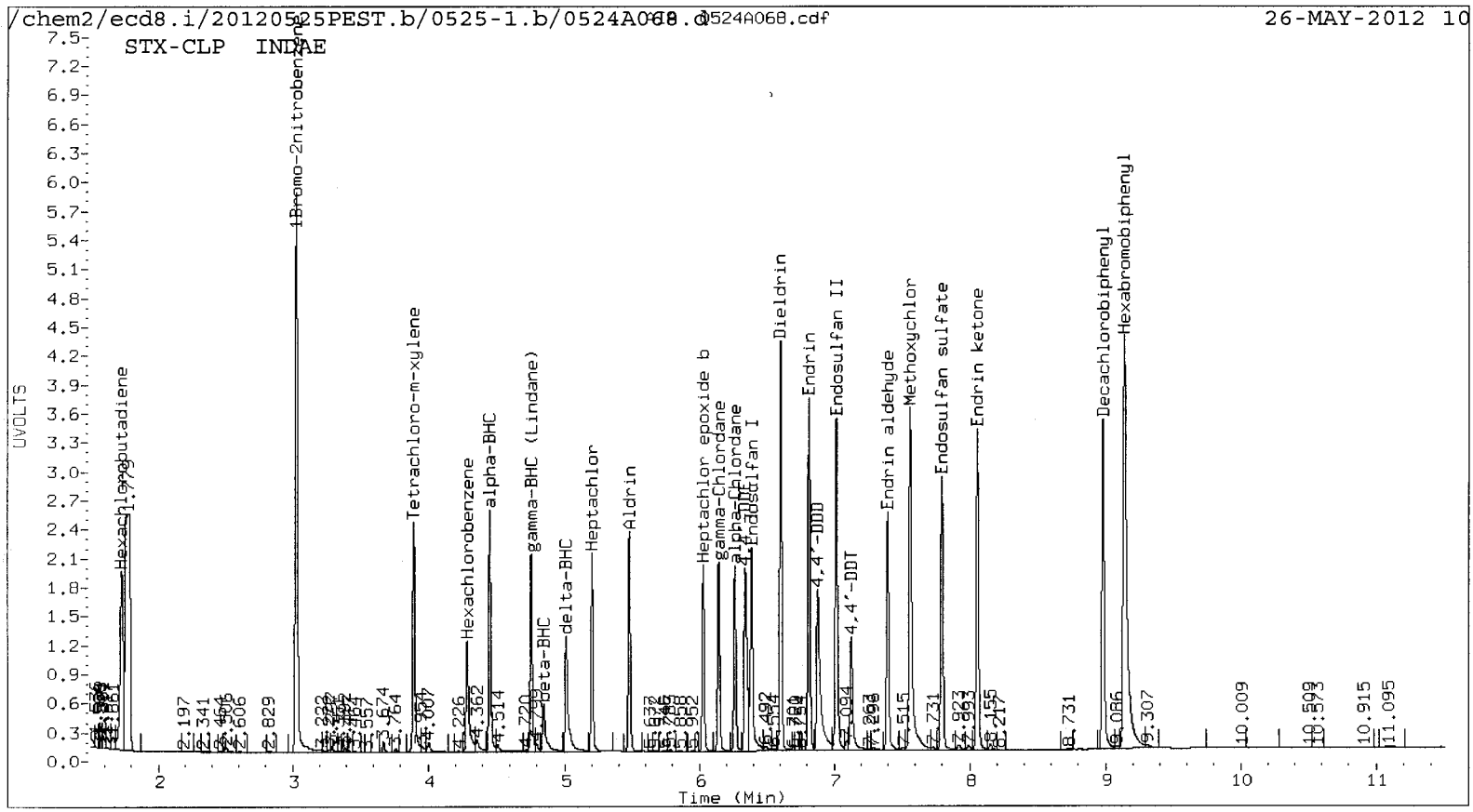
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 1381366 | 65.2 |
| Hexabromobiphenyl | 1091107 | 1717350 | 57.4 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1734872 | 38.9 |
| Hexabromobiphenyl | 1339634 | 1860256 | 38.9 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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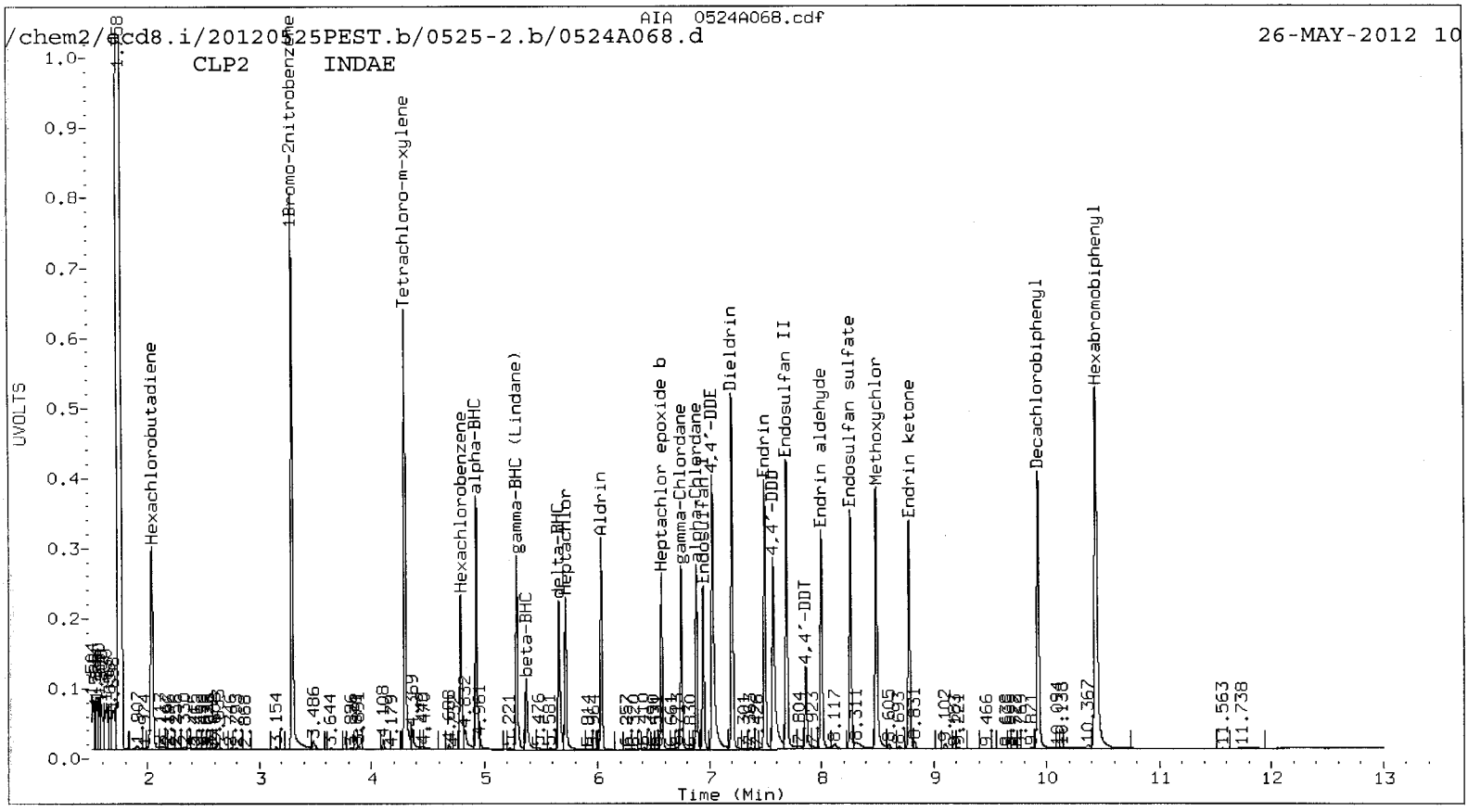
0524A068.cdf
26-MAY-2012 10
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1,2,3,4-Tetrachlorobenzene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDD
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl


AIA 0524A068.cdf
/chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A068.d
26-MAY-2012 10
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

0052:01445

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

AR 5/29/2012

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A069.d ARI ID: UU52G
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A069.d Client ID: MS006-SS-120515
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 11:02
Compound Sublist: wpest Report Date: 05/29/2012 13:13
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 10.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.031 | 0.001 | 1403389 | 3.297 | 0.001 | 1921460 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.455 | 0.002 | 198268 | 4.931 | 0.002 | 222578 | 7.3572 | 5.5663 | 27.7 | alpha-BHC A B |
| 4.862 | 0.016 | 6946849 | 5.361 | -0.005 | 102524 | 669.6621 | 16.1486 Y | 196.4* | beta-BHC A BM opp shifts & interference |
| 5.017 | 0.006 | 112568 | 5.641 | -0.012 | 42848 | 5.2544 | 1.4524 | 113.4* | delta-BHC A B |
| 4.780 | 0.024 | 49599 | 5.291 | 0.008 | 168082 | 2.2643 | 5.0322 | 75.9* | gamma-BHC (Lindane) A B |
| 5.193 | -0.008 | 61351 | 5.746 | 0.033 | 19722 | 2.8401 | 0.6487 | 125.6* | Heptachlor A B |
| 5.510 | 0.033 | 212781 | 6.041 | 0.012 | 86225 | 8.2817 | 2.2973 | 113.1* | Aldrin A B |
| 6.031 | 0.002 | 33005 | 6.541 | -0.026 | 121536 | 1.4344 | 3.8848 | 92.1* | Heptachlor epoxide b A B |
| 6.398 | 0.013 | 107315 | 6.947 | 0.005 | 64162 | 2.9608 | 2.1106 | 33.5 | Endosulfan I A B |
| 6.596 | -0.005 | 30486 | 7.183 | -0.016 | 458199 | 1.2396 | 14.1748 CNR | 167.8* | Dieldrin A BMN |
| 6.333 | -0.003 | 194958 | 7.047 | 0.024 | 114641 | 9.9813 | 3.2142 CNR | 102.6* | 4,4'-DDE A B |
| 6.763 | -0.049 | 89078 | 7.466 | -0.024 | 14573 | 5.1278 | 0.5984 | 158.2* | Endrin A B |
| 7.017 | 0.002 | 19323 | 7.686 | 0.000 | 150726 | 1.0817 | 5.8098 | 137.2* | Endosulfan II A B |
| 6.870 | -0.004 | 311860 | 7.565 | 0.000 | 241075 | 22.0528 | 10.8815 | 67.8* | 4,4'-DDD A B |
| 7.769 | -0.027 | 128769 | 8.250 | -0.009 | 348011 | 8.6214 | 15.9667 | 59.7* | Endosulfan sulfate A B |
| 7.128 | -0.005 | 90329 | 7.853 | -0.005 | 101424 | 9.4221 | 7.3408 | 24.8 | 4,4'-DDT A BN |
| 7.556 | -0.004 | 123184 | 8.479 | -0.008 | 31504 | 22.6377 | 4.4657 | 134.1* | Methoxychlor A B |
| 8.039 | 0.018 | 258512 | 8.800 | 0.019 | 126128 | 13.9199 | 5.3580 Y | 88.8* | Endrin ketone A B opp shifts |
| 7.382 | -0.014 | 370460 | 8.020 | 0.022 | 43106 | 26.0582 | 1.9648 | 172.0* | Endrin aldehyde A B |
| 6.154 | 0.011 | 101681 | 6.760 | 0.014 | 69096 | 4.4152 | 2.0529 | 73.0* | gamma-Chlordane A B |
| 6.286 | 0.024 | 49331 | 6.897 | 0.015 | 48673 | 2.0777 | 1.4409 | 36.2 | alpha-Chlordane A B |
| 1.734 | 0.006 | 31659 | 2.046 | 0.009 | 6262 | 0.7395 | 0.1031 | 151.0* | Hexachlorobutadiene A B |
| 4.307 | 0.019 | 25082 | 4.794 | 0.004 | 38350 | 1.0196 | 1.0460 | 2.6 | Hexachlorobenzene A B |
| 5.926 | -0.013 | 80433 | 6.466 | -0.016 | 977110 | 4.9938 | 39.5469 | 155.2* | Oxychlordane A B |
| 6.008 | -0.019 | 92796 | 6.726 | -0.010 | 28058 | 7.2982 | 1.3216 | 138.7* | 2,4-DDE A B |
| 6.209 | -0.041 | 2475014 | 6.819 | -0.013 | 1264046 | 135.6556 | 42.0547 | 105.3* | trans-Nonachlor A B |
| 6.486 | -0.006 | 39936 | 7.237 | 0.022 | 86263 | 4.3991 | 5.4757 | 21.8 | 2,4-DDD A B |
| 6.729 | 0.011 | 22148 | 7.507 | 0.005 | 146140 | 2.4263 | 10.5225 | 125.1* | 2,4-DDT A B |
| 6.850 | 0.006 | 454986 | 7.528 | -0.029 | 92357 | 21.8727 | 2.8356 | 154.1* | cis-Nonachlor A B |
| 7.689 | -0.021 | 167592 | 8.755 | -0.005 | 62508 | 13.5738 | 2.9755 | 128.1* | Mirex A B |
| 9.134 | -0.004 | 1599002 | 10.433 | 0.000 | 2044331 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 1.767 | -0.001 | 63556 | 1.761 | 0.010 | 14183640 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.895 | -0.002 | 325721 | 4.300 | 0.001 | 99573 | 16.3963 | 2.1561 | 153.5* | Tetrachloro-m-xylene A B |
| 8.986 | 0.006 | 41351 | 9.928 | 0.007 | 88376 | 1.5305 | 2.5718 | 50.8* | Decachlorobiphenyl A BM |

CNR

out low

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 41.0 | 5.4 | 5.4~ | 29-110 |
| Decachlorobiphenyl | 3.8 | 6.4 | 3.8~ | 18-151 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 1403389 | 67.8 |
| Hexabromobiphenyl | 1091107 | 1599002 | 46.5 |

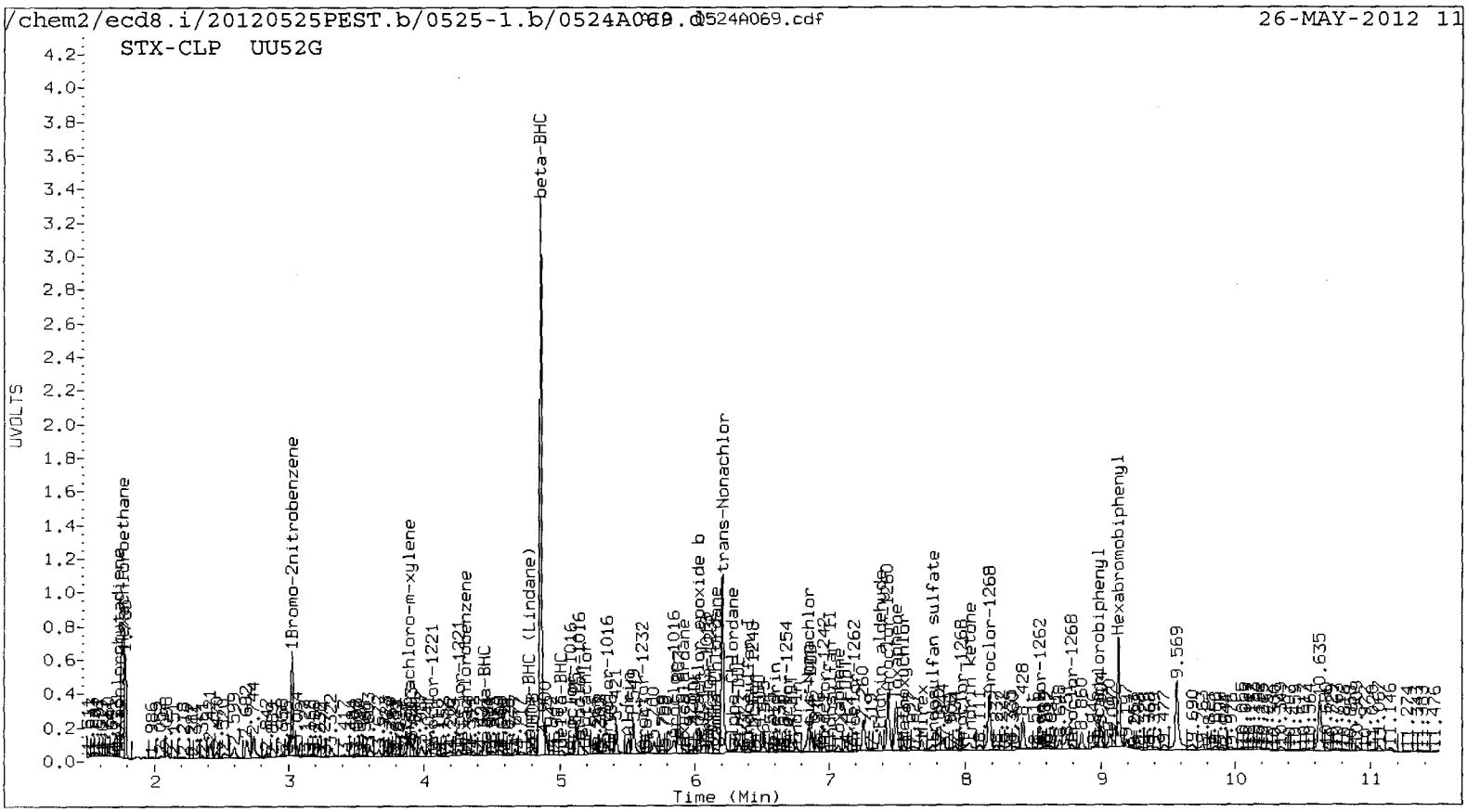
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1921460 | 53.9 |
| Hexabromobiphenyl | 1339634 | 2044331 | 52.6 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 7.075 | 0.007 | 122107 | 152.078 | 1 | 7.741 | -0.019 | 10927 | 9.078 |
| Toxaphene | 2 | 7.128 | 0.009 | 90329 | 161.293 | 2 | 8.020 | 0.019 | 43106 | 32.463 |
| Toxaphene | 3 | 7.500 | -0.022 | 821472 | 1618.959 | 3 | 8.250 | -0.005 | 348011 | 609.580 |
| Toxaphene | 4 | 7.689 | -0.016 | 167592 | 198.432 | 4 | 8.479 | -0.017 | 31504 | 28.188 |
| Toxaphene | 5 | 7.769 | 0.018 | 128769 | 195.336 | 5 | 9.030 | -0.010 | 60371 | 140.097 |
| Toxaphene | 6 | 8.039 | 0.001 | 258512 | 540.991 | NS | --- | | | ---- |
| Total STX-CLPAve (6 peaks): 477.848 | | | | | | Total CLP2Ave (5 peaks): 163.881 | | | | RPD = 98* |
| Corrected Ave (5 peaks): 249.626 | | | | | | Corrected Ave (4 peaks): 52.456 | | | | RPD = 131* |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1248 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1248 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1248 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1248 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1254 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1254 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1254 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1254 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1260 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1260 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1260 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1260 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1262 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1262 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1262 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1262 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1268 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1268 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1268 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1268 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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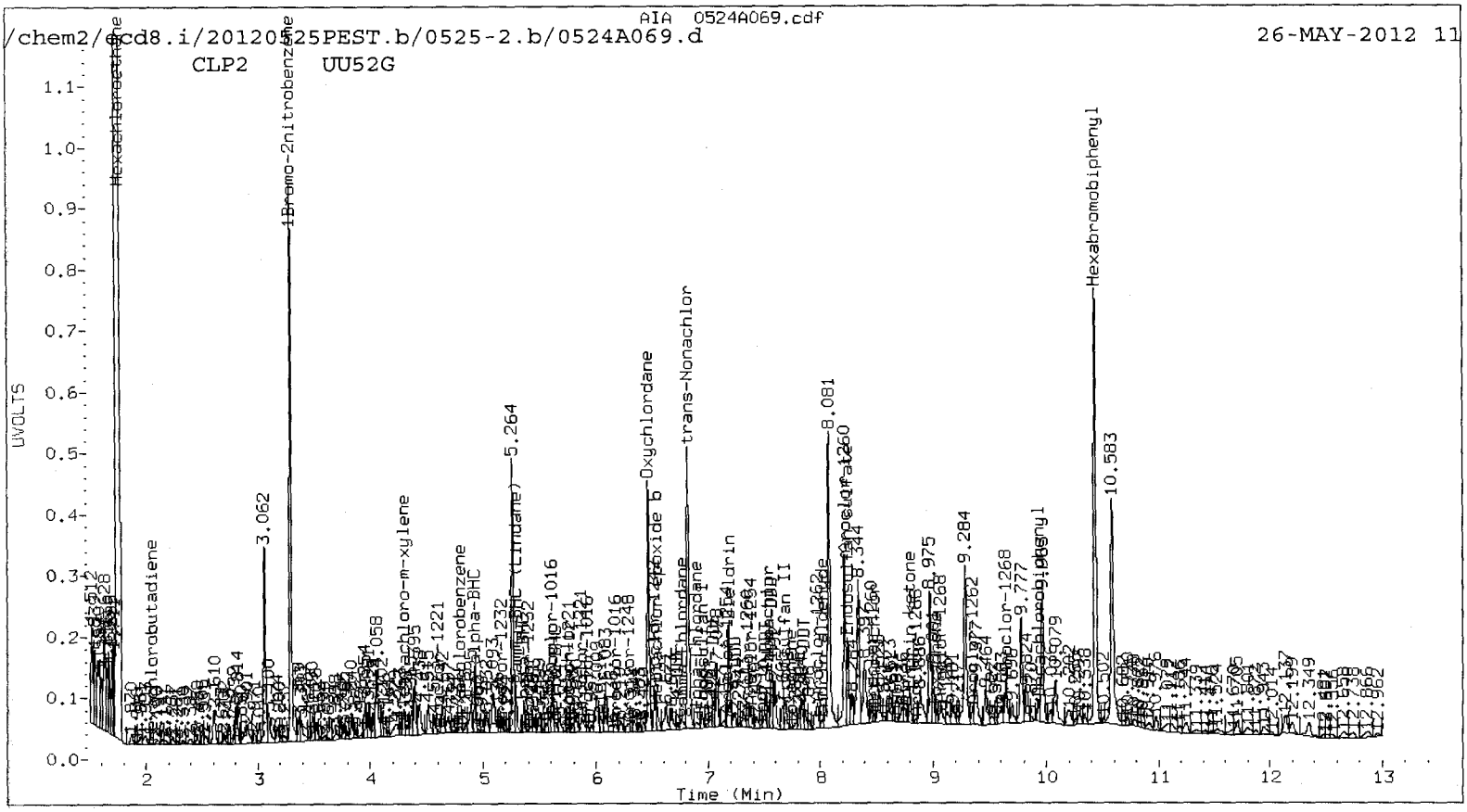
0524A069.cdf
26-MAY-2012 11
STX-CLP UU52G
UVOLTS
Time (Min)
beta-BHC
1Bromo-2nitrobenzene
trans-Nonachlor
Hexabromobiphenyl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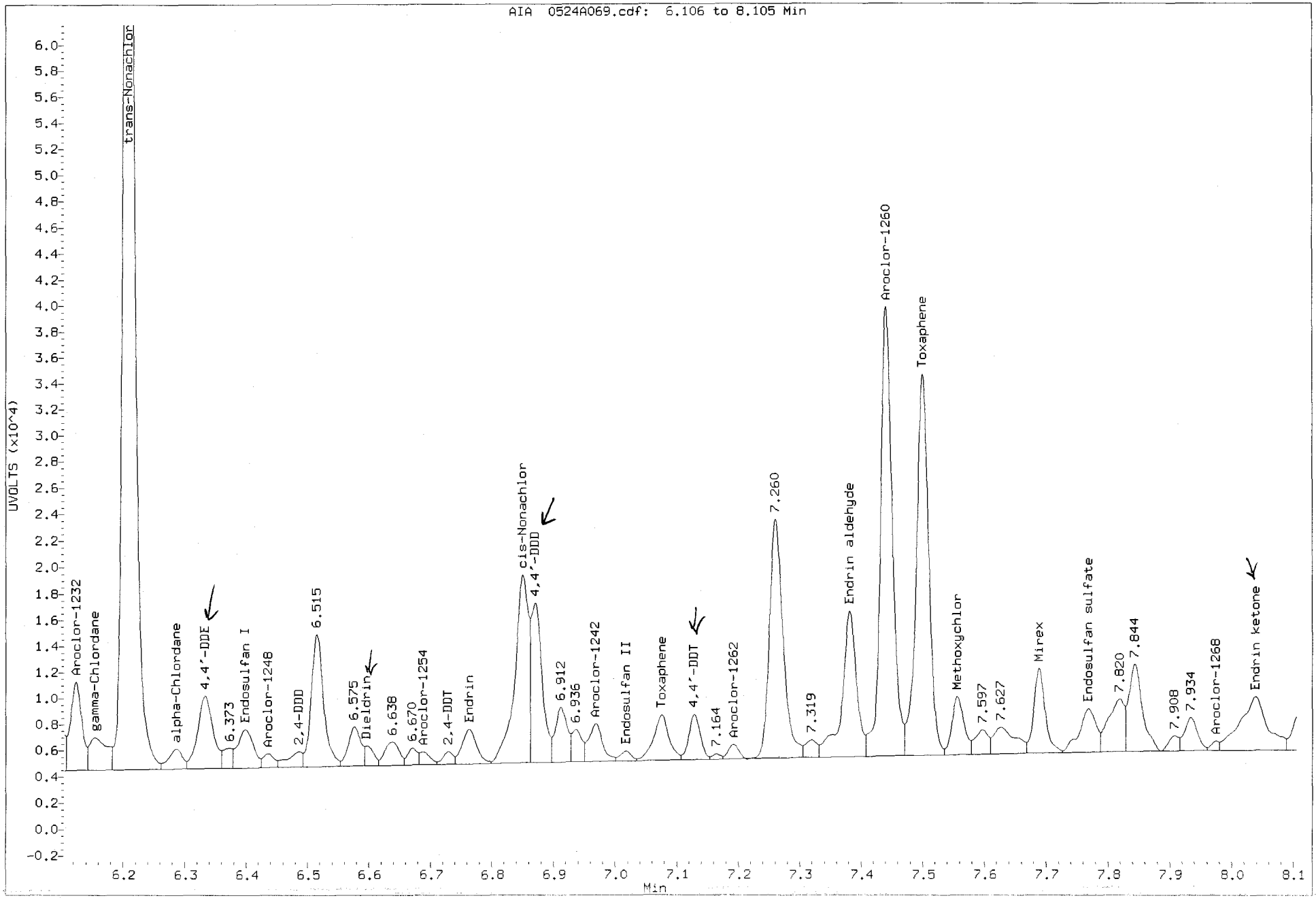
26-MAY-2012 11
CLP2 UU52G
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
3.062
5.264
Oxychlordane
trans-Nonachlor
8.081
10.583
Hexabromobiphenyl

Data File: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A069.d/0524A069.cdf
Injection Date: 26-MAY-2012 11:02
Instrument: ecd8.i
Client Sample ID: MS006-SS-120515



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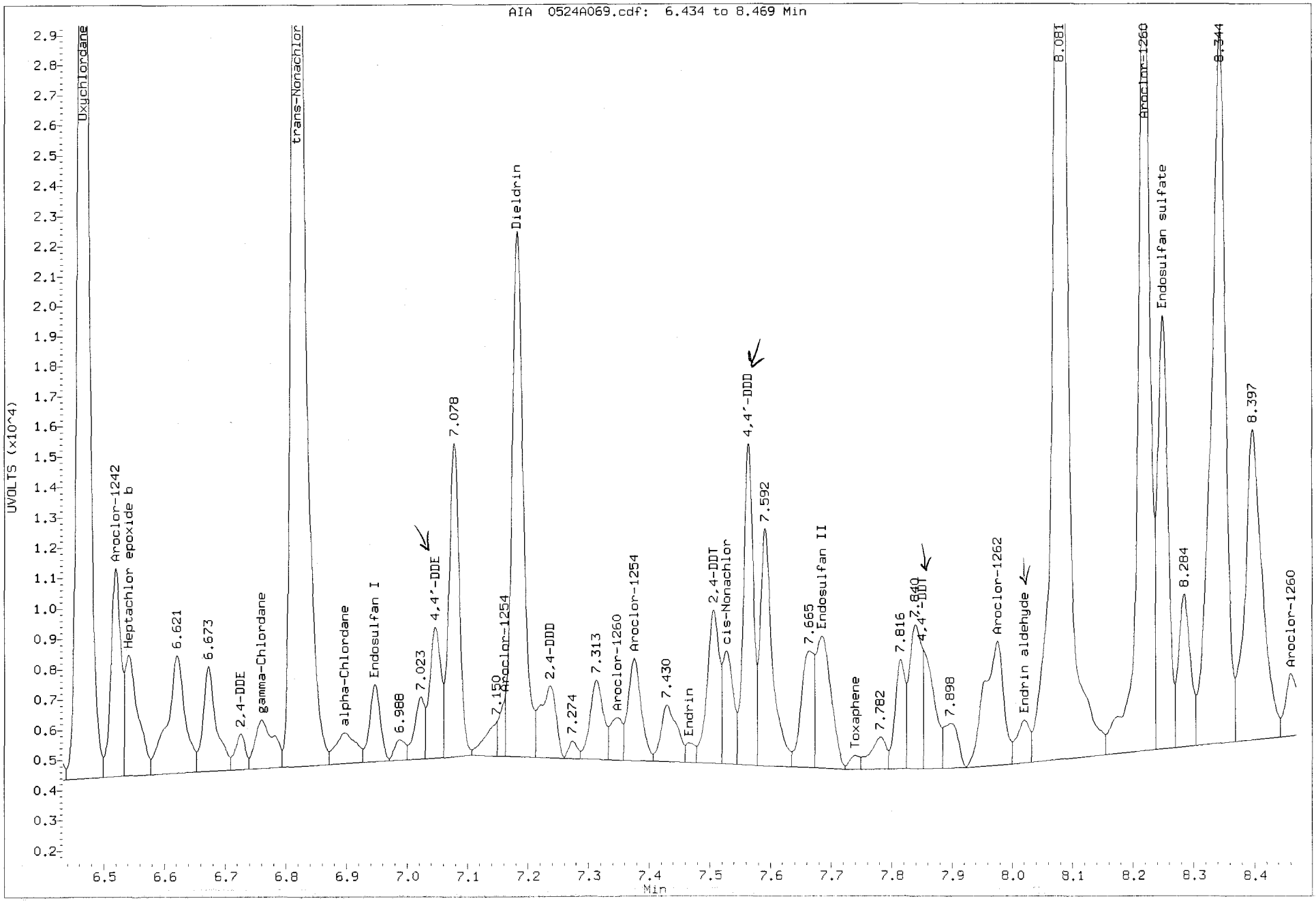
Injection Date: 26-MAY-2012 11:02
Instrument: ecd8.i
Client Sample ID: MS006-SS-120515



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A070.d ARI ID: UU52H
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A070.d Client ID: MS007-SS-120515
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 11:21
Compound Sublist: wpest Report Date: 05/29/2012 12:32
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 100.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.032 | 0.002 | 1485976 | 3.298 | 0.001 | 1948265 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.451 | -0.002 | 15634 | 4.931 | 0.002 | 8490 | 0.5479 | 0.2094 | 89.4* | alpha-BHC A B |
| 4.867 | 0.021 | 119563 | 5.363 | -0.004 | 2927 | 10.8851 | 0.1732 | 193.7* | beta-BHC A B |
| 5.025 | 0.014 | 8327 | 5.644 | -0.009 | 8335 | 0.3671 | 0.2786 | 27.4 | delta-BHC A B |
| 4.742 | -0.014 | 7265 | 5.268 | -0.015 | 30693 | 0.3133 | 0.9063 | 97.3* | gamma-BHC (Lindane) A B |
| 5.204 | 0.003 | 5671 | 5.719 | 0.006 | 1315 | 0.2480 | 0.0427 | 141.3* | Heptachlor A B |
| 5.518 | 0.041 | 8135 | 6.012 | -0.016 | 12606 | 0.2990 | 0.3312 | 10.2 | Aldrin A B |
| 6.036 | 0.008 | 9203 | 6.564 | -0.003 | 4469 | 0.3778 | 0.1409 | 91.3* | Heptachlor epoxide b A B |
| 6.398 | 0.013 | 7145 | 6.936 | -0.006 | 13153 | 0.1862 | 0.4267 | 78.5* | Endosulfan I A B |
| 6.601 | 0.000 | 13139 | 7.199 | 0.000 | 7411 | 0.5046 | 0.2261 | 76.2* | Dieldrin A B |
| 6.335 | -0.001 | 11936 | 7.024 | 0.001 | 10700 | 0.5838 | 0.2959 | 65.5* | 4,4'-DDE A B |
| 6.769 | -0.043 | 8052 | 7.468 | -0.021 | 3431 | 0.4472 | 0.1423 | 103.4* | Endrin A B |
| 7.016 | 0.001 | 4566 | 7.692 | 0.006 | 18303 | 0.2466 | 0.7127 | 97.2* | Endosulfan II A B |
| 6.874 | 0.000 | 24004 | 7.565 | 0.000 | 19844 | 1.6377 | 0.9048 | 57.7* | 4,4'-DDD A B |
| 7.774 | -0.022 | 1585 | 8.224 | -0.035 | 35473 | 0.1024 | 1.6440 | 176.5* | Endosulfan sulfate A B |
| 7.140 | 0.017 | 6781 | 7.849 | -0.009 | 3804 | 0.6825 | 0.2781 | 84.2* | 4,4'-DDT A B |
| ---- | | | 8.483 | -0.004 | 2664 | 0.0000 | 0.3815 | --- | Methoxychlor |
| 8.065 | 0.008 | 68078 | 8.793 | 0.013 | 4912 | 3.5368 | 0.2108 | 177.5* | Endrin ketone A B |
| 7.401 | 0.005 | 150710 | 7.972 | -0.026 | 6737 | 10.2279 | 0.3102 | 188.2* | Endrin aldehyde A B |
| 6.146 | 0.003 | 11723 | 6.771 | 0.026 | 20090 | 0.4808 | 0.5887 | 20.2 | gamma-Chlordane A B |
| 6.296 | 0.034 | 5563 | 6.884 | 0.003 | 6207 | 0.2213 | 0.1812 | 19.9 | alpha-Chlordane A B |
| 1.727 | -0.001 | 251 | 2.067 | 0.030 | 1235 | 0.0055 | 0.0201 | 113.5* | Hexachlorobutadiene A B |
| 4.277 | -0.011 | 24608 | 4.801 | 0.011 | 9584 | 0.9447 | 0.2578 | 114.2* | Hexachlorobenzene A B |
| ---- | | | 6.471 | -0.011 | 30319 | 0.0000 | 1.2102 | --- | Oxychlordane |
| 5.994 | -0.033 | 16134 | 6.729 | -0.007 | 2016 | 1.2243 | 0.0937 | 171.6* | 2,4-DDE A B |
| 6.214 | -0.036 | 63883 | 6.822 | -0.009 | 33243 | 3.3782 | 1.1172 | 100.6* | trans-Nonachlor A B |
| 6.461 | -0.030 | 17790 | 7.239 | 0.024 | 4231 | 1.8908 | 0.2713 | 149.8* | 2,4-DDD A B |
| ---- | | | 7.526 | 0.024 | 11738 | 0.0000 | 0.8538 | --- | 2,4-DDT |
| 6.845 | 0.000 | 6512 | 7.601 | 0.044 | 3588 | 0.3021 | 0.1113 | 92.3* | cis-Nonachlor A B |
| 7.688 | -0.021 | 9202 | 8.763 | 0.003 | 10326 | 0.7191 | 0.4965 | 36.6 | Mirex A B |
| 9.132 | -0.006 | 1657319 | 10.432 | -0.001 | 2023771 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 1.768 | -0.001 | 6488 | 1.759 | 0.007 | 1645941 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.898 | 0.001 | 13845 | 4.301 | 0.002 | 17401 | 0.6582 | 0.3716 | 55.7* | Tetrachloro-m-xylene A B |
| 8.983 | 0.003 | 14864 | 9.928 | 0.007 | 15660 | 0.5308 | 0.4603 | 14.2 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 1.6 | 0.9 | 0.9~ | 29-110 |
| Decachlorobiphenyl | 1.3 | 1.2 | 1.2~ | 18-151 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 1485976 | 77.7 |
| Hexabromobiphenyl | 1091107 | 1657319 | 51.9 |

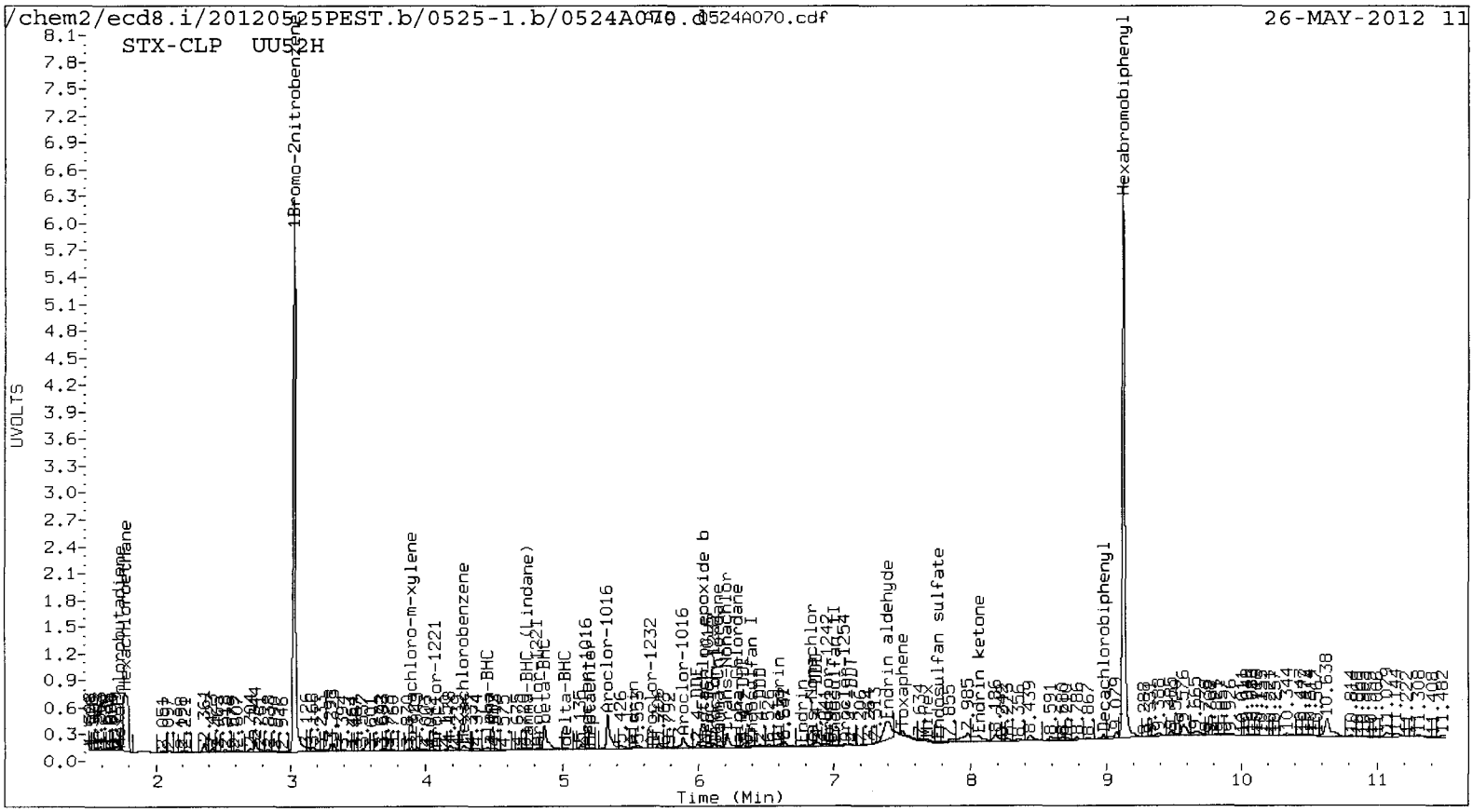
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1948265 | 56.0 |
| Hexabromobiphenyl | 1339634 | 2023771 | 51.1 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 7.086 | 0.017 | 10167 | 12.217 | 1 | 7.778 | 0.019 | 7461 | 6.261 |
| Toxaphene | 2 | 7.140 | 0.021 | 6781 | 11.683 | 2 | 8.027 | 0.025 | 1872 | 1.424 |
| Toxaphene | 3 | 7.510 | -0.013 | 24811 | 47.177 | 3 | 8.224 | -0.031 | 35473 | 62.766 |
| Toxaphene | 4 | 7.688 | -0.017 | 9202 | 10.513 | 4 | 8.483 | -0.012 | 2664 | 2.408 |
| Toxaphene | 5 | 7.774 | 0.023 | 1585 | 2.320 | 5 | 9.026 | -0.014 | 6008 | 14.084 |
| Toxaphene | 6 | 8.065 | 0.027 | 68078 | 137.455 | NS | --- | | | ---- |
| Total STX-CLPAve (6 peaks): 36.894 | | | | | | Total CLP2Ave (5 peaks): 17.389 | | | | RPD = 72* |
| Corrected Ave (5 peaks): 16.782 | | | | | | Corrected Ave (4 peaks): 6.044 | | | | RPD = 94* |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1248 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1248 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1248 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1248 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1254 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1254 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1254 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1254 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1260 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1260 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1260 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1260 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1262 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1262 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1262 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1262 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1268 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1268 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1268 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1268 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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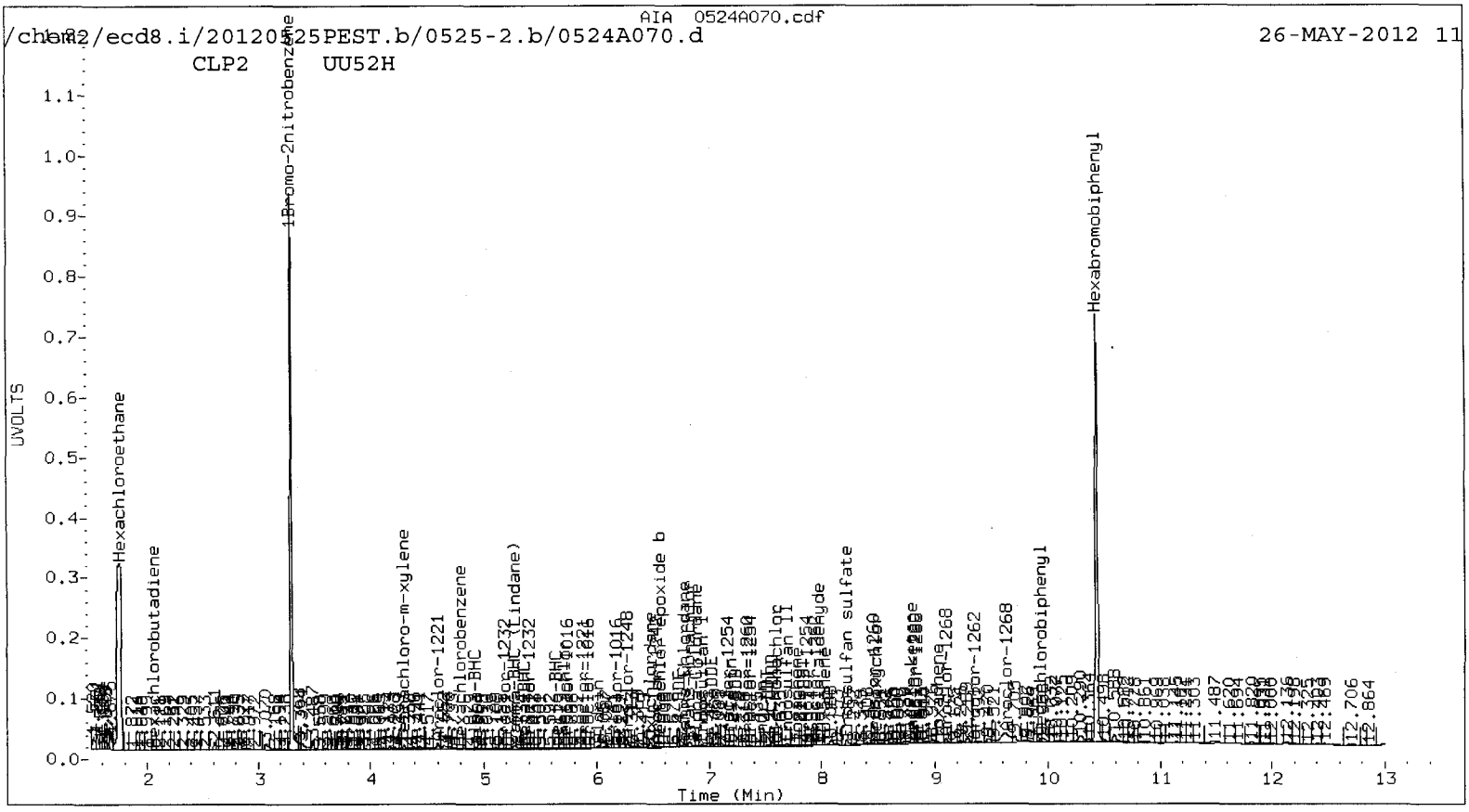
26-MAY-2012 11
STX-CLP UU52H
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Hexabromobiphenyl
Decachlorobiphenyl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AIA 0524A070.cdf
26-MAY-2012 11
CLP2 UU52H
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A071.d ARI ID: UU52I
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A071.d Client ID: MS008-SS-120515
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 11:40
Compound Sublist: wpest Report Date: 05/29/2012 12:32
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 100.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.031 | 0.001 | 1468582 | 3.298 | 0.001 | 1925279 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.452 | -0.001 | 10810 | 4.933 | 0.003 | 8282 | 0.3833 | 0.2067 | 59.9* | alpha-BHC A B |
| 4.869 | 0.023 | 66453 | 5.360 | -0.006 | 10422 | 6.1216 | 0.6238 | 163.0* | beta-BHC A B |
| 5.027 | 0.016 | 12795 | 5.644 | -0.009 | 9224 | 0.5707 | 0.3120 | 58.6* | delta-BHC A B |
| 4.745 | -0.010 | 9855 | 5.270 | -0.013 | 34734 | 0.4299 | 1.0378 | 82.8* | gamma-BHC (Lindane) A B |
| 5.208 | 0.007 | 5226 | 5.682 | -0.031 | 10771 | 0.2312 | 0.3536 | 41.9* | Heptachlor A B |
| 5.428 | -0.049 | 11031 | 6.012 | -0.016 | 11618 | 0.4103 | 0.3089 | 28.2 | Aldrin A B |
| 6.042 | 0.014 | 15641 | 6.562 | -0.005 | 4177 | 0.6496 | 0.1333 | 131.9* | Heptachlor epoxide b A B |
| 6.397 | 0.012 | 3999 | 6.959 | 0.017 | 3357 | 0.1054 | 0.1102 | 4.4 | Endosulfan I A B |
| 6.598 | -0.003 | 5527 | 7.201 | 0.001 | 2857 | 0.2148 | 0.0882 | 83.5* | Dieldrin A B |
| 6.335 | -0.001 | 2621 | 7.025 | 0.002 | 3544 | 0.1298 | 0.0992 | 26.8 | 4,4'-DDE A B |
| 6.779 | -0.033 | 6254 | 7.474 | -0.015 | 3116 | 0.3269 | 0.1269 | 88.1* | Endrin A B |
| 7.012 | -0.003 | 5335 | 7.695 | 0.009 | 15943 | 0.2711 | 0.6095 | 76.8* | Endosulfan II A B |
| 6.875 | 0.001 | 17994 | 7.563 | -0.001 | 7700 | 1.1553 | 0.3447 | 108.1* | 4,4'-DDD A B |
| 7.762 | -0.033 | 2137 | 8.225 | -0.033 | 30843 | 0.1299 | 1.4034 | 166.1* | Endosulfan sulfate A B |
| 7.145 | 0.022 | 6555 | 7.846 | -0.013 | 9584 | 0.6208 | 0.6879 | 10.3 | 4,4'-DDT A B |
| 7.562 | 0.002 | 6591 | 8.483 | -0.005 | 2450 | 1.0997 | 0.3444 | 104.6* | Methoxychlor A B |
| 8.067 | 0.011 | 8121 | 8.739 | -0.042 | 10144 | 0.3970 | 0.4274 | 7.4 | Endrin ketone A B |
| 7.395 | -0.001 | 10699 | 7.990 | -0.009 | 3384 | 0.6833 | 0.1530 | 126.8* | Endrin aldehyde A B |
| 6.164 | 0.022 | 4364 | 6.772 | 0.026 | 6234 | 0.1811 | 0.1849 | 2.1 | gamma-Chlordane A B |
| 6.293 | 0.031 | 5920 | 6.884 | 0.002 | 1530 | 0.2383 | 0.0452 | 136.2* | alpha-Chlordane A B |
| 1.735 | 0.007 | 7214 | 2.069 | 0.032 | 1693 | 0.1610 | 0.0278 | 141.0* | Hexachlorobutadiene A B |
| 4.282 | -0.006 | 18546 | 4.800 | 0.009 | 17726 | 0.7204 | 0.4825 | 39.6 | Hexachlorobenzene A B |
| 5.905 | -0.034 | 15901 | 6.471 | -0.011 | 21130 | 0.8963 | 0.8535 | 4.9 | Oxychlordane A B |
| 5.991 | -0.036 | 2064 | 6.730 | -0.006 | 1360 | 0.1474 | 0.0639 | 79.0* | 2,4-DDE A B |
| 6.216 | -0.034 | 32743 | 6.823 | -0.009 | 15351 | 1.6294 | 0.5065 | 105.1* | trans-Nonachlor A B |
| 6.481 | -0.011 | 5139 | 7.241 | 0.026 | 6003 | 0.5139 | 0.3779 | 30.5 | 2,4-DDD A B |
| 6.690 | -0.027 | 3746 | 7.528 | 0.025 | 18103 | 0.3726 | 1.2927 | 110.5* | 2,4-DDT A B |
| 6.845 | 0.001 | 5591 | 7.601 | 0.044 | 5955 | 0.2440 | 0.1813 | 29.5 | cis-Nonachlor A B |
| 7.690 | -0.019 | 1509 | 8.762 | 0.002 | 9139 | 0.1110 | 0.4314 | 118.1* | Mirex A B |
| 9.133 | -0.005 | 1761217 | 10.432 | -0.001 | 2061329 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 1.769 | 0.000 | 20028 | 1.759 | 0.007 | 4817851 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.915 | 0.018 | 24968 | 4.302 | 0.003 | 18391 | 1.2011 | 0.3974 | 100.5* | Tetrachloro-m-xylene A B |
| 8.984 | 0.003 | 10208 | 9.927 | 0.006 | 12029 | 0.3430 | 0.3472 | 1.2 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 3.0 | 1.0 | 1.0~ | 29-110 |
| Decachlorobiphenyl | 0.9 | 0.9 | 0.9~ | 18-151 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 1468582 | 75.6 |
| Hexabromobiphenyl | 1091107 | 1761217 | 61.4 |

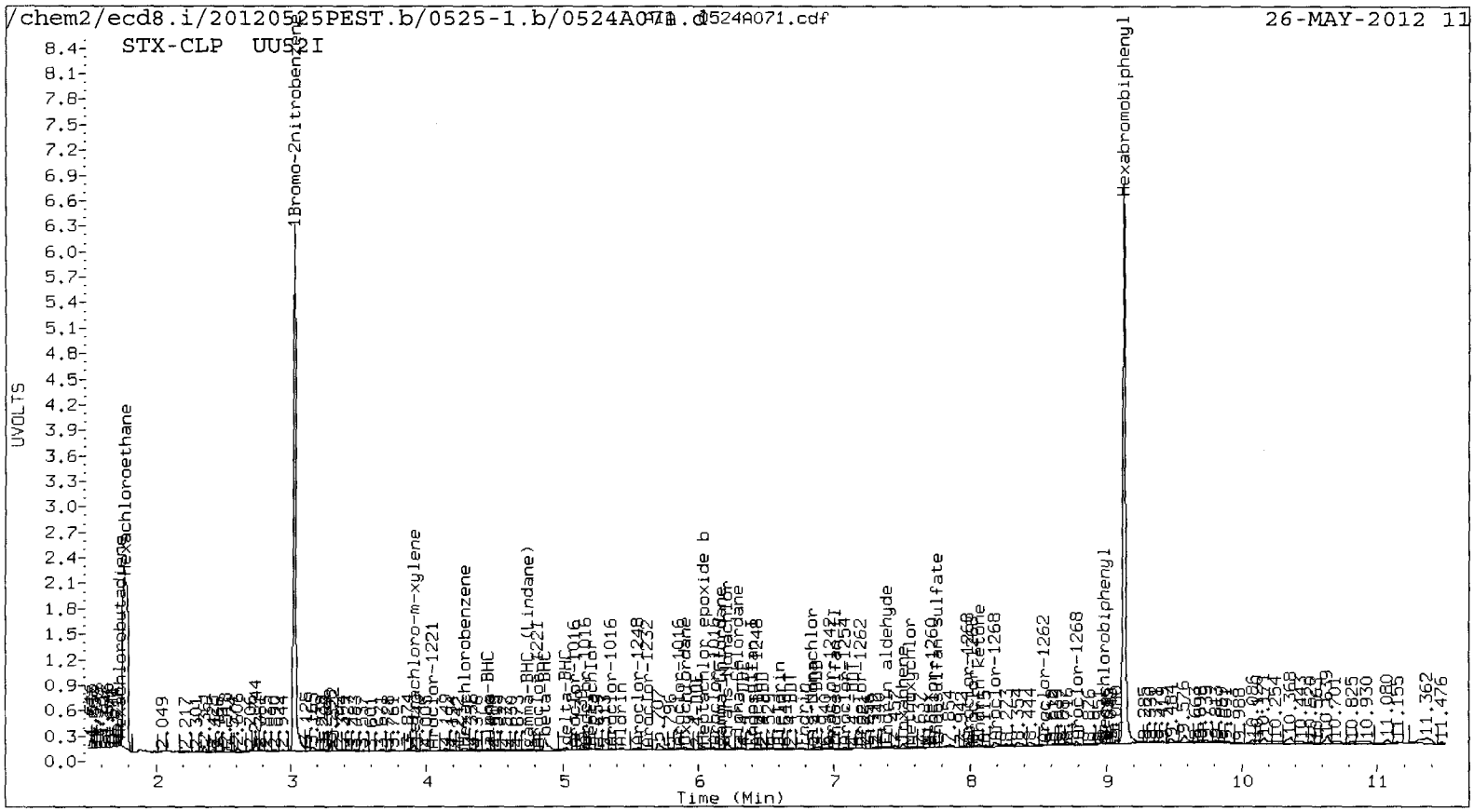
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1925279 | 54.2 |
| Hexabromobiphenyl | 1339634 | 2061329 | 53.9 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 7.087 | 0.019 | 9356 | 10.579 | 1 | 7.764 | 0.005 | 4938 | 4.069 |
| Toxaphene | 2 | 7.145 | 0.026 | 6555 | 10.627 | 2 | 7.990 | -0.011 | 3384 | 2.527 |
| Toxaphene | 3 | 7.512 | -0.011 | 19478 | 34.853 | 3 | 8.225 | -0.029 | 30843 | 53.579 |
| Toxaphene | 4 | 7.690 | -0.015 | 1509 | 1.623 | 4 | 8.483 | -0.013 | 2450 | 2.174 |
| Toxaphene | 5 | 7.762 | 0.012 | 2137 | 2.944 | 5 | 9.028 | -0.012 | 9161 | 21.084 |
| Toxaphene | 6 | 8.018 | -0.020 | 1623 | 3.085 | NS | --- | | | ---- |
| Total STX-CLPAve (6 peaks): 10.618 | | | | | | Total CLP2Ave (5 peaks): 16.687 | | | RPD = 44* | |
| Corrected Ave (5 peaks): 5.772 | | | | | | Corrected Ave (4 peaks): 7.464 | | | RPD = 26 | |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1248 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1248 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1248 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1248 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1254 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1254 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1254 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1254 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1260 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1260 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1260 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1260 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1262 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1262 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1262 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1262 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1268 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1268 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1268 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1268 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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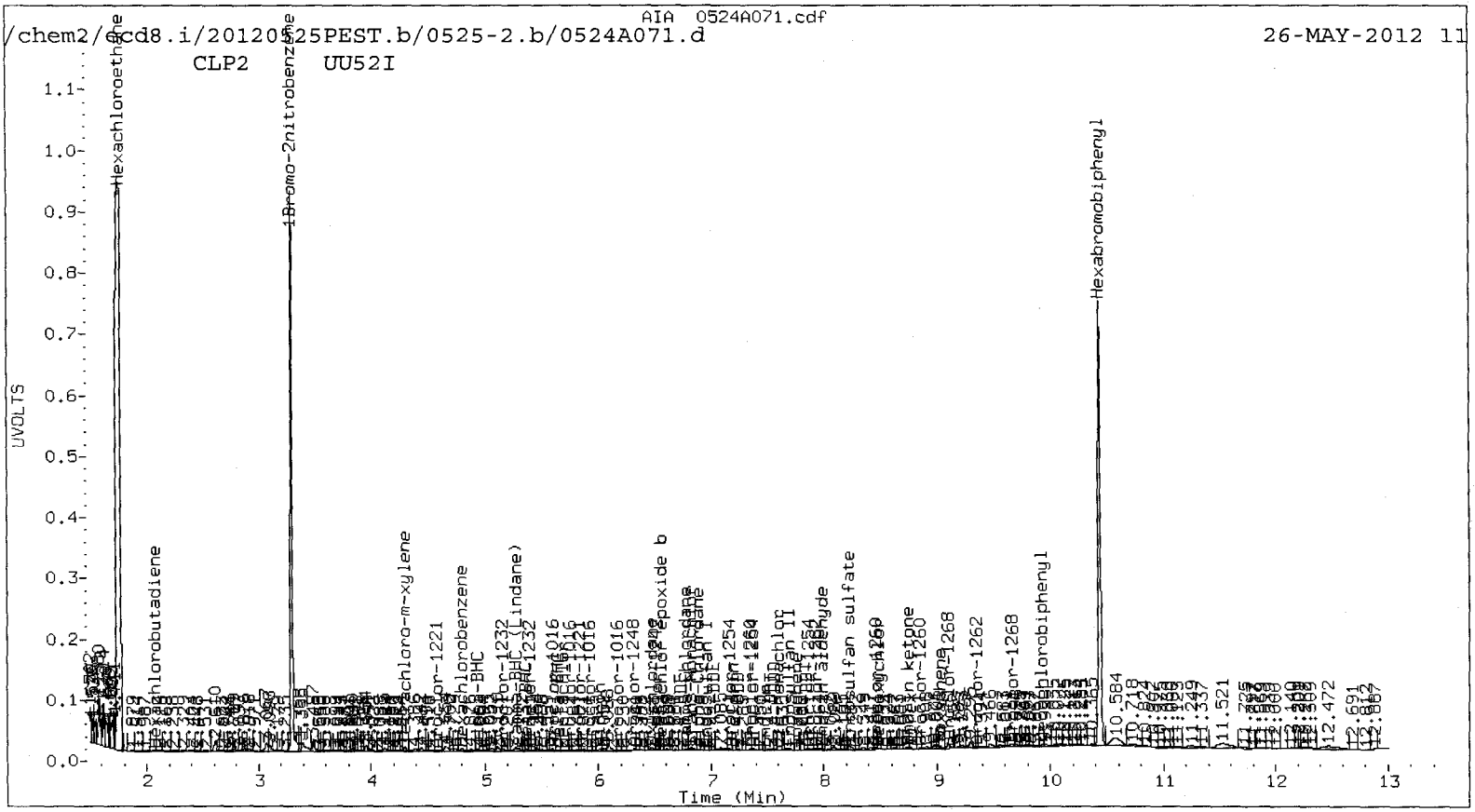
AIA 0524A071.cdf
26-MAY-2012 11
STX-CLP UU52I
UVOLTS
Time (Min)
Hexachloroethane
Hexachlorobutadiene
1Bromo-2nitrobenzene
Hexachlorobenzene
Hexabromobiphenyl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26-MAY-2012 11
CLP2 UU52I
UVOLTS
Time (Min)
Hexachloroethane
Hexachlorobutadiene
1Bromo-2nitrobenzene
Hexachlorobenzene
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A072.d ARI ID: UU52J
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A072.d Client ID: MS009-SS-120515
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 11:59
Compound Sublist: wpest Report Date: 05/29/2012 12:33
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 100.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.031 | 0.001 | 1504730 | 3.297 | 0.001 | 1970396 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.430 | -0.023 | 17499 | 4.932 | 0.002 | 8401 | 0.6056 | 0.2049 | 98.9* | alpha-BHC A B |
| 4.868 | 0.022 | 40666 | 5.361 | -0.005 | 7015 | 3.6562 | 0.4103 | 159.6* | beta-BHC A B |
| 5.027 | 0.016 | 20950 | 5.644 | -0.008 | 12797 | 0.9120 | 0.4230 | 73.3* | delta-BHC A B |
| 4.745 | -0.011 | 10124 | 5.283 | 0.000 | 40681 | 0.4311 | 1.1877 | 93.5* | gamma-BHC (Lindane) A B |
| 5.206 | 0.005 | 13512 | 5.714 | 0.000 | 8341 | 0.5834 | 0.2676 | 74.2* | Heptachlor A B |
| 5.454 | -0.023 | 8575 | 6.011 | -0.018 | 21476 | 0.3113 | 0.5580 | 56.8* | Aldrin A B |
| 6.043 | 0.015 | 21349 | 6.560 | -0.007 | 7141 | 0.8654 | 0.2226 | 118.2* | Heptachlor epoxide b A B |
| 6.395 | 0.011 | 9961 | 6.961 | 0.019 | 15225 | 0.2563 | 0.4884 | 62.3* | Endosulfan I A B |
| 6.578 | -0.024 | 15857 | 7.202 | 0.003 | 4028 | 0.6013 | 0.1215 | 132.8* | Dieldrin A B |
| 6.333 | -0.003 | 5252 | 7.026 | 0.003 | 4672 | 0.2538 | 0.1277 | 66.1* | 4,4'-DDE A B |
| 6.769 | -0.042 | 10915 | 7.444 | -0.045 | 2372 | 0.5699 | 0.0918 | 144.5* | Endrin A B |
| 7.011 | -0.004 | 5201 | 7.696 | 0.010 | 13422 | 0.2641 | 0.4876 | 59.5* | Endosulfan II A B |
| 6.893 | 0.019 | 14461 | 7.563 | -0.001 | 3048 | 0.9275 | 0.1297 | 150.9* | 4,4'-DDD A B |
| 7.775 | -0.021 | 16801 | 8.225 | -0.033 | 18555 | 1.0202 | 0.8023 | 23.9 | Endosulfan sulfate A B |
| 7.091 | -0.032 | 9640 | 7.847 | -0.011 | 7126 | 0.9120 | 0.4861 | 60.9* | 4,4'-DDT A B |
| 7.565 | 0.004 | 15650 | 8.455 | -0.032 | 8685 | 2.6084 | 1.1603 | 76.8* | Methoxychlor A B |
| 8.070 | 0.013 | 16519 | 8.739 | -0.041 | 10170 | 0.8067 | 0.4072 | 65.8* | Endrin ketone A B |
| 7.399 | 0.003 | 32671 | 7.974 | -0.025 | 20448 | 2.0842 | 0.8784 | 81.4* | Endrin aldehyde A B |
| 6.165 | 0.022 | 9188 | 6.771 | 0.025 | 13218 | 0.3721 | 0.3830 | 2.9 | gamma-Chlordane A B |
| 6.292 | 0.031 | 8644 | 6.881 | -0.001 | 5640 | 0.3396 | 0.1628 | 70.4* | alpha-Chlordane A B |
| 1.724 | -0.004 | 5163 | ---- | | | 0.1125 | 0.0000 | --- | Hexachlorobutadiene |
| 4.286 | -0.001 | 24183 | 4.796 | 0.005 | 16832 | 0.9168 | 0.4477 | 68.8* | Hexachlorobenzene A B |
| 5.942 | 0.003 | 4036 | 6.471 | -0.011 | 26855 | 0.2273 | 1.0599 | 129.4* | Oxychlordane A B |
| 5.986 | -0.041 | 5138 | 6.730 | -0.006 | 7919 | 0.3665 | 0.3638 | 0.8 | 2,4-DDE A B |
| 6.215 | -0.034 | 30985 | 6.823 | -0.008 | 20802 | 1.5403 | 0.6523 | 81.0* | trans-Nonachlor A B |
| 6.479 | -0.012 | 12671 | 7.244 | 0.029 | 16236 | 1.2659 | 0.9713 | 26.3 | 2,4-DDD A B |
| 6.688 | -0.030 | 7846 | 7.498 | -0.005 | 7070 | 0.7796 | 0.4798 | 47.6* | 2,4-DDT A B |
| 6.844 | -0.001 | 4777 | 7.527 | -0.030 | 10270 | 0.2083 | 0.2972 | 35.2 | cis-Nonachlor A B |
| 7.720 | 0.011 | 9574 | 8.764 | 0.004 | 12808 | 0.7033 | 0.5746 | 20.1 | Mirex A B |
| 9.133 | -0.006 | 1763076 | 10.432 | -0.001 | 2169151 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 1.767 | -0.002 | 9154 | 1.757 | 0.005 | 2221337 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.898 | 0.002 | 18188 | 4.301 | 0.003 | 27210 | 0.8539 | 0.5746 | 39.1 | Tetrachloro-m-xylene A B |
| 8.987 | 0.007 | 33734 | 9.927 | 0.006 | 11770 | 1.1324 | 0.3228 | 111.3* | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 2.1 | 1.4 | 1.4~ | 29-110 |
| Decachlorobiphenyl | 2.8 | 0.8 | 0.8~ | 18-151 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 1504730 | 79.9 |
| Hexabromobiphenyl | 1091107 | 1763076 | 61.6 |

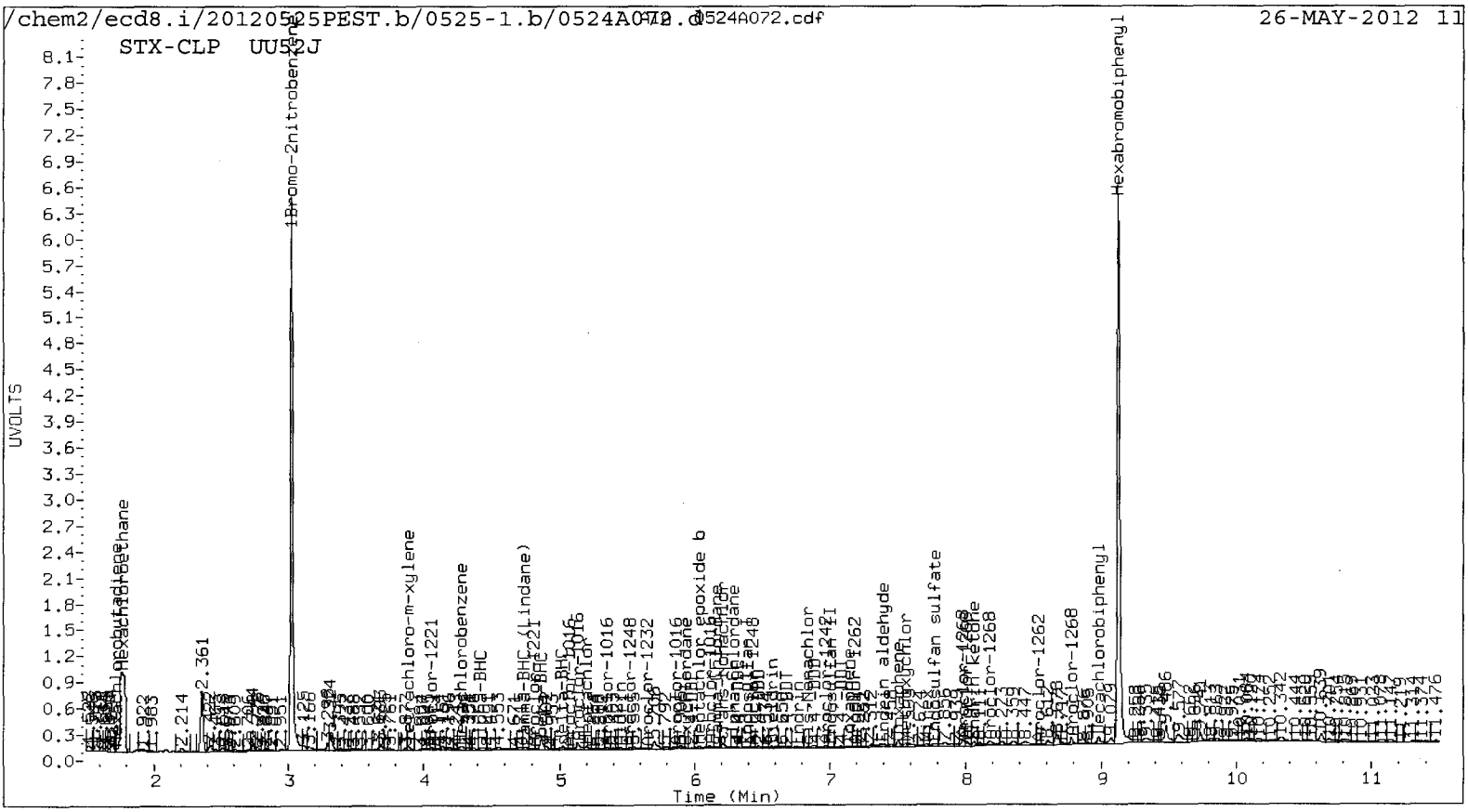
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1970396 | 57.8 |
| Hexabromobiphenyl | 1339634 | 2169151 | 61.9 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 7.091 | 0.023 | 9640 | 10.889 | 1 | 7.752 | -0.008 | 3291 | 2.577 |
| Toxaphene | 2 | 7.147 | 0.028 | 8288 | 13.423 | 2 | 8.025 | 0.024 | 1624 | 1.153 |
| Toxaphene | 3 | 7.511 | -0.012 | 29619 | 52.941 | 3 | 8.225 | -0.029 | 18555 | 30.631 |
| Toxaphene | 4 | 7.720 | 0.015 | 9574 | 10.281 | 4 | 8.533 | 0.037 | 5249 | 4.426 |
| Toxaphene | 5 | 7.775 | 0.025 | 16801 | 23.115 | 5 | 9.029 | -0.011 | 8739 | 19.113 |
| Toxaphene | 6 | 8.017 | -0.021 | 16662 | 31.624 | NS | --- | | | ---- |
| | Total STX-CLPAve (6 peaks): 23.712 | | | | | Total CLP2Ave (5 peaks): 11.580 | | | | RPD = 69* |
| | Corrected Ave (5 peaks): 17.866 | | | | | Corrected Ave (4 peaks): 6.817 | | | | RPD = 90* |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 1 | --- | 0.000 | 1 | | --- | 0.000 | |
| Aroclor-1248 2 | --- | 0.000 | 2 | | --- | 0.000 | |
| Aroclor-1248 3 | --- | 0.000 | 3 | | --- | 0.000 | |
| Aroclor-1248 4 | --- | 0.000 | 4 | | --- | 0.000 | |
| Aroclor-1248 5 | --- | 0.000 | 5 | | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 1 | --- | 0.000 | 1 | | --- | 0.000 | |
| Aroclor-1254 2 | --- | 0.000 | 2 | | --- | 0.000 | |
| Aroclor-1254 3 | --- | 0.000 | 3 | | --- | 0.000 | |
| Aroclor-1254 4 | --- | 0.000 | 4 | | --- | 0.000 | |
| Aroclor-1254 5 | --- | 0.000 | 5 | | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 1 | --- | 0.000 | 1 | | --- | 0.000 | |
| Aroclor-1260 2 | --- | 0.000 | 2 | | --- | 0.000 | |
| Aroclor-1260 3 | --- | 0.000 | 3 | | --- | 0.000 | |
| Aroclor-1260 4 | --- | 0.000 | 4 | | --- | 0.000 | |
| Aroclor-1260 5 | --- | 0.000 | 5 | | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 1 | --- | 0.000 | 1 | | --- | 0.000 | |
| Aroclor-1262 2 | --- | 0.000 | 2 | | --- | 0.000 | |
| Aroclor-1262 3 | --- | 0.000 | 3 | | --- | 0.000 | |
| Aroclor-1262 4 | --- | 0.000 | 4 | | --- | 0.000 | |
| Aroclor-1262 5 | --- | 0.000 | 5 | | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 1 | --- | 0.000 | 1 | | --- | 0.000 | |
| Aroclor-1268 2 | --- | 0.000 | 2 | | --- | 0.000 | |
| Aroclor-1268 3 | --- | 0.000 | 3 | | --- | 0.000 | |
| Aroclor-1268 4 | --- | 0.000 | 4 | | --- | 0.000 | |
| Aroclor-1268 5 | --- | 0.000 | 5 | | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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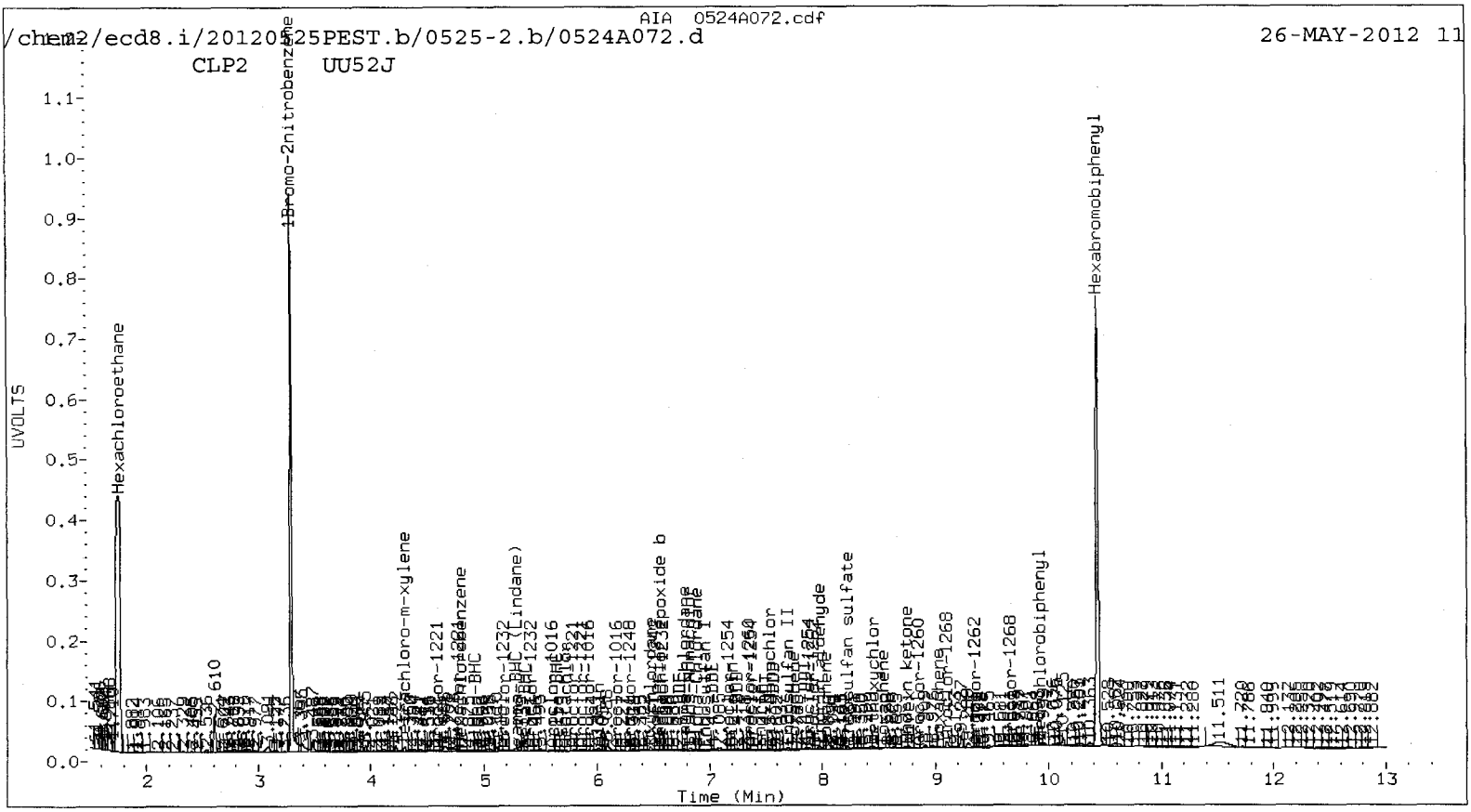
26-MAY-2012 11
STX-CLP UU52J
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachloro-m-xylene
Hexachlorobenzene
Hexachlorobiphenyl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26-MAY-2012 11
CLP2 UU52J
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachloro-m-xylene
Hexachlorobenzene
Hexachlorobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd8.i/20120525PEST.b/0525-1.b/0524A077.d ARI ID: INDAE
Data file 2: /chem2/ecd8.i/20120525PEST.b/0525-2.b/0524A077.d Client ID:
Method: /chem2/ecd8.i/20120525PEST.b/PEST0525.m Injection Date: 26-MAY-2012 13:33
Compound Sublist: INDA Report Date: 05/29/2012 12:07
Instrument, Inj. Vol.: ecd8.i, 1ul Matrix: SOIL
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 3.031 | 0.001 | 1321741 | 3.297 | 0.001 | 1755648 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene A B |
| 4.455 | 0.002 | 489565 | 4.930 | 0.001 | 711094 | 19.2888 | 19.4626 | 0.9 | alpha-BHC A B |
| 4.849 | 0.003 | 166803 | 5.369 | 0.002 | 278921 | 17.0728 | 18.3073 | 7.0 | beta-BHC A B |
| 5.013 | 0.002 | 358857 | 5.655 | 0.003 | 509997 | 17.7851 | 18.9191 | 6.2 | delta-BHC A B |
| 4.757 | 0.002 | 404496 | 5.284 | 0.001 | 577114 | 19.6070 | 18.9099 | 3.6 | gamma-BHC (Lindane) A B |
| 5.203 | 0.002 | 401422 | 5.715 | 0.001 | 465845 | 19.7309 | 16.7707 | 16.2 | Heptachlor A B |
| 5.479 | 0.001 | 467924 | 6.030 | 0.002 | 641705 | 19.3372 | 18.7119 | 3.3 | Aldrin A B |
| 6.030 | 0.002 | 412181 | 6.569 | 0.002 | 546510 | 19.0204 | 19.1185 | 0.5 | Heptachlor epoxide b A B |
| 6.387 | 0.002 | 569590 | 6.944 | 0.002 | 521092 | 16.6857 | 18.7602 | 11.7 | Endosulfan I A B |
| 6.604 | 0.003 | 939039 | 7.201 | 0.002 | 1160971 | 40.5403 | 39.3077 | 3.1 | Dieldrin A B |
| 6.340 | 0.004 | 597637 | 7.027 | 0.004 | 1222747 | 31.5917 | 37.5203 | 17.2 | 4,4'-DDE A B |
| 6.814 | 0.002 | 790479 | 7.492 | 0.002 | 882717 | 41.9633 | 38.6640 | 8.2 | Endrin A B |
| 7.018 | 0.003 | 799067 | 7.689 | 0.003 | 1036128 | 41.2505 | 42.6029 | 3.2 | Endosulfan II A B |
| 6.880 | 0.006 | 724899 | 7.569 | 0.005 | 998456 | 47.2719 | 48.0752 | 1.7 | 4,4'-DDD A B |
| 7.798 | 0.003 | 639608 | 8.261 | 0.002 | 764919 | 39.4914 | 37.4364 | 5.3 | Endosulfan sulfate A B |
| 7.128 | 0.005 | 194709 | 7.862 | 0.004 | 148238 | 18.7296 | 11.4450 | 48.3* | 4,4'-DDT A B |
| 7.565 | 0.004 | 795423 | 8.491 | 0.003 | 680406 | 134.8019 | 102.8839 | 26.9 | Methoxychlor A B |
| 8.059 | 0.003 | 706521 | 8.783 | 0.003 | 677972 | 35.0832 | 30.7224 | 13.3 | Endrin ketone A B |
| 7.399 | 0.003 | 583111 | 8.001 | 0.002 | 754844 | 37.8247 | 36.7014 | 3.0 | Endrin aldehyde A B |
| 6.145 | 0.002 | 428023 | 6.748 | 0.002 | 573027 | 19.7337 | 18.6331 | 5.7 | gamma-Chlordane A B |
| 6.264 | 0.002 | 414609 | 6.883 | 0.002 | 560586 | 18.5407 | 18.1630 | 2.1 | alpha-Chlordane A B |
| 1.730 | 0.002 | 622450 | 2.038 | 0.001 | 884638 | 15.4367 | 15.9447 | 3.2 | Hexachlorobutadiene A B |
| 4.289 | 0.002 | 336457 | 4.793 | 0.002 | 524196 | 14.5215 | 15.6475 | 7.5 | Hexachlorobenzene A B |
| 9.140 | 0.002 | 1733918 | 10.436 | 0.002 | 1916442 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl A B |
| 3.898 | 0.002 | 520911 | 4.300 | 0.001 | 1350554 | 27.8417 | 32.0063 | 13.9 | Tetrachloro-m-xylene A B |
| 8.983 | 0.003 | 853589 | 9.925 | 0.004 | 1074146 | 29.1360 | 33.3445 | 13.5 | Decachlorobiphenyl A B |

* Indicates RPD > 40%
A Indicates Peak Area was used for Column 1 quantitation instead of Height
B Indicates Peak Area was used for Column 2 quantitation instead of Height
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 69.6 | 80.0 | 69.6~ | 85-115 |
| Decachlorobiphenyl | 72.8 | 83.4 | 72.8~ | 85-115 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 836406 | 1321741 | 58.0 |
| Hexabromobiphenyl | 1091107 | 1733918 | 58.9 |

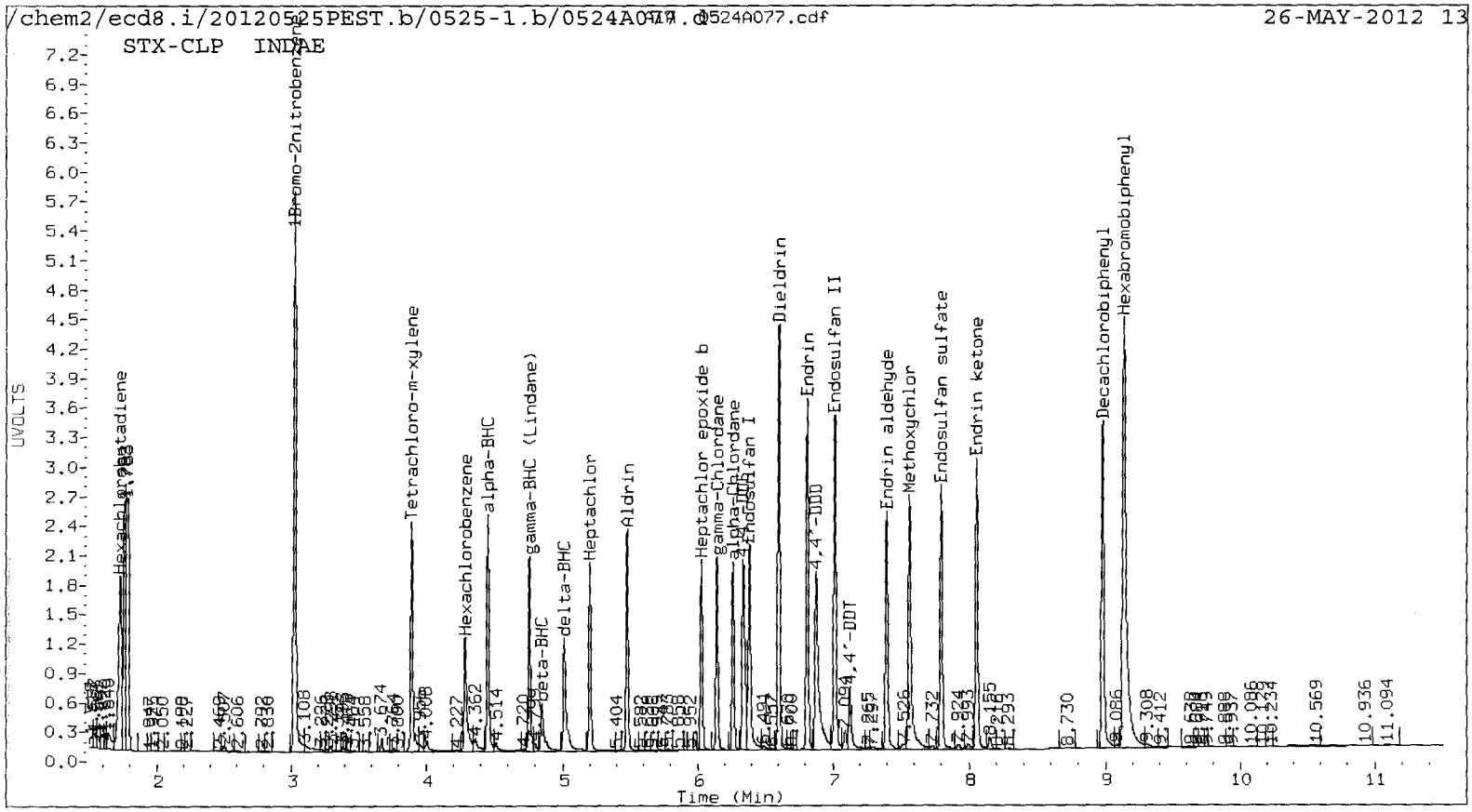
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 1248621 | 1755648 | 40.6 |
| Hexabromobiphenyl | 1339634 | 1916442 | 43.1 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 25-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |

UU52:01476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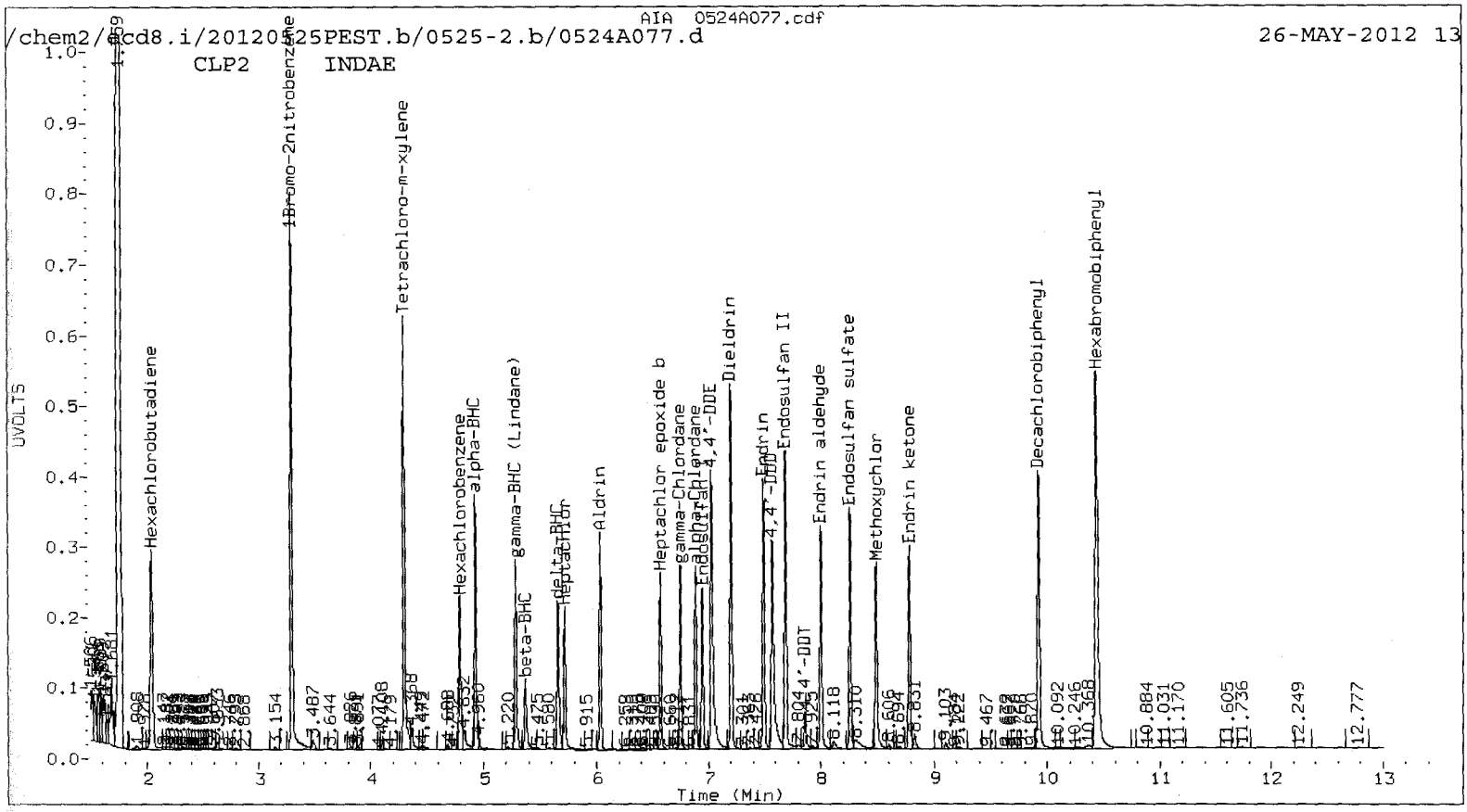
26-MAY-2012 13
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDE
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0524A077.cdf
26-MAY-2012 13
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

0052:01471

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# GC Analyst Notes / Corrective Action Log

ARI Project ID: UU62 Client ID: Anchor

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest) **427S**(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): 500mL/50mL F ✓ AR 5/25/12

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8 FID-9 ECD-1 ECD-5 ECD-6 ECD-7

Dates: Curve: 5/23/2012 Analysis Start: 5/23/2012

Endrin/DDT Breakdown <15%? YES / NO / NA

Method Blank In Control? YES / NO

ICal Meets RF & %RSD Criteria? YES / NO

LCS/LCSD Recovery In Control? YES / NO

CCal Meets RF & %RSD Criteria? YES / NO

Surrogate Recovery In Control? YES / NO

Manual Integrations for ICal? YES / NO

Manual Integrations for Samples? YES / NO

Internal Standard Meets Criteria? YES / NO / NA

Special Analysis Criteria Met? YES / NO / NA
Level 4VDP

**Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):**

**Additional Details on Reverse: Yes / No**

**Analyst:** [signature] **Date:** 5/25/2012

**Reviewer:** [signature] **Date:** 5/25/12

Form 4060F

Version 007

6/18/10

UU52:01472

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A087.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A087.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 24-MAY-2012 14:31
Compound Sublist: INDA Report Date: 05/25/2012 15:53
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.796 | 0.000 | 5138026 | 2.854 | -0.001 | 17460248 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.846 | -0.001 | 2153795 | 4.106 | -0.001 | 5935110 | 21.0096 | 19.9622 | 5.1 | alpha-BHC |
| 4.184 | 0.002 | 767688 | 4.502 | 0.000 | 2127626 | 20.0768 | 18.6027 | 7.6 | beta-BHC |
| 4.339 | 0.002 | 1572221 | 4.782 | 0.000 | 4277431 | 21.0210 | 20.1555 | 4.2 | delta-BHC |
| 4.106 | 0.000 | 1791172 | 4.427 | -0.002 | 4944162 | 20.8287 | 19.4896 | 6.6 | gamma-BHC (Lindane) |
| 4.517 | -0.001 | 1960354 | 4.848 | -0.002 | 4778170 | 20.6506 | 18.7159 | 9.8 | Heptachlor |
| 4.787 | 0.000 | 1813780 | 5.169 | -0.002 | 4217518 | 20.8305 | 19.0596 | 8.9 | Aldrin |
| 5.346 | 0.000 | 1557022 | 5.730 | -0.002 | 4080766 | 20.0808 | 19.0093 | 5.5 | Heptachlor epoxide b |
| 5.721 | -0.001 | 2061698 | 6.116 | -0.002 | 3510584 | 19.6991 | 18.7882 | 4.7 | Endosulfan I |
| 5.945 | -0.001 | 3392010 | 6.375 | -0.002 | 7390693 | 40.7062 | 38.2616 | 6.2 | Dieldrin |
| 5.672 | 0.002 | 2362843 | 6.208 | 0.000 | 6578937 | 44.8223 | 38.5112 | 15.1 | 4,4'-DDE |
| 6.162 | -0.001 | 3033187 | 6.662 | -0.002 | 6080394 | 40.3659 | 37.0089 | 8.7 | Endrin |
| 6.371 | 0.000 | 2927734 | 6.855 | -0.002 | 6093442 | 40.0343 | 36.6055 | 8.9 | Endosulfan II |
| 6.229 | 0.002 | 2504898 | 6.748 | -0.001 | 5216612 | 42.3376 | 37.9962 | 10.8 | 4,4'-DDD |
| 7.137 | -0.001 | 2548990 | 7.402 | -0.002 | 4799767 | 39.6453 | 37.5285 | 5.5 | Endosulfan sulfate |
| 6.484 | 0.000 | 2710876 | 7.033 | -0.001 | 5171564 | 41.7212 | 38.2535 | 8.7 | 4,4'-DDT |
| 6.923 | 0.000 | 6399917 | 7.627 | -0.002 | 10016532 | 193.3285 | 169.6117 | 13.1 | Methoxychlor |
| 7.388 | -0.001 | 3136573 | 7.880 | -0.002 | 6123268 | 38.4814 | 37.1882 | 3.4 | Endrin ketone |
| 6.748 | 0.000 | 2319970 | 7.156 | -0.002 | 4648545 | 39.3377 | 36.6649 | 7.0 | Endrin aldehyde |
| 5.469 | 0.000 | 1702337 | 5.917 | -0.001 | 3845309 | 20.2478 | 19.3050 | 4.8 | gamma-Chlordane |
| 5.594 | 0.000 | 1540833 | 6.056 | -0.002 | 3593719 | 19.2579 | 18.9577 | 1.6 | alpha-Chlordane |
| 2.053 | -0.001 | 2265284 | 2.111 | -0.001 | 6151347 | 19.9942 | 19.0584 | 4.8 | Hexachlorobutadiene |
| 3.718 | 0.002 | 1384434 | 3.995 | 0.000 | 5200452 | 19.5905 | 19.1545 | 2.3 | Hexachlorobenzene |
| 8.389 | -0.004 | 6987948 | 9.353 | -0.004 | 9570322 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 3.407 | 0.001 | 3009166 | 3.587 | -0.001 | 8470664 | 39.5805 | 39.0944 | 1.2 | Tetrachloro-m-xylene |
| 8.250 | -0.001 | 2897118 | 8.907 | -0.002 | 4907198 | 36.9053 | 37.0376 | 0.4 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 99.0 | 97.7 | 97.7~ | 115- 0 |
| Decachlorobiphenyl | 92.3 | 92.6 | 92.3~ | 115- 0 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

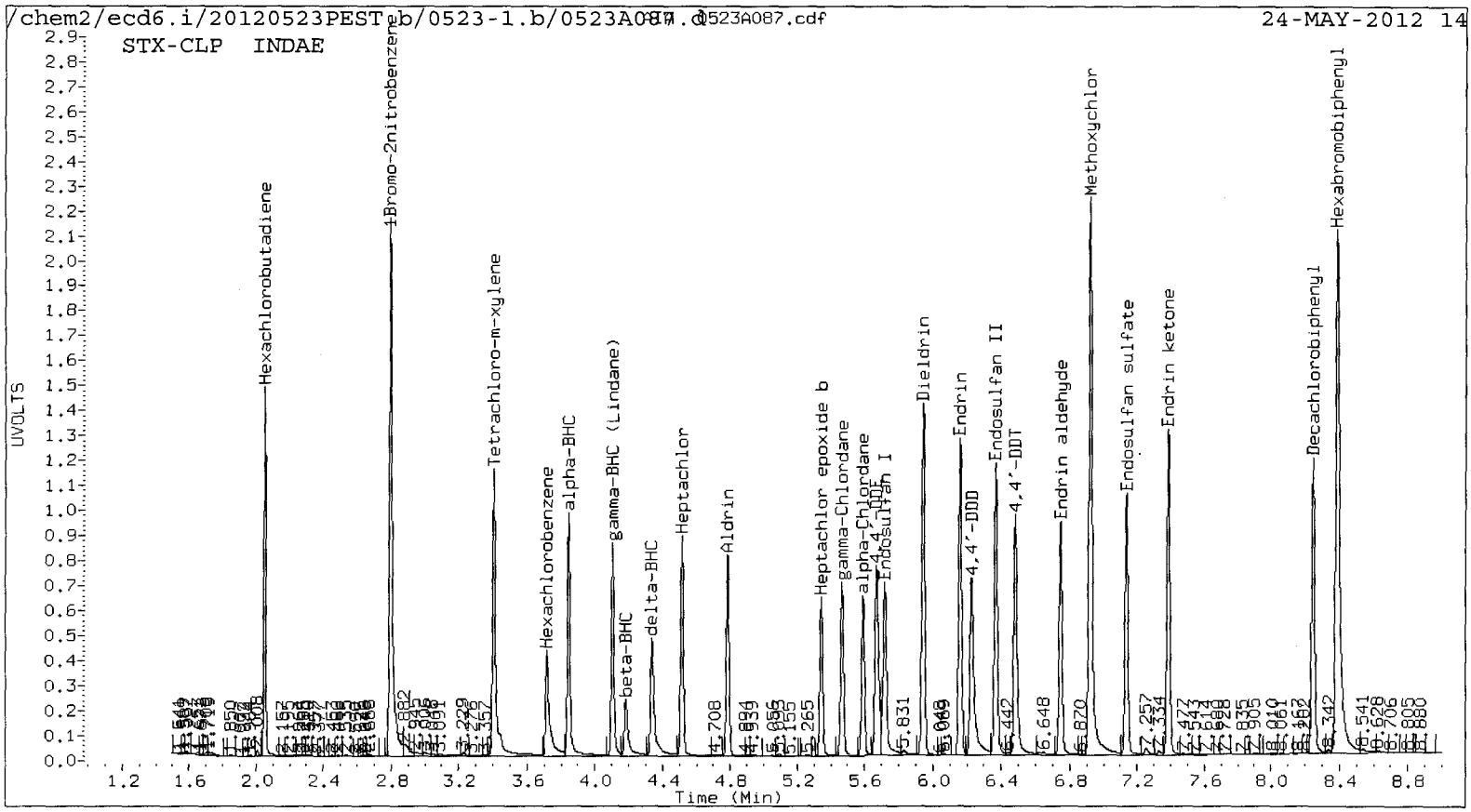
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 5138026 | 6.1 |
| Hexabromobiphenyl | 6506091 | 6987948 | 7.4 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 17460248 | 7.6 |
| Hexabromobiphenyl | 8472750 | 9570322 | 13.0 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | STX-CLP Col Peak# | RT | Shift | Height | Amount | CLP2 Col Peak# | RT | Shift | Height | Amount |
|---|---|---|---|---|---|---|---|---|---|---|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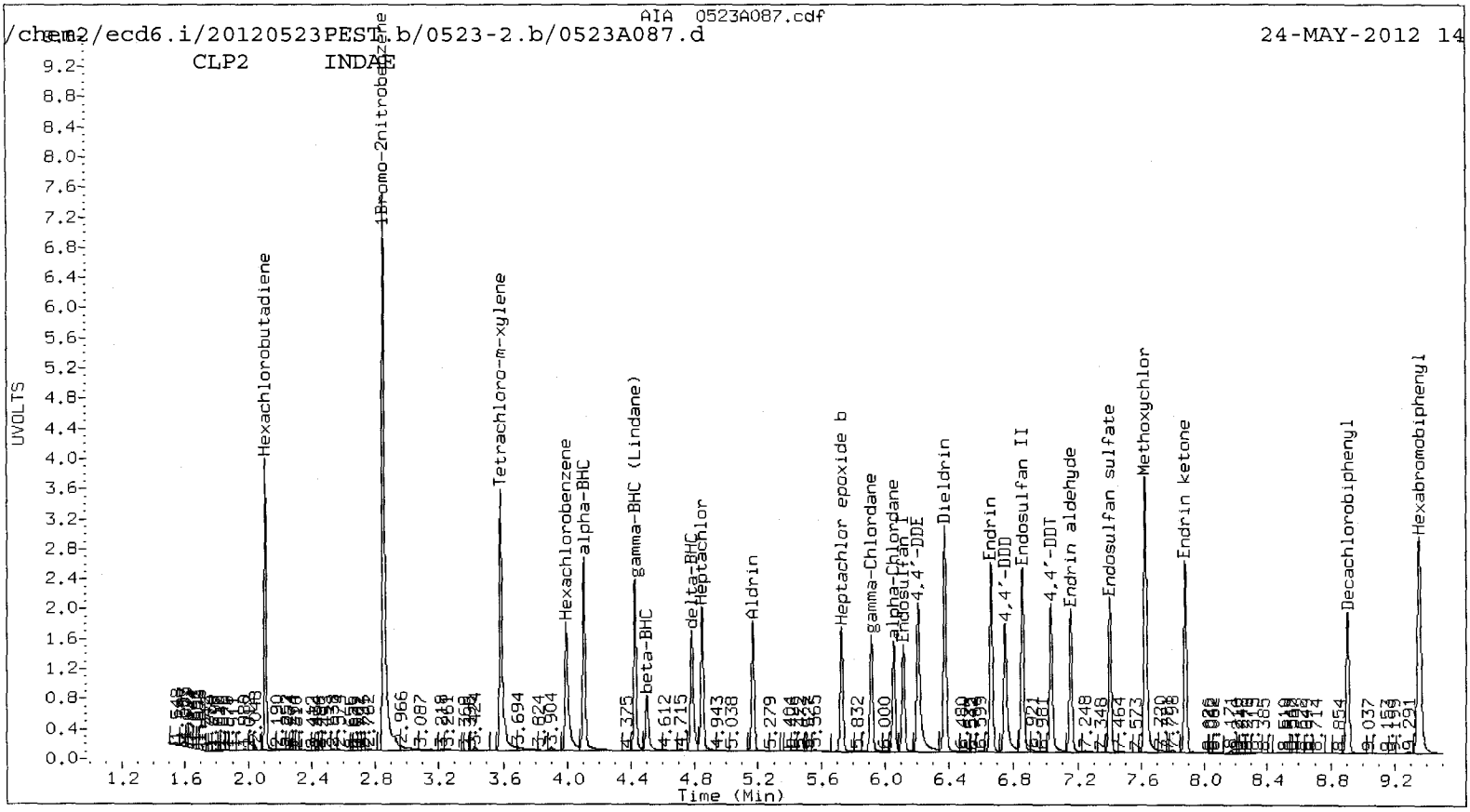
0523A087.cdf
24-MAY-2012 14
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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24-MAY-2012 14
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

UU52:01475

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

AR 5/25/2012

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A090.d ARI ID: UU37MBW1
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A090.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 24-MAY-2012 15:24
Compound Sublist: wpest Report Date: 05/25/2012 08:42
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.794 | -0.002 | 5071443 | 2.853 | -0.002 | 15720442 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.831 | -0.015 | 21195 | 4.091 | -0.017 | 13606 | 0.2095 | 0.0508 | 121.9* | alpha-BHC |
| 4.193 | 0.011 | 12211 | 4.525 | 0.023 | 7446 | 0.3235 | 0.0723 | 126.9* | beta-BHC |
| 4.329 | -0.008 | 9273 | 4.778 | -0.005 | 15514 | 0.1256 | 0.0812 | 43.0* | delta-BHC |
| 4.102 | -0.004 | 27230 | 4.425 | -0.003 | 10815 | 0.3208 | 0.0474 | 148.6* | gamma-BHC (Lindane) |
| 4.516 | -0.002 | 8053 | 4.846 | -0.003 | 25863 | 0.0860 | 0.1125 | 26.8 | Heptachlor |
| 4.785 | -0.002 | 1615 | 5.186 | 0.015 | 382154 | 0.0188 | 1.9181 | 196.1* | Aldrin |
| 5.356 | 0.011 | 24285 | 5.714 | -0.019 | 158006 | 0.3173 | 0.8175 | 88.2* | Heptachlor epoxide b |
| 5.723 | 0.002 | 8962 | 6.137 | 0.019 | 77865 | 0.0868 | 0.4628 | 136.9* | Endosulfan I |
| 5.944 | -0.002 | 21813 | 6.378 | 0.001 | 59957 | 0.2652 | 0.3448 | 26.1 | Dieldrin |
| 5.667 | -0.003 | 8756 | 6.205 | -0.003 | 81412 | 0.1683 | 0.5293 | 103.5* | 4,4'-DDE |
| 6.161 | -0.002 | 7504 | ---- | | | 0.0974 | 0.0000 | --- | Endrin |
| 6.366 | -0.004 | 13186 | 6.854 | -0.003 | 128856 | 0.1758 | 0.7773 | 126.2* | Endosulfan II |
| ---- | | | 6.709 | -0.039 | 56829 | 0.0000 | 0.4156 | --- | 4,4'-DDD |
| 7.136 | -0.002 | 11934 | 7.398 | -0.007 | 16867 | 0.1810 | 0.1324 | 31.0 | Endosulfan sulfate |
| 6.483 | 0.000 | 35212 | 7.033 | -0.001 | 175974 | 0.5284 | 1.3071 | 84.8* | 4,4'-DDT |
| 6.924 | 0.001 | 33914 | ---- | | | 0.9990 | 0.0000 | --- | Methoxychlor |
| 7.405 | 0.016 | 30803 | 7.916 | 0.034 | 48987 | 0.3685 | 0.2987 | 20.9 | Endrin ketone |
| 6.704 | -0.044 | 37365 | 7.143 | -0.015 | 113503 | 0.6178 | 0.8990 | 37.1 | Endrin aldehyde |
| 5.473 | 0.003 | 84236 | 5.949 | 0.030 | 299581 | 1.0151 | 1.6705 | 48.8* | gamma-Chlordane |
| 5.632 | 0.038 | 6458 | 6.049 | -0.008 | 84121 | 0.0818 | 0.4929 | 143.1* | alpha-Chlordane |
| 2.051 | -0.002 | 30766 | 2.108 | -0.004 | 157994 | 0.2751 | 0.5437 | 65.6* | Hexachlorobutadiene |
| 3.714 | -0.003 | 94243 | 3.991 | -0.003 | 23669 | 1.3511 | 0.0968 | 173.3* | Hexachlorobenzene |
| 5.250 | -0.002 | 6673 | 5.616 | -0.027 | 53874 | 0.1006 | 0.3506 | 110.8* | Oxychlordane |
| 5.292 | -0.050 | 4500 | 5.909 | 0.000 | 42514 | 0.0964 | 0.4250 | 126.1* | 2,4-DDE |
| 5.584 | 0.003 | 11567 | 6.001 | -0.005 | 121828 | 0.1364 | 0.6271 | 128.5* | trans-Nonachlor |
| 5.827 | -0.003 | 9131 | 6.395 | -0.004 | 84609 | 0.2122 | 0.7799 | 114.4* | 2,4-DDD |
| 6.067 | -0.002 | 16698 | 6.681 | -0.004 | 177261 | 0.2945 | 1.5040 | 134.5* | 2,4-DDT |
| 6.197 | 0.000 | 16712 | 6.731 | -0.003 | 220131 | 0.1780 | 1.1235 | 145.3* | cis-Nonachlor |
| 7.062 | -0.001 | 21556 | 7.860 | -0.003 | 125492 | 0.3465 | 1.0658 | 101.9* | Mirex |
| 8.386 | -0.007 | 7166255 | 9.352 | -0.005 | 9530794 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 1.716 | -0.003 | 92693 | 1.766 | -0.003 | 28516 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.405 | -0.001 | 1940009 | 3.585 | -0.002 | 5382066 | 25.8526 | 27.5887 | 6.5 | Tetrachloro-m-xylene |
| 8.250 | -0.001 | 2319618 | 8.907 | -0.002 | 3989338 | 28.8136 | 30.2348 | 4.8 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 64.6 | 69.0~ | 64.6~ | 130- 0 |
| Decachlorobiphenyl | 72.0 | 75.6 | 72.0~ | 130- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 5071443 | 4.7 |
| Hexabromobiphenyl | 6506091 | 7166255 | 10.1 |

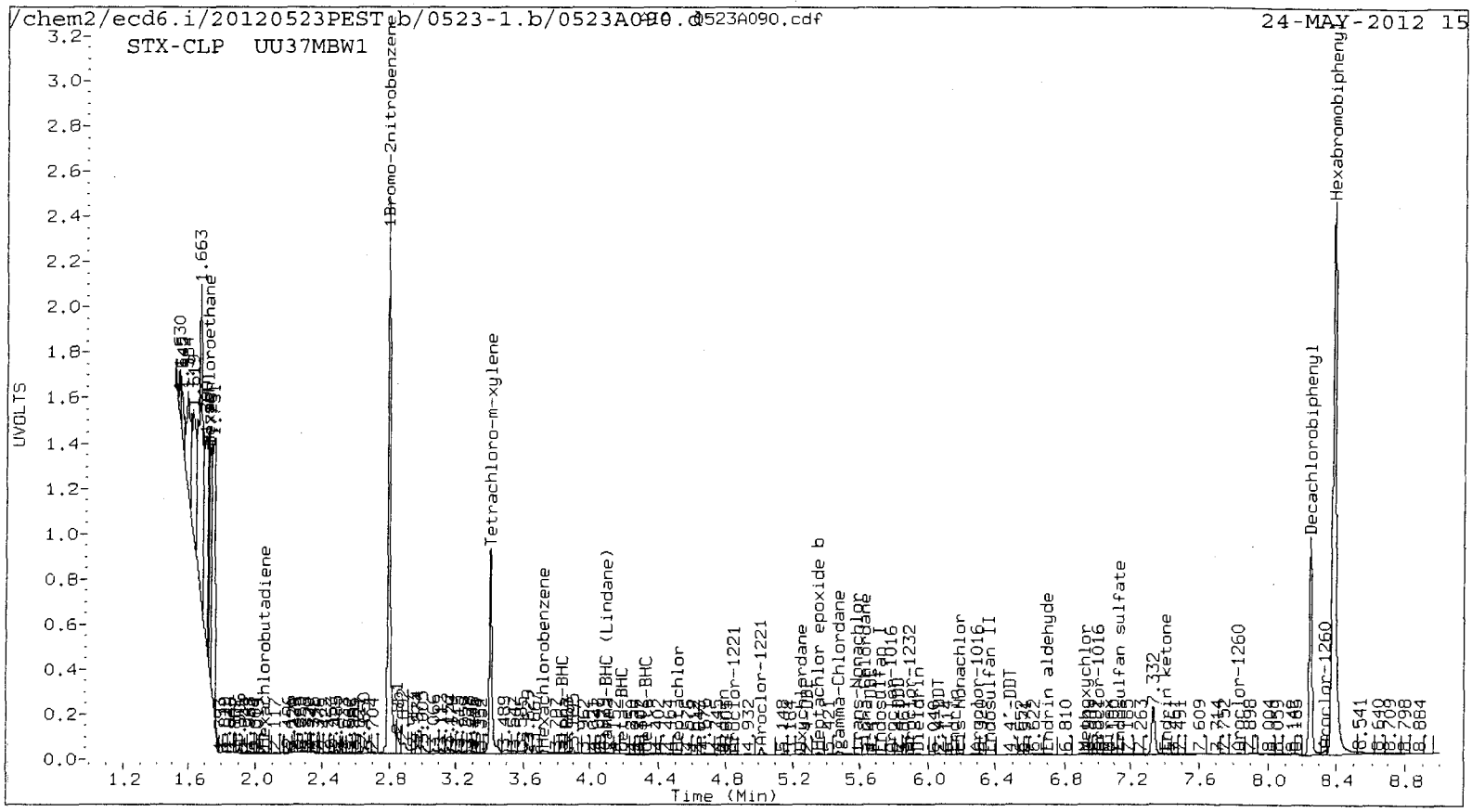
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 15720442 | -3.1 |
| Hexabromobiphenyl | 8472750 | 9530794 | 12.5 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount | |
| Toxaphene | 1 | --- | | | 0.000 | 1 | 6.583 | -0.024 | 226985 | 43.810 | |
| Toxaphene | 2 | 6.483 | 0.009 | 35212 | 13.498 | 2 | 6.946 | 0.015 | 23207 | 3.002 | |
| Toxaphene | 3 | 6.704 | 0.031 | 37365 | 15.539 | 3 | 7.185 | 0.020 | 94267 | 11.597 | |
| Toxaphene | 4 | 6.924 | 0.046 | 33914 | 13.113 | 4 | --- | | | 0.000 | |
| Toxaphene | 5 | 7.062 | 0.006 | 21556 | 5.468 | 5 | 7.717 | 0.048 | 17595 | 2.000 | |
| Toxaphene | 6 | 7.405 | 0.029 | 30803 | 11.149 | NS | --- | | | ---- | |
| Total STX-CLPAve (5 peaks): 11.753 | | | | | | Total CLP2Ave (4 peaks): 15.102 | | | | RPD = 25 | |
| Corrected Ave (5 peaks): 11.753 | | | | | | Corrected Ave (3 peaks): 5.533 | | | | RPD = 72* | |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 | |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 | |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 | |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 | |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 | |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 | |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 | |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 | |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 | |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 | |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 | |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 | |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 | |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 | |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 | |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 | |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 | |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 | |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 | |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1248 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1248 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1248 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1248 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1254 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1254 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1254 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1254 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1260 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1260 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1260 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1260 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1262 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1262 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1262 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1262 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1268 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1268 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1268 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1268 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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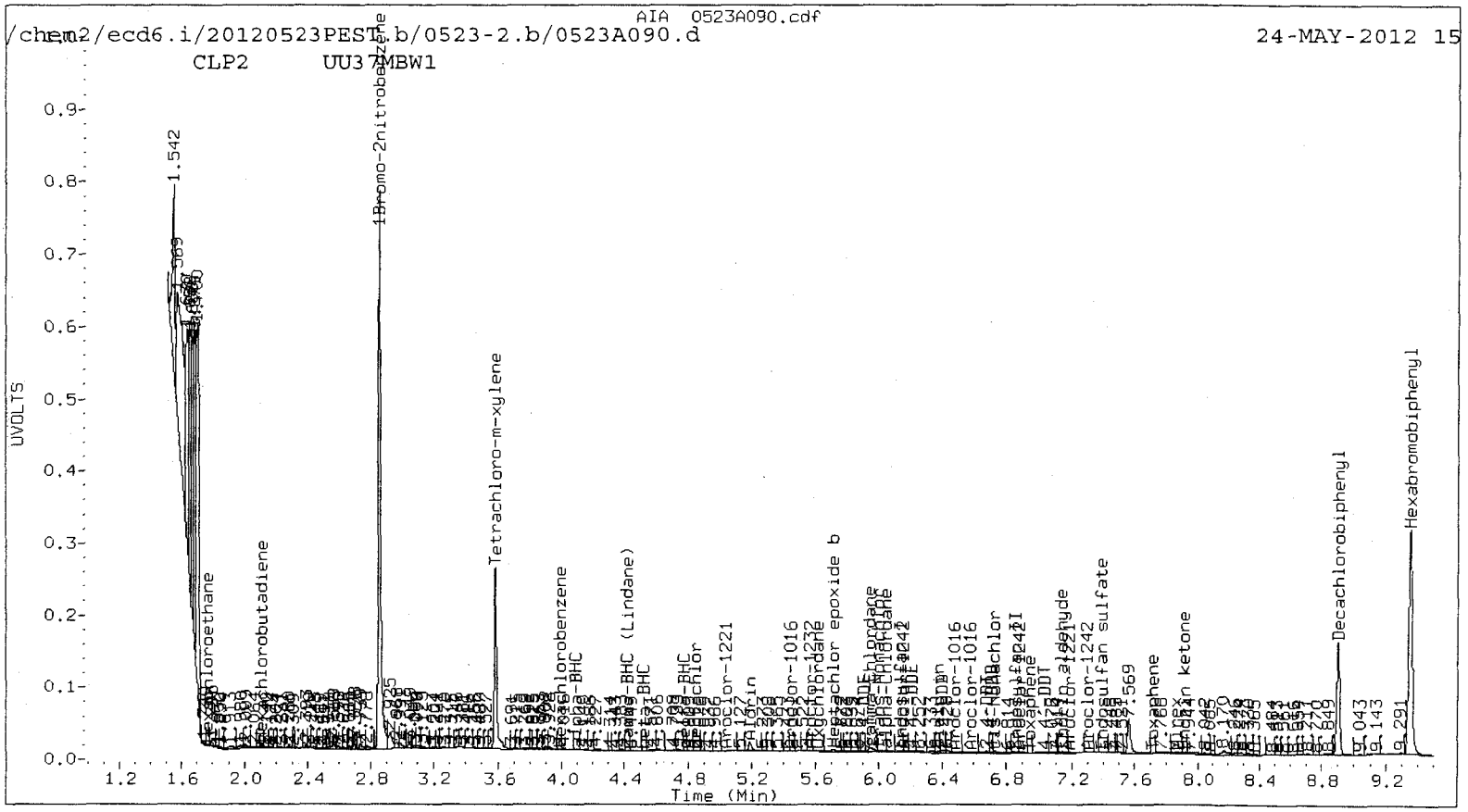
AIA 0523A090.cdf
24-MAY-2012 15
STX-CLP UU37MBW1
UVOLTS
Time (Min)
1.663
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobutadiene
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0523A090.cdf
24-MAY-2012 15
CLP2 UU37MBW1
UVOLTS
Time (Min)
1.542
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobutadiene
Decachlorobiphenyl
Hexabromobiphenyl

AR 6/25/2012

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A091.d ARI ID: UU37LCSW1
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A091.d Client ID: UU37LCSW1
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 24-MAY-2012 15:42
Compound Sublist: wpest Report Date: 05/25/2012 16:00
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: WATER
Operator: ar Dilution Factor: 1.000

| STX-CLP Col RT | Shift | Response | CLP2 Col RT | Shift | Response | STX-CLP on col | CLP2 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 2.794 | -0.003 | 5352442 | 2.852 | -0.002 | 16498690 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.845 | -0.001 | 1786051 | 4.105 | -0.003 | 4623209 | 16.7244 | 16.4560 | 1.6 | alpha-BHC |
| 4.181 | -0.001 | 682867 | 4.499 | -0.003 | 1781809 | 17.1432 | 16.4871 | 3.9 | beta-BHC |
| 4.335 | -0.002 | 1453725 | 4.779 | -0.003 | 4229148 | 18.6581 | 21.0894 | 12.2 | delta-BHC |
| 4.105 | -0.001 | 1684809 | 4.426 | -0.003 | 4362772 | 18.8070 | 18.2001 | 3.3 | gamma-BHC (Lindane) |
| 4.516 | -0.002 | 1566504 | 4.847 | -0.002 | 3598633 | 15.8407 | 14.9172 | 6.0 | Heptachlor |
| 4.786 | -0.001 | 1398286 | 5.168 | -0.003 | 3176964 | 15.4154 | 15.1939 | 1.4 | Aldrin |
| 5.345 | -0.001 | 1480410 | 5.730 | -0.002 | 3753567 | 18.3279 | 18.5041 | 1.0 | Heptachlor epoxide b |
| 5.720 | -0.002 | 913494 | 6.115 | -0.002 | 1762576 | 8.3786 | 9.9828 | 17.5 | Endosulfan I |
| 5.945 | -0.001 | 3129316 | 6.375 | -0.002 | 6852721 | 36.0493 | 37.5441 | 4.1 | Dieldrin |
| 5.667 | -0.003 | 2715169 | 6.204 | -0.004 | 6331931 | 49.4425 | 39.2254 | 23.0 | 4,4'-DDE |
| 6.162 | -0.001 | 2942582 | 6.662 | -0.003 | 6076269 | 36.7045 | 35.6874 | 2.8 | Endrin |
| 6.369 | -0.001 | 1741077 | 6.855 | -0.002 | 3806095 | 22.3149 | 22.0631 | 1.1 | Endosulfan II |
| 6.225 | -0.002 | 2510998 | 6.745 | -0.004 | 5350774 | 39.7794 | 37.6072 | 5.6 | 4,4'-DDD |
| 7.137 | -0.001 | 2448448 | 7.402 | -0.002 | 4489876 | 35.6936 | 33.8749 | 5.2 | Endosulfan sulfate |
| 6.482 | -0.002 | 2666218 | 7.032 | -0.002 | 5068325 | 38.4608 | 36.1757 | 6.1 | 4,4'-DDT |
| 6.921 | -0.002 | 6170249 | 7.627 | -0.002 | 9736818 | 174.7027 | 159.0956 | 9.4 | Methoxychlor |
| 7.387 | -0.001 | 3034299 | 7.880 | -0.002 | 5996791 | 34.8923 | 35.1433 | 0.7 | Endrin ketone |
| 6.747 | -0.002 | 1221302 | 7.156 | -0.002 | 3292573 | 19.4100 | 25.0595 | 25.4 | Endrin aldehyde |
| 5.469 | -0.001 | 1640669 | 5.916 | -0.002 | 3819127 | 18.7326 | 20.2910 | 8.0 | gamma-Chlordane |
| 5.593 | -0.001 | 1456692 | 6.055 | -0.002 | 3301632 | 17.4769 | 18.4320 | 5.3 | alpha-Chlordane |
| 2.051 | -0.003 | 1085395 | 2.110 | -0.003 | 2856993 | 9.1963 | 9.3676 | 1.8 | Hexachlorobutadiene |
| 3.715 | -0.001 | 1123433 | 3.993 | -0.002 | 3817489 | 15.2604 | 14.8802 | 2.5 | Hexachlorobenzene |
| 5.264 | 0.012 | 7393 | 5.616 | -0.028 | 30525 | ~~0.1071~~ | ~~0.1893~~ | ~~55.4~~* | Oxychlordane |
| 5.292 | -0.050 | 6326 | 5.874 | -0.035 | 61548 | 0.1302 | 0.5862 | ~~127.3~~* | 2,4-DDE |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | trans-Nonachlor |
| 5.828 | -0.002 | 43938 | ---- | | | 0.9813 | 0.0000 N | --- | 2,4-DDD |
| 6.066 | -0.002 | 24956 | ---- | | | 0.4231 | 0.0000 | --- | 2,4-DDT |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | cis-Nonachlor |
| 7.070 | 0.007 | 18283 | 7.836 | -0.027 | 51361 | ~~0.2825~~ | ~~0.4192~~ | 39.0 | Mirex |
| 8.386 | -0.007 | 7455456 | 9.351 | -0.006 | 9917993 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 1.700 | -0.019 | 159736 | 1.765 | -0.005 | 23586 | ~~0.0000~~ | ~~0.0000~~ NA | --- | Hexachloroethane |
| 3.404 | -0.002 | 1857060 | 3.585 | -0.003 | 5419425 | 23.4480 | 26.4698 | 12.1 | Tetrachloro-m-xylene |
| 8.249 | -0.001 | 2409685 | 8.906 | -0.002 | 4205582 | 28.7713 | 30.6294 | 6.3 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits | |
|---|---|---|---|---|---|
| Tetrachloro-m-xylene | 58.6 | 66.2 | 58.6 | 52-100 | |
| Decachlorobiphenyl | 71.9 | 76.6 | 71.9 | 54-100 | |
| alpha-BHC | 83.6 | 82.3 | 82.3 | 73-107 | |
| beta-BHC | 85.7 | 82.4 | 82.4 | 68-116 | |
| delta-BHC | 93.3 | 105.4 | 93.3 | 42-114 | |
| gamma-BHC (Lindane) | 94.0 | 91.0 | 91.0 | 75-111 | |
| Heptachlor | 79.2 | 74.6 | 74.6 | 60-100 | |
| Aldrin | 77.1 | 76.0 | 76.0 | 54-101 | |
| Heptachlor epoxide b | 91.6 | 92.5 | 91.6 | 72-116 | |
| + Endosulfan I | 41.9 | 49.9 | 41.9~ | 72-122 | + NR |
| Dieldrin | 90.1 | 93.9 | 90.1 | 75-124 | |
| 4,4'-DDE | 123.6 | 98.1 | 98.1 | 72-125 | |
| Endrin | 91.8 | 89.2 | 89.2 | 66-116 | |
| + Endosulfan II | 55.8 | 55.2 | 55.2~ | 73-107 | + NR |
| 4,4'-DDD | 99.4 | 94.0 | 94.0 | 67-106 | |
| Endosulfan sulfate | 89.2 | 84.7 | 84.7 | 62-100 | |
| 4,4'-DDT | 96.2 | 90.4 | 90.4 | 69-108 | |
| Methoxychlor | 87.4 | 79.5 | 79.5 | 67-107 | |
| Endrin ketone | 87.2 | 87.9 | 87.2 | 72-102 | |
| Endrin aldehyde | 48.5 | 62.6 | 48.5 | 43-108 | |
| gamma-Chlordane | 93.7 | 101.5 | 93.7 | 69-118 | |
| alpha-Chlordane | 87.4 | 92.2 | 87.4 | 71-118 | |
| Hexachlorobutadiene | 46.0 | 46.8 | 46.0 | 19-100 | |
| Hexachlorobenzene | 76.3 | 74.4 | 74.4 | 45-100 | |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 5352442 | 10.6 |
| Hexabromobiphenyl | 6506091 | 7455456 | 14.6 |

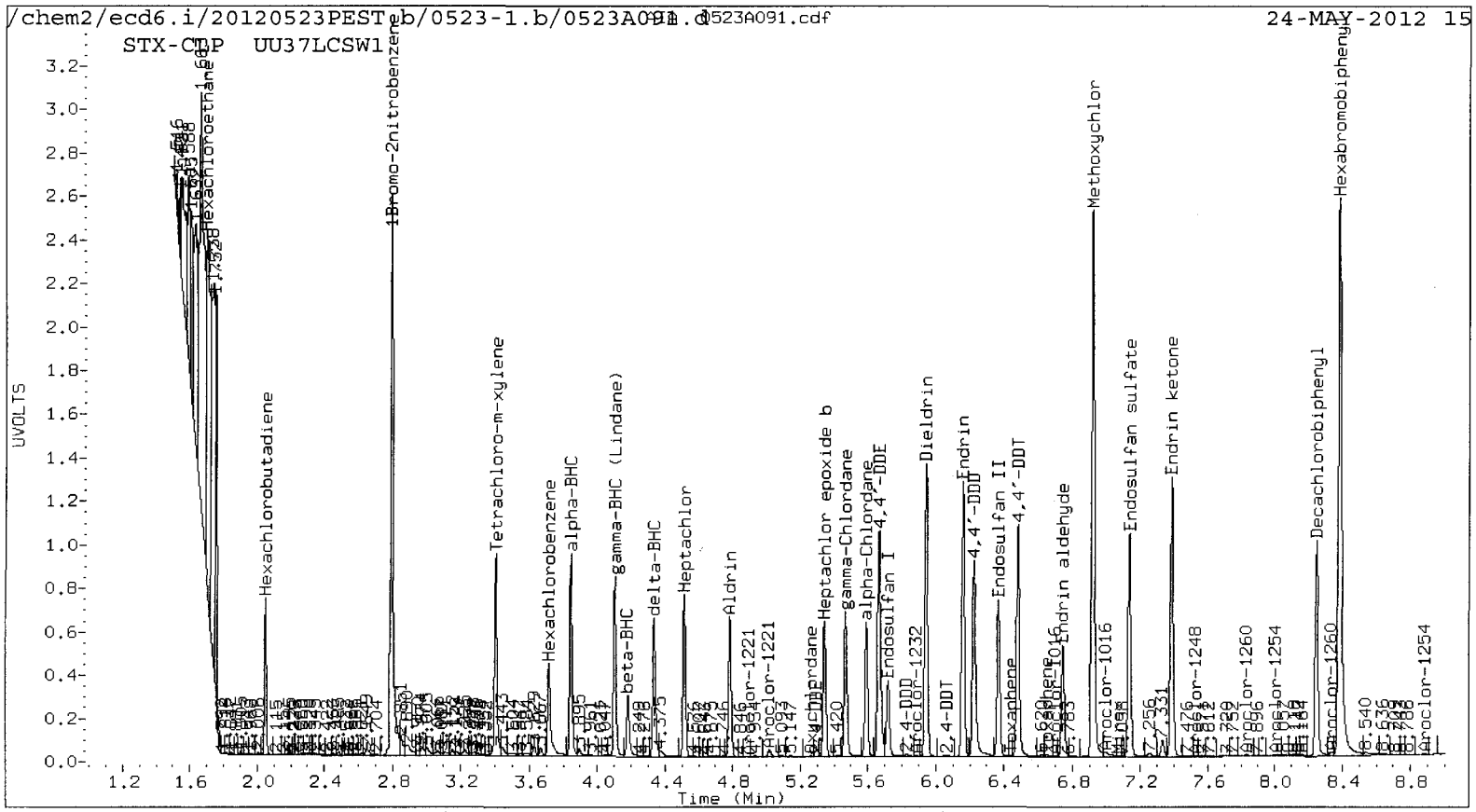
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 16498690 | 1.7 |
| Hexabromobiphenyl | 8472750 | 9917993 | 17.1 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 6.441 | 0.017 | 16657 | 4.701 | 1 | 6.597 | -0.010 | 146411 | 27.156 |
| Toxaphene | 2 | 6.482 | 0.007 | 2666218 | 982.371 | 2 | 6.944 | 0.013 | 22517 | 2.799 |
| Toxaphene | 3 | 6.650 | -0.023 | 35577 | 14.221 | 3 | 7.156 | -0.009 | 3292573 | 389.257 |
| Toxaphene | 4 | 6.921 | 0.044 | 6170249 | 2293.270 | 4 | 7.627 | 0.001 | 9736818 | 1448.195 |
| Toxaphene | 5 | 7.070 | 0.014 | 18283 | 4.458 | 5 | --- | | | 0.000 |
| Toxaphene | 6 | 7.387 | 0.012 | 3034299 | 1055.657 | NS | --- | | | ---- |
| | | Total STX-CLPAve (6 peaks): 725.780 | | | | | Total CLP2Ave (4 peaks): 466.852 | | | RPD = 43* |
| | | Corrected Ave (5 peaks): 412.282 | | | | | Corrected Ave (3 peaks): 139.737 | | | RPD = 99* |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| | | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 1 | --- | 0.000 | 1 | | --- | 0.000 | |
| Aroclor-1248 2 | --- | 0.000 | 2 | | --- | 0.000 | |
| Aroclor-1248 3 | --- | 0.000 | 3 | | --- | 0.000 | |
| Aroclor-1248 4 | --- | 0.000 | 4 | | --- | 0.000 | |
| Aroclor-1248 5 | --- | 0.000 | 5 | | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 1 | --- | 0.000 | 1 | | --- | 0.000 | |
| Aroclor-1254 2 | --- | 0.000 | 2 | | --- | 0.000 | |
| Aroclor-1254 3 | --- | 0.000 | 3 | | --- | 0.000 | |
| Aroclor-1254 4 | --- | 0.000 | 4 | | --- | 0.000 | |
| Aroclor-1254 5 | --- | 0.000 | 5 | | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 1 | --- | 0.000 | 1 | | --- | 0.000 | |
| Aroclor-1260 2 | --- | 0.000 | 2 | | --- | 0.000 | |
| Aroclor-1260 3 | --- | 0.000 | 3 | | --- | 0.000 | |
| Aroclor-1260 4 | --- | 0.000 | 4 | | --- | 0.000 | |
| Aroclor-1260 5 | --- | 0.000 | 5 | | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 1 | --- | 0.000 | 1 | | --- | 0.000 | |
| Aroclor-1262 2 | --- | 0.000 | 2 | | --- | 0.000 | |
| Aroclor-1262 3 | --- | 0.000 | 3 | | --- | 0.000 | |
| Aroclor-1262 4 | --- | 0.000 | 4 | | --- | 0.000 | |
| Aroclor-1262 5 | --- | 0.000 | 5 | | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 1 | --- | 0.000 | 1 | | --- | 0.000 | |
| Aroclor-1268 2 | --- | 0.000 | 2 | | --- | 0.000 | |
| Aroclor-1268 3 | --- | 0.000 | 3 | | --- | 0.000 | |
| Aroclor-1268 4 | --- | 0.000 | 4 | | --- | 0.000 | |
| Aroclor-1268 5 | --- | 0.000 | 5 | | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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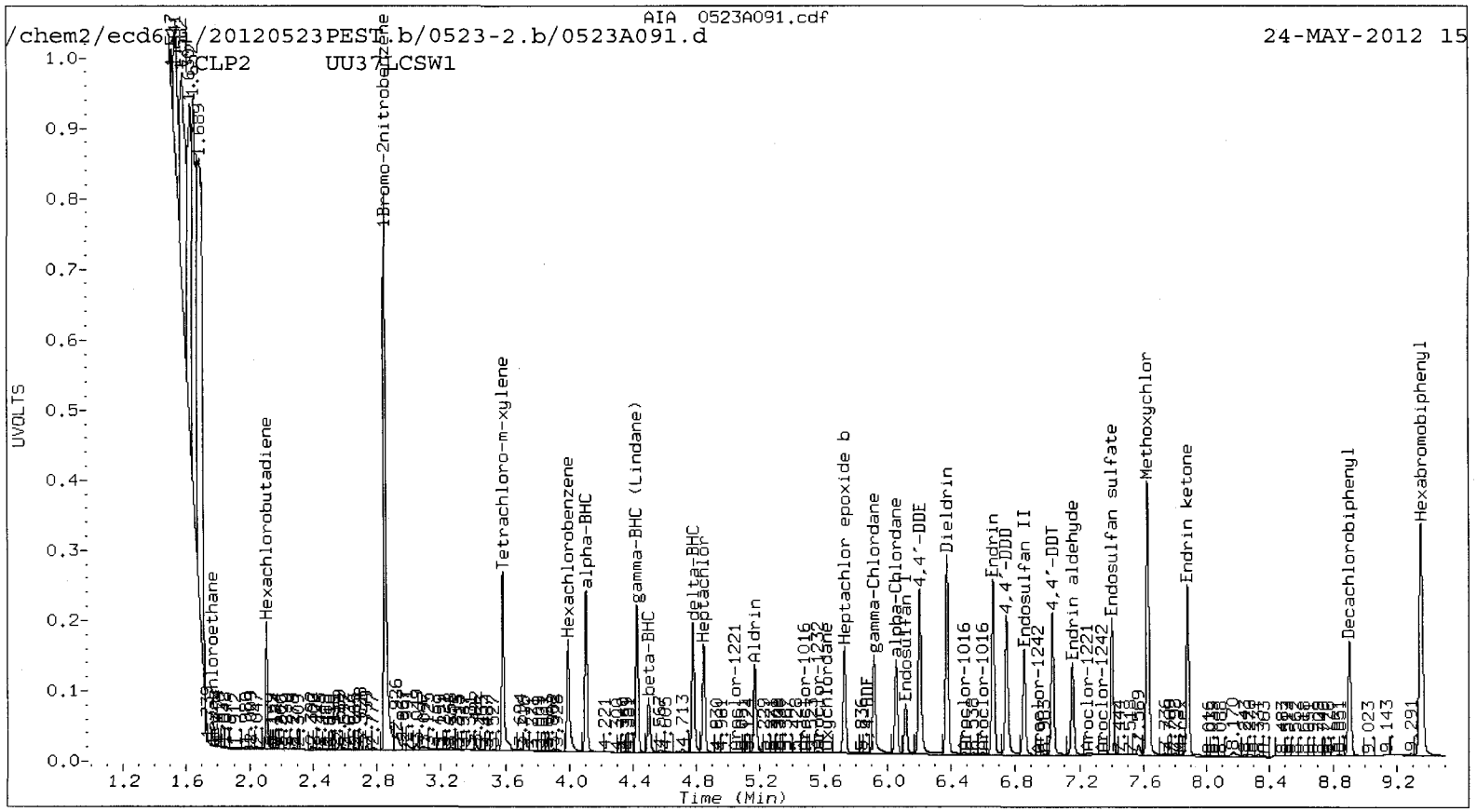
24-MAY-2012 15
STX-CLP UU37LCSW1
UVOLTS
Time (Min)
Hexachloroethane
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Aroclor-1221
Aroclor-1221
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
2,4'-DDT
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Hexaphene
Endrin aldehyde
Methoxychlor
Aroclor-1016
Endosulfan sulfate
Endrin ketone
Aroclor-1248
Aroclor-1260
Aroclor-1254
Decachlorobiphenyl
Aroclor-1260
Hexabromobiphenyl
Aroclor-1254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24-MAY-2012 15
CLP2 UU37LCSW1
UVOLTS
Time (Min)
Hexachloroethane
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

UU52:01485

AR 5/25/12R

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A092.d ARI ID: UU37LCSDW1
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A092.d Client ID: UU37LCSDW1
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 24-MAY-2012 16:00
Compound Sublist: wpest Report Date: 05/25/2012 16:00
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: WATER
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.794 | -0.002 | 5188717 | 2.852 | -0.002 | 16262258 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.845 | -0.001 | 1640710 | 4.105 | -0.003 | 4316257 | 15.8482 | 15.5868 | 1.7 | alpha-BHC |
| 4.181 | -0.001 | 634282 | 4.499 | -0.003 | 1676614 | 16.4259 | 15.7392 | 4.3 | beta-BHC |
| 4.335 | -0.002 | 1352786 | 4.779 | -0.003 | 3984541 | 17.9104 | 20.1585 | 11.8 | delta-BHC |
| 4.105 | -0.001 | 1561155 | 4.426 | -0.003 | 4086454 | 17.9765 | 17.2952 | 3.9 | gamma-BHC (Lindane) |
| 4.516 | -0.001 | 1432003 | 4.847 | -0.003 | 3338769 | 14.9375 | 14.0412 | 6.2 | Heptachlor |
| 4.786 | -0.001 | 1286183 | 5.168 | -0.003 | 3066011 | 14.6269 | 14.8764 | 1.7 | Aldrin |
| 5.345 | -0.001 | 1388093 | 5.730 | -0.002 | 3600946 | 17.7272 | 18.0098 | 1.6 | Heptachlor epoxide b |
| 5.721 | -0.001 | 857366 | 6.116 | -0.002 | 1726572 | 8.1119 | 9.9211 | 20.1 | Endosulfan I |
| 5.946 | -0.001 | 2938978 | 6.375 | -0.002 | 6618415 | 34.9249 | 36.7876 | 5.2 | Dieldrin |
| 5.667 | -0.003 | 2559578 | 6.205 | -0.003 | 6046847 | 48.0800 | 38.0040 | 23.4 | 4,4'-DDE |
| 6.162 | -0.001 | 2776455 | 6.662 | -0.002 | 5855509 | 35.5019 | 34.8331 | 1.9 | Endrin |
| 6.370 | -0.001 | 1627898 | 6.856 | -0.002 | 3686564 | 21.3882 | 21.6450 | 1.2 | Endosulfan II |
| 6.226 | -0.002 | 2366251 | 6.746 | -0.003 | 5171427 | 38.4276 | 36.8142 | 4.3 | 4,4'-DDD |
| 7.137 | -0.001 | 2402854 | 7.403 | -0.001 | 4301075 | 35.9085 | 32.8678 | 8.8 | Endosulfan sulfate |
| 6.483 | -0.001 | 2536942 | 7.032 | -0.002 | 4870857 | 37.5149 | 35.2134 | 6.3 | 4,4'-DDT |
| 6.922 | -0.001 | 5896307 | 7.627 | -0.002 | 9458484 | 171.1384 | 156.5354 | 8.9 | Methoxychlor |
| 7.387 | -0.001 | 2878010 | 7.880 | -0.001 | 5843991 | 33.9261 | 34.6884 | 2.2 | Endrin ketone |
| 6.747 | -0.002 | 1179918 | 7.157 | -0.001 | 3219717 | 19.2231 | 24.8201 | 25.4 | Endrin aldehyde |
| 5.469 | -0.001 | 1508192 | 5.917 | -0.001 | 3579862 | 17.7634 | 19.2963 | 8.3 | gamma-Chlordane |
| 5.593 | 0.000 | 1301789 | 6.055 | -0.002 | 3177277 | 16.1113 | 17.9956 | 11.0 | alpha-Chlordane |
| 2.051 | -0.002 | 937131 | 2.110 | -0.002 | 2541664 | 8.1906 | 8.4548 | 3.2 | Hexachlorobutadiene |
| 3.715 | -0.001 | 985208 | 3.992 | -0.002 | 3492006 | 13.8050 | 13.8094 | 0.0 | Hexachlorobenzene |
| 5.264 | 0.012 | 6703 | 5.617 | -0.027 | 47776 | ~~0.0996~~ | ~~0.3006~~ | ~~100.5*~~ | Oxychlordane |
| 5.293 | -0.048 | 5287 | 5.875 | -0.035 | 81149 | 0.1115 | 0.7842 | ~~150.2*~~ | 2,4-DDE |
| ---- | | | 5.997 | -0.009 | 69394 | 0.0000 | 0.3476 | --- | trans-Nonachlor |
| 5.828 | -0.002 | 40749 | ---- | | | 0.9329 | 0.0000 NS | --- | 2,4-DDD |
| 6.067 | -0.002 | 22248 | ---- | | | 0.3866 | 0.0000 | --- | 2,4-DDT |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | cis-Nonachlor |
| 7.072 | 0.009 | 13595 | 7.837 | -0.026 | 118694 | ~~0.2153~~ | 0.9812 | ~~128.0*~~ | Mirex |
| 8.387 | -0.007 | 7272835 | 9.352 | -0.005 | 9792052 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 1.725 | 0.005 | 103015 | 1.766 | -0.003 | 37289 | ~~0.0000~~ | ~~0.0000~~ NA | --- | Hexachloroethane |
| 3.405 | -0.002 | 1641049 | 3.585 | -0.003 | 4894253 | 21.3744 | 24.2523 | 12.6 | Tetrachloro-m-xylene |
| 8.250 | -0.001 | 2364899 | 8.907 | -0.001 | 4247536 | 28.9455 | 31.3328 | 7.9 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits | |
|---|---|---|---|---|---|
| Tetrachloro-m-xylene | 53.4 | 60.6 | 53.4 | 52-100 | LCSD |
| Decachlorobiphenyl | 72.4 | 78.3 | 72.4 | 54-100 | |
| alpha-BHC | 79.2 | 77.9 | 77.9 | 73-107 | |
| beta-BHC | 82.1 | 78.7 | 78.7 | 68-116 | |
| delta-BHC | 89.6 | 100.8 | 89.6 | 42-114 | |
| gamma-BHC (Lindane) | 89.9 | 86.5 | 86.5 | 75-111 | |
| Heptachlor | 74.7 | 70.2 | 70.2 | 60-100 | |
| Aldrin | 73.1 | 74.4 | 73.1 | 54-101 | |
| Heptachlor epoxide b | 88.6 | 90.0 | 88.6 | 72-116 | |
| + Endosulfan I | 40.6 | 49.6 | 40.6~ | 72-122 | + NR |
| Dieldrin | 87.3 | 92.0 | 87.3 | 75-124 | |
| 4,4'-DDE | 120.2 | 95.0 | 95.0 | 72-125 | |
| Endrin | 88.8 | 87.1 | 87.1 | 66-116 | |
| + Endosulfan II | 53.5 | 54.1 | 53.5~ | 73-107 | + NR |
| 4,4'-DDD | 96.1 | 92.0 | 92.0 | 67-106 | |
| Endosulfan sulfate | 89.8 | 82.2 | 82.2 | 62-100 | |
| 4,4'-DDT | 93.8 | 88.0 | 88.0 | 69-108 | |
| Methoxychlor | 85.6 | 78.3 | 78.3 | 67-107 | |
| Endrin ketone | 84.8 | 86.7 | 84.8 | 72-102 | |
| Endrin aldehyde | 48.1 | 62.1 | 48.1 | 43-108 | |
| gamma-Chlordane | 88.8 | 96.5 | 88.8 | 69-118 | |
| alpha-Chlordane | 80.6 | 90.0 | 80.6 | 71-118 | |
| Hexachlorobutadiene | 41.0 | 42.3 | 41.0 | 19-100 | |
| Hexachlorobenzene | 69.0 | 69.0 | 69.0 | 45-100 | |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 5188717 | 7.2 |
| Hexabromobiphenyl | 6506091 | 7272835 | 11.8 |

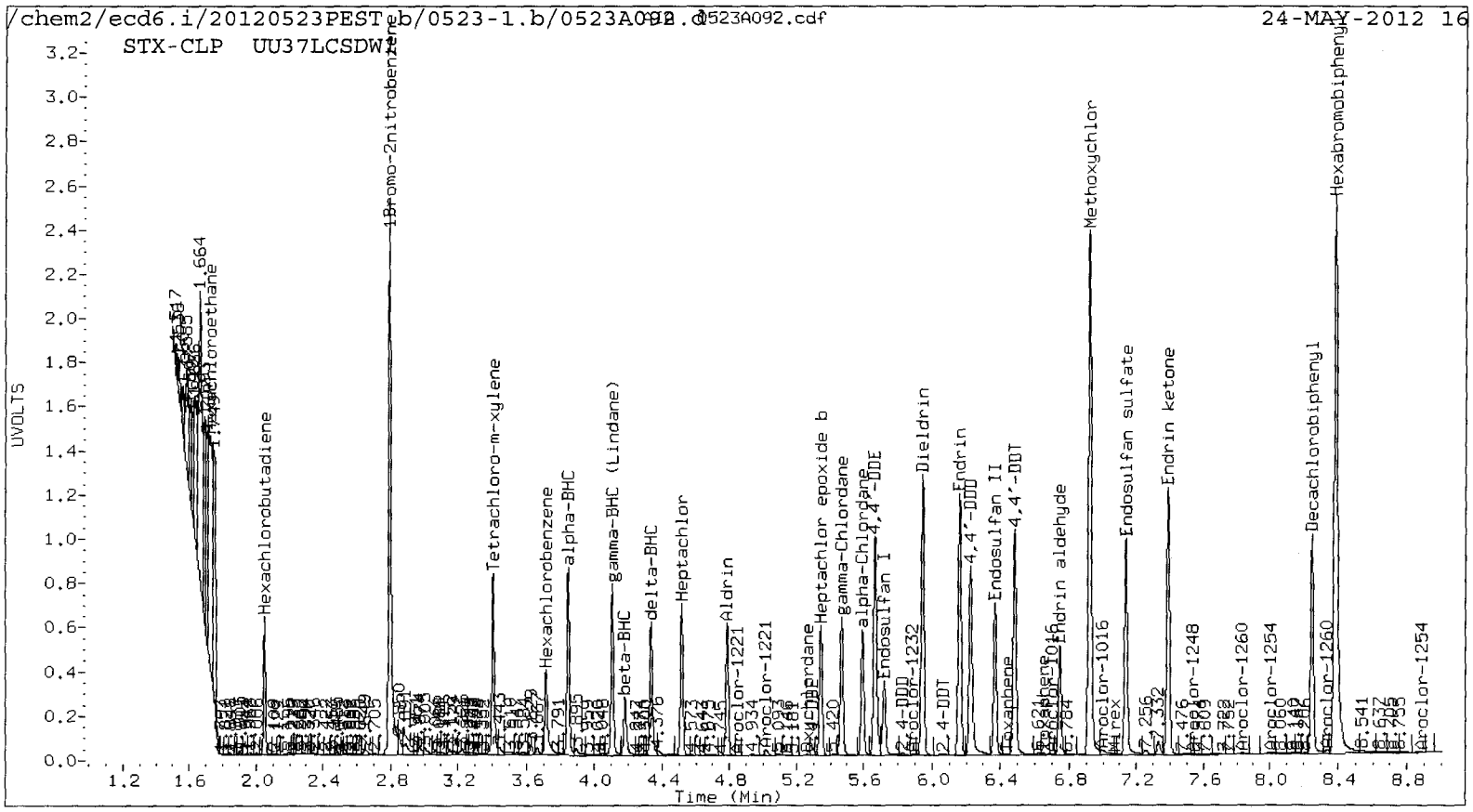
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 16262258 | 0.2 |
| Hexabromobiphenyl | 8472750 | 9792052 | 15.6 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 6.442 | 0.018 | 20957 | 6.063 | 1 | 6.598 | -0.008 | 189158 | 35.535 |
| Toxaphene | 2 | 6.483 | 0.008 | 2536942 | 958.211 | 2 | 6.945 | 0.014 | 26545 | 3.342 |
| Toxaphene | 3 | 6.650 | -0.023 | 33602 | 13.769 | 3 | 7.157 | -0.009 | 3219717 | 385.539 |
| Toxaphene | 4 | 6.922 | 0.045 | 5896307 | 2246.483 | 4 | 7.627 | 0.002 | 9458484 | 1424.891 |
| Toxaphene | 5 | 7.072 | 0.016 | 13595 | 3.398 | 5 | --- | | | 0.000 |
| Toxaphene | 6 | 7.387 | 0.012 | 2878010 | 1026.425 | NS | --- | | | ---- |
| | Total STX-CLPAve (6 peaks): 709.058 | | | | | Total CLP2Ave (4 peaks): 462.327 | | | | RPD = 42* |
| | Corrected Ave (5 peaks): 401.573 | | | | | Corrected Ave (3 peaks): 141.472 | | | | RPD = 96* |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1248 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1248 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1248 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1248 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1254 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1254 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1254 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1254 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1260 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1260 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1260 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1260 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1262 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1262 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1262 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1262 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1268 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1268 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1268 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1268 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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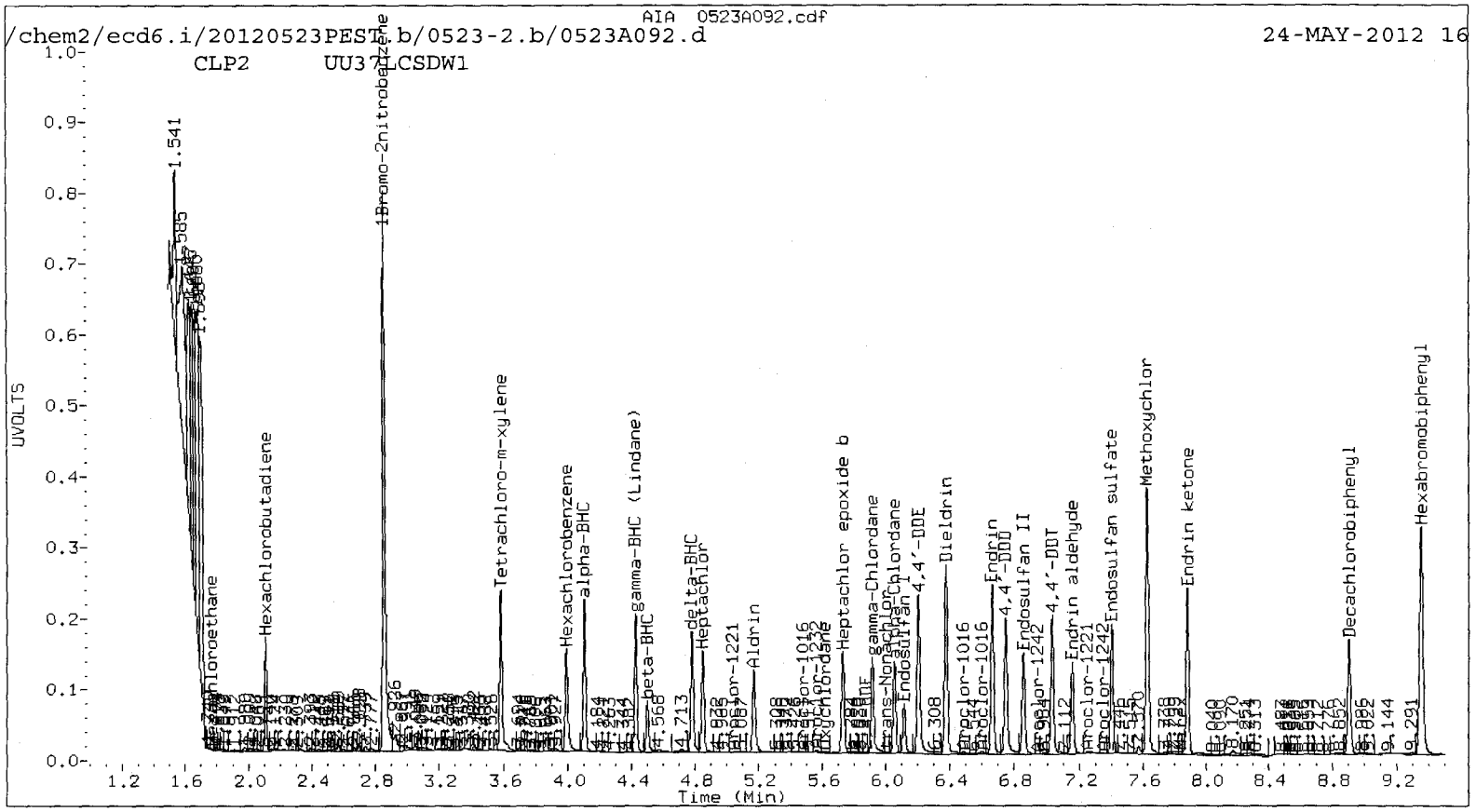
UVOLTS
Time (Min)
1.664
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Aroclor-1221
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Aroclor-1232
Dieldrin
4,4'-DDD
Endrin
Endosulfan II
4,4'-DDT
Methoxychlor
Endrin aldehyde
Aroclor-1016
Endosulfan sulfate
Endrin ketone
Aroclor-1248
Aroclor-1260
Aroclor-1254
Decachlorobiphenyl
Hexabromobiphenyl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24-MAY-2012 16
CLP2 UU37LCSDW1
UVOLTS
Time (Min)
1.541
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
trans-Nonachlor
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

AR 5/25/2012

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Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A100.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 24-MAY-2012 18:23
Compound Sublist: wpest Report Date: 05/25/2012 08:43
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.794 | -0.002 | 5273774 | 2.852 | -0.002 | 15899944 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.831 | -0.016 | 25204 | 4.091 | -0.017 | 84646 | 0.2395 | 0.3126 | 26.5 | alpha-BHC |
| 4.196 | 0.014 | 42853 | 4.465 | -0.037 | 23283 | 1.0919 | 0.2236 | 132.0* | beta-BHC |
| 4.329 | -0.008 | 25356 | 4.780 | -0.003 | 14582 | 0.3303 | 0.0755 | 125.6* | delta-BHC |
| 4.102 | -0.004 | 42114 | 4.425 | -0.004 | 45222 | 0.4771 | 0.1958 | 83.6* | gamma-BHC (Lindane) |
| 4.514 | -0.004 | 34478 | 4.832 | -0.017 | 75542 | 0.3539 | 0.3249 | 8.5 | Heptachlor |
| 4.782 | -0.005 | 3620 | 5.188 | 0.018 | 3029410 | 0.0405 | 15.0338 | 198.9* | Aldrin |
| 5.347 | 0.002 | 3818 | 5.723 | -0.010 | 73369 | 0.0480 | 0.3753 | 154.7* | Heptachlor epoxide b |
| 5.727 | 0.005 | 25438 | ---- | | | 0.2368 | 0.0000 | --- | Endosulfan I |
| 5.945 | -0.001 | 13714 | 6.374 | -0.003 | 713247 | 0.1603 | 4.0548 | 184.8* | Dieldrin |
| 5.666 | -0.003 | 5241 | 6.209 | 0.001 | 414518 | 0.0969 | 2.6646 | 186.0* | 4,4'-DDE |
| 6.166 | 0.002 | 62013 | 6.660 | -0.004 | 172124 | 0.7990 | 1.0391 | 26.1 | Endrin |
| 6.369 | -0.001 | 109995 | 6.853 | -0.004 | 107342 | 1.4562 | 0.6396 | 77.9* | Endosulfan II |
| 6.225 | -0.002 | 62520 | 6.742 | -0.007 | 213372 | 1.0231 | 1.5414 | 40.4* | 4,4'-DDD |
| 7.136 | -0.002 | 16149 | 7.401 | -0.003 | 20683 | 0.2432 | 0.1604 | 41.0* | Endosulfan sulfate |
| 6.481 | -0.003 | 9180 | 7.030 | -0.004 | 194066 | 0.1368 | 1.4237 | 164.9* | 4,4'-DDT |
| 6.922 | -0.001 | 31966 | 7.627 | -0.002 | 68095 | 0.9349 | 1.1436 | 20.1 | Methoxychlor |
| 7.405 | 0.017 | 25695 | 7.879 | -0.002 | 103818 | 0.3052 | 0.6254 | 68.8* | Endrin ketone |
| 6.704 | -0.044 | 58085 | 7.143 | -0.015 | 282894 | 0.9535 | 2.2130 | 79.5* | Endrin aldehyde |
| 5.471 | 0.001 | 51402 | 5.940 | 0.022 | 350424 | 0.5957 | 1.9319 | 105.7* | gamma-Chlordane |
| 5.593 | 0.000 | 7002 | 6.052 | -0.005 | 98806 | 0.0853 | 0.5724 | 148.1* | alpha-Chlordane |
| 2.049 | -0.004 | 4756 | 2.104 | -0.009 | 124600 | 0.0409 | 0.4239 | 164.8* | Hexachlorobutadiene |
| 3.714 | -0.003 | 69667 | 3.992 | -0.003 | 55666 | 0.9605 | 0.2252 | 124.0* | Hexachlorobenzene |
| 5.247 | -0.004 | 3757 | 5.616 | -0.028 | 66435 | 0.0563 | 0.4275 | 153.5* | Oxychlordane |
| 5.292 | -0.049 | 6610 | 5.872 | -0.037 | 73273 | 0.1405 | 0.7242 | 135.0* | 2,4-DDE |
| 5.555 | -0.026 | 5568 | ---- | | | 0.0652 | 0.0000 | --- | trans-Nonachlor |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | 2,4-DDD |
| 6.049 | -0.019 | 183997 | ---- | | | 3.2219 | 0.0000 | --- | 2,4-DDT |
| ---- | | | 6.710 | -0.024 | 84890 | 0.0000 | 0.4280 | --- | cis-Nonachlor |
| 7.094 | 0.031 | 21992 | 7.855 | -0.008 | 63414 | 0.3510 | 0.5320 | 41.0* | Mirex |
| 8.387 | -0.007 | 7217767 | 9.351 | -0.006 | 9649398 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 1.721 | 0.002 | 232724 | 1.766 | -0.004 | 26800 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.404 | -0.002 | 2656568 | 3.586 | -0.002 | 5036667 | 34.0433 | 25.5267 | 28.6 | Tetrachloro-m-xylene |
| 8.249 | -0.001 | 1970212 | 8.907 | -0.002 | 3448861 | 24.2987 | 25.8173 | 6.1 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 85.1 | 63.8 | 63.8~ | 130- 0 |
| Decachlorobiphenyl | 60.7 | 64.5 | 60.7~ | 130- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 5273774 | 8.9 |
| Hexabromobiphenyl | 6506091 | 7217767 | 10.9 |

Column 2

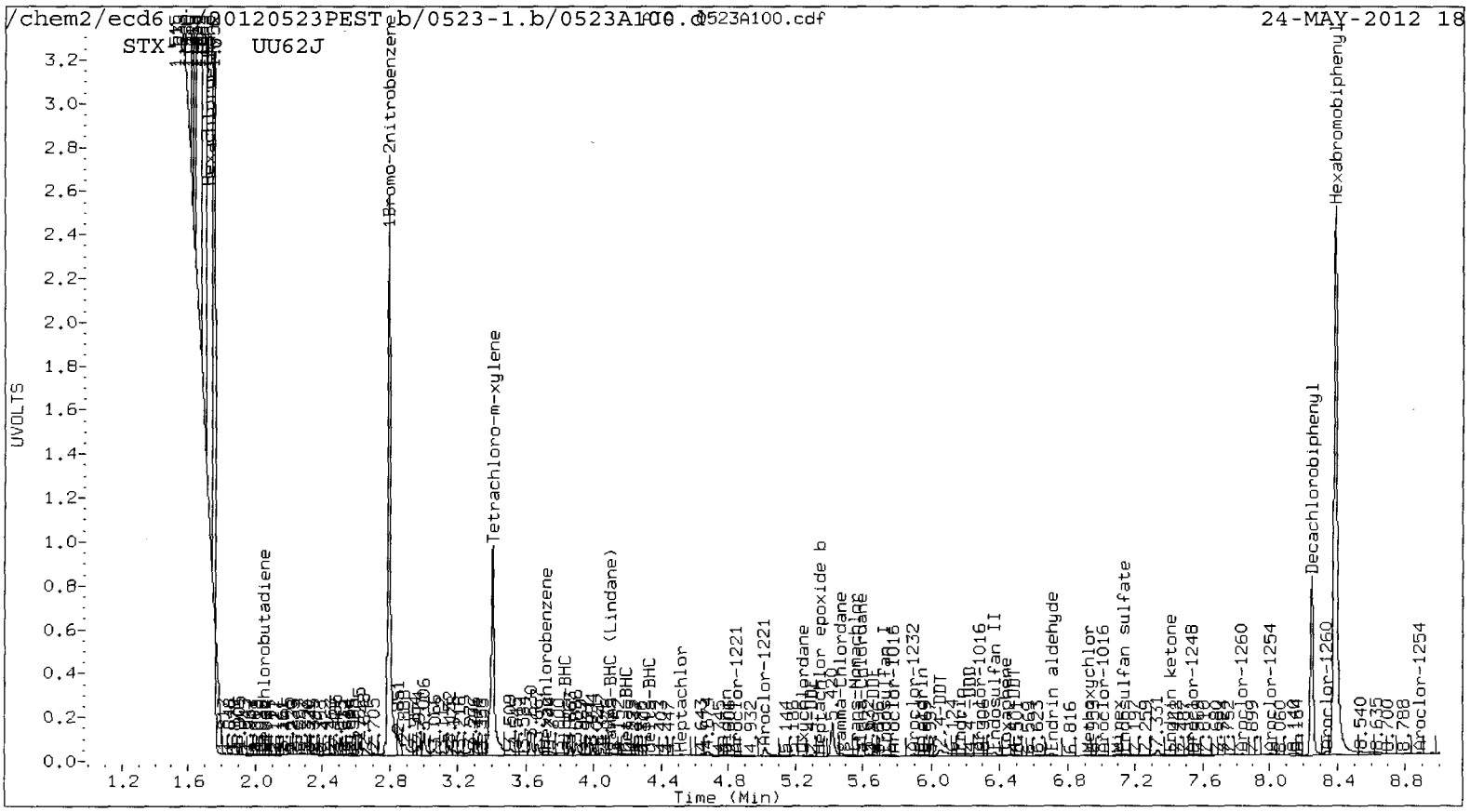
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 15899944 | -2.0 |
| Hexabromobiphenyl | 8472750 | 9649398 | 13.9 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | | STX-CLP Col | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 6.434 | 0.010 | 29375 | 8.563 | 1 | 6.585 | -0.021 | 138834 | 26.467 |
| Toxaphene | 2 | 6.481 | 0.006 | 9180 | 3.494 | 2 | 6.945 | 0.014 | 26164 | 3.343 |
| Toxaphene | 3 | 6.704 | 0.031 | 58085 | 23.983 | 3 | 7.143 | -0.023 | 282894 | 34.375 |
| Toxaphene | 4 | 6.922 | 0.044 | 31966 | 12.272 | 4 | 7.627 | 0.001 | 68095 | 10.410 |
| Toxaphene | 5 | 7.094 | 0.039 | 21992 | 5.539 | 5 | 7.674 | 0.004 | 41012 | 4.605 |
| Toxaphene | 6 | 7.405 | 0.030 | 25695 | 9.234 | NS | --- | | | ---- |
| Total STX-CLPAve (6 peaks): 10.514 | | | | | | Total CLP2Ave (5 peaks): 15.840 | | | | RPD = 40* |
| Corrected Ave (5 peaks): 7.821 | | | | | | Corrected Ave (4 peaks): 11.206 | | | | RPD = 36 |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1248 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1248 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1248 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1248 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1254 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1254 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1254 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1254 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1260 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1260 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1260 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1260 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1262 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1262 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1262 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1262 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1268 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1268 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1268 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1268 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |

WU52:61494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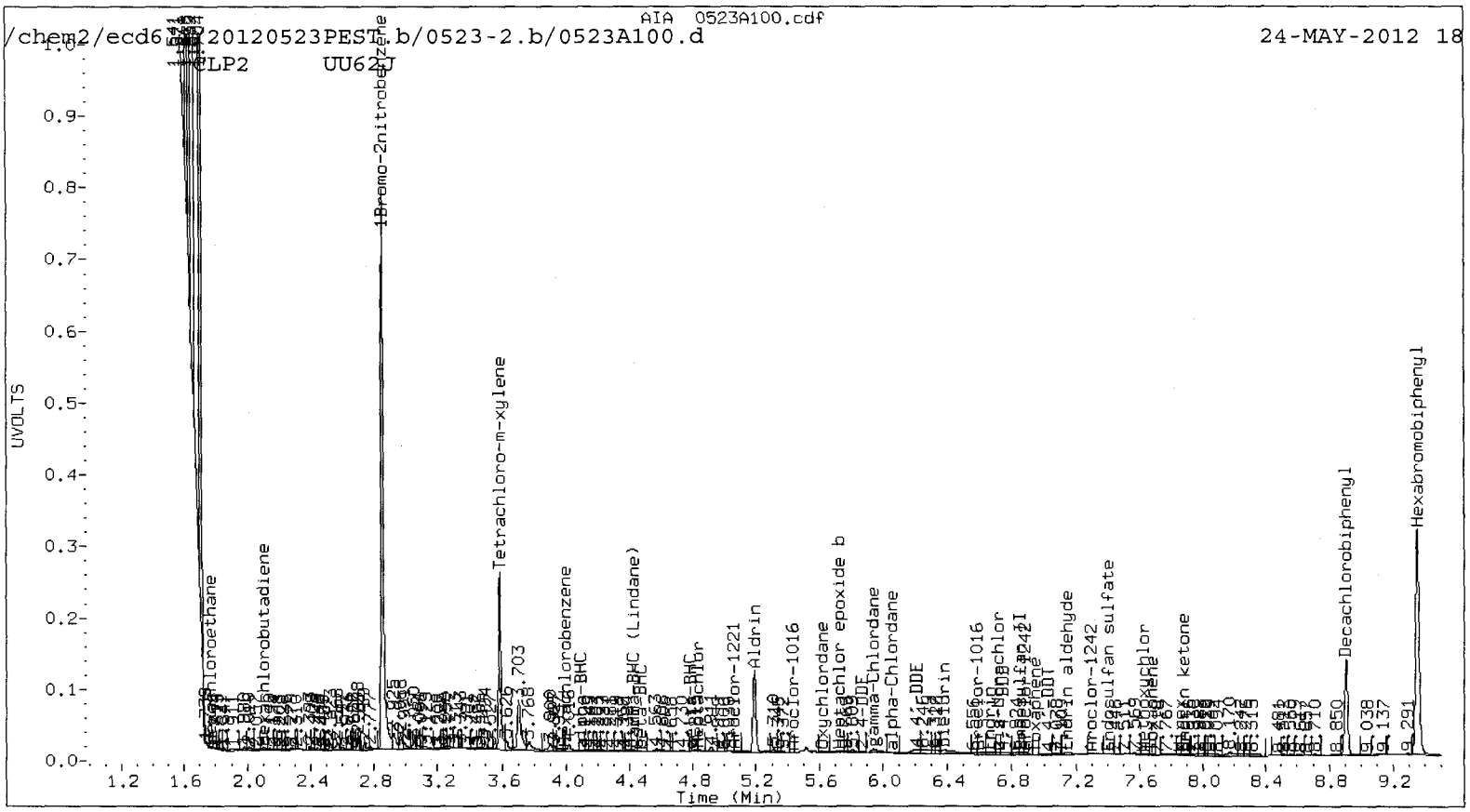
STX
UU62J
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexabromobiphenyl
Decachlorobiphenyl
Aroclor-1260
Aroclor-1254
UVOLTS
Time (Min)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24-MAY-2012 18
CLP2
UU62J
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexabromobiphenyl
Decachlorobiphenyl
Aldrin
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A101.d ARI ID: UU62K
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Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 24-MAY-2012 18:40
Compound Sublist: wpest Report Date: 05/25/2012 08:43
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.794 | -0.002 | 5100774 | 2.852 | -0.002 | 16009521 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.833 | -0.014 | 26114 | 4.102 | -0.006 | 126859 | 0.2566 | 0.4653 | 57.8* | alpha-BHC |
| 4.200 | 0.017 | 43077 | 4.467 | -0.035 | 42354 | 1.1348 | 0.4039 | 95.0* | beta-BHC |
| 4.326 | -0.011 | 13275 | 4.815 | 0.032 | 89621 | 0.1788 | 0.4606 | 88.1* | delta-BHC |
| 4.104 | -0.002 | 41465 | 4.425 | -0.003 | 104937 | 0.4857 | 0.4511 | 7.4 | gamma-BHC (Lindane) |
| 4.513 | -0.005 | 33409 | 4.841 | -0.008 | 84839 | 0.3545 | 0.3624 | 2.2 | Heptachlor |
| 4.775 | -0.012 | 2631 | 5.148 | -0.023 | 13551 | 0.0304 | 0.0668 | 74.8* | Aldrin |
| 5.344 | -0.002 | 2492 | 5.686 | -0.046 | 76995 | 0.0324 | 0.3912 | 169.4* | Heptachlor epoxide b |
| 5.727 | 0.006 | 11275 | 6.132 | 0.015 | 141614 | 0.1085 | 0.8266 | 153.6* | Endosulfan I |
| 5.945 | -0.001 | 9956 | 6.374 | -0.003 | 111608 | 0.1204 | 0.6302 | 135.9* | Dieldrin |
| 5.665 | -0.005 | 12342 | 6.209 | 0.001 | 128559 | 0.2358 | 0.8207 | 110.7* | 4,4'-DDE |
| 6.174 | 0.011 | 20890 | 6.660 | -0.004 | 121493 | 0.2683 | 0.7262 | 92.1* | Endrin |
| 6.370 | -0.001 | 17323 | 6.852 | -0.005 | 67638 | 0.2286 | 0.3990 | 54.3* | Endosulfan II |
| 6.232 | 0.004 | 28553 | 6.757 | 0.008 | 185175 | 0.4657 | 1.3246 | 95.9* | 4,4'-DDD |
| 7.137 | -0.001 | 5089 | 7.400 | -0.004 | 11348 | 0.0764 | 0.0871 | 13.2 | Endosulfan sulfate |
| 6.504 | 0.021 | 7941 | 7.028 | -0.006 | 119005 | 0.1180 | 0.8645 | 152.0* | 4,4'-DDT |
| 6.921 | -0.002 | 9902 | 7.627 | -0.002 | 77599 | 0.2887 | 1.2904 | 126.9* | Methoxychlor |
| 7.404 | 0.016 | 41147 | 7.879 | -0.002 | 53360 | 0.4872 | 0.3183 | 41.9* | Endrin ketone |
| 6.787 | 0.038 | 36458 | 7.142 | -0.016 | 723083 | 0.5966 | 5.6009 | 161.5* | Endrin aldehyde |
| 5.469 | 0.000 | 59972 | 5.945 | 0.027 | 338959 | 0.7185 | 1.8559 | 88.4* | gamma-Chlordane |
| 5.558 | -0.036 | 7025 | 6.052 | -0.005 | 79202 | 0.0884 | 0.4557 | 135.0* | alpha-Chlordane |
| 2.064 | 0.011 | 12329 | 2.103 | -0.009 | 90220 | 0.1096 | 0.3049 | 94.2* | Hexachlorobutadiene |
| 3.715 | -0.002 | 62662 | 3.994 | -0.001 | 75662 | 0.8932 | 0.3039 | 98.4* | Hexachlorobenzene |
| 5.247 | -0.005 | 2981 | 5.619 | -0.025 | 50121 | 0.0445 | 0.3203 | 151.2* | Oxychlordane |
| ---- | | | 5.875 | -0.035 | 20281 | 0.0000 | 0.1991 | --- | 2,4-DDE |
| 5.576 | -0.005 | 11593 | 6.018 | 0.012 | 85137 | 0.1353 | 0.4286 | 104.0* | trans-Nonachlor |
| 5.844 | 0.013 | 5100 | 6.419 | 0.021 | 124701 | 0.1173 | 1.1241 | 162.2* | 2,4-DDD |
| 6.048 | -0.021 | 44215 | ---- | | | 0.7717 | 0.0000 | --- | 2,4-DDT |
| ---- | | | 6.708 | -0.026 | 63751 | 0.0000 | 0.3182 | --- | cis-Nonachlor |
| 7.099 | 0.036 | 11154 | 7.827 | -0.036 | 55464 | 0.1775 | 0.4607 | 88.8* | Mirex |
| 8.387 | -0.006 | 7241256 | 9.352 | -0.006 | 9745131 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 1.728 | 0.009 | 92604 | 1.767 | -0.003 | 106840 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.405 | -0.002 | 1959468 | 3.585 | -0.002 | 4637123 | 25.9617 | 23.3409 | 10.6 | Tetrachloro-m-xylene |
| 8.250 | 0.000 | 1948638 | 8.906 | -0.002 | 3342980 | 23.9547 | 24.7789 | 3.4 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 64.9 | 58.4 | 58.4~ | 130- 0 |
| Decachlorobiphenyl | 59.9 | 61.9 | 59.9~ | 130- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 5100774 | 5.4 |
| Hexabromobiphenyl | 6506091 | 7241256 | 11.3 |

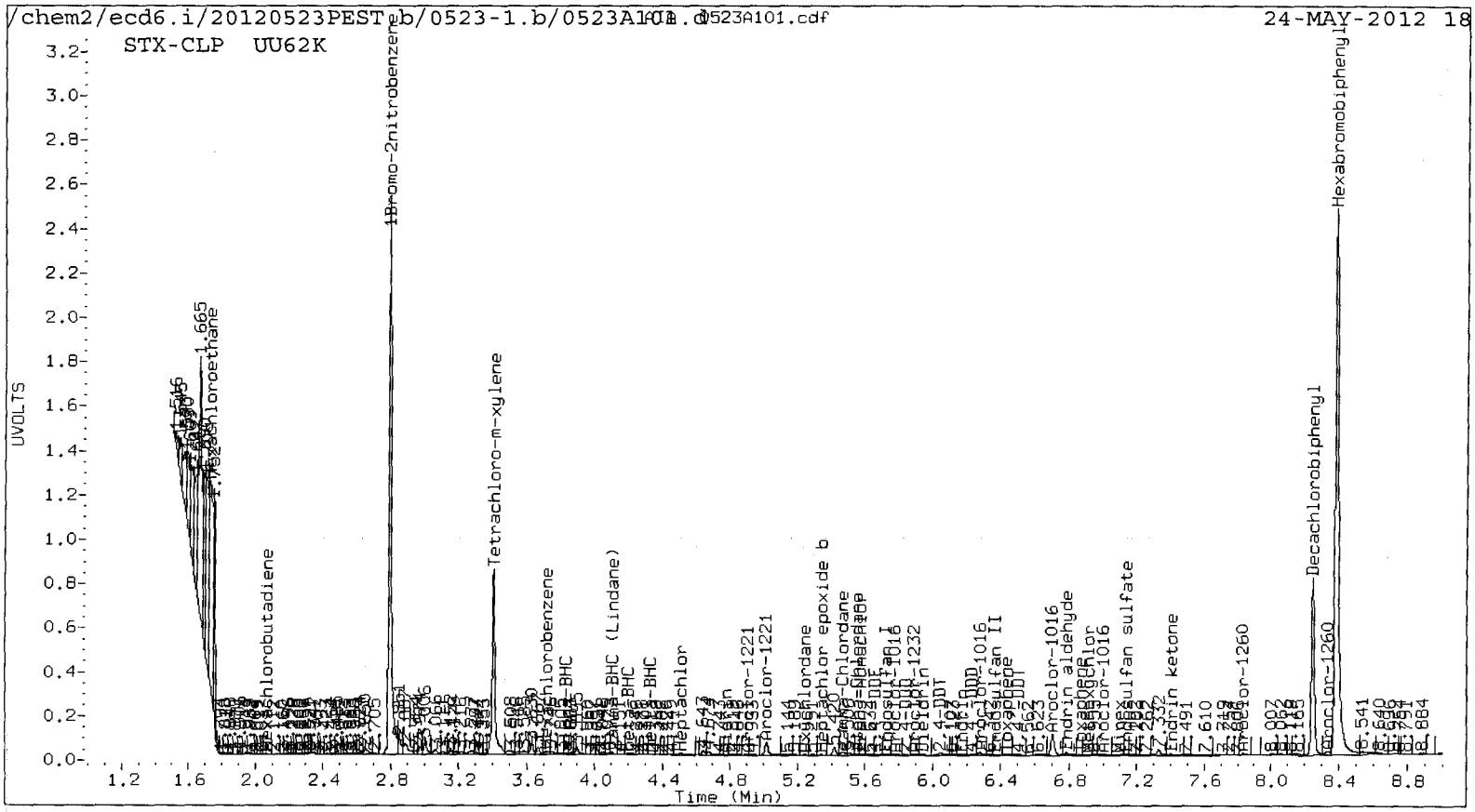
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 16009521 | -1.3 |
| Hexabromobiphenyl | 8472750 | 9745131 | 15.0 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | | STX-CLP Col | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 6.434 | 0.010 | 14432 | 4.194 | 1 | 6.558 | -0.049 | 148021 | 27.941 |
| Toxaphene | 2 | 6.504 | 0.029 | 7941 | 3.013 | 2 | 6.948 | 0.017 | 20903 | 2.644 |
| Toxaphene | 3 | 6.704 | 0.030 | 287156 | 118.181 | 3 | 7.142 | -0.023 | 723083 | 87.001 |
| Toxaphene | 4 | 6.869 | -0.008 | 3119 | 1.194 | 4 | 7.627 | 0.001 | 77599 | 11.746 |
| Toxaphene | 5 | 7.099 | 0.043 | 11154 | 2.800 | 5 | --- | | | 0.000 |
| Toxaphene | 6 | 7.404 | 0.029 | 41147 | 14.739 | NS | --- | | | ---- |
| Total STX-CLPAve (6 peaks): 24.020 | | | | | | Total CLP2Ave (4 peaks): 32.333 | | | | RPD = 30 |
| Corrected Ave (5 peaks): 5.188 | | | | | | Corrected Ave (3 peaks): 14.111 | | | | RPD = 92* |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1248 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1248 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1248 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1248 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1254 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1254 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1254 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1254 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1260 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1260 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1260 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1260 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1262 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1262 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1262 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1262 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1268 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1268 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1268 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1268 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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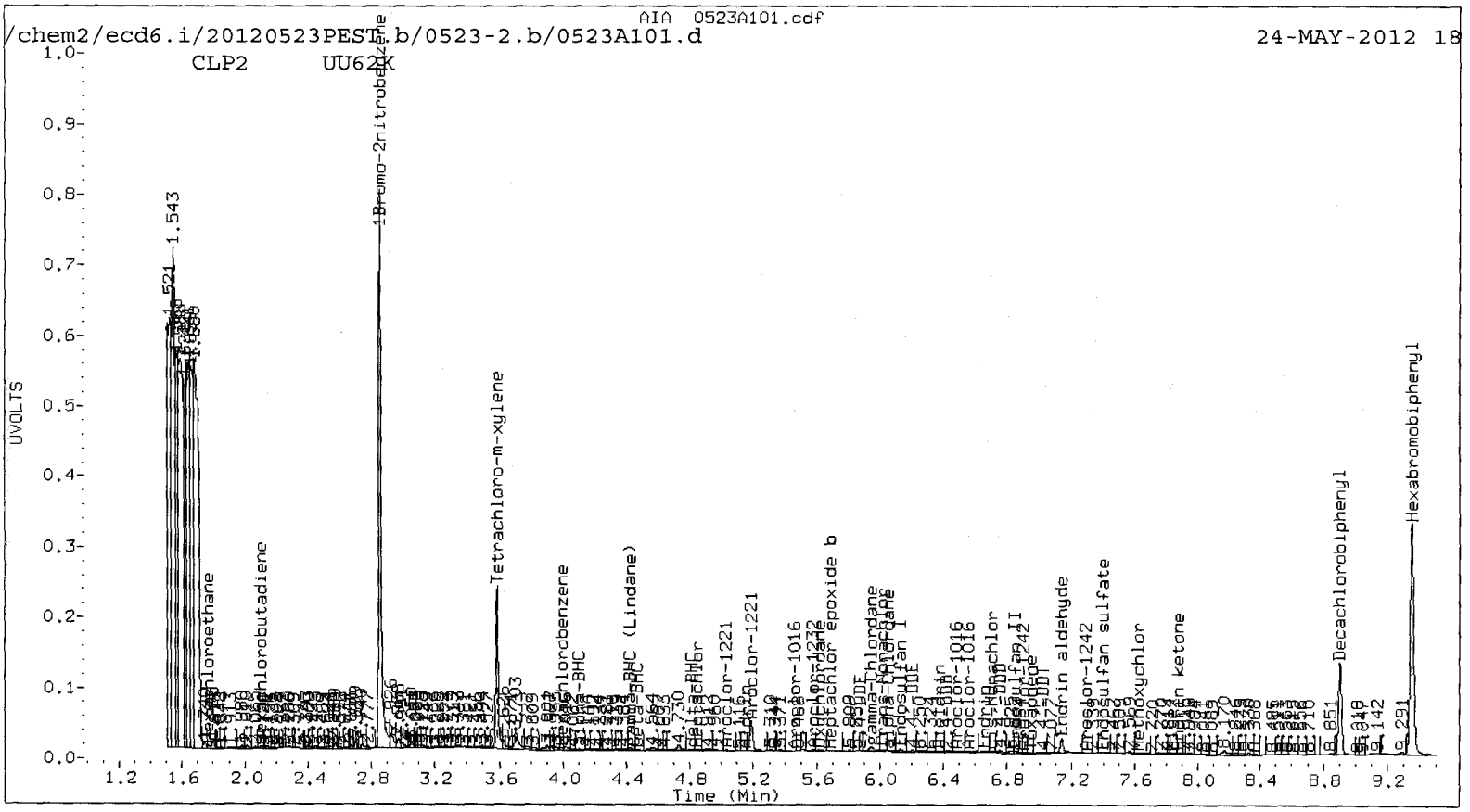
AIA 0523A101.cdf
24-MAY-2012 18
STX-CLP UU62K
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexabromobiphenyl
Decachlorobiphenyl
Aroclor-1260
Hexachloroethane
Hexachlorobutadiene
Pentachlorobenzene
alpha-BHC
beta-BHC
gamma-BHC (Lindane)
delta-BHC
Heptachlor
Aroclor-1221
Aroclor-1232
Heptachlor epoxide b
Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Aroclor-1016
Endrin aldehyde
Endosulfan sulfate
Endrin ketone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AIA 0523A101.cdf
24-MAY-2012 18
CLP2 UU62K
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexabromobiphenyl
Decachlorobiphenyl
Aroclor-1260
Hexachloroethane
Hexachlorobutadiene
Pentachlorobenzene
alpha-BHC
beta-BHC
gamma-BHC (Lindane)
delta-BHC
Heptachlor
Aroclor-1221
Aroclor-1232
Heptachlor epoxide b
Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Aroclor-1016
Endrin aldehyde
Endosulfan sulfate
Endrin ketone

UU52:01500

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A105.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A105.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 24-MAY-2012 19:52
Compound Sublist: INDA Report Date: 05/25/2012 15:53
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.797 | 0.001 | 5328098 | 2.854 | 0.000 | 18001293 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.847 | 0.000 | 2149760 | 4.107 | -0.001 | 6189690 | 20.2221 | 20.1927 | 0.1 | alpha-BHC |
| 4.184 | 0.002 | 766336 | 4.502 | 0.000 | 2236792 | 19.3265 | 18.9694 | 1.9 | beta-BHC |
| 4.340 | 0.003 | 1568595 | 4.783 | 0.000 | 4442283 | 20.2244 | 20.3032 | 0.4 | delta-BHC |
| 4.106 | 0.000 | 1779194 | 4.427 | -0.002 | 5146642 | 19.9513 | 19.6780 | 1.4 | gamma-BHC (Lindane) |
| 4.517 | 0.000 | 1956129 | 4.848 | -0.002 | 5011390 | 19.8710 | 19.0394 | 4.3 | Heptachlor |
| 4.787 | 0.000 | 1811030 | 5.169 | -0.001 | 4425399 | 20.0569 | 19.3979 | 3.3 | Aldrin |
| 5.346 | 0.000 | 1549856 | 5.731 | -0.001 | 4257910 | 19.2753 | 19.2383 | 0.2 | Heptachlor epoxide b |
| 5.722 | 0.000 | 2052182 | 6.116 | -0.001 | 3682404 | 18.9087 | 19.1154 | 1.1 | Endosulfan I |
| 5.946 | 0.000 | 3388818 | 6.376 | -0.001 | 7704784 | 39.2171 | 38.6888 | 1.4 | Dieldrin |
| 5.673 | 0.003 | 2366908 | 6.209 | 0.001 | 6904260 | 43.2977 | 39.2008 | 9.9 | 4,4'-DDE |
| 6.163 | 0.000 | 3034261 | 6.663 | -0.002 | 6349912 | 39.5951 | 36.2711 | 8.8 | Endrin |
| 6.370 | 0.000 | 2921582 | 6.856 | -0.001 | 6379120 | 39.1735 | 35.9635 | 8.5 | Endosulfan II |
| 6.230 | 0.002 | 2507278 | 6.748 | 0.000 | 5461725 | 41.5539 | 37.3336 | 10.7 | 4,4'-DDD |
| 7.138 | 0.000 | 2557768 | 7.403 | -0.001 | 5008179 | 39.0084 | 36.7484 | 6.0 | Endosulfan sulfate |
| 6.484 | 0.001 | 2730182 | 7.033 | -0.001 | 5476364 | 41.2014 | 38.0154 | 8.0 | 4,4'-DDT |
| 6.924 | 0.001 | 6410202 | 7.628 | -0.001 | 10438383 | 189.8744 | 165.8783 | 13.5 | Methoxychlor |
| 7.388 | 0.000 | 3155087 | 7.880 | -0.001 | 6476398 | 37.9560 | 36.9125 | 2.8 | Endrin ketone |
| 6.748 | 0.000 | 2323168 | 7.157 | -0.001 | 4849188 | 38.6260 | 35.8939 | 7.3 | Endrin aldehyde |
| 5.470 | 0.000 | 1699326 | 5.917 | -0.001 | 4048559 | 19.4910 | 19.7145 | 1.1 | gamma-Chlordane |
| 5.594 | 0.000 | 1510823 | 6.056 | -0.002 | 3768701 | 18.2092 | 19.2832 | 5.7 | alpha-Chlordane |
| 2.053 | -0.001 | 2255027 | 2.111 | -0.001 | 6454802 | 19.1936 | 19.3975 | 1.1 | Hexachlorobutadiene |
| 3.719 | 0.002 | 1376749 | 3.995 | 0.001 | 5401740 | 18.7868 | 19.2979 | 2.7 | Hexachlorobenzene |
| 8.390 | -0.003 | 7126502 | 9.353 | -0.004 | 10197850 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 3.407 | 0.001 | 3001483 | 3.587 | 0.000 | 8743234 | 38.0711 | 39.1395 | 2.8 | Tetrachloro-m-xylene |
| 8.250 | -0.001 | 2959163 | 8.907 | -0.001 | 5219109 | 36.9628 | 36.9678 | 0.0 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 95.2 | 97.8 | 95.2~ | 115- 0 |
| Decachlorobiphenyl | 92.4 | 92.4 | 92.4~ | 115- 0 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

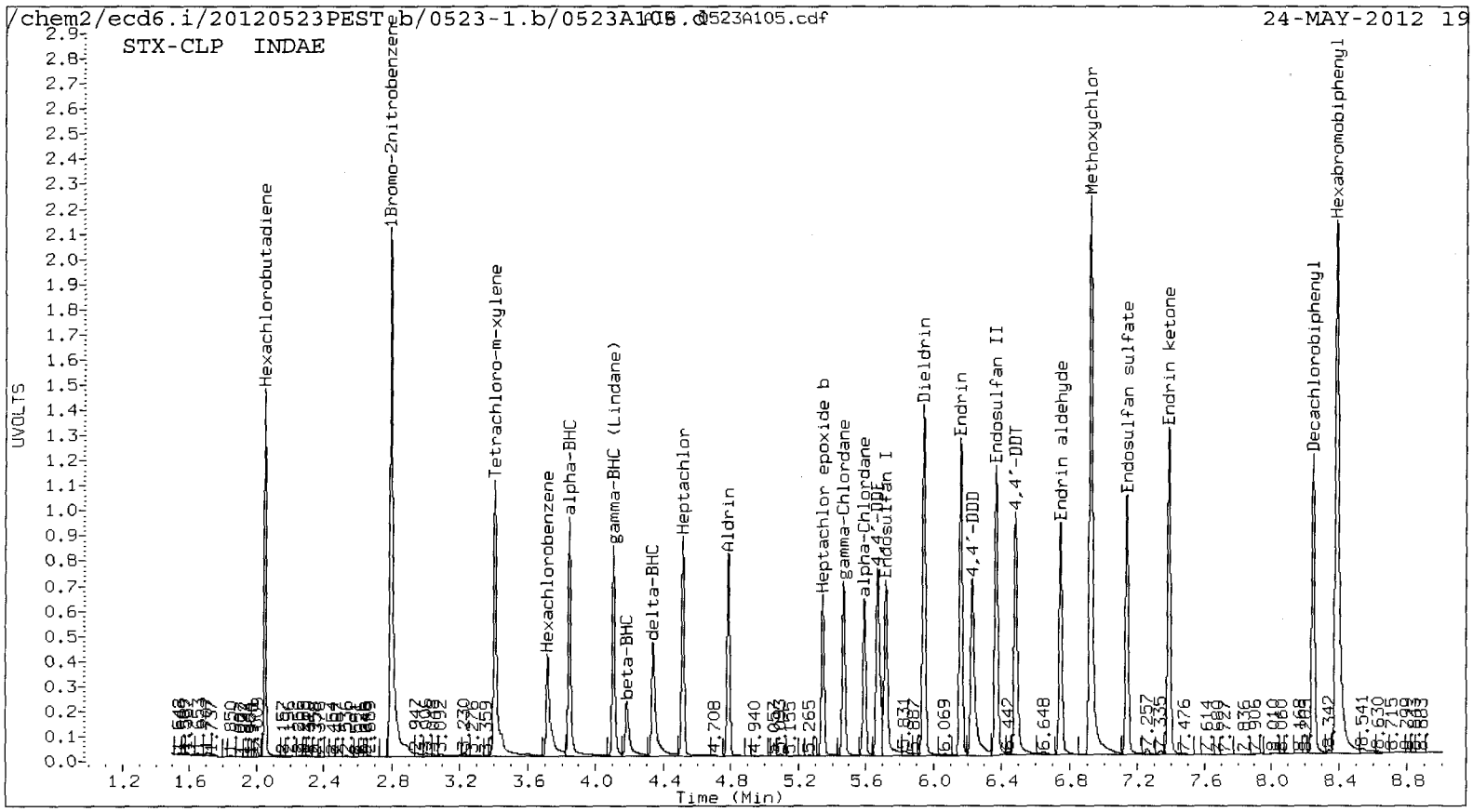
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 5328098 | 10.0 |
| Hexabromobiphenyl | 6506091 | 7126502 | 9.5 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 18001293 | 10.9 |
| Hexabromobiphenyl | 8472750 | 10197850 | 20.4 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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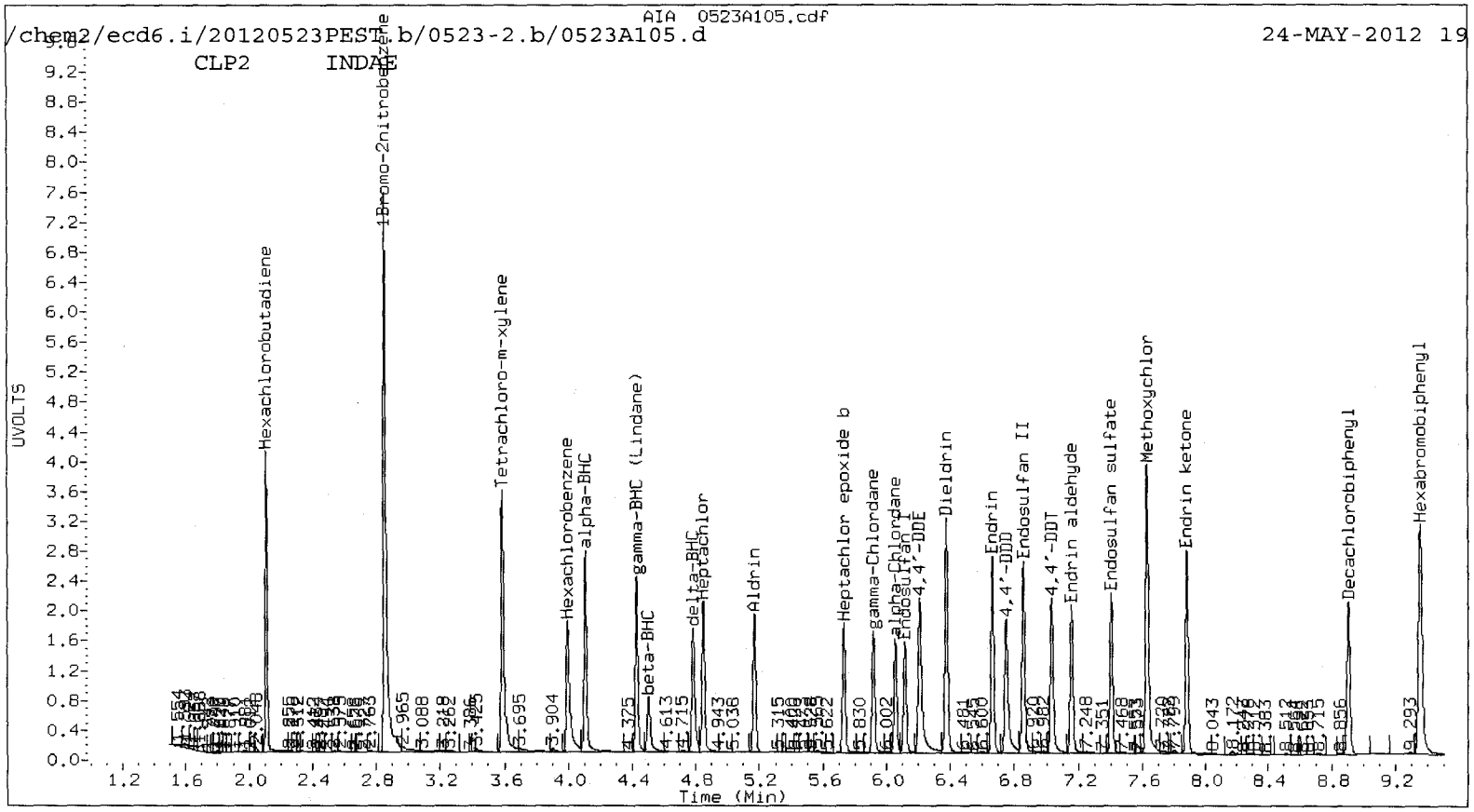
AIA 0523A105.cdf
24-MAY-2012 19
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0523A105.cdf
24-MAY-2012 19
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

US2:61563

Analytical Chemists and Consultants

# GC Analyst Notes / Corrective Action Log

ARI Project ID: uu52 Client ID: Anchor

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
**427S**(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): 12.5g/2.5mL

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7

Dates: Curve: 5/23/2012 Analysis Start: 5/23/2012

Endrin/DDT Breakdown <15%? YES / NO / NA
Method Blank In Control? YES / NO
ICal Meets RF & %RSD Criteria? YES / NO
LCS/LCSD Recovery In Control? YES / NO
CCal Meets RF & %RSD Criteria? YES / NO
Surrogate Recovery In Control? YES / NO
Samples diluted out
Manual Integrations for ICal? YES / NO
Manual Integrations for Samples? YES / NO
Internal Standard Meets Criteria? YES / NO / NA
Special Analysis Criteria Met? YES / NO / NA
Level 4 VDP

**Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):**

- Dilutions reported w/ passing ccals — 100 to 5000 x
- Acid cleaned pest samples had a v. negative affect on the instr. resulting in maint.

**Additional Details on Reverse: Yes / No**

**Analyst:** [signature] **Date:** 5/25/2012

**Reviewer:** [signature] **Date:** 5/28/12

Form 4060F Version 007 6/18/10

UU52:01504

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd6.i/20120523PEST.b/0523-2.b p3

| | Inject Date/Time | Filename | DF | LabID | ClientID |
|---|---|---|---|---|---|
| 101 | 25-MAY-2012 02:23 | 0523A127.d | 1 | DS — Passes | |
| 102 | 25-MAY-2012 02:41 | 0523A128.d | 1 | INDAE — Passes | |
| 103 | 25-MAY-2012 02:59 | 0523A129.d | 1 | TOXAPH 2500 — NR | |
| 104 | 25-MAY-2012 03:17 | 0523A130.d | 1 | WNDE — NR | |
| 105 | 25-MAY-2012 03:34 | 0523A131.d | 1 | UU52MBS1 | |
| 106 | 25-MAY-2012 03:52 | 0523A132.d | 1 | UU52LCSS1 | |
| 107 | 25-MAY-2012 04:10 | 0523A133.d | 1000 | UU52A | |
| 108 | 25-MAY-2012 04:28 | 0523A134.d | 1000 | UU52B | |
| 109 | 25-MAY-2012 04:46 | 0523A135.d | 5000 | UU52C | |
| 110 | 25-MAY-2012 05:03 | 0523A136.d | 5000 | UU52CMS | |
| 111 | 25-MAY-2012 05:21 | 0523A137.d | 5000 | UU52CMSD | |
| 112 | 25-MAY-2012 05:39 | 0523A138.d | 1000 | UU52D | |
| 113 | 25-MAY-2012 05:57 | 0523A139.d | 1000 | UU52E | |
| 114 | 25-MAY-2012 06:15 | 0523A140.d | 1000 | UU52F | |
| 115 | 25-MAY-2012 06:32 | 0523A141.d | 1 | TECH 200 | |
| 116 | 25-MAY-2012 06:50 | 0523A142.d | 1 | WND ICV | |
| 117 | 25-MAY-2012 07:08 | 0523A143.d | 1 | DS — Passes | |
| 118 | 25-MAY-2012 07:26 | 0523A144.d | 1 | INDAE — Passes | |
| 119 | 25-MAY-2012 07:44 | 0523A145.d | 1 | TOXAPH 2500 — NR | |
| 120 | 25-MAY-2012 08:01 | 0523A146.d | 1 | WNDE — NR | |
| 121 | 25-MAY-2012 08:19 | 0523A147.d | 100 | UU52G | |
| 122 | 25-MAY-2012 08:37 | 0523A148.d | 1000 | UU52H | |
| 123 | 25-MAY-2012 08:55 | 0523A149.d | 5000 | UU52I | |
| 124 | 25-MAY-2012 09:13 | 0523A150.d | 5000 | UU52J | |
| 125 | 25-MAY-2012 09:31 | 0523A151.d | 1000 | UU52J | |
| 126 | 25-MAY-2012 09:48 | 0523A152.d | 1 | TECH 200 | |
| 127 | 25-MAY-2012 10:06 | 0523A153.d | 1 | WND ICV | |
| 128 | 25-MAY-2012 10:24 | 0523A154.d | 1 | DS — Passes | |
| 129 | 25-MAY-2012 10:42 | 0523A155.d | 1 | INDAE — Passes | |
| 130 | 25-MAY-2012 11:00 | 0523A156.d | 2 | UU34G | |
| 131 | 25-MAY-2012 11:17 | 0523A157.d | 5 | UU57I | |
| 132 | 25-MAY-2012 11:35 | 0523A158.d | 1 | UU52MBS1 | |
| 133 | 25-MAY-2012 11:53 | 0523A159.d | 1 | UU52LCSS1 | |
| 134 | 25-MAY-2012 12:11 | 0523A160.d | 1 | UU52A | AC |

UU52:01505

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A128.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A128.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m
Injection Date: 25-MAY-2012 02:41
Compound Sublist: INDA
Report Date: 05/29/2012 09:49
Instrument, Inj. Vol.: ecd6.i, 1ul
Matrix: NONE
Operator: ar
Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.797 | 0.000 | 4955560 | 2.854 | 0.000 | 18405466 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.846 | 0.000 | 2070701 | 4.107 | -0.001 | 6331055 | 20.9428 | 20.2004 | 3.6 | alpha-BHC |
| 4.184 | 0.002 | 736530 | 4.502 | 0.000 | 2281111 | 19.9712 | 18.9204 | 5.4 | beta-BHC |
| 4.340 | 0.003 | 1504552 | 4.783 | 0.001 | 4485989 | 20.8569 | 20.0527 | 3.9 | delta-BHC |
| 4.106 | 0.000 | 1714835 | 4.428 | -0.001 | 5242734 | 20.6752 | 19.6052 | 5.3 | gamma-BHC (Lindane) |
| 4.517 | -0.001 | 1897137 | 4.848 | -0.001 | 5132372 | 20.7205 | 19.0709 | 8.3 | Heptachlor |
| 4.787 | 0.000 | 1752174 | 5.169 | -0.002 | 4503129 | 20.8639 | 19.3052 | 7.8 | Aldrin |
| 5.346 | 0.000 | 1505838 | 5.731 | -0.002 | 4368410 | 20.1358 | 19.3041 | 4.2 | Heptachlor epoxide b |
| 5.722 | 0.000 | 1980318 | 6.116 | -0.002 | 3762756 | 19.6182 | 19.1036 | 2.7 | Endosulfan I |
| 5.946 | 0.000 | 3272092 | 6.375 | -0.002 | 7882772 | 40.7129 | 38.7134 | 5.0 | Dieldrin |
| 5.673 | 0.004 | 2292165 | 6.209 | 0.000 | 7086862 | 45.0826 | 39.3539 | 13.6 | 4,4'-DDE |
| 6.163 | 0.000 | 2935694 | 6.662 | -0.002 | 6523690 | 39.8298 | 36.1847 | 9.6 | Endrin |
| 6.371 | 0.001 | 2806734 | 6.856 | -0.002 | 6496792 | 39.1277 | 35.5664 | 9.5 | Endosulfan II |
| 6.230 | 0.003 | 2412517 | 6.748 | 0.000 | 5569757 | 41.5708 | 36.9697 | 11.7 | 4,4'-DDD |
| 7.138 | 0.000 | 2454814 | 7.403 | -0.002 | 5102809 | 38.9246 | 36.3586 | 6.8 | Endosulfan sulfate |
| 6.485 | 0.001 | 2636542 | 7.033 | -0.001 | 5605702 | 41.3679 | 37.7865 | 9.0 | 4,4'-DDT |
| 6.924 | 0.001 | 6149844 | 7.628 | -0.001 | 10634407 | 189.3946 | 164.1002 | 14.3 | Methoxychlor |
| 7.388 | 0.000 | 3038118 | 7.880 | -0.002 | 6620510 | 37.9999 | 36.6412 | 3.6 | Endrin ketone |
| 6.749 | 0.001 | 2231605 | 7.157 | -0.001 | 4918124 | 38.5767 | 35.3501 | 8.7 | Endrin aldehyde |
| 5.470 | 0.001 | 1643081 | 5.917 | -0.001 | 4143756 | 20.2626 | 19.7350 | 2.6 | gamma-Chlordane |
| 5.594 | 0.000 | 1434687 | 6.056 | -0.001 | 3849319 | 18.5914 | 19.2632 | 3.5 | alpha-Chlordane |
| 2.053 | -0.001 | 2172979 | 2.111 | -0.001 | 6459282 | 19.8856 | 18.9847 | 4.6 | Hexachlorobutadiene |
| 3.719 | 0.002 | 1324832 | 3.995 | 0.001 | 5532507 | 19.4374 | 19.3311 | 0.5 | Hexachlorobenzene |
| 8.391 | -0.003 | 6854371 | 9.354 | -0.004 | 10501931 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 3.407 | 0.001 | 2896699 | 3.587 | -0.001 | 8993493 | 39.5041 | 39.3757 | 0.3 | Tetrachloro-m-xylene |
| 8.251 | 0.000 | 2830921 | 8.907 | -0.002 | 5383047 | 36.7649 | 37.0250 | 0.7 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 98.8 | 98.4 | 98.4~ | 115- 0 |
| Decachlorobiphenyl | 91.9 | 92.6 | 91.9~ | 115- 0 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

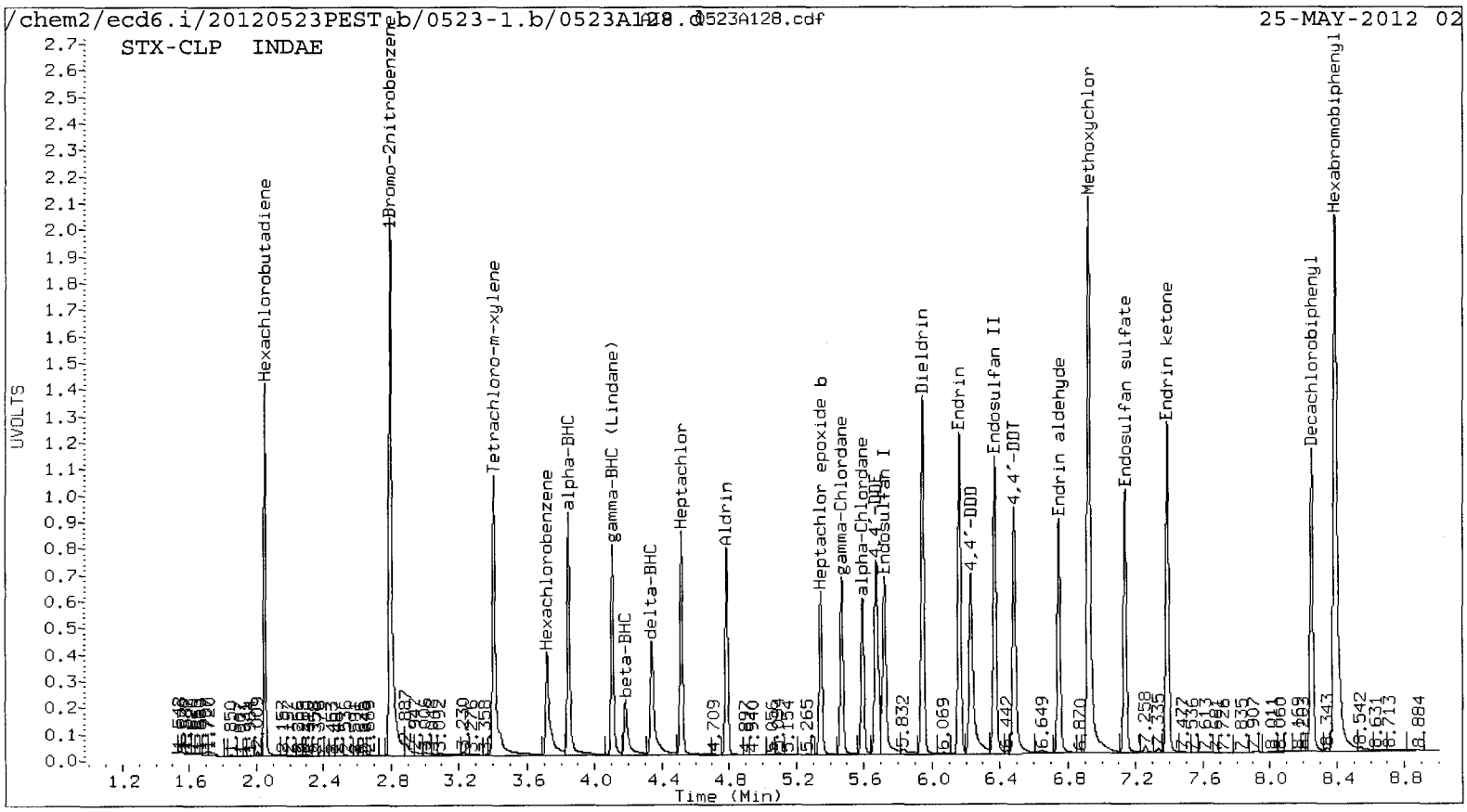
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4955560 | 2.4 |
| Hexabromobiphenyl | 6506091 | 6854371 | 5.4 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 18405466 | 13.4 |
| Hexabromobiphenyl | 8472750 | 10501931 | 23.9 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | STX-CLP Col Peak# | RT | Shift | Height | Amount | CLP2 Col Peak# | RT | Shift | Height | Amount |
|---|---|---|---|---|---|---|---|---|---|---|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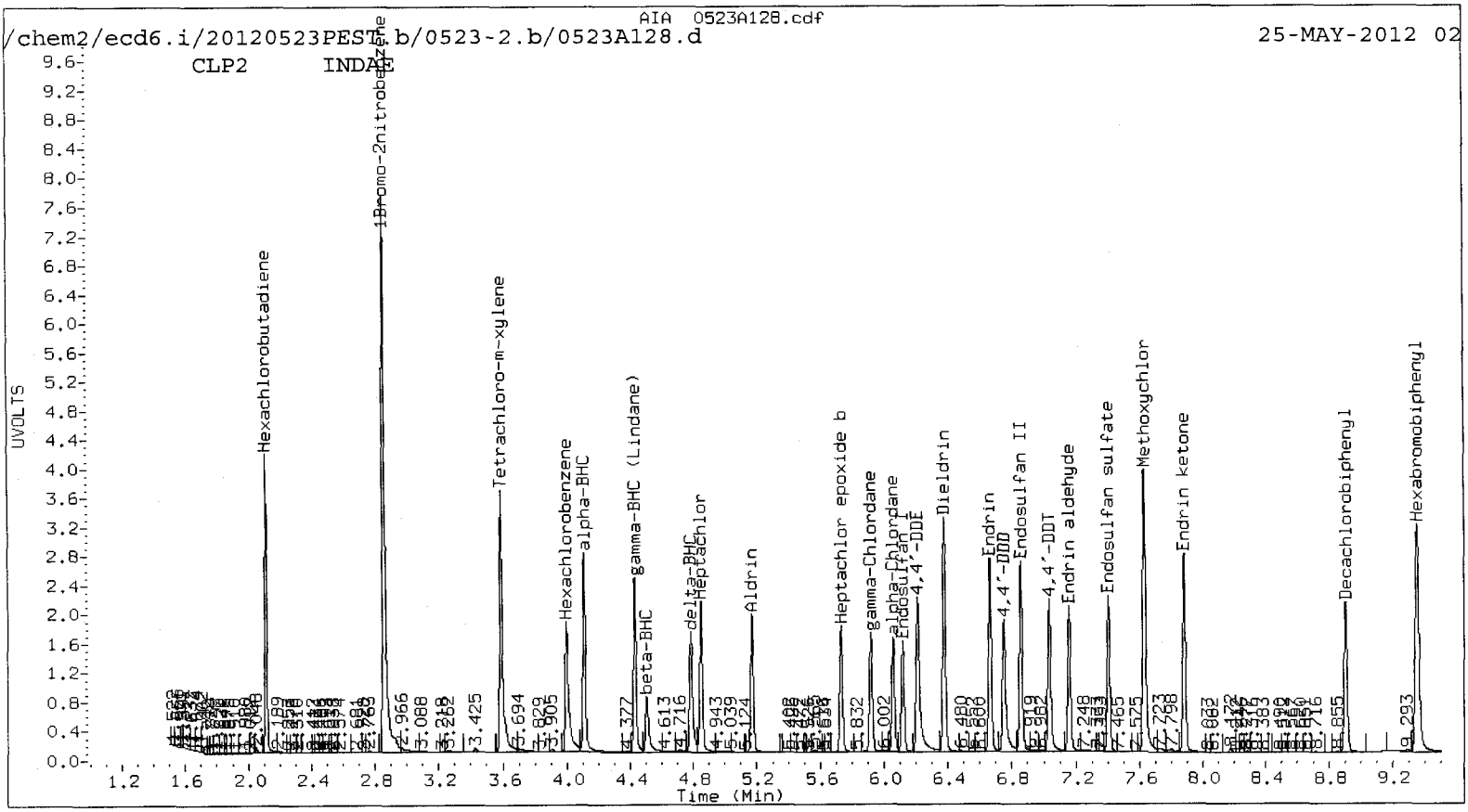
0523A128.cdf
25-MAY-2012 02
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl


AIA 0523A128.cdf
/chem2/ecd6.i/20120523PEST_b/0523-2.b/0523A128.d
25-MAY-2012 02
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

UU52:01568

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

AR 5/25/2012

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A131.d ARI ID: UU52MBS1
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A131.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 03:34
Compound Sublist: wpest Report Date: 05/25/2012 08:06
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.794 | -0.002 | 4647725 | 2.852 | -0.002 | 15596280 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.832 | -0.015 | 18681 | 4.085 | -0.023 | 22686 | 0.2015 | 0.0854 | 80.9* | alpha-BHC |
| 4.195 | 0.013 | 10645 | 4.526 | 0.023 | 25332 | 0.3078 | 0.2480 | 21.5 | beta-BHC |
| 4.326 | -0.011 | 6510 | 4.789 | 0.007 | 21870 | 0.0962 | 0.1154 | 18.1 | delta-BHC |
| 4.109 | 0.003 | 13807 | 4.420 | -0.009 | 39986 | 0.1775 | 0.1765 | 0.6 | gamma-BHC (Lindane) |
| 4.511 | -0.006 | 13233 | 4.844 | -0.005 | 28460 | 0.1541 | 0.1248 | 21.0 | Heptachlor |
| 4.747 | -0.040 | 35601 | 5.188 | 0.017 | 166678 | 0.4520 | 0.8433 | 60.4* | Aldrin |
| 5.341 | -0.005 | 9376 | 5.723 | -0.009 | 77273 | 0.1337 | 0.4030 | 100.4* | Heptachlor epoxide b |
| 5.737 | 0.015 | 5692 | 6.140 | 0.023 | 91583 | 0.0601 | 0.5487 | 160.5* | Endosulfan I |
| 5.944 | -0.002 | 10869 | 6.375 | -0.002 | 57368 | 0.1442 | 0.3325 | 79.0* | Dieldrin |
| 5.668 | -0.002 | 14283 | 6.206 | -0.002 | 79224 | 0.2995 | 0.5192 | 53.7* | 4,4'-DDE |
| 6.116 | -0.047 | 13431 | ---- | | | 0.1824 | 0.0000 | --- | Endrin |
| 6.354 | -0.016 | 18991 | 6.850 | -0.007 | 214237 | 0.2650 | 1.2706 | 131.0* | Endosulfan II |
| 6.224 | -0.003 | 3736 | ---- | | | 0.0644 | 0.0000 | --- | 4,4'-DDD |
| 7.135 | -0.002 | 13264 | 7.396 | -0.008 | 12124 | 0.2105 | 0.0936 | 76.9* | Endosulfan sulfate |
| 6.472 | -0.011 | 25405 | 7.030 | -0.004 | 164022 | 0.3989 | 1.1978 | 100.1* | 4,4'-DDT |
| 6.918 | -0.005 | 23233 | 7.620 | -0.009 | 33965 | 0.7161 | 0.5678 | 23.1 | Methoxychlor |
| 7.407 | 0.019 | 28201 | 7.912 | 0.030 | 44972 | 0.3530 | 0.2696 | 26.8 | Endrin ketone |
| 6.705 | -0.044 | 32905 | 7.142 | -0.016 | 125911 | 0.5692 | 0.9804 | 53.1* | Endrin aldehyde |
| 5.473 | 0.003 | 92988 | 5.909 | -0.009 | 38221 | 1.2227 | 0.2148 | 140.2* | gamma-Chlordane |
| 5.630 | 0.037 | 8763 | ---- | | | 0.1211 | 0.0000 | --- | alpha-Chlordane |
| 2.064 | 0.011 | 30819 | 2.102 | -0.011 | 153344 | 0.3007 | 0.5319 | 55.5* | Hexachlorobutadiene |
| 3.714 | -0.003 | 58701 | 3.991 | -0.004 | 28074 | 0.9183 | 0.1158 | 155.2* | Hexachlorobenzene |
| 5.251 | -0.001 | 11027 | 5.635 | -0.008 | 14169 | 0.1740 | 0.0930 | 60.7* | Oxychlordane |
| 5.383 | 0.042 | 3481 | 5.948 | 0.038 | 301143 | 0.0780 | 3.0343 | 190.0* | 2,4-DDE |
| 5.582 | 0.002 | 15359 | 5.999 | -0.007 | 199291 | 0.1894 | 1.0085 | 136.7* | trans-Nonachlor |
| 5.828 | -0.002 | 13209 | 6.396 | -0.003 | 95850 | 0.3211 | 0.8686 | 92.0* | 2,4-DDD |
| 6.068 | -0.001 | 18402 | 6.680 | -0.005 | 185516 | 0.3396 | 1.5475 | 128.0* | 2,4-DDT |
| 6.196 | -0.001 | 24210 | 6.731 | -0.003 | 286859 | 0.2697 | 1.4395 | 136.9* | cis-Nonachlor |
| 7.062 | -0.001 | 17462 | 7.860 | -0.003 | 95623 | 0.2937 | 0.7985 | 92.4* | Mirex |
| 8.387 | -0.002 | 6849218 | 9.351 | -0.004 | 9694026 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 1.721 | 0.001 | 144825 | 1.766 | -0.004 | 54026 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.405 | -0.001 | 2043306 | 3.585 | -0.003 | 6017263 | 29.7115 | 31.0903 | 4.5 | Tetrachloro-m-xylene |
| 8.250 | -0.001 | 2676544 | 8.906 | -0.002 | 4516570 | 34.7861 | 33.6543 | 3.3 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 74.3 | 77.7 | 74.3~ | 130- 0 |
| Decachlorobiphenyl | 87.0 | 84.1 | 84.1~ | 130- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4647725 | -4.0 |
| Hexabromobiphenyl | 6506091 | 6849218 | 5.3 |

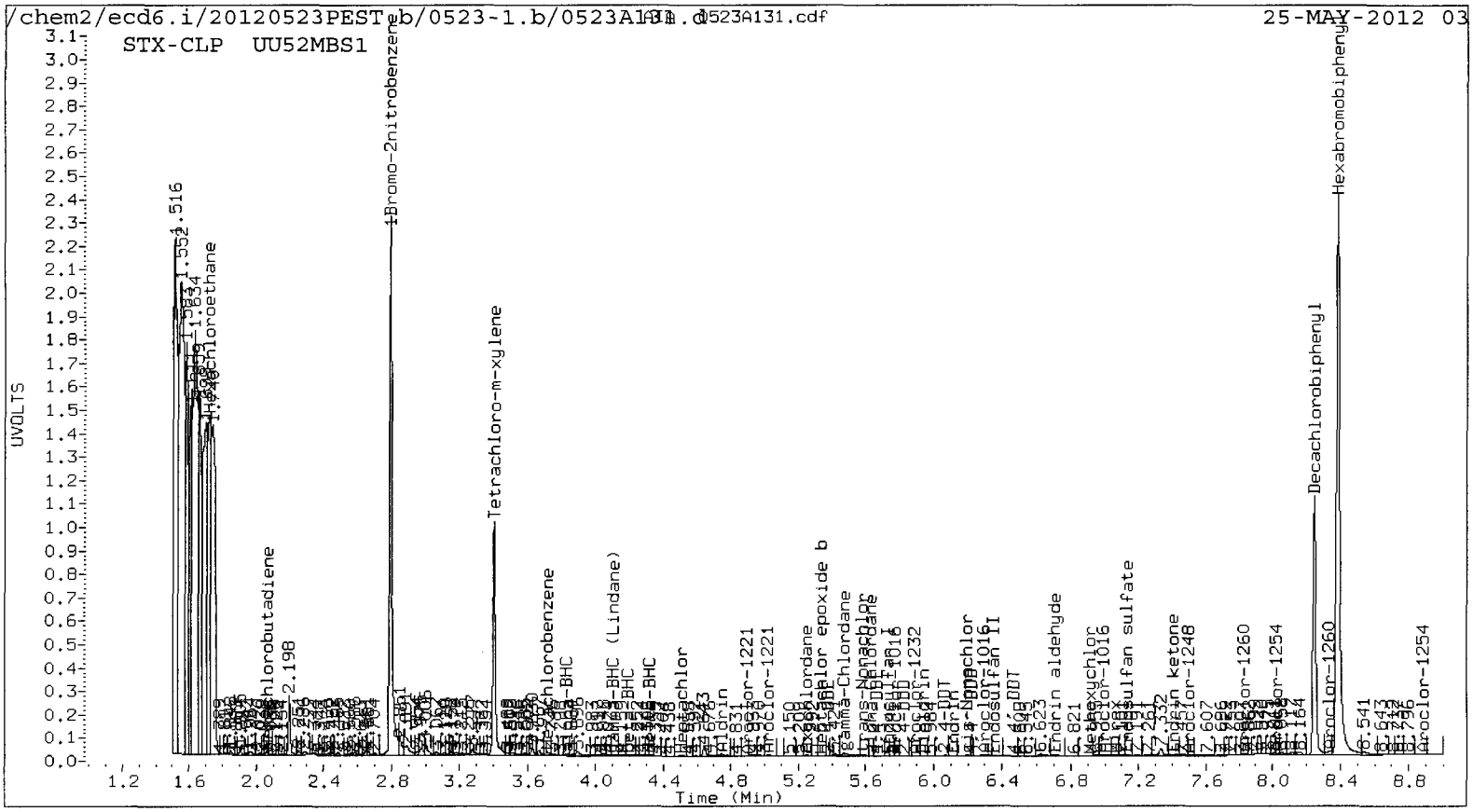
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 15596280 | -3.9 |
| Hexabromobiphenyl | 8472750 | 9694026 | 14.4 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount | |
| Toxaphene | 1 | 6.472 | 0.048 | 25405 | 7.805 | 1 | 6.605 | -0.002 | 82048 | 15.569 | |
| Toxaphene | 2 | --- | | | 0.000 | 2 | 6.944 | 0.013 | 16996 | 2.161 | |
| Toxaphene | 3 | 6.705 | 0.031 | 32905 | 14.317 | 3 | 7.142 | -0.023 | 125911 | 15.229 | |
| Toxaphene | 4 | 6.918 | 0.041 | 23233 | 9.399 | 4 | 7.620 | -0.005 | 33965 | 5.169 | |
| Toxaphene | 5 | 7.062 | 0.007 | 17462 | 4.635 | 5 | 7.676 | 0.007 | 36633 | 4.094 | |
| Toxaphene | 6 | 7.407 | 0.032 | 28201 | 10.680 | NS | --- | | | ---- | |
| Total STX-CLPAve (5 peaks): 9.367 | | | | | | Total CLP2Ave (5 peaks): 8.445 | | | | RPD = 10 | |
| Corrected Ave (5 peaks): 9.367 | | | | | | Corrected Ave (3 peaks): 3.808 | | | | RPD = 84* | |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 | |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 | |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 | |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 | |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 | |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 | |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 | |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 | |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 | |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 | |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 | |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 | |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 | |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 | |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 | |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 | |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 | |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 | |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 | |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1248 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1248 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1248 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1248 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1254 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1254 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1254 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1254 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1260 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1260 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1260 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1260 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1262 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1262 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1262 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1262 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1268 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1268 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1268 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1268 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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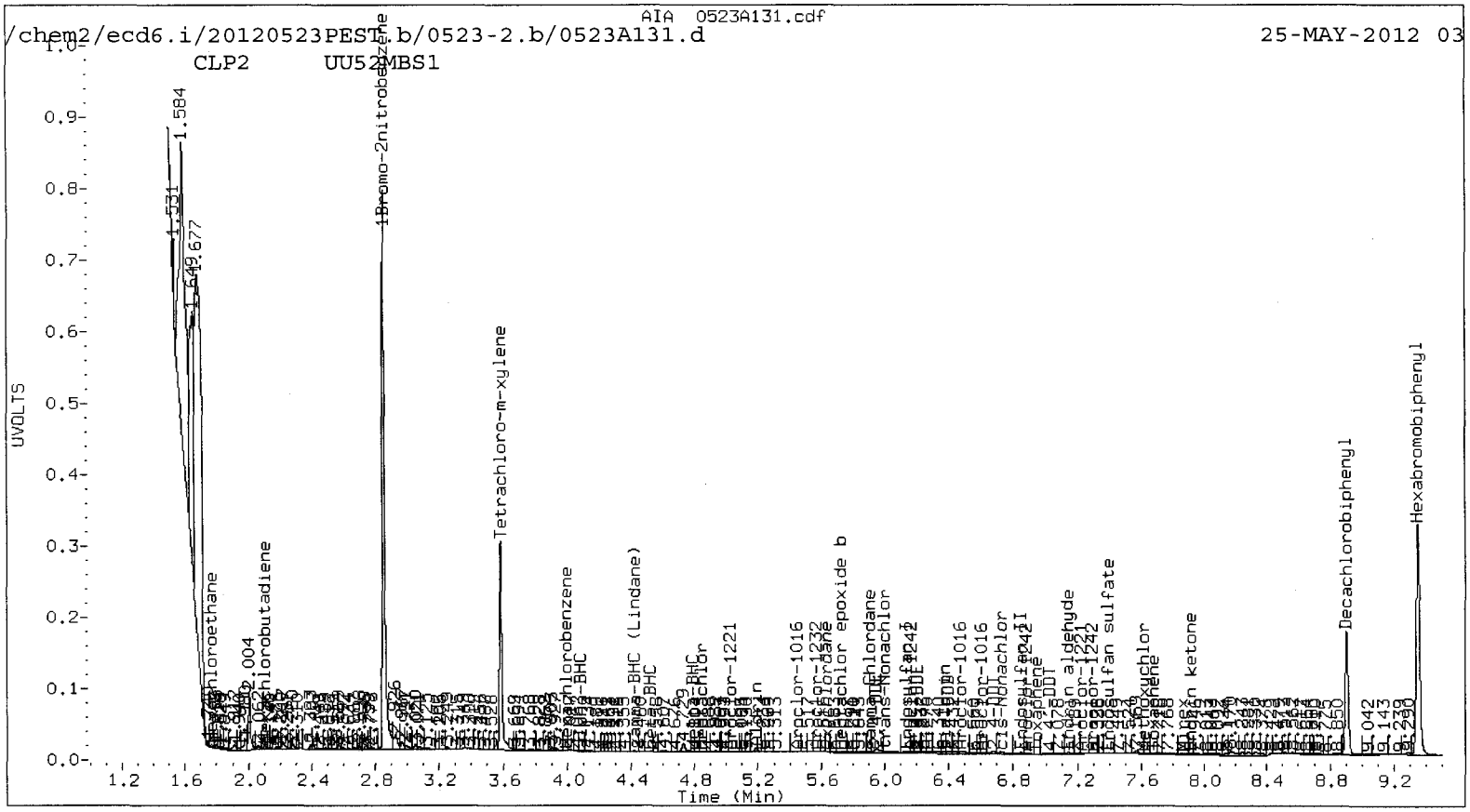
AIA 0523A131.cdf
25-MAY-2012 03
STX-CLP UU52MBS1
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Decachlorobiphenyl
Hexabromobiphenyl
Aroclor-1260
Aroclor-1254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25-MAY-2012 03
CLP2 UU52MBS1
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Decachlorobiphenyl
Hexabromobiphenyl

AR 5/25/2012

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A132.d ARI ID: UU52LCSS1
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A132.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 03:52
Compound Sublist: wpest Report Date: 05/25/2012 08:06
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.794 | -0.002 | 4684042 | 2.852 | -0.002 | 15002976 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.845 | -0.001 | 1441520 | 4.105 | -0.002 | 4103065 | 15.4244 | 16.0606 | 4.0 | alpha-BHC |
| 4.182 | 0.000 | 556569 | 4.500 | -0.002 | 1620072 | 15.9663 | 16.4850 | 3.2 | beta-BHC |
| 4.336 | -0.001 | 1178544 | 4.780 | -0.003 | 3701481 | 17.2847 | 20.2983 | 16.0 | delta-BHC |
| 4.105 | -0.001 | 1329603 | 4.426 | -0.002 | 3786074 | 16.9598 | 17.3689 | 2.4 | gamma-BHC (Lindane) |
| 4.517 | -0.001 | 1414852 | 4.848 | -0.002 | 3403573 | 16.3488 | 15.5152 | 5.2 | Heptachlor |
| 4.787 | 0.000 | 1264466 | 5.168 | -0.002 | 3183602 | 15.9293 | 16.7436 | 5.0 | Aldrin |
| 5.346 | 0.000 | 1246203 | 5.731 | -0.002 | 3379449 | 17.6299 | 18.3207 | 3.8 | Heptachlor epoxide b |
| 5.721 | 0.000 | 777757 | 6.116 | -0.001 | 1594724 | 8.1516 | 9.9326 | 19.7 | Endosulfan I |
| 5.946 | 0.000 | 2582102 | 6.375 | -0.002 | 6149548 | 33.9901 | 37.0505 | 8.6 | Dieldrin |
| 5.668 | -0.002 | 2276710 | 6.205 | -0.003 | 5768885 | 47.3743 | 39.3003 | 18.6 | 4,4'-DDE |
| 6.163 | 0.000 | 2454382 | 6.662 | -0.002 | 5330816 | 34.1950 | 32.9700 | 3.6 | Endrin |
| 6.370 | 0.000 | 1422891 | 6.856 | -0.002 | 3241894 | 20.3694 | 19.7894 | 2.9 | Endosulfan II |
| 6.227 | -0.001 | 2065984 | 6.746 | -0.003 | 4629363 | 36.5569 | 34.2628 | 6.5 | 4,4'-DDD |
| 7.138 | 0.000 | 2008291 | 7.403 | -0.001 | 4005124 | 32.7007 | 31.8205 | 2.7 | Endosulfan sulfate |
| 6.483 | 0.000 | 2228373 | 7.032 | -0.001 | 4545862 | 35.9038 | 34.1677 | 5.0 | 4,4'-DDT |
| 6.923 | -0.001 | 5209992 | 7.628 | -0.002 | 8980435 | 164.7648 | 154.5204 | 6.4 | Methoxychlor |
| 7.388 | 0.000 | 2550711 | 7.880 | -0.002 | 5373645 | 32.7614 | 33.1620 | 1.2 | Endrin ketone |
| 6.748 | -0.001 | 1461558 | 7.157 | -0.002 | 3240338 | 25.9447 | 25.9701 | 0.1 | Endrin aldehyde |
| 5.470 | 0.000 | 1380691 | 5.917 | -0.001 | 3448747 | 18.0138 | 20.1499 | 11.2 | gamma-Chlordane |
| 5.594 | 0.000 | 1207977 | 6.056 | -0.002 | 2968245 | 16.5610 | 18.2228 | 9.6 | alpha-Chlordane |
| 2.050 | -0.003 | 1336468 | 2.110 | -0.003 | 3689819 | 12.9394 | 13.3044 | 2.8 | Hexachlorobutadiene |
| 3.716 | -0.001 | 1050076 | 3.993 | -0.002 | 3767298 | 16.2993 | 16.1485 | 0.9 | Hexachlorobenzene |
| 5.265 | 0.013 | 5666 | 5.615 | -0.029 | 27630 | ~~0.0917~~ | ~~0.1884~~ | ~~69.0*~~ | Oxychlordane |
| 5.293 | -0.049 | 3225 | 5.876 | -0.033 | 58356 | 0.0741 | 0.6113 | ~~156.7*~~ | 2,4-DDE |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | trans-Nonachlor |
| 5.829 | -0.001 | 38535 | ---- | | | 0.9613 | 0.0000 NS | --- | 2,4-DDD |
| 6.068 | -0.001 | 17143 | ---- | | | 0.3246 | 0.0000 | --- | 2,4-DDT |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | cis-Nonachlor |
| 7.098 | 0.036 | 11117 | ---- | | | ~~0.1919~~ | ~~0.0000~~ | --- | Mirex |
| 8.387 | -0.002 | 6674886 | 9.352 | -0.003 | 9418383 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 1.730 | 0.010 | 258912 | 1.766 | -0.004 | 42887 | ~~0.0000~~ | ~~0.0000~~ WA | --- | Hexachloroethane |
| 3.405 | -0.001 | 1835856 | 3.586 | -0.002 | 5671608 | 26.4880 | 30.4632 | 14.0 | Tetrachloro-m-xylene |
| 8.250 | 0.000 | 2452338 | 8.907 | -0.001 | 4220011 | 32.7046 | 32.3648 | 1.0 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 66.2 | 76.2 | 66.2 | 42-112 |
| Decachlorobiphenyl | 81.8 | 80.9 | 80.9 | 59-123 |
| | | | | |
| alpha-BHC | 77.1 | 80.3 | 77.1 | 49-111 |
| beta-BHC | 79.8 | 82.4 | 79.8 | 54-107 |
| delta-BHC | 86.4 | 101.5 | 86.4 | 72-112 |
| gamma-BHC (Lindane) | 84.8 | 86.8 | 84.8 | 54-115 |
| Heptachlor | 81.7 | 77.6 | 77.6 | 45-133 |
| Aldrin | 79.6 | 83.7 | 79.6 | 53-114 |
| Heptachlor epoxide b | 88.1 | 91.6 | 88.1 | 60-121 |
| Endosulfan I | 40.8 | 49.7 | 40.8 | 40-129 |
| Dieldrin | 85.0 | 92.6 | 85.0 | 68-123 |
| 4,4'-DDE | 118.4 | 98.3 | 98.3 | 66-124 |
| Endrin | 85.5 | 82.4 | 82.4 | 60-135 |
| Endosulfan II | 50.9 | 49.5 | 49.5 | 46-130 |
| 4,4'-DDD | 91.4 | 85.7 | 85.7 | 54-129 |
| Endosulfan sulfate | 81.8 | 79.6 | 79.6 | 36-110 |
| 4,4'-DDT | 89.8 | 85.4 | 85.4 | 50-133 |
| Methoxychlor | 82.4 | 77.3 | 77.3 | 46-138 |
| Endrin ketone | 81.9 | 82.9 | 81.9 | 45-131 |
| Endrin aldehyde | 64.9 | 64.9 | 64.9 | 25-100 |
| gamma-Chlordane | 90.1 | 100.7 | 90.1 | 66-119 |
| alpha-Chlordane | 82.8 | 91.1 | 82.8 | 62-119 |
| Hexachlorobutadiene | 64.7 | 66.5 | 64.7 | 39-100 |
| Hexachlorobenzene | 81.5 | 80.7 | 80.7 | 41-108 |

~ Indicates recovery outside QC Limits

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 66.2 | 76.2 | 66.2~ | 130- 0 |
| Decachlorobiphenyl | 81.8 | 80.9 | 80.9~ | 130- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4684042 | -3.3 |
| Hexabromobiphenyl | 6506091 | 6674886 | 2.6 |

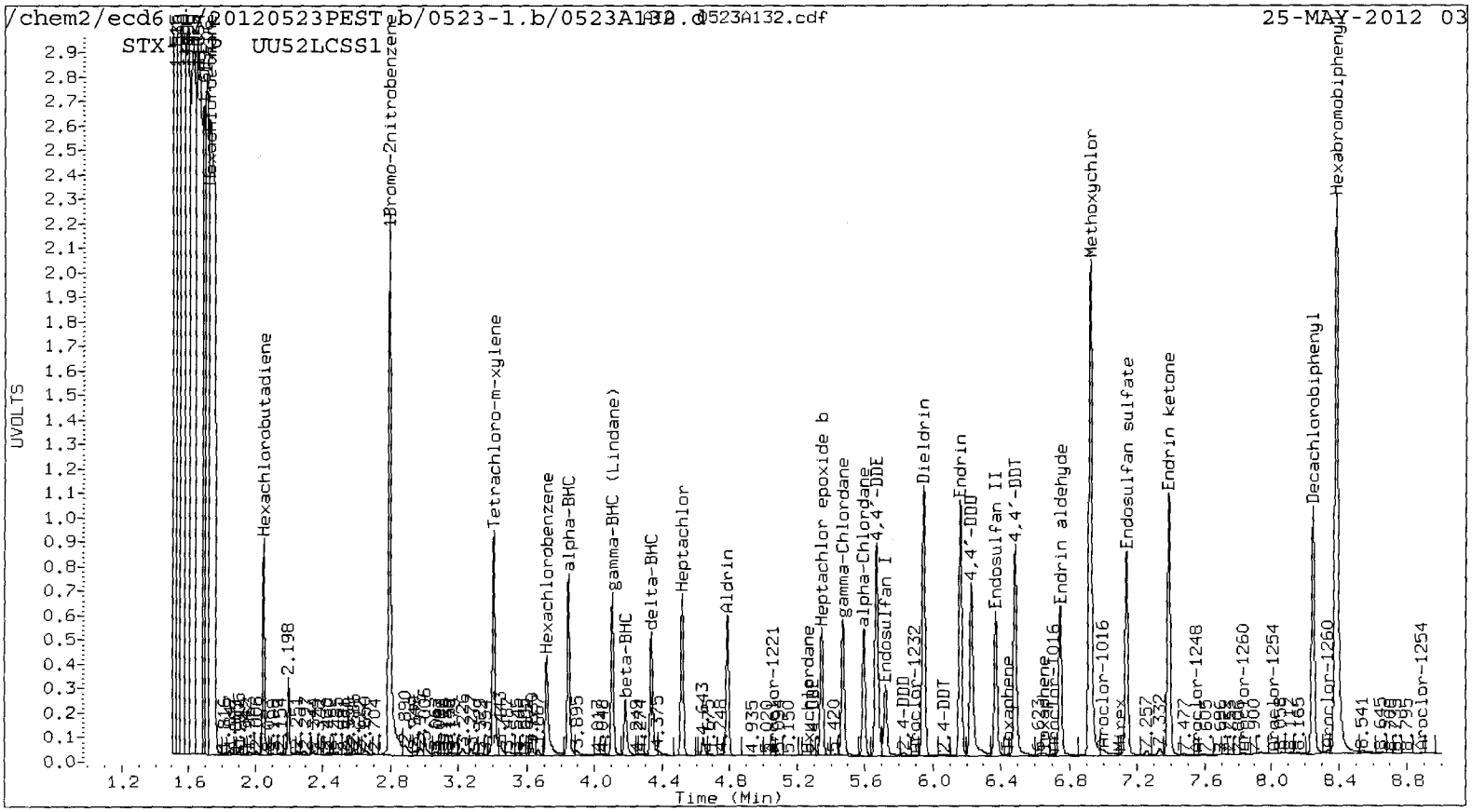
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 15002976 | -7.5 |
| Hexabromobiphenyl | 8472750 | 9418383 | 11.2 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount | |
| Toxaphene | 1 | 6.442 | 0.018 | 15410 | 4.858 | 1 | 6.598 | -0.008 | 52034 | 10.163 | |
| Toxaphene | 2 | 6.483 | 0.008 | 2228373 | 917.062 | 2 | 6.949 | 0.017 | 10310 | 1.350 | |
| Toxaphene | 3 | 6.649 | -0.024 | 36206 | 16.165 | 3 | 7.157 | -0.009 | 3240338 | 403.402 | |
| Toxaphene | 4 | 6.923 | 0.045 | 5209992 | 2162.818 | 4 | 7.628 | 0.002 | 8980435 | 1406.549 | |
| Toxaphene | 5 | 7.098 | 0.043 | 11117 | 3.028 | 5 | --- | | | 0.000 | |
| Toxaphene | 6 | 7.388 | 0.013 | 2550711 | 991.188 | NS | --- | | | ---- | |
| Total STX-CLPAve (6 peaks): 682.520 | | | | | | Total CLP2Ave (4 peaks): 455.366 | | | | RPD = 40 | |
| Corrected Ave (5 peaks): 386.460 | | | | | | Corrected Ave (3 peaks): 138.305 | | | | RPD = 95* | |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 | |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 | |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 | |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 | |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 | |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 | |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 | |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 | |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 | |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 | |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 | |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 | |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 | |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 | |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 | |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 | |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 | |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 | |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 | |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1248 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1248 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1248 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1248 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1254 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1254 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1254 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1254 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1260 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1260 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1260 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1260 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1262 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1262 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1262 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1262 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1268 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1268 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1268 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1268 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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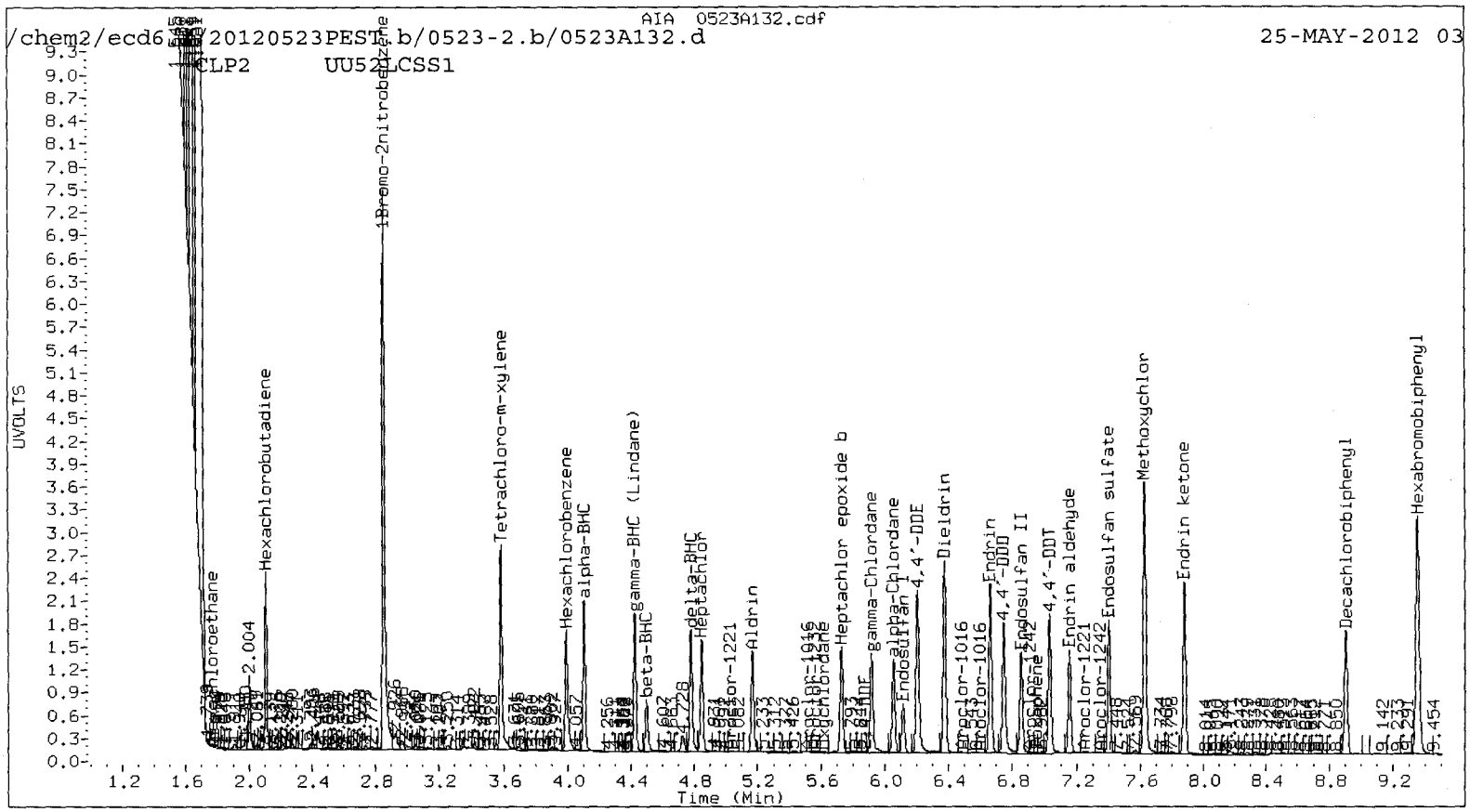
0523A132.cdf
25-MAY-2012 03
STX UU52LCSS1
UVOLTS
Time (Min)
1,2-Dichloroethane
Hexachlorobutadiene
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Aroclor-1221
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Aroclor-1232
Dieldrin
4,4'-DDD
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Aroclor-1016
Methoxychlor
Endosulfan sulfate
Endrin ketone
Aroclor-1248
Aroclor-1260
Aroclor-1254
Decachlorobiphenyl
Hexabromobiphenyl


AIA 0523A132.cdf
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25-MAY-2012 03
CLP2 UU52LCSS1
UVOLTS
Time (Min)
1,2-Dichloroethane
Hexachlorobutadiene
1-Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Aroclor-1221
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Aroclor-1016
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Aroclor-1221
Aroclor-1242
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

AR 5/25/2012

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A133.d ARI ID: UU52A
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A133.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 04:10
Compound Sublist: wpest Report Date: 05/25/2012 08:06
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1000.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.796 | 0.000 | 4448672 | 2.854 | -0.001 | 15927983 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.844 | -0.002 | 9346 | 4.107 | -0.001 | 38999 | 0.1053 | 0.1438 | 30.9 | alpha-BHC |
| 4.187 | 0.005 | 3833 | 4.540 | 0.038 | 22829 | 0.1158 | 0.2188 | 61.6* | beta-BHC |
| 4.359 | 0.022 | 12869 | 4.782 | -0.001 | 40030 | 0.1987 | 0.2068 | 4.0 | delta-BHC |
| 4.104 | -0.002 | 22949 | 4.441 | 0.012 | 110413 | 0.3082 | 0.4771 | 43.0* | gamma-BHC (Lindane) |
| 4.514 | -0.003 | 8540 | 4.845 | -0.005 | 42397 | 0.1039 | 0.1820 | 54.7* | Heptachlor |
| 4.784 | -0.004 | 4535 | 5.153 | -0.018 | 62733 | 0.0602 | 0.3108 | 135.1* | Aldrin |
| 5.354 | 0.008 | 8423 | 5.709 | -0.024 | 63137 | 0.1255 | 0.3224 | 87.9* | Heptachlor epoxide b |
| 5.735 | 0.013 | 7638 | 6.118 | 0.000 | 14711 | 0.0843 | 0.0863 | 2.4 | Endosulfan I |
| 5.944 | -0.002 | 15139 | 6.371 | -0.006 | 46208 | 0.2098 | 0.2622 | 22.2 | Dieldrin |
| 5.670 | 0.000 | 7989 | 6.204 | -0.005 | 18635 | 0.1750 | 0.1196 | 37.7 | 4,4'-DDE |
| 6.160 | -0.003 | 4554 | 6.659 | -0.005 | 24987 | 0.0682 | 0.1539 | 77.1* | Endrin |
| 6.369 | -0.001 | 5488 | 6.856 | -0.001 | 37054 | 0.0845 | 0.2253 | 90.9* | Endosulfan II |
| 6.229 | 0.002 | 14734 | 6.746 | -0.003 | 34605 | 0.2803 | 0.2551 | 9.4 | 4,4'-DDD |
| 7.137 | -0.001 | 6237 | 7.382 | -0.022 | 26848 | 0.1092 | 0.2125 | 64.2* | Endosulfan sulfate |
| 6.484 | 0.000 | 6331 | 7.032 | -0.002 | 31483 | 0.1097 | 0.2357 | 73.0* | 4,4'-DDT |
| 6.923 | 0.000 | 20324 | 7.627 | -0.002 | 37688 | 0.6911 | 0.6459 | 6.8 | Methoxychlor |
| 7.388 | 0.000 | 6029 | 7.881 | 0.000 | 44773 | 0.0833 | 0.2752 | 107.1* | Endrin ketone |
| 6.752 | 0.004 | 11319 | 7.158 | -0.001 | 16336 | 0.2160 | 0.1304 | 49.4* | Endrin aldehyde |
| 5.474 | 0.005 | 13064 | 5.951 | 0.033 | 36698 | 0.1795 | 0.2020 | 11.8 | gamma-Chlordane |
| ---- | | | 6.052 | -0.005 | 29614 | 0.0000 | 0.1712 | --- | alpha-Chlordane |
| 2.052 | -0.001 | 4104 | 2.109 | -0.003 | 25359 | 0.0418 | 0.0861 | 69.2* | Hexachlorobutadiene |
| 3.721 | 0.004 | 7565 | 3.994 | -0.001 | 25427 | 0.1237 | 0.1027 | 18.5 | Hexachlorobenzene |
| 5.238 | -0.014 | 24989 | 5.647 | 0.003 | 37686 | 0.4350 | 0.2421 | 57.0* | Oxychlordane |
| 5.323 | -0.018 | 2560 | 5.907 | -0.003 | 34560 | 0.0633 | 0.3410 | 137.4* | 2,4-DDE |
| 5.558 | -0.022 | 27665 | 6.000 | -0.006 | 75218 | 0.3765 | 0.3902 | 3.6 | trans-Nonachlor |
| 5.830 | 0.000 | 3326 | 6.424 | 0.025 | 42850 | 0.0892 | 0.3981 | 126.8* | 2,4-DDD |
| 6.042 | -0.026 | 5179 | ---- | | | 0.1055 | 0.0000 | --- | 2,4-DDT |
| 6.197 | 0.000 | 3408 | 6.708 | -0.025 | 15916 | 0.0419 | 0.0819 | 64.6* | cis-Nonachlor |
| 7.061 | -0.002 | 8402 | ---- | | | 0.1559 | 0.0000 | --- | Mirex |
| 8.387 | -0.002 | 6207764 | 9.352 | -0.003 | 9456432 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 1.719 | 0.000 | 969 | 1.770 | 0.000 | 12162 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.407 | 0.001 | 17933 | 3.586 | -0.001 | 41699 | 0.2724 | 0.2110 | 25.4 | Tetrachloro-m-xylene |
| 8.252 | 0.001 | 25081 | 8.906 | -0.002 | 25316 | 0.3597 | 0.1934 | 60.1* | Decachlorobiphenyl |

CD

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 0.7 | 0.5 | 0.5~ | 130- 0 |
| Decachlorobiphenyl | 0.9 | 0.5 | 0.5~ | 130- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4448672 | -8.1 |
| Hexabromobiphenyl | 6506091 | 6207764 | -4.6 |

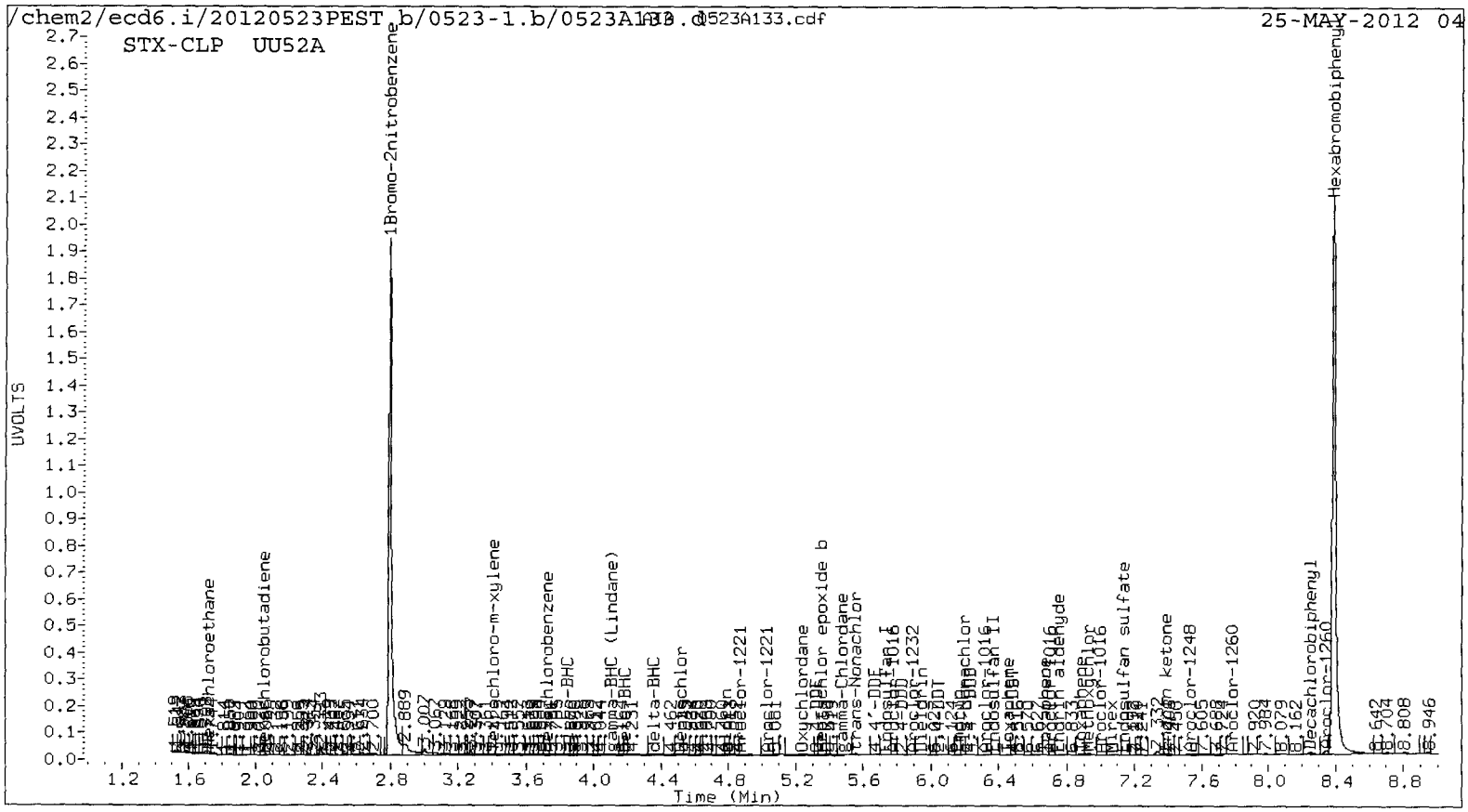
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 15927983 | -1.8 |
| Hexabromobiphenyl | 8472750 | 9456432 | 11.6 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 6.452 | 0.028 | 7576 | 2.568 | 1 | 6.621 | 0.015 | 15212 | 2.959 |
| Toxaphene | 2 | 6.484 | 0.009 | 6331 | 2.802 | 2 | 6.922 | -0.009 | 36786 | 4.796 |
| Toxaphene | 3 | 6.674 | 0.001 | 8312 | 3.991 | 3 | 7.158 | -0.008 | 16336 | 2.026 |
| Toxaphene | 4 | 6.880 | 0.002 | 17338 | 7.740 | 4 | 7.627 | 0.002 | 37688 | 5.879 |
| Toxaphene | 5 | 7.061 | 0.005 | 8402 | 2.460 | 5 | 7.671 | 0.001 | 15608 | 1.788 |
| Toxaphene | 6 | 7.388 | 0.013 | 6029 | 2.519 | NS | --- | | | ---- |
| Total STX-CLPAve (6 peaks): 3.680 | | | | | | Total CLP2Ave (5 peaks): 3.490 | | | | RPD = 5 |
| Corrected Ave (5 peaks): 2.868 | | | | | | Corrected Ave (5 peaks): 3.490 | | | | RPD = 20 |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 1 | --- | 0.000 | 1 | | --- | 0.000 | |
| Aroclor-1248 2 | --- | 0.000 | 2 | | --- | 0.000 | |
| Aroclor-1248 3 | --- | 0.000 | 3 | | --- | 0.000 | |
| Aroclor-1248 4 | --- | 0.000 | 4 | | --- | 0.000 | |
| Aroclor-1248 5 | --- | 0.000 | 5 | | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 1 | --- | 0.000 | 1 | | --- | 0.000 | |
| Aroclor-1254 2 | --- | 0.000 | 2 | | --- | 0.000 | |
| Aroclor-1254 3 | --- | 0.000 | 3 | | --- | 0.000 | |
| Aroclor-1254 4 | --- | 0.000 | 4 | | --- | 0.000 | |
| Aroclor-1254 5 | --- | 0.000 | 5 | | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 1 | --- | 0.000 | 1 | | --- | 0.000 | |
| Aroclor-1260 2 | --- | 0.000 | 2 | | --- | 0.000 | |
| Aroclor-1260 3 | --- | 0.000 | 3 | | --- | 0.000 | |
| Aroclor-1260 4 | --- | 0.000 | 4 | | --- | 0.000 | |
| Aroclor-1260 5 | --- | 0.000 | 5 | | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 1 | --- | 0.000 | 1 | | --- | 0.000 | |
| Aroclor-1262 2 | --- | 0.000 | 2 | | --- | 0.000 | |
| Aroclor-1262 3 | --- | 0.000 | 3 | | --- | 0.000 | |
| Aroclor-1262 4 | --- | 0.000 | 4 | | --- | 0.000 | |
| Aroclor-1262 5 | --- | 0.000 | 5 | | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 1 | --- | 0.000 | 1 | | --- | 0.000 | |
| Aroclor-1268 2 | --- | 0.000 | 2 | | --- | 0.000 | |
| Aroclor-1268 3 | --- | 0.000 | 3 | | --- | 0.000 | |
| Aroclor-1268 4 | --- | 0.000 | 4 | | --- | 0.000 | |
| Aroclor-1268 5 | --- | 0.000 | 5 | | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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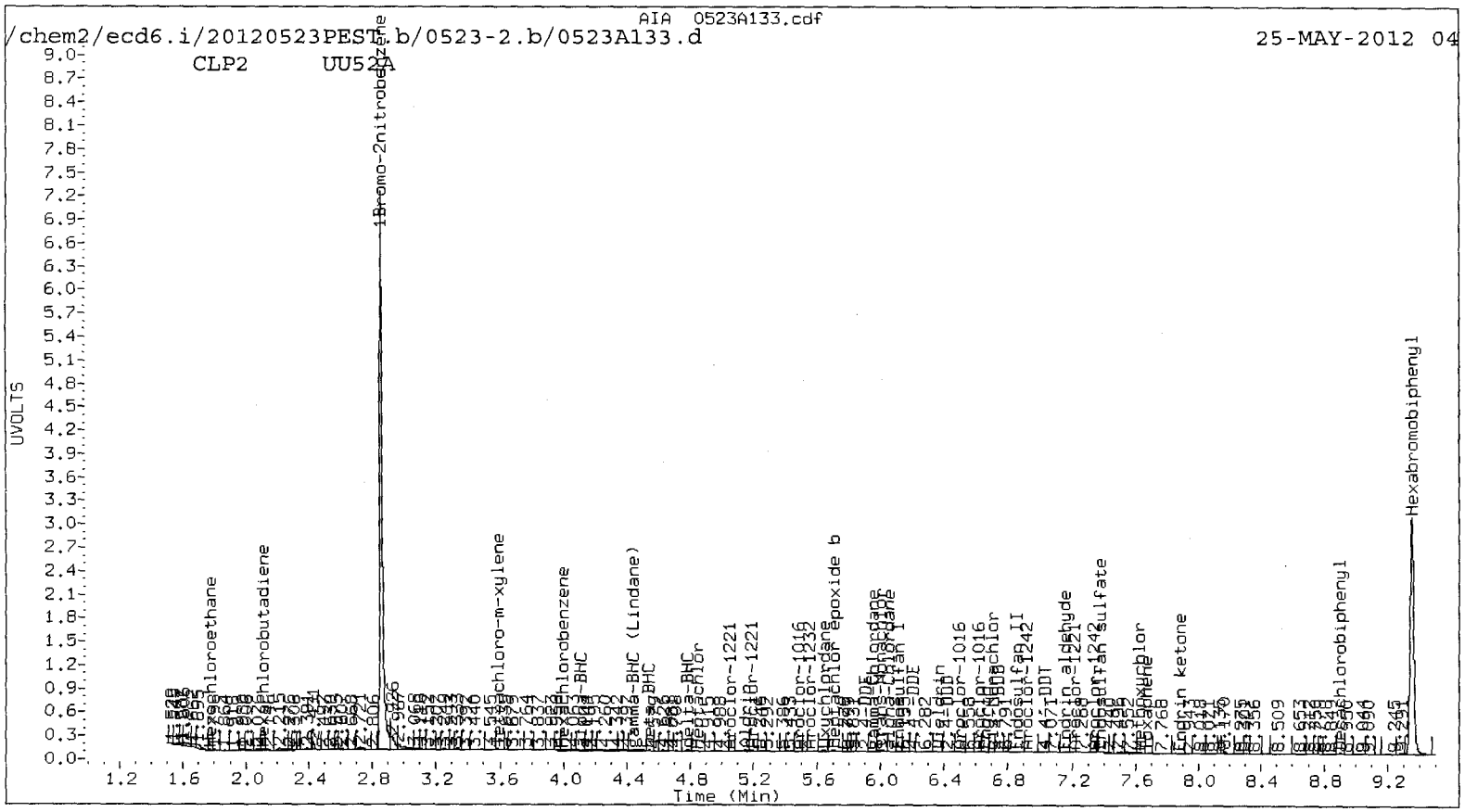
25-MAY-2012 04
STX-CLP UU52A
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl
Decachlorobiphenyl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25-MAY-2012 04
CLP2 UU52A
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl

UU52:091521

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A134.d ARI ID: UU52B
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Compound Sublist: wpest Report Date: 05/25/2012 08:06
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1000.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.796 | 0.000 | 4445233 | 2.854 | -0.001 | 16124314 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.844 | -0.003 | 6548 | 4.107 | -0.001 | 27383 | 0.0738 | 0.0997 | 29.8 | alpha-BHC |
| 4.192 | 0.010 | 1685 | 4.486 | -0.016 | 15336 | 0.0509 | 0.1452 | 96.1* | beta-BHC |
| 4.324 | -0.013 | 2176 | 4.782 | -0.001 | 25647 | 0.0336 | 0.1309 | 118.2* | delta-BHC |
| 4.086 | -0.021 | 12089 | 4.444 | 0.015 | 48635 | 0.1625 | 0.2076 | 24.4 | gamma-BHC (Lindane) |
| 4.520 | 0.003 | 5296 | 4.825 | -0.024 | 15272 | 0.0645 | 0.0648 | 0.5 | Heptachlor |
| 4.759 | -0.029 | 17086 | 5.153 | -0.017 | 39938 | 0.2268 | 0.1954 | 14.9 | Aldrin |
| 5.357 | 0.012 | 6685 | 5.745 | 0.012 | 9776 | 0.0997 | 0.0493 | 67.6* | Heptachlor epoxide b |
| 5.712 | -0.010 | 2161 | 6.137 | 0.019 | 12736 | 0.0239 | 0.0738 | 102.2* | Endosulfan I |
| 5.944 | -0.003 | 11943 | 6.370 | -0.007 | 12054 | 0.1657 | 0.0676 | 84.1* | Dieldrin |
| 5.672 | 0.002 | 4852 | 6.203 | -0.005 | 10921 | 0.1064 | 0.0692 | 42.3* | 4,4'-DDE |
| 6.145 | -0.018 | 1579 | 6.648 | -0.017 | 13942 | 0.0234 | 0.0846 | 113.2* | Endrin |
| ---- | | | 6.855 | -0.002 | 26121 | 0.0000 | 0.1564 | --- | Endosulfan II |
| 6.230 | 0.003 | 11474 | 6.745 | -0.003 | 26539 | 0.2163 | 0.1927 | 11.5 | 4,4'-DDD |
| 7.141 | 0.003 | 3286 | 7.383 | -0.022 | 19349 | 0.0570 | 0.1508 | 90.3* | Endosulfan sulfate |
| 6.483 | -0.001 | 2813 | 7.032 | -0.002 | 11240 | 0.0483 | 0.0829 | 52.7* | 4,4'-DDT |
| 6.881 | -0.042 | 22676 | 7.586 | -0.043 | 25272 | 0.7641 | 0.4266 | 56.7* | Methoxychlor |
| 7.410 | 0.021 | 7864 | 7.890 | 0.009 | 20260 | 0.1076 | 0.1227 | 13.1 | Endrin ketone |
| 6.760 | 0.012 | 7669 | 7.159 | 0.001 | 8791 | 0.1451 | 0.0691 | 70.9* | Endrin aldehyde |
| 5.483 | 0.014 | 9427 | 5.951 | 0.033 | 31267 | 0.1296 | 0.1700 | 27.0 | gamma-Chlordane |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | alpha-Chlordane |
| 2.041 | -0.013 | 2208 | 2.106 | -0.007 | 19077 | 0.0225 | 0.0640 | 95.9* | Hexachlorobutadiene |
| 3.723 | 0.006 | 6128 | 3.992 | -0.003 | 14473 | 0.1002 | 0.0577 | 53.8* | Hexachlorobenzene |
| 5.244 | -0.008 | 18608 | 5.648 | 0.004 | 33574 | 0.3210 | 0.2130 | 40.4* | Oxychlordane |
| 5.324 | -0.017 | 2150 | 5.895 | -0.014 | 13396 | 0.0527 | 0.1306 | 85.0* | 2,4-DDE |
| 5.560 | -0.020 | 23756 | 6.000 | -0.006 | 83605 | 0.3204 | 0.4272 | 28.6 | trans-Nonachlor |
| 5.812 | -0.018 | 1706 | 6.421 | 0.023 | 42529 | 0.0454 | 0.3892 | 158.2* | 2,4-DDD |
| 6.043 | -0.026 | 6527 | ---- | | | 0.1317 | 0.0000 | --- | 2,4-DDT |
| 6.198 | 0.001 | 3521 | 6.709 | -0.025 | 19631 | 0.0429 | 0.0995 | 79.5* | cis-Nonachlor |
| 7.062 | 0.000 | 3720 | 7.854 | -0.009 | 14507 | 0.0684 | 0.1223 | 56.5* | Mirex |
| 8.388 | -0.002 | 6264658 | 9.352 | -0.003 | 9599569 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 1.720 | 0.000 | 981 | 1.770 | 0.000 | 10416 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.408 | 0.002 | 11319 | 3.586 | -0.002 | 19220 | 0.1721 | 0.0961 | 56.7* | Tetrachloro-m-xylene |
| 8.253 | 0.003 | 12210 | 8.907 | -0.001 | 10369 | 0.1735 | 0.0780 | 75.9* | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 0.4 | 0.2 | 0.2~ | 130- 0 |
| Decachlorobiphenyl | 0.4 | 0.2 | 0.2~ | 130- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4445233 | -8.2 |
| Hexabromobiphenyl | 6506091 | 6264658 | -3.7 |

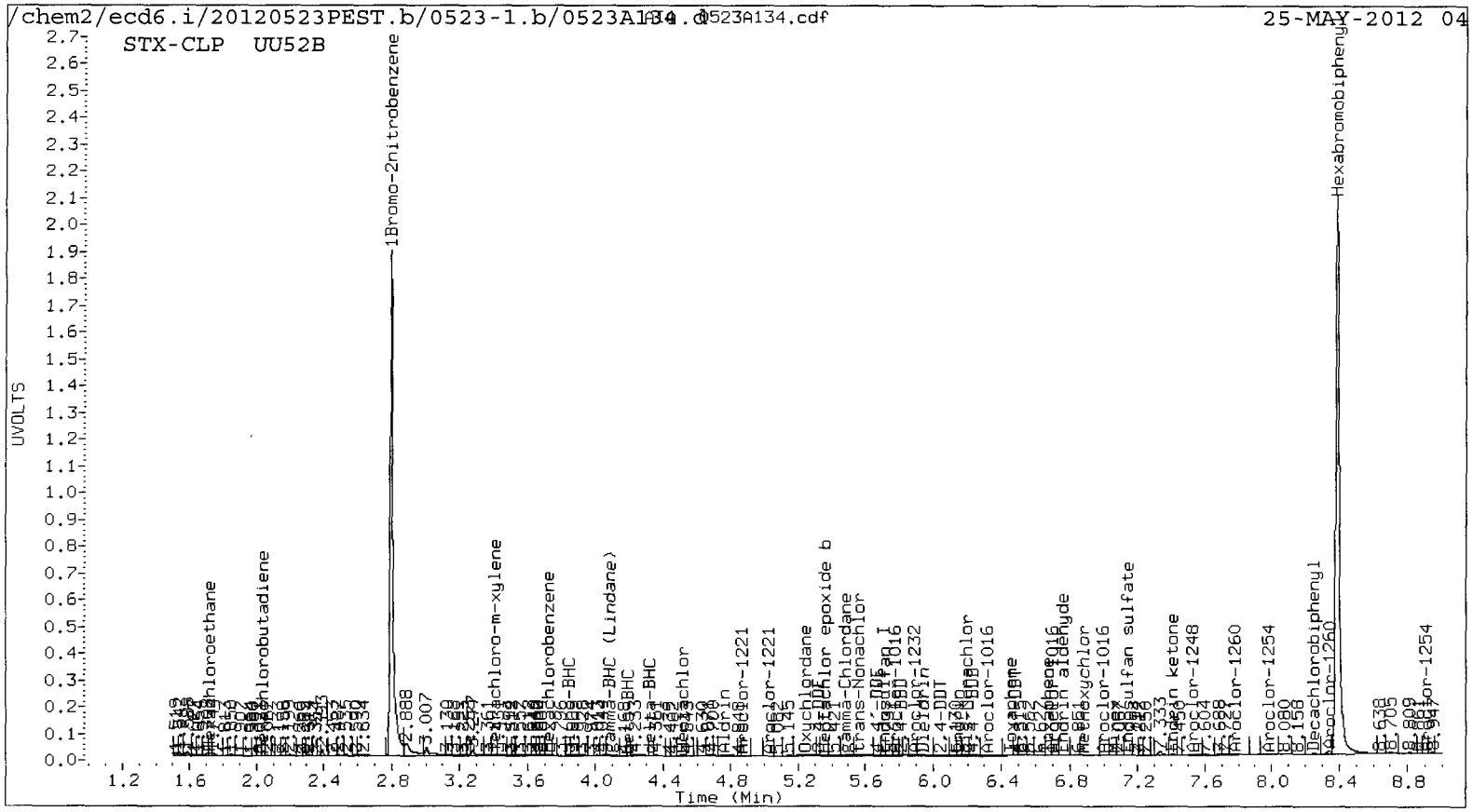
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 16124314 | -0.6 |
| Hexabromobiphenyl | 8472750 | 9599569 | 13.3 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 6.456 | 0.032 | 6784 | 2.279 | 1 | 6.624 | 0.017 | 14021 | 2.687 |
| Toxaphene | 2 | 6.483 | 0.008 | 2813 | 1.234 | 2 | 6.923 | -0.008 | 38681 | 4.967 |
| Toxaphene | 3 | 6.674 | 0.001 | 7862 | 3.740 | 3 | 7.159 | -0.006 | 8791 | 1.074 |
| Toxaphene | 4 | 6.881 | 0.004 | 22676 | 10.030 | 4 | 7.586 | -0.039 | 25272 | 3.884 |
| Toxaphene | 5 | 7.062 | 0.007 | 3720 | 1.080 | 5 | 7.672 | 0.002 | 19418 | 2.192 |
| Toxaphene | 6 | 7.410 | 0.034 | 7864 | 3.256 | NS | --- | | | ---- |
| Total STX-CLPAve (6 peaks): 3.603 | | | | | | Total CLP2Ave (5 peaks): 2.961 | | | | RPD = 20 |
| Corrected Ave (5 peaks): 2.318 | | | | | | Corrected Ave (5 peaks): 2.961 | | | | RPD = 24 |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 1 | --- | 0.000 | 1 | | --- | 0.000 | |
| Aroclor-1248 2 | --- | 0.000 | 2 | | --- | 0.000 | |
| Aroclor-1248 3 | --- | 0.000 | 3 | | --- | 0.000 | |
| Aroclor-1248 4 | --- | 0.000 | 4 | | --- | 0.000 | |
| Aroclor-1248 5 | --- | 0.000 | 5 | | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 1 | --- | 0.000 | 1 | | --- | 0.000 | |
| Aroclor-1254 2 | --- | 0.000 | 2 | | --- | 0.000 | |
| Aroclor-1254 3 | --- | 0.000 | 3 | | --- | 0.000 | |
| Aroclor-1254 4 | --- | 0.000 | 4 | | --- | 0.000 | |
| Aroclor-1254 5 | --- | 0.000 | 5 | | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 1 | --- | 0.000 | 1 | | --- | 0.000 | |
| Aroclor-1260 2 | --- | 0.000 | 2 | | --- | 0.000 | |
| Aroclor-1260 3 | --- | 0.000 | 3 | | --- | 0.000 | |
| Aroclor-1260 4 | --- | 0.000 | 4 | | --- | 0.000 | |
| Aroclor-1260 5 | --- | 0.000 | 5 | | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 1 | --- | 0.000 | 1 | | --- | 0.000 | |
| Aroclor-1262 2 | --- | 0.000 | 2 | | --- | 0.000 | |
| Aroclor-1262 3 | --- | 0.000 | 3 | | --- | 0.000 | |
| Aroclor-1262 4 | --- | 0.000 | 4 | | --- | 0.000 | |
| Aroclor-1262 5 | --- | 0.000 | 5 | | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 1 | --- | 0.000 | 1 | | --- | 0.000 | |
| Aroclor-1268 2 | --- | 0.000 | 2 | | --- | 0.000 | |
| Aroclor-1268 3 | --- | 0.000 | 3 | | --- | 0.000 | |
| Aroclor-1268 4 | --- | 0.000 | 4 | | --- | 0.000 | |
| Aroclor-1268 5 | --- | 0.000 | 5 | | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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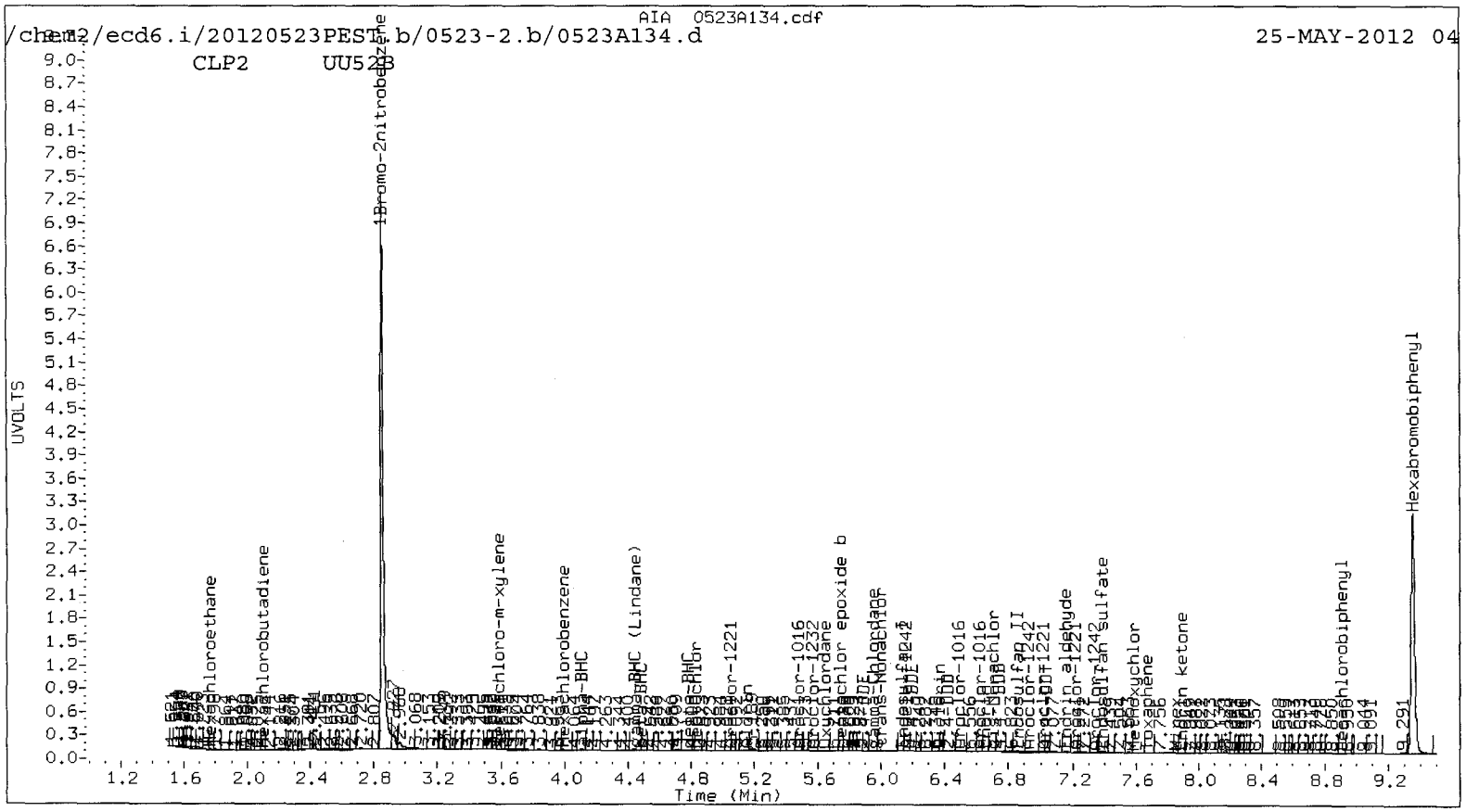
0523A134.cdf
25-MAY-2012 04
STX-CLP UU52B
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl
Decachlorobiphenyl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AIA 0523A134.cdf
25-MAY-2012 04
CLP2 UU52B
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A135.d ARI ID: UU52C
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A135.d Client ID:
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Compound Sublist: wpest Report Date: 05/25/2012 08:06
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 5000.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.796 | 0.000 | 4528822 | 2.854 | -0.001 | 17351744 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| ---- | | | 4.107 | -0.001 | 7783 | 0.0000 | 0.0263 | --- | alpha-BHC |
| ---- | | | 4.497 | -0.005 | 9876 | 0.0000 | 0.0869 | --- | beta-BHC |
| ---- | | | 4.779 | -0.003 | 10285 | 0.0000 | 0.0488 | --- | delta-BHC |
| 4.113 | 0.007 | 1277 | 4.464 | 0.035 | 18099 | 0.0168 | 0.0718 | 124.0* | gamma-BHC (Lindane) |
| ---- | | | 4.842 | -0.007 | 7048 | 0.0000 | 0.0278 | --- | Heptachlor |
| 4.775 | -0.012 | 3870 | 5.189 | 0.019 | 108992 | 0.0504 | 0.4956 | 163.1* | Aldrin |
| 5.358 | 0.013 | 5846 | 5.715 | -0.018 | 34196 | 0.0855 | 0.1603 | 60.8* | Heptachlor epoxide b |
| 5.739 | 0.018 | 1652 | 6.137 | 0.020 | 14666 | 0.0179 | 0.0790 | 126.0* | Endosulfan I |
| 5.945 | -0.001 | 2778 | 6.373 | -0.004 | 12440 | 0.0378 | 0.0648 | 52.6* | Dieldrin |
| 5.676 | 0.007 | 1439 | 6.220 | 0.012 | 11248 | 0.0310 | 0.0663 | 72.6* | 4,4'-DDE |
| ---- | | | 6.664 | -0.001 | 15189 | 0.0000 | 0.0865 | --- | Endrin |
| 6.372 | 0.001 | 2166 | 6.855 | -0.002 | 15863 | 0.0312 | 0.0892 | 96.4* | Endosulfan II |
| 6.234 | 0.007 | 3771 | 6.746 | -0.003 | 24865 | 0.0671 | 0.1695 | 86.6* | 4,4'-DDD |
| 7.105 | -0.032 | 1342 | 7.395 | -0.009 | 8355 | 0.0220 | 0.0612 | 94.3* | Endosulfan sulfate |
| 6.489 | 0.006 | 3192 | 7.025 | -0.009 | 15777 | 0.0517 | 0.1093 | 71.5* | 4,4'-DDT |
| 6.925 | 0.002 | 5512 | 7.649 | 0.020 | 3375 | 0.1752 | 0.0535 | 106.4* | Methoxychlor |
| 7.411 | 0.023 | 9974 | 7.882 | 0.001 | 22815 | 0.1287 | 0.1297 | 0.7 | Endrin ketone |
| 6.754 | 0.005 | 3325 | 7.156 | -0.002 | 9000 | 0.0593 | 0.0665 | 11.4 | Endrin aldehyde |
| 5.506 | 0.037 | 5566 | 5.916 | -0.002 | 7169 | 0.0751 | 0.0362 | 69.9* | gamma-Chlordane |
| 5.632 | 0.038 | 2119 | 6.039 | -0.019 | 17980 | 0.0301 | 0.0954 | 104.2* | alpha-Chlordane |
| 2.067 | 0.013 | 5280 | 2.106 | -0.006 | 7181 | 0.0529 | 0.0224 | 81.0* | Hexachlorobutadiene |
| ---- | | | 3.992 | -0.003 | 11125 | 0.0000 | 0.0412 | --- | Hexachlorobenzene |
| 5.288 | 0.036 | 2386 | ---- | | | 0.0388 | 0.0000 | --- | Oxychlordane |
| ---- | | | 5.872 | -0.037 | 3433 | 0.0000 | 0.0311 | --- | 2,4-DDE |
| 5.574 | -0.006 | 4337 | 6.013 | 0.007 | 16271 | 0.0552 | 0.0781 | 34.4 | trans-Nonachlor |
| ---- | | | 6.416 | 0.017 | 11320 | 0.0000 | 0.0973 | --- | 2,4-DDD |
| 6.047 | -0.021 | 1025 | ---- | | | 0.0195 | 0.0000 | --- | 2,4-DDT |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | cis-Nonachlor |
| ---- | | | 7.851 | -0.012 | 3931 | 0.0000 | 0.0311 | --- | Mirex |
| 8.389 | 0.000 | 6642351 | 9.353 | -0.003 | 10223208 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 1.720 | 0.001 | 739 | 1.770 | 0.000 | 10071 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.409 | 0.003 | 2353 | 3.589 | 0.001 | 3752 | 0.0351 | 0.0174 | 67.4* | Tetrachloro-m-xylene |
| 8.253 | 0.002 | 6737 | 8.907 | -0.001 | 4797 | 0.0903 | 0.0339 | 90.8* | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 0.1 | 0.0 | 0.0~ | 130- 0 |
| Decachlorobiphenyl | 0.2 | 0.1 | 0.1~ | 130- 0 |

~ Indicates recovery outside QC Limits

CD

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4528822 | -6.5 |
| Hexabromobiphenyl | 6506091 | 6642351 | 2.1 |

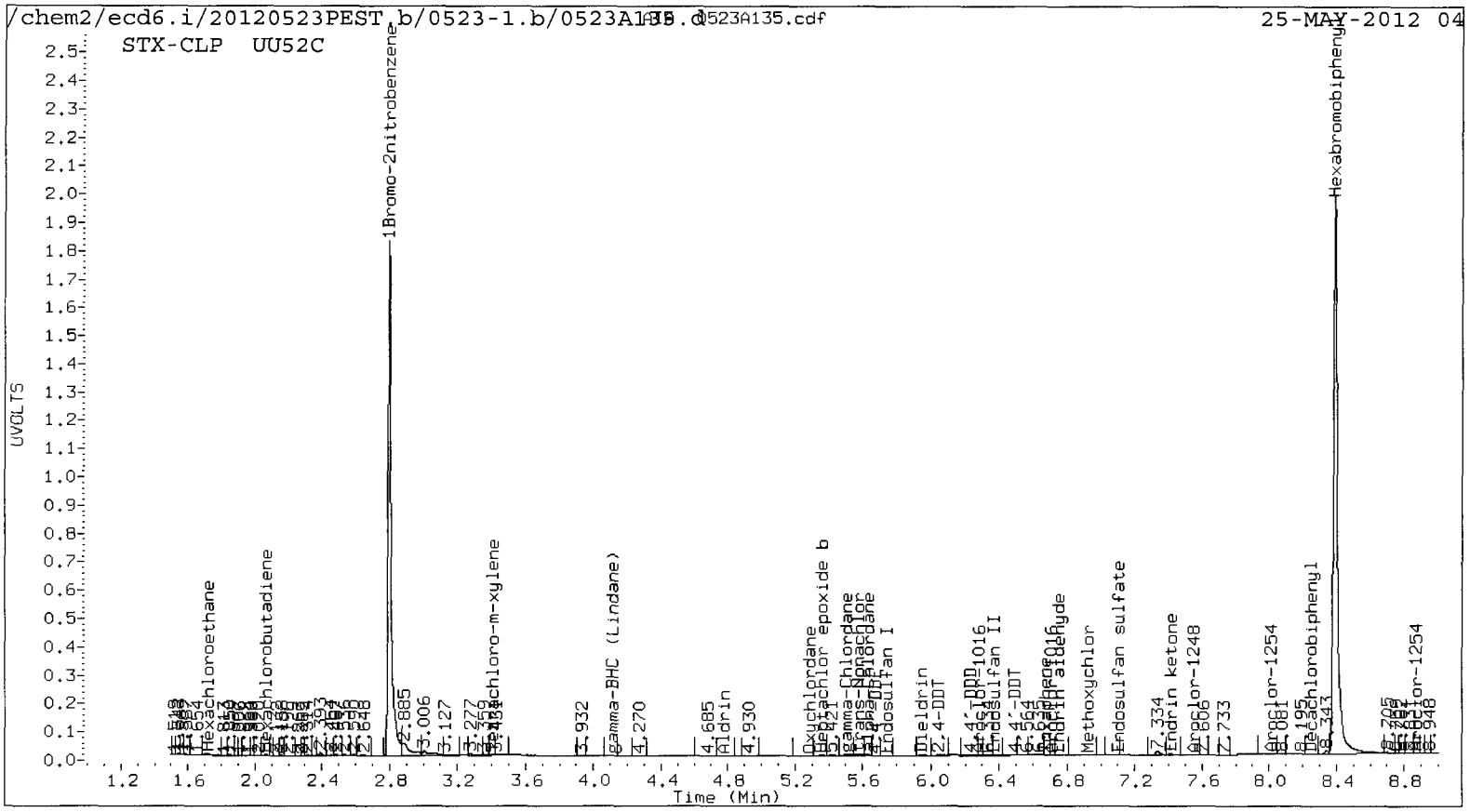
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 17351744 | 6.9 |
| Hexabromobiphenyl | 8472750 | 10223208 | 20.7 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | --- | | | 0.000 | 1 | 6.623 | 0.017 | 7020 | 1.263 |
| Toxaphene | 2 | 6.489 | 0.014 | 3192 | 1.320 | 2 | 6.928 | -0.003 | 40489 | 4.882 |
| Toxaphene | 3 | 6.674 | 0.001 | 4091 | 1.836 | 3 | 7.156 | -0.009 | 9000 | 1.032 |
| Toxaphene | 4 | 6.925 | 0.047 | 5512 | 2.300 | 4 | 7.649 | 0.023 | 3375 | 0.487 |
| Toxaphene | 5 | 7.105 | 0.050 | 1342 | 0.368 | 5 | 7.680 | 0.011 | 15155 | 1.606 |
| Toxaphene | 6 | 7.411 | 0.036 | 9974 | 3.895 | NS | --- | | | ---- |
| | Total STX-CLPAve (5 peaks): 1.944 | | | | | Total CLP2Ave (5 peaks): 1.854 | | | RPD = 5 | |
| | Corrected Ave (4 peaks): 1.456 | | | | | Corrected Ave (4 peaks): 1.097 | | | RPD = 28 | |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: | <3 Quant Peaks | | | CLP2Ave: | <3 Quant Peaks | |
| Aroclor-1248 | 1 | --- | 0.000 | 1 | --- | | 0.000 |
| Aroclor-1248 | 2 | --- | 0.000 | 2 | --- | | 0.000 |
| Aroclor-1248 | 3 | --- | 0.000 | 3 | --- | | 0.000 |
| Aroclor-1248 | 4 | --- | 0.000 | 4 | --- | | 0.000 |
| Aroclor-1248 | 5 | --- | 0.000 | 5 | --- | | 0.000 |
| | STX-CLPAve: | <3 Quant Peaks | | | CLP2Ave: | <3 Quant Peaks | |
| Aroclor-1254 | 1 | --- | 0.000 | 1 | --- | | 0.000 |
| Aroclor-1254 | 2 | --- | 0.000 | 2 | --- | | 0.000 |
| Aroclor-1254 | 3 | --- | 0.000 | 3 | --- | | 0.000 |
| Aroclor-1254 | 4 | --- | 0.000 | 4 | --- | | 0.000 |
| Aroclor-1254 | 5 | --- | 0.000 | 5 | --- | | 0.000 |
| | STX-CLPAve: | <3 Quant Peaks | | | CLP2Ave: | <3 Quant Peaks | |
| Aroclor-1260 | 1 | --- | 0.000 | 1 | --- | | 0.000 |
| Aroclor-1260 | 2 | --- | 0.000 | 2 | --- | | 0.000 |
| Aroclor-1260 | 3 | --- | 0.000 | 3 | --- | | 0.000 |
| Aroclor-1260 | 4 | --- | 0.000 | 4 | --- | | 0.000 |
| Aroclor-1260 | 5 | --- | 0.000 | 5 | --- | | 0.000 |
| | STX-CLPAve: | <3 Quant Peaks | | | CLP2Ave: | <3 Quant Peaks | |
| Aroclor-1262 | 1 | --- | 0.000 | 1 | --- | | 0.000 |
| Aroclor-1262 | 2 | --- | 0.000 | 2 | --- | | 0.000 |
| Aroclor-1262 | 3 | --- | 0.000 | 3 | --- | | 0.000 |
| Aroclor-1262 | 4 | --- | 0.000 | 4 | --- | | 0.000 |
| Aroclor-1262 | 5 | --- | 0.000 | 5 | --- | | 0.000 |
| | STX-CLPAve: | <3 Quant Peaks | | | CLP2Ave: | <3 Quant Peaks | |
| Aroclor-1268 | 1 | --- | 0.000 | 1 | --- | | 0.000 |
| Aroclor-1268 | 2 | --- | 0.000 | 2 | --- | | 0.000 |
| Aroclor-1268 | 3 | --- | 0.000 | 3 | --- | | 0.000 |
| Aroclor-1268 | 4 | --- | 0.000 | 4 | --- | | 0.000 |
| Aroclor-1268 | 5 | --- | 0.000 | 5 | --- | | 0.000 |
| | STX-CLPAve: | <3 Quant Peaks | | | CLP2Ave: | <3 Quant Peaks | |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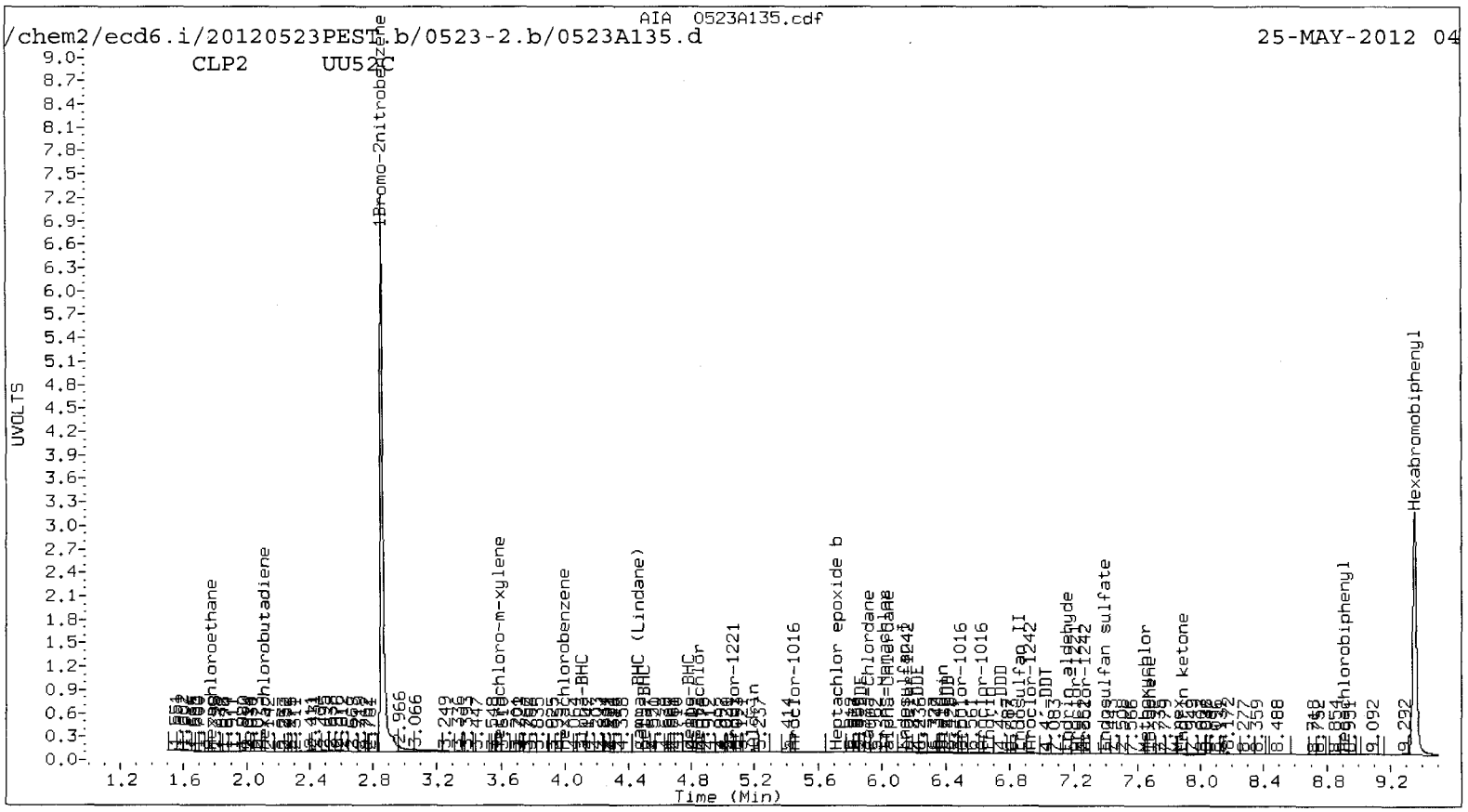
AIA 0523A135.cdf
25-MAY-2012 04
STX-CLP UU52C
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
1,3-Dichloro-m-xylene
gamma-BHC (Lindane)
Aldrin
Oxychlordane
Heptachlor epoxide b
trans-Chlordane
Endosulfan I
Dieldrin
4,4'-DDE
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Aroclor-1248
Aroclor-1254
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0523A135.cdf
25-MAY-2012 04
CLP2 UU52C
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
1,3-Dichloro-m-xylene
Hexachlorobenzene
gamma-BHC (Lindane)
Aroclor-1221
Aroclor-1016
Heptachlor epoxide b
trans-Chlordane
Endosulfan I
4,4'-DDE
Aroclor-1016
Aroclor-1016
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Aroclor-1242
Endosulfan sulfate
Methoxychlor
Endrin ketone
Aroclor-1248
Aroclor-1254
Decachlorobiphenyl
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A138.d ARI ID: UU52D
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A138.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 05:39
Compound Sublist: wpest Report Date: 05/25/2012 08:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1000.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.796 | -0.001 | 4611525 | 2.853 | -0.001 | 16504915 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.843 | -0.003 | 4679 | 4.107 | -0.001 | 12477 | 0.0509 | 0.0444 | 13.6 | alpha-BHC |
| 4.195 | 0.013 | 2309 | 4.486 | -0.016 | 21273 | 0.0673 | 0.1968 | 98.1* | beta-BHC |
| 4.329 | -0.008 | 3666 | 4.782 | 0.000 | 39754 | 0.0546 | 0.1982 | 113.6* | delta-BHC |
| 4.100 | -0.006 | 2956 | 4.448 | 0.019 | 60650 | 0.0383 | 0.2529 | 147.4* | gamma-BHC (Lindane) |
| 4.509 | -0.009 | 8057 | 4.873 | 0.024 | 14121 | 0.0946 | 0.0585 | 47.1* | Heptachlor |
| 4.814 | 0.026 | 3296 | 5.152 | -0.019 | 29690 | 0.0422 | 0.1419 | 108.4* | Aldrin |
| 5.353 | 0.007 | 4373 | 5.740 | 0.007 | 9381 | 0.0628 | 0.0462 | 30.5 | Heptachlor epoxide b |
| 5.706 | -0.016 | 2174 | 6.130 | 0.013 | 35610 | 0.0231 | 0.2016 | 158.8* | Endosulfan I |
| 5.944 | -0.002 | 10350 | 6.373 | -0.004 | 18106 | 0.1384 | 0.0992 | 33.0 | Dieldrin |
| 5.670 | 0.000 | 2906 | 6.206 | -0.002 | 15461 | 0.0614 | 0.0957 | 43.7* | 4,4'-DDE |
| 6.121 | -0.042 | 5930 | 6.665 | 0.001 | 25361 | 0.0836 | 0.1455 | 54.0* | Endrin |
| 6.378 | 0.008 | 4290 | 6.851 | -0.006 | 39942 | 0.0622 | 0.2261 | 113.8* | Endosulfan II |
| 6.230 | 0.002 | 11223 | 6.743 | -0.005 | 35927 | 0.2010 | 0.2466 | 20.4 | 4,4'-DDD |
| 7.136 | -0.002 | 4895 | 7.386 | -0.018 | 14561 | 0.0807 | 0.1073 | 28.3 | Endosulfan sulfate |
| 6.513 | 0.030 | 8239 | 7.016 | -0.017 | 47629 | 0.1344 | 0.3320 | 84.8* | 4,4'-DDT |
| 6.930 | 0.006 | 7187 | 7.602 | -0.027 | 72783 | 0.2300 | 1.1614 | 133.9* | Methoxychlor |
| 7.410 | 0.022 | 9687 | 7.885 | 0.003 | 79003 | 0.1259 | 0.4522 | 112.9* | Endrin ketone |
| 6.757 | 0.008 | 7725 | 7.160 | 0.002 | 20783 | 0.1388 | 0.1545 | 10.7 | Endrin aldehyde |
| 5.480 | 0.010 | 17924 | 5.951 | 0.033 | 54937 | 0.2375 | 0.2918 | 20.5 | gamma-Chlordane |
| 5.619 | 0.025 | 4961 | 6.055 | -0.003 | 22491 | 0.0691 | 0.1255 | 58.0* | alpha-Chlordane |
| 2.041 | -0.013 | 2632 | 2.105 | -0.007 | 6543 | 0.0259 | 0.0214 | 18.8 | Hexachlorobutadiene |
| 3.725 | 0.008 | 4424 | 3.991 | -0.004 | 14127 | 0.0697 | 0.0550 | 23.6 | Hexachlorobenzene |
| 5.242 | -0.010 | 7336 | 5.642 | -0.002 | 14563 | 0.1202 | 0.0903 | 28.4 | Oxychlordane |
| 5.325 | -0.017 | 2952 | 5.907 | -0.002 | 19205 | 0.0687 | 0.1829 | 90.8* | 2,4-DDE |
| 5.559 | -0.021 | 9431 | 5.999 | -0.007 | 43410 | 0.1208 | 0.2097 | 53.8* | trans-Nonachlor |
| 5.819 | -0.011 | 3919 | 6.417 | 0.018 | 43729 | 0.0990 | 0.3783 | 117.1* | 2,4-DDD |
| 6.043 | -0.026 | 9059 | 6.652 | -0.033 | 14033 | 0.1736 | 0.1117 | 43.3* | 2,4-DDT |
| 6.199 | 0.002 | 3557 | 6.707 | -0.027 | 8855 | 0.0412 | 0.0424 | 3.0 | cis-Nonachlor |
| 7.088 | 0.026 | 7153 | 7.851 | -0.012 | 49631 | 0.1249 | 0.3956 | 104.0* | Mirex |
| 8.388 | -0.002 | 6596017 | 9.351 | -0.004 | 10155427 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 1.720 | 0.000 | 663 | 1.770 | 0.000 | 10361 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.409 | 0.003 | 13632 | 3.585 | -0.003 | 27900 | 0.1998 | 0.1362 | 37.8 | Tetrachloro-m-xylene |
| 8.254 | 0.003 | 27328 | 8.906 | -0.003 | 21940 | 0.3688 | 0.1561 | 81.1* | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 0.5 | 0.3 | 0.3~ | 130- 0 |
| Decachlorobiphenyl | 0.9 | 0.4 | 0.4~ | 130- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4611525 | -4.8 |
| Hexabromobiphenyl | 6506091 | 6596017 | 1.4 |

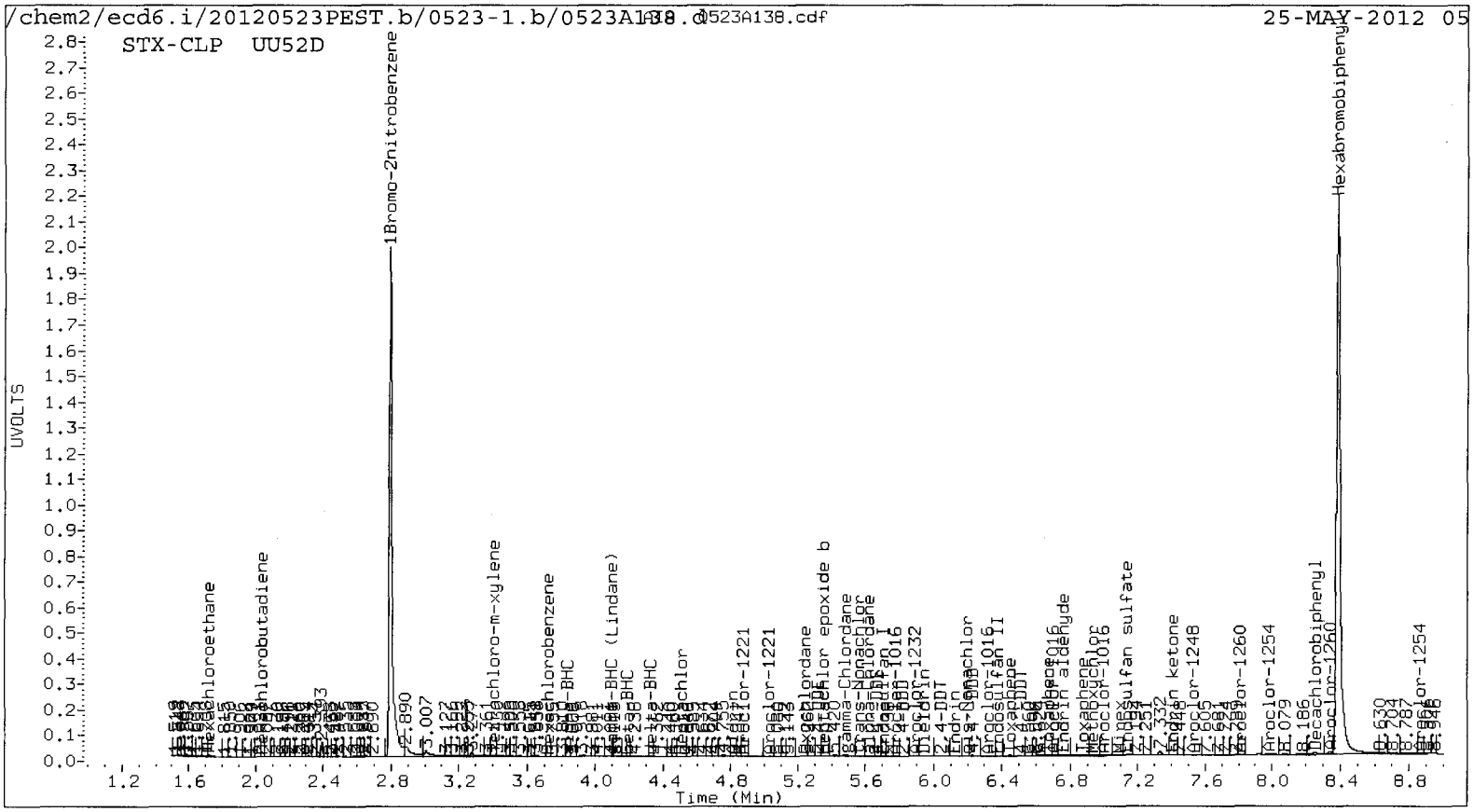
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 16504915 | 1.7 |
| Hexabromobiphenyl | 8472750 | 10155427 | 19.9 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 6.448 | 0.024 | 7624 | 2.432 | 1 | 6.623 | 0.017 | 12997 | 2.354 |
| Toxaphene | 2 | --- | | | 0.000 | 2 | 6.925 | -0.006 | 55107 | 6.689 |
| Toxaphene | 3 | 6.675 | 0.001 | 10052 | 4.542 | 3 | 7.160 | -0.005 | 20783 | 2.400 |
| Toxaphene | 4 | 6.874 | -0.004 | 17377 | 7.300 | 4 | 7.602 | -0.024 | 72783 | 10.572 |
| Toxaphene | 5 | 7.088 | 0.033 | 7153 | 1.972 | 5 | 7.669 | -0.001 | 62554 | 6.673 |
| Toxaphene | 6 | 7.410 | 0.035 | 9687 | 3.810 | NS | --- | | | ---- |
| Total STX-CLPAve (5 peaks): 4.011 | | | | | | Total CLP2Ave (5 peaks): 5.738 | | | | RPD = 35 |
| Corrected Ave (4 peaks): 3.189 | | | | | | Corrected Ave (4 peaks): 4.529 | | | | RPD = 35 |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: | <3 Quant Peaks | | | CLP2Ave: | <3 Quant Peaks | |
| Aroclor-1248 | 1 | --- | 0.000 | 1 | --- | | 0.000 |
| Aroclor-1248 | 2 | --- | 0.000 | 2 | --- | | 0.000 |
| Aroclor-1248 | 3 | --- | 0.000 | 3 | --- | | 0.000 |
| Aroclor-1248 | 4 | --- | 0.000 | 4 | --- | | 0.000 |
| Aroclor-1248 | 5 | --- | 0.000 | 5 | --- | | 0.000 |
| | STX-CLPAve: | <3 Quant Peaks | | | CLP2Ave: | <3 Quant Peaks | |
| Aroclor-1254 | 1 | --- | 0.000 | 1 | --- | | 0.000 |
| Aroclor-1254 | 2 | --- | 0.000 | 2 | --- | | 0.000 |
| Aroclor-1254 | 3 | --- | 0.000 | 3 | --- | | 0.000 |
| Aroclor-1254 | 4 | --- | 0.000 | 4 | --- | | 0.000 |
| Aroclor-1254 | 5 | --- | 0.000 | 5 | --- | | 0.000 |
| | STX-CLPAve: | <3 Quant Peaks | | | CLP2Ave: | <3 Quant Peaks | |
| Aroclor-1260 | 1 | --- | 0.000 | 1 | --- | | 0.000 |
| Aroclor-1260 | 2 | --- | 0.000 | 2 | --- | | 0.000 |
| Aroclor-1260 | 3 | --- | 0.000 | 3 | --- | | 0.000 |
| Aroclor-1260 | 4 | --- | 0.000 | 4 | --- | | 0.000 |
| Aroclor-1260 | 5 | --- | 0.000 | 5 | --- | | 0.000 |
| | STX-CLPAve: | <3 Quant Peaks | | | CLP2Ave: | <3 Quant Peaks | |
| Aroclor-1262 | 1 | --- | 0.000 | 1 | --- | | 0.000 |
| Aroclor-1262 | 2 | --- | 0.000 | 2 | --- | | 0.000 |
| Aroclor-1262 | 3 | --- | 0.000 | 3 | --- | | 0.000 |
| Aroclor-1262 | 4 | --- | 0.000 | 4 | --- | | 0.000 |
| Aroclor-1262 | 5 | --- | 0.000 | 5 | --- | | 0.000 |
| | STX-CLPAve: | <3 Quant Peaks | | | CLP2Ave: | <3 Quant Peaks | |
| Aroclor-1268 | 1 | --- | 0.000 | 1 | --- | | 0.000 |
| Aroclor-1268 | 2 | --- | 0.000 | 2 | --- | | 0.000 |
| Aroclor-1268 | 3 | --- | 0.000 | 3 | --- | | 0.000 |
| Aroclor-1268 | 4 | --- | 0.000 | 4 | --- | | 0.000 |
| Aroclor-1268 | 5 | --- | 0.000 | 5 | --- | | 0.000 |
| | STX-CLPAve: | <3 Quant Peaks | | | CLP2Ave: | <3 Quant Peaks | |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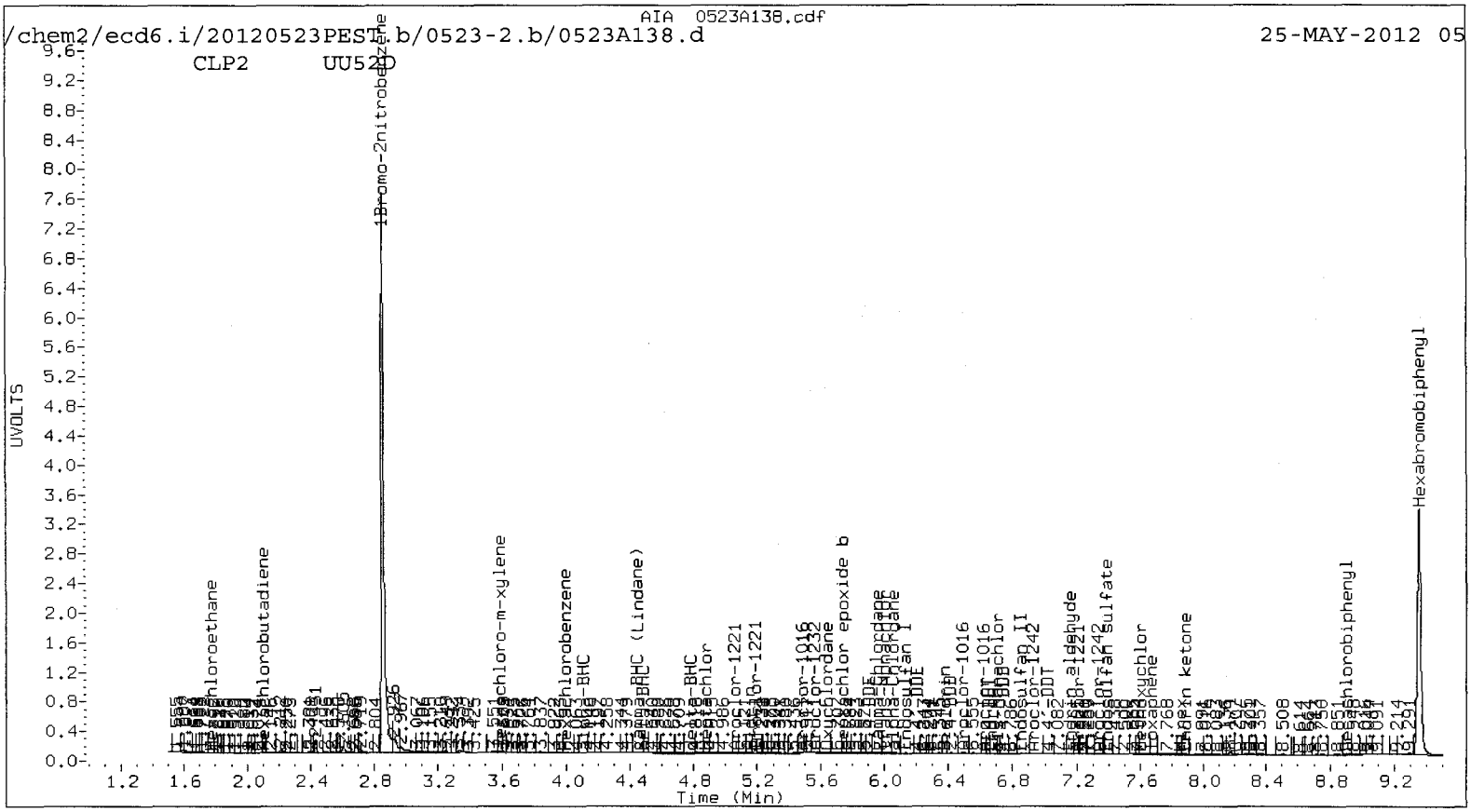
25-MAY-2012 05
STX-CLP UU52D
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl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25-MAY-2012 05
CLP2 UU52D
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl

UU52:01539

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A139.d ARI ID: UU52E
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A139.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 05:57
Compound Sublist: wpest Report Date: 05/25/2012 08:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1000.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.796 | 0.000 | 4552402 | 2.854 | -0.001 | 16594344 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.843 | -0.004 | 3851 | 4.108 | 0.000 | 13164 | 0.0424 | 0.0466 | 9.4 | alpha-BHC |
| 4.194 | 0.012 | 2697 | 4.541 | 0.039 | 30995 | 0.0796 | 0.2851 | 112.7* | beta-BHC |
| 4.336 | -0.001 | 3369 | 4.783 | 0.001 | 47784 | 0.0508 | 0.2369 | 129.3* | delta-BHC |
| 4.119 | 0.013 | 7876 | 4.445 | 0.017 | 80821 | 0.1034 | 0.3352 | 105.7* | gamma-BHC (Lindane) |
| 4.510 | -0.008 | 6639 | 4.835 | -0.014 | 15676 | 0.0789 | 0.0646 | 20.0 | Heptachlor |
| 4.814 | 0.027 | 3996 | 5.153 | -0.017 | 25813 | 0.0518 | 0.1227 | 81.3* | Aldrin |
| 5.353 | 0.008 | 5027 | 5.743 | 0.010 | 11995 | 0.0732 | 0.0588 | 21.8 | Heptachlor epoxide b |
| 5.714 | -0.008 | 1439 | 6.123 | 0.006 | 19807 | 0.0155 | 0.1115 | 151.1* | Endosulfan I |
| 5.944 | -0.002 | 7339 | 6.371 | -0.006 | 18601 | 0.0994 | 0.1013 | 1.9 | Dieldrin |
| 5.672 | 0.002 | 2638 | 6.200 | -0.008 | 10821 | 0.0565 | 0.0667 | 16.5 | 4,4'-DDE |
| 6.129 | -0.034 | 1161 | 6.655 | -0.009 | 7879 | 0.0165 | 0.0452 | 93.2* | Endrin |
| 6.339 | -0.031 | 1398 | 6.848 | -0.009 | 43067 | 0.0204 | 0.2438 | 169.2* | Endosulfan II |
| 6.231 | 0.004 | 4982 | 6.741 | -0.008 | 37520 | 0.0897 | 0.2576 | 96.7* | 4,4'-DDD |
| 7.140 | 0.002 | 2641 | 7.382 | -0.023 | 27045 | 0.0437 | 0.1993 | 128.0* | Endosulfan sulfate |
| 6.450 | -0.033 | 3014 | 7.014 | -0.020 | 37187 | 0.0494 | 0.2593 | 136.0* | 4,4'-DDT |
| 6.879 | -0.044 | 17397 | 7.645 | 0.016 | 37623 | 0.5596 | 0.6004 | 7.0 | Methoxychlor |
| 7.410 | 0.022 | 7986 | 7.886 | 0.004 | 88959 | 0.1043 | 0.5092 | 132.0* | Endrin ketone |
| 6.757 | 0.009 | 3455 | 7.160 | 0.002 | 19723 | 0.0624 | 0.1466 | 80.6* | Endrin aldehyde |
| 5.485 | 0.015 | 11188 | 5.950 | 0.032 | 33899 | 0.1502 | 0.1791 | 17.5 | gamma-Chlordane |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | alpha-Chlordane |
| 2.040 | -0.013 | 2446 | 2.104 | -0.008 | 16519 | 0.0244 | 0.0539 | 75.4* | Hexachlorobutadiene |
| 3.723 | 0.007 | 4165 | 3.992 | -0.003 | 15343 | 0.0665 | 0.0595 | 11.2 | Hexachlorobenzene |
| 5.242 | -0.010 | 13852 | 5.650 | 0.006 | 37247 | 0.2281 | 0.2296 | 0.7 | Oxychlordane |
| ---- | | | 5.907 | -0.002 | 12757 | 0.0000 | 0.1208 | --- | 2,4-DDE |
| 5.562 | -0.019 | 24151 | 6.001 | -0.005 | 85131 | 0.3109 | 0.4113 | 27.8 | trans-Nonachlor |
| 5.811 | -0.019 | 1663 | 6.423 | 0.024 | 47618 | 0.0422 | 0.4120 | 162.8* | 2,4-DDD |
| 6.038 | -0.031 | 1800 | 6.672 | -0.013 | 17005 | 0.0347 | 0.1354 | 118.5* | 2,4-DDT |
| 6.197 | -0.001 | 1974 | 6.700 | -0.034 | 14099 | 0.0230 | 0.0675 | 98.5* | cis-Nonachlor |
| 7.065 | 0.002 | 2672 | 7.851 | -0.012 | 59791 | 0.0469 | 0.4766 | 164.2* | Mirex |
| 8.387 | -0.002 | 6562955 | 9.351 | -0.004 | 10154249 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 1.720 | 0.001 | 753 | 1.770 | 0.000 | 13040 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.409 | 0.003 | 10477 | 3.585 | -0.003 | 27212 | 0.1555 | 0.1321 | 16.3 | Tetrachloro-m-xylene |
| 8.255 | 0.004 | 27347 | 8.906 | -0.003 | 21220 | 0.3709 | 0.1510 | 84.3* | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 0.4 | 0.3 | 0.3~ | 130- 0 |
| Decachlorobiphenyl | 0.9 | 0.4 | 0.4~ | 130- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4552402 | -6.0 |
| Hexabromobiphenyl | 6506091 | 6562955 | 0.9 |

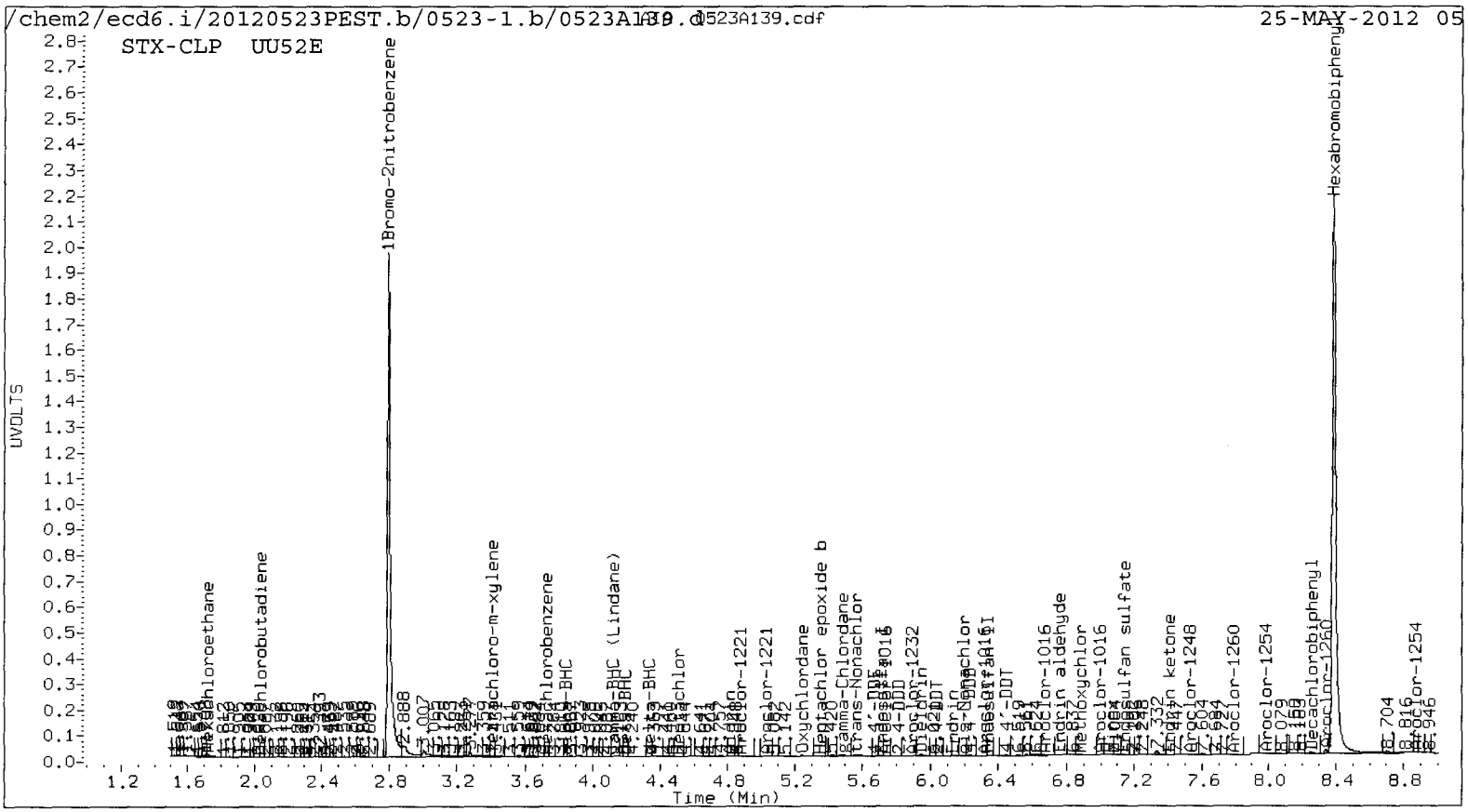
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 16594344 | 2.3 |
| Hexabromobiphenyl | 8472750 | 10154249 | 19.8 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 6.450 | 0.026 | 3014 | 0.966 | 1 | 6.619 | 0.012 | 23156 | 4.195 |
| Toxaphene | 2 | --- | | | 0.000 | 2 | 6.924 | -0.007 | 60494 | 7.344 |
| Toxaphene | 3 | 6.674 | 0.001 | 8247 | 3.745 | 3 | 7.160 | -0.006 | 19723 | 2.278 |
| Toxaphene | 4 | 6.879 | 0.002 | 17397 | 7.345 | 4 | 7.645 | 0.019 | 37623 | 5.466 |
| Toxaphene | 5 | 7.065 | 0.010 | 2672 | 0.740 | 5 | 7.668 | -0.002 | 72872 | 7.775 |
| Toxaphene | 6 | 7.410 | 0.035 | 7986 | 3.157 | NS | --- | | | ---- |
| Total STX-CLPAve (5 peaks): 3.191 | | | | | | Total CLP2Ave (5 peaks): 5.411 | | | | RPD = 52* |
| Corrected Ave (4 peaks): 2.152 | | | | | | Corrected Ave (5 peaks): 5.411 | | | | RPD = 86* |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1248 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1248 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1248 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1248 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1254 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1254 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1254 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1254 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1260 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1260 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1260 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1260 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1262 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1262 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1262 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1262 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1268 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1268 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1268 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1268 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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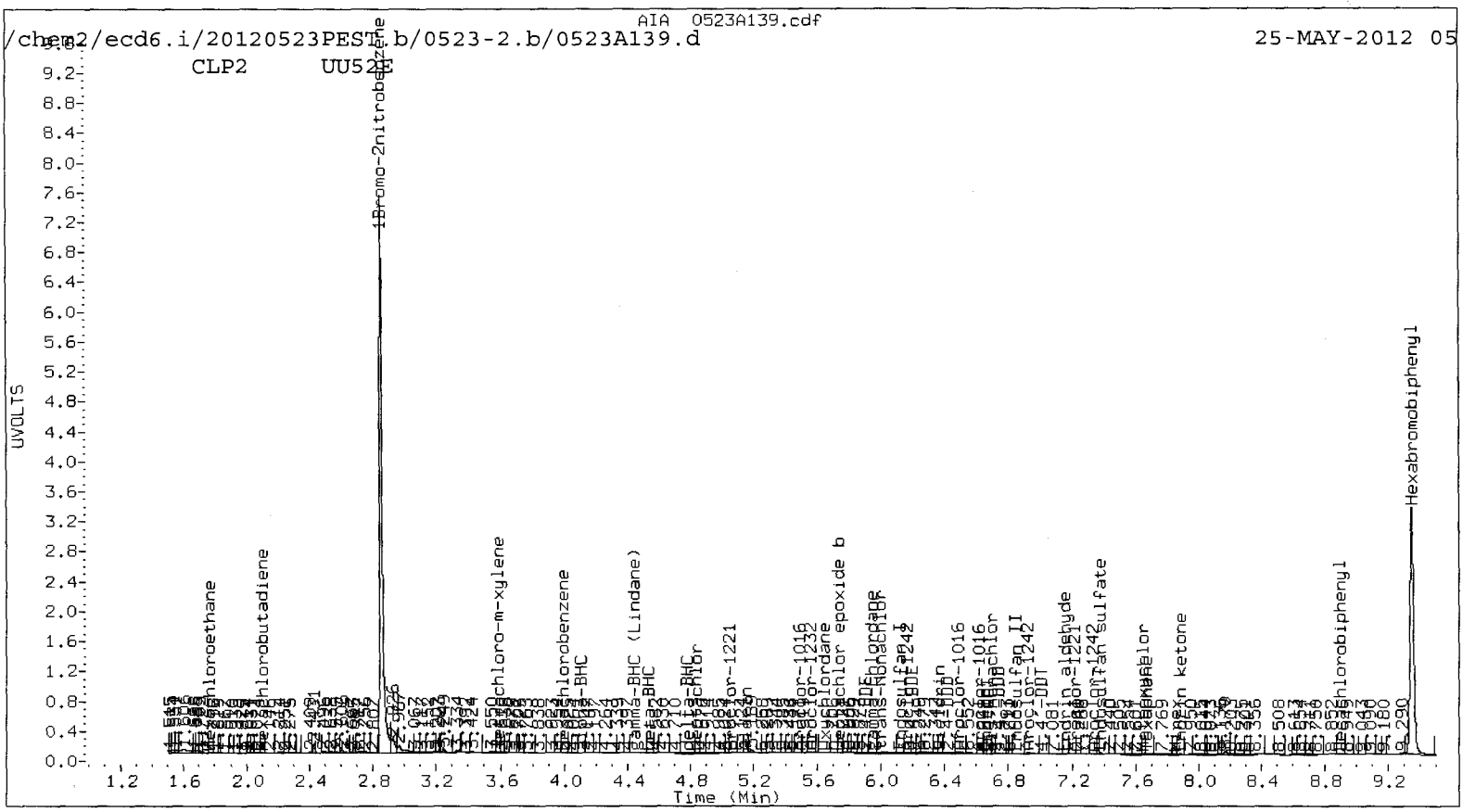
0523A139.cdf
25-MAY-2012 05
STX-CLP UU52E
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl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25-MAY-2012 05
CLP2 UU52E
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A140.d ARI ID: UU52F
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A140.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 06:15
Compound Sublist: wpest Report Date: 05/25/2012 08:07
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1000.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.796 | 0.000 | 4643697 | 2.853 | -0.001 | 16826089 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.845 | -0.002 | 5388 | 4.108 | 0.000 | 27290 | 0.0582 | 0.0953 | 48.4* | alpha-BHC |
| 4.172 | -0.010 | 3249 | 4.485 | -0.017 | 26419 | 0.0940 | 0.2397 | 87.3* | beta-BHC |
| 4.329 | -0.008 | 2180 | 4.781 | -0.001 | 35693 | 0.0323 | 0.1745 | 137.6* | delta-BHC |
| 4.075 | -0.031 | 6691 | 4.441 | 0.013 | 18828 | 0.0861 | 0.0770 | 11.1 | gamma-BHC (Lindane) |
| 4.522 | 0.004 | 4027 | 4.821 | -0.028 | 27657 | 0.0469 | 0.1124 | 82.2* | Heptachlor |
| 4.808 | 0.021 | 3126 | 5.155 | -0.016 | 29222 | 0.0397 | 0.1370 | 110.1* | Aldrin |
| 5.357 | 0.011 | 2947 | 5.749 | 0.016 | 28615 | 0.0421 | 0.1383 | 106.7* | Heptachlor epoxide b |
| 5.711 | -0.011 | 1446 | 6.110 | -0.008 | 2777 | 0.0153 | 0.0154 | 0.8 | Endosulfan I |
| 5.943 | -0.003 | 9038 | 6.371 | -0.006 | 10773 | 0.1200 | 0.0579 | 69.9* | Dieldrin |
| 5.672 | 0.003 | 3155 | 6.204 | -0.005 | 7843 | 0.0662 | 0.0476 | 32.6 | 4,4'-DDE |
| 6.140 | -0.023 | 1447 | 6.655 | -0.009 | 17863 | 0.0202 | 0.1021 | 133.9* | Endrin |
| 6.375 | 0.004 | 2207 | 6.852 | -0.006 | 35054 | 0.0317 | 0.1977 | 144.8* | Endosulfan II |
| 6.231 | 0.004 | 7667 | 6.746 | -0.003 | 22227 | 0.1360 | 0.1520 | 11.1 | 4,4'-DDD |
| 7.139 | 0.001 | 1763 | 7.383 | -0.021 | 15551 | 0.0288 | 0.1142 | 119.5* | Endosulfan sulfate |
| 6.489 | 0.005 | 1658 | 7.019 | -0.015 | 31952 | 0.0268 | 0.2219 | 156.9* | 4,4'-DDT |
| 6.886 | -0.037 | 16929 | 7.647 | 0.018 | 12305 | 0.5366 | 0.1956 | 93.1* | Methoxychlor |
| 7.408 | 0.020 | 7826 | 7.887 | 0.005 | 77924 | 0.1008 | 0.4443 | 126.1* | Endrin ketone |
| 6.758 | 0.010 | 3416 | 7.158 | 0.000 | 15130 | 0.0608 | 0.1120 | 59.3* | Endrin aldehyde |
| 5.483 | 0.013 | 13083 | 5.955 | 0.037 | 36923 | 0.1722 | 0.1924 | 11.1 | gamma-Chlordane |
| ---- | | | 6.069 | 0.011 | 16099 | 0.0000 | 0.0881 | --- | alpha-Chlordane |
| 2.041 | -0.013 | 3681 | 2.105 | -0.008 | 14776 | 0.0360 | 0.0475 | 27.7 | Hexachlorobutadiene |
| 3.725 | 0.008 | 5483 | 3.994 | -0.001 | 10871 | 0.0859 | 0.0416 | 69.5* | Hexachlorobenzene |
| 5.242 | -0.010 | 12368 | 5.650 | 0.006 | 30160 | 0.2007 | 0.1834 | 9.0 | Oxychlordane |
| 5.326 | -0.015 | 2700 | 5.899 | -0.010 | 6214 | 0.0622 | 0.0580 | 6.9 | 2,4-DDE |
| 5.562 | -0.019 | 24635 | 6.001 | -0.005 | 70732 | 0.3125 | 0.3404 | 8.5 | trans-Nonachlor |
| 5.812 | -0.018 | 2429 | 6.420 | 0.021 | 41272 | 0.0607 | 0.3557 | 141.7* | 2,4-DDD |
| 6.043 | -0.026 | 5866 | ---- | | | 0.1113 | 0.0000 | --- | 2,4-DDT |
| 6.199 | 0.001 | 2983 | 6.711 | -0.023 | 28549 | 0.0342 | 0.1362 | 119.8* | cis-Nonachlor |
| 7.061 | -0.002 | 5198 | ---- | | | 0.0899 | 0.0000 | --- | Mirex |
| 8.387 | -0.002 | 6659647 | 9.352 | -0.004 | 10193857 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 1.720 | 0.001 | 774 | 1.770 | 0.000 | 13433 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.408 | 0.002 | 13649 | 3.586 | -0.002 | 24642 | 0.1987 | 0.1180 | 50.9* | Tetrachloro-m-xylene |
| 8.250 | 0.000 | 15144 | 8.907 | -0.002 | 20510 | 0.2024 | 0.1453 | 32.8 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 0.5 | 0.3 | 0.3~ | 130- 0 |
| Decachlorobiphenyl | 0.5 | 0.4 | 0.4~ | 130- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4643697 | -4.1 |
| Hexabromobiphenyl | 6506091 | 6659647 | 2.4 |

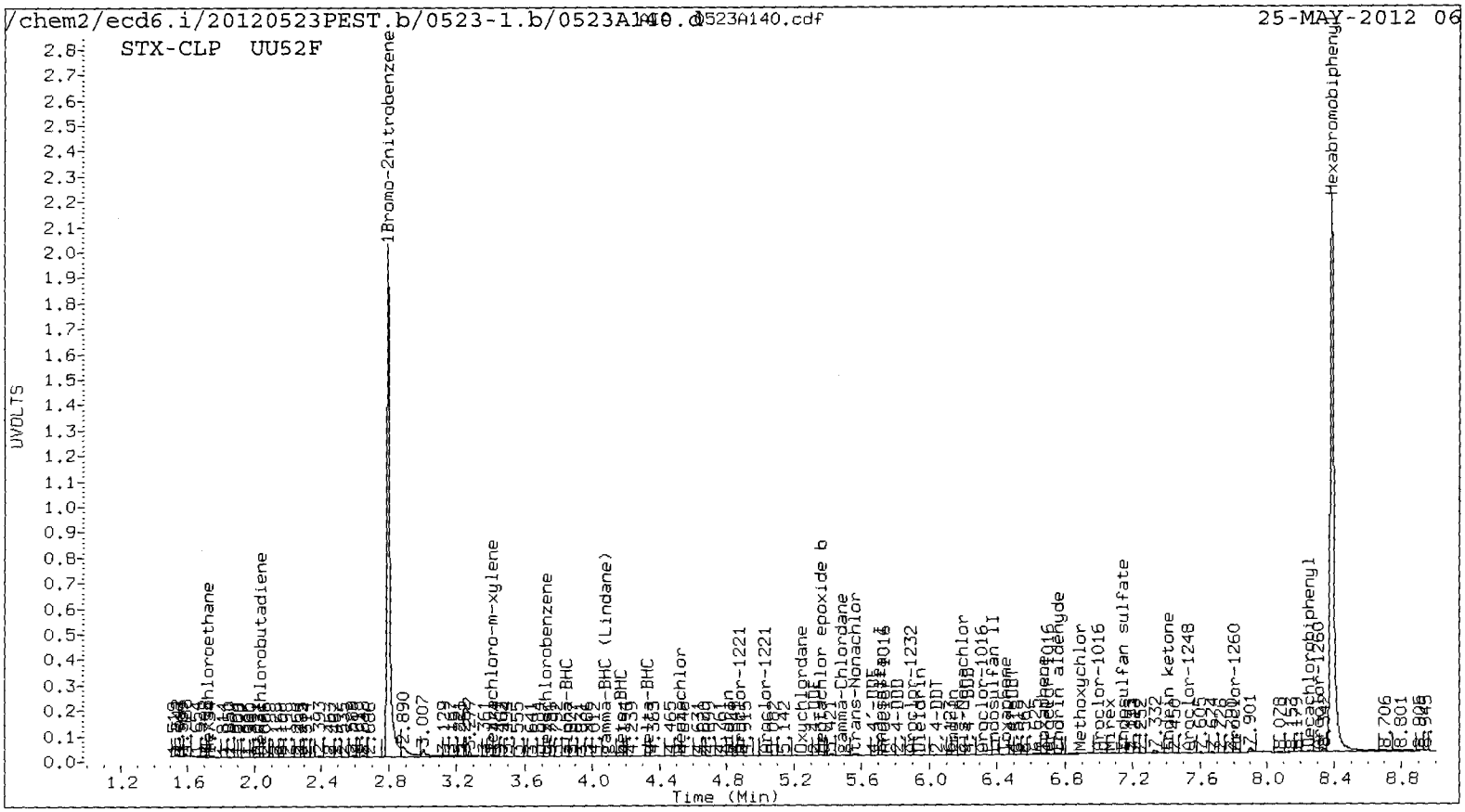
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 16826089 | 3.7 |
| Hexabromobiphenyl | 8472750 | 10193857 | 20.3 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 6.451 | 0.027 | 3429 | 1.083 | 1 | 6.621 | 0.014 | 16361 | 2.953 |
| Toxaphene | 2 | 6.489 | 0.014 | 1658 | 0.684 | 2 | 6.925 | -0.006 | 54713 | 6.616 |
| Toxaphene | 3 | 6.674 | 0.000 | 6117 | 2.738 | 3 | 7.158 | -0.007 | 15130 | 1.740 |
| Toxaphene | 4 | 6.886 | 0.009 | 16929 | 7.044 | 4 | 7.647 | 0.022 | 12305 | 1.781 |
| Toxaphene | 5 | 7.061 | 0.005 | 5198 | 1.419 | 5 | 7.673 | 0.004 | 69981 | 7.438 |
| Toxaphene | 6 | 7.408 | 0.033 | 7826 | 3.048 | NS | --- | | | ---- |
| Total STX-CLPAve (6 peaks): 2.669 | | | | | | Total CLP2Ave (5 peaks): 4.106 | | | | RPD = 42* |
| Corrected Ave (5 peaks): 1.794 | | | | | | Corrected Ave (4 peaks): 3.273 | | | | RPD = 58* |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1248 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1248 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1248 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1248 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1254 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1254 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1254 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1254 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1260 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1260 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1260 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1260 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1262 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1262 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1262 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1262 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1268 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1268 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1268 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1268 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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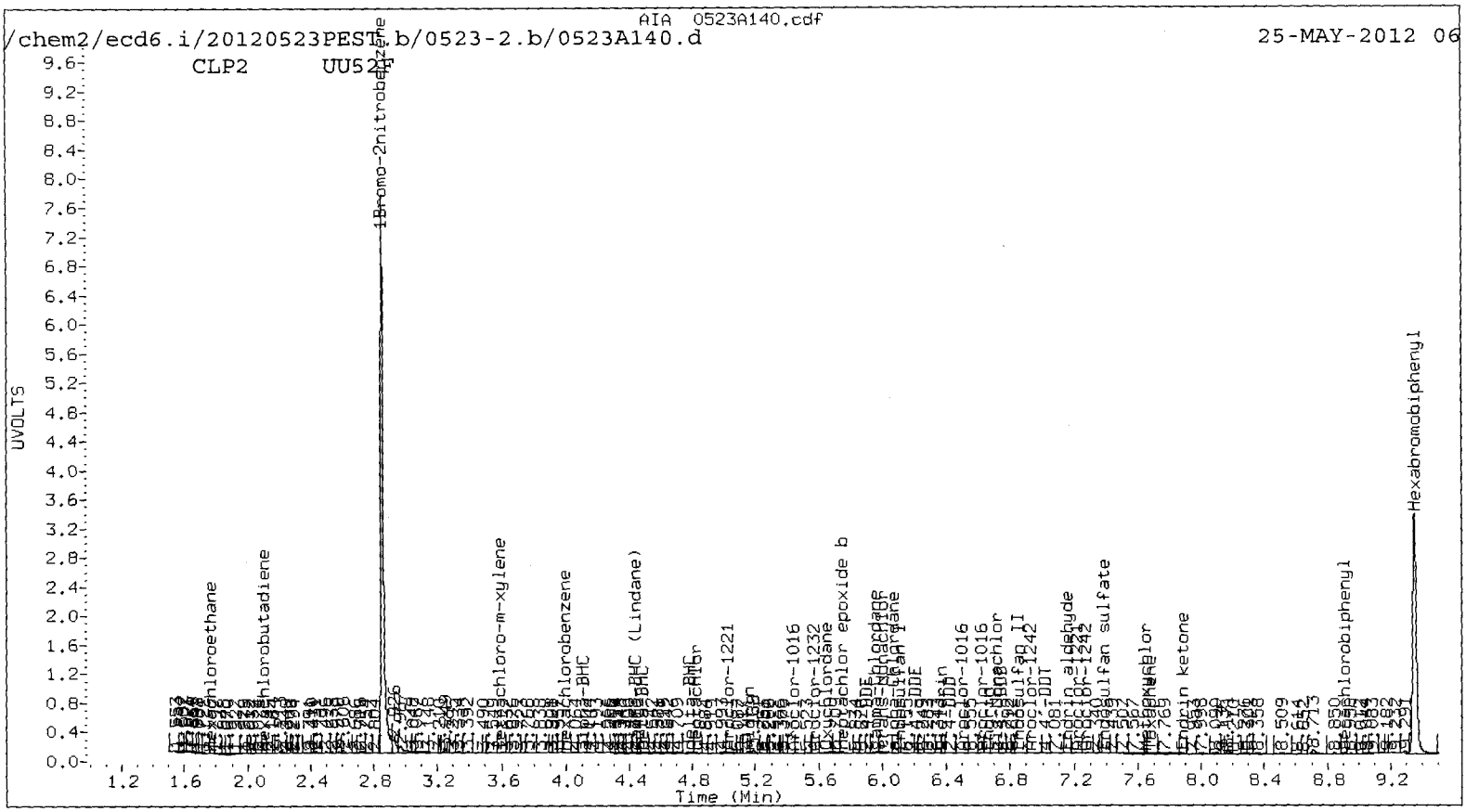
25-MAY-2012 06
STX-CLP UU52F
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl
2.890
3.007
7.901
8.706
8.801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AIA 0523A140.cdf
25-MAY-2012 06
CLP2 UU52F
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A144.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A144.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 07:26
Compound Sublist: INDA Report Date: 05/29/2012 09:49
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.796 | 0.000 | 5028638 | 2.854 | -0.001 | 19069062 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.846 | 0.000 | 2116904 | 4.106 | -0.002 | 6576226 | 21.0989 | 20.2524 | 4.1 | alpha-BHC |
| 4.184 | 0.002 | 752624 | 4.502 | 0.000 | 2369003 | 20.1110 | 18.9657 | 5.9 | beta-BHC |
| 4.340 | 0.003 | 1543084 | 4.782 | -0.001 | 4674594 | 21.0802 | 20.1686 | 4.4 | delta-BHC |
| 4.106 | 0.000 | 1751234 | 4.426 | -0.002 | 5467394 | 20.8072 | 19.7338 | 5.3 | gamma-BHC (Lindane) |
| 4.517 | -0.001 | 1937976 | 4.847 | -0.002 | 5318327 | 20.8590 | 19.0742 | 8.9 | Heptachlor |
| 4.787 | -0.001 | 1788905 | 5.168 | -0.003 | 4672957 | 20.9917 | 19.3361 | 8.2 | Aldrin |
| 5.345 | -0.001 | 1528792 | 5.730 | -0.003 | 4533481 | 20.1456 | 19.3364 | 4.1 | Heptachlor epoxide b |
| 5.721 | 0.000 | 2007777 | 6.115 | -0.002 | 3923458 | 19.6012 | 19.2263 | 1.9 | Endosulfan I |
| 5.946 | -0.001 | 3334314 | 6.375 | -0.002 | 8176573 | 40.8842 | 38.7588 | 5.3 | Dieldrin |
| 5.672 | 0.003 | 2373843 | 6.208 | 0.000 | 7429971 | 46.0106 | 39.8235 | 14.4 | 4,4'-DDE |
| 6.162 | -0.001 | 3008597 | 6.662 | -0.002 | 6819270 | 39.7946 | 36.1362 | 9.6 | Endrin |
| 6.370 | 0.000 | 2862405 | 6.855 | -0.002 | 6855304 | 38.9024 | 35.8543 | 8.2 | Endosulfan II |
| 6.229 | 0.002 | 2467484 | 6.748 | -0.001 | 5812679 | 41.4511 | 36.8603 | 11.7 | 4,4'-DDD |
| 7.137 | -0.001 | 2511883 | 7.402 | -0.002 | 5330226 | 38.8301 | 36.2841 | 6.8 | Endosulfan sulfate |
| 6.484 | 0.001 | 2692681 | 7.033 | -0.001 | 5847709 | 41.1886 | 37.6587 | 9.0 | 4,4'-DDT |
| 6.924 | 0.000 | 6300337 | 7.627 | -0.002 | 11049799 | 189.1603 | 162.9007 | 14.9 | Methoxychlor |
| 7.388 | -0.001 | 3091964 | 7.879 | -0.003 | 6896159 | 37.7029 | 36.4636 | 3.3 | Endrin ketone |
| 6.748 | 0.000 | 2274626 | 7.156 | -0.002 | 5113133 | 38.3337 | 35.1116 | 8.8 | Endrin aldehyde |
| 5.470 | 0.000 | 1677424 | 5.916 | -0.002 | 4322291 | 20.3855 | 19.8689 | 2.6 | gamma-Chlordane |
| 5.593 | 0.000 | 1439499 | 6.055 | -0.002 | 4010259 | 18.3827 | 19.3703 | 5.2 | alpha-Chlordane |
| 2.052 | -0.001 | 2223455 | 2.111 | -0.001 | 6693966 | 20.0519 | 18.9898 | 5.4 | Hexachlorobutadiene |
| 3.719 | 0.002 | 1350309 | 3.995 | 0.000 | 5737891 | 19.5233 | 19.3510 | 0.9 | Hexachlorobenzene |
| 8.389 | -0.004 | 7030803 | 9.353 | -0.004 | 10992494 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 3.407 | 0.001 | 2958109 | 3.587 | -0.001 | 9325221 | 39.7553 | 39.4073 | 0.9 | Tetrachloro-m-xylene |
| 8.249 | -0.001 | 2903219 | 8.906 | -0.003 | 5643035 | 36.7576 | 37.0811 | 0.9 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 99.4 | 98.5 | 98.5~ | 115- 0 |
| Decachlorobiphenyl | 91.9 | 92.7 | 91.9~ | 115- 0 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 5028638 | 3.9 |
| Hexabromobiphenyl | 6506091 | 7030803 | 8.1 |

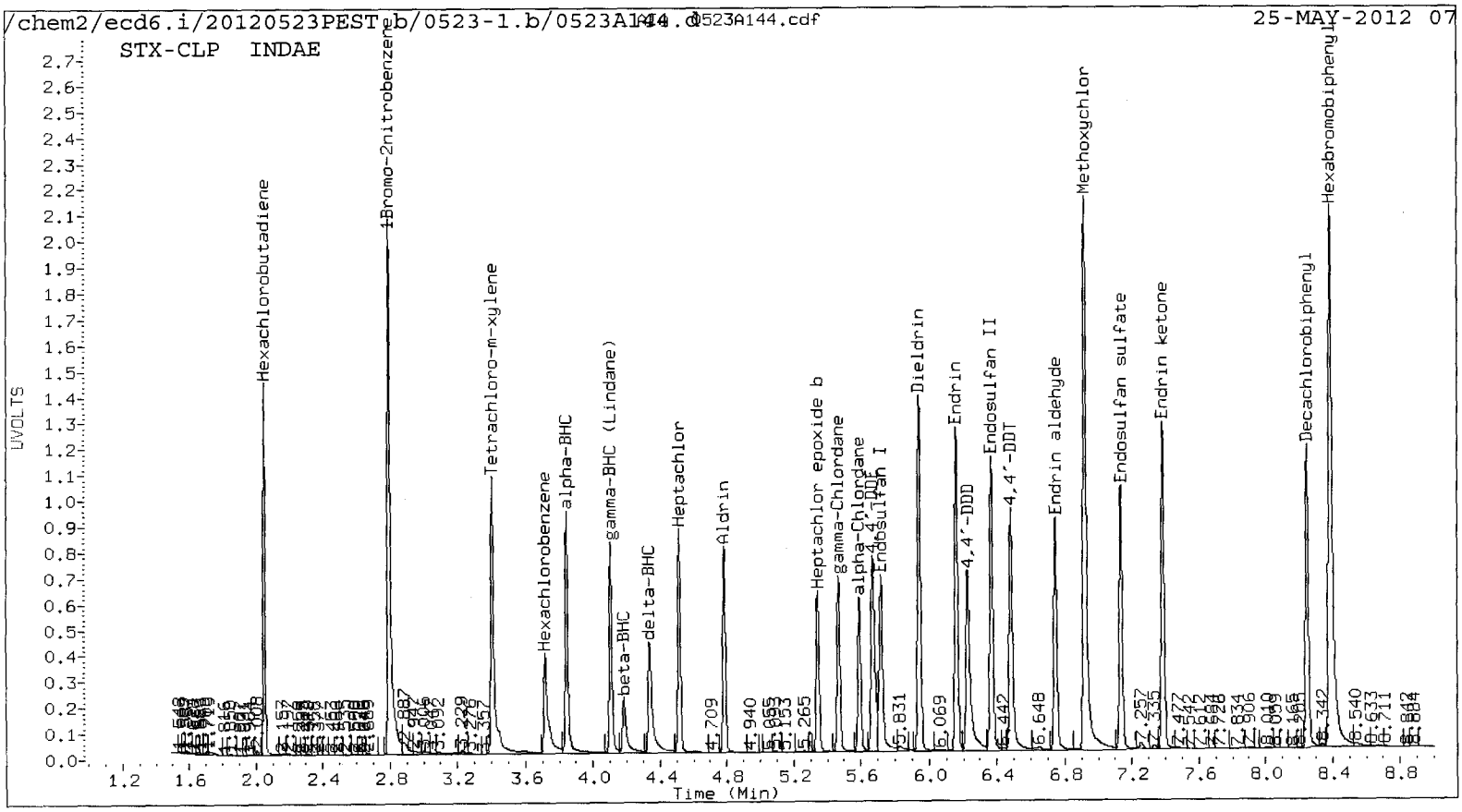
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 19069062 | 17.5 |
| Hexabromobiphenyl | 8472750 | 10992494 | 29.7 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |

UU52:01551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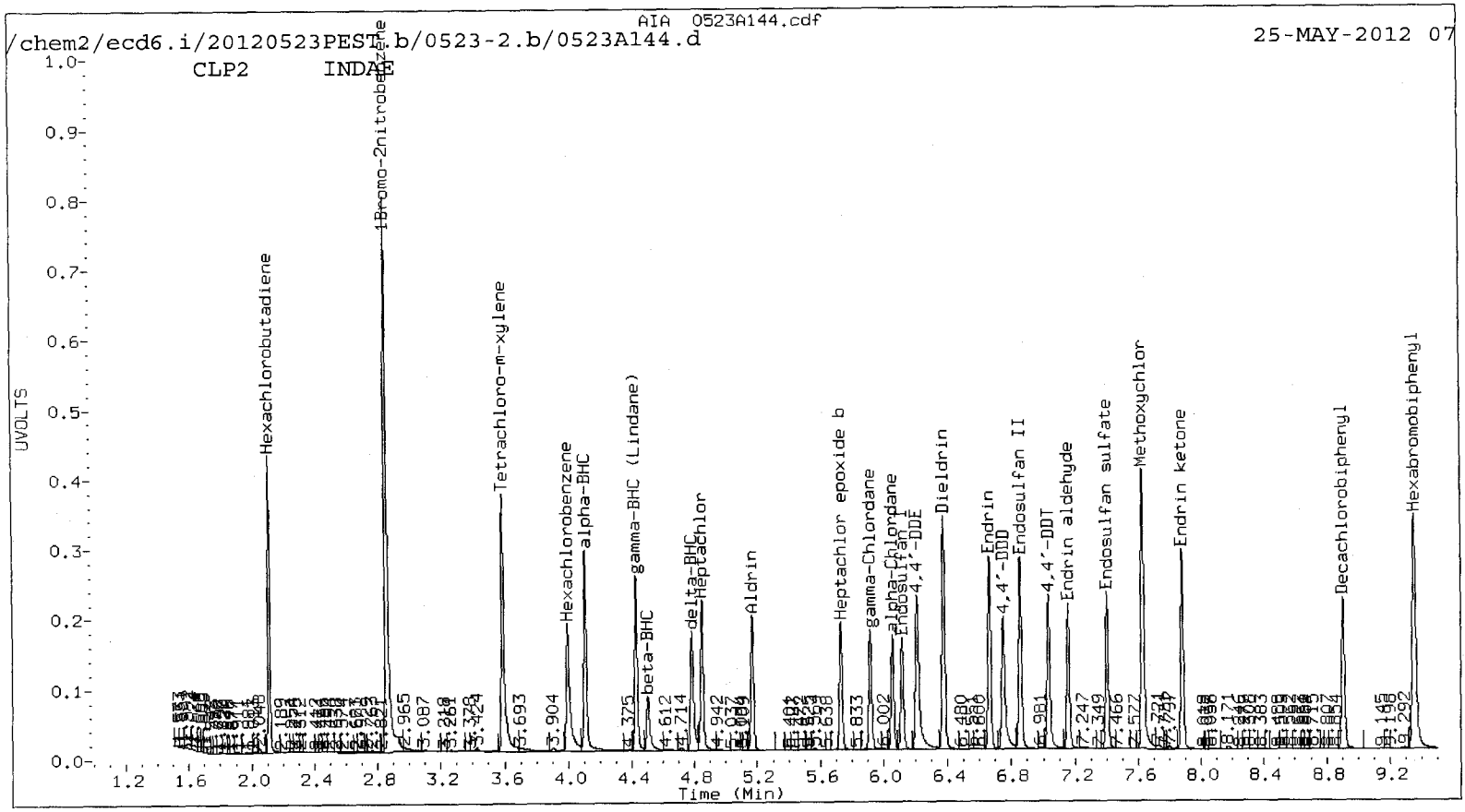
AIA 0523A144.cdf
25-MAY-2012 07
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
4,4'-DDD
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl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AIA 0523A144.cdf
25-MAY-2012 07
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

US2:01552

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A147.d ARI ID: UU52G
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A147.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 08:19
Compound Sublist: wpest Report Date: 05/25/2012 12:35
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 100.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.794 | -0.003 | 4585680 | 2.851 | -0.003 | 14867921 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.844 | -0.003 | 110170 | 4.102 | -0.006 | 407063 | 1.2041 | 1.6078 | 28.7 | alpha-BHC |
| 4.204 | 0.022 | 357435 | 4.502 | 0.000 | 78950 | 10.4737 | 0.8107 | 171.3* | beta-BHC |
| 4.325 | -0.012 | 26095 | 4.771 | -0.011 | 97302 | 0.3909 | 0.5384 | 31.7 | delta-BHC |
| 4.103 | -0.004 | 14515 | 4.415 | -0.014 | 698690 | 0.1891 | 3.2344 | 177.9* | gamma-BHC (Lindane) |
| 4.544 | 0.026 | 33596 | 4.851 | 0.002 | 29550 | 0.3965 | 0.1359 | 97.9* | Heptachlor |
| 4.775 | -0.013 | 5115 | 5.185 | 0.014 | 98253 | 0.0658 | 0.5214 | 155.2* | Aldrin |
| 5.382 | 0.036 | 25400 | 5.740 | 0.008 | 96438 | 0.3670 | 0.5276 | 35.9 | Heptachlor epoxide b |
| 5.731 | 0.009 | 28083 | 6.126 | 0.009 | 61317 | 0.3006 | 0.3854 | 24.7 | Endosulfan I |
| 5.942 | -0.004 | 17887 | 6.363 | -0.014 | 627370 | 0.2405 | 3.8142 | 176.3* | Dieldrin |
| 5.673 | 0.003 | 58671 | 6.193 | -0.015 | 53956 | 1.2470 | 0.3709 | 108.3* | 4,4'-DDE |
| 6.119 | -0.044 | 26085 | 6.647 | -0.017 | 31716 | 0.3959 | 0.2090 | 61.8* | Endrin |
| 6.374 | 0.003 | 10019 | 6.856 | -0.001 | 116032 | 0.1563 | 0.7545 | 131.4* | Endosulfan II |
| 6.223 | -0.005 | 197275 | 6.743 | -0.006 | 193404 | 3.8028 | 1.5248 | 85.5* | 4,4'-DDD |
| 7.145 | 0.007 | 21543 | 7.430 | 0.026 | 10495 | 0.3821 | 0.0888 | 124.6* | Endosulfan sulfate |
| 6.483 | 0.000 | 52582 | 7.029 | -0.004 | 222141 | 0.9230 | 1.7786 | 63.3* | 4,4'-DDT |
| 6.947 | 0.024 | 17544 | 7.652 | 0.023 | 90994 | 0.6044 | 1.6678 | 93.6* | Methoxychlor |
| 7.367 | -0.021 | 35178 | 7.909 | 0.027 | 12947 | 0.4922 | 0.0851 | 141.0* | Endrin ketone |
| 6.743 | -0.005 | 141705 | 7.160 | 0.002 | 42111 | 2.7404 | 0.3595 | 153.6* | Endrin aldehyde |
| 5.452 | -0.017 | 40070 | 5.947 | 0.029 | 83006 | 0.5340 | 0.4894 | 8.7 | gamma-Chlordane |
| 5.612 | 0.018 | 16358 | 6.066 | 0.009 | 91159 | 0.2291 | 0.5647 | 84.6* | alpha-Chlordane |
| 2.039 | -0.014 | 32978 | 2.097 | -0.016 | 27946 | 0.3261 | 0.1017 | 104.9* | Hexachlorobutadiene |
| 3.719 | 0.002 | 18988 | 3.986 | -0.008 | 51327 | 0.3011 | 0.2220 | 30.2 | Hexachlorobenzene |
| 5.205 | -0.047 | 238600 | 5.626 | -0.017 | 621930 | 4.2078 | 4.2798 | 1.7 | Oxychlordane |
| 5.333 | -0.009 | 52527 | 5.889 | -0.021 | 70620 | 1.3154 | 0.7464 | 55.2* | 2,4-DDE |
| 5.540 | -0.040 | 397868 | 5.986 | -0.020 | 888078 | 5.4858 | 4.9272 | 10.7 | trans-Nonachlor |
| 5.826 | -0.004 | 8780 | ---- | | | 0.2386 | 0.0000 | --- | 2,4-DDD |
| 6.066 | -0.002 | 2585 | 6.681 | -0.004 | 133203 | 0.0533 | 1.2183 | 183.2* | 2,4-DDT |
| ---- | | | 6.705 | -0.029 | 104056 | 0.0000 | 0.5725 | --- | cis-Nonachlor |
| 7.040 | -0.023 | 58807 | 7.857 | -0.006 | 186141 | 1.1057 | 1.7041 | 42.6* | Mirex |
| 8.384 | -0.009 | 6127046 | 9.350 | -0.007 | 8841689 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 1.719 | -0.001 | 2219 | 1.769 | -0.001 | 65220 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.405 | -0.001 | 190666 | 3.583 | -0.005 | 100079 | 2.8100 | 0.5424 | 135.3* | Tetrachloro-m-xylene |
| 8.272 | 0.021 | 203300 | 8.907 | -0.001 | 56565 | 2.9536 | 0.4621 | 145.9* | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 7.0 | 1.4 | 1.4~ | 130- 0 |
| Decachlorobiphenyl | 7.4 | 1.2 | 1.2~ | 130- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4585680 | -5.3 |
| Hexabromobiphenyl | 6506091 | 6127046 | -5.8 |

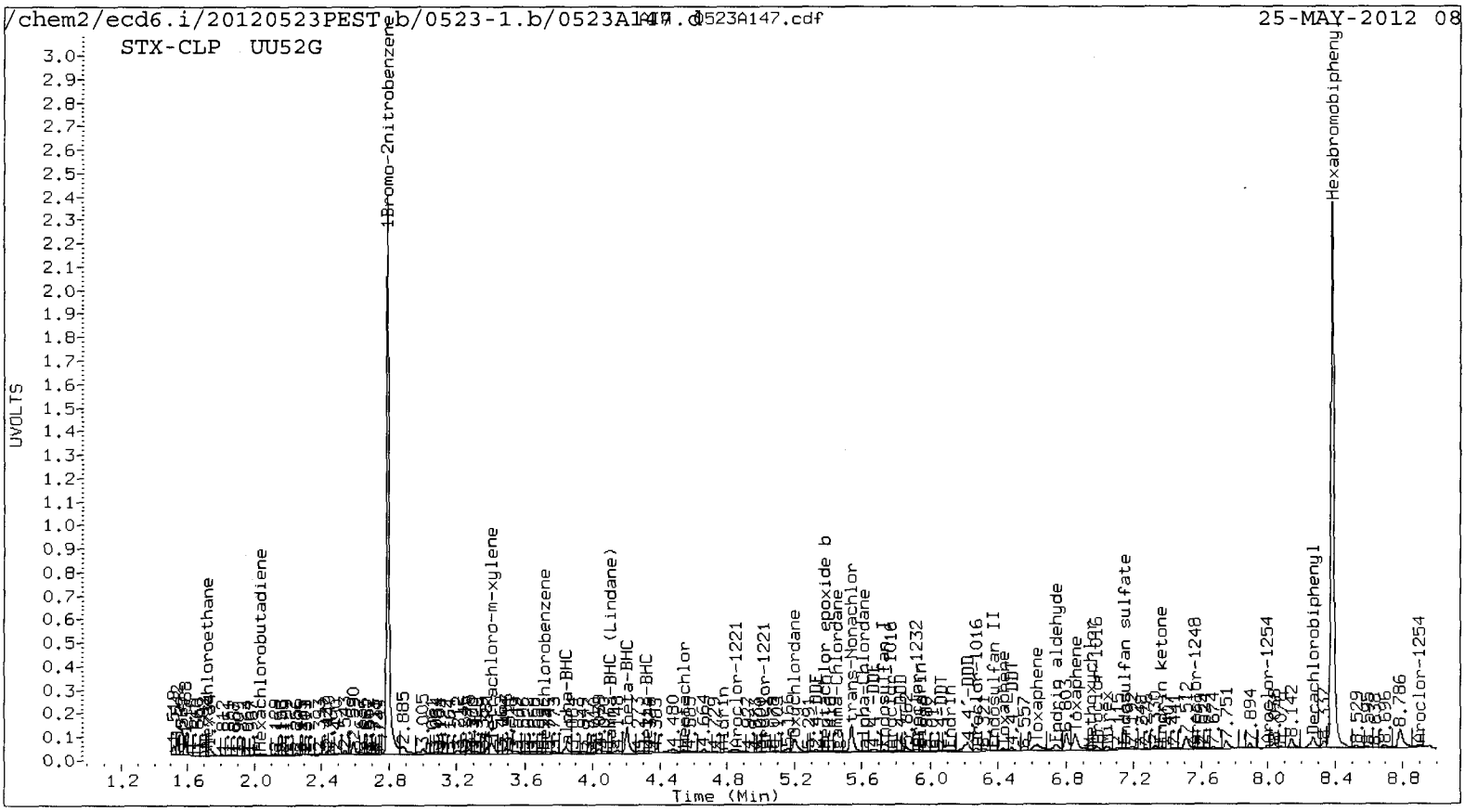
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 14867921 | -8.4 |
| Hexabromobiphenyl | 8472750 | 8841689 | 4.4 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 6.433 | 0.009 | 42829 | 14.708 | 1 | 6.610 | 0.004 | 115567 | 24.044 |
| Toxaphene | 2 | 6.483 | 0.008 | 52582 | 23.574 | 2 | 6.945 | 0.013 | 77569 | 10.815 |
| Toxaphene | 3 | 6.631 | -0.043 | 166224 | 80.851 | 3 | 7.160 | -0.005 | 42111 | 5.585 |
| Toxaphene | 4 | 6.856 | -0.021 | 307557 | 139.092 | 4 | 7.652 | 0.027 | 90994 | 15.181 |
| Toxaphene | 5 | 7.040 | -0.016 | 58807 | 17.448 | 5 | --- | | | 0.000 |
| Toxaphene | 6 | 7.367 | -0.008 | 35178 | 14.892 | NS | --- | | | ---- |
| Total STX-CLPAve (6 peaks): 48.427 | | | | | | Total CLP2Ave (4 peaks): 13.906 | | | | RPD = 111* |
| Corrected Ave (5 peaks): 30.295 | | | | | | Corrected Ave (3 peaks): 10.527 | | | | RPD = 97* |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1248 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1248 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1248 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1248 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1254 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1254 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1254 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1254 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1260 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1260 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1260 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1260 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1262 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1262 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1262 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1262 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 1 | --- | 0.000 | | 1 | --- | 0.000 | |
| Aroclor-1268 2 | --- | 0.000 | | 2 | --- | 0.000 | |
| Aroclor-1268 3 | --- | 0.000 | | 3 | --- | 0.000 | |
| Aroclor-1268 4 | --- | 0.000 | | 4 | --- | 0.000 | |
| Aroclor-1268 5 | --- | 0.000 | | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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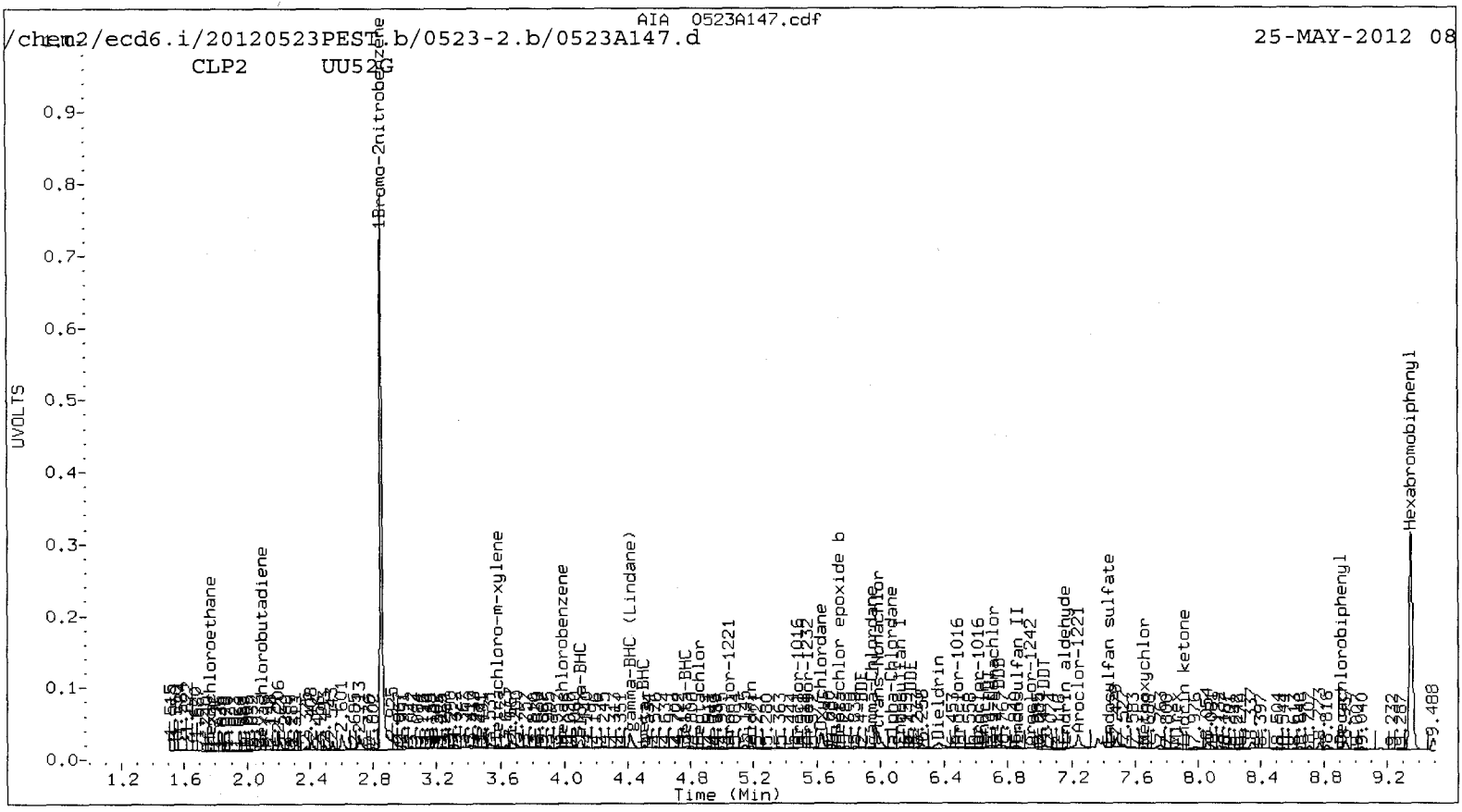
25-MAY-2012 08
STX-CLP UU52G
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
Pentachloro-m-xylene
Hexachlorobenzene
alpha-BHC
beta-BHC
gamma-BHC (Lindane)
Heptachlor
Aroclor-1221
Aroclor-1221
Aldrin
Heptachlor epoxide b
Oxychlordane
trans-Nonachlor
Chlordane
Dieldrin
4,4'-DDE
Endrin
Endosulfan II
4,4'-DDD
Endosulfan sulfate
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endrin ketone
Aroclor-1254
Aroclor-1254
Decachlorobiphenyl
Hexabromobiphenyl
Aroclor-1254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AIA 0523A147.cdf
25-MAY-2012 08
CLP2 UU52G
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
Pentachloro-m-xylene
Hexachlorobenzene
alpha-BHC
beta-BHC
gamma-BHC (Lindane)
Heptachlor
Aroclor-1221
Aroclor-1221
Aldrin
Heptachlor epoxide b
Oxychlordane
trans-Nonachlor
Chlordane
Dieldrin
4,4'-DDE
Endrin
Endosulfan II
4,4'-DDD
Endosulfan sulfate
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endrin ketone
Aroclor-1254
Aroclor-1254
Decachlorobiphenyl
Hexabromobiphenyl
Aroclor-1254

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A148.d ARI ID: UU52H
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A148.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 08:37
Compound Sublist: wpest Report Date: 05/25/2012 12:35
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1000.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.796 | -0.001 | 4472999 | 2.853 | -0.001 | 15828133 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.844 | -0.002 | 10562 | 4.106 | -0.002 | 14773 | 0.1183 | 0.0548 | 73.4* | alpha-BHC |
| 4.167 | -0.016 | 2583 | 4.539 | 0.037 | 5307 | 0.0776 | 0.0512 | 41.0* | beta-BHC |
| 4.343 | 0.006 | 1066 | 4.782 | 0.000 | 11297 | 0.0164 | 0.0587 | 112.8* | delta-BHC |
| 4.106 | 0.000 | 2856 | 4.443 | 0.014 | 36733 | 0.0381 | 0.1597 | 122.9* | gamma-BHC (Lindane) |
| 4.523 | 0.005 | 4826 | 4.844 | -0.005 | 4863 | 0.0584 | 0.0210 | 94.2* | Heptachlor |
| ---- | | | 5.154 | -0.017 | 13700 | 0.0000 | 0.0683 | --- | Aldrin |
| 5.356 | 0.010 | 2734 | 5.748 | 0.016 | 7193 | 0.0405 | 0.0370 | 9.1 | Heptachlor epoxide b |
| 5.740 | 0.018 | 3030 | 6.134 | 0.017 | 13344 | 0.0333 | 0.0788 | 81.3* | Endosulfan I |
| 5.945 | -0.001 | 6900 | 6.372 | -0.005 | 19629 | 0.0951 | 0.1121 | 16.4 | Dieldrin |
| 5.671 | 0.001 | 7150 | 6.205 | -0.003 | 24298 | 0.1558 | 0.1569 | 0.7 | 4,4'-DDE |
| 6.120 | -0.043 | 5750 | 6.654 | -0.010 | 12512 | 0.0869 | 0.0780 | 10.8 | Endrin |
| 6.371 | 0.000 | 4653 | 6.857 | 0.000 | 19305 | 0.0723 | 0.1188 | 48.7* | Endosulfan II |
| 6.230 | 0.003 | 14195 | 6.746 | -0.003 | 36323 | 0.2726 | 0.2711 | 0.6 | 4,4'-DDD |
| 7.134 | -0.004 | 15384 | 7.384 | -0.021 | 15034 | 0.2719 | 0.1204 | 77.2* | Endosulfan sulfate |
| 6.485 | 0.001 | 4702 | 7.031 | -0.003 | 27334 | 0.0822 | 0.2072 | 86.4* | 4,4'-DDT |
| 6.922 | -0.001 | 5499 | 7.626 | -0.003 | 14915 | 0.1887 | 0.2588 | 31.3 | Methoxychlor |
| 7.409 | 0.021 | 6755 | 7.884 | 0.002 | 37195 | 0.0942 | 0.2315 | 84.3* | Endrin ketone |
| 6.764 | 0.016 | 5894 | 7.156 | -0.002 | 9451 | 0.1135 | 0.0764 | 39.1 | Endrin aldehyde |
| 5.473 | 0.004 | 7952 | 5.938 | 0.020 | 138578 | 0.1086 | 0.7675 | 150.4* | gamma-Chlordane |
| ---- | | | 6.053 | -0.004 | 22237 | 0.0000 | 0.1294 | --- | alpha-Chlordane |
| 2.040 | -0.013 | 3098 | 2.104 | -0.008 | 13231 | 0.0314 | 0.0452 | 36.0 | Hexachlorobutadiene |
| 3.723 | 0.007 | 3798 | 3.992 | -0.003 | 11411 | 0.0617 | 0.0464 | 28.4 | Hexachlorobenzene |
| 5.250 | -0.002 | 9211 | 5.648 | 0.004 | 11830 | 0.1618 | 0.0765 | 71.6* | Oxychlordane |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | 2,4-DDE |
| 5.572 | -0.009 | 18124 | 6.003 | -0.004 | 49026 | 0.2489 | 0.2575 | 3.4 | trans-Nonachlor |
| 5.830 | 0.000 | 3029 | 6.420 | 0.021 | 33468 | 0.0820 | 0.3148 | 117.3* | 2,4-DDD |
| 6.061 | -0.007 | 8351 | 6.676 | -0.009 | 7354 | 0.1716 | 0.0637 | 91.8* | 2,4-DDT |
| 6.199 | 0.001 | 4178 | 6.708 | -0.026 | 9113 | 0.0518 | 0.0475 | 8.8 | cis-Nonachlor |
| 7.066 | 0.003 | 21098 | 7.849 | -0.014 | 23619 | 0.3952 | 0.2047 | 63.5* | Mirex |
| 8.387 | -0.006 | 6150437 | 9.351 | -0.006 | 9340210 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 1.719 | 0.000 | 909 | 1.769 | 0.000 | 13179 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.408 | 0.002 | 11126 | 3.586 | -0.001 | 25844 | 0.1681 | 0.1316 | 24.4 | Tetrachloro-m-xylene |
| 8.251 | 0.000 | 16004 | 8.905 | -0.004 | 16391 | 0.2316 | 0.1268 | 58.5* | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 0.4 | 0.3 | 0.3~ | 130- 0 |
| Decachlorobiphenyl | 0.6 | 0.3 | 0.3~ | 130- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4472999 | -7.6 |
| Hexabromobiphenyl | 6506091 | 6150437 | -5.5 |

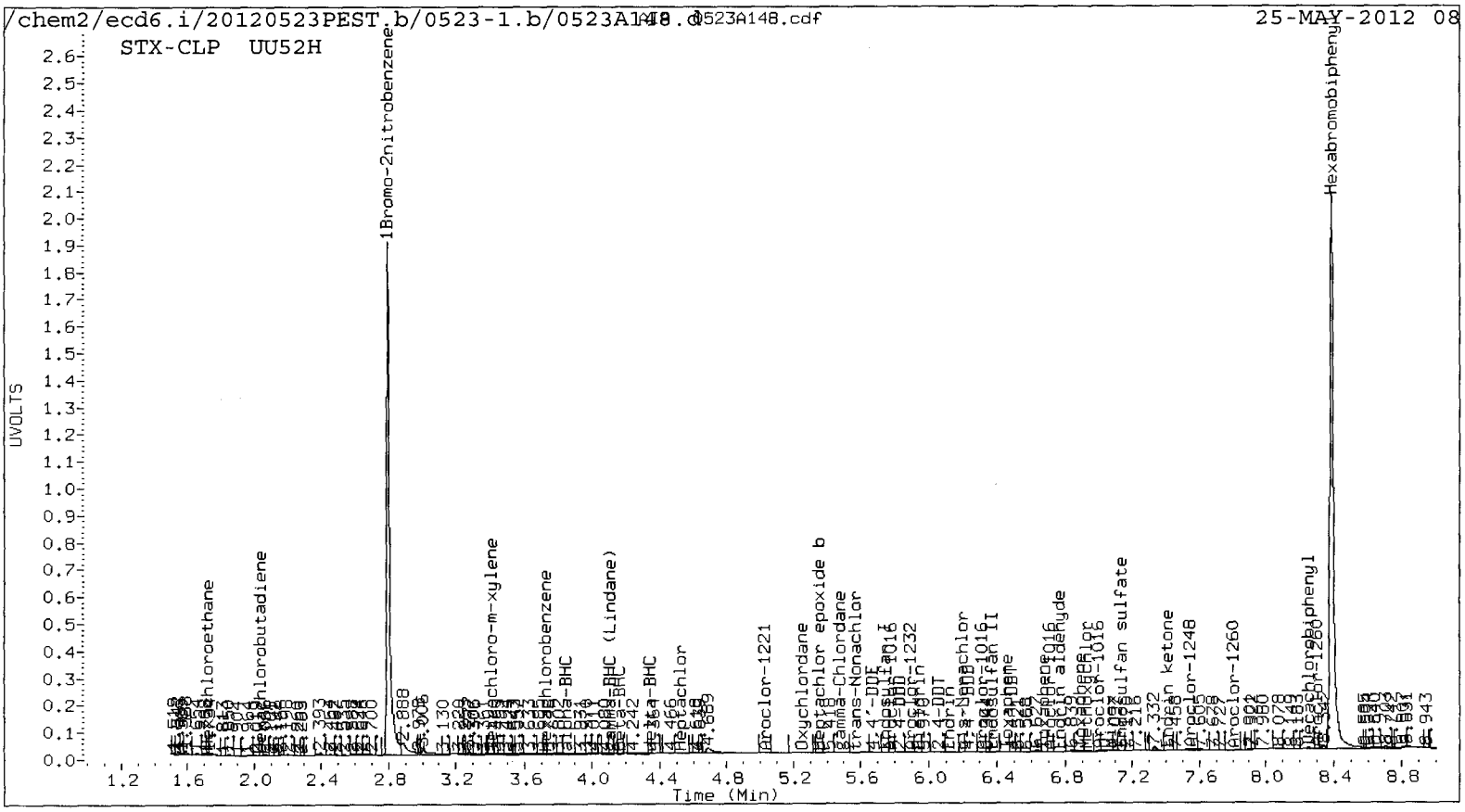
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 15828133 | -2.5 |
| Hexabromobiphenyl | 8472750 | 9340210 | 10.2 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | STX-CLP Col RT | Shift | Height | Amount | Peak# | CLP2 Col RT | Shift | Height | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Toxaphene | 1 | 6.457 | 0.033 | 5905 | 2.020 | 1 | 6.625 | 0.019 | 12878 | 2.536 |
| Toxaphene | 2 | 6.485 | 0.010 | 4702 | 2.100 | 2 | 6.923 | -0.008 | 57284 | 7.560 |
| Toxaphene | 3 | 6.674 | 0.001 | 4762 | 2.307 | 3 | 7.156 | -0.009 | 9451 | 1.186 |
| Toxaphene | 4 | 6.890 | 0.013 | 10172 | 4.583 | 4 | 7.626 | 0.001 | 14915 | 2.356 |
| Toxaphene | 5 | 7.066 | 0.011 | 21098 | 6.236 | 5 | 7.675 | 0.006 | 25141 | 2.916 |
| Toxaphene | 6 | 7.409 | 0.034 | 6755 | 2.849 | NS | --- | | | ---- |
| Total STX-CLPAve (6 peaks): 3.349 | | | | | | Total CLP2Ave (5 peaks): 3.311 | | | | RPD = 1 |
| Corrected Ave (5 peaks): 2.772 | | | | | | Corrected Ave (4 peaks): 2.249 | | | | RPD = 21 |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| STX-CLPAve: <3 Quant Peaks | | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1248 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1248 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1248 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1248 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1254 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1254 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1254 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1254 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1260 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1260 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1260 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1260 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1262 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1262 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1262 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1262 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1268 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1268 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1268 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1268 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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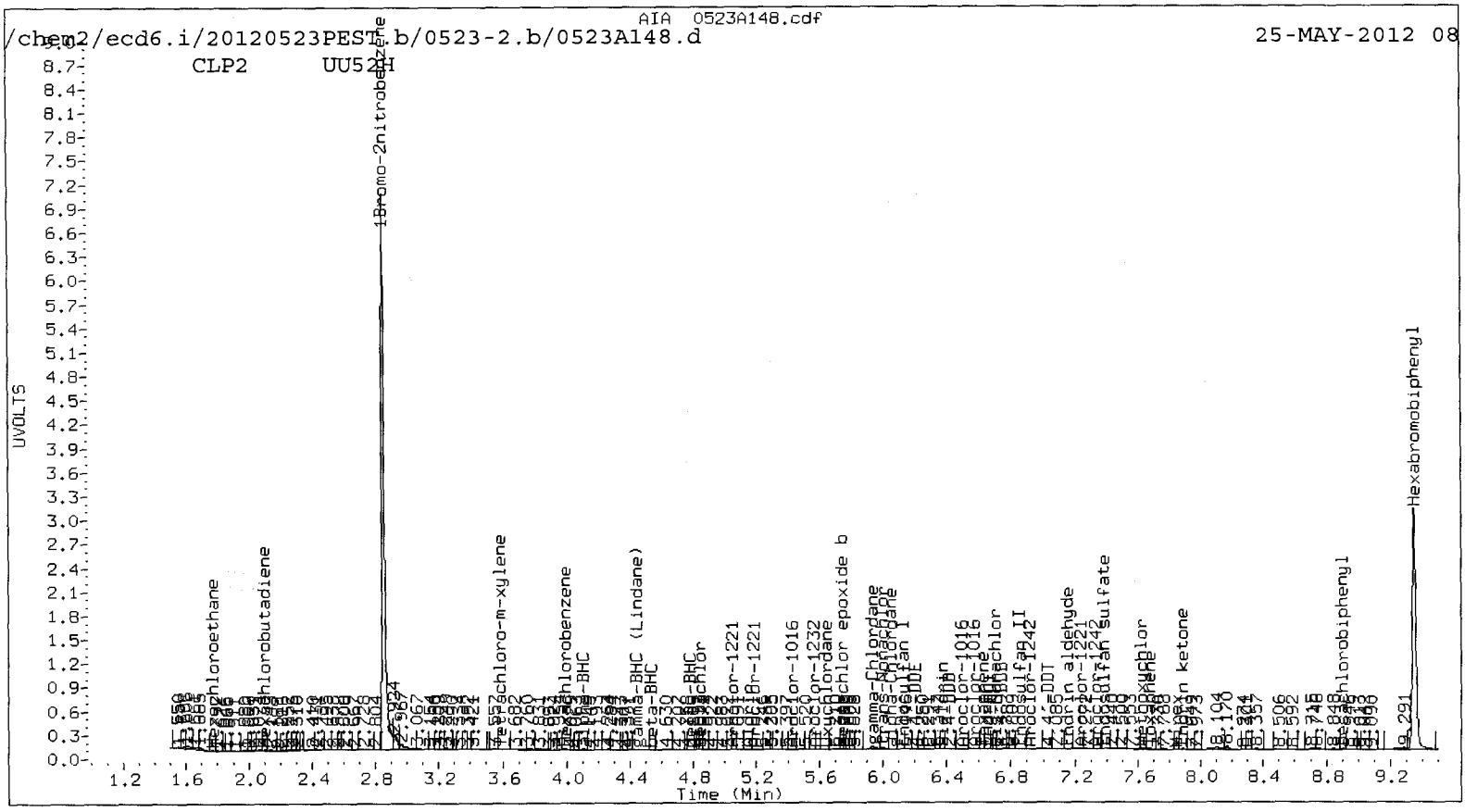
AIA 0523A148.cdf
25-MAY-2012 08
STX-CLP UU52H
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl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AIA 0523A148.cdf
25-MAY-2012 08
CLP2 UU52H
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl

UU52:0156

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A149.d ARI ID: UU52I
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A149.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 08:55
Compound Sublist: wpest Report Date: 05/25/2012 12:35
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 5000.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.796 | 0.000 | 4586393 | 2.854 | 0.000 | 16288145 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| ---- | | | 4.105 | -0.003 | 6855 | 0.0000 | 0.0247 | --- | alpha-BHC |
| ---- | | | 4.494 | -0.008 | 15090 | 0.0000 | 0.1414 | --- | beta-BHC |
| ---- | | | 4.777 | -0.006 | 3901 | 0.0000 | 0.0197 | --- | delta-BHC |
| ---- | | | 4.429 | 0.000 | 5534 | 0.0000 | 0.0234 | --- | gamma-BHC (Lindane) |
| 4.559 | 0.041 | 1593 | 4.877 | 0.028 | 2751 | 0.0188 | 0.0116 | 47.8* | Heptachlor |
| 4.769 | -0.018 | 3756 | 5.189 | 0.018 | 25042 | 0.0483 | 0.1213 | 86.1* | Aldrin |
| 5.358 | 0.012 | 1277 | 5.713 | -0.019 | 20465 | 0.0185 | 0.1022 | 138.8* | Heptachlor epoxide b |
| ---- | | | 6.134 | 0.016 | 22033 | 0.0000 | 0.1264 | --- | Endosulfan I |
| 5.944 | -0.002 | 2674 | 6.370 | -0.007 | 12310 | 0.0359 | 0.0683 | 62.1* | Dieldrin |
| ---- | | | 6.215 | 0.006 | 13286 | 0.0000 | 0.0834 | --- | 4,4'-DDE |
| 6.153 | -0.010 | 2502 | 6.659 | -0.005 | 24268 | 0.0349 | 0.1441 | 122.1* | Endrin |
| 6.371 | 0.000 | 4214 | 6.860 | 0.003 | 16209 | 0.0603 | 0.0950 | 44.6* | Endosulfan II |
| 6.250 | 0.022 | 7154 | 6.747 | -0.001 | 23162 | 0.1266 | 0.1646 | 26.1 | 4,4'-DDD |
| 7.089 | -0.049 | 1806 | 7.398 | -0.006 | 5650 | 0.0294 | 0.0431 | 37.7 | Endosulfan sulfate |
| 6.487 | 0.004 | 1483 | 7.017 | -0.017 | 20270 | 0.0239 | 0.1463 | 143.8* | 4,4'-DDT |
| 6.925 | 0.002 | 8751 | 7.620 | -0.009 | 23066 | 0.2768 | 0.3811 | 31.7 | Methoxychlor |
| 7.410 | 0.022 | 11329 | 7.884 | 0.003 | 32853 | 0.1456 | 0.1947 | 28.9 | Endrin ketone |
| 6.751 | 0.002 | 3054 | 7.157 | -0.001 | 9005 | 0.0542 | 0.0693 | 24.4 | Endrin aldehyde |
| 5.504 | 0.034 | 1449 | 5.922 | 0.004 | 8010 | 0.0193 | 0.0431 | 76.3* | gamma-Chlordane |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | alpha-Chlordane |
| 2.067 | 0.013 | 5578 | 2.106 | -0.007 | 7277 | 0.0552 | 0.0242 | 78.1* | Hexachlorobutadiene |
| ---- | | | 3.996 | 0.002 | 6337 | 0.0000 | 0.0250 | --- | Hexachlorobenzene |
| ---- | | | 5.628 | -0.015 | 2079 | 0.0000 | 0.0131 | --- | Oxychlordane |
| ---- | | | 5.882 | -0.027 | 3070 | 0.0000 | 0.0296 | --- | 2,4-DDE |
| 5.572 | -0.008 | 1278 | 6.018 | 0.012 | 34996 | 0.0162 | 0.1750 | 166.1* | trans-Nonachlor |
| 5.822 | -0.008 | 1073 | 6.421 | 0.022 | 28205 | 0.0268 | 0.2526 | 161.7* | 2,4-DDD |
| 6.074 | 0.005 | 2170 | ---- | | | 0.0411 | 0.0000 | --- | 2,4-DDT |
| ---- | | | ---- | | | 0.0000 | 0.0000 | --- | cis-Nonachlor |
| 7.068 | 0.006 | 3567 | 7.855 | -0.008 | 33051 | 0.0616 | 0.2727 | 126.3* | Mirex |
| 8.389 | -0.004 | 6672960 | 9.352 | -0.005 | 9809409 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 1.720 | 0.001 | 810 | 1.770 | 0.000 | 13620 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.408 | 0.002 | 4208 | 3.587 | -0.001 | 3581 | 0.0620 | 0.0177 | 111.1* | Tetrachloro-m-xylene |
| 8.250 | 0.000 | 10260 | 8.905 | -0.004 | 4567 | 0.1369 | 0.0336 | 121.1* | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 0.2 | 0.0 | 0.0~ | 130- 0 |
| Decachlorobiphenyl | 0.3 | 0.1 | 0.1~ | 130- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4586393 | -5.3 |
| Hexabromobiphenyl | 6506091 | 6672960 | 2.6 |

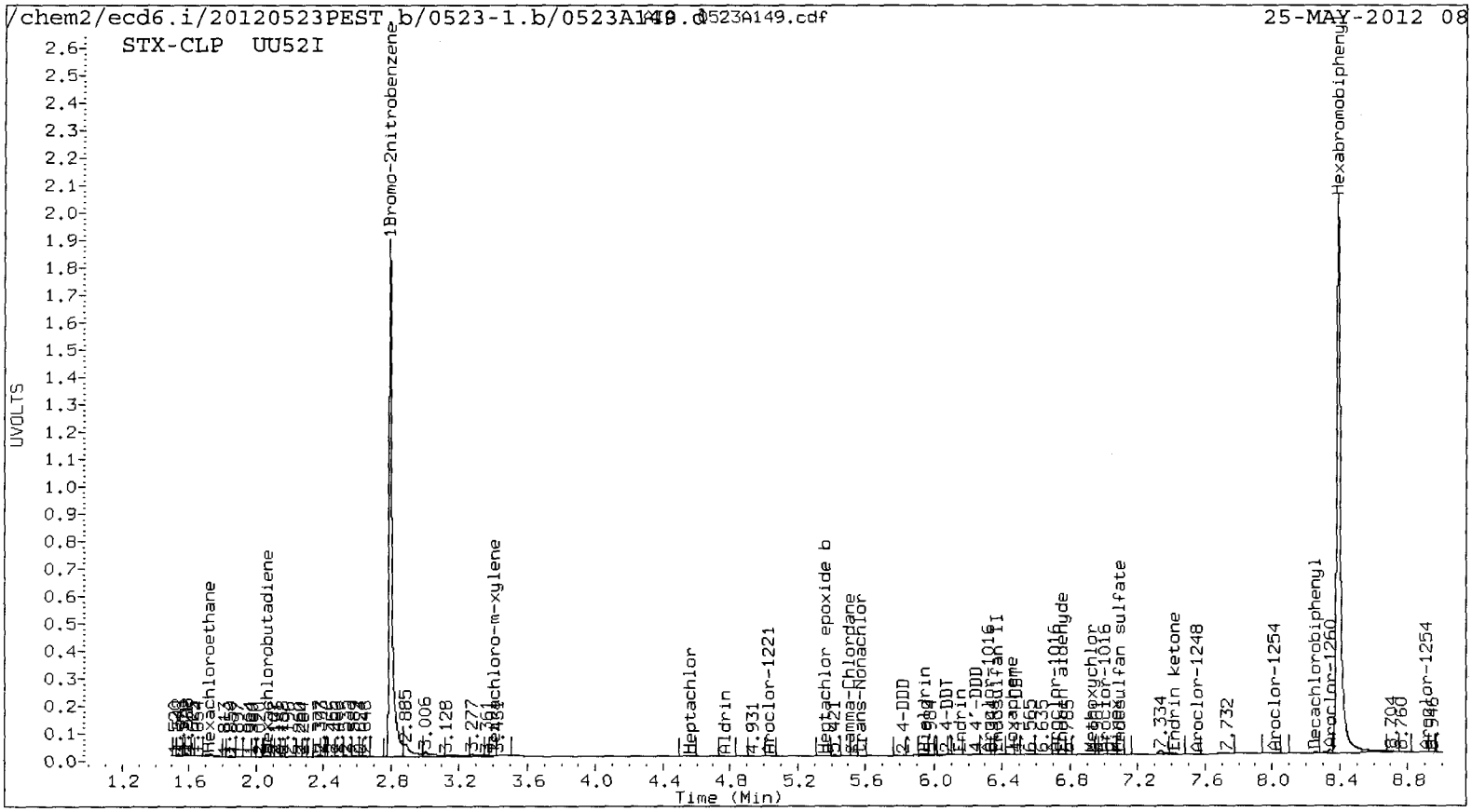
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 16288145 | 0.4 |
| Hexabromobiphenyl | 8472750 | 9809409 | 15.8 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 6.452 | 0.028 | 1492 | 0.470 | 1 | 6.574 | -0.033 | 7866 | 1.475 |
| Toxaphene | 2 | 6.487 | 0.012 | 1483 | 0.610 | 2 | 6.927 | -0.004 | 51857 | 6.517 |
| Toxaphene | 3 | 6.706 | 0.033 | 3138 | 1.401 | 3 | 7.157 | -0.009 | 9005 | 1.076 |
| Toxaphene | 4 | 6.925 | 0.048 | 8751 | 3.634 | 4 | 7.620 | -0.005 | 23066 | 3.469 |
| Toxaphene | 5 | 7.068 | 0.013 | 3567 | 0.972 | 5 | 7.663 | -0.006 | 11281 | 1.246 |
| Toxaphene | 6 | 7.410 | 0.035 | 11329 | 4.404 | NS | --- | | | ---- |
| | Total STX-CLPAve (6 peaks): 1.915 | | | | | Total CLP2Ave (5 peaks): 2.757 | | | | RPD = 36 |
| | Corrected Ave (4 peaks): 0.864 | | | | | Corrected Ave (4 peaks): 1.817 | | | | RPD = 71* |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1248 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1248 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1248 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1248 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1248 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1254 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1254 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1254 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1254 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1254 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1260 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1260 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1260 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1260 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1260 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1262 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1262 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1262 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1262 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1262 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |
| Aroclor-1268 | 1 | --- | 0.000 | 1 | --- | 0.000 | |
| Aroclor-1268 | 2 | --- | 0.000 | 2 | --- | 0.000 | |
| Aroclor-1268 | 3 | --- | 0.000 | 3 | --- | 0.000 | |
| Aroclor-1268 | 4 | --- | 0.000 | 4 | --- | 0.000 | |
| Aroclor-1268 | 5 | --- | 0.000 | 5 | --- | 0.000 | |
| | STX-CLPAve: <3 Quant Peaks | | | | CLP2Ave: <3 Quant Peaks | | |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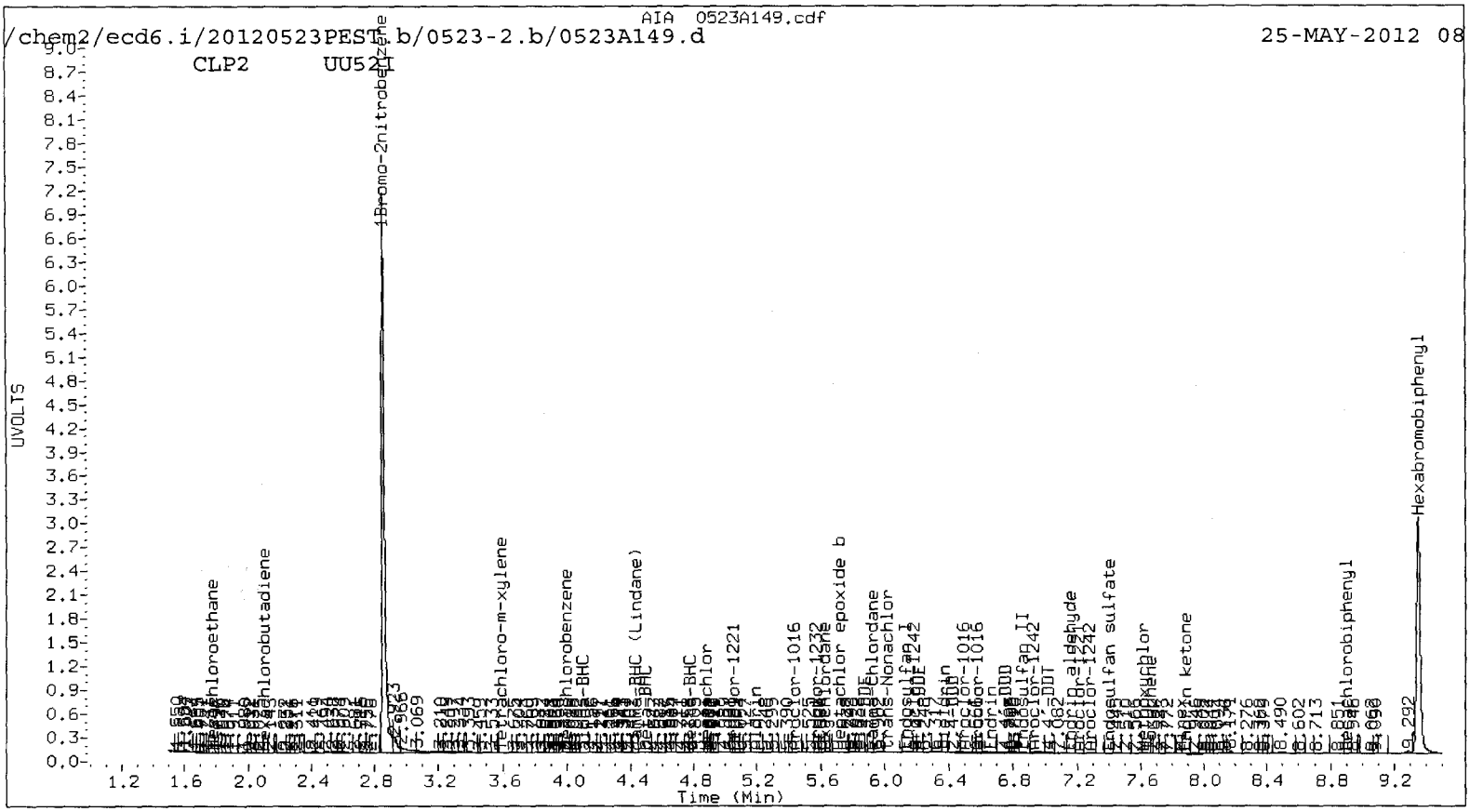
STX-CLP UU52I
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
Hexachloro-m-xylene
Heptachlor
Aldrin
Aroclor-1221
Heptachlor epoxide b
Trans-Nonachlor
Endrin ketone
Aroclor-1248
Aroclor-1254
Decachlorobiphenyl
Aroclor-1260
Hexabromobiphenyl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25-MAY-2012 08
CLP2 UU52I
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexachloroethane
Hexachlorobutadiene
Hexachloro-m-xylene
Hexachlorobenzene
BHC (Lindane)
Aroclor-1221
Aroclor-1016
Aroclor-1242
Endrin
Endrin aldehyde
Endrin ketone
Aroclor-1254
Decachlorobiphenyl
Hexabromobiphenyl

UU52:01567

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

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Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A151.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 09:31
Compound Sublist: wpest Report Date: 05/25/2012 12:35
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1000.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.796 | -0.001 | 4668866 | 2.853 | -0.001 | 16138891 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.843 | -0.004 | 1653 | 4.106 | -0.002 | 7968 | 0.0177 | 0.0290 | 48.1* | alpha-BHC |
| 4.170 | -0.012 | 1664 | 4.486 | -0.016 | 25279 | 0.0479 | 0.2391 | 133.3* | beta-BHC |
| 4.328 | -0.009 | 1189 | 4.777 | -0.005 | 39608 | 0.0175 | 0.2019 | 168.1* | delta-BHC |
| 4.111 | 0.005 | 4962 | 4.450 | 0.022 | 48358 | 0.0635 | 0.2062 | 105.8* | gamma-BHC (Lindane) |
| 4.509 | -0.009 | 5881 | 4.824 | -0.026 | 44641 | 0.0682 | 0.1892 | 94.0* | Heptachlor |
| 4.811 | 0.023 | 3752 | 5.160 | -0.010 | 30075 | 0.0474 | 0.1470 | 102.5* | Aldrin |
| 5.354 | 0.008 | 4409 | 5.743 | 0.011 | 23574 | 0.0626 | 0.1188 | 62.0* | Heptachlor epoxide b |
| 5.711 | -0.011 | 3505 | 6.131 | 0.014 | 19457 | 0.0369 | 0.1127 | 101.4* | Endosulfan I |
| 5.945 | -0.001 | 14242 | 6.371 | -0.006 | 15734 | 0.1881 | 0.0881 | 72.4* | Dieldrin |
| 5.669 | -0.001 | 2995 | 6.203 | -0.005 | 21182 | 0.0625 | 0.1341 | 72.8* | 4,4'-DDE |
| 6.119 | -0.044 | 7091 | 6.655 | -0.009 | 42938 | 0.0995 | 0.2550 | 87.7* | Endrin |
| 6.375 | 0.005 | 6355 | 6.852 | -0.005 | 39270 | 0.0917 | 0.2302 | 86.1* | Endosulfan II |
| 6.251 | 0.024 | 11253 | 6.738 | -0.011 | 39449 | 0.2006 | 0.2804 | 33.1 | 4,4'-DDD |
| 7.139 | 0.001 | 4301 | 7.386 | -0.018 | 12319 | 0.0706 | 0.0940 | 28.5 | Endosulfan sulfate |
| 6.487 | 0.003 | 4243 | 7.019 | -0.015 | 34564 | 0.0689 | 0.2495 | 113.4* | 4,4'-DDT |
| 6.935 | 0.012 | 8446 | 7.601 | -0.028 | 34745 | 0.2691 | 0.5741 | 72.3* | Methoxychlor |
| 7.410 | 0.022 | 10508 | 7.888 | 0.006 | 39266 | 0.1360 | 0.2327 | 52.5* | Endrin ketone |
| 6.757 | 0.008 | 7916 | 7.161 | 0.003 | 20586 | 0.1416 | 0.1584 | 11.2 | Endrin aldehyde |
| 5.490 | 0.020 | 14219 | 5.913 | -0.006 | 15257 | 0.1861 | 0.0829 | 76.8* | gamma-Chlordane |
| 5.617 | 0.023 | 6754 | 6.063 | 0.005 | 21511 | 0.0929 | 0.1228 | 27.7 | alpha-Chlordane |
| 2.041 | -0.013 | 2410 | 2.105 | -0.007 | 6613 | 0.0234 | 0.0222 | 5.5 | Hexachlorobutadiene |
| 3.724 | 0.007 | 3257 | 3.993 | -0.001 | 16774 | 0.0507 | 0.0668 | 27.4 | Hexachlorobenzene |
| 5.266 | 0.015 | 11394 | 5.626 | -0.017 | 7950 | 0.1859 | 0.0504 | 114.7* | Oxychlordane |
| 5.326 | -0.015 | 1641 | 5.871 | -0.038 | 15935 | 0.0380 | 0.1552 | 121.3* | 2,4-DDE |
| 5.560 | -0.021 | 4989 | 6.005 | -0.001 | 47423 | 0.0636 | 0.2372 | 115.4* | trans-Nonachlor |
| 5.813 | -0.017 | 5078 | 6.428 | 0.029 | 58673 | 0.1276 | 0.5255 | 121.8* | 2,4-DDD |
| 6.044 | -0.024 | 13155 | ---- | | | 0.2510 | 0.0000 | --- | 2,4-DDT |
| 6.199 | 0.002 | 4551 | 6.708 | -0.026 | 19597 | 0.0524 | 0.0972 | 59.8* | cis-Nonachlor |
| 7.090 | 0.027 | 8053 | 7.848 | -0.015 | 21012 | 0.1400 | 0.1734 | 21.3 | Mirex |
| 8.387 | -0.006 | 6624396 | 9.351 | -0.006 | 9808477 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl |
| 1.720 | 0.000 | 1143 | 1.770 | 0.000 | 13274 | 0.0000 | 0.0000 | --- | Hexachloroethane |
| 3.408 | 0.002 | 10554 | 3.586 | -0.002 | 56038 | 0.1528 | 0.2798 | 58.7* | Tetrachloro-m-xylene |
| 8.262 | 0.012 | 30274 | 8.905 | -0.003 | 18886 | 0.4068 | 0.1391 | 98.1* | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 0.4 | 0.7 | 0.4~ | 130- 0 |
| Decachlorobiphenyl | 1.0 | 0.3 | 0.3~ | 130- 0 |

~ Indicates recovery outside QC Limits

## INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 4668866 | -3.6 |
| Hexabromobiphenyl | 6506091 | 6624396 | 1.8 |

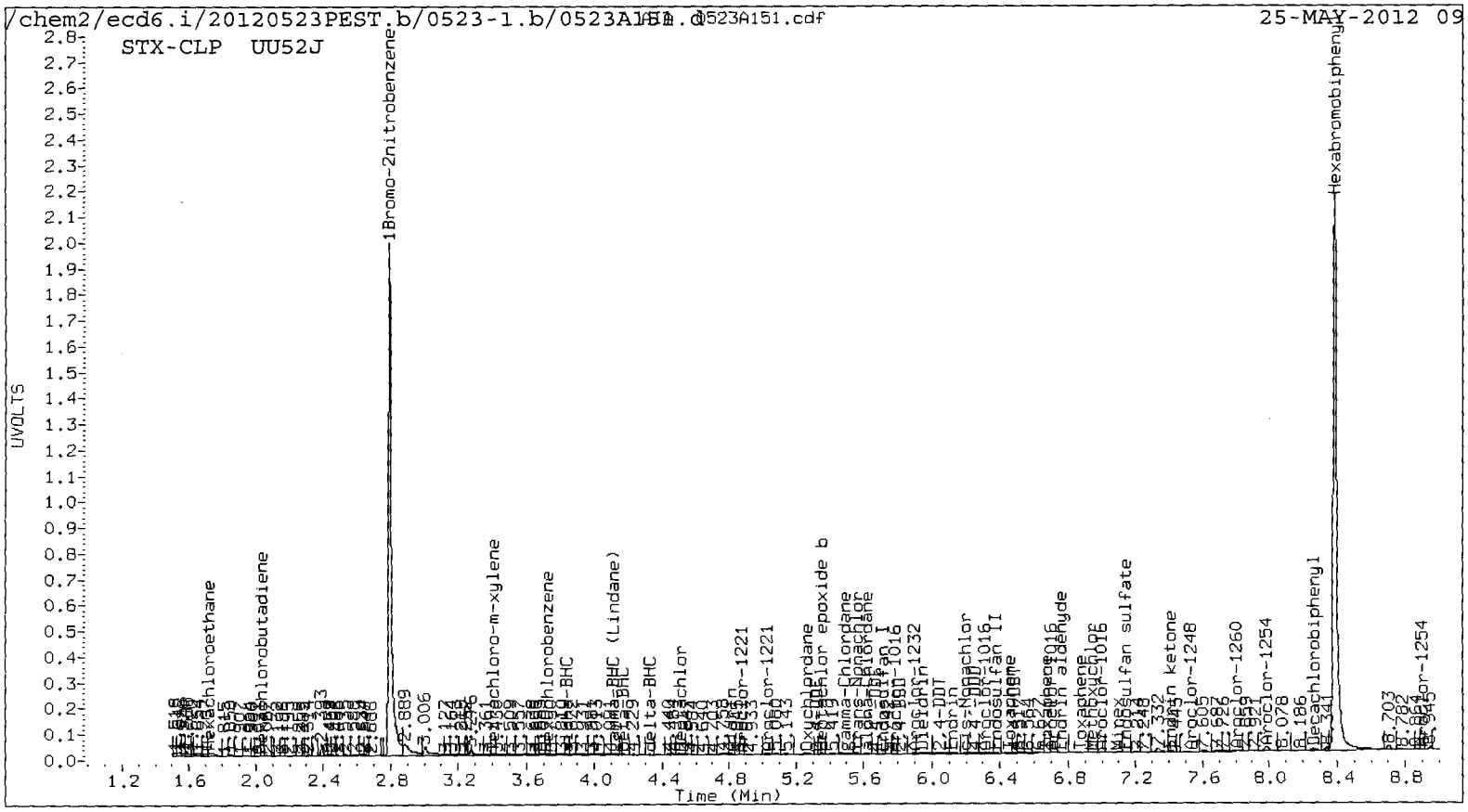
Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 16138891 | -0.5 |
| Hexabromobiphenyl | 8472750 | 9808477 | 15.8 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | STX-CLP Col | | | | | CLP2 Col | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |
| Toxaphene | 1 | 6.454 | 0.030 | 8333 | 2.647 | 1 | 6.624 | 0.017 | 15810 | 2.965 |
| Toxaphene | 2 | 6.487 | 0.012 | 4243 | 1.759 | 2 | 6.924 | -0.007 | 74490 | 9.362 |
| Toxaphene | 3 | 6.673 | -0.001 | 9781 | 4.400 | 3 | 7.161 | -0.004 | 20586 | 2.461 |
| Toxaphene | 4 | 6.873 | -0.005 | 20145 | 8.427 | 4 | 7.601 | -0.024 | 34745 | 5.225 |
| Toxaphene | 5 | 7.090 | 0.034 | 8053 | 2.210 | 5 | 7.675 | 0.006 | 17864 | 1.973 |
| Toxaphene | 6 | 7.410 | 0.035 | 10508 | 4.114 | NS | --- | | | ---- |
| | Total STX-CLPAve (6 peaks): 3.926 | | | | | Total CLP2Ave (5 peaks): 4.397 | | | RPD = 11 | |
| | Corrected Ave (5 peaks): 3.026 | | | | | Corrected Ave (4 peaks): 3.156 | | | RPD = 4 | |
| Aroclor-1016 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1016 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1016 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1016 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1016 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1221 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1221 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1221 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1221 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1232 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1232 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1232 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1232 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1232 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| | STX-CLPAve: <3 Quant Peaks | | | | | CLP2Ave: <3 Quant Peaks | | | | |
| Aroclor-1242 | 1 | --- | | | 0.000 | 1 | --- | | | 0.000 |
| Aroclor-1242 | 2 | --- | | | 0.000 | 2 | --- | | | 0.000 |
| Aroclor-1242 | 3 | --- | | | 0.000 | 3 | --- | | | 0.000 |
| Aroclor-1242 | 4 | --- | | | 0.000 | 4 | --- | | | 0.000 |
| Aroclor-1242 | 5 | --- | | | 0.000 | 5 | --- | | | 0.000 |
| Aroclor-1242 | 6 | --- | | | 0.000 | NS | --- | | | ---- |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | STX-CLPAve: | <3 Quant Peaks | | | CLP2Ave: | <3 Quant Peaks | |
| Aroclor-1248 | 1 | --- | 0.000 | 1 | --- | | 0.000 |
| Aroclor-1248 | 2 | --- | 0.000 | 2 | --- | | 0.000 |
| Aroclor-1248 | 3 | --- | 0.000 | 3 | --- | | 0.000 |
| Aroclor-1248 | 4 | --- | 0.000 | 4 | --- | | 0.000 |
| Aroclor-1248 | 5 | --- | 0.000 | 5 | --- | | 0.000 |
| | STX-CLPAve: | <3 Quant Peaks | | | CLP2Ave: | <3 Quant Peaks | |
| Aroclor-1254 | 1 | --- | 0.000 | 1 | --- | | 0.000 |
| Aroclor-1254 | 2 | --- | 0.000 | 2 | --- | | 0.000 |
| Aroclor-1254 | 3 | --- | 0.000 | 3 | --- | | 0.000 |
| Aroclor-1254 | 4 | --- | 0.000 | 4 | --- | | 0.000 |
| Aroclor-1254 | 5 | --- | 0.000 | 5 | --- | | 0.000 |
| | STX-CLPAve: | <3 Quant Peaks | | | CLP2Ave: | <3 Quant Peaks | |
| Aroclor-1260 | 1 | --- | 0.000 | 1 | --- | | 0.000 |
| Aroclor-1260 | 2 | --- | 0.000 | 2 | --- | | 0.000 |
| Aroclor-1260 | 3 | --- | 0.000 | 3 | --- | | 0.000 |
| Aroclor-1260 | 4 | --- | 0.000 | 4 | --- | | 0.000 |
| Aroclor-1260 | 5 | --- | 0.000 | 5 | --- | | 0.000 |
| | STX-CLPAve: | <3 Quant Peaks | | | CLP2Ave: | <3 Quant Peaks | |
| Aroclor-1262 | 1 | --- | 0.000 | 1 | --- | | 0.000 |
| Aroclor-1262 | 2 | --- | 0.000 | 2 | --- | | 0.000 |
| Aroclor-1262 | 3 | --- | 0.000 | 3 | --- | | 0.000 |
| Aroclor-1262 | 4 | --- | 0.000 | 4 | --- | | 0.000 |
| Aroclor-1262 | 5 | --- | 0.000 | 5 | --- | | 0.000 |
| | STX-CLPAve: | <3 Quant Peaks | | | CLP2Ave: | <3 Quant Peaks | |
| Aroclor-1268 | 1 | --- | 0.000 | 1 | --- | | 0.000 |
| Aroclor-1268 | 2 | --- | 0.000 | 2 | --- | | 0.000 |
| Aroclor-1268 | 3 | --- | 0.000 | 3 | --- | | 0.000 |
| Aroclor-1268 | 4 | --- | 0.000 | 4 | --- | | 0.000 |
| Aroclor-1268 | 5 | --- | 0.000 | 5 | --- | | 0.000 |
| | STX-CLPAve: | <3 Quant Peaks | | | CLP2Ave: | <3 Quant Peaks | |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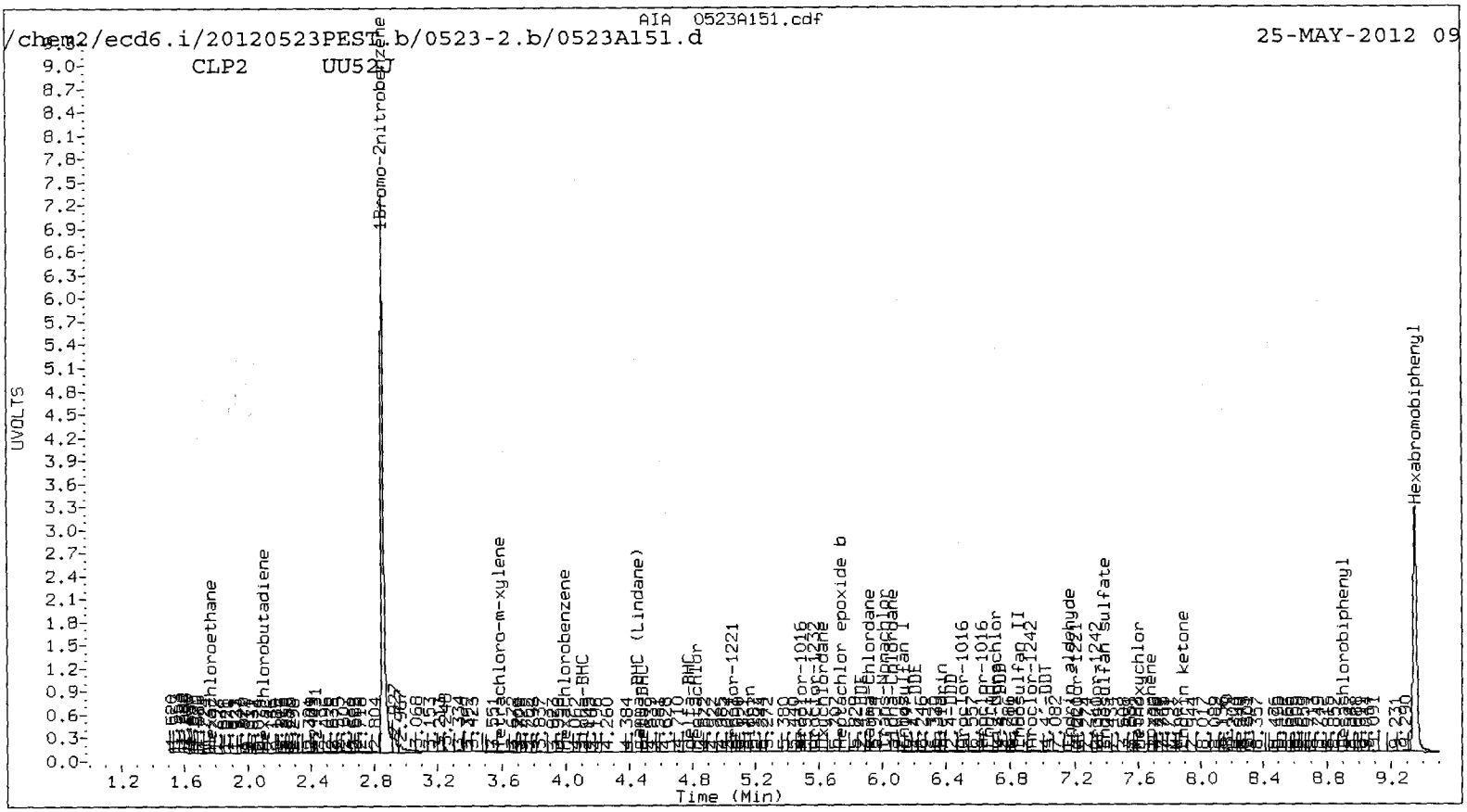
STX-CLP UU52J
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl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/chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A151.d
25-MAY-2012 09
CLP2 UU52J
UVOLTS
Time (Min)
1Bromo-2nitrobenzene
Hexabromobiphenyl

UU52:01572

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /chem2/ecd6.i/20120523PEST.b/0523-1.b/0523A155.d ARI ID: INDAE
Data file 2: /chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A155.d Client ID:
Method: /chem2/ecd6.i/20120523PEST.b/PEST0523.m Injection Date: 25-MAY-2012 10:42
Compound Sublist: INDA Report Date: 05/29/2012 09:49
Instrument, Inj. Vol.: ecd6.i, 1ul Matrix: NONE
Operator: ar Dilution Factor: 1.000

| STX-CLP Col | | | CLP2 Col | | | STX-CLP | CLP2 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 2.797 | 0.000 | 5494582 | 2.854 | -0.001 | 18934934 | 80.0000 | 80.0000 | 0.0 | 1Bromo-2nitrobenzene |
| 3.846 | -0.001 | 2297698 | 4.105 | -0.003 | 6502233 | 20.9589 | 20.1664 | 3.9 | alpha-BHC |
| 4.184 | 0.002 | 821047 | 4.501 | -0.001 | 2354774 | 20.0789 | 18.9853 | 5.6 | beta-BHC |
| 4.340 | 0.003 | 1674992 | 4.781 | -0.001 | 4648299 | 20.9418 | 20.1972 | 3.6 | delta-BHC |
| 4.106 | -0.001 | 1901592 | 4.426 | -0.003 | 5418995 | 20.6777 | 19.6977 | 4.9 | gamma-BHC (Lindane) |
| 4.517 | -0.001 | 2102927 | 4.846 | -0.003 | 5346506 | 20.7150 | 19.3110 | 7.0 | Heptachlor |
| 4.786 | -0.001 | 1941097 | 5.168 | -0.003 | 4648763 | 20.8460 | 19.3722 | 7.3 | Aldrin |
| 5.345 | -0.001 | 1663943 | 5.730 | -0.003 | 4545036 | 20.0672 | 19.5230 | 2.7 | Heptachlor epoxide b |
| 5.721 | -0.001 | 2175178 | 6.115 | -0.003 | 3911634 | 19.4347 | 19.3041 | 0.7 | Endosulfan I |
| 5.945 | -0.001 | 3624046 | 6.374 | -0.003 | 8190826 | 40.6685 | 39.1014 | 3.9 | Dieldrin |
| 5.673 | 0.003 | 2625141 | 6.207 | -0.001 | 7449459 | 46.5665 | 40.2107 | 14.6 | 4,4'-DDE |
| 6.162 | -0.001 | 3279325 | 6.661 | -0.003 | 6817583 | 39.6034 | 36.8977 | 7.1 | Endrin |
| 6.370 | 0.000 | 3109104 | 6.855 | -0.002 | 6751829 | 38.5806 | 36.0662 | 6.7 | Endosulfan II |
| 6.229 | 0.002 | 2714272 | 6.747 | -0.001 | 5844903 | 41.6316 | 37.8550 | 9.5 | 4,4'-DDD |
| 7.137 | -0.001 | 2726495 | 7.401 | -0.003 | 5313241 | 38.4824 | 36.9398 | 4.1 | Endosulfan sulfate |
| 6.484 | 0.000 | 2931375 | 7.032 | -0.002 | 5833342 | 40.9404 | 38.3673 | 6.5 | 4,4'-DDT |
| 6.923 | 0.000 | 6853986 | 7.627 | -0.002 | 11000148 | 187.8875 | 165.6271 | 12.6 | Methoxychlor |
| 7.388 | -0.001 | 3361860 | 7.879 | -0.003 | 6895915 | 37.4290 | 37.2399 | 0.5 | Endrin ketone |
| 6.748 | -0.001 | 2469161 | 7.155 | -0.003 | 5082077 | 37.9935 | 35.6426 | 6.4 | Endrin aldehyde |
| 5.469 | -0.001 | 1827933 | 5.916 | -0.002 | 4315340 | 20.3308 | 19.9774 | 1.8 | gamma-Chlordane |
| 5.593 | 0.000 | 1552519 | 6.055 | -0.003 | 4000989 | 18.1448 | 19.4624 | 7.0 | alpha-Chlordane |
| 2.053 | -0.001 | 2396566 | 2.111 | -0.002 | 6573262 | 19.7802 | 18.7795 | 5.2 | Hexachlorobutadiene |
| 3.719 | 0.002 | 1472915 | 3.994 | 0.000 | 5724900 | 19.4900 | 19.4440 | 0.2 | Hexachlorobenzene |
| 8.389 | -0.004 | 7700454 | 9.352 | -0.005 | 10762965 | 80.0000 | 80.0000 | 0.0 | Hexabromobiphenyl N |
| 3.407 | 0.001 | 3219949 | 3.586 | -0.001 | 9317185 | 39.6046 | 39.6523 | 0.1 | Tetrachloro-m-xylene |
| 8.249 | -0.001 | 3170643 | 8.905 | -0.003 | 5666857 | 36.6525 | 38.0318 | 3.7 | Decachlorobiphenyl |

* Indicates RPD > 40%
A Indicates Peak Height was used for Column 1 quantitation instead of Area
B Indicates Peak Height was used for Column 2 quantitation instead of Area
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE/SPIKE PERCENT RECOVERY

| SURR/SPIKE | Col1 | Col2 | Lower | Limits |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 99.0 | 99.1 | 99.0~ | 115- 0 |
| Decachlorobiphenyl | 91.6 | 95.1 | 91.6~ | 115- 0 |

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Column 1

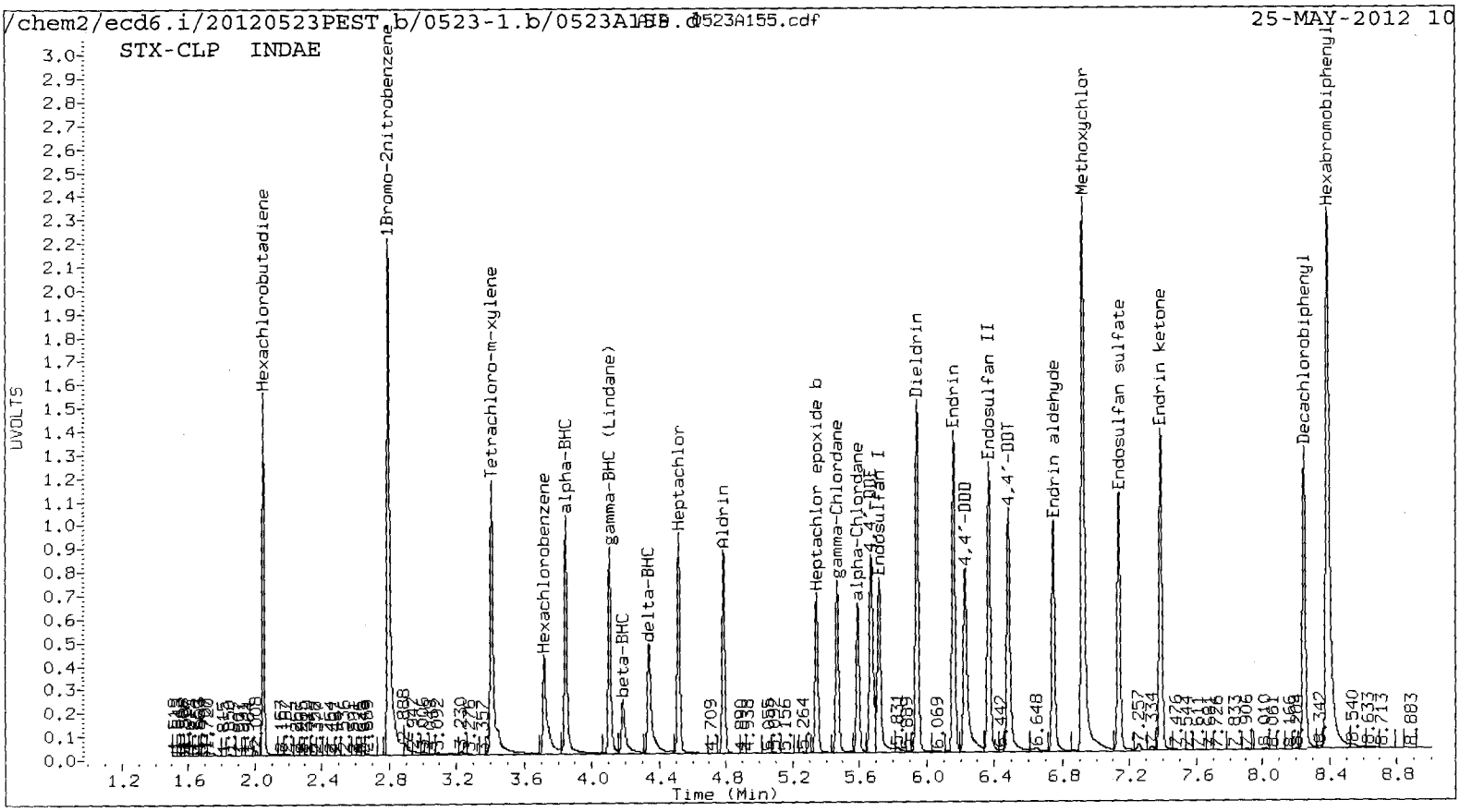
| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 4841592 | 5494582 | 13.5 |
| Hexabromobiphenyl | 6506091 | 7700454 | 18.4 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 16226991 | 18934934 | 16.7 |
| Hexabromobiphenyl | 8472750 | 10762965 | 27.0 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | STX-CLP Col | | | | | CLP2 Col | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Height | Amount | Peak# | RT | Shift | Height | Amount |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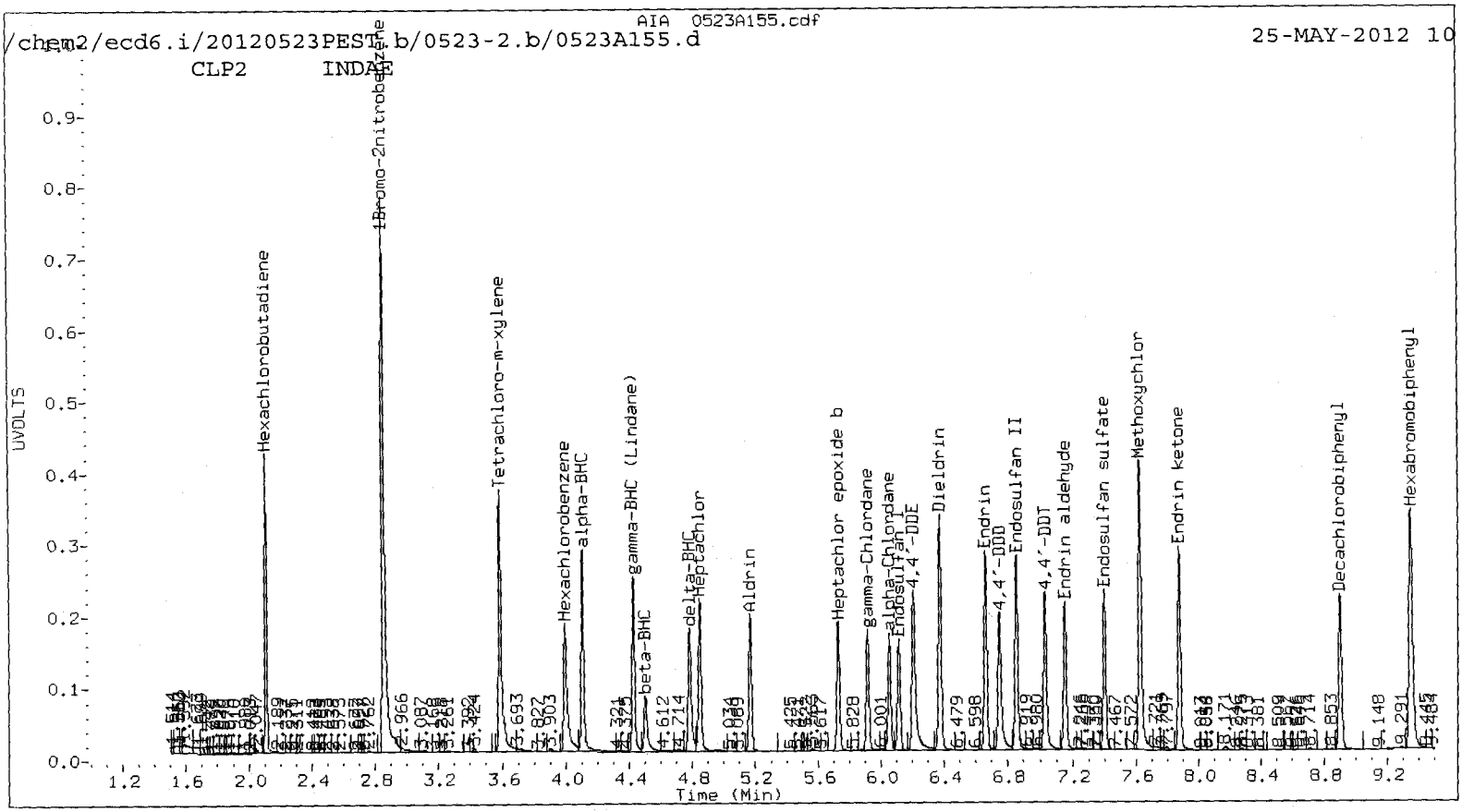
AIA 0523A155.cdf
25-MAY-2012 10
STX-CLP INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl


/chem2/ecd6.i/20120523PEST.b/0523-2.b/0523A155.d
AIA 0523A155.cdf
25-MAY-2012 10
CLP2 INDAE
UVOLTS
Time (Min)
Hexachlorobutadiene
1Bromo-2nitrobenzene
Tetrachloro-m-xylene
Hexachlorobenzene
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide b
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Hexabromobiphenyl

PCB Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: UU52, UU62

Incorporated
Analytical Chemists and Consultants

# Organic Extractions Benchsheet

## PCB – Soil / Sediment
## Microwave (3546) (SOP # 3304S)

**Preparation Test PCB PSDDA # 19 (PCBSDMP4)**

ARI Job No(s) UU52 very high sulfur content Page 1 of 1

PSDDA (4ppb)
Batch set up by: JH

| Bottle # | ARI Sample I.D. | Weight Extracted (eq. to 12.5g dry wt) | (REQ) Acid Clean (2.5mL) | (REQ) Sulfur Clean (2.5mL) 1 2 3 | (REQ) Silica Gel Clean (1:2.5) | Extraction Final Volume | Volume to Lab | Comments | Verify Client ID |
|---|---|---|---|---|---|---|---|---|---|
| | MBS UU52 | 12.50g | 2.5mL | 2.5mL | 1mL | 2.5mL | 1mL | (10g Actual W) | RR 05/22/12 Analyst/Date |
| | SBS | 12.50g | 2.5mL | 2.5mL | 1mL | 2.5mL | 1mL | (10g Actual Wt) | Microwave M 5/24/12 |
| | ~~SBSDup~~ | ~~12.50g~~ | ~~2.5mL~~ | ~~2.5mL~~ | ~~1mL~~ | ~~2.5mL~~ | ~~1mL~~ | ~~(10g Actual Wt)~~ | Analyst/Date |
| 5/6 | UU52 A | ~~12.50g~~ 130.18 | 2.5mL | 2.5mL | 1mL | 2.5mL | 1mL | ~~(10g Actual Wt)~~ | KD 100°C |
| 6 | B | 129.80 | 2.5mL | 2.5mL | 1mL | 2.5mL | 1mL | | |
| 6 | C | 123.00 | 2.5mL | 2.5mL | 1mL | 2.5mL | 1mL | | YL 5/24/12 |
| 5/6 | D | 135.41 | 2.5mL | 2.5mL | 1mL | 2.5mL | 1mL | | |
| 5 | E | 131.18 | 2.5mL | 2.5mL | 1mL | 2.5mL | 1mL | | Analyst/Date |
| 6 | F | 141.28 | 2.5mL | 2.5mL | 1mL | 2.5mL | 1mL | | TurboVap 1 2 3 Pre-Cleanups |
| 5,6 | G | 136.37 | 2.5mL | 2.5mL | 1mL | 2.5mL | 1mL | | |
| 5 | H | 78.27 | 2.5mL | 2.5mL | 1mL | 2.5mL | 1mL | | SP 5/25/12 |
| 5,6 | I | 114.28 | 2.5mL | 2.5mL | 1mL | 2.5mL | 1mL | | Analyst/Date |
| 5,6 | J | 127.05 | 2.5mL | 2.5mL | 1mL | 2.5mL | 1mL | | TurboVap 1 2 3 Post Cleanups |
| 5,6 | JMJ | 127.69 | 2.5mL | 2.5mL | 1mL | 2.5mL | 1mL | | |
| 5,6 | JMJd | 127.16 | 2.5mL | 2.5mL | 1mL | 2.5mL | 1mL | | SP 5/25/12 |
| Weighed RR 05/22/12 Analyst/Date | | | SP 5/25/12 | SP 5/25/12 | SP 5/25/12 | SP 5/25/12 | SP 5/25/12 | | Analyst/Date |

| Standard | Standard ID | Concentration | Volume | Expiration Date | Analyst | Witness |
|---|---|---|---|---|---|---|
| Surrogate | N( 1914-2 ) | 2µg/mL | 50µL | 5/28/12 | NL | SP |
| Spike | 1 ( 1964-2 ) | 20µg/mL | 63µL | 4/03/13 | NL | SP |
| ~~QLS Spike~~ | ~~5 ( )~~ | ~~2µg/mL~~ | ~~25µL~~ | | | |

Extraction Time: 0745 Balance ID: B11412 7534

SPECIAL INSTRUCTIONS: 1. Weigh soil/sed into beakers-lightly dry with sodium sulfate. 2. Transfer to microwave vessel(s). Note: (do not fill vessels more than 2/3rd full. Some samples may require ~~two~~ multiple vessels). 3. Add 1:1 Hexane/Acetone until the solvent layer is 3" inches above the soil layer after homogenization. 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-Re-homogenize while hot then cool vessels in cold water 15 minutes. 7. Decant 1:1 Hex/Ace into E. flask with sodium sulfate in bottom+ funnel with neutral glasswool plug. 8. Rinse with Hexane. 9. Add 8:2 Hexane/Acetone to the vessel 3"inches above the soil layer after homogenization. Microwave a 2nd time. 10. Let cool and decant solvent then empty the soil into the funnel and rinse with Hexane. 11. KD (~~Small or~~ Large Drying Column) on 100° bath. (Blanks=only 5g Sodium Sulfate). 12. Exchange (2 X with 20mL) Hexane. 13. TurboVap. 14. Clean-ups. 15. TurboVap. 16. Vial with Hexane.

A. Need Total Solids Y N ~~B. Archive~~/Freeze Y N

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Organic Extractions Laboratory Analyst Notes

ARI Job No.: UU52 Client ID: Anchor QEA, LLC

Parameter: PCB PSDDA (4ppb) Client Project: Jeld Wen Maulsby Marsh

| Screens: Soil/Sediment/Solid/Other: | Analyst/Date |
|---|---|
| ☐ No Anomalies (standard soil/wet sediment/sand/gravel)= | AC 5-16-12 |
| ☐ Standing Water Decanted (Not shared)= | |
| ☐ Standing Water Homogenized (Shared samples)= | |
| ☐ Clay/Clumps (Difficult to homogenize)= | |
| ☐ Rocks (%+size)? | |
| ☐ Organics (Leaves/sticks/grass)= B < 5% sticks D = 30% grass/sticks E = 10% grass F = 60% grass/sticks G = 50% grass/sticks H = 30% I = 50%. | AC 5-16-12 |
| ☐ Oily, obvious fuel/sulfur odors= B- | |
| ☒ Other (Details)= UU52 - A-J, JMS, JMSD - Samples Surrogates Spikes had to splitted into 6-7 vessels prior to microwave due to sample weigh and will combined into 2 flasks or multi flasks. The multi flasks are Samples: E, I, JMS | N 2.5 \| 2 4 \| 12 |
| Aqueous: All samples will combine at the KD station. | |
| ☐ No Anomalies | |
| ☐ Turbid/Color= | |
| ☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead) | |
| ☐ Emulsions (%)= | |
| ☐ Other (Details)= | |
| ☐ Other Notes/Comments= (Note problems, concerns, corrective actions). | |

Analytical Resources, Incorporated
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# Organic Extractions Benchsheet

## PCB – Water
## Separatory Funnel (3510C) (SOP # 3311S)

**Preparation Test PCB # 1 (PCBWSI)** In-House (1ppb)

ARI Job No(s) UU62 Page 1 of 1 Batch set up by: SP

| Bottle # | ARI Sample I.D. | Volume Extracted | (REQ) Acid Clean (5mL) | (REQ) Sulfur Clean (5mL) ①2 3 | (opt) Silica Gel Clean (1:5) Y/N | FEV | Volume to Lab | Comments | Verify Client ID AR 05/21/12 |
|---|---|---|---|---|---|---|---|---|---|
| | UU62 MBW | 500mL | 5mL | 5mL | 1mL Y/N | 5mL | 1mL | | |
| | SBW | 500mL | 5mL | 5mL | 1mL Y/N | 5mL | 1mL | | **Analyst/Date** |
| | SBW Dup. | 500mL | 5mL | 5mL | 1mL Y/N | 5mL | 1mL | | Verify pH is 5-9 |
| | QLS | 500mL | 5mL | 5mL | 1mL Y/N | 5mL | 1mL | | AR 05/21/12 |
| 3 | J | 500mL | 5mL | 5mL | 1mL Y/N | 5mL | 1mL | | |
| J | K | 500mL | 5mL | 5mL | 1mL Y/N | 5mL | 1mL | | **Analyst/Date** |
| | | 500mL | 5mL | 5mL | 1mL Y/N | 5mL | 1mL | | KD 80-85°C |
| | | 500mL | 5mL | 5mL | 1mL Y/N | 5mL | 1mL | | Hexane Exchange (2 X 20mL) 100°C |
| | | 500mL | 5mL | 5mL | 1mL Y/N | 5mL | 1mL | | |
| | | 500mL | 5mL | 5mL | 1mL Y/N | 5mL | 1mL | | YL 5/21/12 |
| | | 500mL | 5mL | 5mL | 1mL Y/N | 5mL | 1mL | | **Analyst/Date** |
| | | 500mL | 5mL | 5mL | 1mL Y/N | 5mL | 1mL | | TurboVap ①2 3 Pre-Cleanups (4mL=10mL Hexane Exchange |
| | | 500mL | 5mL | 5mL | 1mL Y/N | 5mL | 1mL | | |
| | | 500mL | 5mL | 5mL | 1mL Y/N | 5mL | 1mL | | |
| | | 500mL | 5mL | 5mL | 1mL Y/N | 5mL | 1mL | | |
| | | 500mL | 5mL | 5mL | 1mL Y/N | 5mL | 1mL | | AC 5-23-12 |
| | | 500mL | 5mL | 5mL | 1mL Y/N | 5mL | 1mL | | **Analyst/Date** |
| | | 500mL | 5mL | 5mL | 1mL Y/N | 5mL | 1mL | | TurboVap 1 2 3 Post Cleanups |
| | | 500mL | 5mL | 5mL | 1mL Y/N | 5mL | 1mL | | |
| | | 500mL | 5mL | 5mL | 1mL Y/N | 5mL | 1mL | | |
| | | 500mL | 5mL | 5mL | 1mL Y/N | 5mL | 1mL | | |
| **Analyst/Date** | AR 05/21/12 → | AC 5-23-12 | AC 5-23-12 | | | AC 5-23-12 | AC 5-23-12 | | **Analyst/Date** |

| Standard | Standard ID | Concentration | Volume | Expiration Date | Analyst | Witness |
|---|---|---|---|---|---|---|
| **Surrogate** | **N** (1914-2) | 2µg/mL | **100µL** | 5/28/12 | AR | AC |
| **Spike** | **1** (1964-2) | 20µg/mL | **125µL** | 4/3/13 | AR | AC |
| **QLS Spike** | **5** (1967-1) | 2µg/mL | **250µL** | 4/3/13 | AR | AC |
| **Extraction Time:** 13:58 | | | | | | |

**SPECIAL INSTRUCTIONS:** 1. Verify pH 2. Adjust pH (if necessary=Analyst Notes). 3. Add Surr/Spike.
4. Extract 3X with 30mL DCM. 5. KD (NO Drying Column) at 80°. 6. Exchange (2 X with 20mL) Hexane at 100°.
7. TurboVap to 4mL=10mL Hexane Exchange. 8. TurboVap 9. Clean-ups? 10. TurboVap (if Silica Clean).
11. Vial 1mL with Hexane. ~~A. Archive Y/N~~

SP 5/17/12



UU52:01579

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Organic Extractions Laboratory Analyst Notes

ARI Job No.: UU62

Client ID: Anchor QEA, LLC

Parameter: PCB

Client Project: Jen Weld - Maury Marsh

| Screens: Soil/Sediment/Solid/Other: | Analyst/Date |
|---|---|
| ☐ No Anomalies (standard soil/wet sediment/sand/gravel)= | |
| ☐ Standing Water Decanted (Not shared)= | |
| ☐ Standing Water Homogenized (Shared samples)= | |
| ☐ Clay/Clumps (Difficult to homogenize)= | |
| ☐ Rocks (%+size)? | |
| ☐ Organics (Leaves/sticks/grass)= | |
| ☐ Oily, obvious fuel/sulfur odors= | |
| ☐ Other (Details)= | |
| | |
| | |
| | |
| **Aqueous:** | |
| ☑ No Anomalies UU62 Samples, JK | AA 05/21/12 |
| ☐ Turbid/Color= | |
| ☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead) | |
| ☑ Emulsions (%)= UU62 Sample J 100 emulsion used, Centrifuge to break up emulsion Sulfate to dry | |
| ☐ Other (Details)= Samples | |
| | |
| | |
| ☐ Other Notes/Comments= (Note problems, concerns, corrective actions). | |

PCB Raw Data
Initial Calibration

ARI Job ID: UU52, UU62

**Analytical Resources, Incorporated**
Analytical Chemists and Consultants

# GC Initial Calibration Notes

ARI SOP: (**403S**(PCB)) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
**427S**(Dir Inj) **428S**(EPH) **Other**

Instrument: FID-3A FID-3B (FID-4A) FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 (ECD-5) ECD-6 ECD-7 ECD-8

Curve Date(s): 5/23/2012 Internal Standard ID 1878-3 Expiration 8/1/2012

Endrin/DDT Breakdown <15%? YES / NO / (NA) ICV Exceeding ±20%? YES / (NO)

ICal Meets %RSD & $r^2$ Criteria (YES) / NO ICV Exceeding ±30%? YES / (NO)

Manual Integrations for ICal? (YES) / NO Linear Fits Used? YES / (NO)

Minimum Response S/N Met (YES) / NO Quadratic Fits Used? YES / (NO)

Calibration Points Dropped? YES / (NO)

| Primary Source | Standard # | Expiration | Secondary Source | Standard # | Expiration |
|---|---|---|---|---|---|
| AR1660 | 1980-1 | 5/16/13 | AR1660 ICV | 1928-2 | 5/28/12 |
| AR1242 | 1980-4 | 5/16/13 | AR1242 ICV | 1923-1 | 5/28/12 |
| AR1248 | 1980-5 | 5/16/13 | AR1248 ICV | 1923-2 | 5/28/12 |
| AR1254 | 1980-6 | 5/16/13 | AR1254 ICV | 1923-3 | 5/28/12 |
| AR2162 | 1980-2 | 5/16/13 | AR2162 ICV | 1923-4 | 5/28/12 |
| AR3268 | 1980-3 | 5/16/13 | AR3268 ICV | 1923-5 | 5/28/12 |
| DS | 1878-2 | 5/28/2012 | | | |
| IB | 1982-2 | 5/16/13 | | | |

**Detail problems, corrective actions and/or other pertinent information below:**

**Analyst:** _____ **Date:** 5/24/2012

**Reviewer:** _____ **Date:** 5/24/12

GC LOG SUMMARY FOR DATABATCH - /chem2/ecd5.i/20120523.b/ical-2.b
/chem2/ecd5.i/20120523.b/ical-2.b

| | Inject Date/Time | Filename | DF | LabID | ClientID |
|---|---|---|---|---|---|
| 1 | 23-MAY-2012 11:25 | 0523A004.d | 1 | IB | |
| 2 | 23-MAY-2012 11:44 | 0523A005.d | 1 | 0.25PPM AR1660 | |
| 3 | 23-MAY-2012 12:03 | 0523A006.d | 1 | 0.02 PPM AR1660 | |
| 4 | 23-MAY-2012 12:22 | 0523A007.d | 1 | 0.05 PPM AR1660 | |
| 5 | 23-MAY-2012 12:41 | 0523A008.d | 1 | 1 PPM AR1660 | |
| 6 | 23-MAY-2012 13:01 | 0523A009.d | 1 | 0.1 PPM AR1660 | |
| 7 | 23-MAY-2012 13:20 | 0523A010.d | 1 | 0.5 PPM ARR160 | |
| 8 | 23-MAY-2012 13:39 | 0523A011.d | 1 | AR1242 | |
| 9 | 23-MAY-2012 13:58 | 0523A012.d | 1 | AR1248 | |
| 10 | 23-MAY-2012 14:17 | 0523A013.d | 1 | AR1254 | |
| 11 | 23-MAY-2012 14:36 | 0523A014.d | 1 | AR2162 | |
| 12 | 23-MAY-2012 14:55 | 0523A015.d | 1 | AR3268 | |
| 13 | 23-MAY-2012 15:14 | 0523A016.d | 1 | AR1660 ICV | |
| 14 | 23-MAY-2012 15:33 | 0523A017.d | 1 | AR1242 ICV | |
| 15 | 23-MAY-2012 15:52 | 0523A018.d | 1 | AR1248 ICV | |
| 16 | 23-MAY-2012 16:11 | 0523A019.d | 1 | AR1254 ICV | |
| 17 | 23-MAY-2012 16:30 | 0523A020.d | 1 | AR2162 ICV | |
| 18 | 23-MAY-2012 16:49 | 0523A021.d | 1 | AR3268 ICV | |
| 19 | 23-MAY-2012 17:08 | 0523A022.d | 1 | DDT | |
| 20 | 23-MAY-2012 17:27 | 0523A023.d | 1 | DDT BD | |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 11:44
End Cal Date : 23-MAY-2012 17:08
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120523.b/PCB2.m
Cal Date : 24-May-2012 09:52 aron
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd5.i/20120523.b/ical-2.b/0523A006.d
Level 2: /chem2/ecd5.i/20120523.b/ical-2.b/0523A007.d
Level 3: /chem2/ecd5.i/20120523.b/ical-2.b/0523A009.d
Level 4: /chem2/ecd5.i/20120523.b/ical-2.b/0523A005.d
Level 5: /chem2/ecd5.i/20120523.b/ical-2.b/0523A010.d
Level 6: /chem2/ecd5.i/20120523.b/ical-2.b/0523A008.d
Level 7: /chem2/ecd5.i/20120523.b/ical-2.b/0523A015.d
Level 8: /chem2/ecd5.i/20120523.b/ddt-2.b/0523A022.d

| Compound | 20.000 Level 1 | 50.000 Level 2 | 100.000 Level 3 | 250.000 Level 4 | 500.000 Level 5 | 1000.000 Level 6 | 250.000 Level 7 | 0.000e+00 Level 8 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 Aroclor-1221(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.01261 | +++++ | 0.01261 | 0.000 |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.00745 | +++++ | 0.00745 | 0.000 |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.02330 | +++++ | 0.02330 | 0.000 |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.00427 | +++++ | 0.00427 | 0.000 |
| 4 Aroclor-1232(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.01927 | +++++ | 0.01927 | 0.000 |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.04034 | +++++ | 0.04034 | 0.000 |

Report Date : 24-May-2012 09:52

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 11:44
End Cal Date : 23-MAY-2012 17:08
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120523.b/PCB2.m
Cal Date : 24-May-2012 09:52 aron
Curve Type : Average

| Compound | 20.000 Level 1 | 50.000 Level 2 | 100.000 Level 3 | 250.000 Level 4 | 500.000 Level 5 | 1000.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 250.000 Level 7 | 0.000e+00 Level 8 | | | | | | |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.01361 | 0.000 |
| | 0.01361 | +++++ | | | | | | |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.01492 | 0.000 |
| | 0.01492 | +++++ | | | | | | |
| 3 Aroclor-1242(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.03264 | 0.000 |
| | 0.03264 | +++++ | | | | | | |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.07413 | 0.000 |
| | 0.07413 | +++++ | | | | | | |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.03012 | 0.000 |
| | 0.03012 | +++++ | | | | | | |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.02619 | 0.000 |
| | 0.02619 | +++++ | | | | | | |
| 6 Aroclor-1248(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.04804 | 0.000 |
| | 0.04804 | +++++ | | | | | | |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.03849 | 0.000 |
| | 0.03849 | +++++ | | | | | | |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.04628 | 0.000 |
| | 0.04628 | +++++ | | | | | | |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 11:44
End Cal Date : 23-MAY-2012 17:08
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120523.b/PCB2.m
Cal Date : 24-May-2012 09:52 aron
Curve Type : Average

| Compound | 20.000 Level 1 | 50.000 Level 2 | 100.000 Level 3 | 250.000 Level 4 | 500.000 Level 5 | 1000.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 250.000 Level 7 | 0.000e+00 Level 8 | | | | | | |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.05224 | 0.000 |
| | 0.05224 | +++++ | | | | | | |
| 7 Aroclor-1016(1) | 0.04940 | 0.04647 | 0.04556 | 0.04084 | 0.03653 | 0.03173 | 0.04176 | 16.023 |
| | +++++ | +++++ | | | | | | |
| (2) | 0.10597 | 0.10258 | 0.10168 | 0.09436 | 0.08658 | 0.07751 | 0.09478 | 11.554 |
| | +++++ | +++++ | | | | | | |
| (3) | 0.02708 | 0.02599 | 0.02598 | 0.02377 | 0.02273 | 0.02117 | 0.02445 | 9.301 |
| | +++++ | +++++ | | | | | | |
| (4) | 0.03005 | 0.02898 | 0.02884 | 0.02684 | 0.02521 | 0.02321 | 0.02719 | 9.594 |
| | +++++ | +++++ | | | | | | |
| 8 Aroclor-1254(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.03512 | 0.000 |
| | 0.03512 | +++++ | | | | | | |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.04464 | 0.000 |
| | 0.04464 | +++++ | | | | | | |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.03411 | 0.000 |
| | 0.03411 | +++++ | | | | | | |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.07546 | 0.000 |
| | 0.07546 | +++++ | | | | | | |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 11:44
End Cal Date : 23-MAY-2012 17:08
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120523.b/PCB2.m
Cal Date : 24-May-2012 09:52 aron
Curve Type : Average

| Compound | 20.000 Level 1 | 50.000 Level 2 | 100.000 Level 3 | 250.000 Level 4 | 500.000 Level 5 | 1000.000 Level 6 | 250.000 Level 7 | 0.000e+00 Level 8 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| (5) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.04423 | +++++ | 0.04423 | 0.000 |
| 10 Aroclor-1262(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.07493 | +++++ | 0.07493 | 0.000 |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.06463 | +++++ | 0.06463 | 0.000 |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.14676 | +++++ | 0.14676 | 0.000 |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.05904 | +++++ | 0.05904 | 0.000 |
| (5) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.05498 | +++++ | 0.05498 | 0.000 |
| 9 Aroclor-1260(1) | 0.05062 | 0.04889 | 0.04828 | 0.04520 | 0.04292 | 0.03939 | +++++ | +++++ | 0.04588 | 9.180 |
| (2) | 0.06349 | 0.06034 | 0.05952 | 0.05597 | 0.05336 | 0.04914 | +++++ | +++++ | 0.05697 | 9.141 |
| (3) | 0.12715 | 0.12250 | 0.12117 | 0.11392 | 0.10849 | 0.10086 | +++++ | +++++ | 0.11568 | 8.495 |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 11:44
End Cal Date : 23-MAY-2012 17:08
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120523.b/PCB2.m
Cal Date : 24-May-2012 09:52 aron
Curve Type : Average

| Compound | 20.000 Level 1 | 50.000 Level 2 | 100.000 Level 3 | 250.000 Level 4 | 500.000 Level 5 | 1000.000 Level 6 | 250.000 Level 7 | 0.000e+00 Level 8 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| (4) | 0.03841 | 0.03534 | 0.03477 | 0.03284 | 0.03166 | 0.02963 | +++++ | +++++ | 0.03377 | 9.114 |
| 11 Aroclor-1268(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.15273 | +++++ | 0.15273 | 0.000 |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.14397 | +++++ | 0.14397 | 0.000 |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.12090 | +++++ | 0.12090 | 0.000 |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.34151 | +++++ | 0.34151 | 0.000 |
| 41 2,4-DDE | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 686 | 686 | 0.000 |
| 42 2,4-DDD | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 620 | 620 | 0.000 |
| 44 4,4-DDE | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 1144 | 1144 | 0.000 |
| 45 4,4-DDD/2,4-DDT | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 844 | 844 | 0.000 |

eport Date : 24-May-2012 09:52

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 11:44
End Cal Date : 23-MAY-2012 17:08
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120523.b/PCB2.m
Cal Date : 24-May-2012 09:52 aron
Curve Type : Average

| Compound | 20.000 Level 1 | 50.000 Level 2 | 100.000 Level 3 | 250.000 Level 4 | 500.000 Level 5 | 1000.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 250.000 Level 7 | 0.000e+00 Level 8 | | | | | | |
| 46 4,4-DDT | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 1002 | 0.000 |
| | +++++ | 1002 | | | | | | |
| $ 2 Tetrachloro-m-xylene | 1.12596 | 1.14489 | 1.18999 | 1.15489 | 1.10190 | 1.03489 | 1.12542 | 4.730 |
| | +++++ | +++++ | | | | | | |
| $ 13 Decachlorobiphenyl | 1.15697 | 1.11169 | 1.08522 | 1.00551 | 0.95198 | 0.89078 | 1.03369 | 9.849 |
| | +++++ | +++++ | | | | | | |

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd5.i/20120523.b/ical-2.b

ARI Job No.: IB  Method: PCB2.m  Instrument: ecd5.i  Date: 23-MAY-2012

| Time | Filename | LabID | ClientId | DF | Manually Integrated Compounds |
|---|---|---|---|---|---|
| 1125 | 0523A004.d | IB | | 1 | NO MANUAL INTEGRATION |
| 1144 | 0523A005.d | 0.25PPM AR1660 | | 1 | NO MANUAL INTEGRATION |
| 1203 | 0523A006.d | 0.02 PPM AR1660 | | 1 | NO MANUAL INTEGRATION |
| 1222 | 0523A007.d | 0.05 PPM AR1660 | | 1 | NO MANUAL INTEGRATION |
| 1241 | 0523A008.d | 1 PPM AR1660 | | 1 | NO MANUAL INTEGRATION |
| 1301 | 0523A009.d | 0.1 PPM AR1660 | | 1 | NO MANUAL INTEGRATION |
| 1320 | 0523A010.d | 0.5 PPM ARR160 | | 1 | NO MANUAL INTEGRATION |
| 1339 | 0523A011.d | AR1242 | | 1 | NO MANUAL INTEGRATION |
| 1358 | 0523A012.d | AR1248 | | 1 | NO MANUAL INTEGRATION |
| 1417 | 0523A013.d | AR1254 | | 1 | NO MANUAL INTEGRATION |
| 1436 | 0523A014.d | AR2162 | | 1 | NO MANUAL INTEGRATION |
| 1455 | 0523A015.d | AR3268 | | 1 | NO MANUAL INTEGRATION |
| 1514 | 0523A016.d | AR1660 | ICV | 1 | NO MANUAL INTEGRATION |
| 1533 | 0523A017.d | AR1242 | ICV | 1 | NO MANUAL INTEGRATION |
| 1552 | 0523A018.d | AR1248 | ICV | 1 | NO MANUAL INTEGRATION |
| 1611 | 0523A019.d | AR1254 | ICV | 1 | NO MANUAL INTEGRATION |
| 1630 | 0523A020.d | AR2162 | ICV | 1 | NO MANUAL INTEGRATION |
| 1649 | 0523A021.d | AR3268 | ICV | 1 | NO MANUAL INTEGRATION |
| 1708 | 0523A022.d | DDT | | 1 | NO MANUAL INTEGRATION |
| 1727 | 0523A023.d | DDT BD | | 1 | NO MANUAL INTEGRATION |

Report Date : 24-May-2012 10:15

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20120523.b/PCB2.m
Batch File: /chem2/ecd5.i/20120523.b/ical-2.b
Inst ID: ecd5.i

| ID: | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 |
|---|---|---|---|---|---|---|
| FILENAME: | 0523A005 | 0523A006 | 0523A007 | 0523A008 | 0523A009 | 0523A010 |
| INJ.DATE: | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 |
| INJ.TIME: | 11:44 | 12:03 | 12:22 | 12:41 | 13:01 | 13:20 |

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|
| * 40 IS-BNB | 2.893 | 2.893 | 2.893 | 2.893 | 2.893 | 2.893 | 2.893 | 2.793-2.993 | 2.893 | 0.000 |
| $ 2 Tetrachloro-m-xylene | 4.605 | 4.606 | 4.605 | 4.607 | 4.604 | 4.606 | 4.607 | 4.507-4.707 | 4.605 | 0.001 |
| 1 Aroclor-1221 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 5.290 | 5.190-5.390 | +++++ | +++++ |
| 4 Aroclor-1232 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.345 | 6.245-6.445 | +++++ | +++++ |
| 3 Aroclor-1242 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.343 | 6.243-6.443 | +++++ | +++++ |
| 6 Aroclor-1248 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.968 | 6.868-7.068 | +++++ | +++++ |
| 7 Aroclor-1016 | 6.343 | 6.343 | 6.342 | 6.344 | 6.343 | 6.344 | 6.344 | 6.244-6.444 | 6.343 | 0.001 |
| 8 Aroclor-1254 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.463 | 8.363-8.563 | +++++ | +++++ |
| 10 Aroclor-1262 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 10.419 | 10.319-10.519 | +++++ | +++++ |
| 9 Aroclor-1260 | 10.419 | 10.419 | 10.419 | 10.420 | 10.418 | 10.420 | 10.420 | 10.320-10.520 | 10.419 | 0.001 |
| 11 Aroclor-1268 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 11.664 | 11.564-11.764 | +++++ | +++++ |
| $ 13 Decachlorobiphenyl | 13.363 | 13.364 | 13.363 | 13.363 | 13.363 | 13.363 | 13.362 | 13.262-13.462 | 13.363 | 0.000 |
| * 12 IS-HBBP | 14.232 | 14.232 | 14.231 | 14.230 | 14.231 | 14.232 | 14.232 | 14.132-14.332 | 14.231 | 0.001 |
| 41 2,4-DDE | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.726 | 8.676-8.776 | +++++ | +++++ |
| 42 2,4-DDD | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 9.410 | 9.360-9.460 | +++++ | +++++ |
| 44 4,4-DDE | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 9.112 | 9.012-9.212 | +++++ | +++++ |
| 45 4,4-DDD/2,4-DDT | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 9.872 | 9.772-9.972 | +++++ | +++++ |

Reviewer 1 AR Date: 5/24/2012
Reviewer 2 Date: 5/24/12

Scanned

Report Date : 24-May-2012 10:15

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20120523.b/PCB2.m
Batch File: /chem2/ecd5.i/20120523.b/ical-2.b
Inst ID: ecd5.i

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|
| 46 4,4-DDT | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 10.310 | 10.210-10.410 | +++++ | +++++ |

UU52:01592

eport Date : 24-May-2012 11:58

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

| | |
|---|---|
| Start Cal Date | : 23-MAY-2012 11:44 |
| End Cal Date | : 23-MAY-2012 17:08 |
| Quant Method | : ISTD |
| Origin | : Disabled |
| Target Version | : 3.50 |
| Integrator | : HP Genie |
| Method file | : /chem2/ecd5.i/20120523.b/PCB1.m |
| Cal Date | : 24-May-2012 11:56 aron |
| Curve Type | : Average |

Calibration File Names:
Level 1: /chem2/ecd5.i/20120523.b/ical-1.b/0523A006.d
Level 2: /chem2/ecd5.i/20120523.b/ical-1.b/0523A007.d
Level 3: /chem2/ecd5.i/20120523.b/ical-1.b/0523A009.d
Level 4: /chem2/ecd5.i/20120523.b/ical-1.b/0523A005.d
Level 5: /chem2/ecd5.i/20120523.b/ical-1.b/0523A010.d
Level 6: /chem2/ecd5.i/20120523.b/ical-1.b/0523A008.d
Level 7: /chem2/ecd5.i/20120523.b/ical-1.b/0523A015.d
Level 8: /chem2/ecd5.i/20120523.b/ddt-1.b/0523A022.d

| Compound | 20.000 Level 1 | 50.000 Level 2 | 100.000 Level 3 | 250.000 Level 4 | 500.000 Level 5 | 1000.000 Level 6 | 250.000 Level 7 | 0.000e+00 Level 8 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 Aroclor-1221(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.00600 | +++++ | 0.00600 | 0.000 |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.00966 | +++++ | 0.00966 | 0.000 |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.03163 | +++++ | 0.03163 | 0.000 |
| 3 Aroclor-1242(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.02518 | +++++ | 0.02518 | 0.000 |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.08396 | +++++ | 0.08396 | 0.000 |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.03350 | +++++ | 0.03350 | 0.000 |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 11:44
End Cal Date : 23-MAY-2012 17:08
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120523.b/PCB1.m
Cal Date : 24-May-2012 11:56 aron
Curve Type : Average

| Compound | 20.000 Level 1 | 50.000 Level 2 | 100.000 Level 3 | 250.000 Level 4 | 500.000 Level 5 | 1000.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 250.000 Level 7 | 0.000e+00 Level 8 | | | | | | |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.03120 | 0.000 |
| | 0.03120 | +++++ | | | | | | |
| 4 Aroclor-1232(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.01394 | 0.000 |
| | 0.01394 | +++++ | | | | | | |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.04636 | 0.000 |
| | 0.04636 | +++++ | | | | | | |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.01880 | 0.000 |
| | 0.01880 | +++++ | | | | | | |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.01806 | 0.000 |
| | 0.01806 | +++++ | | | | | | |
| 7 Aroclor-1016(1) | 0.04171 | 0.03673 | 0.03537 | 0.03160 | 0.02820 | 0.02665 | 0.03338 | 16.944 |
| | +++++ | +++++ | | | | | | |
| (2) | 0.12318 | 0.12361 | 0.11880 | 0.10580 | 0.09405 | 0.08736 | 0.10880 | 14.311 |
| | +++++ | +++++ | | | | | | |
| (3) | 0.04375 | 0.04947 | 0.04772 | 0.04251 | 0.03780 | 0.03621 | 0.04291 | 12.246 |
| | +++++ | +++++ | | | | | | |
| (4) | 0.04353 | 0.03876 | 0.03437 | 0.03036 | 0.02750 | 0.02829 | 0.03380 | 18.784 |
| | +++++ | +++++ | | | | | | |

eport Date : 24-May-2012 11:58

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

tart Cal Date : 23-MAY-2012 11:44
End Cal Date : 23-MAY-2012 17:08
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120523.b/PCB1.m
Cal Date : 24-May-2012 11:56 aron
Curve Type : Average

| Compound | 20.000 Level 1 | 50.000 Level 2 | 100.000 Level 3 | 250.000 Level 4 | 500.000 Level 5 | 1000.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 250.000 Level 7 | 0.000e+00 Level 8 | | | | | | |
| 6 Aroclor-1248(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.05616 | 0.000 |
| | 0.05616 | +++++ | | | | | | |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.04243 | 0.000 |
| | 0.04243 | +++++ | | | | | | |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.05435 | 0.000 |
| | 0.05435 | +++++ | | | | | | |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.05485 | 0.000 |
| | 0.05485 | +++++ | | | | | | |
| 8 Aroclor-1254(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.07344 | 0.000 |
| | 0.07344 | +++++ | | | | | | |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.04727 | 0.000 |
| | 0.04727 | +++++ | | | | | | |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.09126 | 0.000 |
| | 0.09126 | +++++ | | | | | | |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.09827 | 0.000 |
| | 0.09827 | +++++ | | | | | | |
| (5) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.06112 | 0.000 |
| | 0.06112 | +++++ | | | | | | |

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 11:44
End Cal Date : 23-MAY-2012 17:08
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120523.b/PCB1.m
Cal Date : 24-May-2012 11:56 aron
Curve Type : Average

| Compound | 20.000 Level 1 | 50.000 Level 2 | 100.000 Level 3 | 250.000 Level 4 | 500.000 Level 5 | 1000.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 250.000 Level 7 | 0.000e+00 Level 8 | | | | | | |
| 9 Aroclor-1260(1) | 0.05228 | 0.04825 | 0.04582 | 0.04177 | 0.03802 | 0.03428 | | |
| | +++++ | +++++ | | | | | 0.04340 | 15.387 |
| (2) | 0.12945 | 0.11873 | 0.11251 | 0.10270 | 0.09418 | 0.08869 | | |
| | +++++ | +++++ | | | | | 0.10771 | 14.305 |
| (3) | 0.07053 | 0.06607 | 0.06311 | 0.05788 | 0.05299 | 0.04863 | | |
| | +++++ | +++++ | | | | | 0.05987 | 13.782 |
| (4) | 0.03063 | 0.02842 | 0.02705 | 0.02471 | 0.02268 | 0.02074 | | |
| | +++++ | +++++ | | | | | 0.02570 | 14.369 |
| (5) | 0.03545 | 0.03364 | 0.03233 | 0.02984 | 0.02764 | 0.02524 | | |
| | +++++ | +++++ | | | | | 0.03069 | 12.520 |
| 10 Aroclor-1262(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | 0.06377 | +++++ | | | | | 0.06377 | 0.000 |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | 0.04872 | +++++ | | | | | 0.04872 | 0.000 |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | 0.13314 | +++++ | | | | | 0.13314 | 0.000 |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | 0.04866 | +++++ | | | | | 0.04866 | 0.000 |

Report Date : 24-May-2012 11:58

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-MAY-2012 11:44
End Cal Date : 23-MAY-2012 17:08
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd5.i/20120523.b/PCB1.m
Cal Date : 24-May-2012 11:56 aron
Curve Type : Average

| Compound | 20.000 Level 1 | 50.000 Level 2 | 100.000 Level 3 | 250.000 Level 4 | 500.000 Level 5 | 1000.000 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 250.000 Level 7 | 0.000e+00 Level 8 | | | | | | |
| (5) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.05533 | 0.000 |
| | 0.05533 | +++++ | | | | | | |
| 11 Aroclor-1268(1) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.13622 | 0.000 |
| | 0.13622 | +++++ | | | | | | |
| (2) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.13695 | 0.000 |
| | 0.13695 | +++++ | | | | | | |
| (3) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.11433 | 0.000 |
| | 0.11433 | +++++ | | | | | | |
| (4) | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.33618 | 0.000 |
| | 0.33618 | +++++ | | | | | | |
| 42 2,4-DDE | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 909 | 0.000 |
| | +++++ | 909 | | | | | | |
| 43 2,4-DDD | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 875 | 0.000 |
| | +++++ | 875 | | | | | | |
| 44 2,4-DDT | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 1051 | 0.000 |
| | +++++ | 1051 | | | | | | |
| 46 4,4-DDE | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 1450 | 0.000 |
| | +++++ | 1450 | | | | | | |

eport Date : 24-May-2012 11:58

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

tart Cal Date : 23-MAY-2012 11:44
nd Cal Date : 23-MAY-2012 17:08
uant Method : ISTD
rigin : Disabled
arget Version : 3.50
ntegrator : HP Genie
ethod file : /chem2/ecd5.i/20120523.b/PCB1.m
al Date : 24-May-2012 11:56 aron
urve Type : Average

| Compound | 20.000 Level 1 | 50.000 Level 2 | 100.000 Level 3 | 250.000 Level 4 | 500.000 Level 5 | 1000.000 Level 6 | 250.000 Level 7 | 0.000e+00 Level 8 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| 47 4,4-DDD | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 1184 | 1184 | 0.000 |
| 48 4,4-DDT | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 1334 | 1334 | 0.000 |
| $ 1 Tetrachloro-m-xylene | 1.31698 | 1.36458 | 1.38372 | 1.30188 | 1.21607 | 1.13014 | +++++ | +++++ | 1.28556 | 7.470 |
| $ 13 Decachlorobiphenyl | 1.55318 | 1.41160 | 1.28921 | 1.12087 | 1.03293 | 0.95778 | +++++ | +++++ | 1.22760 | 18.780 |

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd5.i/20120523.b/ical-1.b

ARI Job No.: IB  Method: PCB1.m  Instrument: ecd5.i  Date: 23-MAY-2012

| Time | Filename | LabID | ClientId | DF | Manually Integrated Compounds |
|---|---|---|---|---|---|
| 1125 | 0523A004.d | IB | | 1 | NO MANUAL INTEGRATION |
| 1144 | 0523A005.d | 0.25PPM | AR1660 | 1 | NO MANUAL INTEGRATION |
| 1203 | 0523A006.d | 0.02 PPM | AR1660 | 1 | NO MANUAL INTEGRATION |
| 1222 | 0523A007.d | 0.05 PPM | AR1660 | 1 | NO MANUAL INTEGRATION |
| 1241 | 0523A008.d | 1 PPM | AR1660 | 1 | NO MANUAL INTEGRATION |
| 1301 | 0523A009.d | 0.1 PPM | AR1660 | 1 | NO MANUAL INTEGRATION |
| 1320 | 0523A010.d | 0.5 PPM | ARR160 | 1 | NO MANUAL INTEGRATION |
| 1339 | 0523A011.d | AR1242 | | 1 | NO MANUAL INTEGRATION |
| 1358 | 0523A012.d | AR1248 | | 1 | NO MANUAL INTEGRATION |
| 1417 | 0523A013.d | AR1254 | | 1 | NO MANUAL INTEGRATION |
| 1436 | 0523A014.d | AR2162 | | 1 | NO MANUAL INTEGRATION |
| 1455 | 0523A015.d | AR3268 | | 1 | NO MANUAL INTEGRATION |
| 1514 | 0523A016.d | AR1660 | ICV | 1 | NO MANUAL INTEGRATION |
| 1533 | 0523A017.d | AR1242 | ICV | 1 | NO MANUAL INTEGRATION |
| 1552 | 0523A018.d | AR1248 | ICV | 1 | NO MANUAL INTEGRATION |
| 1611 | 0523A019.d | AR1254 | ICV | 1 | NO MANUAL INTEGRATION |
| 1630 | 0523A020.d | AR2162 | ICV | 1 | NO MANUAL INTEGRATION |
| 1649 | 0523A021.d | AR3268 | ICV | 1 | NO MANUAL INTEGRATION |

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20120523.b/PCB1.m
Batch File: /chem2/ecd5.i/20120523.b/ical-1.b
Inst ID: ecd5.i

| ID: | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 |
|---|---|---|---|---|---|---|
| FILENAME: | 0523A005 | 0523A006 | 0523A007 | 0523A008 | 0523A009 | 0523A010 |
| INJ.DATE: | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 | 23-MAY-2012 |
| INJ.TIME: | 11:44 | 12:03 | 12:22 | 12:41 | 13:01 | 13:20 |

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|
| * 41 IS-BNB | 2.409 | 2.409 | 2.409 | 2.408 | 2.408 | 2.408 | 2.409 | 2.309-2.509 | 2.409 | 0.001 |
| $ 1 Tetrachloro-m-xylene | 4.606 | 4.604 | 4.604 | 4.606 | 4.604 | 4.604 | 4.606 | 4.506-4.706 | 4.605 | 0.001 |
| 2 Aroclor-1221 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 4.884 | 4.784-4.984 | +++++ | +++++ |
| 3 Aroclor-1242 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.237 | 6.137-6.337 | +++++ | +++++ |
| 4 Aroclor-1232 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.238 | 6.138-6.338 | +++++ | +++++ |
| 7 Aroclor-1016 | 6.238 | 6.238 | 6.238 | 6.238 | 6.237 | 6.237 | 6.238 | 6.138-6.338 | 6.238 | 0.000 |
| 6 Aroclor-1248 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 6.635 | 6.535-6.735 | +++++ | +++++ |
| 8 Aroclor-1254 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.354 | 8.254-8.454 | +++++ | +++++ |
| 9 Aroclor-1260 | 10.445 | 10.444 | 10.444 | 10.445 | 10.443 | 10.444 | 10.445 | 10.345-10.545 | 10.444 | 0.001 |
| 10 Aroclor-1262 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 10.128 | 10.028-10.228 | +++++ | +++++ |
| 11 Aroclor-1268 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 11.336 | 11.236-11.436 | +++++ | +++++ |
| $ 13 Decachlorobiphenyl | 12.990 | 12.989 | 12.989 | 12.991 | 12.989 | 12.990 | 12.990 | 12.890-13.090 | 12.990 | 0.001 |
| * 12 IS-HBBP | 13.353 | 13.353 | 13.353 | 13.352 | 13.352 | 13.352 | 13.353 | 13.253-13.453 | 13.352 | 0.001 |
| 42 2,4-DDE | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.321 | 8.271-8.371 | +++++ | +++++ |
| 43 2,4-DDD | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.871 | 8.821-8.921 | +++++ | +++++ |
| 44 2,4-DDT | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 9.375 | 9.325-9.425 | +++++ | +++++ |
| 46 4,4-DDE | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.753 | 8.653-8.853 | +++++ | +++++ |

Reviewer 1 AR Date: 5/24/2012
Reviewer 2 _____ Date: 5/24/12

CONFIDENTIAL

Report Date : 24-May-2012 12:02

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd5.i/20120523.b/PCB1.m
Batch File: /chem2/ecd5.i/20120523.b/ical-1.b
Inst ID: ecd5.i

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|
| 47 4,4-DDD | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 9.325 | 9.225-9.425 | +++++ | +++++ |
| 48 4,4-DDT | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 9.837 | 9.737-9.937 | +++++ | +++++ |

TEST SAMPLE

/chem2/ecd5.i/20120523.b/ical-1.b/0523A005.d 0.25PPM AR1660

| | ZB5 Col | | | | ZB35 Col | | | |
|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Area | Amount | Peak# | RT | Shift | Area | Amount |
| Aroclor-1016 | 1 | 6.238 | 0.000 | 15229482 | 236.7 | 1 | 6.343 | -0.001 | 14117449 | 244.5 |
| Aroclor-1016 | 2 | 6.639 | 0.000 | 50991004 | 243.1 | 2 | 6.971 | 0.000 | 32617746 | 248.9 |
| Aroclor-1016 | 3 | 6.788 | 0.000 | 20490162 | 247.7 | 3 | 7.353 | 0.000 | 8215755 | 243.0 |
| Aroclor-1016 | 4 | 6.898 | 0.000 | 14633464 | 224.6 | 4 | 7.460 | 0.000 | 9277944 | 246.8 |
| Total Col1Ave (4 peaks): | | | | | 238.0 | Total Col2Ave (4 peaks): | | | | 245.8 RPD = 3 |
| Corrected Ave (3 peaks): | | | | | 234.8 | Corrected Ave (3 peaks): | | | | 244.8 RPD = 4 |
| Aroclor-1260 | 1 | 10.445 | 0.000 | 32448447 | 240.6 | 1 | 10.419 | -0.001 | 15374420 | 246.3 |
| Aroclor-1260 | 2 | 10.818 | 0.000 | 79789414 | 238.4 | 2 | 10.869 | 0.000 | 19040837 | 245.6 |
| Aroclor-1260 | 3 | 11.219 | 0.000 | 44965237 | 241.7 | 3 | 11.142 | -0.001 | 38751698 | 246.2 |
| Aroclor-1260 | 4 | 11.335 | 0.000 | 19196731 | 240.3 | 4 | 11.663 | 0.000 | 11171047 | 243.1 |
| Aroclor-1260 | 5 | 11.408 | 0.000 | 23183613 | 243.1 | NS | --- | | | ---- |
| Total Col1Ave (5 peaks): | | | | | 240.8 | Total Col2Ave (4 peaks): | | | | 245.3 RPD = 2 |
| Corrected Ave (4 peaks): | | | | | 240.2 | Corrected Ave (3 peaks): | | | | 245.0 RPD = 2 |

Total PCB Area Col1 (4.706 - 12.890) = 920967238 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.707 - 13.262) = 481876009 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A005.d
Data file 2: 20120523.b/ical-2.b/0523A005.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPM AR1660
Client ID:
Injection Date: 23-MAY-2012 11:44
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.606 | 0.000 | 50196565 | 4.605 | -0.002 | 31937901 | 20.3 | 20.5 | 1.3 | Tetrachloro-m-xylene |
| 12.990 | 0.000 | 69662575 | 13.363 | 0.000 | 27363920 | 18.3 | 19.5 | 6.3 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 50.6 | 51.3 |
| Decachlorobiphenyl | 45.7 | 48.6 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 140291259 | 154228462 | 9.9 |
| Hexabromobiphenyl | 198372884 | 248602423 | 25.3 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 102590725 | 110618229 | 7.8 |
| Hexabromobiphenyl | 81487087 | 108855531 | 33.6 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A004.d
Data file 2: 20120523.b/ical-2.b/0523A004.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: IB
Client ID:
Injection Date: 23-MAY-2012 11:25
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.607 | 0.002 | 88472017 | 4.607 | 0.000 | 60463357 | 36.4 | 39.1 | 7.3 | Tetrachloro-m-xylene |
| 12.990 | 0.000 | 126799730 | 13.363 | 0.000 | 51539444 | 34.1 | 37.1 | 8.4 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 90.9 | 97.8 |
| Decachlorobiphenyl | 85.2 | 92.7 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 151362399 | -1.9 |
| Hexabromobiphenyl | 248602423 | 242394135 | -2.5 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 109883399 | -0.7 |
| Hexabromobiphenyl | 108855531 | 107569893 | -1.2 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

chem2/ecd5.i/20120523.b/ical-1.b/0523A004.d IB

| Aroclor | Peak# | RT | ZB5 Col Shift | Area | Amount | Peak# | RT | ZB35 Col Shift | Area | Amount | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.233 | -0.004 | 143511 | 2.3 | 1 | 6.340 | -0.003 | 18810 | 0.3 | |
| Aroclor-1016 | 2 | 6.625 | -0.013 | 121999 | 0.6 | 2 | 7.009 | 0.038 | 62382 | 0.5 | |
| Aroclor-1016 | 3 | 6.802 | 0.015 | 22523 | 0.3 | 3 | 7.357 | 0.004 | 20604 | 0.6 | |
| Aroclor-1016 | 4 | 6.897 | 0.001 | 671718 | 10.5 | 4 | 7.461 | 0.001 | 17257 | 0.5 | |
| Total Col1Ave (4 peaks): | | | | 3.4 | | Total Col2Ave (4 peaks): | | | 0.5 | RPD = 152* | |
| Corrected Ave (3 peaks): | | | | 1.0 | | Corrected Ave (3 peaks): | | | 0.4 | RPD = 85* | |
| Aroclor-1221 | 1 | 4.886 | 0.002 | 10162356 | 895.7 | 1 | 5.322 | 0.032 | 860678 | 49.7 | |
| Aroclor-1221 | 2 | 5.142 | -0.011 | 3123032 | 171.0 | 2 | 5.495 | -0.041 | 1060001 | 103.6 | |
| Aroclor-1221 | 3 | 5.361 | 0.103 | 644162 | 10.8 | 3 | 5.656 | 0.007 | 430631 | 13.5 | |
| Aroclor-1221 | NS | --- | | | ---- | 4 | --- | | | 0.0 | |
| Total Col1Ave (3 peaks): | | | | 359.1 | | Total Col2Ave (3 peaks): | | | 55.6 | RPD = 146* | |
| Corrected Ave: < 3 Peaks | | | | | | Corrected Ave: < 3 Peaks | | | | | |
| Aroclor-1232 | 1 | 6.233 | -0.006 | 143511 | 5.4 | 1 | 6.340 | -0.005 | 18810 | 0.7 | |
| Aroclor-1232 | 2 | 6.625 | -0.015 | 121999 | 1.4 | 2 | 7.009 | 0.038 | 62382 | 1.1 | |
| Aroclor-1232 | 3 | 6.802 | 0.014 | 22523 | 0.6 | 3 | 7.165 | -0.015 | 27331 | 1.5 | |
| Aroclor-1232 | 4 | 7.990 | 0.010 | 13064 | 0.4 | 4 | 8.322 | -0.003 | 72983 | 3.6 | |
| Total Col1Ave (4 peaks): | | | | 2.0 | | Total Col2Ave (4 peaks): | | | 1.7 | RPD = 13 | |
| Corrected Ave (3 peaks): | | | | 0.8 | | Corrected Ave (3 peaks): | | | 1.1 | RPD = 31 | |
| Aroclor-1242 | 1 | 6.233 | -0.004 | 143511 | 3.0 | 1 | 6.340 | -0.002 | 18810 | 0.4 | |
| Aroclor-1242 | 2 | 6.625 | -0.013 | 121999 | 0.8 | 2 | 7.009 | 0.038 | 62382 | 0.6 | |
| Aroclor-1242 | 3 | 6.802 | 0.015 | 22523 | 0.4 | 3 | 7.165 | -0.014 | 27331 | 0.7 | |
| Aroclor-1242 | 4 | 7.990 | 0.011 | 13064 | 0.2 | 4 | 8.322 | -0.003 | 72983 | 2.0 | |
| Total Col1Ave (4 peaks): | | | | 1.1 | | Total Col2Ave (4 peaks): | | | 0.9 | RPD = 16 | |
| Corrected Ave (3 peaks): | | | | 0.4 | | Corrected Ave (3 peaks): | | | 0.6 | RPD = 23 | |
| Aroclor-1248 | 1 | 6.625 | -0.010 | 121999 | 1.1 | 1 | 7.009 | 0.041 | 62382 | 0.9 | |
| Aroclor-1248 | 2 | 7.437 | 0.003 | 38250 | 0.5 | 2 | 7.872 | 0.001 | 23362 | 0.4 | |
| Aroclor-1248 | 3 | 7.990 | 0.010 | 13064 | 0.1 | 3 | 8.322 | -0.002 | 72983 | 1.1 | |
| Aroclor-1248 | 4 | 8.269 | -0.001 | 426946 | 4.1 | 4 | 8.704 | -0.042 | 400948 | 5.6 | |
| Total Col1Ave (4 peaks): | | | | 1.5 | | Total Col2Ave (4 peaks): | | | 2.0 | RPD = 32 | |
| Corrected Ave (3 peaks): | | | | 0.6 | | Corrected Ave (3 peaks): | | | 0.8 | RPD = 37 | |
| Aroclor-1254 | 1 | 8.351 | -0.003 | 215465 | 1.6 | 1 | 8.463 | -0.001 | 47481 | 1.0 | |
| Aroclor-1254 | 2 | 8.735 | 0.010 | 89533 | 1.0 | 2 | 8.638 | 0.001 | 55667 | 0.9 | |
| Aroclor-1254 | 3 | 8.861 | 0.000 | 158556 | 0.9 | 3 | 9.158 | -0.001 | 37595 | 0.8 | |
| Aroclor-1254 | 4 | 9.193 | -0.017 | 302955 | 1.6 | 4 | 9.348 | 0.039 | 108126 | 1.0 | |
| Aroclor-1254 | 5 | 9.609 | 0.037 | 44311 | 0.4 | 5 | 10.100 | 0.008 | 35462 | 0.6 | |
| Total Col1Ave (5 peaks): | | | | 1.1 | | Total Col2Ave (5 peaks): | | | 0.9 | RPD = 24 | |
| Corrected Ave (4 peaks): | | | | 1.0 | | Corrected Ave (4 peaks): | | | 0.8 | RPD = 16 | |
| Aroclor-1260 | 1 | 10.444 | 0.000 | 216419 | 1.6 | 1 | 10.419 | 0.000 | 79074 | 1.3 | |
| Aroclor-1260 | 2 | 10.818 | -0.001 | 692716 | 2.1 | 2 | 10.869 | 0.000 | 113228 | 1.5 | |
| Aroclor-1260 | 3 | 11.217 | 0.000 | 239883 | 1.3 | 3 | 11.143 | 0.000 | 187764 | 1.2 | |
| Aroclor-1260 | 4 | 11.332 | -0.001 | 130325 | 1.7 | 4 | 11.664 | 0.000 | 50271 | 1.1 | |
| Aroclor-1260 | 5 | 11.409 | 0.002 | 99286 | 1.1 | NS | --- | | | ---- | |
| Total Col1Ave (5 peaks): | | | | 1.6 | | Total Col2Ave (4 peaks): | | | 1.3 | RPD = 21 | |
| Corrected Ave (4 peaks): | | | | 1.4 | | Corrected Ave (3 peaks): | | | 1.2 | RPD = 17 | |
| Aroclor-1262 | 1 | 10.129 | 0.001 | 232634 | 1.2 | 1 | 10.419 | 0.000 | 79074 | 0.8 | |
| Aroclor-1262 | 2 | 10.444 | 0.000 | 216419 | 1.5 | 2 | 10.869 | -0.001 | 113228 | 1.3 | |
| Aroclor-1262 | 3 | 10.818 | -0.001 | 692716 | 1.7 | 3 | 11.143 | 0.001 | 187764 | 1.0 | |
| Aroclor-1262 | 4 | 11.332 | -0.002 | 130325 | 0.9 | 4 | 11.664 | 0.000 | 50271 | 0.6 | |
| Aroclor-1262 | 5 | 11.409 | 0.002 | 99286 | 0.6 | 5 | 12.505 | 0.042 | 529641 | 7.2 | |
| Total Col1Ave (5 peaks): | | | | 1.2 | | Total Col2Ave (5 peaks): | | | 2.2 | RPD = 60* | |
| Corrected Ave (4 peaks): | | | | 1.0 | | Corrected Ave (4 peaks): | | | 0.9 | RPD = 12 | |
| Aroclor-1268 | 1 | 11.332 | -0.003 | 130325 | 0.3 | 1 | 11.664 | 0.000 | 50271 | 0.2 | |
| Aroclor-1268 | 2 | 11.409 | 0.002 | 99286 | 0.2 | 2 | 11.723 | -0.008 | 114725 | 0.6 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1268 | 3 | 11.798 | 0.005 | 119100 | 0.3 | 3 | 12.131 | 0.003 | 101538 | 0.6 |
| Aroclor-1268 | 4 | 12.572 | -0.013 | 456122 | 0.4 | 4 | 12.945 | -0.005 | 80790 | 0.2 |
| Total Col1Ave (4 peaks): | | | | 0.3 | Total Col2Ave (4 peaks): | | | | 0.4 | RPD = 20 |
| Corrected Ave (3 peaks): | | | | 0.3 | Corrected Ave (3 peaks): | | | | 0.3 | RPD = 12 |

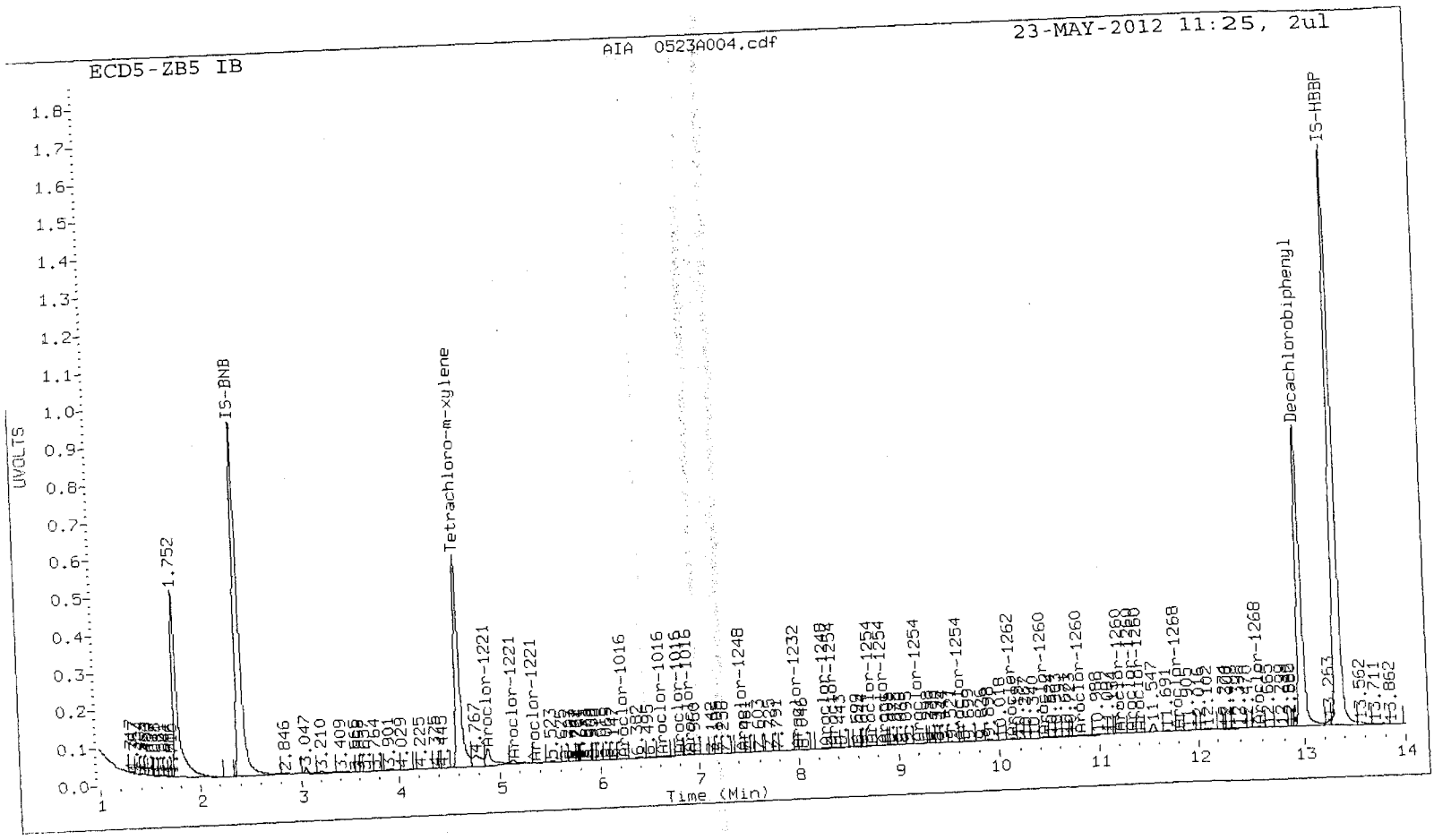
Total PCB Area Col1 (4.705 - 12.890) = 37858820 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.707 - 13.262) = 14856410 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical



UU52:01606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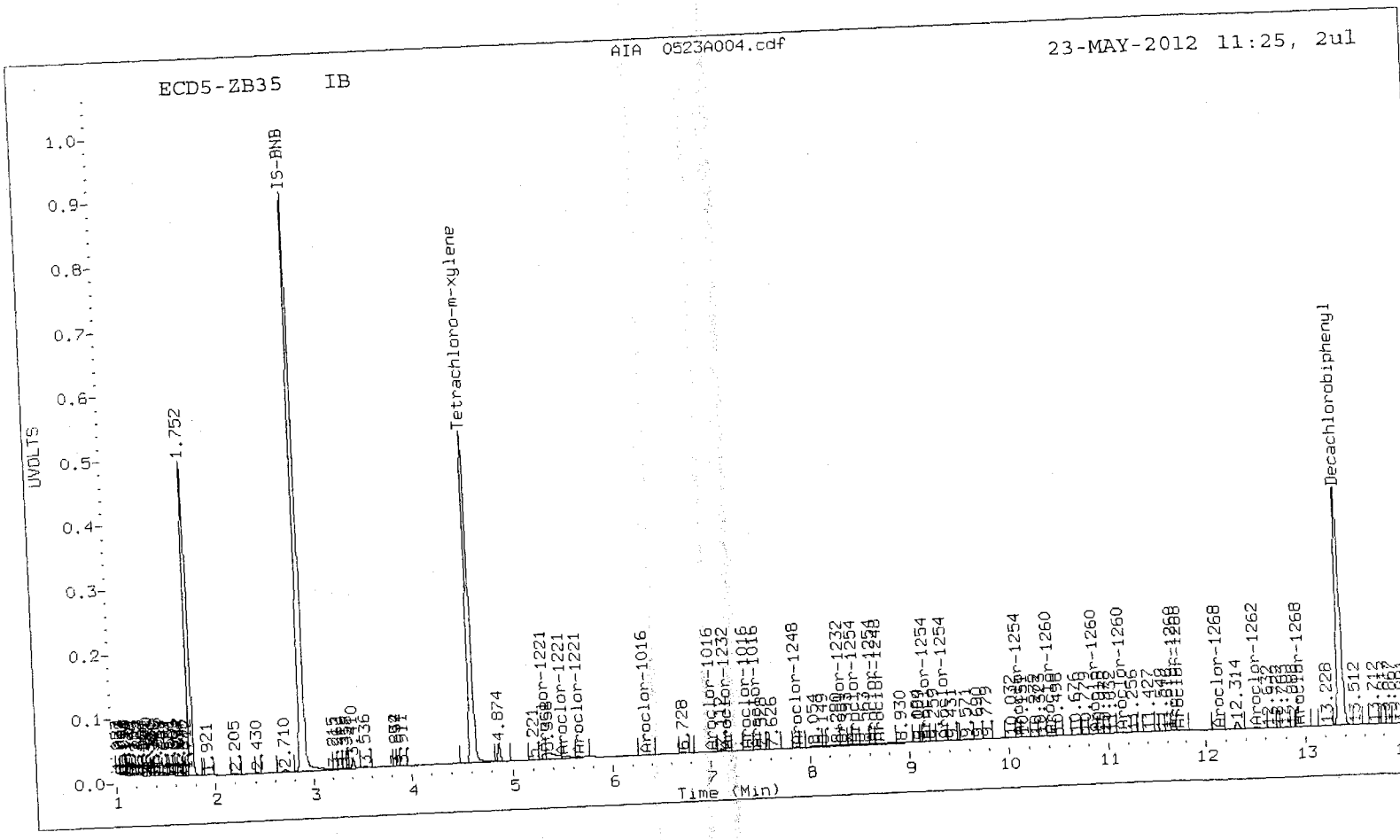
23-MAY-2012 11:25, 2ul
ECD5-ZB5 IB
UVOLTS
Time (Min)
1.752
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBF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UVOLTS
Time (Min)
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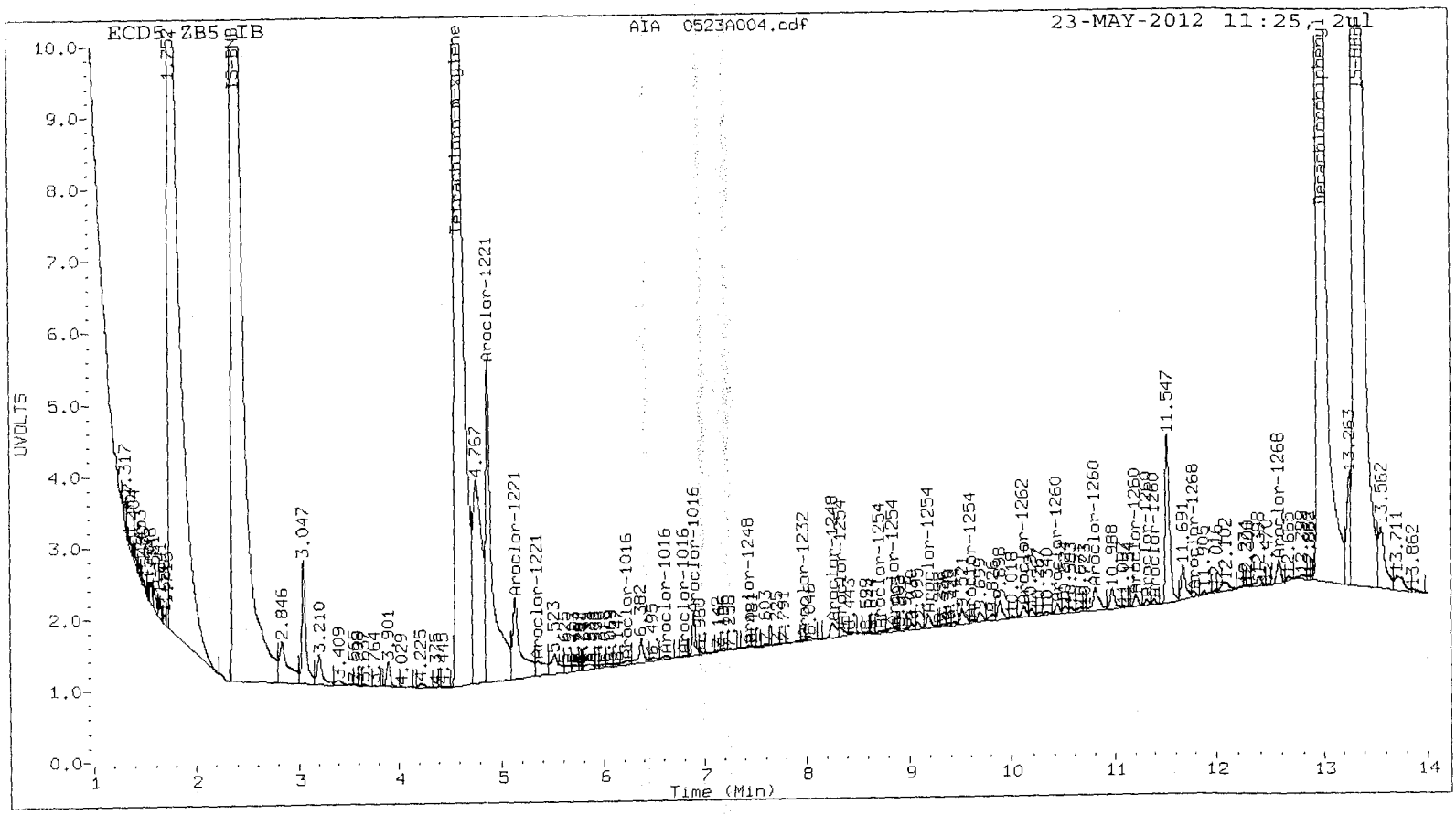
Tetrachloro-m-xylene
4.874
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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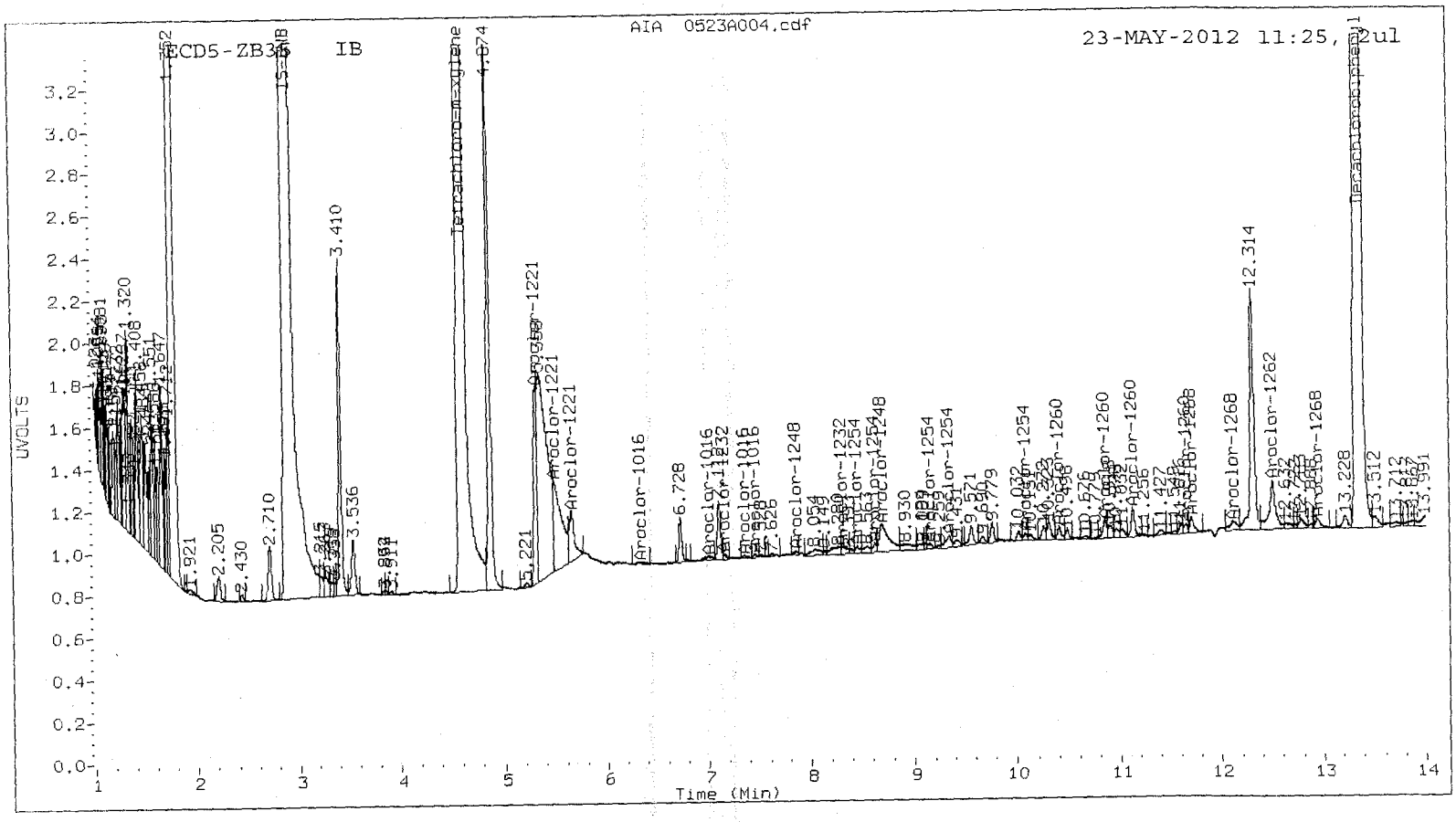
AIA 0523A004.cdf
23-MAY-2012 11:25, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-BNB
IS-BHB
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
2.846
3.047
3.210
4.767
11.547
13.263
13.562
13.711
13.862


ECD5-ZB35 IB
AIA 0523A004.cdf
23-MAY-2012 11:25, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-BNB
IS-BHB
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
1.921
2.205
2.430
2.710
3.410
3.536
4.874
5.221
6.728
12.314
13.228
13.512
13.991

UU52:01608

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A005.d
Data file 2: 20120523.b/ical-2.b/0523A005.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPM AR1660
Client ID:
Injection Date: 23-MAY-2012 11:44
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.606 | 0.001 | 50196565 | 4.605 | -0.002 | 31937901 | 20.3 | 20.5 | 1.3 | Tetrachloro-m-xylene |
| 12.990 | -0.001 | 69662575 | 13.363 | 0.000 | 27363920 | 18.3 | 19.5 | 6.3 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 50.6 | 51.3 |
| Decachlorobiphenyl | 45.7 | 48.6 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 154228462 | 0.0 |
| Hexabromobiphenyl | 248602423 | 248602423 | 0.0 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 110618229 | 0.0 |
| Hexabromobiphenyl | 108855531 | 108855531 | 0.0 |

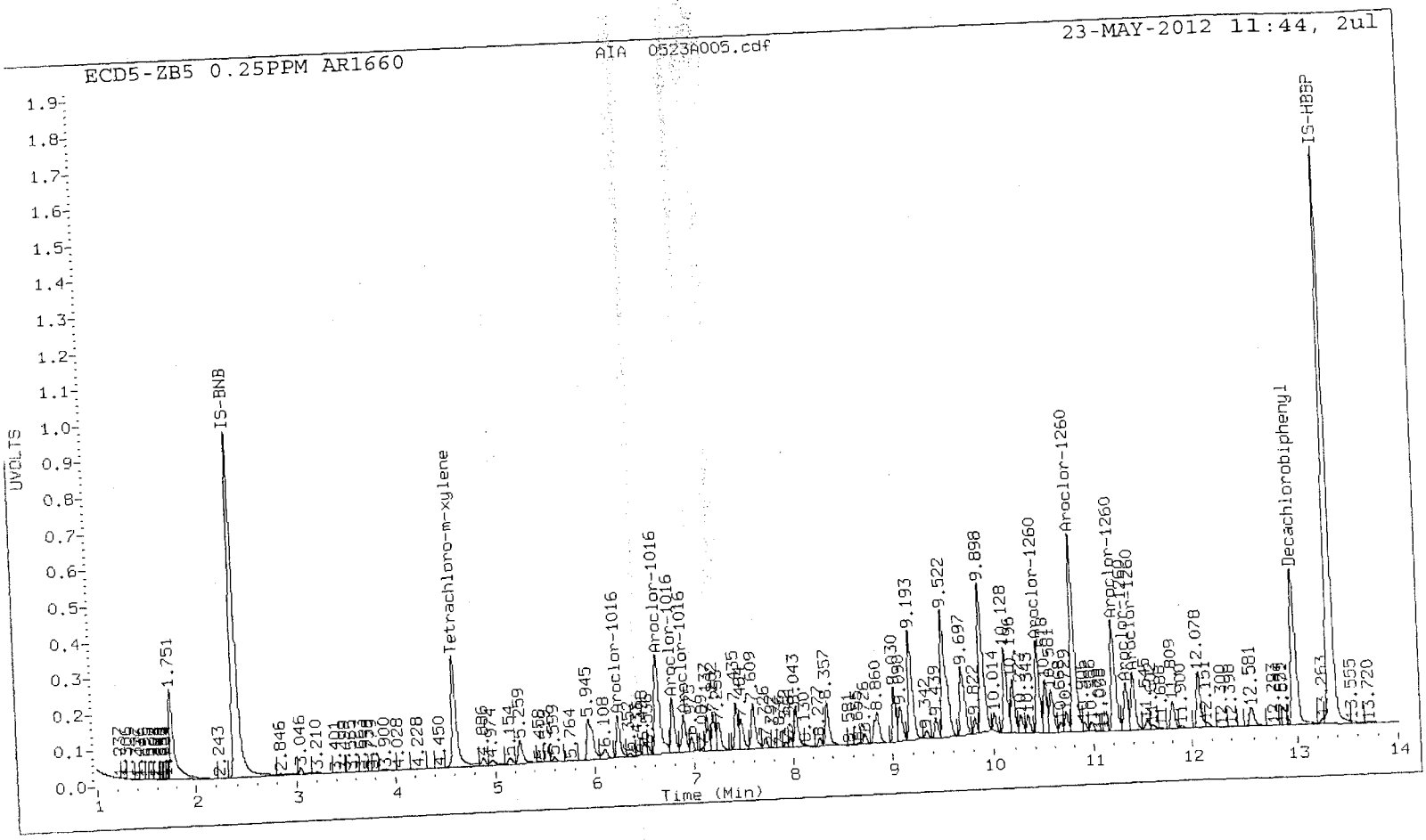
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | RT | ZB5 Col Shift | Area | Amount | Peak# | RT | ZB35 Col Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.238 | 0.001 | 15229482 | 236.7 | 1 | 6.343 | -0.001 | 14117449 | 244.5 |
| Aroclor-1016 | 2 | 6.639 | 0.001 | 50991004 | 243.1 | 2 | 6.971 | 0.000 | 32617746 | 248.9 |
| Aroclor-1016 | 3 | 6.788 | 0.001 | 20490162 | 247.7 | 3 | 7.353 | 0.000 | 8215755 | 243.0 |
| Aroclor-1016 | 4 | 6.898 | 0.002 | 14633464 | 224.6 | 4 | 7.460 | 0.000 | 9277944 | 246.8 |
| Total Col1Ave (4 peaks): | | | | | 238.0 | Total Col2Ave (4 peaks): | | | | 245.8 RPD = 3 |
| Corrected Ave (3 peaks): | | | | | 234.8 | Corrected Ave (3 peaks): | | | | 244.8 RPD = 4 |
| Aroclor-1260 | 1 | 10.445 | 0.001 | 32448447 | 240.6 | 1 | 10.419 | -0.001 | 15374420 | 246.3 |
| Aroclor-1260 | 2 | 10.818 | 0.000 | 79789414 | 238.4 | 2 | 10.869 | 0.000 | 19040837 | 245.6 |
| Aroclor-1260 | 3 | 11.219 | 0.002 | 44965237 | 241.7 | 3 | 11.142 | -0.001 | 38751698 | 246.2 |
| Aroclor-1260 | 4 | 11.335 | 0.001 | 19196731 | 240.3 | 4 | 11.663 | 0.000 | 11171047 | 243.1 |
| Aroclor-1260 | 5 | 11.408 | 0.000 | 23183613 | 243.1 | NS | --- | | | ---- |
| Total Col1Ave (5 peaks): | | | | | 240.8 | Total Col2Ave (4 peaks): | | | | 245.3 RPD = 2 |
| Corrected Ave (4 peaks): | | | | | 240.2 | Corrected Ave (3 peaks): | | | | 245.0 RPD = 2 |

Total PCB Area Col1 (4.705 - 12.890) = 920967238 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.707 - 13.262) = 481876009 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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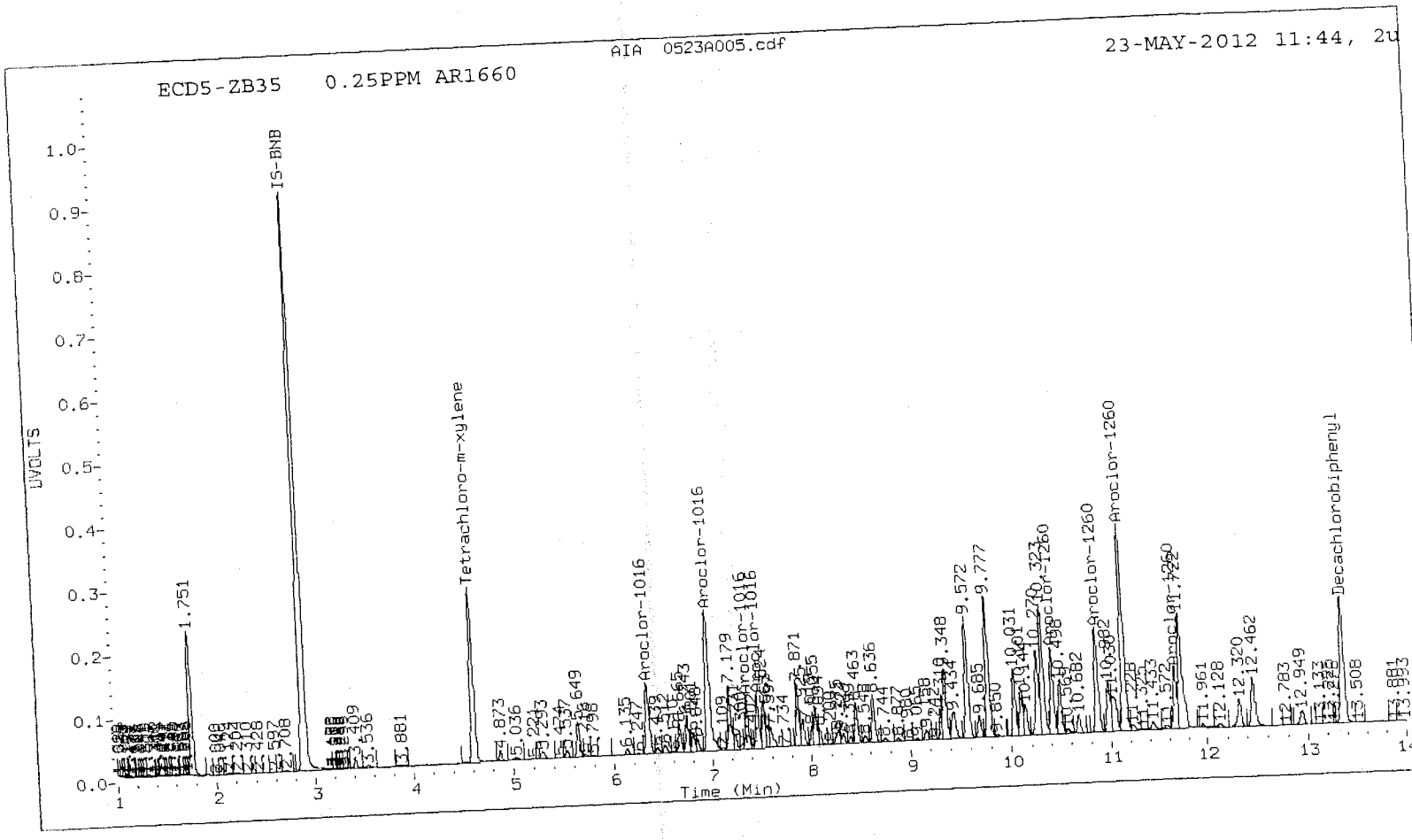
AIA 0523A005.cdf
23-MAY-2012 11:44, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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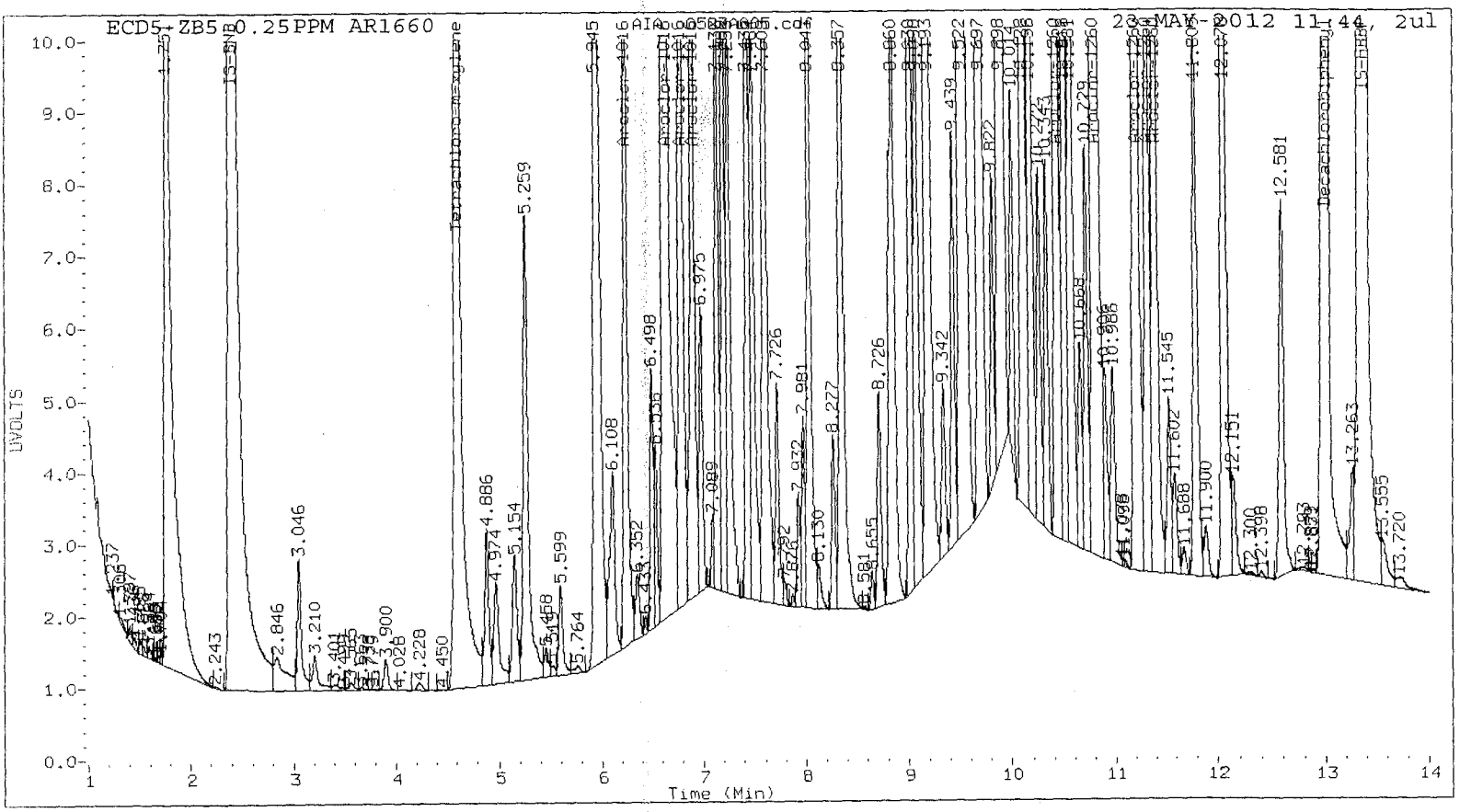
23-MAY-2012 11:44, 2u
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

UU52:01611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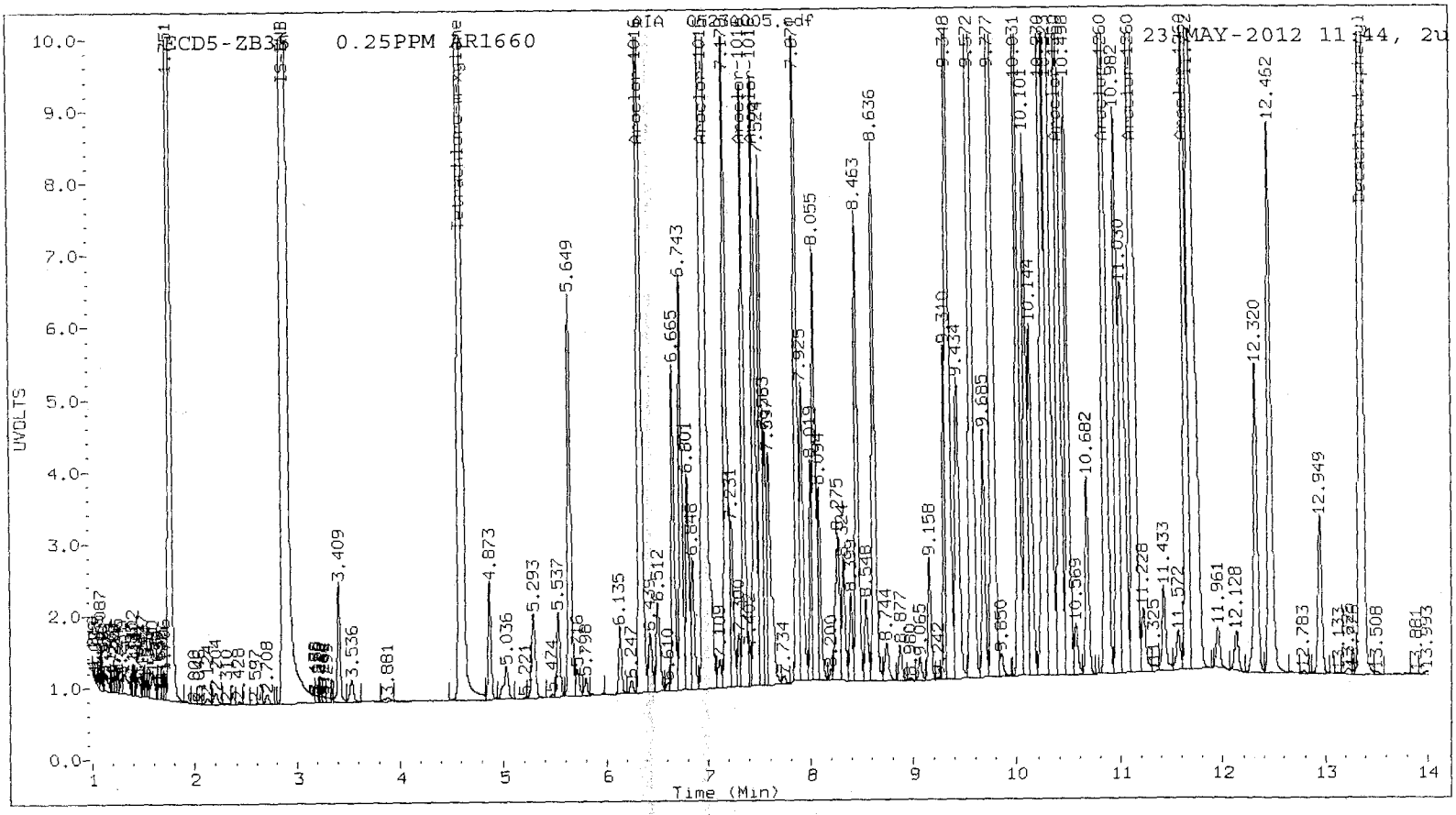
23-MAY-2012 11:44, 2ul
UVOLTS
Time (Min)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23-MAY-2012 11:44, 2u
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column PCBs by SW8082

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Data file 2: 20120523.b/ical-2.b/0523A006.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.02 PPM AR1660
Client ID:
Injection Date: 23-MAY-2012 12:03
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.604 | -0.001 | 4106869 | 4.606 | -0.001 | 2480564 | 1.6 | 1.6 | 2.4 | Tetrachloro-m-xylene |
| 12.989 | -0.001 | 7680143 | 13.364 | 0.001 | 2499588 | 2.0 | 1.8 | 12.2 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 4.1 | 4.0 |
| Decachlorobiphenyl | 5.1 | 4.5 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 155920235 | 1.1 |
| Hexabromobiphenyl | 248602423 | 247239477 | -0.5 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 110153498 | -0.4 |
| Hexabromobiphenyl | 108855531 | 108023463 | -0.8 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

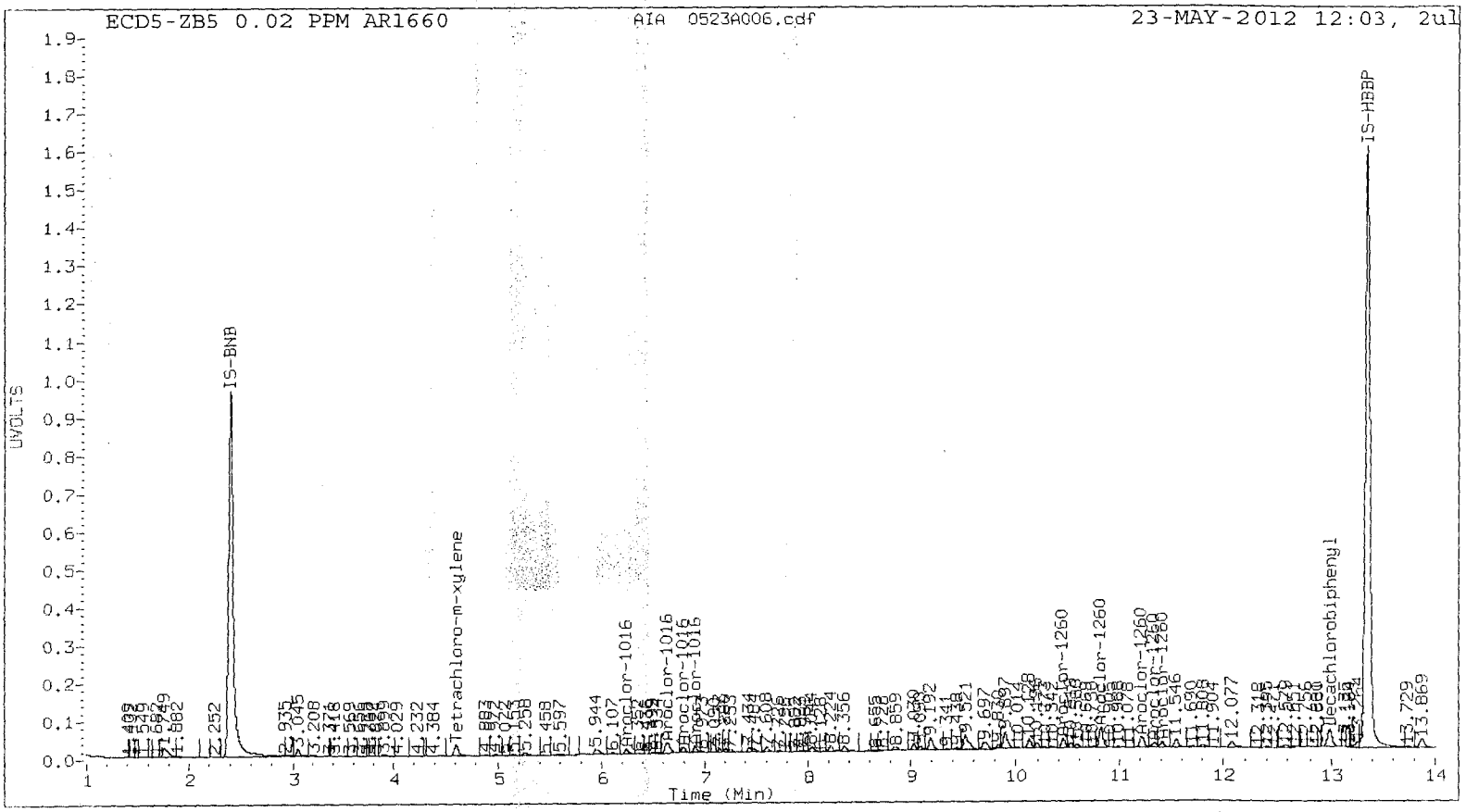
chem2/ecd5.i/20120523.b/ical-1.b/0523A006.d  0.02 PPM AR1660

| Aroclor | Peak# | ZB5 Col RT | Shift | Area | Amount | Peak# | ZB35 Col RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.238 | 0.000 | 1625984 | 25.0 | 1 | 6.343 | -0.001 | 1360486 | 23.7 |
| Aroclor-1016 | 2 | 6.638 | 0.000 | 4801696 | 22.6 | 2 | 6.970 | 0.000 | 2918356 | 22.4 |
| Aroclor-1016 | 3 | 6.788 | 0.001 | 1705356 | 20.4 | 3 | 7.354 | 0.001 | 745747 | 22.1 |
| Aroclor-1016 | 4 | 6.897 | 0.001 | 1696976 | 25.8 | 4 | 7.460 | 0.000 | 827467 | 22.1 |
| Total Col1Ave (4 peaks): | | | | 23.4 | Total Col2Ave (4 peaks): | | | | 22.6 | RPD = 4 |
| Corrected Ave (3 peaks): | | | | 22.7 | Corrected Ave (3 peaks): | | | | 22.2 | RPD = 2 |
| Aroclor-1260 | 1 | 10.444 | 0.000 | 3231721 | 24.1 | 1 | 10.419 | 0.000 | 1367036 | 22.1 |
| Aroclor-1260 | 2 | 10.819 | 0.000 | 8001232 | 24.0 | 2 | 10.870 | 0.000 | 1714628 | 22.3 |
| Aroclor-1260 | 3 | 11.218 | 0.001 | 4359743 | 23.6 | 3 | 11.142 | -0.001 | 3433919 | 22.0 |
| Aroclor-1260 | 4 | 11.335 | 0.001 | 1893013 | 23.8 | 4 | 11.664 | 0.000 | 1037164 | 22.7 |
| Aroclor-1260 | 5 | 11.409 | 0.001 | 2191104 | 23.1 | NS | --- | | | |
| Total Col1Ave (5 peaks): | | | | 23.7 | Total Col2Ave (4 peaks): | | | | 22.3 | RPD = 6 |
| Corrected Ave (4 peaks): | | | | 23.6 | Corrected Ave (3 peaks): | | | | 22.1 | RPD = 7 |

Total PCB Area Col1 (4.705 - 12.890) = 98480959  Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.707 - 13.262) = 46879567  Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical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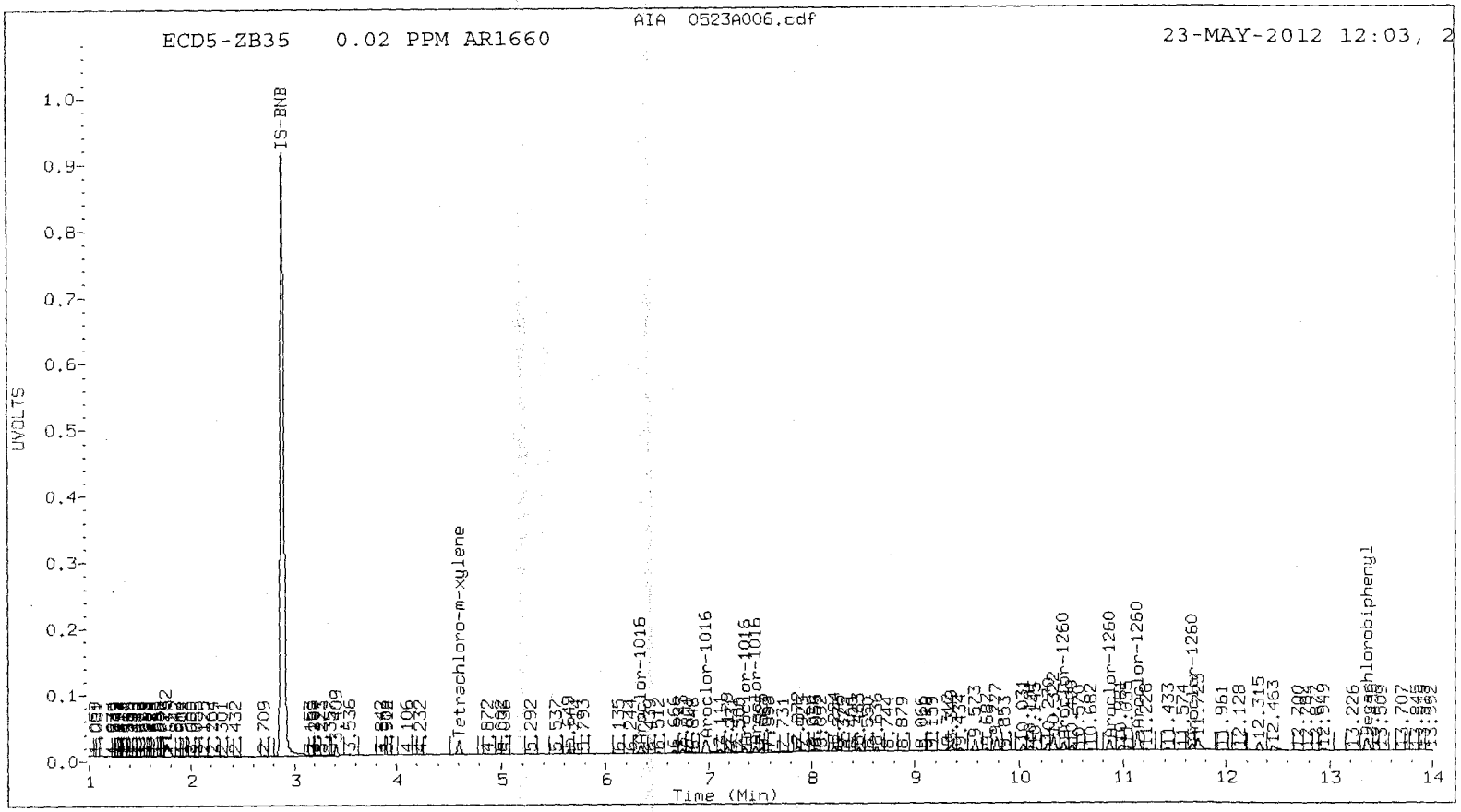
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
UVOLTS
Time (Min)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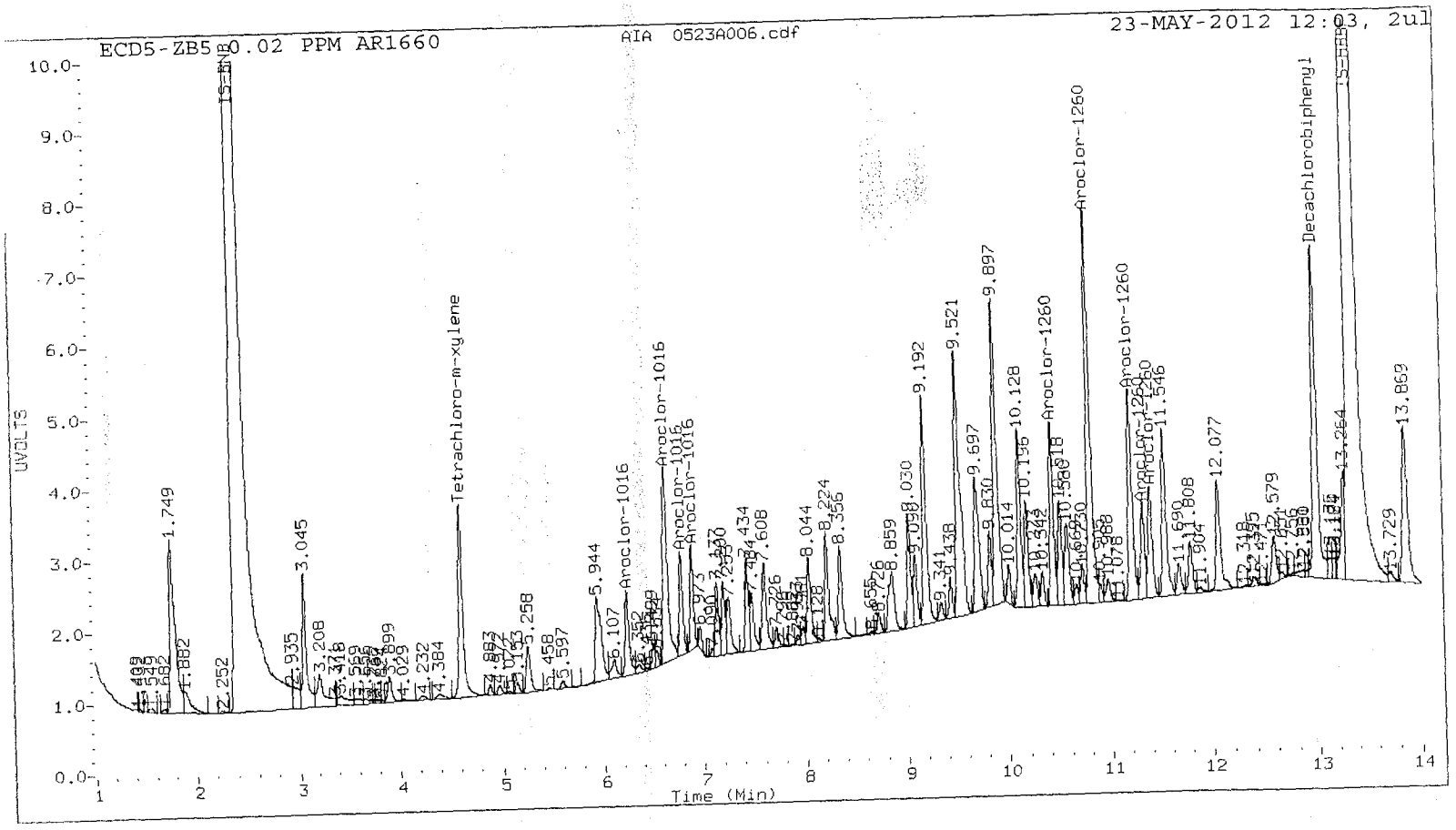
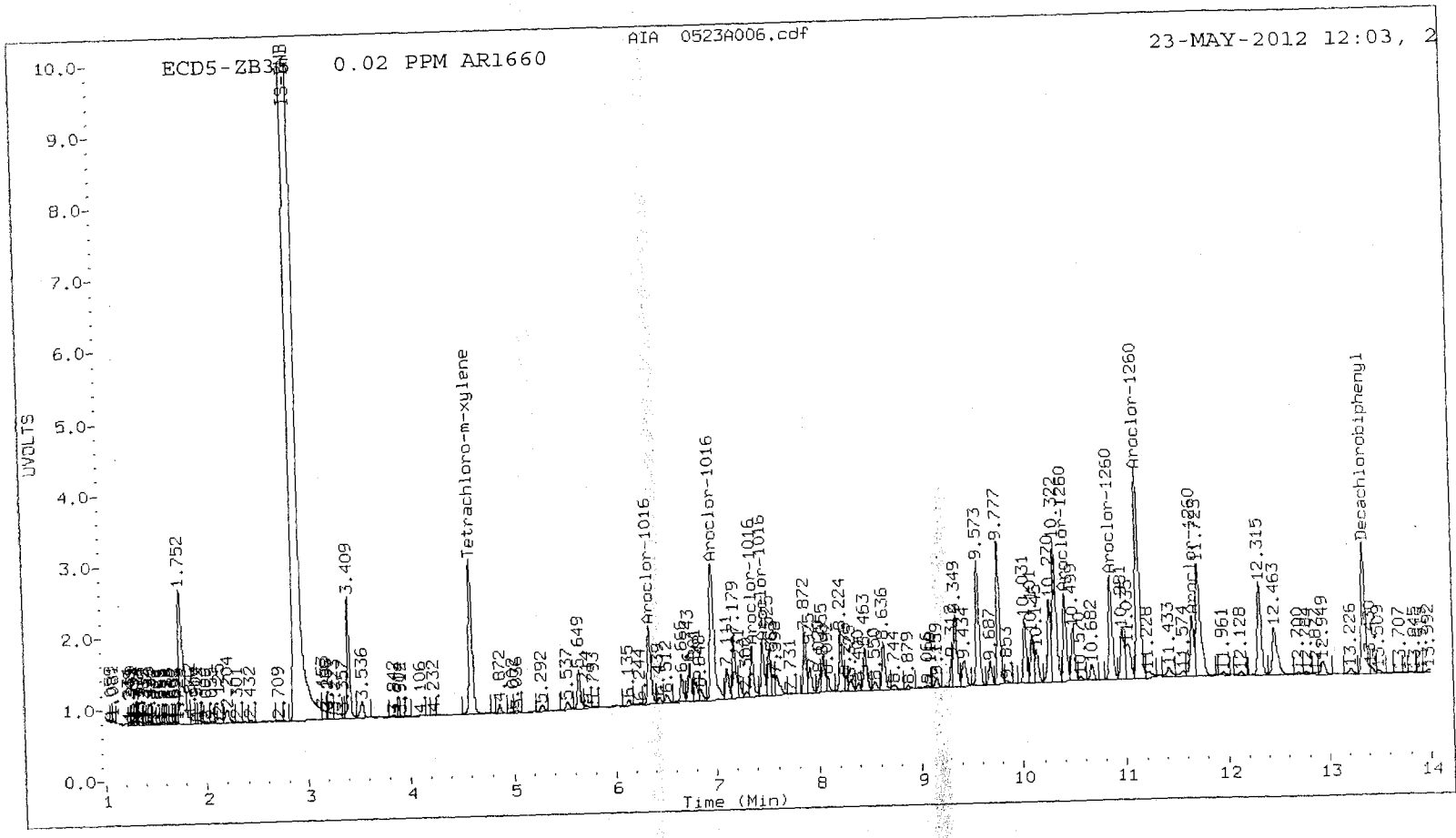
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
UVOLTS
Time (Min)


ECD5-ZB5 0.02 PPM AR1660
AIA 0523A006.cdf
23-MAY-2012 12:03, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl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23-MAY-2012 12:03, 2
ECD5-ZB3 0.02 PPM AR1660
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A007.d
Data file 2: 20120523.b/ical-2.b/0523A007.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.05 PPM AR1660
Client ID:
Injection Date: 23-MAY-2012 12:22
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.604 | -0.001 | 10962186 | 4.605 | -0.002 | 6534992 | 4.2 | 4.1 | 4.2 | Tetrachloro-m-xylene |
| 12.989 | -0.002 | 18286950 | 13.363 | 0.000 | 6267012 | 4.6 | 4.3 | 6.7 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 10.6 | 10.2 |
| Decachlorobiphenyl | 11.5 | 10.8 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 160667727 | 4.2 |
| Hexabromobiphenyl | 248602423 | 259094728 | 4.2 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 114159374 | 3.2 |
| Hexabromobiphenyl | 108855531 | 112747731 | 3.6 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

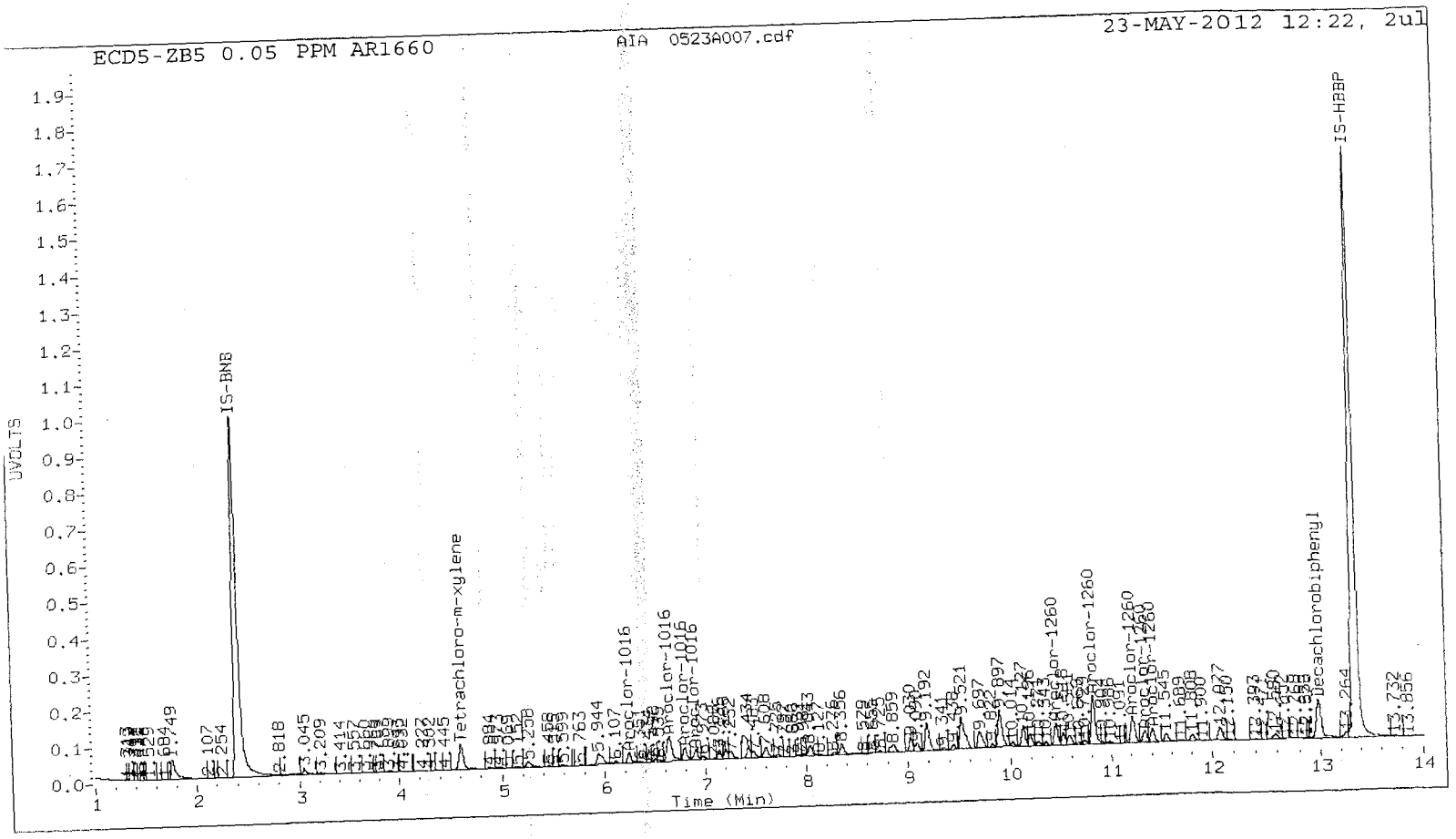
chem2/ecd5.i/20120523.b/ical-1.b/0523A007.d  0.05 PPM AR1660

| Aroclor | Peak# | RT | ZB5 Col Shift | Area | Amount | Peak# | RT | ZB35 Col Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 1 | | 6.238 | 0.001 | 3688038 | 55.0 | 1 | 6.342 | -0.002 | 3315376 | 55.6 |
| Aroclor-1016 2 | | 6.638 | 0.000 | 12412178 | 56.8 | 2 | 6.969 | -0.001 | 7318862 | 54.1 |
| Aroclor-1016 3 | | 6.787 | 0.001 | 4967870 | 57.6 | 3 | 7.353 | 0.000 | 1854416 | 53.1 |
| Aroclor-1016 4 | | 6.897 | 0.001 | 3892311 | 57.3 | 4 | 7.460 | 0.000 | 2068016 | 53.3 |
| Total Col1Ave (4 peaks): | | | | 56.7 | | Total Col2Ave (4 peaks): | | | 54.1 | RPD = 5 |
| Corrected Ave (3 peaks): | | | | 56.4 | | Corrected Ave (3 peaks): | | | 53.5 | RPD = 5 |
| Aroclor-1260 1 | | 10.444 | 0.000 | 7812618 | 55.6 | 1 | 10.419 | -0.001 | 3445125 | 53.3 |
| Aroclor-1260 2 | | 10.818 | -0.001 | 19225963 | 55.1 | 2 | 10.869 | 0.000 | 4251651 | 53.0 |
| Aroclor-1260 3 | | 11.218 | 0.001 | 10699659 | 55.2 | 3 | 11.142 | -0.001 | 8632531 | 52.9 |
| Aroclor-1260 4 | | 11.334 | 0.000 | 4602037 | 55.3 | 4 | 11.663 | -0.001 | 2490191 | 52.3 |
| Aroclor-1260 5 | | 11.408 | 0.000 | 5447767 | 54.8 | NS | --- | | | ---- |
| Total Col1Ave (5 peaks): | | | | 55.2 | | Total Col2Ave (4 peaks): | | | 52.9 | RPD = 4 |
| Corrected Ave (4 peaks): | | | | 55.1 | | Corrected Ave (3 peaks): | | | 52.7 | RPD = 4 |

Total PCB Area Col1 (4.705 - 12.890) = 225927277  Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (4.707 - 13.262) = 108968491  Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical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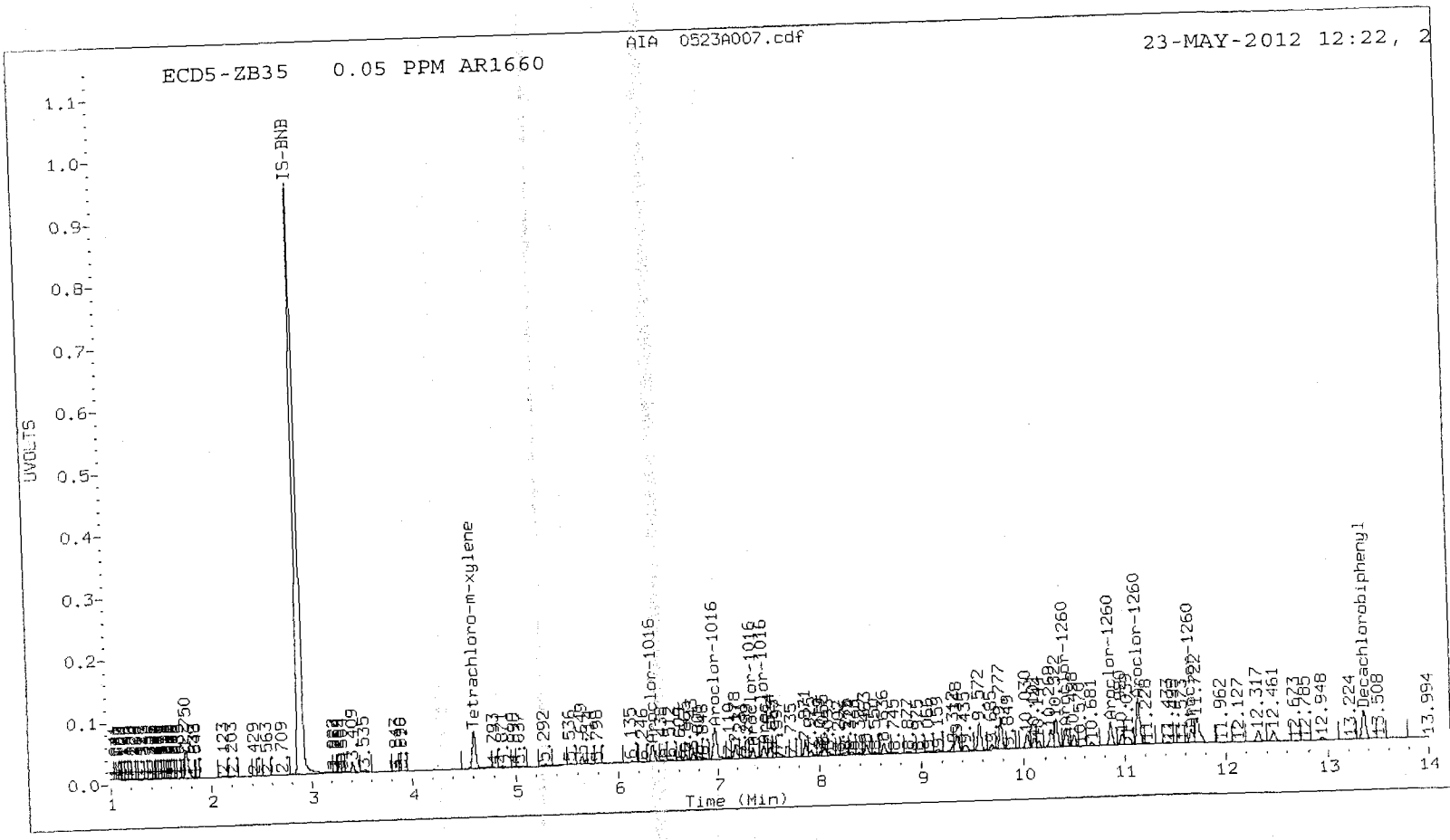
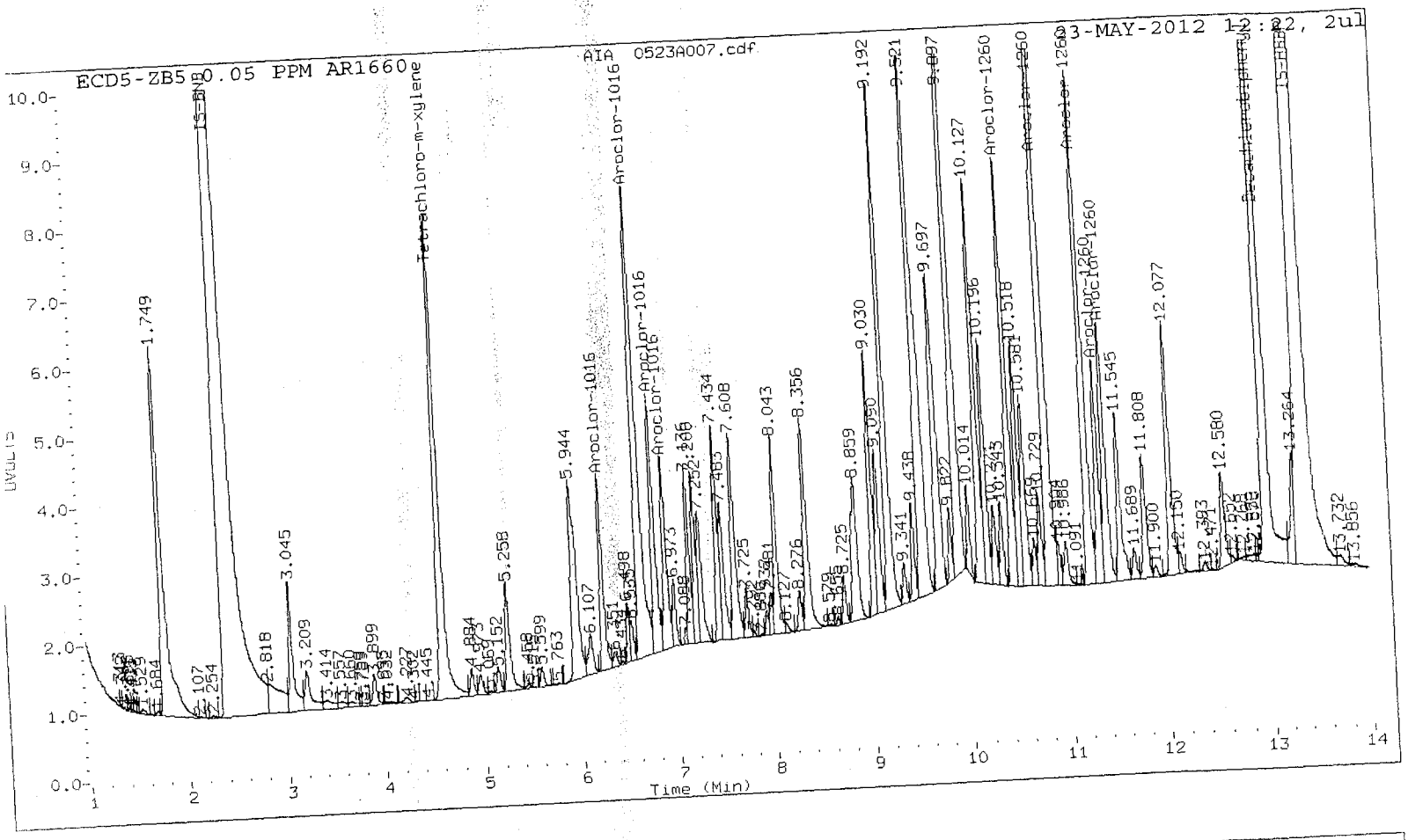
23-MAY-2012 12:22, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)


AIA 0523A007.cdf
23-MAY-2012 12:22, 2
ECD5-ZB35 0.05 PPM AR1660
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
UVOLTS
Time (Min)

UU52:01619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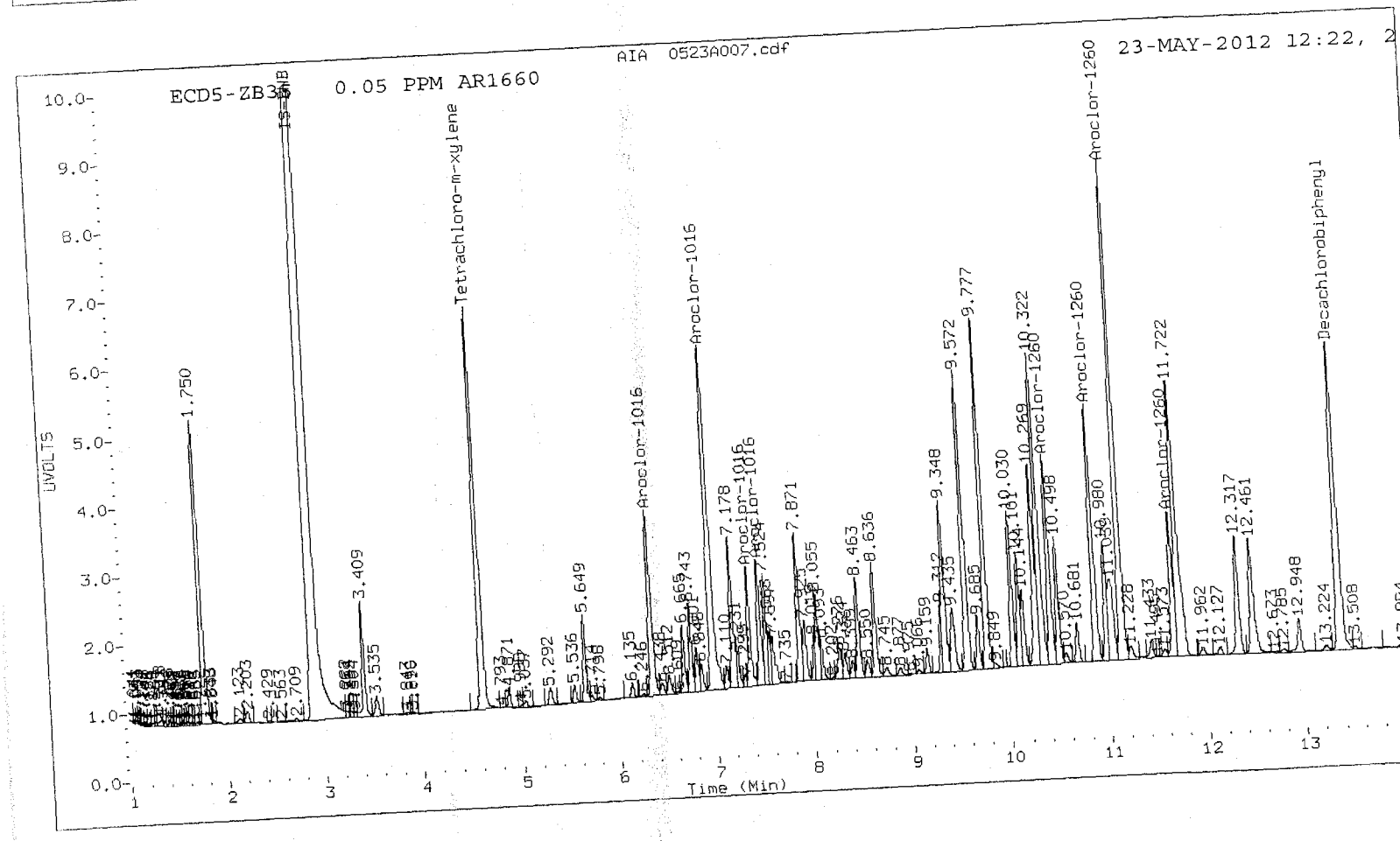
AIA 0523A007.cdf
23-MAY-2012 12:22, 2ul
IS-DNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-BB
UVOLTS
Time (Min)


ECD5-ZB35 0.05 PPM AR1660
AIA 0523A007.cdf
23-MAY-2012 12:22, 2
IS-DNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
UVOLTS
Time (Min)

UU52:01620

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A008.d
Data file 2: 20120523.b/ical-2.b/0523A008.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 1 PPM AR1660
Client ID:
Injection Date: 23-MAY-2012 12:41
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | Shift | Response | ZB35 Col RT | Shift | Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.606 | 0.000 | 171242598 | 4.607 | 0.000 | 111786715 | 70.3 | 73.6 | 4.5 | Tetrachloro-m-xylene |
| 12.991 | 0.001 | 239712870 | 13.363 | 0.001 | 96699362 | 62.4 | 68.9 | 9.9 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 175.8 | 183.9 |
| Decachlorobiphenyl | 156.0 | 172.3 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 151523547 | -1.8 |
| Hexabromobiphenyl | 248602423 | 250278423 | 0.7 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 108018292 | -2.4 |
| Hexabromobiphenyl | 108855531 | 108555775 | -0.3 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

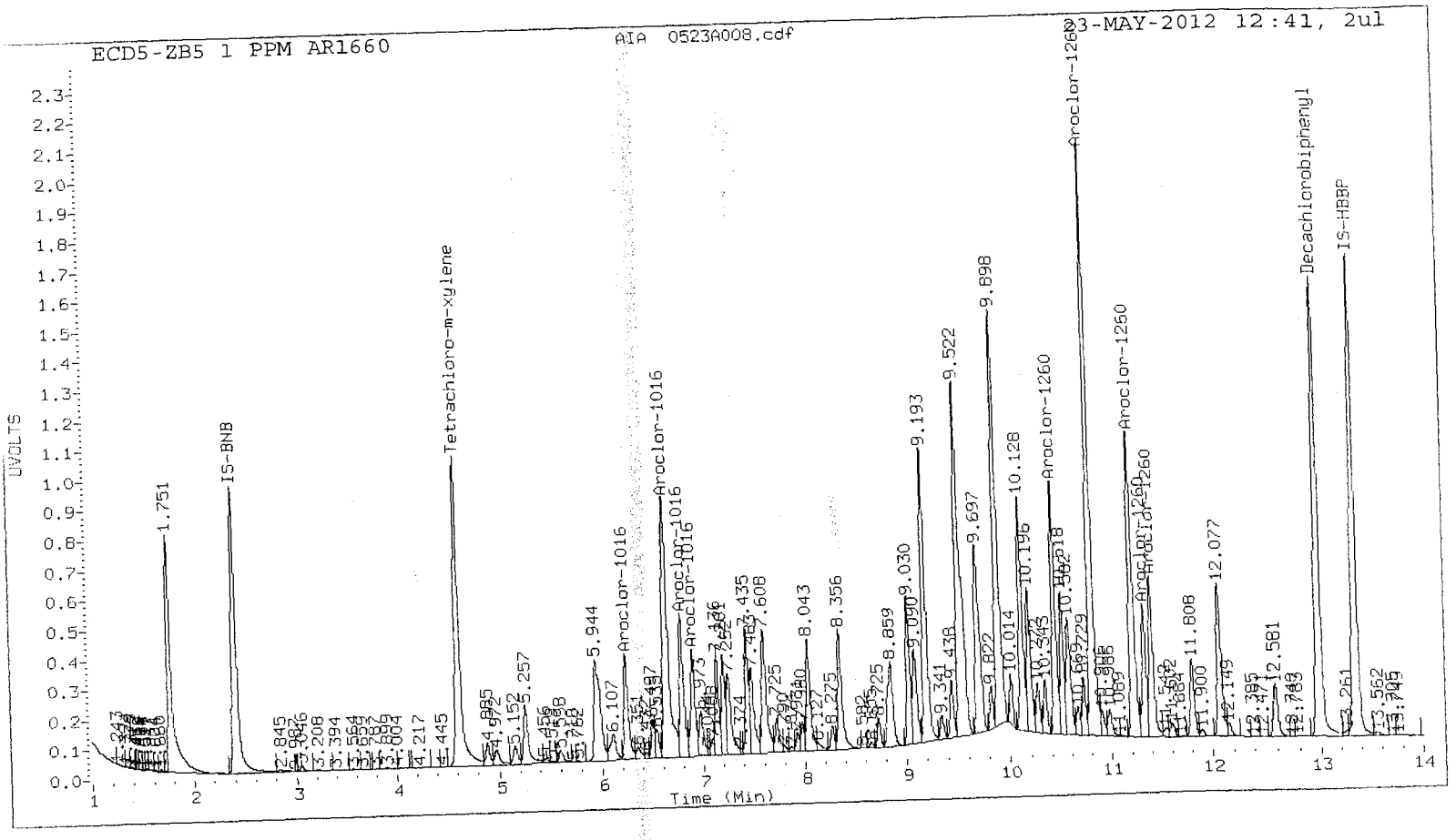
chem2/ecd5.i/20120523.b/ical-1.b/0523A008.d  1 PPM AR1660

| Aroclor | Peak# | RT | ZB5 Col Shift | Area | Amount | Peak# | RT | ZB35 Col Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.238 | 0.001 | 50472593 | 798.4 | 1 | 6.344 | 0.000 | 42845505 | 760.0 |
| Aroclor-1016 | 2 | 6.639 | 0.001 | 165465405 | 803.0 | 2 | 6.971 | 0.001 | 104650973 | 817.8 |
| Aroclor-1016 | 3 | 6.786 | 0.000 | 68577484 | 843.8 | 3 | 7.353 | 0.000 | 28579145 | 865.6 |
| Aroclor-1016 | 4 | 6.896 | 0.000 | 53578979 | 836.9 | 4 | 7.461 | 0.000 | 31334652 | 853.6 |
| Total Col1Ave (4 peaks): | | | | 820.5 | | Total Col2Ave (4 peaks): | | | 824.2 | RPD = 0 |
| Corrected Ave (3 peaks): | | | | 812.7 | | Corrected Ave (3 peaks): | | | 810.4 | RPD = 0 |
| Aroclor-1260 | 1 | 10.445 | 0.001 | 107245854 | 789.8 | 1 | 10.420 | 0.000 | 53445445 | 858.4 |
| Aroclor-1260 | 2 | 10.820 | 0.001 | 277450558 | 823.4 | 2 | 10.870 | 0.001 | 66684752 | 862.6 |
| Aroclor-1260 | 3 | 11.218 | 0.001 | 152126553 | 812.2 | 3 | 11.142 | 0.000 | 136856057 | 871.8 |
| Aroclor-1260 | 4 | 11.334 | 0.000 | 64878438 | 806.8 | 4 | 11.664 | 0.000 | 40209436 | 877.4 |
| Aroclor-1260 | 5 | 11.408 | 0.001 | 78954416 | 822.3 | NS | --- | | | ---- |
| Total Col1Ave (5 peaks): | | | | 810.9 | | Total Col2Ave (4 peaks): | | | 867.6 | RPD = 7 |
| Corrected Ave (4 peaks): | | | | 807.8 | | Corrected Ave (3 peaks): | | | 864.3 | RPD = 7 |

Total PCB Area Col1 (4.705 - 12.890) = 3117858984  Col1 Total PCB = 1.7 ppm*

Total PCB Area Col2 (4.707 - 13.262) = 1662675962  Col2 Total PCB = 1.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical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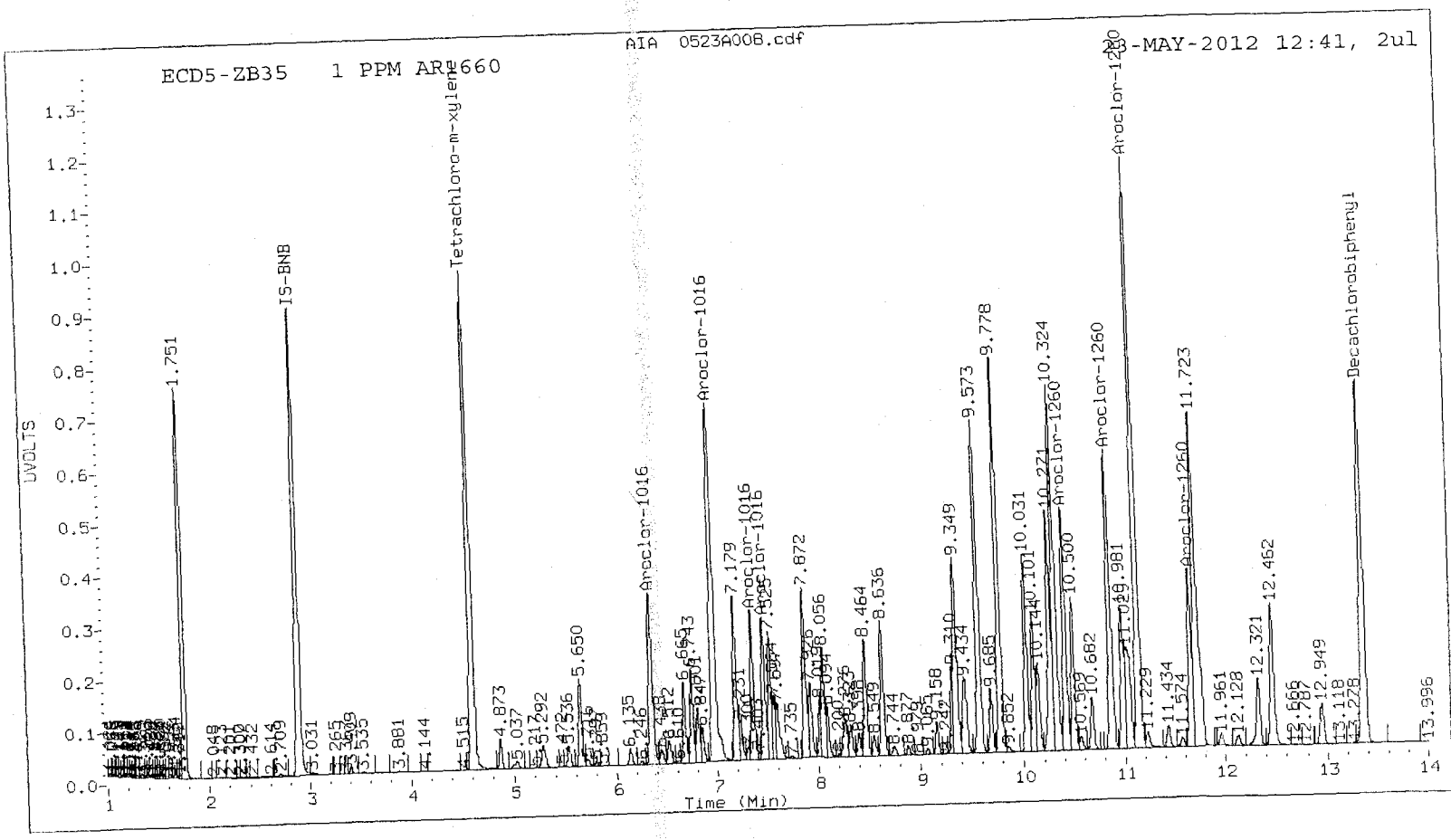
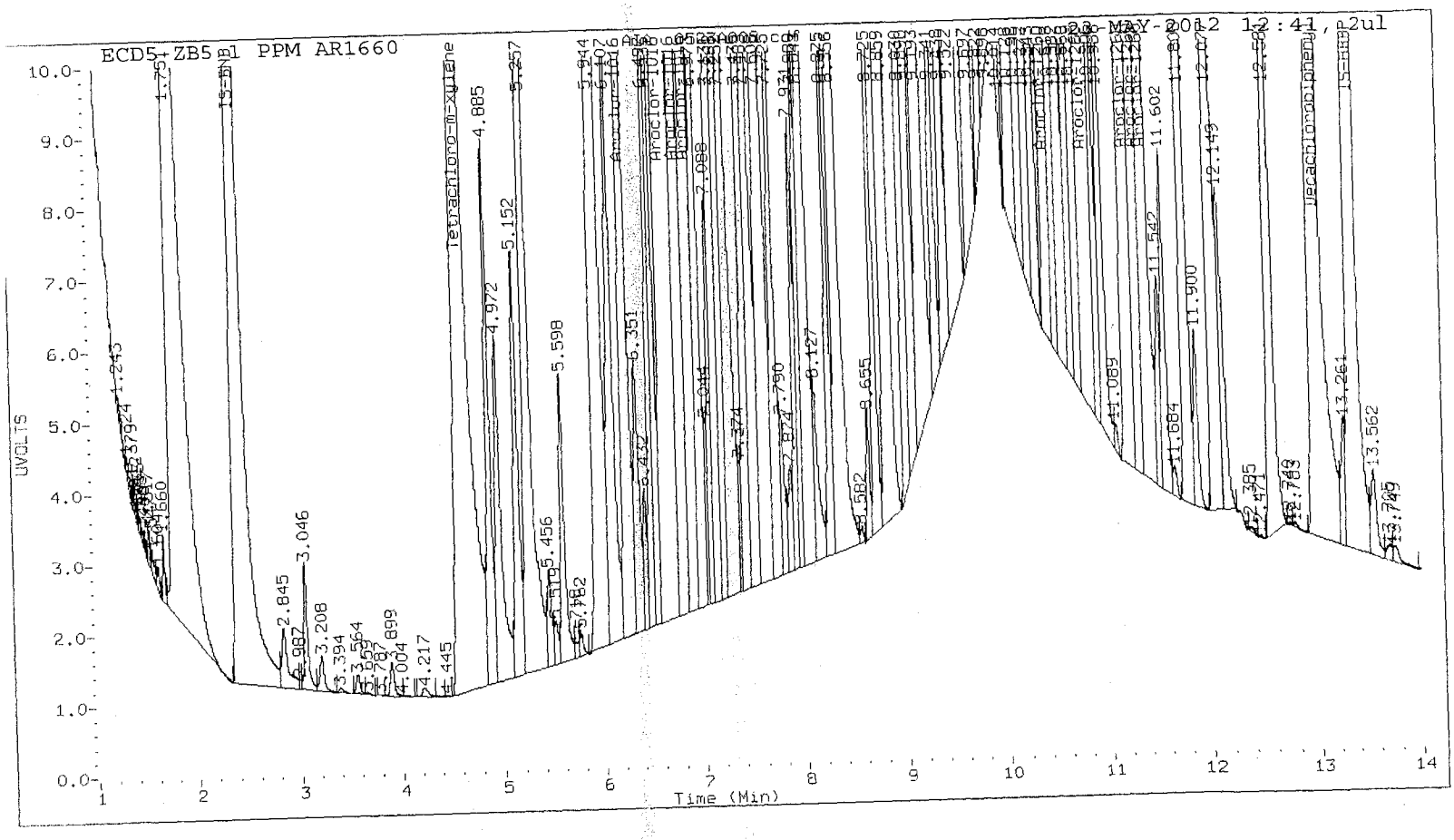
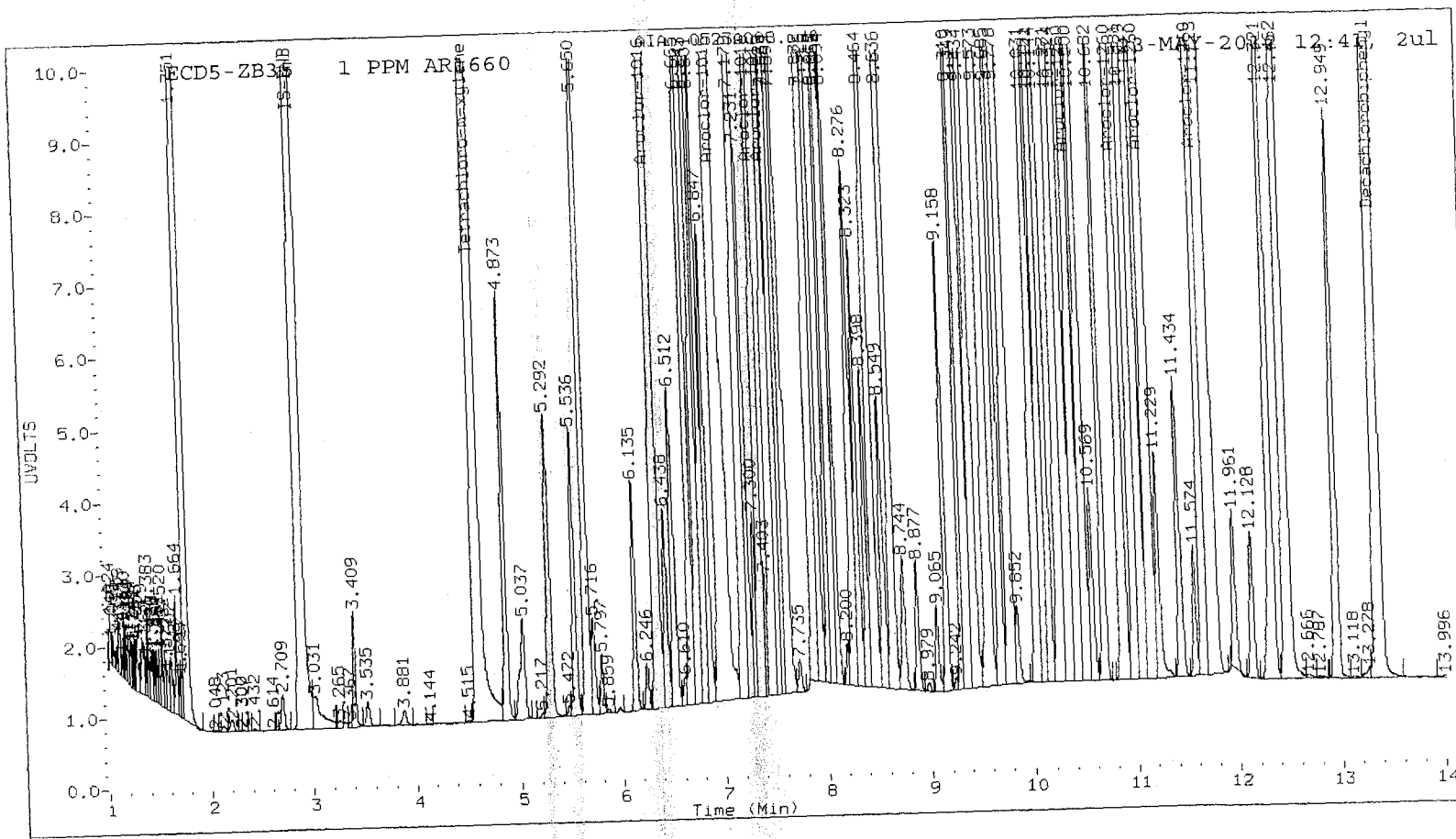
23-MAY-2012 12:41, 2ul
UVOLTS
Time (Min)
1.751
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP


ECD5-ZB35 1 PPM AR1660
AIA 0523A008.cdf
23-MAY-2012 12:41, 2ul
UVOLTS
Time (Min)
1.751
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

US2:01623


ECD5-ZB5 1 PPM AR1660
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-DNB
IS-TMP


ECD5-ZB35 1 PPM AR1660
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-DNB
IS-TMP

0052:01521

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A009.d
Data file 2: 20120523.b/ical-2.b/0523A009.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.1 PPM AR1660
Client ID:
Injection Date: 23-MAY-2012 13:01
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.604 | -0.001 | 22212362 | 4.604 | -0.003 | 13478289 | 8.6 | 8.5 | 1.8 | Tetrachloro-m-xylene |
| 12.989 | -0.002 | 33632302 | 13.363 | 0.000 | 12137716 | 8.4 | 8.4 | 0.0 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 21.5 | 21.1 |
| Decachlorobiphenyl | 21.0 | 21.0 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 160526987 | 4.1 |
| Hexabromobiphenyl | 248602423 | 260875166 | 4.9 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 113263758 | 2.4 |
| Hexabromobiphenyl | 108855531 | 111845806 | 2.7 |

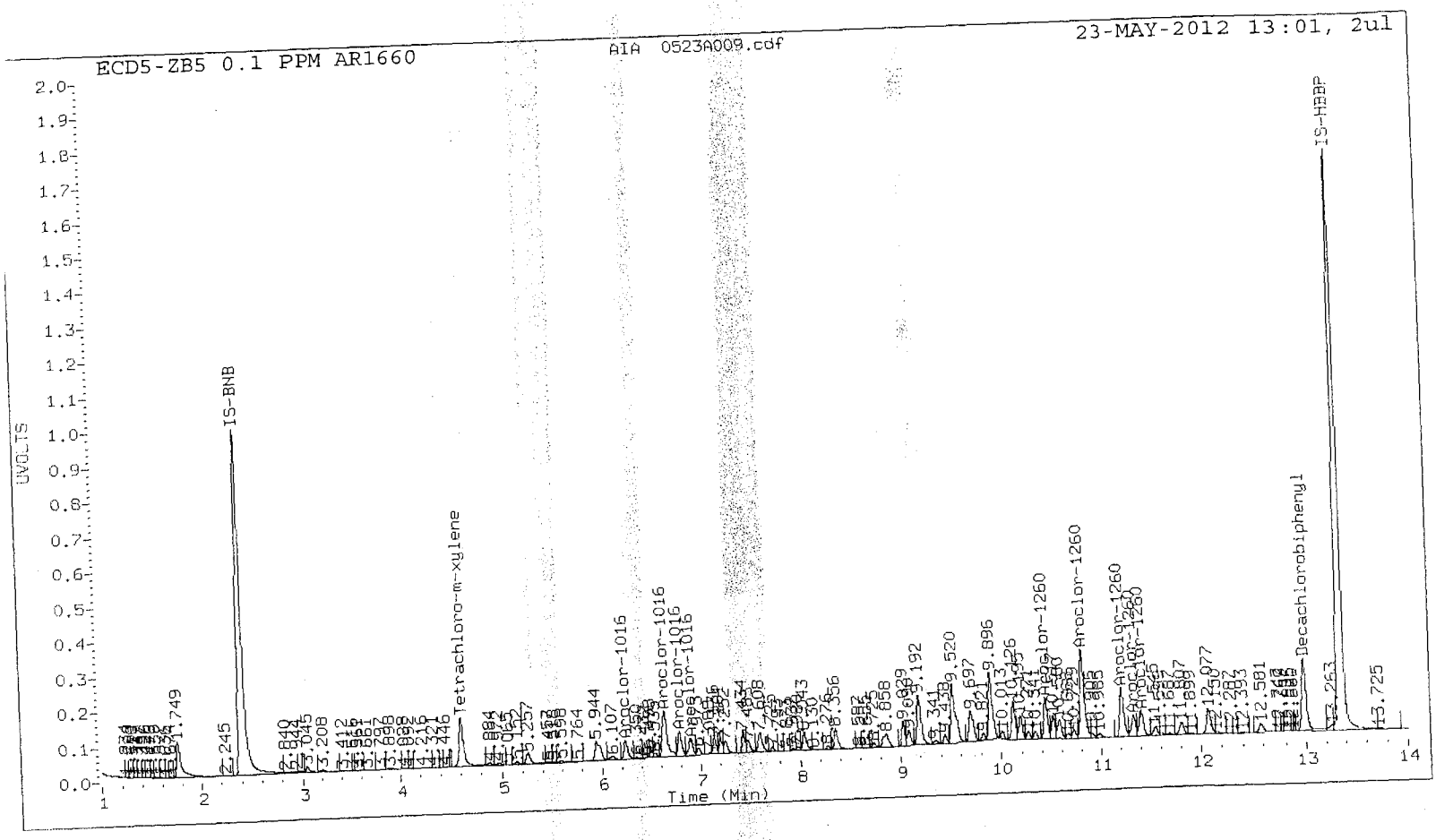
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

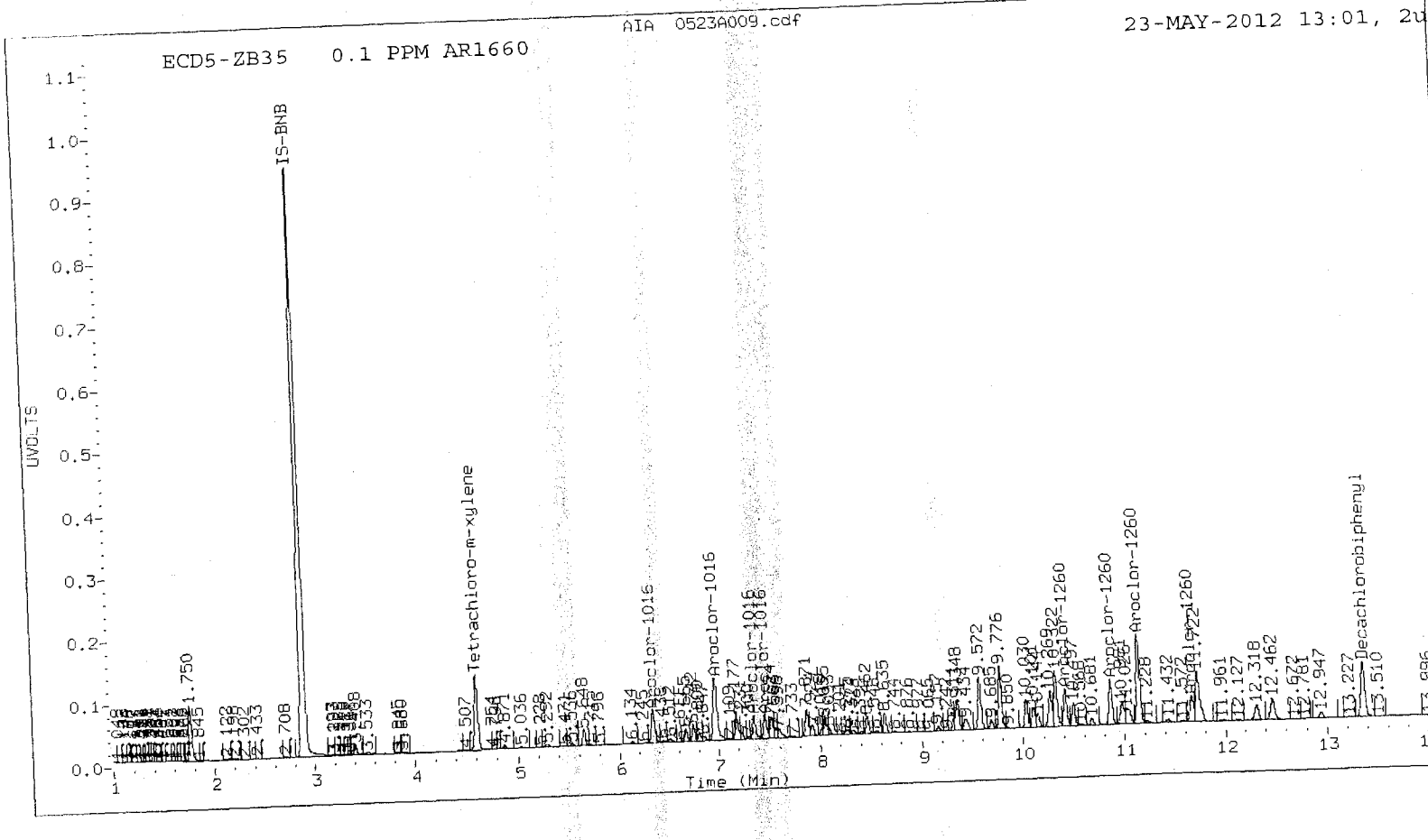
| Aroclor | Peak# | RT | Shift | Area | Amount | Peak# | RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ZB5 Col | | | | | ZB35 Col | | | |
| Aroclor-1016 | 1 | 6.237 | 0.000 | 7097377 | 106.0 | 1 | 6.343 | -0.001 | 6450679 | 109.1 |
| Aroclor-1016 | 2 | 6.638 | 0.000 | 23837595 | 109.2 | 2 | 6.969 | -0.001 | 14395191 | 107.3 |
| Aroclor-1016 | 3 | 6.786 | 0.000 | 9574862 | 111.2 | 3 | 7.353 | 0.000 | 3678916 | 106.3 |
| Aroclor-1016 | 4 | 6.897 | 0.001 | 6895678 | 101.7 | 4 | 7.460 | -0.001 | 4083078 | 106.1 |
| | Total Col1Ave (4 peaks): | | | | 107.0 | Total Col2Ave (4 peaks): | | | 107.2 | RPD = 0 |
| | Corrected Ave (3 peaks): | | | | 105.6 | Corrected Ave (3 peaks): | | | 106.5 | RPD = 1 |
| Aroclor-1260 | 1 | 10.443 | -0.001 | 14940984 | 105.6 | 1 | 10.418 | -0.001 | 6750271 | 105.2 |
| Aroclor-1260 | 2 | 10.818 | -0.001 | 36687247 | 104.5 | 2 | 10.869 | -0.001 | 8321056 | 104.5 |
| Aroclor-1260 | 3 | 11.217 | 0.000 | 20579023 | 105.4 | 3 | 11.141 | -0.001 | 16940324 | 104.7 |
| Aroclor-1260 | 4 | 11.333 | 0.000 | 8821100 | 105.2 | 4 | 11.663 | -0.001 | 4860811 | 102.9 |
| Aroclor-1260 | 5 | 11.407 | 0.000 | 10542022 | 105.3 | NS | --- | | | ---- |
| | Total Col1Ave (5 peaks): | | | | 105.2 | Total Col2Ave (4 peaks): | | | 104.3 | RPD = 1 |
| | Corrected Ave (4 peaks): | | | | 105.1 | Corrected Ave (3 peaks): | | | 104.1 | RPD = 1 |

Total PCB Area Col1 (4.705 - 12.890) = 427564631 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.707 - 13.262) = 210993433 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD5-ZB5 0.1 PPM AR1660
AIA 0523A009.cdf
23-MAY-2012 13:01, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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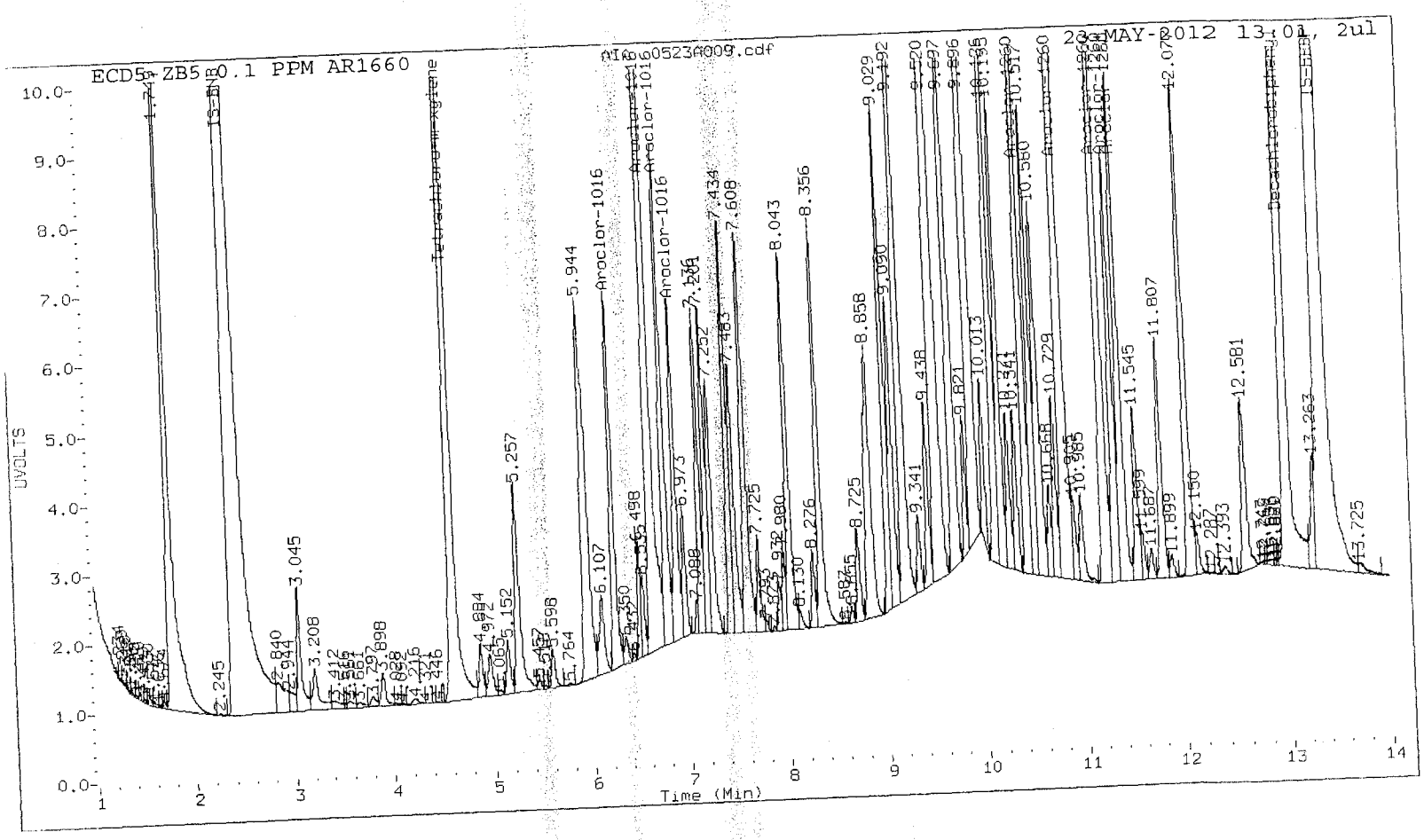
AIA 0523A009.cdf
23-MAY-2012 13:01, 2u
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

UU52:01527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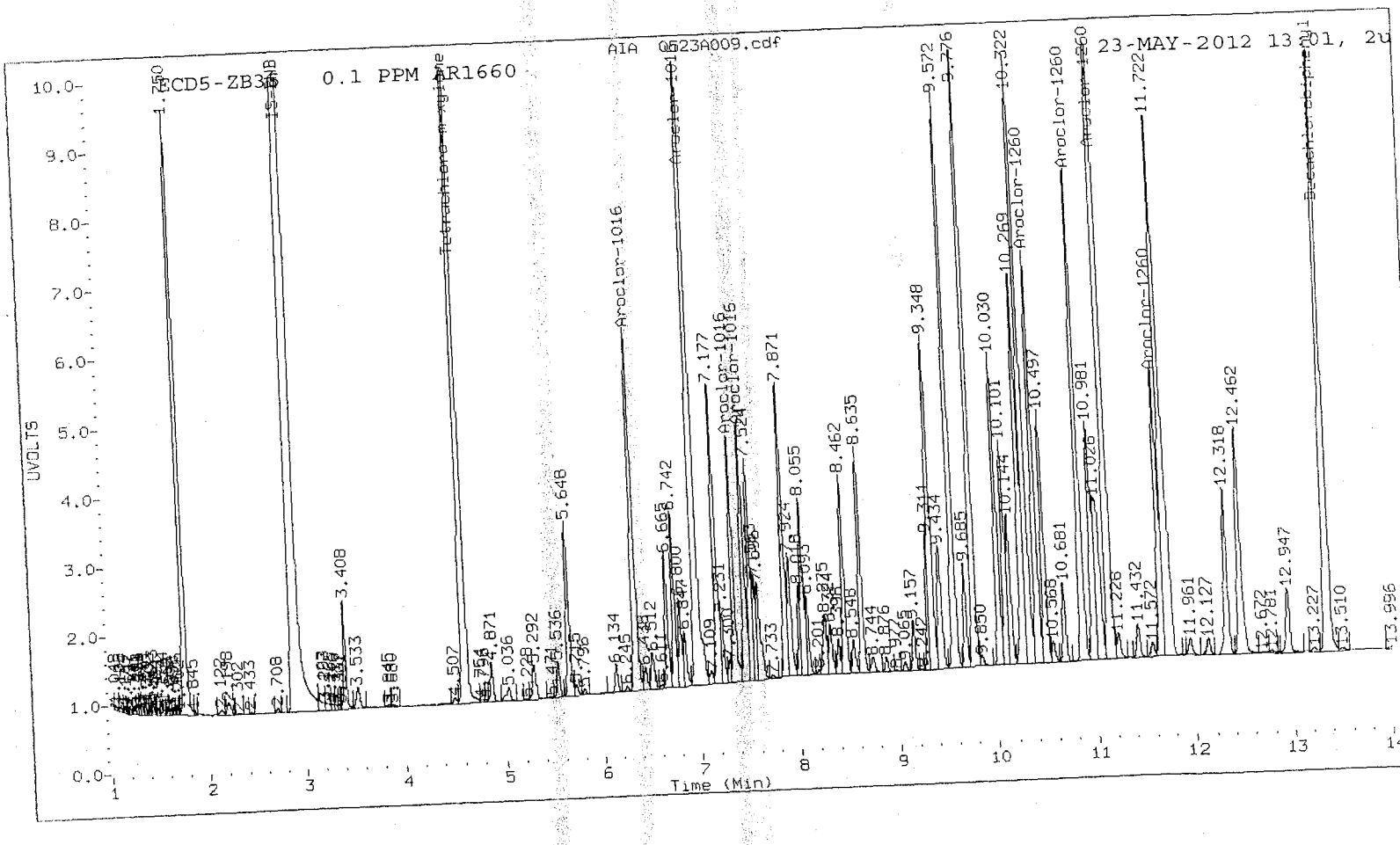
AIA 0523A009.cdf
23-MAY-2012 13:01, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-DNB
IS-BEB
Aroclor-1016
Aroclor-1260


ECD5-ZB5 0.1 PPM AR1660
AIA 0523A009.cdf
23-MAY-2012 13:01, 2u
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-DNB
IS-BEB
Aroclor-1016
Aroclor-1260

UU52:01628

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A010.d
Data file 2: 20120523.b/ical-2.b/0523A010.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: 0.5 PPM ARR160
Client ID:
Injection Date: 23-MAY-2012 13:20
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.604 | -0.001 | 95532370 | 4.606 | -0.001 | 61492325 | 37.8 | 39.2 | 3.4 | Tetrachloro-m-xylene |
| 12.990 | 0.000 | 131959083 | 13.363 | 0.001 | 52215403 | 33.7 | 36.8 | 9.0 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 94.6 | 97.9 |
| Decachlorobiphenyl | 84.1 | 92.1 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 157116261 | 1.9 |
| Hexabromobiphenyl | 248602423 | 255504461 | 2.8 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 111611648 | 0.9 |
| Hexabromobiphenyl | 108855531 | 109698277 | 0.8 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

hem2/ecd5.i/20120523.b/ical-1.b/0523A010.d 0.5 PPM ARR160

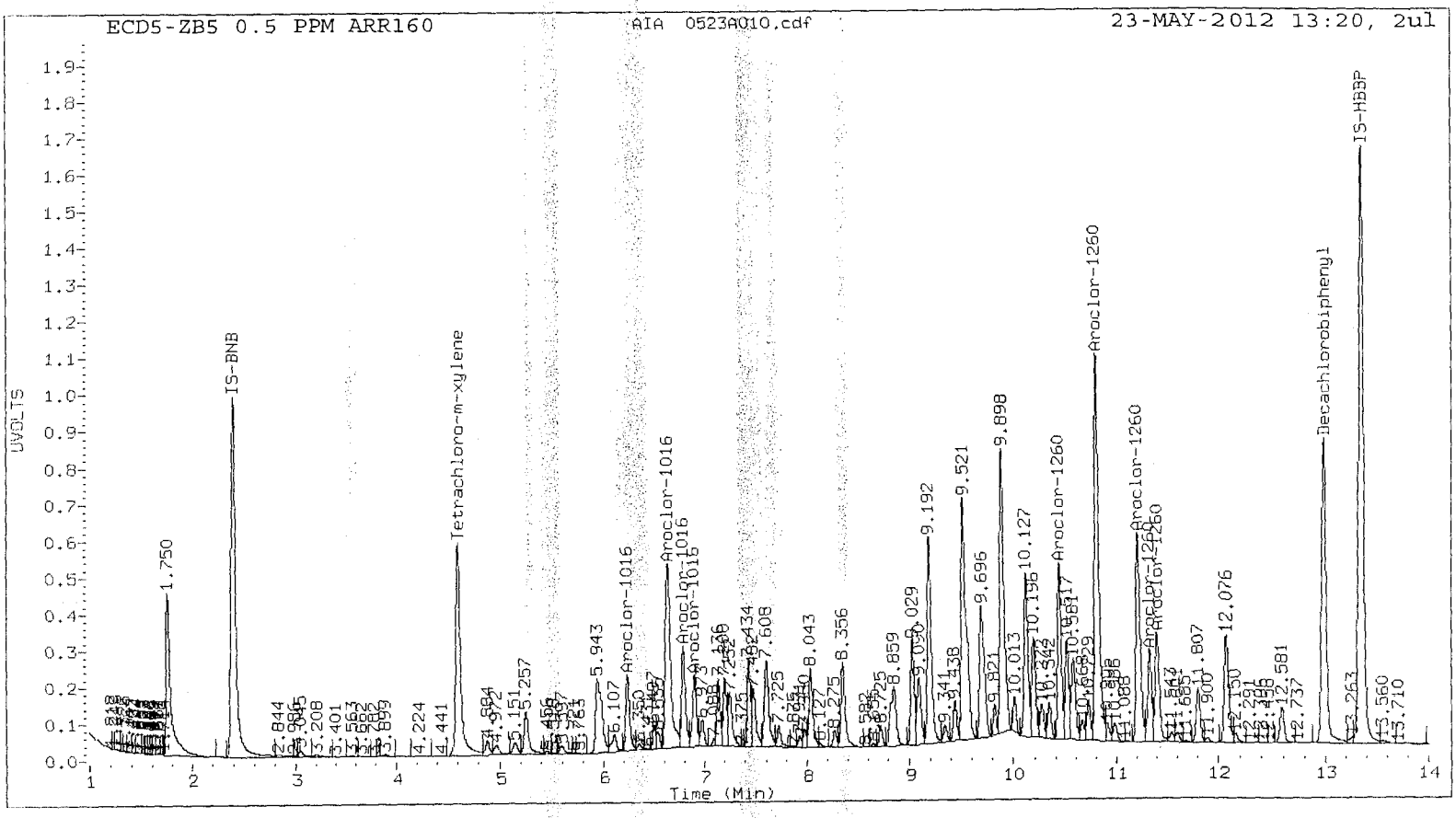
| Aroclor | Peak# | RT | ZB5 Col Shift | Area | Amount |
|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.237 | 0.000 | 27693528 | 422.5 |
| Aroclor-1016 | 2 | 6.638 | 0.000 | 92355706 | 432.2 |
| Aroclor-1016 | 3 | 6.786 | 0.000 | 37120086 | 440.5 |
| Aroclor-1016 | 4 | 6.896 | 0.000 | 27005529 | 406.8 |
| Total Col1Ave (4 peaks): | | | | | 425.5 |
| Corrected Ave (3 peaks): | | | | | 420.5 |
| Aroclor-1260 | 1 | 10.444 | 0.000 | 60718439 | 438.0 |
| Aroclor-1260 | 2 | 10.819 | 0.000 | 150397287 | 437.2 |
| Aroclor-1260 | 3 | 11.217 | 0.000 | 84623698 | 442.6 |
| Aroclor-1260 | 4 | 11.334 | 0.000 | 36219238 | 441.2 |
| Aroclor-1260 | 5 | 11.408 | 0.000 | 44135258 | 450.3 |
| Total Col1Ave (5 peaks): | | | | | 441.9 |
| Corrected Ave (4 peaks): | | | | | 439.7 |

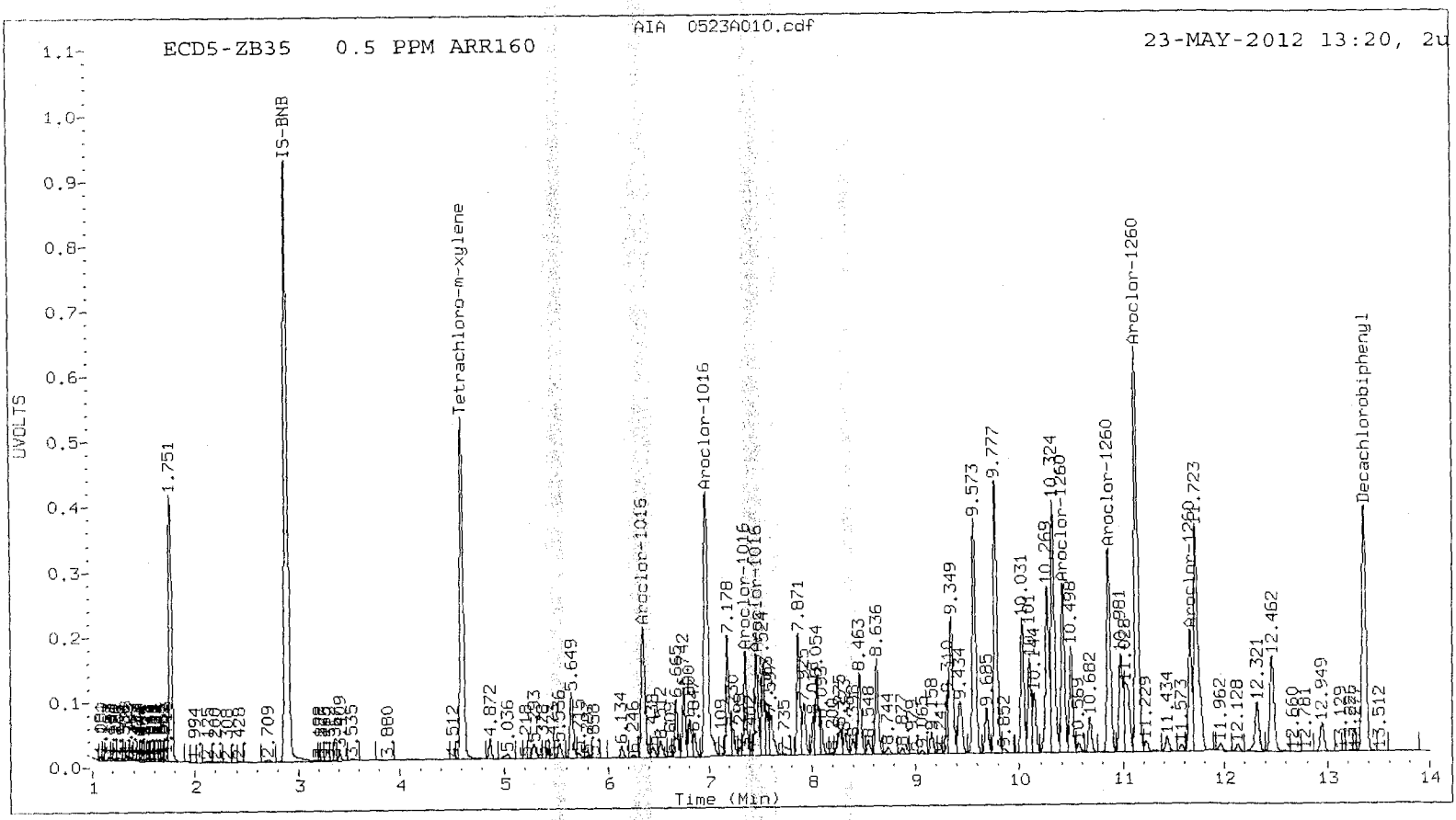
| Peak# | RT | ZB35 Col Shift | Area | Amount |
|---|---|---|---|---|
| 1 | 6.344 | 0.000 | 25480661 | 437.4 |
| 2 | 6.970 | 0.000 | 60392803 | 456.7 |
| 3 | 7.353 | 0.000 | 15853898 | 464.7 |
| 4 | 7.460 | 0.000 | 17585501 | 463.6 |
| Total Col2Ave (4 peaks): | | | | 455.6 RPD = 7 |
| Corrected Ave (3 peaks): | | | | 452.6 RPD = 7 |
| 1 | 10.420 | 0.000 | 29425213 | 467.7 |
| 2 | 10.869 | 0.000 | 36585977 | 468.3 |
| 3 | 11.143 | 0.000 | 74383127 | 468.9 |
| 4 | 11.664 | 0.000 | 21707605 | 468.7 |
| NS | --- | | | ---- |
| Total Col2Ave (4 peaks): | | | | 468.4 RPD = 6 |
| Corrected Ave (3 peaks): | | | | 468.3 RPD = 6 |

Total PCB Area Col1 (4.705 - 12.890) = 1715529978 Col1 Total PCB = 0.9 ppm*

Total PCB Area Col2 (4.707 - 13.262) = 918581550 Col2 Total PCB = 0.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD5-ZB5 0.5 PPM ARR160
AIA 0523A010.cdf
23-MAY-2012 13:20, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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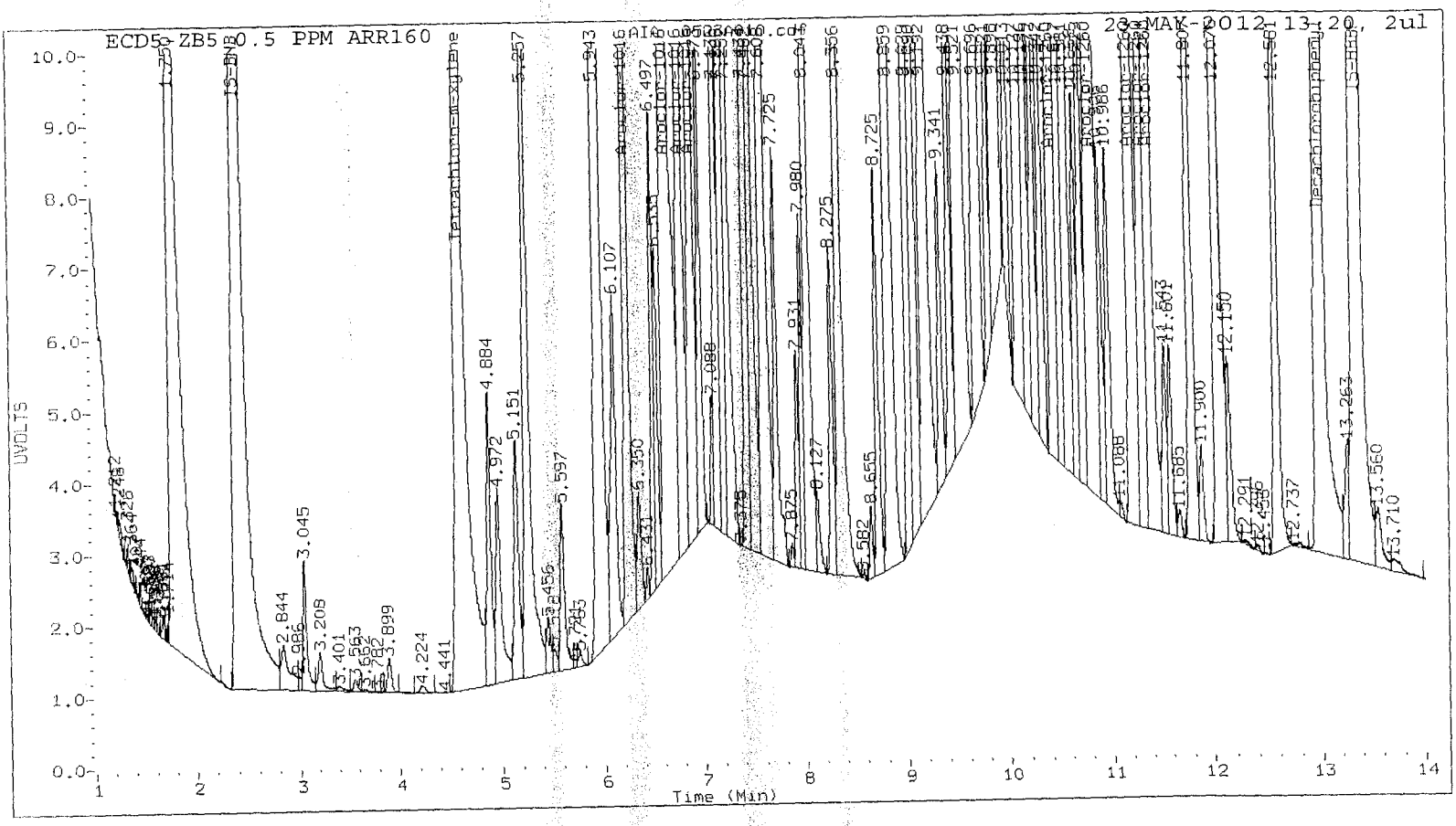
ECD5-ZB35 0.5 PPM ARR160
23-MAY-2012 13:20, 2u
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

US2:01631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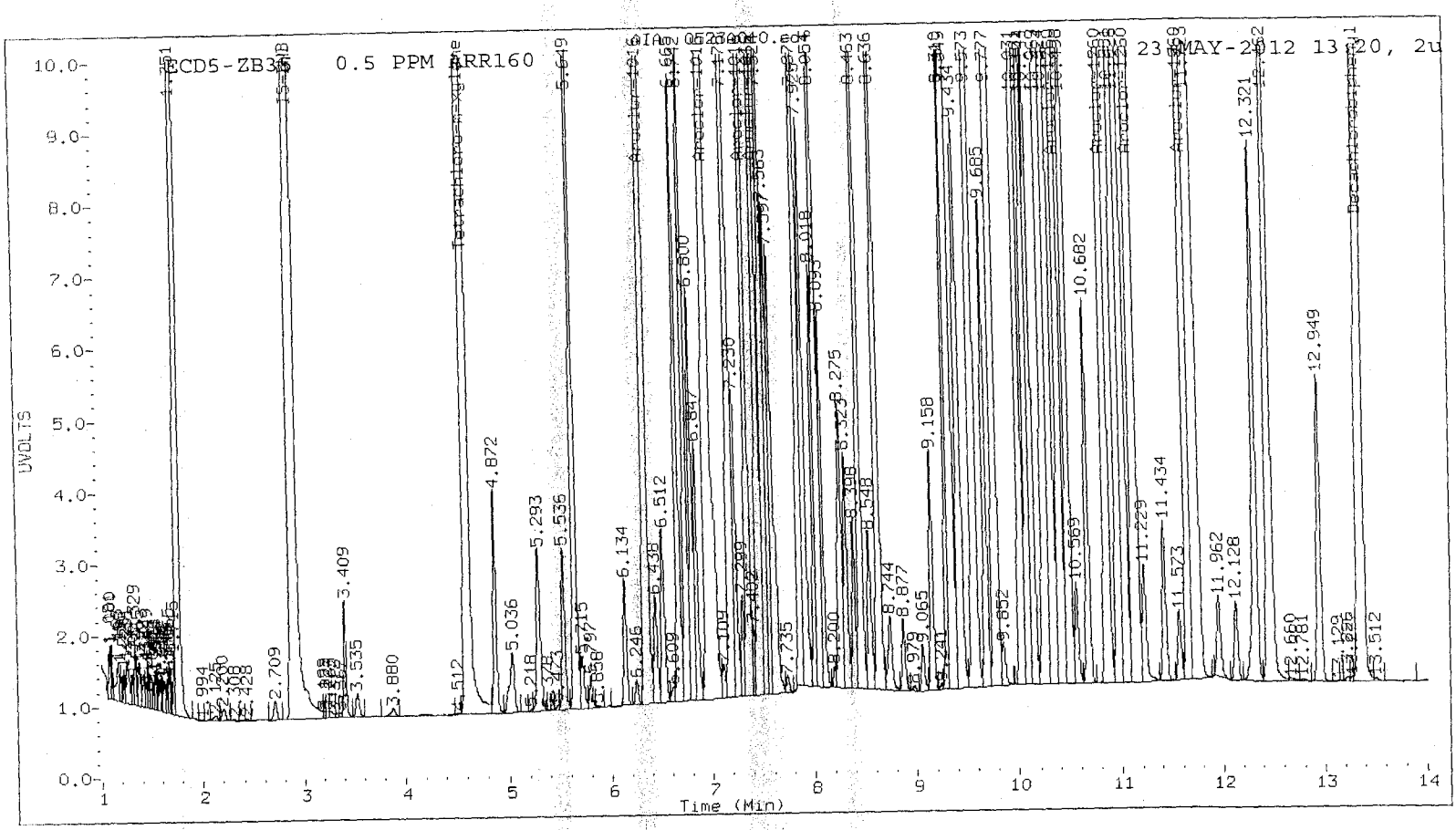
23-MAY-2012 13:20, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl


ECD5-ZB35 0.5 PPM ARR160
23-MAY-2012 13:20, 2u
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A011.d
Data file 2: 20120523.b/ical-2.b/0523A011.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1242
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242
Client ID:
Injection Date: 23-MAY-2012 13:39
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | Shift | Response | ZB35 Col RT | Shift | Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.604 | -0.001 | 51153372 | 4.605 | -0.002 | 32157501 | 20.1 | 20.5 | 2.2 | Tetrachloro-m-xylene |
| 12.989 | -0.001 | 71971474 | 13.363 | 0.001 | 27362468 | 18.4 | 19.4 | 5.5 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 50.1 | 51.3 |
| Decachlorobiphenyl | 46.0 | 48.6 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 158724720 | 2.9 |
| Hexabromobiphenyl | 248602423 | 254953104 | 2.6 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 111472971 | 0.8 |
| Hexabromobiphenyl | 108855531 | 109000932 | 0.1 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

chem2/ecd5.i/20120523.b/ical-1.b/0523A011.d AR1242

| Aroclor | Peak# | RT | ZB5 Col Shift | Area | Amount | Peak# | RT | ZB35 Col Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1242 | 1 | 6.237 | 0.000 | 12490099 | 250.0 | 1 | 6.343 | 0.000 | 11370243 | 250.0 |
| Aroclor-1242 | 2 | 6.638 | 0.000 | 41647431 | 250.0 | 2 | 6.971 | 0.000 | 25823258 | 250.0 |
| Aroclor-1242 | 3 | 6.786 | 0.000 | 16618464 | 250.0 | 3 | 7.179 | 0.000 | 10491199 | 250.0 |
| Aroclor-1242 | 4 | 7.980 | 0.000 | 15477635 | 250.0 | 4 | 8.324 | 0.000 | 9122569 | 250.0 |
| Total Col1Ave (4 peaks): | | | | | 250.0 | Total Col2Ave (4 peaks): | | | | 250.0 RPD = 0 |
| Corrected Ave (3 peaks): | | | | | 250.0 | Corrected Ave (3 peaks): | | | | 250.0 RPD = 0 |

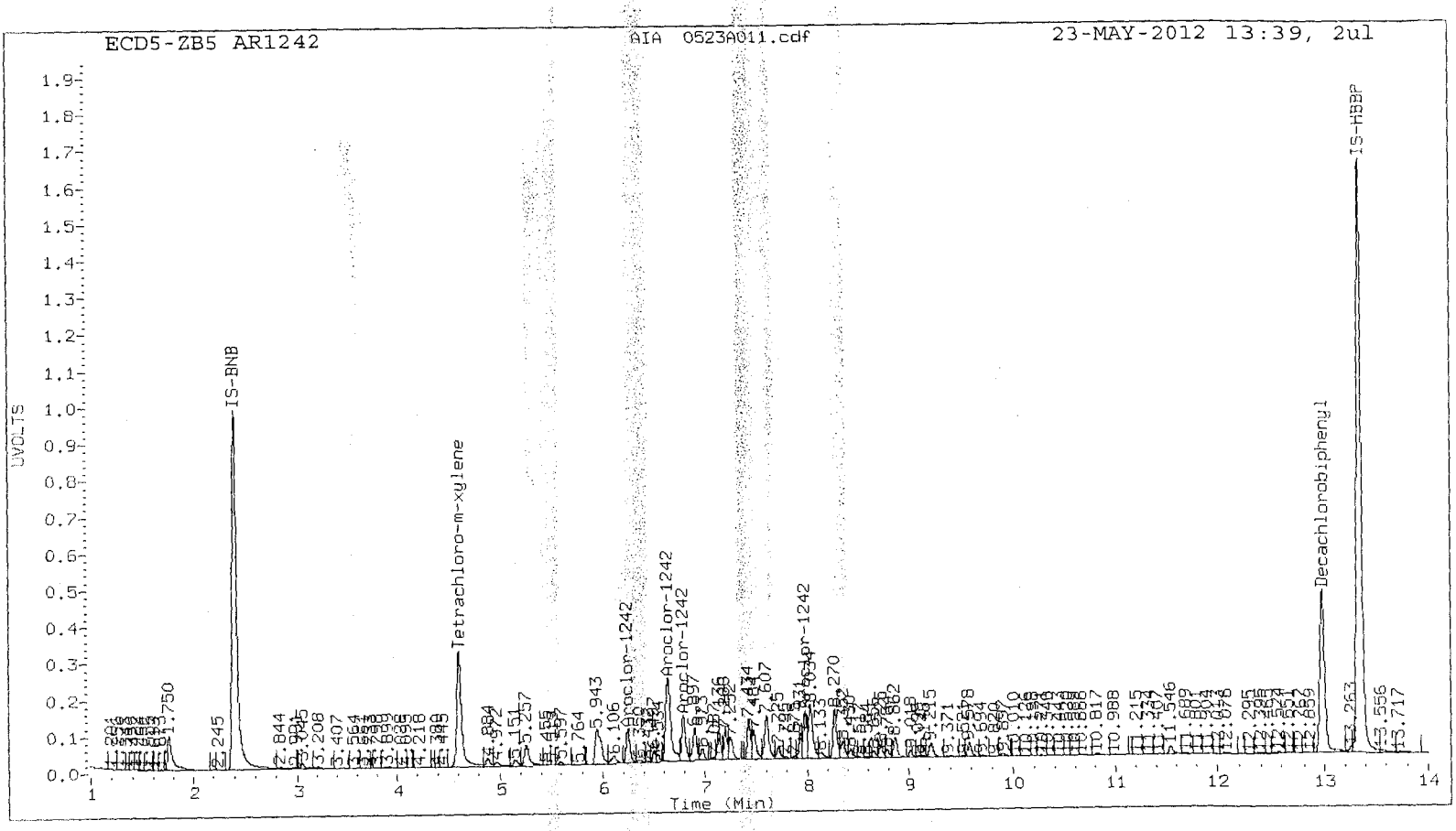
Total PCB Area Col1 (4.705 - 12.890) = 330210054 Col1 Total PCB = 0.2 ppm*

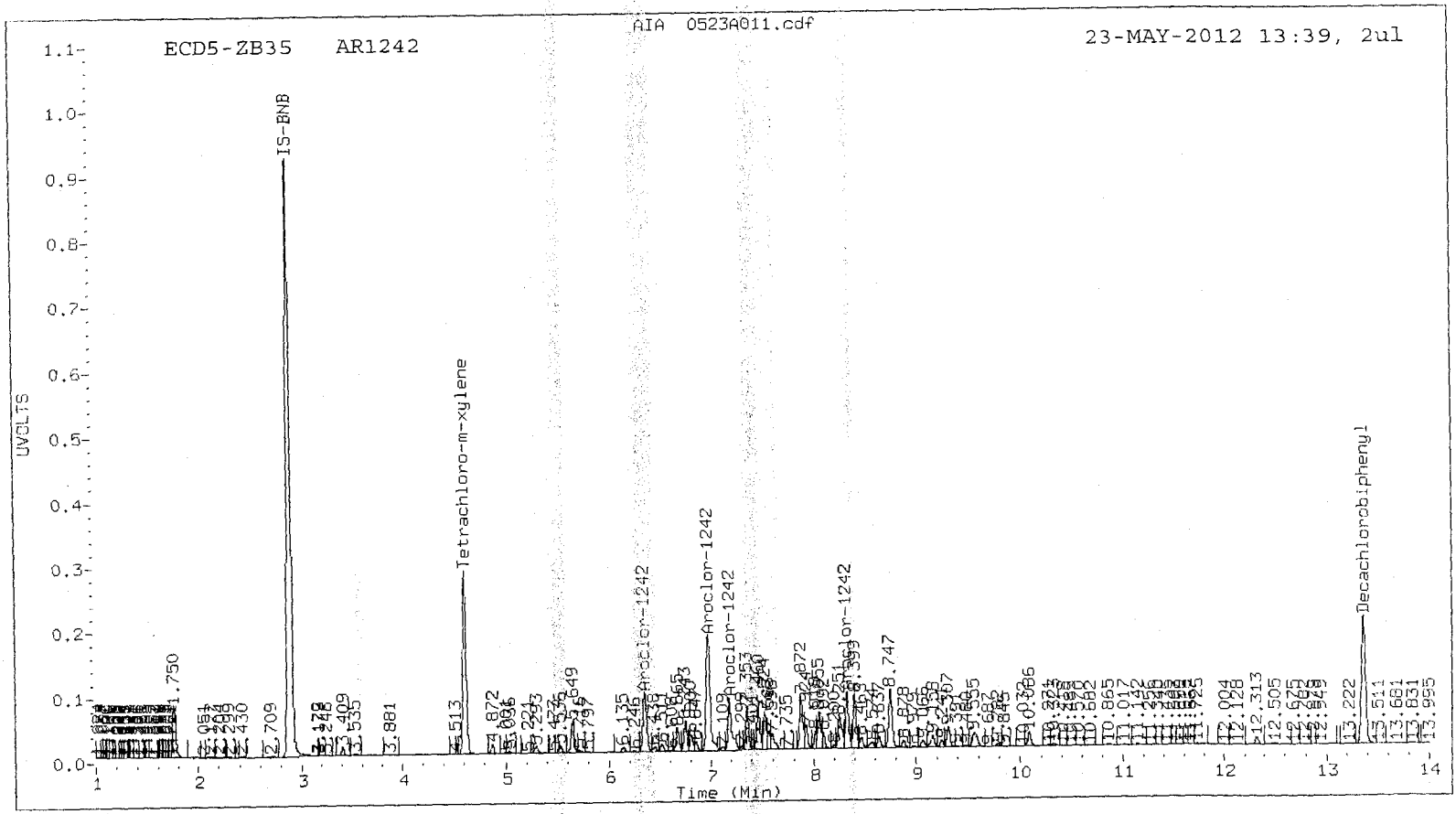
Total PCB Area Col2 (4.707 - 13.262) = 186466562 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

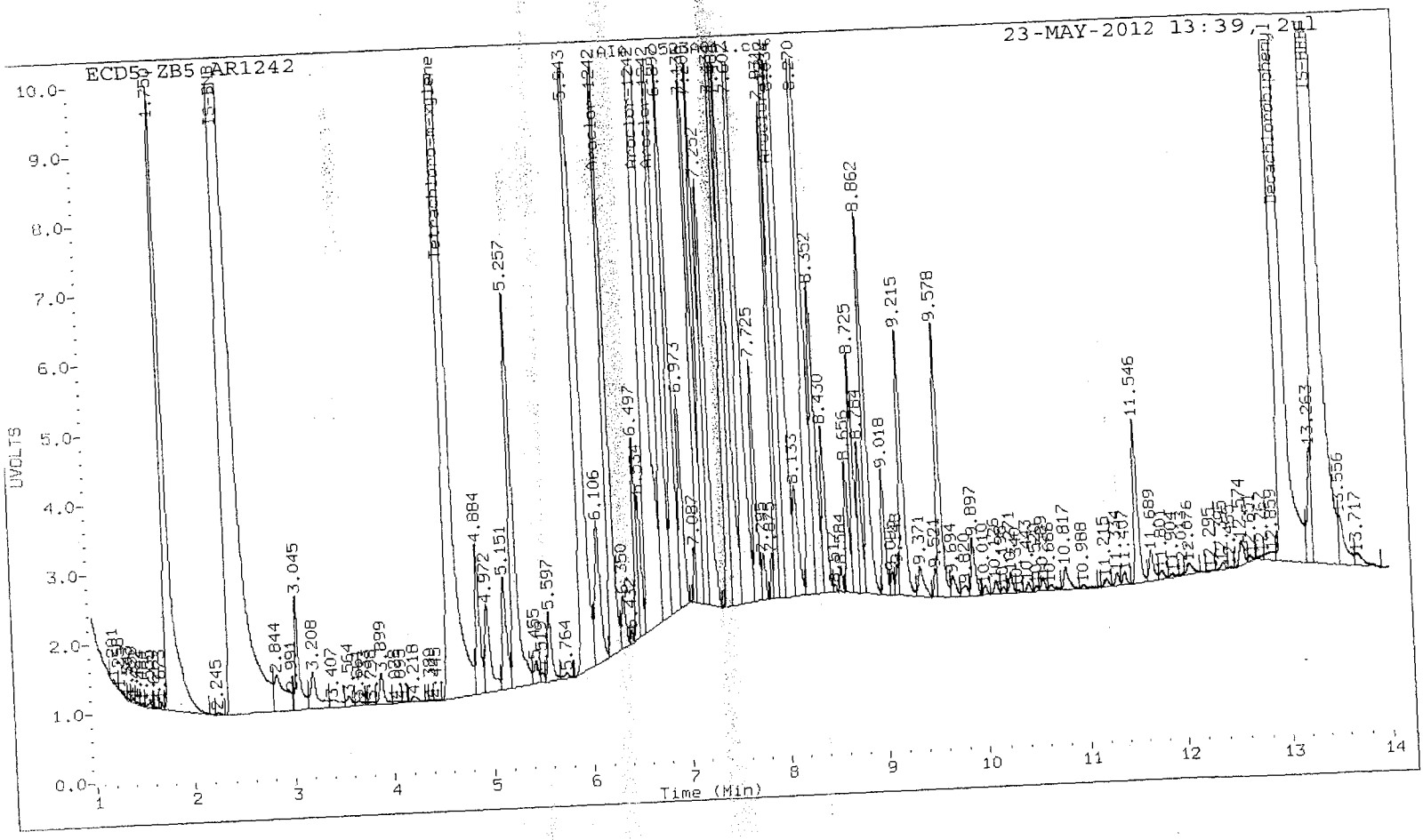


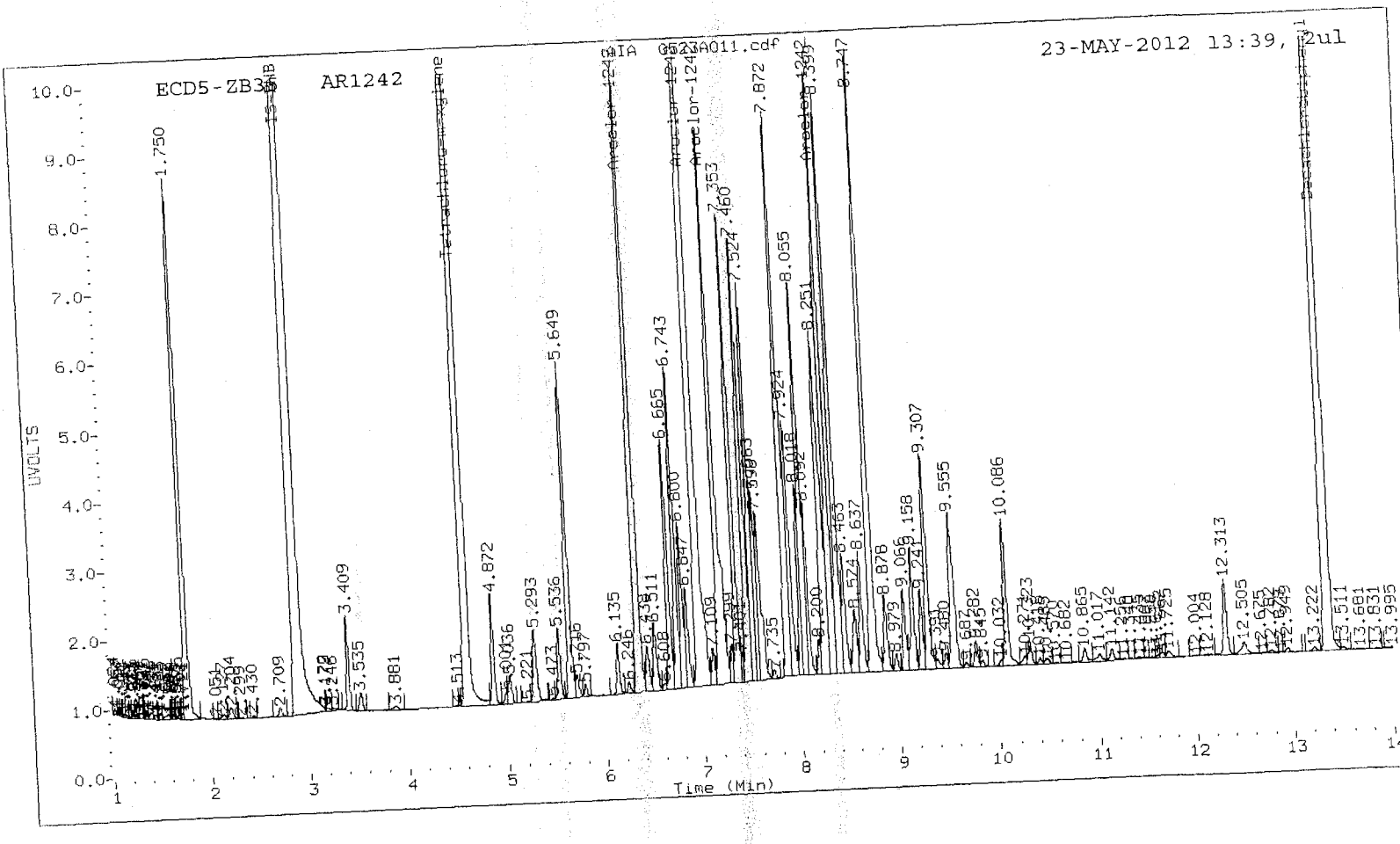
UU52:01634


ECD5-ZB5 AR1242
AIA 0523A011.cdf
23-MAY-2012 13:39, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl
IS-HBBP
Time (Min)


ECD5-ZB35 AR1242
AIA 0523A011.cdf
23-MAY-2012 13:39, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Aroclor-1242
Aroclor-1242
Decachlorobiphenyl
Time (Min)

UU52:01635


ECD5-ZB5 AR1242
23-MAY-2012 13:39, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl


ECD5-ZB5
AR1242
23-MAY-2012 13:39, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl

UU52:01636

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A012.d
Data file 2: 20120523.b/ical-2.b/0523A012.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1248
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248
Client ID:
Injection Date: 23-MAY-2012 13:58
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.605 | 0.000 | 51098218 | 4.606 | -0.001 | 32011781 | 20.4 | 20.5 | 0.7 | Tetrachloro-m-xylene |
| 12.989 | -0.001 | 71008403 | 13.363 | 0.000 | 27080017 | 18.0 | 19.0 | 5.1 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 50.9 | 51.3 |
| Decachlorobiphenyl | 45.1 | 47.5 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 156181919 | 1.3 |
| Hexabromobiphenyl | 248602423 | 256386929 | 3.1 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 110993433 | 0.3 |
| Hexabromobiphenyl | 108855531 | 110340661 | 1.4 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

chem2/ecd5.i/20120523.b/ical-1.b/0523A012.d AR1248

| Aroclor | Peak# | ZB5 Col RT | Shift | Area | Amount | Peak# | ZB35 Col RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 1 | 6.635 | 0.000 | 27412277 | 250.0 | 1 | 6.968 | 0.000 | 16661322 | 250.0 |
| Aroclor-1248 | 2 | 7.434 | 0.000 | 20709666 | 250.0 | 2 | 7.872 | 0.000 | 13348890 | 250.0 |
| Aroclor-1248 | 3 | 7.980 | 0.000 | 26528908 | 250.0 | 3 | 8.324 | 0.000 | 16052676 | 250.0 |
| Aroclor-1248 | 4 | 8.270 | 0.000 | 26768954 | 250.0 | 4 | 8.746 | 0.000 | 18118667 | 250.0 |

Total Col1Ave (4 peaks): 250.0 Total Col2Ave (4 peaks): 250.0 RPD = 0

Corrected Ave (3 peaks): 250.0 Corrected Ave (3 peaks): 250.0 RPD = 0

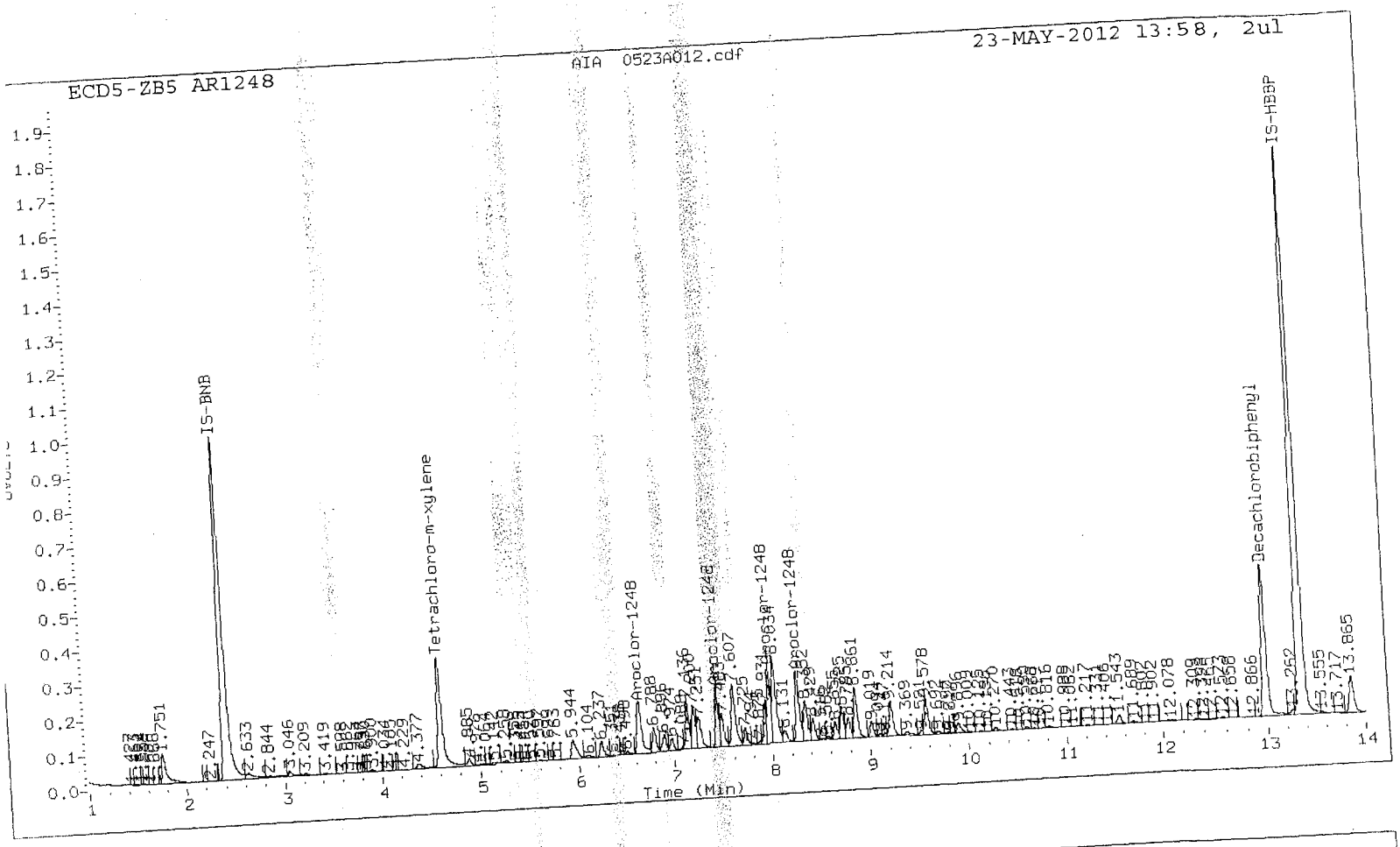
Total PCB Area Col1 (4.705 - 12.890) = 425921878 Col1 Total PCB = 0.2 ppm*

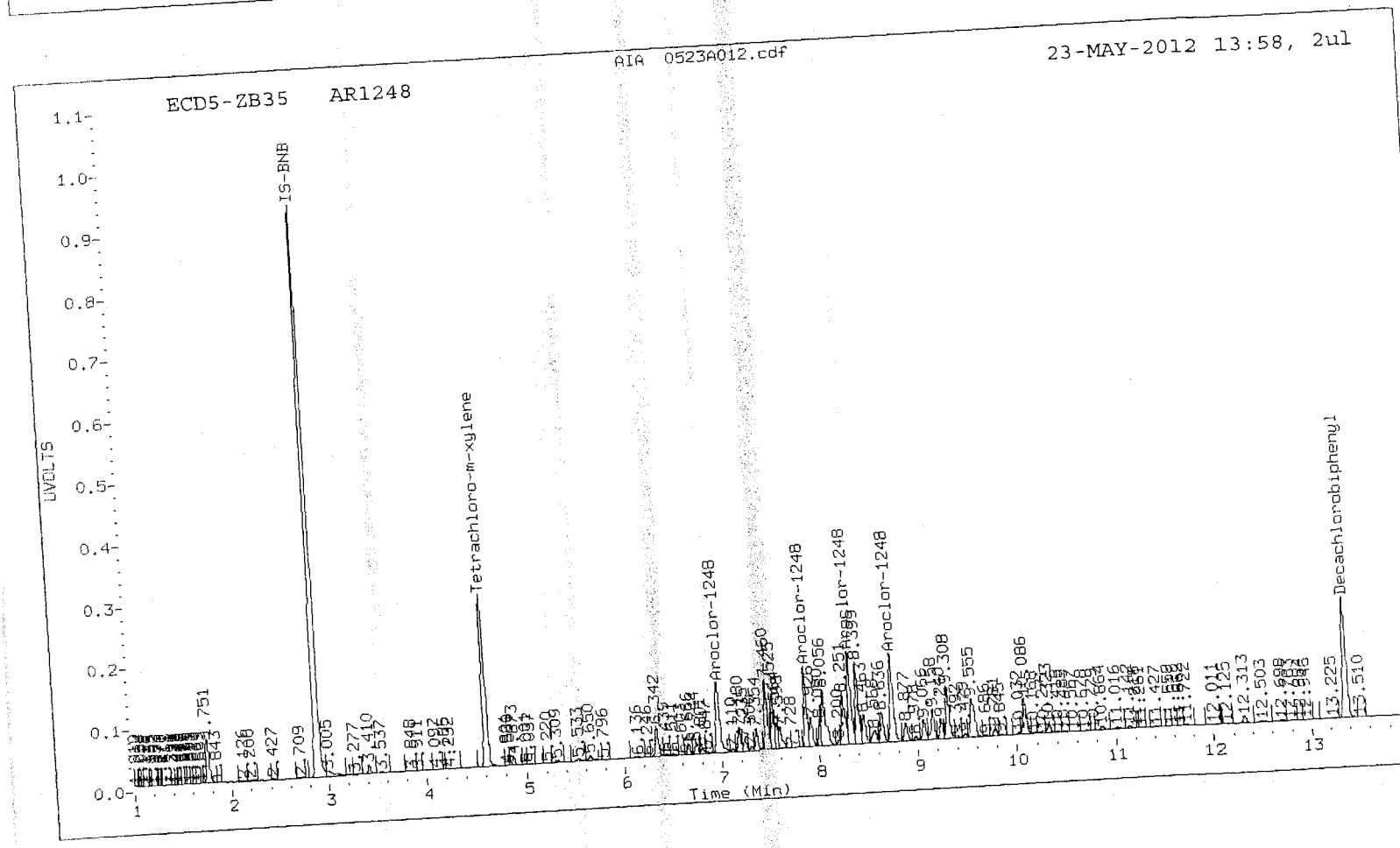
Total PCB Area Col2 (4.707 - 13.262) = 234961382 Col2 Total PCB = 0.2 ppm*

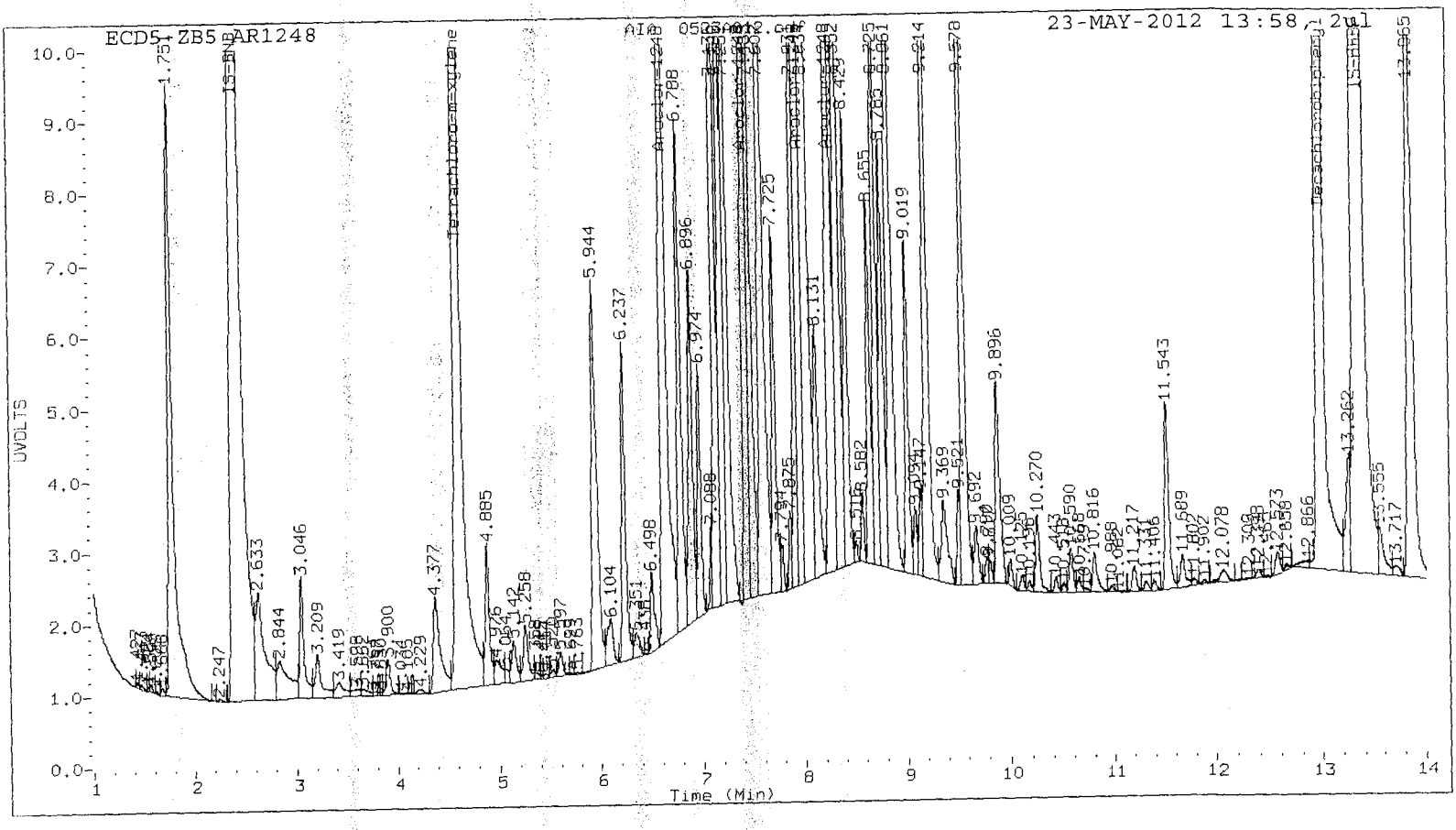
* Quantitated against AR1660 0.25ppm in Ical

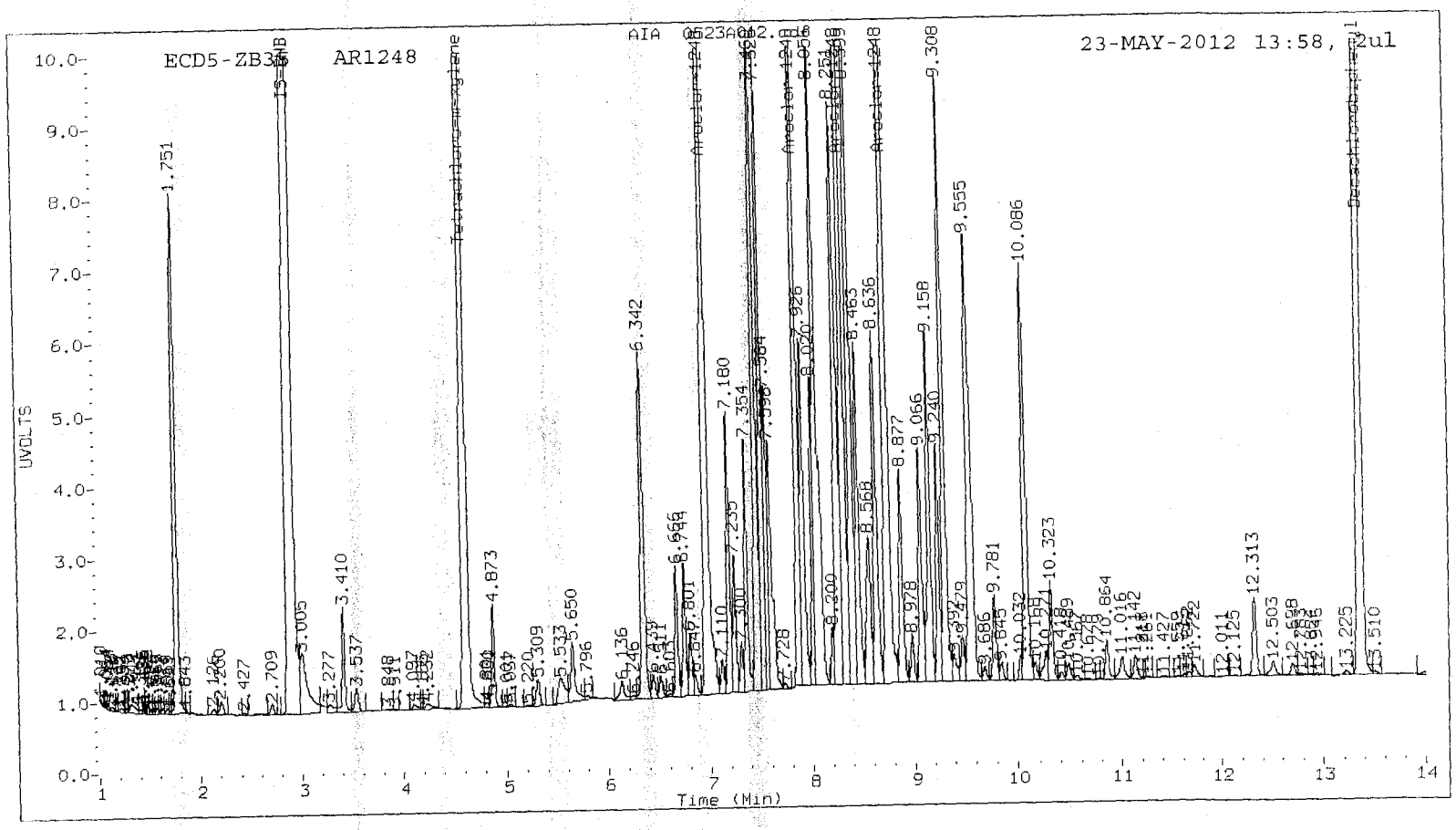


UU52:01638


ECD5-ZB5 AR1248
AIA 0523A012.cdf
23-MAY-2012 13:58, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Aroclor-1248
Aroclor-1248
Decachlorobiphenyl
IS-HBBP
Time (Min)


ECD5-ZB35 AR1248
AIA 0523A012.cdf
23-MAY-2012 13:58, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Decachlorobiphenyl
Time (Min)


ECD5-ZB5 AR1248
23-MAY-2012 13:58, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
IS=DNB


ECD5-ZB35
AR1248
23-MAY-2012 13:58, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
IS=DNB

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A013.d
Data file 2: 20120523.b/ical-2.b/0523A013.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254
Client ID:
Injection Date: 23-MAY-2012 14:17
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.604 | -0.001 | 51075292 | 4.605 | -0.002 | 32559399 | 19.7 | 20.4 | 3.1 | Tetrachloro-m-xylene |
| 12.989 | -0.001 | 72113898 | 13.363 | 0.000 | 27622701 | 18.1 | 19.2 | 5.8 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 49.3 | 50.9 |
| Decachlorobiphenyl | 45.3 | 48.0 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 161042809 | 4.4 |
| Hexabromobiphenyl | 248602423 | 259540024 | 4.4 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 113709110 | 2.8 |
| Hexabromobiphenyl | 108855531 | 111392465 | 2.3 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

chem2/ecd5.i/20120523.b/ical-1.b/0523A013.d AR1254

| Aroclor | Peak# | ZB5 Col RT | Shift | Area | Amount | Peak# | ZB35 Col RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1254 | 1 | 8.354 | 0.000 | 36957938 | 250.0 | 1 | 8.463 | 0.000 | 12480254 | 250.0 |
| Aroclor-1254 | 2 | 8.725 | 0.000 | 23788025 | 250.0 | 2 | 8.636 | 0.000 | 15863172 | 250.0 |
| Aroclor-1254 | 3 | 8.861 | 0.000 | 45928780 | 250.0 | 3 | 9.158 | 0.000 | 12121823 | 250.0 |
| Aroclor-1254 | 4 | 9.210 | 0.000 | 49454728 | 250.0 | 4 | 9.308 | 0.000 | 26812391 | 250.0 |
| Aroclor-1254 | 5 | 9.572 | 0.000 | 30760779 | 250.0 | 5 | 10.091 | 0.000 | 15715342 | 250.0 |

Total Col1Ave (5 peaks): 250.0 Total Col2Ave (5 peaks): 250.0 RPD = 0

Corrected Ave (4 peaks): 250.0 Corrected Ave (4 peaks): 250.0 RPD = 0

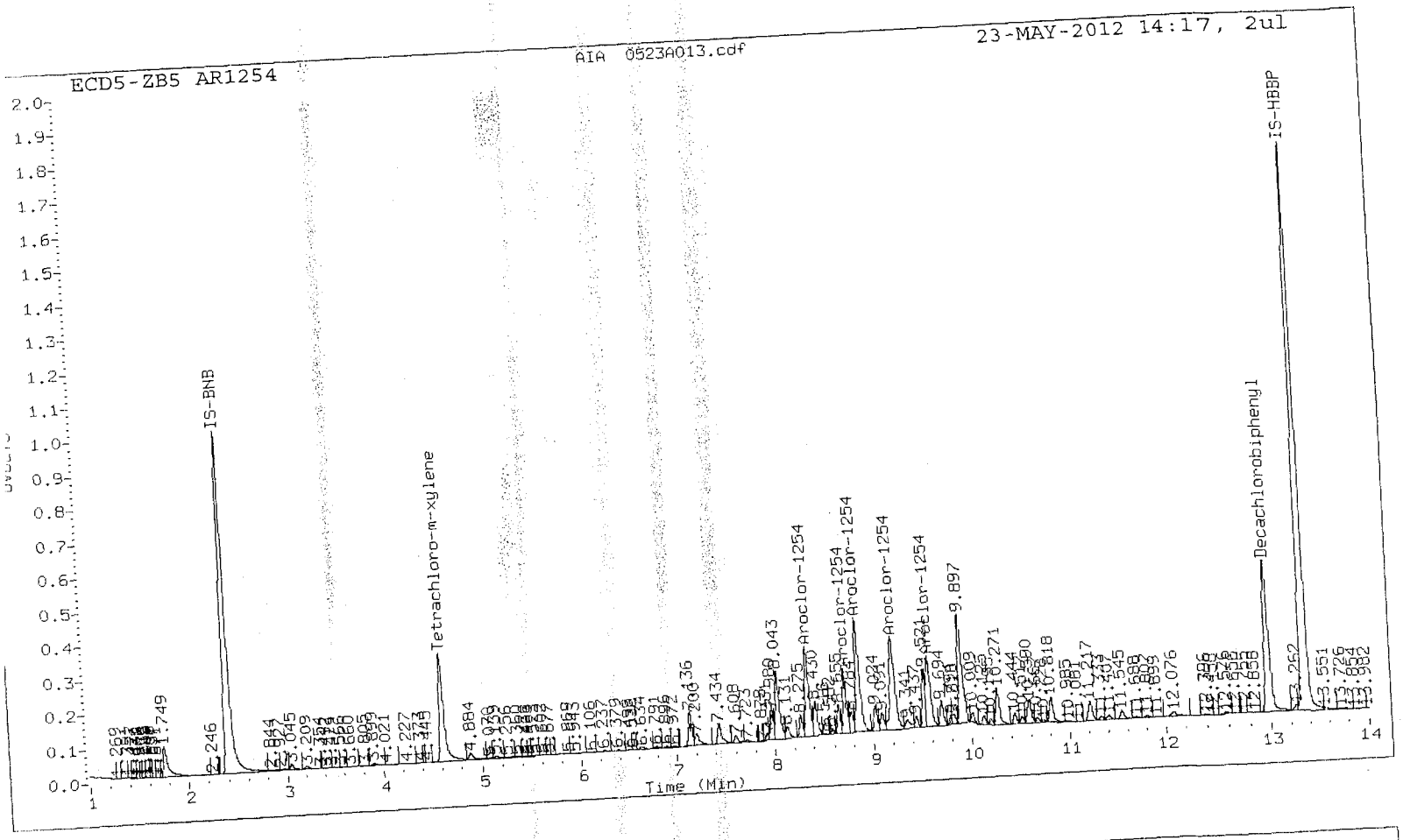
Total PCB Area Col1 (4.705 - 12.890) = 486346119 Col1 Total PCB = 0.3 ppm*

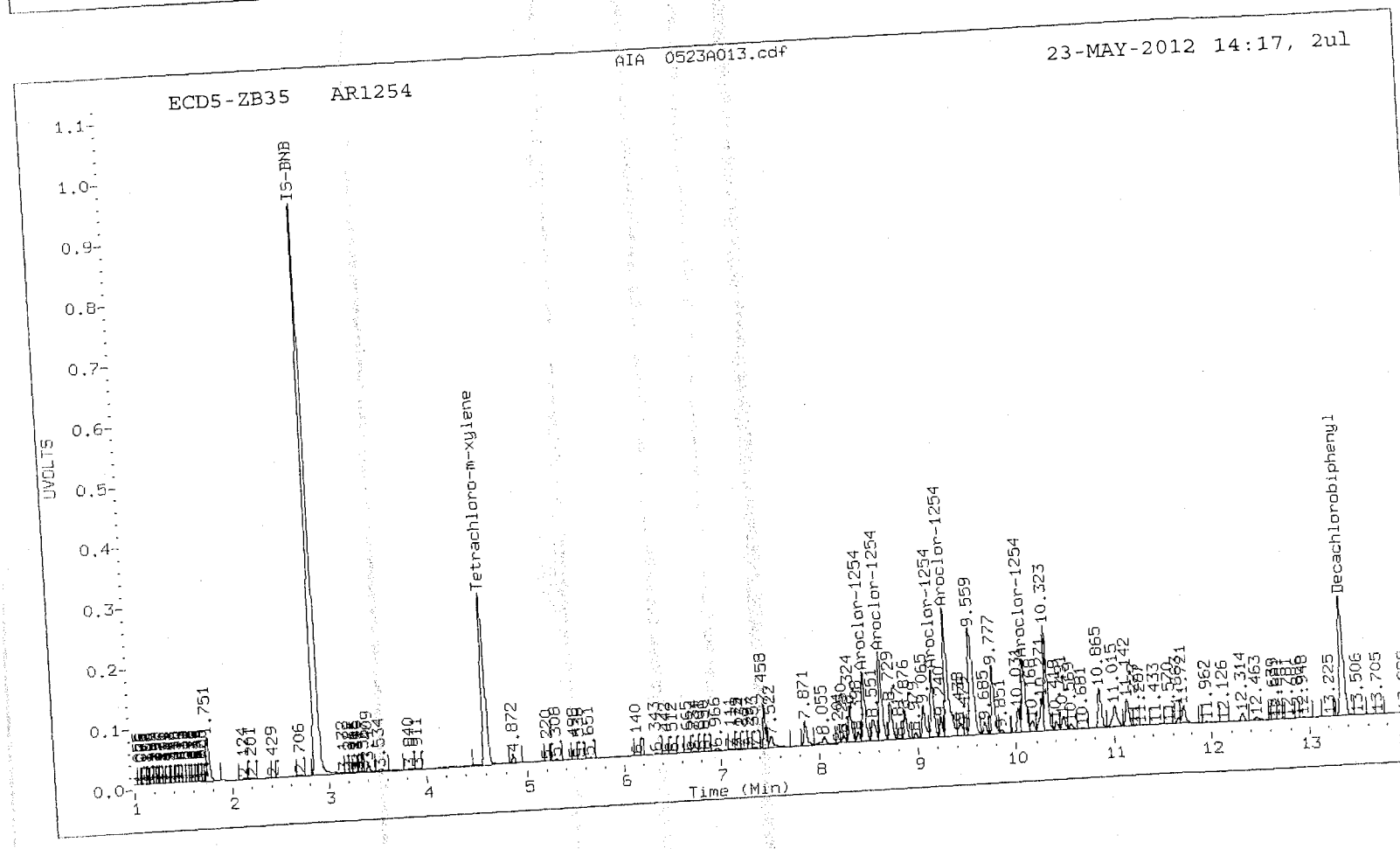
Total PCB Area Col2 (4.707 - 13.262) = 254319851 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

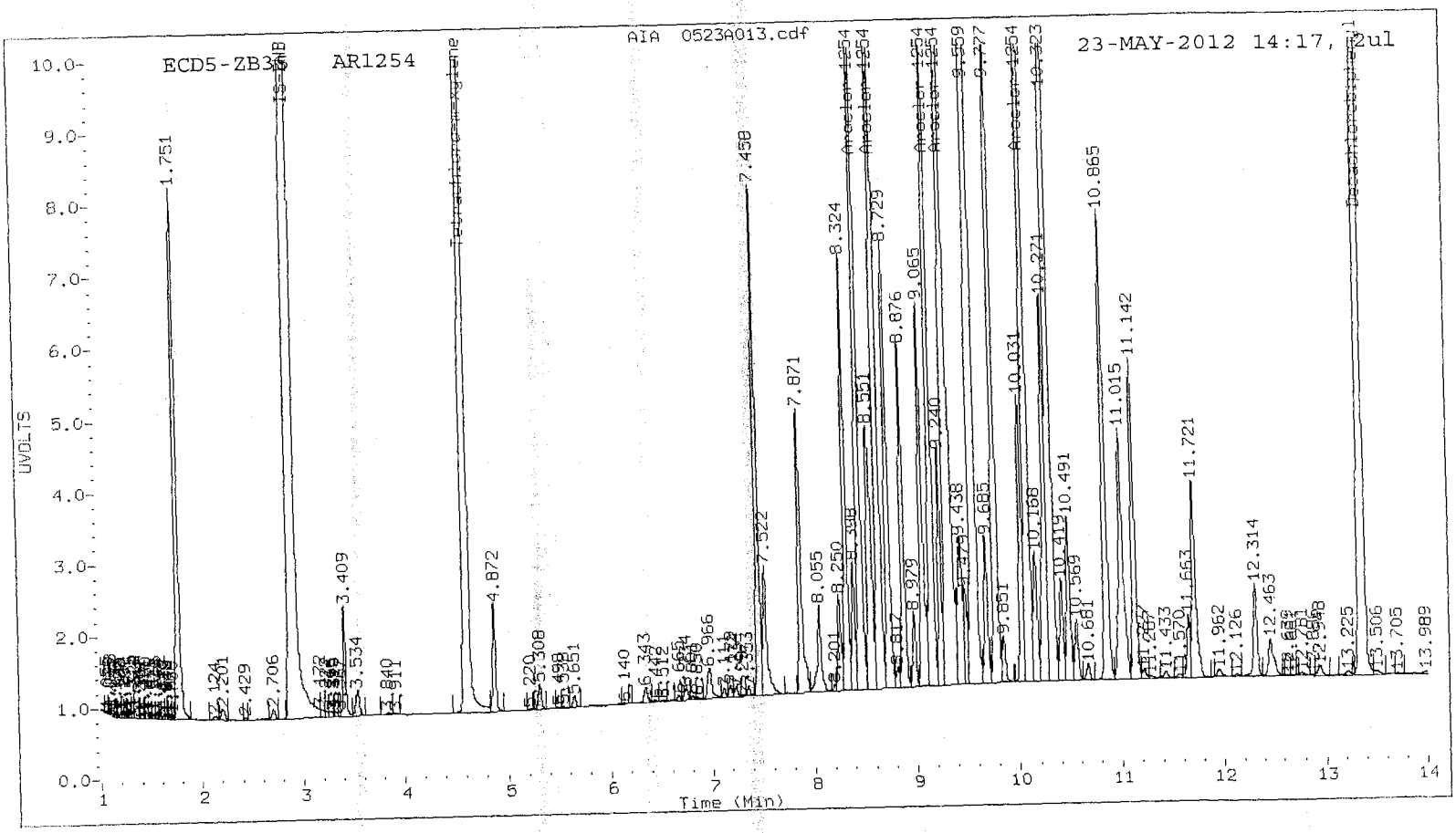


UU52:01642


ECD5-ZB5 AR1254
AIA 0523A013.cdf
23-MAY-2012 14:17, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Decachlorobiphenyl
IS-HBBP
Time (Min)


ECD5-ZB35 AR1254
AIA 0523A013.cdf
23-MAY-2012 14:17, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Decachlorobiphenyl
Time (Min)


ECD5-ZB5 AR1254
AIA 0523A013.cdf
23-MAY-2012 14:17, 2ul
UVOLTS
Time (Min)


ECD5-ZB35 AR1254
AIA 0523A013.cdf
23-MAY-2012 14:17, 2ul
UVOLTS
Time (Min)

UU52:01644

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A014.d
Data file 2: 20120523.b/ical-2.b/0523A014.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR2162
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162
Client ID:
Injection Date: 23-MAY-2012 14:36
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col | | | ZB35 Col | | | ZB5 | ZB35 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A015.d
Data file 2: 20120523.b/ical-2.b/0523A015.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR3268
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268
Client ID:
Injection Date: 23-MAY-2012 14:55
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.605 | 0.000 | 52276783 | 4.607 | 0.000 | 32799687 | 20.3 | 21.1 | 3.6 | Tetrachloro-m-xylene |
| 12.990 | 0.000 | 121606873 | 13.362 | 0.000 | 49357296 | 31.0 | 34.7 | 11.3 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 50.8 | 52.7 |
| Decachlorobiphenyl | 77.4 | 86.6 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 159979493 | 3.7 |
| Hexabromobiphenyl | 248602423 | 255983137 | 3.0 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 110553251 | -0.1 |
| Hexabromobiphenyl | 108855531 | 110210828 | 1.2 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

hem2/ecd5.i/20120523.b/ical-1.b/0523A015.d AR3268

| roclor | Peak# | RT | ZB5 Col Shift | Area | Amount | Peak# | RT | ZB35 Col Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| roclor-1232 | 1 | 6.238 | 0.000 | 6968282 | 250.0 | 1 | 6.345 | 0.000 | 6656405 | 250.0 |
| roclor-1232 | 2 | 6.639 | 0.000 | 23176486 | 250.0 | 2 | 6.971 | 0.000 | 13937128 | 250.0 |
| roclor-1232 | 3 | 6.788 | 0.000 | 9400077 | 250.0 | 3 | 7.179 | 0.000 | 4701629 | 250.0 |
| roclor-1232 | 4 | 7.980 | 0.000 | 9027031 | 250.0 | 4 | 8.325 | 0.000 | 5155738 | 250.0 |
| Total Col1Ave (4 peaks): | | | | 250.0 | | Total Col2Ave (4 peaks): | | | 250.0 | RPD = 0 |
| Corrected Ave (3 peaks): | | | | 250.0 | | Corrected Ave (3 peaks): | | | 250.0 | RPD = 0 |
| Aroclor-1268 | 1 | 11.336 | 0.000 | 108965571 | 250.0 | 1 | 11.664 | 0.000 | 52602687 | 250.0 |
| Aroclor-1268 | 2 | 11.407 | 0.000 | 109555201 | 250.0 | 2 | 11.730 | 0.000 | 49585436 | 250.0 |
| Aroclor-1268 | 3 | 11.793 | 0.000 | 91460025 | 250.0 | 3 | 12.128 | 0.000 | 41637863 | 250.0 |
| Aroclor-1268 | 4 | 12.585 | 0.000 | 268923357 | 250.0 | 4 | 12.950 | 0.000 | 117617700 | 250.0 |
| Total Col1Ave (4 peaks): | | | | 250.0 | | Total Col2Ave (4 peaks): | | | 250.0 | RPD = 0 |
| Corrected Ave (3 peaks): | | | | 250.0 | | Corrected Ave (3 peaks): | | | 250.0 | RPD = 0 |

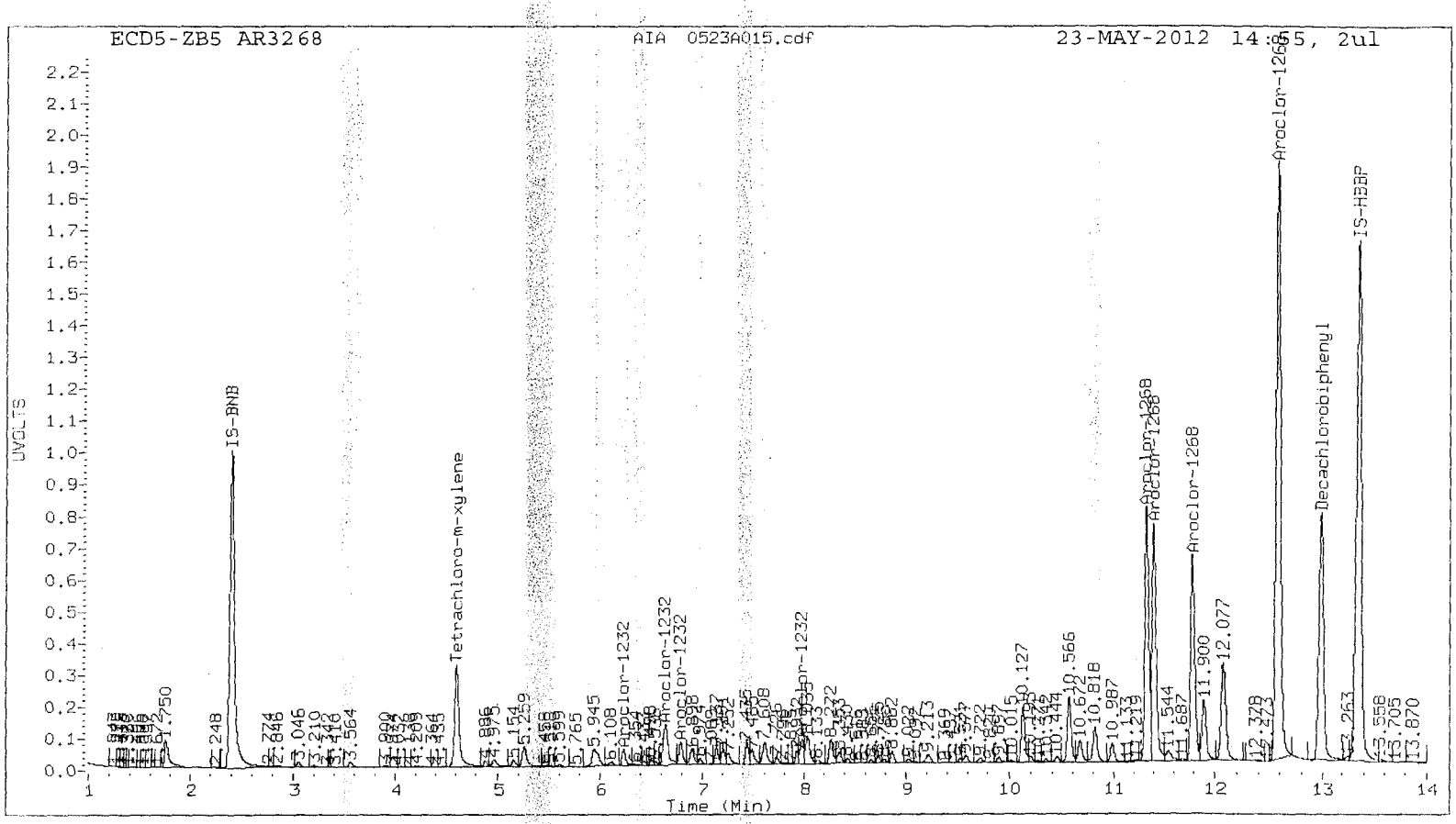
Total PCB Area Col1 (4.705 - 12.890) = 963172112 Col1 Total PCB = 0.5 ppm*

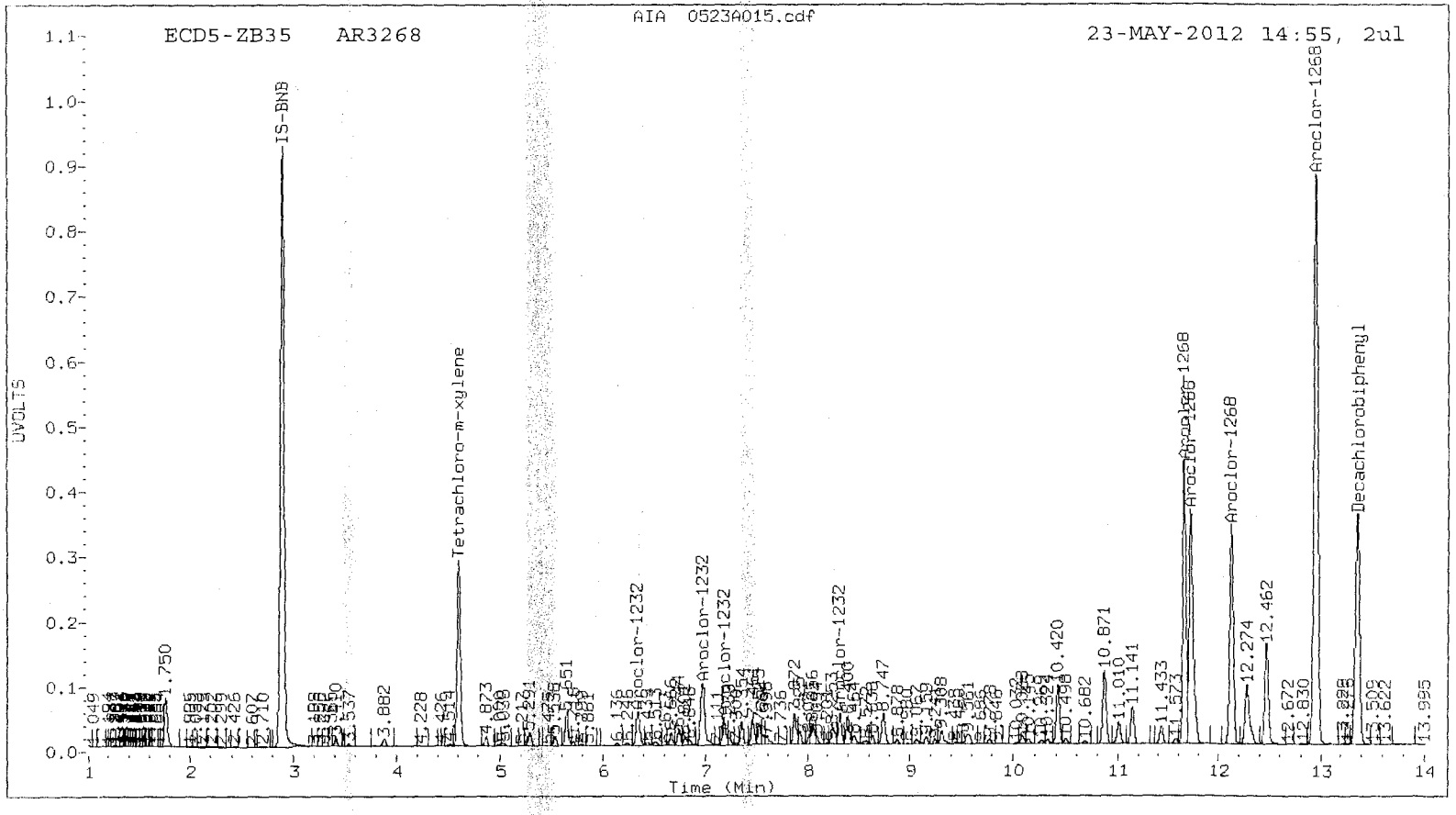
Total PCB Area Col2 (4.706 - 13.262) = 449374255 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

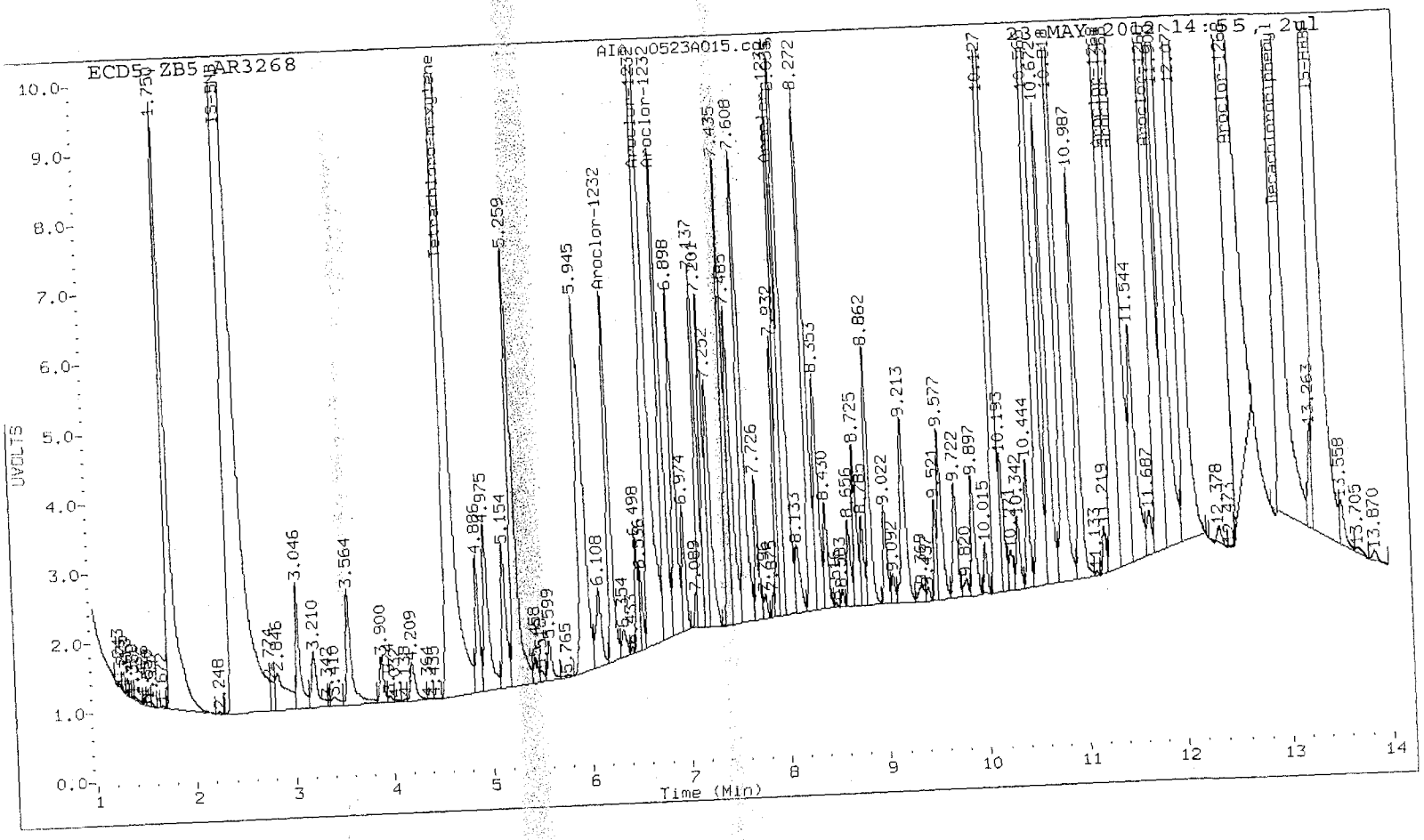


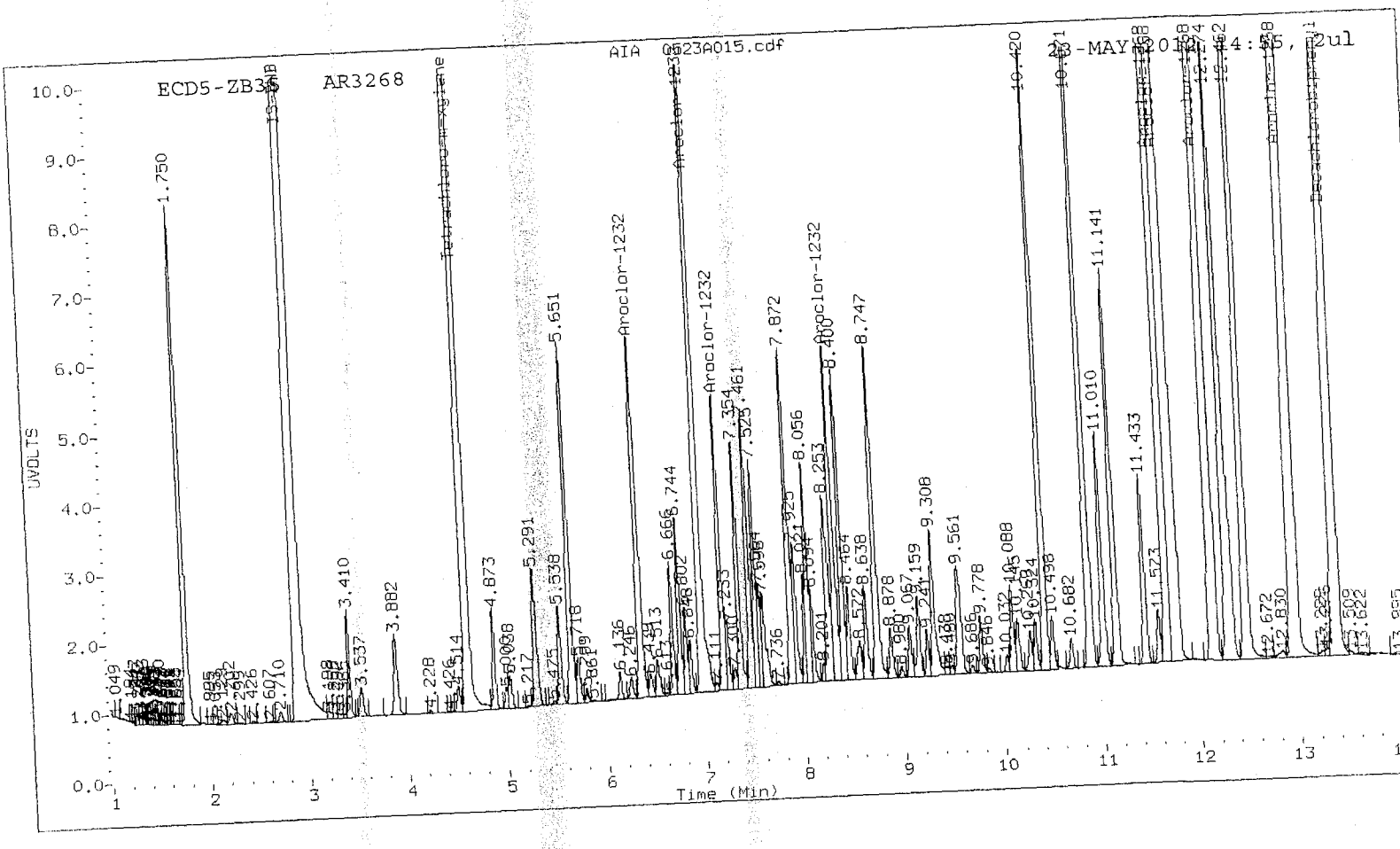
UU52:01647


ECD5-ZB5 AR3268
AIA 0523A015.cdf
23-MAY-2012 14:55, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl
IS-HBBP


ECD5-ZB35 AR3268
AIA 0523A015.cdf
23-MAY-2012 14:55, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Decachlorobiphenyl

US2:01649


ECD5-ZB5 AR3268
AIA 0523A015.cdf
23-MAY-2012 14:55, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1232
Aroclor-1260


ECD5-ZB35 AR3268
AIA 0523A015.cdf
23-MAY-2012 14:55, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1232
Aroclor-1260

GU52:01658

AR 5/24/2012

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A016.d
Data file 2: 20120523.b/ical-2.b/0523A016.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660 ICV
Client ID:
Injection Date: 23-MAY-2012 15:14
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.605 | 0.000 | 51659408 | 4.607 | -0.001 | 32548080 | 20.2 | 20.4 | 1.0 | Tetrachloro-m-xylene |
| 12.989 | -0.002 | 73226424 | 13.362 | -0.002 | 28269430 | 18.5 | 19.9 | 7.1 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 50.4 | 50.9 |
| Decachlorobiphenyl | 46.3 | 49.7 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 159402616 | 3.4 |
| Hexabromobiphenyl | 248602423 | 257592431 | 3.6 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 113559639 | 2.7 |
| Hexabromobiphenyl | 108855531 | 110023028 | 1.1 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

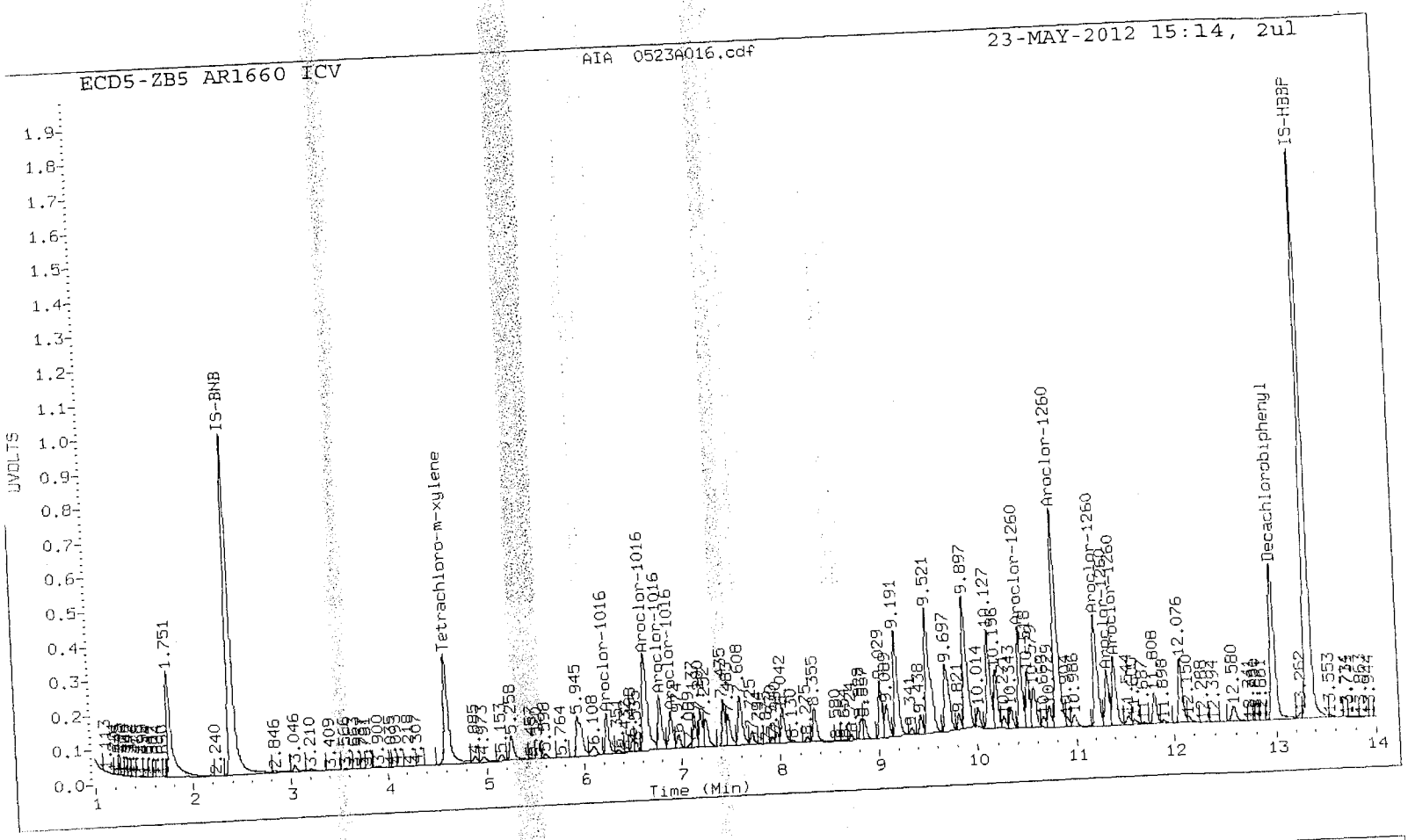
:hem2/ecd5.i/20120523.b/ical-1.b/0523A016.d AR1660 ICV

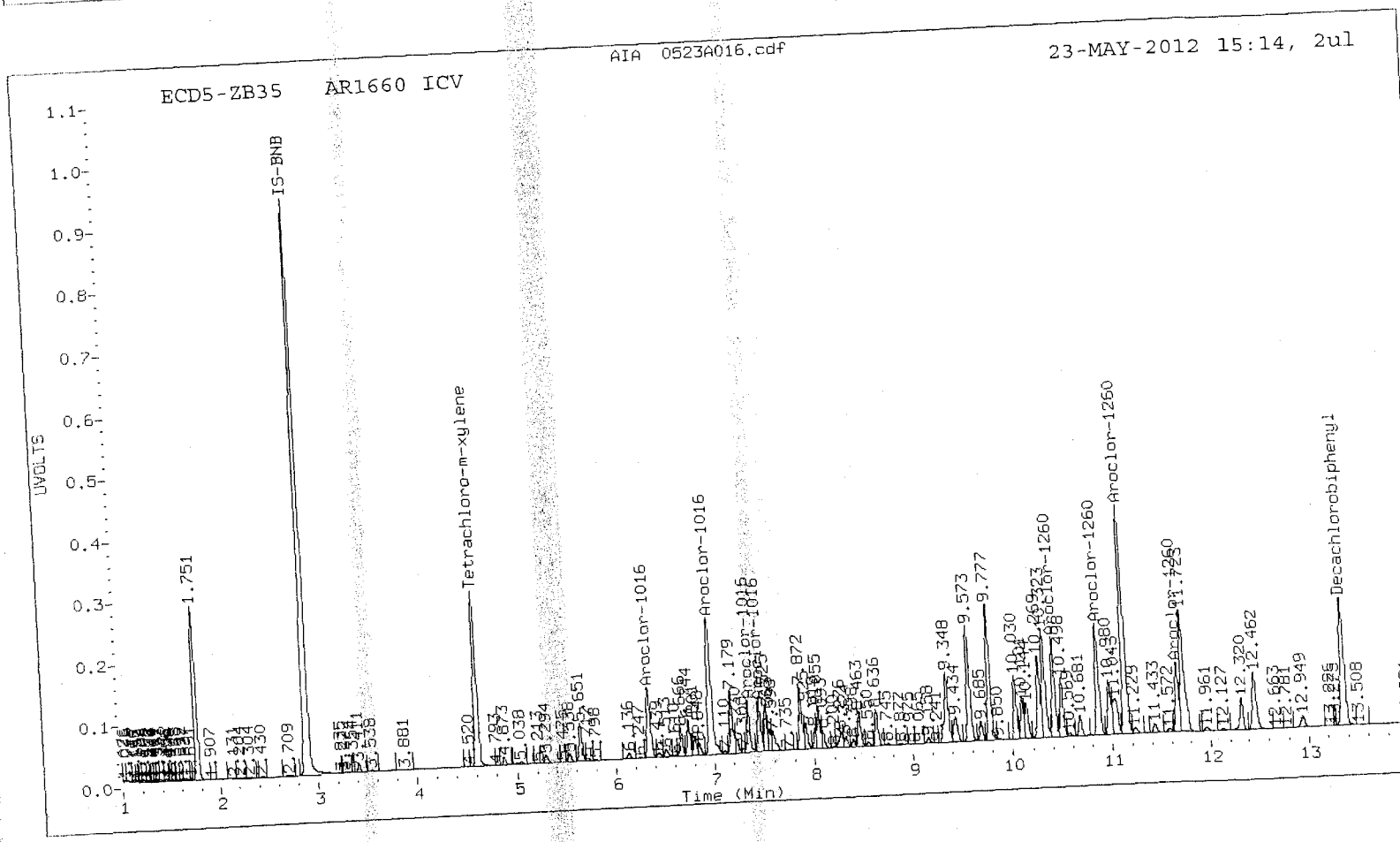
| Aroclor | Peak# | RT | ZB5 Col Shift | Area | Amount | Peak# | RT | ZB35 Col Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.238 | 0.001 | 15453388 | 232.4 | 1 | 6.344 | -0.001 | 14347675 | 242.1 |
| Aroclor-1016 | 2 | 6.638 | 0.000 | 51594113 | 238.0 | 2 | 6.971 | -0.001 | 32435718 | 241.1 |
| Aroclor-1016 | 3 | 6.787 | 0.000 | 20862762 | 244.0 | 3 | 7.354 | -0.001 | 8570166 | 246.9 |
| Aroclor-1016 | 4 | 6.897 | 0.001 | 14817661 | 220.0 | 4 | 7.460 | -0.002 | 9086943 | 235.5 |
| Total Col1Ave (4 peaks): | | | | | 233.6 | Total Col2Ave (4 peaks): | | | | 241.4 RPD = 3 |
| Corrected Ave (3 peaks): | | | | | 230.1 | Corrected Ave (3 peaks): | | | | 239.5 RPD = 4 |
| Aroclor-1260 | 1 | 10.444 | 0.000 | 37444124 | 267.9 | 1 | 10.419 | -0.001 | 18052461 | 286.1 |
| Aroclor-1260 | 2 | 10.818 | 0.000 | 91332989 | 263.4 | 2 | 10.870 | -0.001 | 20748389 | 264.8 |
| Aroclor-1260 | 3 | 11.218 | 0.001 | 48039895 | 249.2 | 3 | 11.142 | -0.001 | 43924991 | 276.1 |
| Aroclor-1260 | 4 | 11.334 | 0.000 | 22922786 | 277.0 | 4 | 11.663 | -0.001 | 13077340 | 281.5 |
| Aroclor-1260 | 5 | 11.407 | -0.001 | 28518434 | 288.6 | NS | --- | | | ---- |
| Total Col1Ave (5 peaks): | | | | | 269.2 | Total Col2Ave (4 peaks): | | | | 277.1 RPD = 3 |
| Corrected Ave (4 peaks): | | | | | 264.4 | Corrected Ave (3 peaks): | | | | 274.1 RPD = 4 |

Total PCB Area Col1 (4.705 - 12.890) = 962281592 Col1 Total PCB = 0.5 ppm*

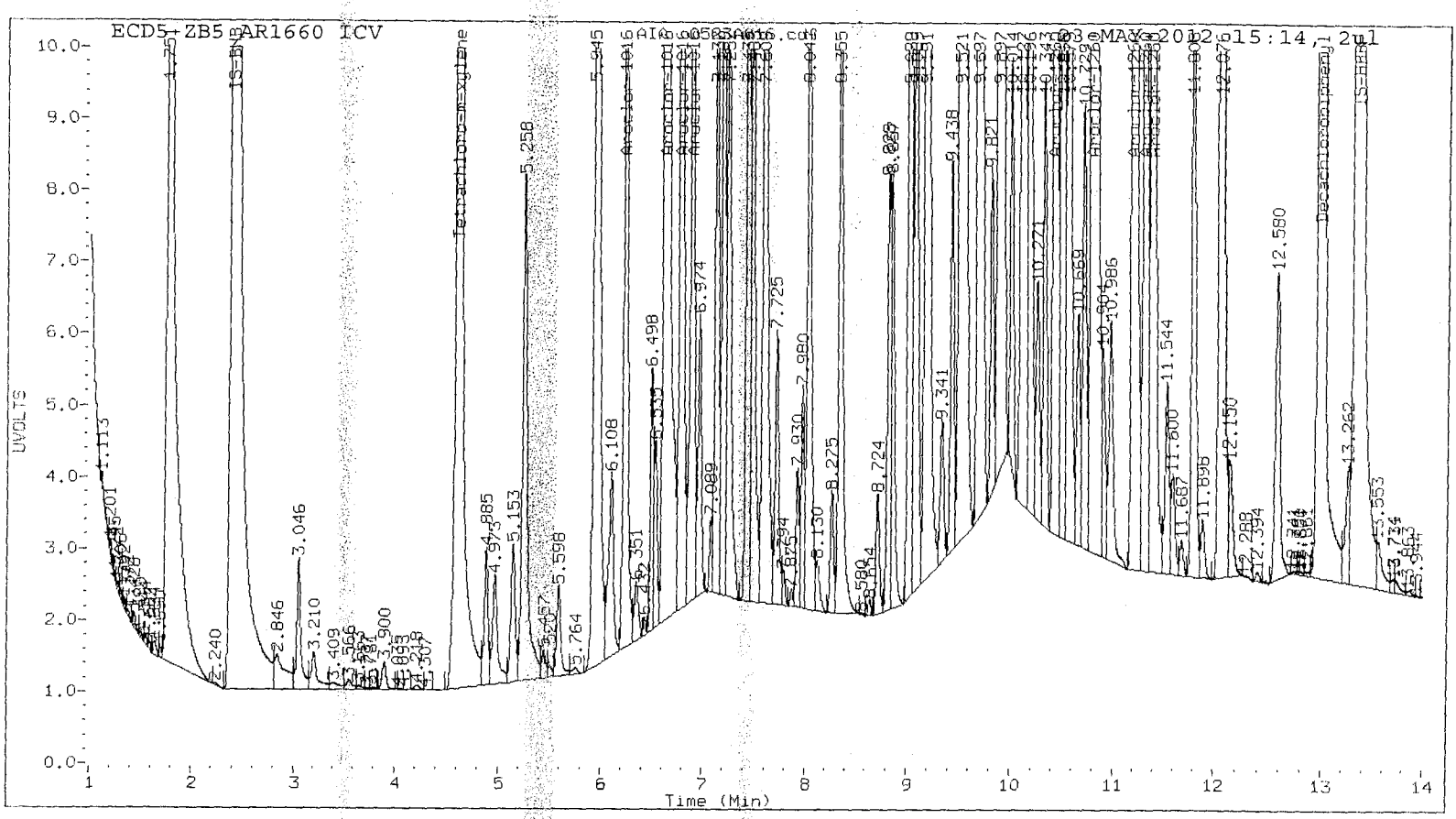
Total PCB Area Col2 (4.707 - 13.264) = 493868580 Col2 Total PCB = 0.5 ppm*

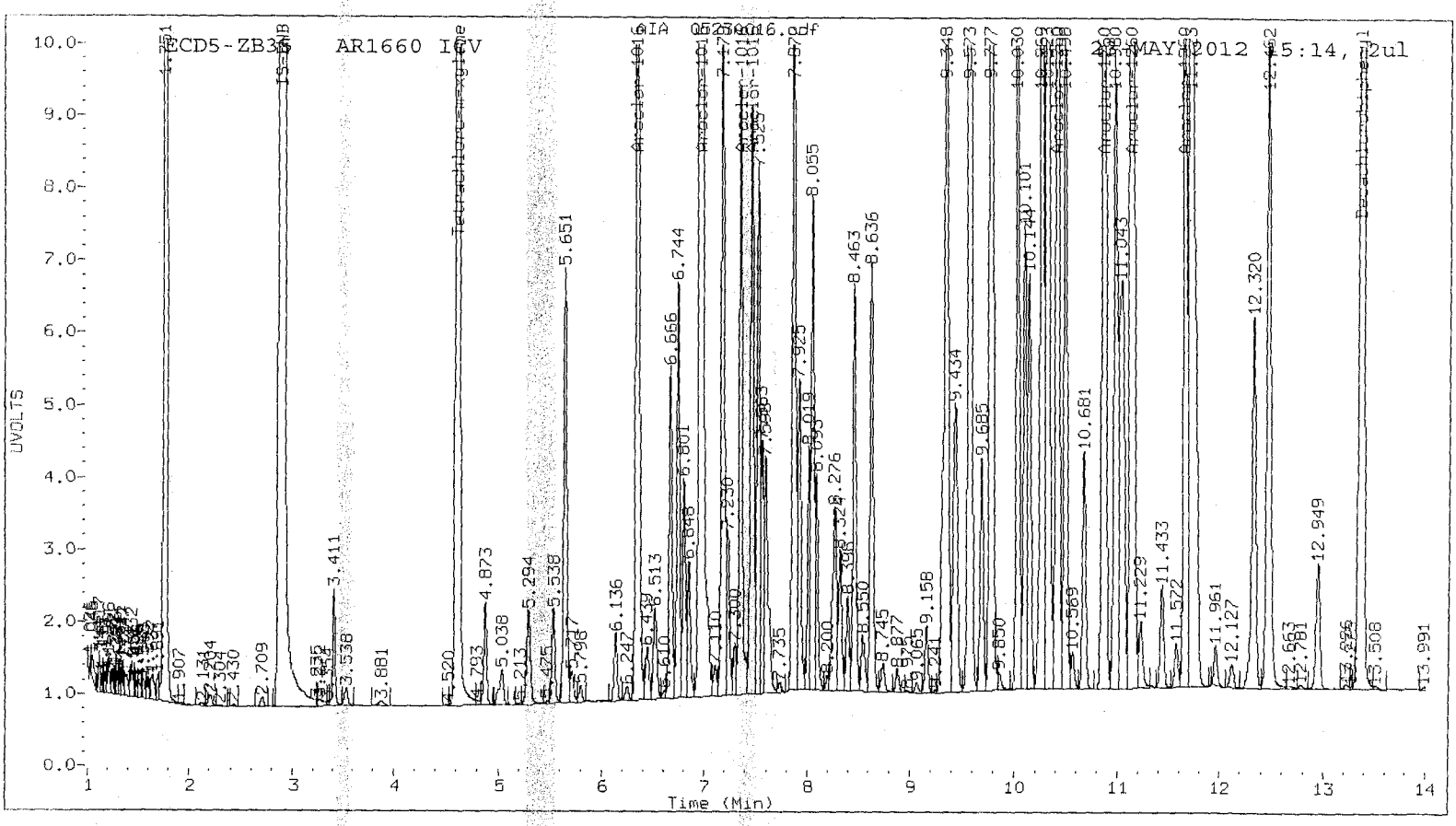
* Quantitated against AR1660 0.25ppm in Ical


ECD5-ZB5 AR1660 ICV
AIA 0523A016.cdf
23-MAY-2012 15:14, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBF


ECD5-ZB35 AR1660 ICV
AIA 0523A016.cdf
23-MAY-2012 15:14, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

UU52:01653


ECD5-ZB5 AR1660 ICV
03-MAY-2012 15:14, 2ul
UVOLTS
Time (Min)


ECD5-ZB35 AR1660 ICV
03-MAY-2012 15:14, 2ul
UVOLTS
Time (Min)

US2:01654

Analytical Resources Inc.
Dual Column PCBs by SW8082

AR 5/24/2012

Data file 1: 20120523.b/ical-1.b/0523A017.d
Data file 2: 20120523.b/ical-2.b/0523A017.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1242
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242 ICV
Client ID:
Injection Date: 23-MAY-2012 15:33
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.606 | 0.001 | 50930910 | 4.607 | -0.001 | 32187611 | 19.8 | 20.1 | 1.7 | Tetrachloro-m-xylene |
| 12.989 | -0.001 | 73135666 | 13.362 | -0.002 | 28043011 | 18.3 | 19.6 | 6.4 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 49.4 | 50.2 |
| Decachlorobiphenyl | 45.9 | 48.9 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 160396254 | 4.0 |
| Hexabromobiphenyl | 248602423 | 259869369 | 4.5 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 113869542 | 2.9 |
| Hexabromobiphenyl | 108855531 | 110961202 | 1.9 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | | ZB5 Col RT | Shift | Area | Amount | | ZB35 Col RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1242 | 1 | 6.238 | 0.001 | 12387074 | 245.4 | 1 | 6.344 | 0.001 | 11472731 | 246.9 |
| Aroclor-1242 | 2 | 6.639 | 0.001 | 41405903 | 246.0 | 2 | 6.971 | 0.001 | 25732158 | 243.9 |
| Aroclor-1242 | 3 | 6.787 | 0.001 | 16657005 | 248.0 | 3 | 7.179 | 0.000 | 8921973 | 208.1 |
| Aroclor-1242 | 4 | 7.981 | 0.001 | 14954646 | 239.0 | 4 | 8.324 | 0.000 | 8782379 | 235.6 |

Total Col1Ave (4 peaks): 244.6 Total Col2Ave (4 peaks): 233.6 RPD = 5

Corrected Ave (3 peaks): 243.4 Corrected Ave (3 peaks): 229.2 RPD = 6

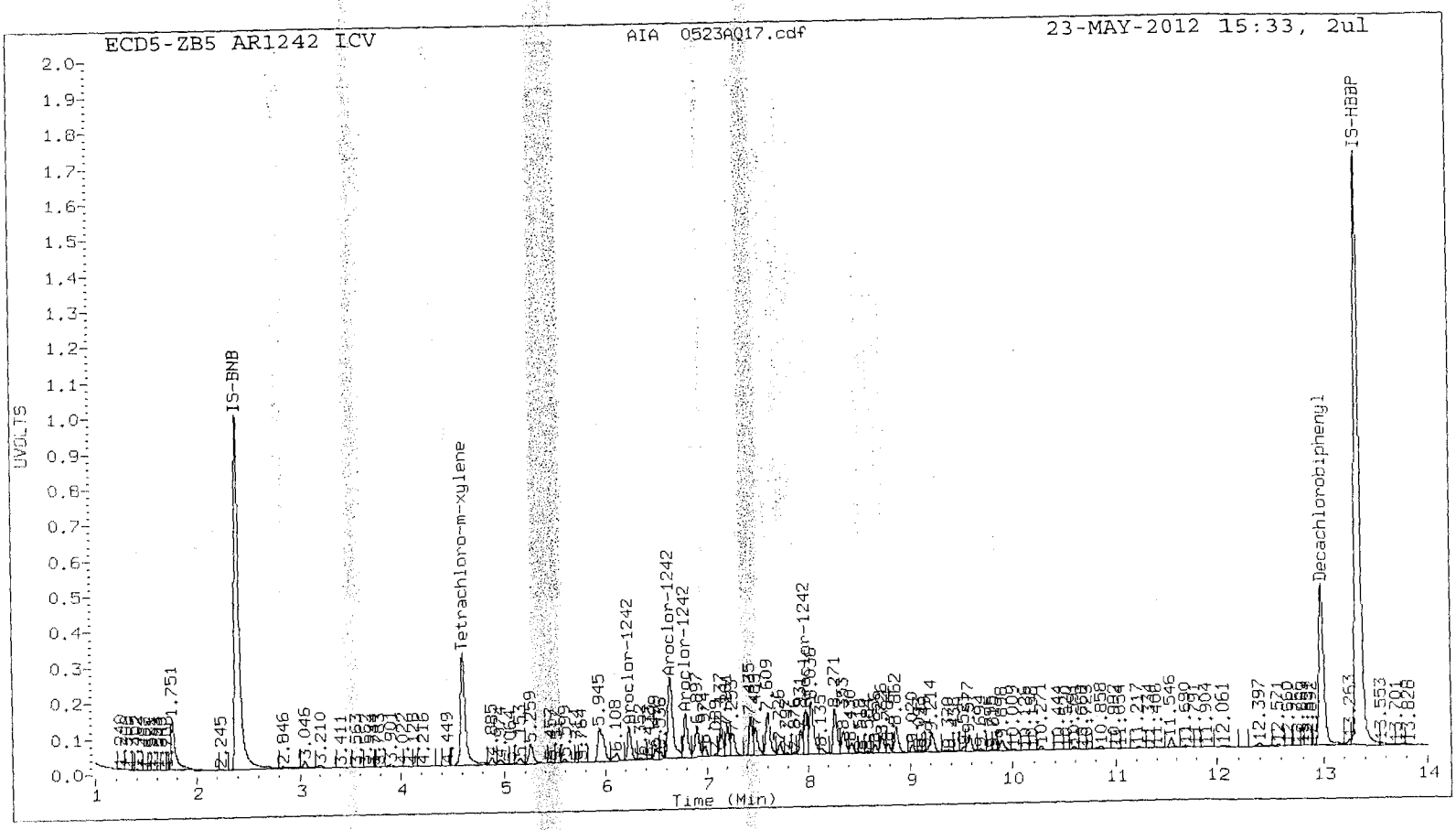
Total PCB Area Col1 (4.705 - 12.890) = 352295236 Col1 Total PCB = 0.2 ppm*

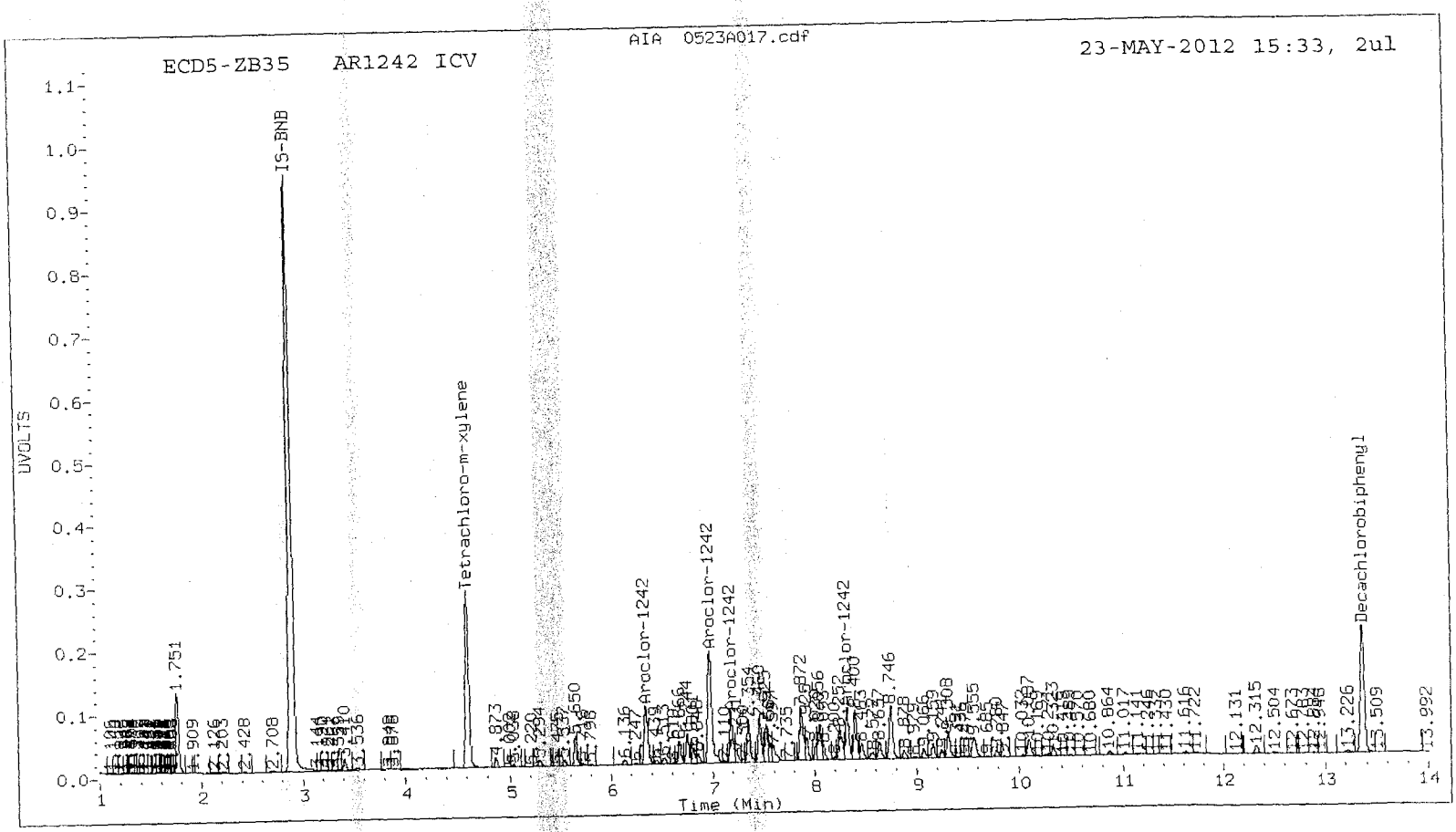
Total PCB Area Col2 (4.708 - 13.264) = 196524698 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

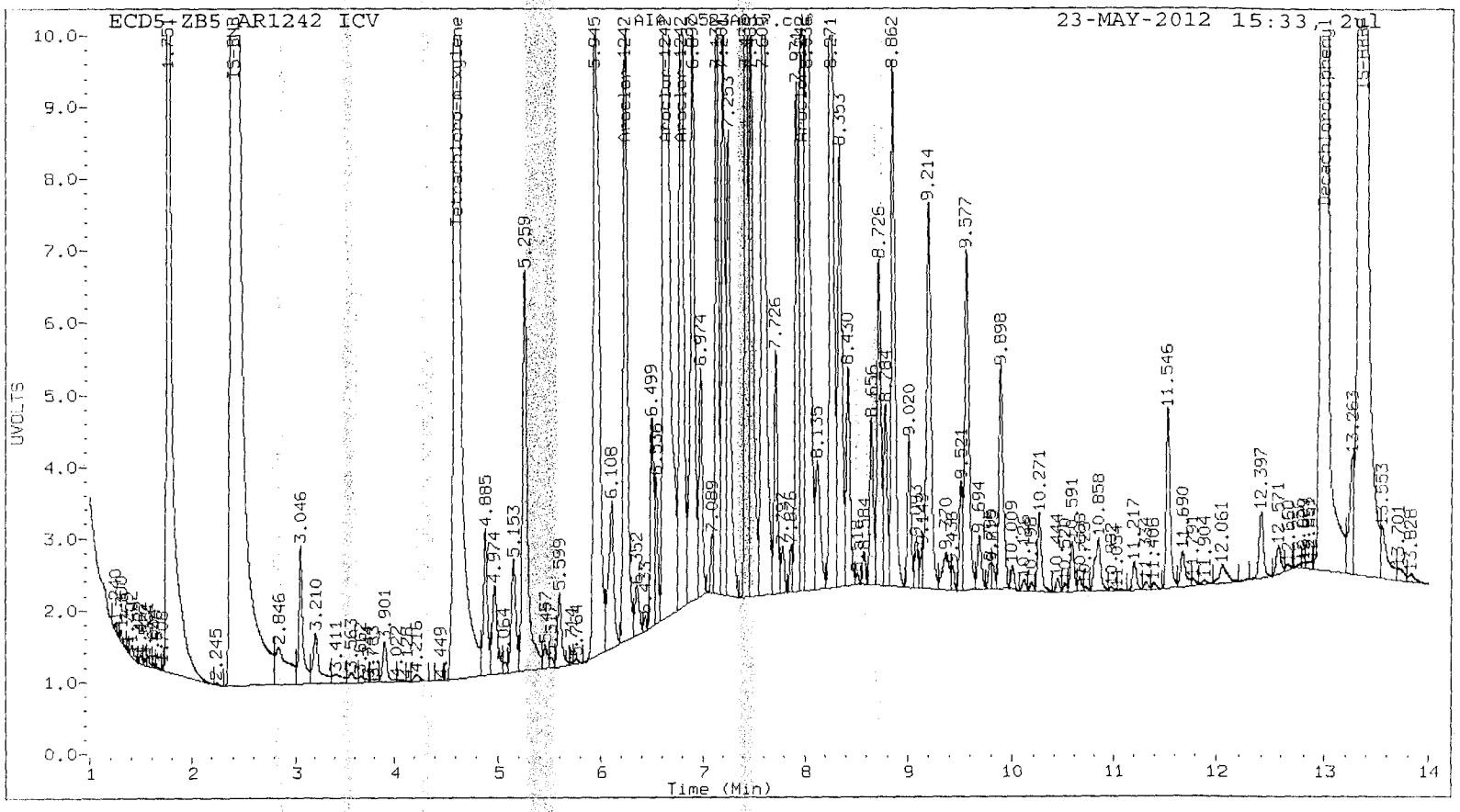


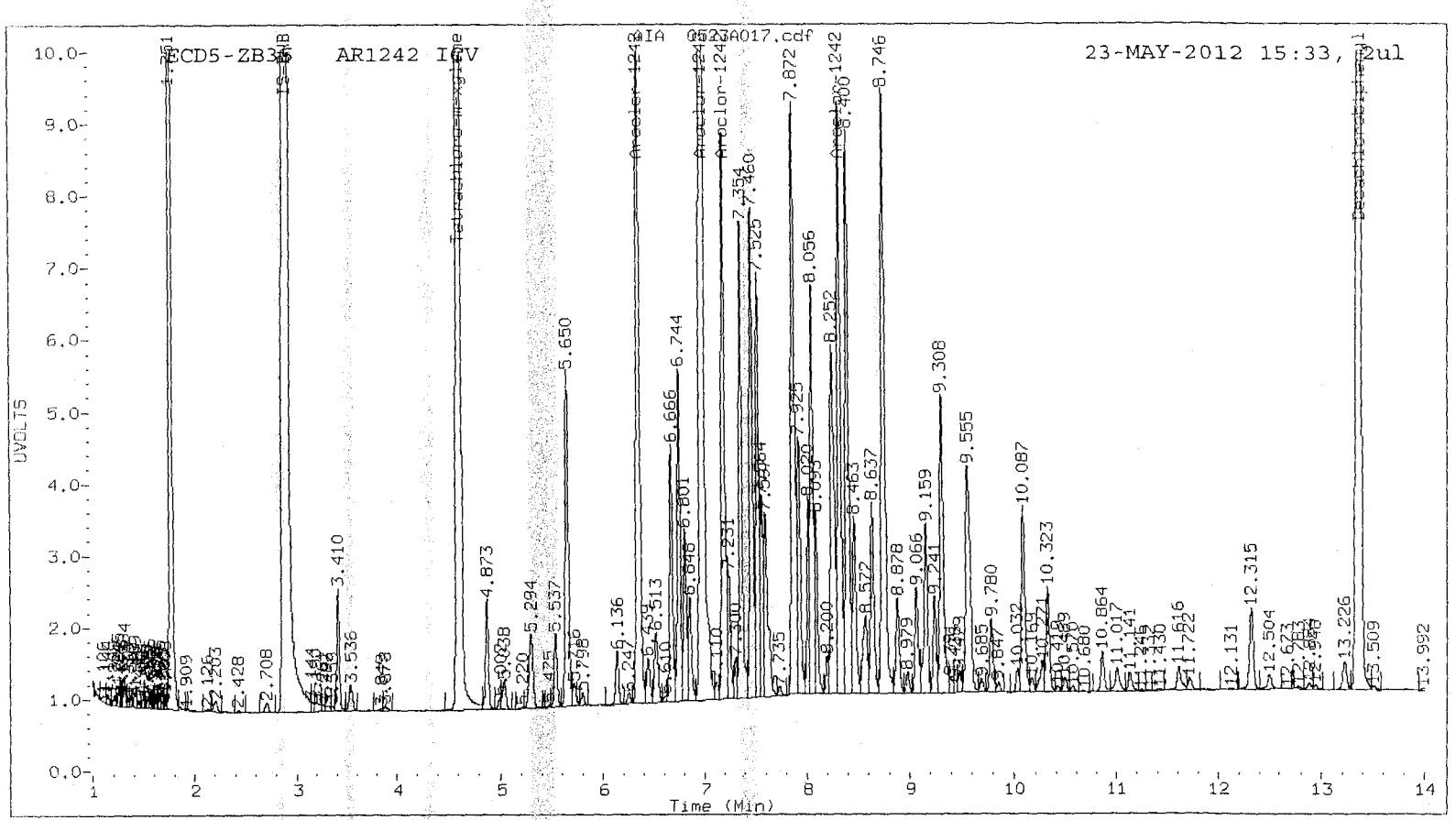
UU52:01555


ECD5-ZB5 AR1242 ICV
AIA 0523A017.cdf
23-MAY-2012 15:33, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl
IS-HBBP


ECD5-ZB35 AR1242 ICV
AIA 0523A017.cdf
23-MAY-2012 15:33, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl

UU52:01657


ECD5-ZB5 AR1242 ICV
23-MAY-2012 15:33, 2ul
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl
IS-HCBP


ECD5-ZB3 AR1242 ICV
23-MAY-2012 15:33, 2ul
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1242
Decachlorobiphenyl

WU52:01658

AR station

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A018.d
Data file 2: 20120523.b/ical-2.b/0523A018.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1248
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248 ICV
Client ID:
Injection Date: 23-MAY-2012 15:52
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.605 | 0.000 | 52367134 | 4.606 | -0.002 | 33444305 | 20.0 | 20.6 | 2.8 | Tetrachloro-m-xylene |
| 12.989 | -0.001 | 75045652 | 13.363 | -0.001 | 28984282 | 18.5 | 19.8 | 6.9 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 50.0 | 51.5 |
| Decachlorobiphenyl | 46.2 | 49.5 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 162864330 | 5.6 |
| Hexabromobiphenyl | 248602423 | 264734547 | 6.5 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 115475995 | 4.4 |
| Hexabromobiphenyl | 108855531 | 113328734 | 4.1 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

chem2/ecd5.i/20120523.b/ical-1.b/0523A018.d AR1248 ICV

| Aroclor | Peak# | ZB5 Col RT | Shift | Area | Amount | Peak# | ZB35 Col RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 1 | 6.636 | 0.001 | 29097134 | 254.5 | 1 | 6.967 | -0.002 | 17683761 | 255.0 |
| Aroclor-1248 | 2 | 7.434 | 0.000 | 20776597 | 240.5 | 2 | 7.872 | -0.003 | 13425883 | 241.7 |
| Aroclor-1248 | 3 | 7.980 | 0.000 | 26250945 | 237.2 | 3 | 8.324 | -0.002 | 15770717 | 236.1 |
| Aroclor-1248 | 4 | 8.270 | 0.000 | 25907890 | 232.0 | 4 | 8.745 | -0.003 | 17547965 | 232.7 |

Total Col1Ave (4 peaks): 241.1 Total Col2Ave (4 peaks): 241.4 RPD = 0

Corrected Ave (3 peaks): 236.6 Corrected Ave (3 peaks): 236.8 RPD = 0

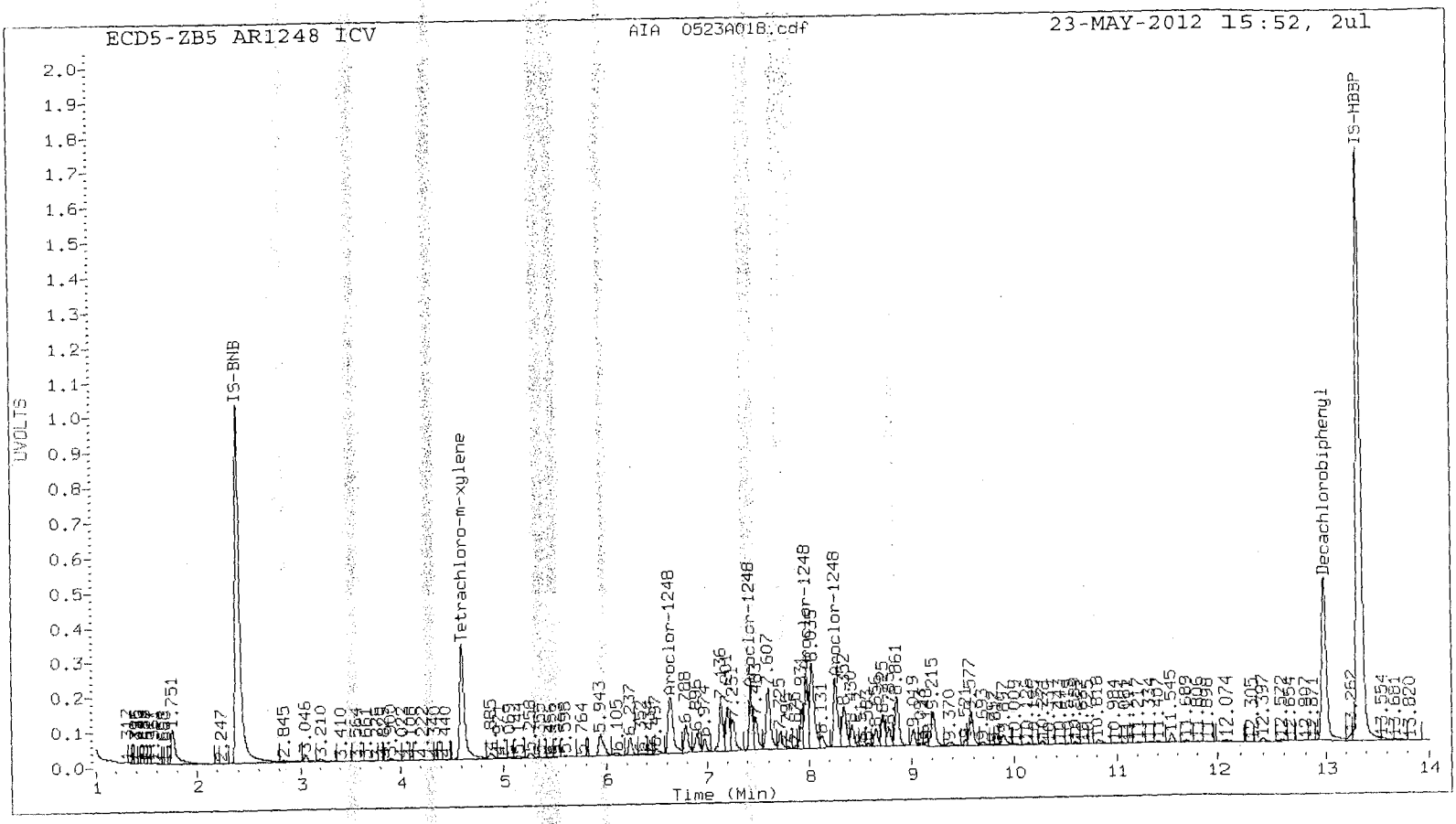
Total PCB Area Col1 (4.705 - 12.890) = 432722885 Col1 Total PCB = 0.2 ppm*

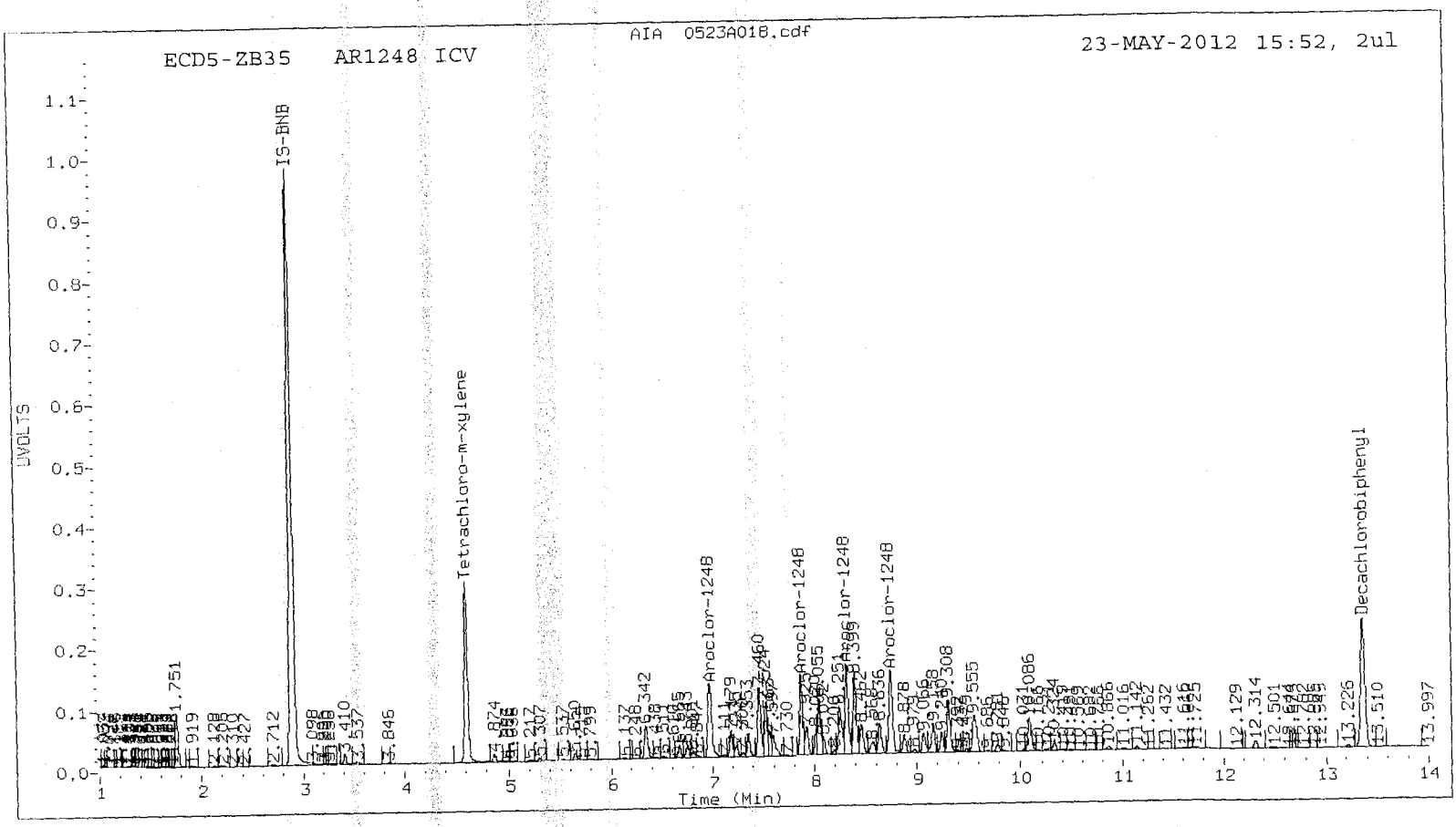
Total PCB Area Col2 (4.708 - 13.264) = 236299209 Col2 Total PCB = 0.2 ppm*

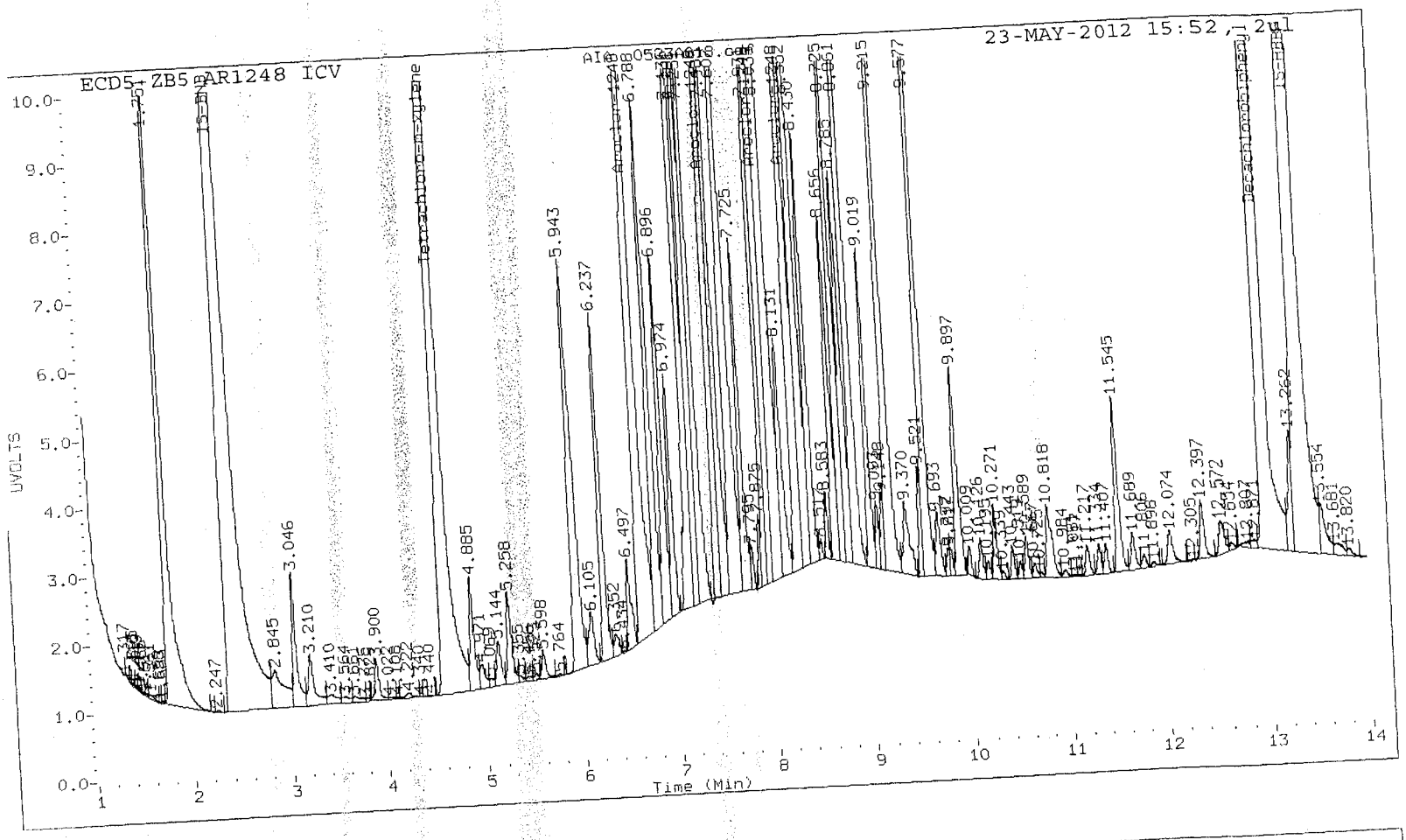
* Quantitated against AR1660 0.25ppm in Ical

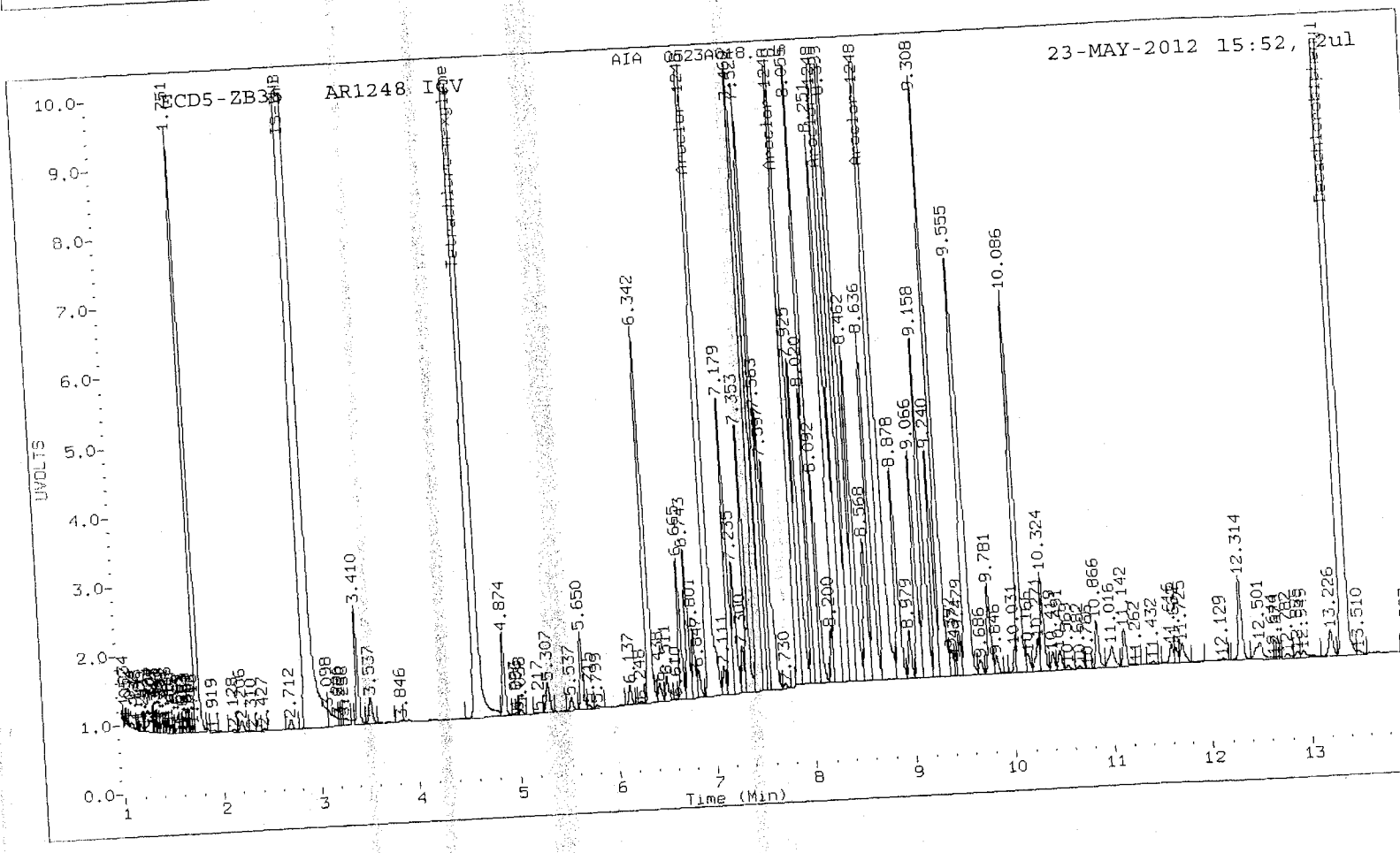


UU52:01660


ECD5-ZB5 AR1248 ICV
AIA 0523A018.cdf
23-MAY-2012 15:52, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)


ECD5-ZB35 AR1248 ICV
AIA 0523A018.cdf
23-MAY-2012 15:52, 2ul
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Decachlorobiphenyl
UVOLTS
Time (Min)


ECD5-ZB5 AR1248 ICV
23-MAY-2012 15:52, 2ul
UVOLTS
Time (Min)


ECD5-ZB35 AR1248 ICV
23-MAY-2012 15:52, 2ul
UVOLTS
Time (Min)

UU52:01662

AR-5124-20m

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A019.d
Data file 2: 20120523.b/ical-2.b/0523A019.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254 ICV
Client ID:
Injection Date: 23-MAY-2012 16:11
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.604 | -0.001 | 50868781 | 4.606 | -0.002 | 32286045 | 19.5 | 20.0 | 2.6 | Tetrachloro-m-xylene |
| 12.988 | -0.002 | 73856690 | 13.363 | -0.002 | 28364295 | 18.2 | 19.4 | 6.3 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 48.6 | 49.9 |
| Decachlorobiphenyl | 45.5 | 48.4 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 162740264 | 5.5 |
| Hexabromobiphenyl | 248602423 | 264518414 | 6.4 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 114989370 | 4.0 |
| Hexabromobiphenyl | 108855531 | 113322609 | 4.1 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | RT | ZB5 Col Shift | Area | Amount | Peak# | RT | ZB35 Col Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1254 | 1 | 8.354 | 0.000 | 42528598 | 284.7 | 1 | 8.463 | -0.002 | 14215647 | 281.6 |
| Aroclor-1254 | 2 | 8.725 | 0.000 | 28284374 | 294.2 | 2 | 8.636 | -0.002 | 18227173 | 284.1 |
| Aroclor-1254 | 3 | 8.861 | 0.000 | 51946640 | 279.8 | 3 | 9.158 | -0.001 | 14504174 | 295.8 |
| Aroclor-1254 | 4 | 9.211 | 0.001 | 57565076 | 288.0 | 4 | 9.308 | -0.002 | 30216149 | 278.6 |
| Aroclor-1254 | 5 | 9.572 | 0.000 | 36946866 | 297.1 | 5 | 10.091 | -0.003 | 18685008 | 293.9 |

Total Col1Ave (5 peaks): 288.8 Total Col2Ave (5 peaks): 286.8 RPD = 1

Corrected Ave (4 peaks): 286.7 Corrected Ave (4 peaks): 284.5 RPD = 1

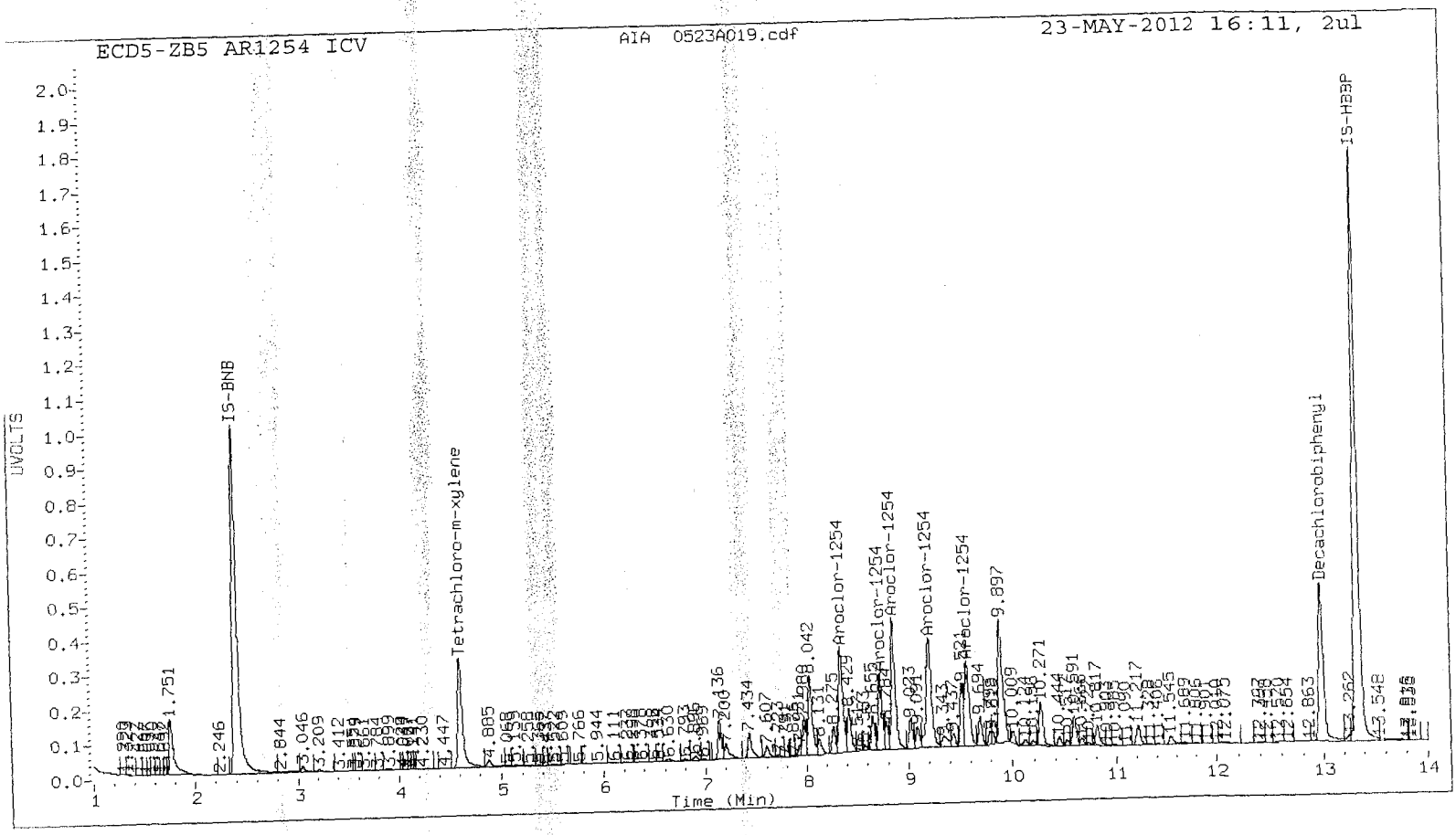
Total PCB Area Col1 (4.705 - 12.890) = 555120246 Col1 Total PCB = 0.3 ppm*

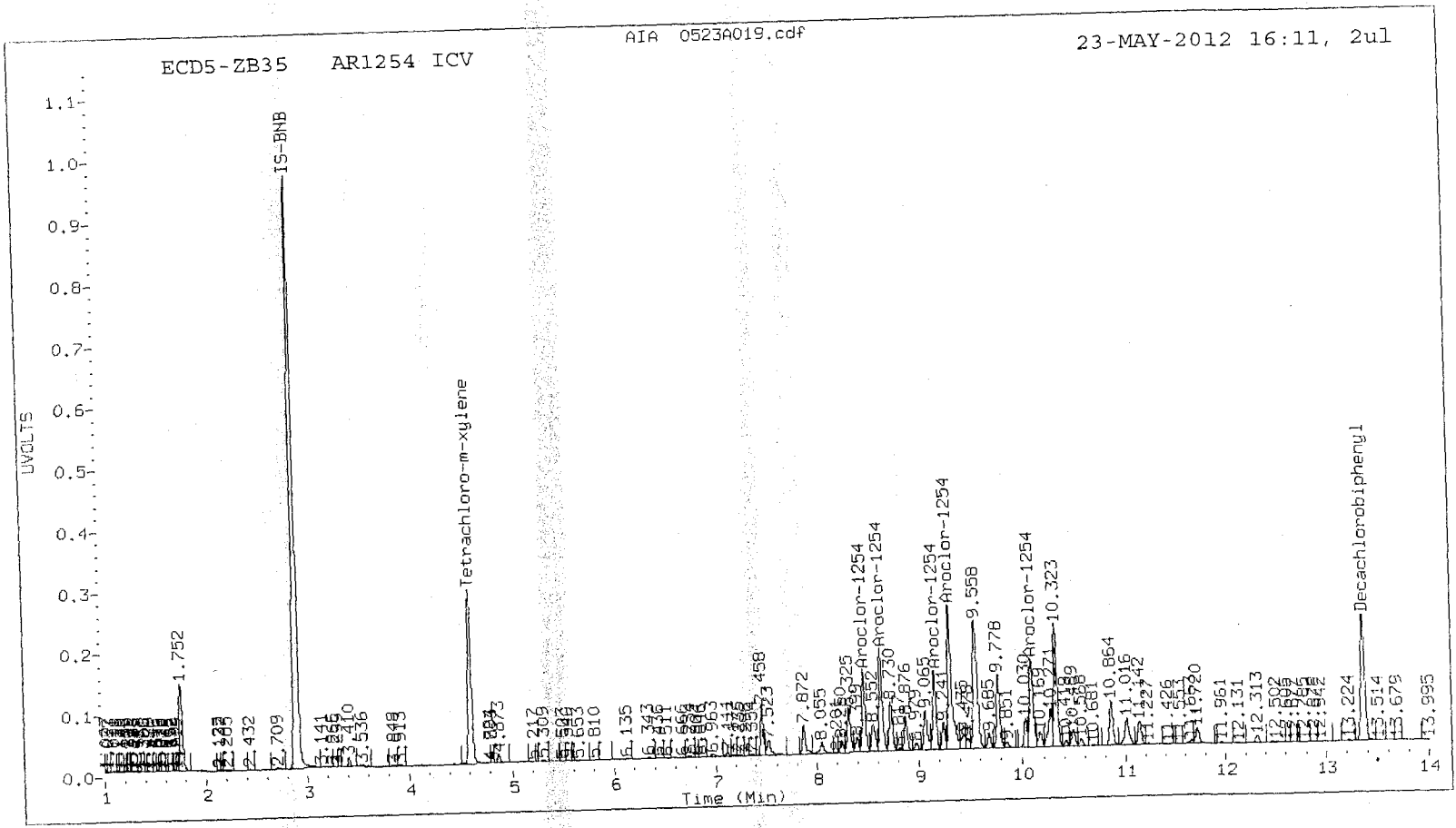
Total PCB Area Col2 (4.708 - 13.264) = 292168808 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

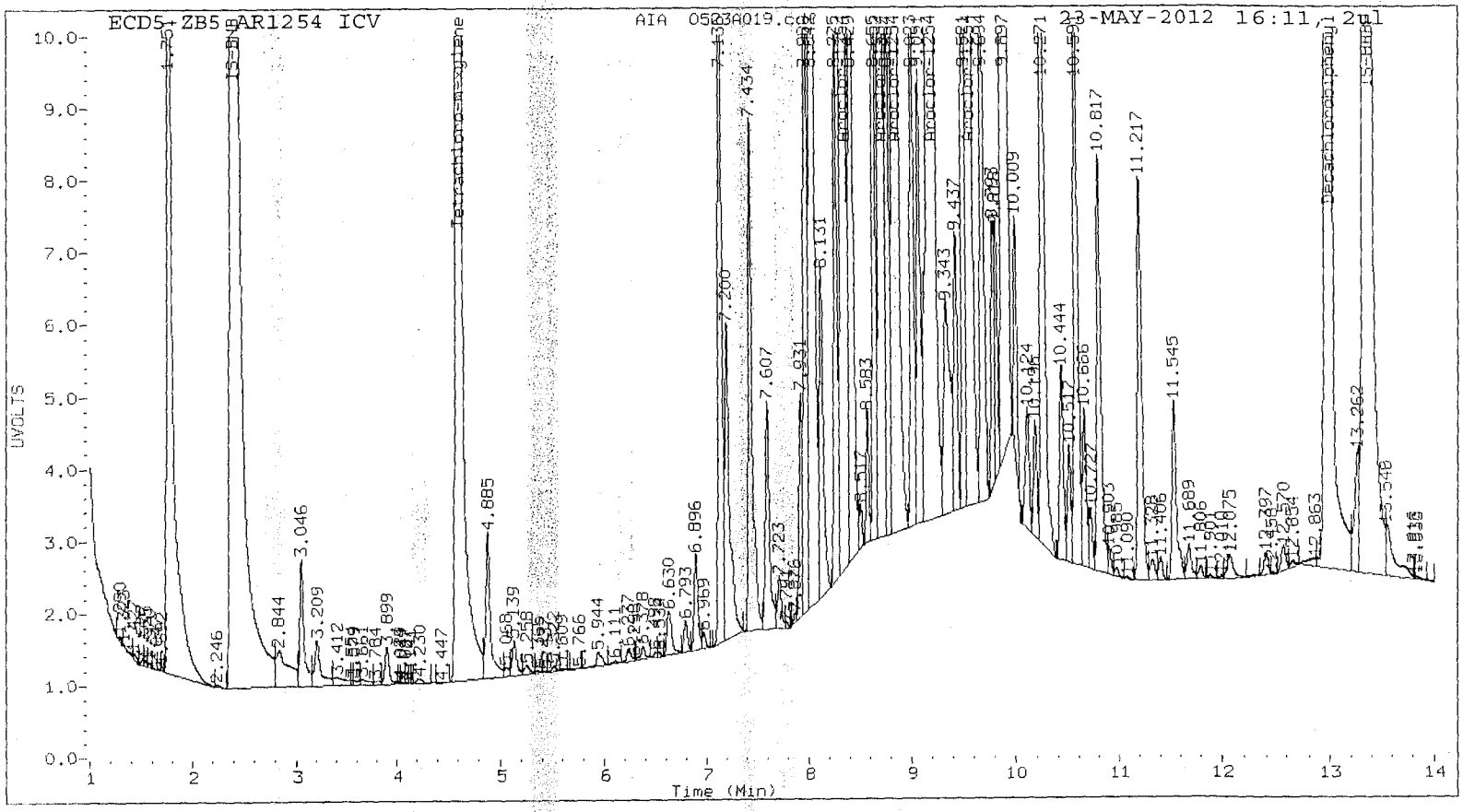


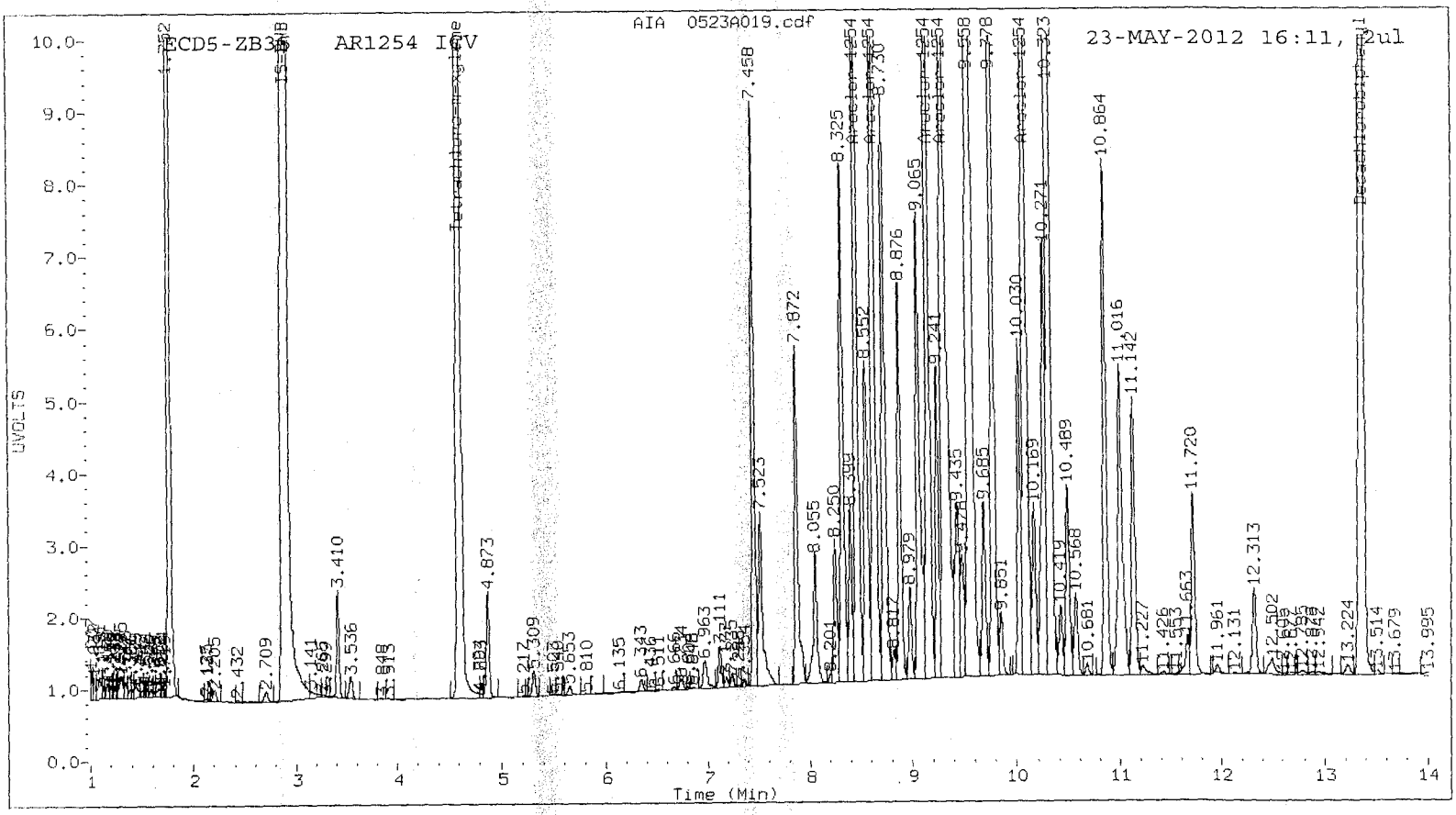
UU52:01664


ECD5-ZB5 AR1254 ICV
AIA 0523A019.cdf
23-MAY-2012 16:11, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Decachlorobiphenyl
IS-HBBP
Time (Min)


ECD5-ZB35 AR1254 ICV
AIA 0523A019.cdf
23-MAY-2012 16:11, 2ul
UVOLTS
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Decachlorobiphenyl
Time (Min)

UU52:01665


ECD5-ZB5 AR1254 ICV
AIA 0523A019.cdf
23-MAY-2012 16:11, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl


ECD5-ZB35 AR1254 ICV
AIA 0523A019.cdf
23-MAY-2012 16:11, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

AR5-24-2012

Data file 1: 20120523.b/ical-1.b/0523A020.d
Data file 2: 20120523.b/ical-2.b/0523A020.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR2162
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162 ICV
Client ID:
Injection Date: 23-MAY-2012 16:30
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.604 | -0.001 | 51207788 | 4.605 | -0.003 | 31927004 | 19.5 | 20.3 | 4.3 | Tetrachloro-m-xylene |
| 12.988 | -0.002 | 72570526 | 13.363 | -0.001 | 28219405 | 17.4 | 18.8 | 7.5 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 48.7 | 50.8 |
| Decachlorobiphenyl | 43.5 | 46.9 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 163574544 | 6.1 |
| Hexabromobiphenyl | 248602423 | 271794659 | 9.3 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 111586981 | 0.9 |
| Hexabromobiphenyl | 108855531 | 116428224 | 7.0 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

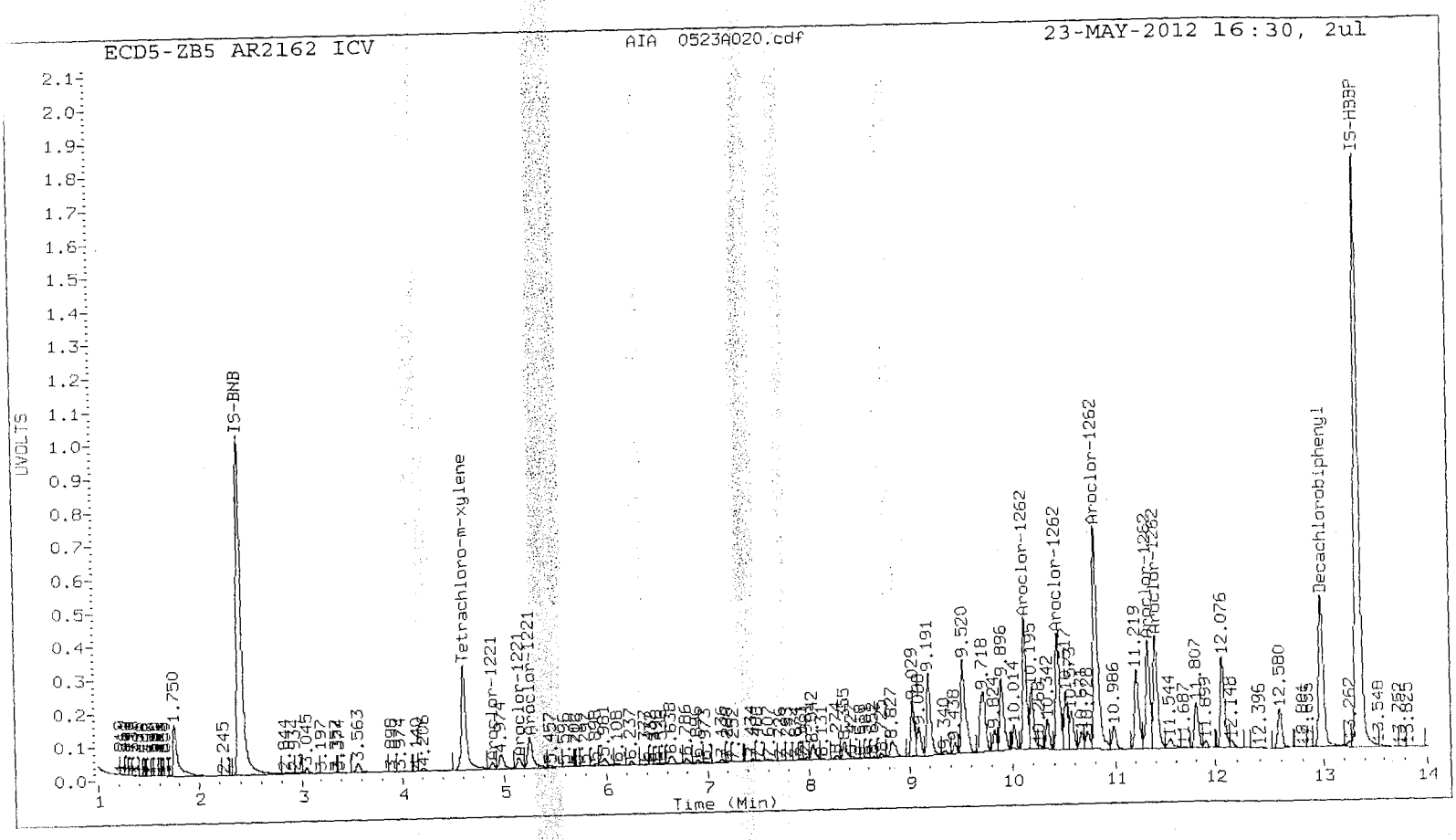
chem2/ecd5.i/20120523.b/ical-1.b/0523A020.d AR2162 ICV

| Aroclor | Peak# | RT | ZB5 Col Shift | Area | Amount | Peak# | ZB35 Col RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1221 | 1 | 4.884 | 0.000 | 2753178 | 224.5 | 1 | 5.289 | -0.001 | 4342143 | 246.9 |
| Aroclor-1221 | 2 | 5.153 | 0.000 | 4990138 | 252.8 | 2 | 5.536 | 0.000 | 2561540 | 246.6 |
| Aroclor-1221 | 3 | 5.258 | 0.000 | 16270735 | 251.6 | 3 | 5.649 | 0.000 | 8096744 | 249.2 |
| Aroclor-1221 | NS | --- | | | ---- | 4 | 5.717 | 0.000 | 1478613 | 248.4 |
| Total Col1Ave (3 peaks): | | | | | 243.0 | Total Col2Ave (4 peaks): | | | | 247.8 RPD = 2 |
| Corrected Ave: < 3 Peaks | | | | | | Corrected Ave (3 peaks): | | | | 247.3 |
| Aroclor-1262 | 1 | 10.127 | -0.001 | 50760077 | 234.3 | 1 | 10.419 | 0.000 | 25410467 | 233.0 |
| Aroclor-1262 | 2 | 10.444 | 0.000 | 44803653 | 270.7 | 2 | 10.870 | 0.000 | 25371078 | 269.7 |
| Aroclor-1262 | 3 | 10.818 | 0.000 | 98755021 | 218.3 | 3 | 11.142 | 0.000 | 46428165 | 217.4 |
| Aroclor-1262 | 4 | 11.334 | 0.000 | 45937839 | 277.9 | 4 | 11.663 | -0.001 | 23297660 | 271.1 |
| Aroclor-1262 | 5 | 11.407 | 0.000 | 48991469 | 260.6 | 5 | 12.462 | -0.001 | 18614849 | 232.6 |
| Total Col1Ave (5 peaks): | | | | | 252.4 | Total Col2Ave (5 peaks): | | | | 244.8 RPD = 3 |
| Corrected Ave (4 peaks): | | | | | 246.0 | Corrected Ave (4 peaks): | | | | 238.2 RPD = 3 |

Total PCB Area Col1 (4.705 - 12.890) = 783819371 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.708 - 13.264) = 375950839 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical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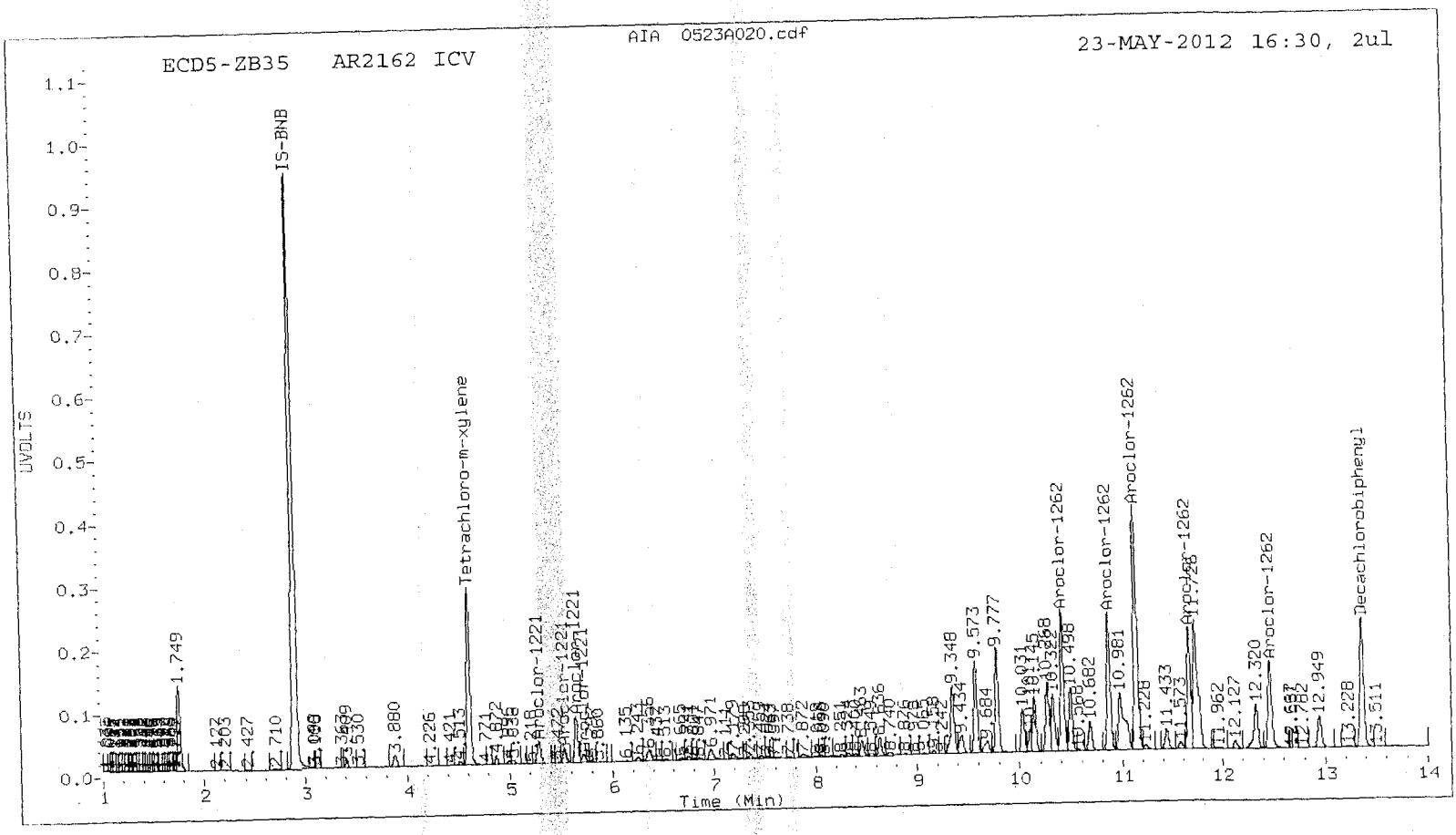
AIA 0523A020.cdf
23-MAY-2012 16:30, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl
IS-HBBP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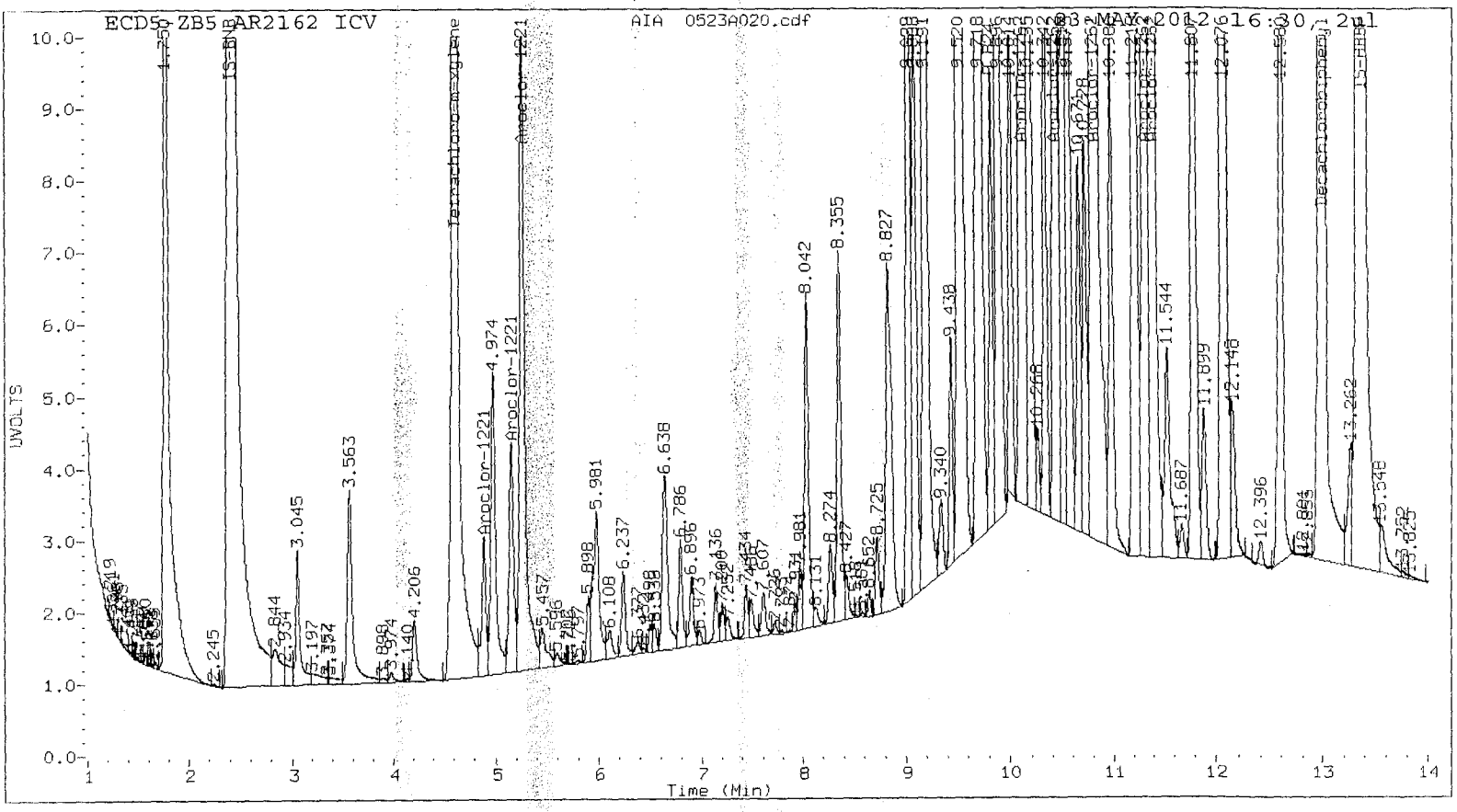
23-MAY-2012 16:30, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1262
Decachlorobiphenyl

UU52:01665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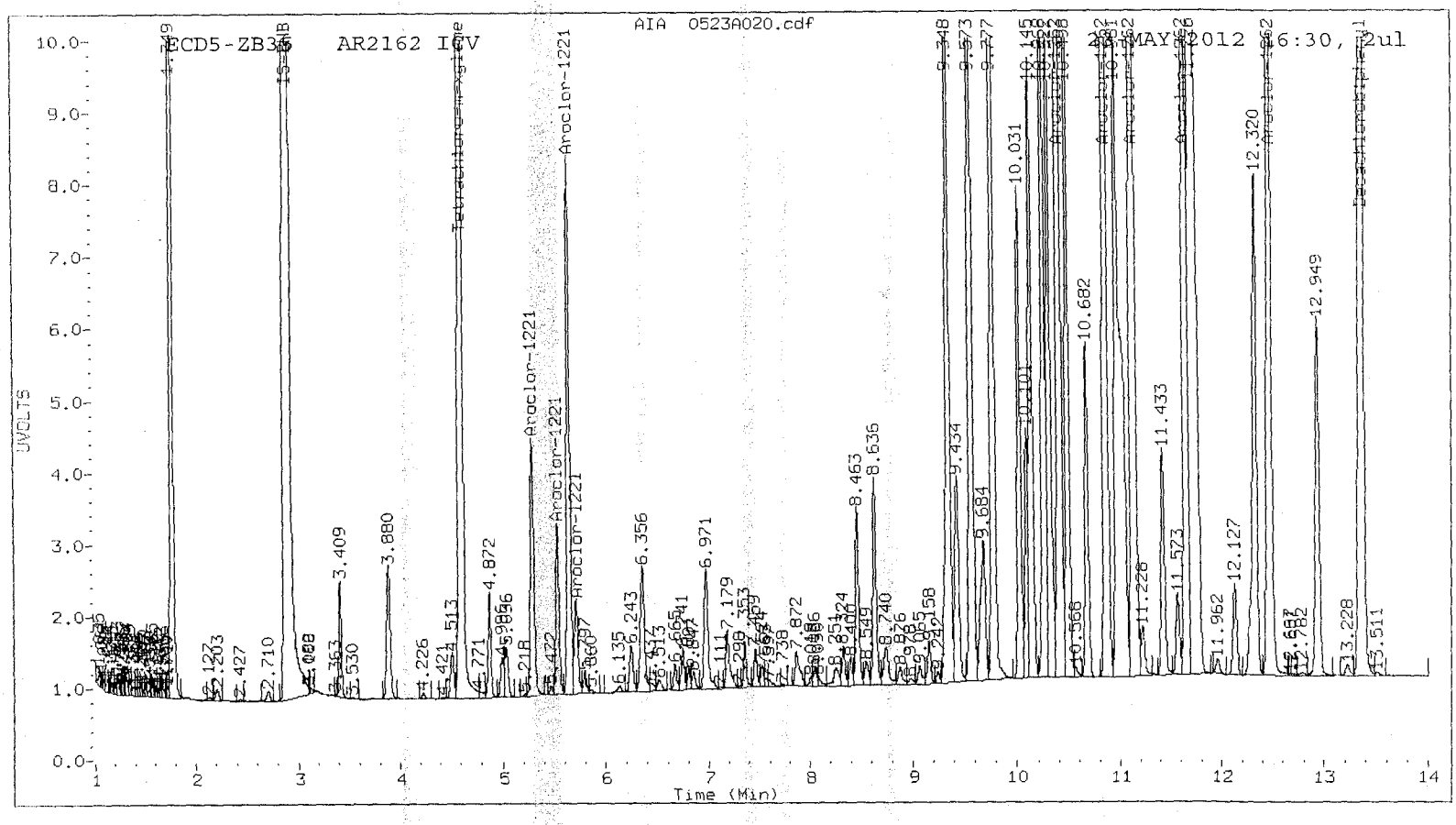
MAY 2012 16:30, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1221
Decachlorobiphenyl
IS-DNB
IS-DNB


ECD5-ZB35 AR2162 ICV
AIA 0523A020.cdf
MAY 2012 16:30, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1221
Decachlorobiphenyl
IS-DNB
IS-DNB

AR5/24/2012

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/ical-1.b/0523A021.d
Data file 2: 20120523.b/ical-2.b/0523A021.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR3268
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268 ICV
Client ID:
Injection Date: 23-MAY-2012 16:49
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.604 | -0.001 | 52420085 | 4.605 | -0.003 | 32899630 | 20.3 | 20.7 | 2.1 | Tetrachloro-m-xylene |
| 12.989 | -0.002 | 113068617 | 13.363 | -0.002 | 46248435 | 28.4 | 31.8 | 11.3 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 50.8 | 51.9 |
| Decachlorobiphenyl | 71.0 | 79.5 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 160640381 | 4.2 |
| Hexabromobiphenyl | 248602423 | 259555077 | 4.4 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 112744652 | 1.9 |
| Hexabromobiphenyl | 108855531 | 112598173 | 3.4 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | ZB5 Col RT | Shift | Area | Amount | Peak# | ZB35 Col RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1232 | 1 | 6.237 | -0.001 | 7823892 | 279.5 | 1 | 6.344 | -0.002 | 7573428 | 278.9 |
| Aroclor-1232 | 2 | 6.638 | -0.001 | 25727481 | 276.4 | 2 | 6.971 | 0.000 | 15545898 | 273.4 |
| Aroclor-1232 | 3 | 6.786 | -0.001 | 10438838 | 276.5 | 3 | 7.178 | -0.001 | 6333896 | 330.2 |
| Aroclor-1232 | 4 | 7.980 | 0.000 | 8488976 | 234.1 | 4 | 8.324 | -0.001 | 4905710 | 233.3 |
| Total Col1Ave (4 peaks): | | | | | 266.6 | Total Col2Ave (4 peaks): | | | | 279.0 RPD = 5 |
| Corrected Ave (3 peaks): | | | | | 262.3 | Corrected Ave (3 peaks): | | | | 261.9 RPD = 0 |
| Aroclor-1268 | 1 | 11.335 | -0.001 | 115870020 | 262.2 | 1 | 11.664 | 0.000 | 56550160 | 263.1 |
| Aroclor-1268 | 2 | 11.407 | 0.000 | 126342154 | 284.3 | 2 | 11.730 | 0.000 | 58232226 | 287.4 |
| Aroclor-1268 | 3 | 11.792 | 0.000 | 88032592 | 237.3 | 3 | 12.128 | 0.000 | 40068576 | 235.5 |
| Aroclor-1268 | 4 | 12.583 | -0.002 | 241089485 | 221.0 | 4 | 12.949 | -0.001 | 107384317 | 223.4 |
| Total Col1Ave (4 peaks): | | | | | 251.2 | Total Col2Ave (4 peaks): | | | | 252.3 RPD = 0 |
| Corrected Ave (3 peaks): | | | | | 240.2 | Corrected Ave (3 peaks): | | | | 240.6 RPD = 0 |

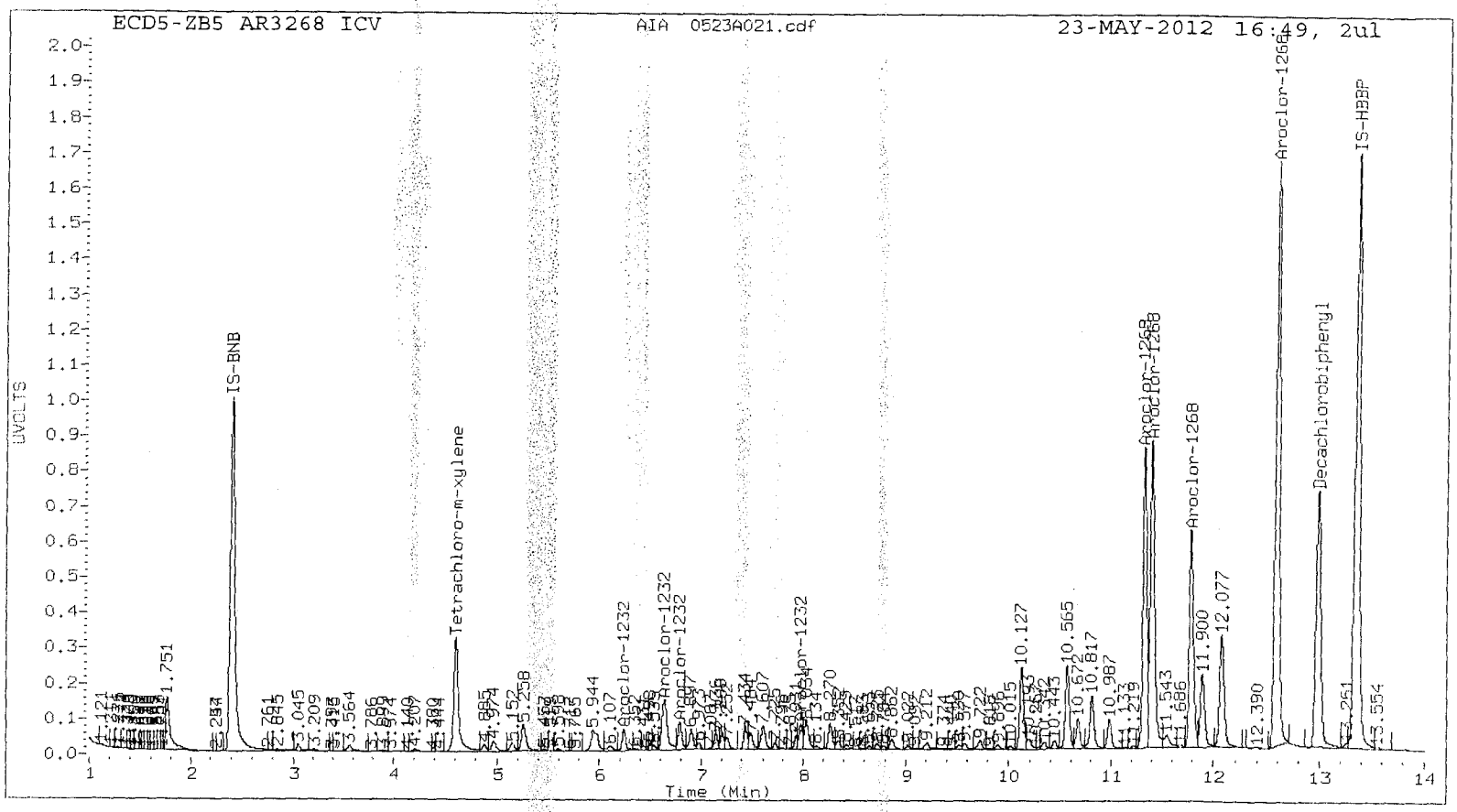
Total PCB Area Col1 (4.705 - 12.890) = 990490550 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.708 - 13.264) = 468074693 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical



UU52:01672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23-MAY-2012 16:49, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1268
Aroclor-1268
Aroclor-1268
Decachlorobiphenyl
IS-HBBP
1.751
10.127
10.565
10.817
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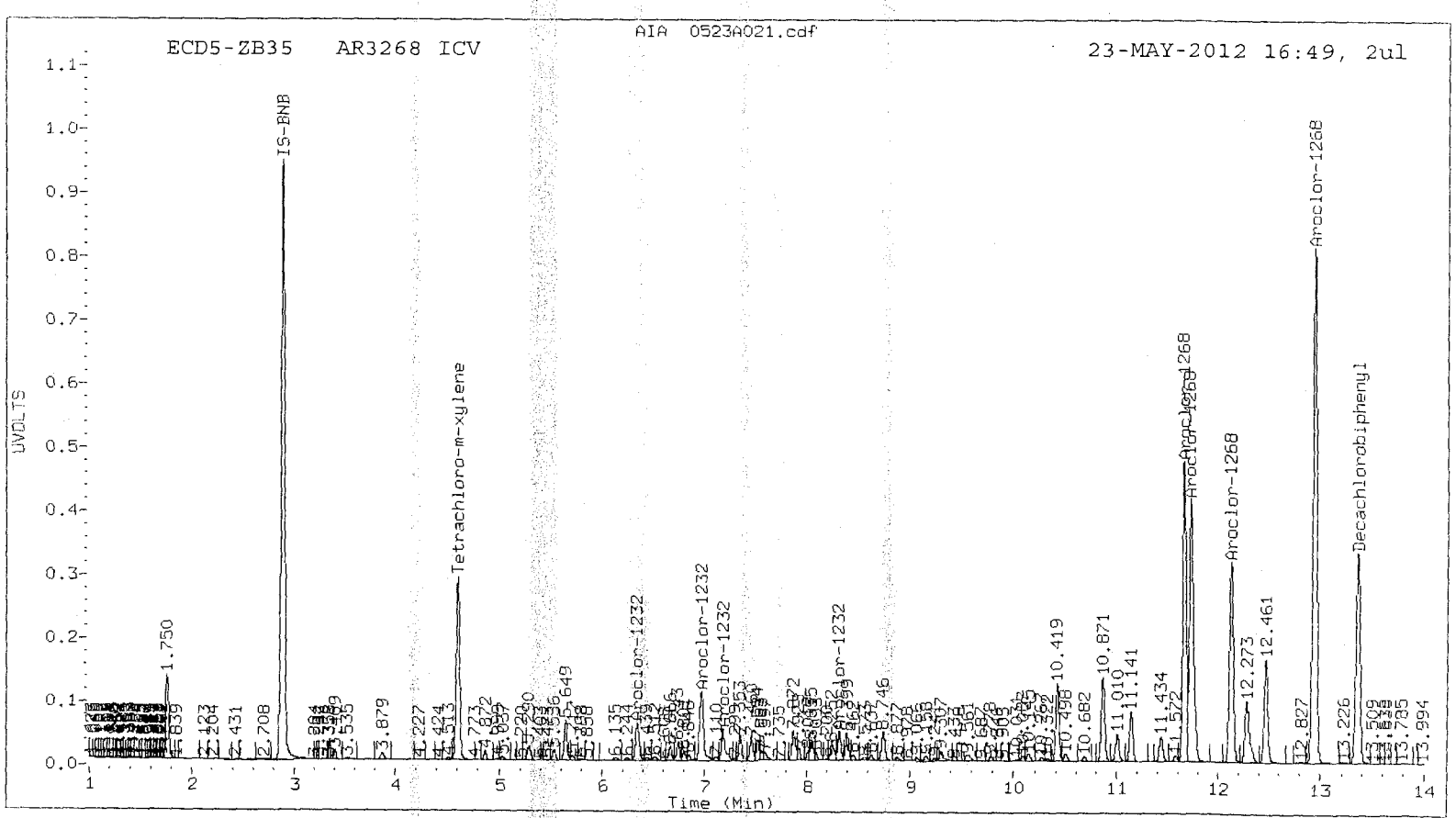
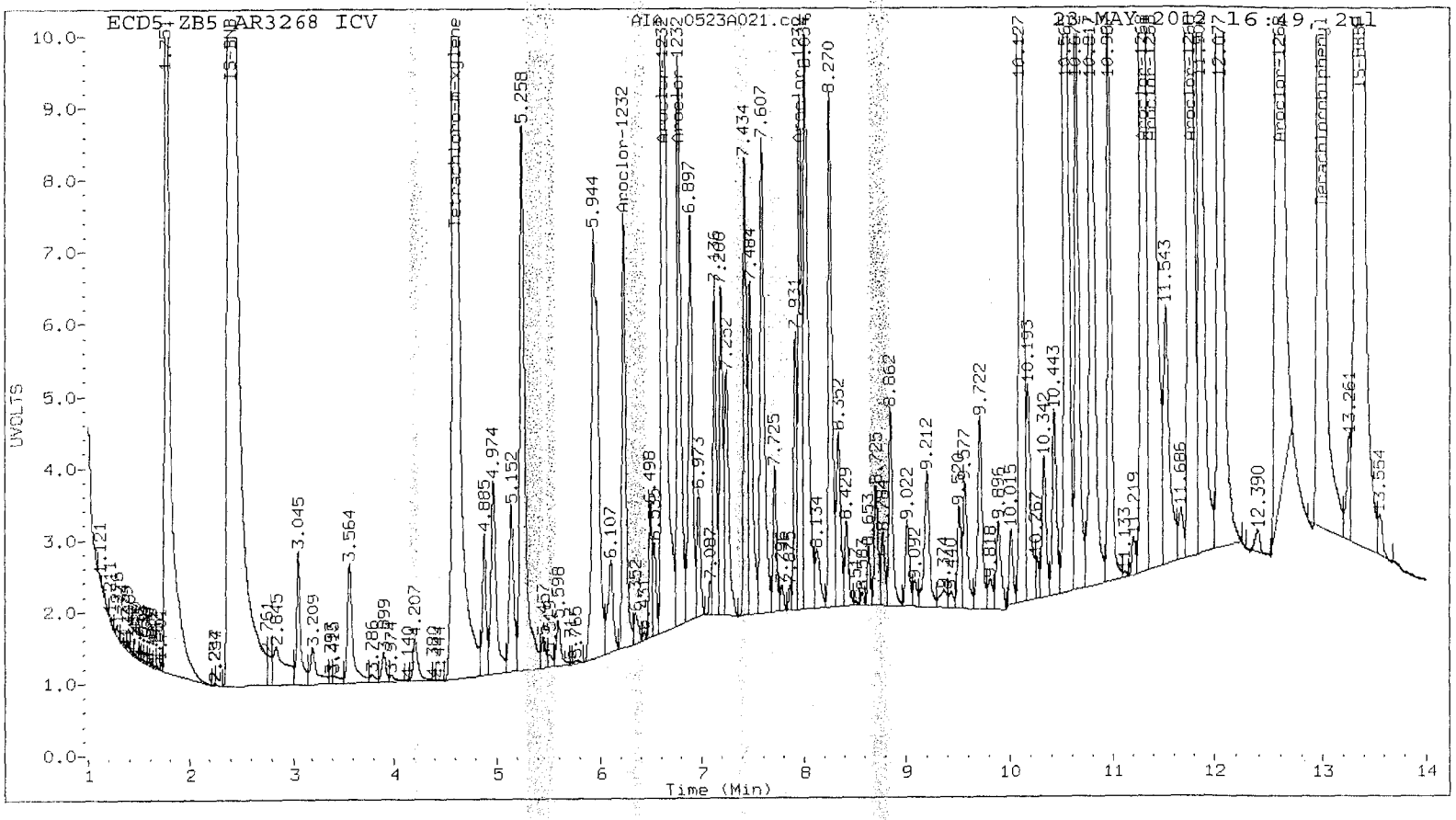
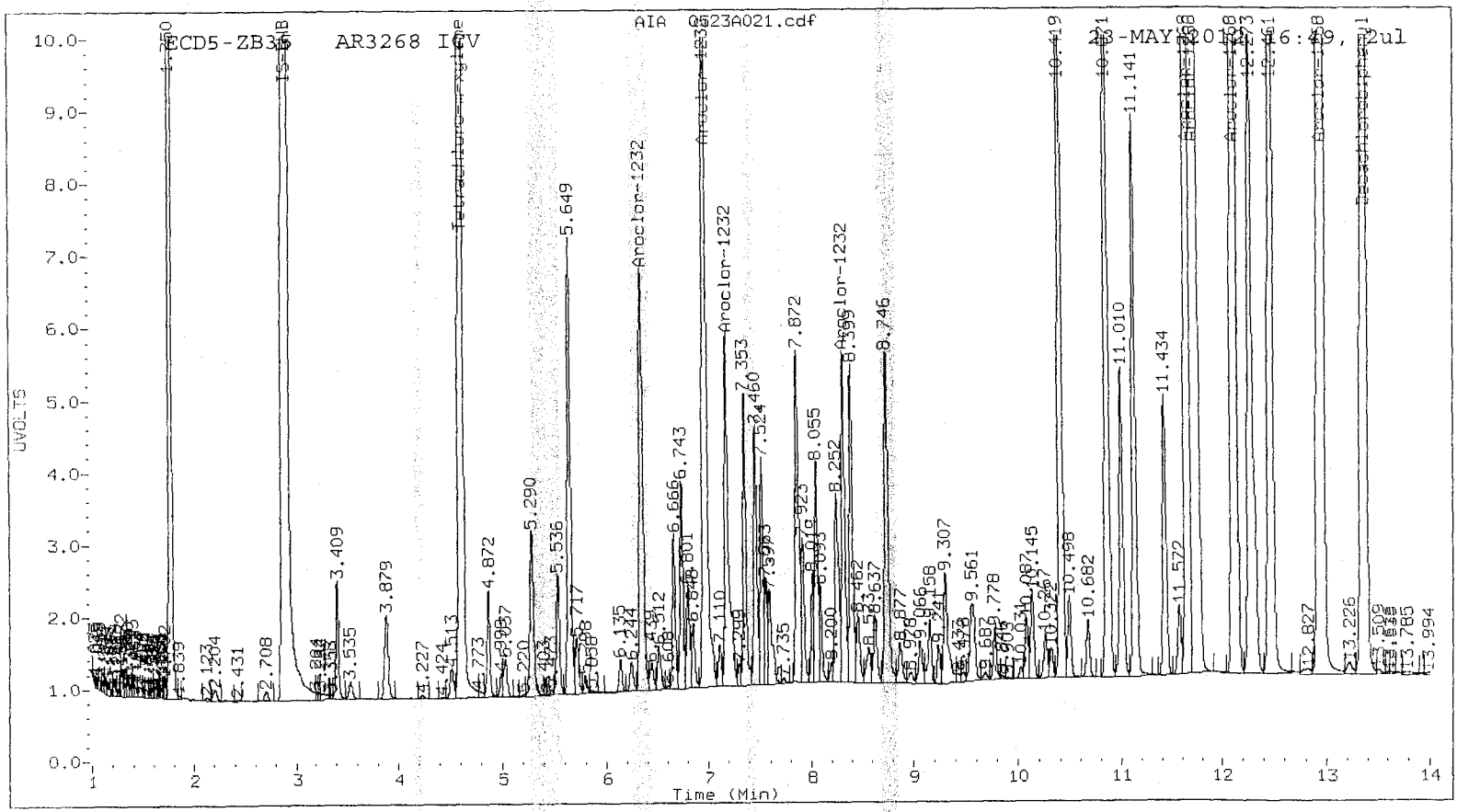
11.543
11.686
11.900
12.077
12.390


ECD5-ZB35 AR3268 ICV
AIA 0523A021.cdf
23-MAY-2012 16:49, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1232
Aroclor-1232
Aroclor-1268
Aroclor-1268
Aroclor-1268
Decachlorobiphenyl
1.750
10.419
10.682
10.871
11.010
11.141
11.434
11.572
12.273
12.461
12.827
13.226

WU52:91673


ECD5_ZB5_AR3268 ICV
AIA_0523A021.cdf
23-MAY-2012 16:49, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1260
Decachlorobiphenyl


ECD5-ZB5 AR3268 ICV
AIA_0523A021.cdf
23-MAY-2012 16:49, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Aroclor-1232
Aroclor-1260
Decachlorobiphenyl

US2:01674

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120523.b/ddt-1.b/0523A022.d ARI ID: DDT

| ZB5 Col RT | Shift | Response | ZB35 Col RT | Shift | Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 8.321 | 0.000 | 182884525 | 8.726 | 0.000 | 97869021 | 0.100 | 0.100 | 0.0 | 2,4-DDE |
| 8.871 | 0.000 | 175944184 | 9.410 | 0.000 | 88359613 | 0.100 | 0.100 | 0.0 | 2,4-DDD |
| 9.375 | 0.000 | 211387307 | 9.872 | 0.000 | 240838277 | 0.100 | 0.200# | 66.7* | 2,4-DDT |
| 8.753 | 0.000 | 291568267 | 9.112 | 0.000 | 163207823 | 0.100 | 0.100 | 0.0 | 4,4-DDE |
| 9.325 | 0.000 | 238101364 | 9.872 | 0.000 | 240838277 | 0.100 | 0.200# | 66.7* | 4,4-DDD |
| 9.837 | 0.000 | 268202406 | 10.310 | 0.000 | 142850426 | 0.100 | 0.100 | 0.0 | 4,4-DDT |

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

7E

# 8082 DDT BREAKDOWN VERIFICATION SUMMARY

Lab ID: DDT BD

Analysis Date: 23-MAY-2012 17:27  Init. Calib. Date: 23-MAY-2012

GC Column: ZB5  ID: 0.53(mm)

| COMPOUND | RT | AREA |
|---|---|---|
| 4,4-DDE | 8.752 | 1982823 |
| 4,4-DDD | 9.333 | 9789677 |
| 4,4-DDT | 9.840 | 297869087 |

Col 1: 4,4-DDT Percent Breakdown = 3.8 %

GC Column: ZB35  ID: 0.53(mm)

| COMPOUND | RT | AREA |
|---|---|---|
| 4,4-DDE | 9.113 | 712817 |
| 4,4-DDD/2,4-DDT | 9.881 | 4165713 |
| 4,4-DDT | 10.310 | 166815904 |

Col 2: 4,4-DDT Percent Breakdown = 2.8 %

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

PCB Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: UU52, UU62

**Analytical Resources, Incorporated**
Analytical Chemists and Consultants

# GC Analyst Notes / Corrective Action Log

ARI Project ID: UU52 Client ID: Jeld Wen Klamath

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
**427S**(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): PCB's TCMX DCB

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7

Dates: Curve: 05/23/12 Analysis Start: 05/25/12

| | |
|---|---|
| Endrin/DDT Breakdown <15%? YES / NO / NA | Method Blank In Control? YES / NO |
| ICal Meets RF & %RSD Criteria? YES / NO | LCS/LCSD Recovery In Control? YES / NO |
| CCal Meets RF & %RSD Criteria? YES / NO | Surrogate Recovery In Control? YES / NO |
| Manual Integrations for ICal? YES / NO | Manual Integrations for Samples? YES / NO |
| Internal Standard Meets Criteria? YES / NO / NA | Special Analysis Criteria Met? YES / NO / NA |

**Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):** skimmed baseline rise in samples, misc peaks throughout went w/ best fit w/ regaurds to 48, 54/misc. peaks inflate 48 y-flags for 48 are for AR1016→1248 remge. See DDT's screens 05/29/12

- Very wet Samples - 9-16% Solids -

**Additional Details on Reverse: Yes / No**

**Analyst:** _____ **Date:** 05/29/12

**Reviewer:** _____ **Date:** 5/29/12



UU52:01678

# Analytical Resources Inc.: Organics Instrument Log

## ECD-5 Serial No.: US00034118

Date: 05/25/12 Analysis: PCBs Analyst: JR

Column 1 Serial No.: 196398 Column Type: ZB5

Column 2 Serial No.: 182259 Column Type: ZB35

GC Method: PCB ICal Date: 05/23/12 Injection Volume: 2µl

| IS | Ical/Ccal | ICV |
|---|---|---|
| 1878-3 | 1980-1,2,3,4,5,6 | 1923-1,2,3,4,5 |
| | | 1928-2 |

**Document All Maintenance Tasks In StarLIMS**

| | Inject Date/Time | Filename | DF | LabID |
|---|---|---|---|---|
| 1 | 25-MAY-2012 08:16 | 0525A001.d | 1 | DDT |
| 2 | 25-MAY-2012 08:35 | 0525A002.d | 1 | DDT BD |
| 3 | 25-MAY-2012 08:54 | 0525A003.d | 1 | AR1242 |
| 4 | 25-MAY-2012 09:13 | 0525A004.d | 1 | AR1660 |
| 5 | 25-MAY-2012 09:32 | 0525A005.d | 1 | UU97MBW1 |
| 6 | 25-MAY-2012 09:51 | 0525A006.d | 1 | UU97LCSW1 |
| 7 | 25-MAY-2012 10:10 | 0525A007.d | 1 | UU97LCSDW1 |
| 8 | 25-MAY-2012 10:29 | 0525A008.d | 1 | UU97QLS |
| 9 | 25-MAY-2012 10:48 | 0525A009.d | 1 | UU97A |
| 10 | 25-MAY-2012 11:07 | 0525A010.d | 1 | UU94A |
| 11 | 25-MAY-2012 11:26 | 0525A011.d | 1 | UU94B |
| 12 | 25-MAY-2012 11:45 | 0525A012.d | 1 | UU94C |
| 13 | 25-MAY-2012 12:04 | 0525A013.d | 1 | UU94D |
| 14 | 25-MAY-2012 12:23 | 0525A014.d | 1 | UU94E |
| 15 | 25-MAY-2012 12:42 | 0525A015.d | 1 | AR1248 |
| 16 | 25-MAY-2012 13:01 | 0525A016.d | 1 | AR1660 |
| 17 | 25-MAY-2012 13:20 | 0525A017.d | 1 | UV59MBS1 |
| 18 | 25-MAY-2012 13:39 | 0525A018.d | 1 | UV59LCSS1 |
| 19 | 25-MAY-2012 13:58 | 0525A019.d | 1 | UV59T |
| 20 | 25-MAY-2012 14:17 | 0525A020.d | 1 | UV59TMS |
| 21 | 25-MAY-2012 14:36 | 0525A021.d | 1 | UV59TMSD |
| 22 | 25-MAY-2012 14:55 | 0525A022.d | 1 | AR1254 |
| 23 | 25-MAY-2012 15:14 | 0525A023.d | 1 | AR1660 |
| 24 | 25-MAY-2012 15:33 | 0525A024.d | 1 | UU97MBW1 |
| 25 | 25-MAY-2012 15:52 | 0525A025.d | 1 | UU97LCSW1 |
| 26 | 25-MAY-2012 16:11 | 0525A026.d | 1 | UU97LCSDW1 |
| 27 | 25-MAY-2012 16:30 | 0525A027.d | 1 | UU97QLS |
| 28 | 25-MAY-2012 16:49 | 0525A028.d | 1 | UU97A |
| 29 | 25-MAY-2012 17:08 | 0525A029.d | 1 | UU94A |
| 30 | 25-MAY-2012 17:27 | 0525A030.d | 1 | UU94B |
| 31 | 25-MAY-2012 17:46 | 0525A031.d | 1 | UU94C |
| 32 | 25-MAY-2012 18:05 | 0525A032.d | 1 | UU94D |
| 33 | 25-MAY-2012 18:24 | 0525A033.d | 1 | UU94E |
| 34 | 25-MAY-2012 18:43 | 0525A034.d | 1 | AR1248 |
| 35 | 25-MAY-2012 19:02 | 0525A035.d | 1 | AR1660 |
| 36 | 25-MAY-2012 19:21 | 0525A036.d | 1 | AR1248 |
| 37 | 25-MAY-2012 19:40 | 0525A037.d | 1 | AR1660 |
| 38 | 25-MAY-2012 19:59 | 0525A038.d | 1 | UV59MBS1 |
| 39 | 25-MAY-2012 20:18 | 0525A039.d | 1 | UV59LCSS1 |
| 40 | 25-MAY-2012 20:37 | 0525A040.d | 5 | UV59T |
| 41 | 25-MAY-2012 20:56 | 0525A041.d | 5 | UV59TMS |
| 42 | 25-MAY-2012 21:15 | 0525A042.d | 5 | UV59TMSD |
| 43 | 25-MAY-2012 21:34 | 0525A043.d | 1 | AR1254 |
| 44 | 25-MAY-2012 21:53 | 0525A044.d | 1 | AR1660 |
| 45 | 25-MAY-2012 22:12 | 0525A045.d | 1 | UU52MBS1 |
| 46 | 25-MAY-2012 22:31 | 0525A046.d | 1 | UU52LCSS1 |
| 47 | 25-MAY-2012 22:50 | 0525A047.d | 1 | UU52A |
| 48 | 25-MAY-2012 23:09 | 0525A048.d | 1 | UU52B |
| 49 | 25-MAY-2012 23:28 | 0525A049.d | 1 | UU52C |
| 50 | 25-MAY-2012 23:47 | 0525A050.d | 1 | UU52D |

| | Inject Date/Time | Filename | DF | LabID |
|---|---|---|---|---|
| 51 | 26-MAY-2012 00:06 | 0525A051.d | 1 | UU52E |
| 52 | 26-MAY-2012 00:25 | 0525A052.d | 1 | UU52F |
| 53 | 26-MAY-2012 00:44 | 0525A053.d | 1 | UU52G |
| 54 | 26-MAY-2012 01:03 | 0525A054.d | 1 | AR1242 |
| 55 | 26-MAY-2012 01:22 | 0525A055.d | 1 | AR1660 |
| 56 | 26-MAY-2012 01:41 | 0525A056.d | 1 | UU52H |
| 57 | 26-MAY-2012 02:00 | 0525A057.d | 1 | UU52I |
| 58 | 26-MAY-2012 02:19 | 0525A058.d | 1 | UU52J |
| 59 | 26-MAY-2012 02:38 | 0525A059.d | 1 | UU52JMS |
| 60 | 26-MAY-2012 02:57 | 0525A060.d | 1 | UU52JMSD |
| 61 | 26-MAY-2012 03:16 | 0525A061.d | 1 | AR1248 |
| 62 | 26-MAY-2012 03:35 | 0525A062.d | 1 | AR1660 |

I Maintenance Tasks ... JR 05/29/12

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd5.i/20120523.b/0525-1.b

ARI Job No.: UU52 Method: PCB1.m Instrument: ecd5.i Date: 25-MAY-2012

| Time | Filename | LabID | ClientId | DF | Manually Integrated Compounds |
|---|---|---|---|---|---|
| 2212 | 0525A045.d | UU52MBS1 | UU52MBS1 | 1 | NO MANUAL INTEGRATION |
| 2231 | 0525A046.d | UU52LCSS1 | UU52LCSS1 | 1 | NO MANUAL INTEGRATION |
| 2250 | 0525A047.d | UU52A | MS001-SS-1 | 1 | Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-HBBP, Decachlorobiphenyl, |
| 2309 | 0525A048.d | UU52B | MS101-SS-1 | 1 | Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-HBBP, Decachlorobiphenyl, |
| 2328 | 0525A049.d | UU52C | MS002-SS-1 | 1 | Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-HBBP, Decachlorobiphenyl, |
| 2347 | 0525A050.d | UU52D | MS003-SS-1 | 1 | Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-HBBP, Decachlorobiphenyl, |
| 0006 | 0525A051.d | UU52E | MS004-SS-1 | 1 | Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-HBBP, Decachlorobiphenyl, |
| 0025 | 0525A052.d | UU52F | MS005-SS-1 | 1 | Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, |
| 0044 | 0525A053.d | UU52G | MS006-SS-1 | 1 | Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-HBBP, Decachlorobiphenyl, |
| 0141 | 0525A056.d | UU52H | MS007-SS-1 | 1 | Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, |
| 0200 | 0525A057.d | UU52I | MS008-SS-1 | 1 | Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-HBBP, Decachlorobiphenyl, |
| 0219 | 0525A058.d | UU52J | MS009-SS-1 | 1 | Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-HBBP, Decachlorobiphenyl, |
| 0238 | 0525A059.d | UU52JMS | MS009-SS-1 | 1 | Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-HBBP, Decachlorobiphenyl, |
| 0257 | 0525A060.d | UU52JMSD | MS009-SS-1 | 1 | Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-HBBP, Decachlorobiphenyl, |

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A043.d
Data file 2: 20120523.b/0525-2.b/0525A043.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254
Client ID:
Injection Date: 25-MAY-2012 21:34
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.610 | 0.001 | 47560282 | 4.611 | 0.000 | 28489926 | 17.1 | 17.2 | 1.1 | Tetrachloro-m-xylene |
| 12.991 | 0.000 | 59737700 | 13.364 | -0.001 | 21596766 | 18.5 | 19.2 | 3.6 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 42.7 | 43.1 |
| Decachlorobiphenyl | 46.3 | 47.9 |

5/29/12

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 173442054 | 12.5 |
| Hexabromobiphenyl | 248602423 | 210335776 | -15.4 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 117403542 | 6.1 |
| Hexabromobiphenyl | 108855531 | 87153825 | -19.9 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | ZB5 Col | | | | ZB35 Col | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Area | Amount | Peak# | RT | Shift | Area | Amount |
| Aroclor-1254 | 1 | 8.357 | 0.000 | 33517964 | 210.5 | 1 | 8.466 | 0.000 | 11029916 | 214.0 |
| Aroclor-1254 | 2 | 8.728 | 0.000 | 22059705 | 215.3 | 2 | 8.639 | 0.000 | 14028779 | 214.1 |
| Aroclor-1254 | 3 | 8.863 | 0.000 | 43934862 | 222.1 | 3 | 9.160 | 0.000 | 10691822 | 213.6 |
| Aroclor-1254 | 4 | 9.213 | 0.000 | 48034450 | 225.5 | 4 | 9.310 | 0.000 | 23659587 | 213.7 |
| Aroclor-1254 | 5 | 9.574 | 0.000 | 29882185 | 225.5 | 5 | 10.093 | 0.000 | 13512922 | 208.2 |
| Total Col1Ave (5 peaks): | | 219.8 | | | | Total Col2Ave (5 peaks): | | 212.7 | RPD = 3 | |
| Corrected Ave (4 peaks): | | 218.3 | | | | Corrected Ave (4 peaks): | | 212.4 | RPD = 3 | |

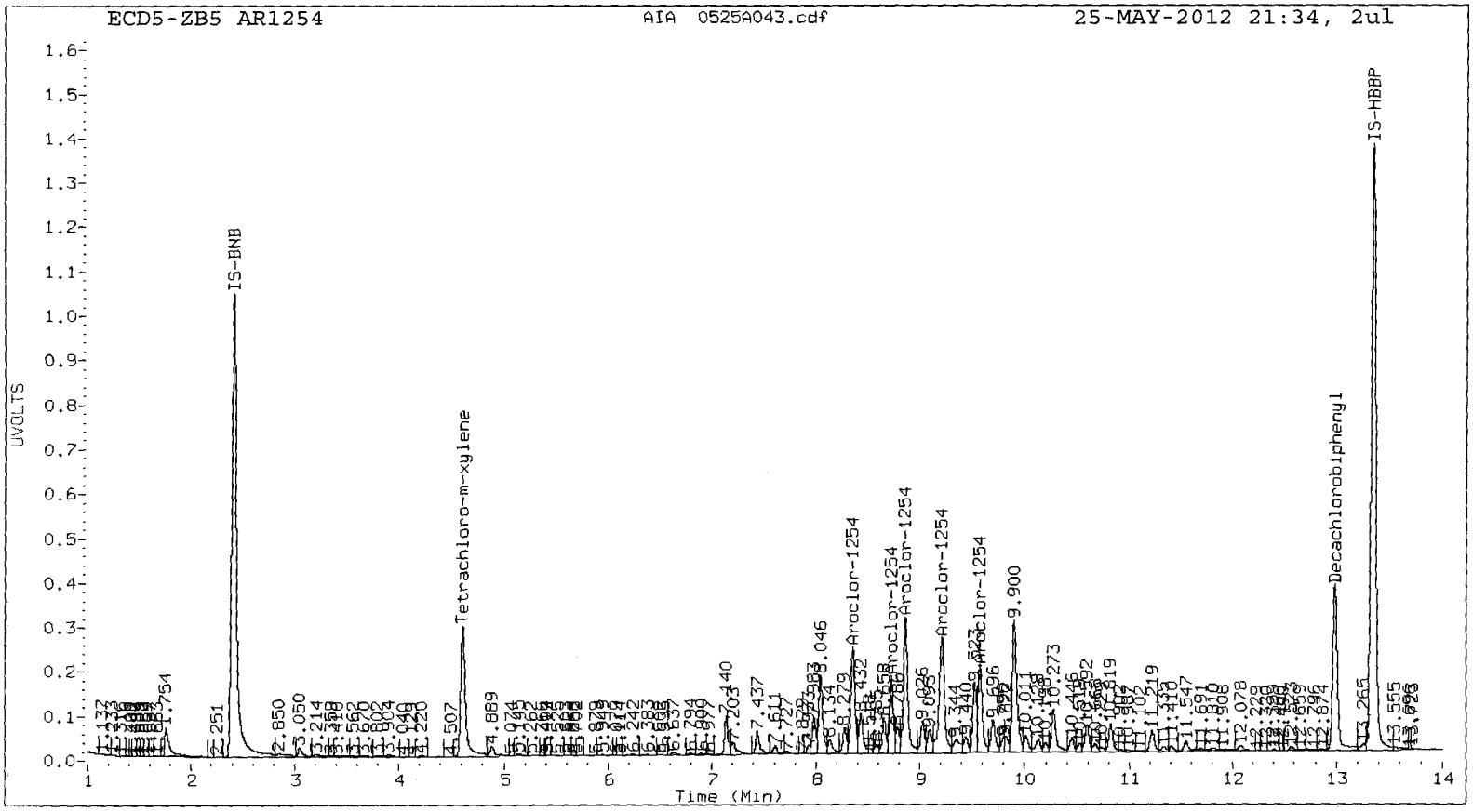
Total PCB Area Col1 (4.710 - 12.891) = 496031674 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 222789028 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical



UU52:01682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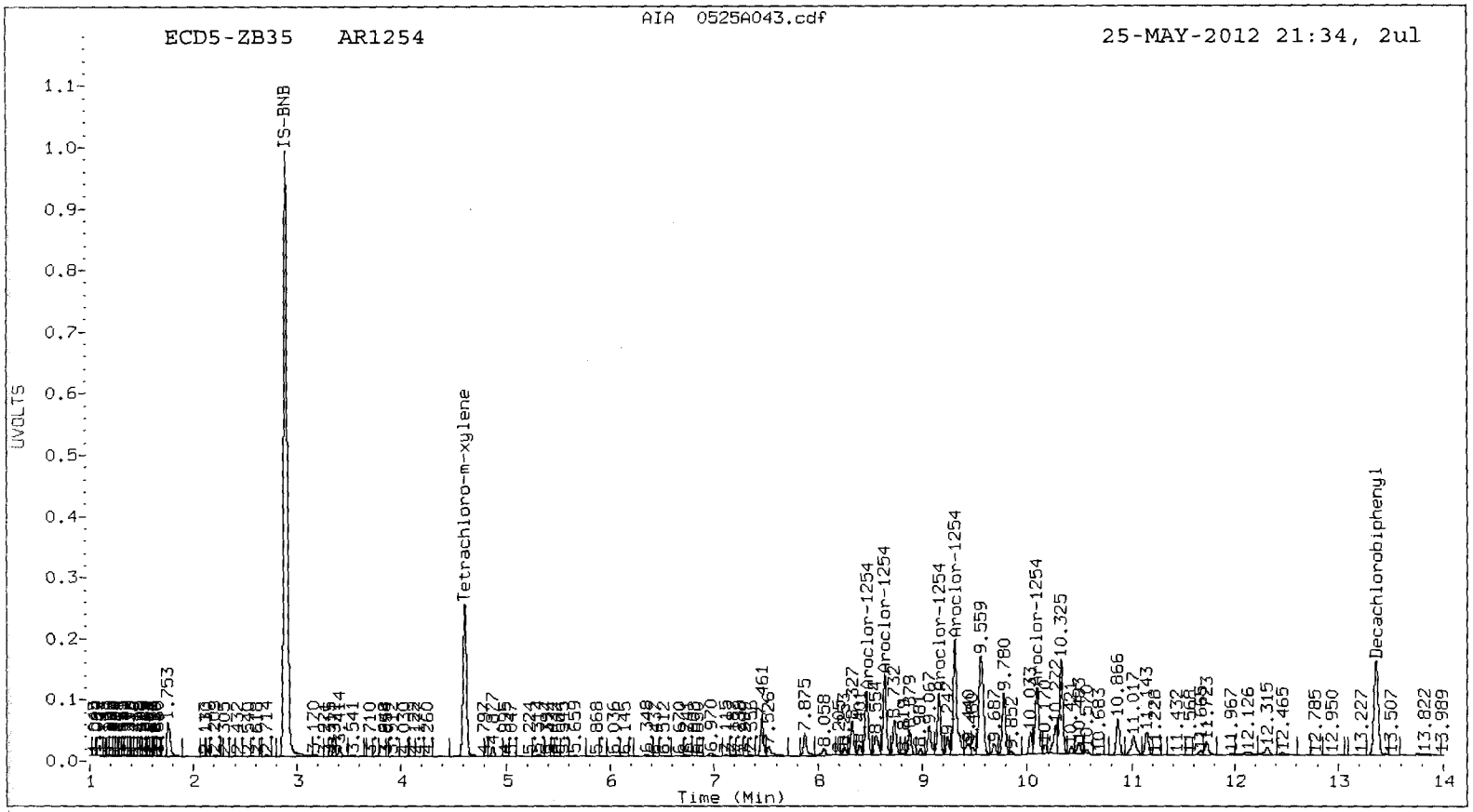
25-MAY-2012 21:34, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
9.900
Decachlorobiphenyl
IS-HBBP


AIA 0525A043.cdf
ECD5-ZB35 AR1254
25-MAY-2012 21:34, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
9.559
9.780
10.325
Decachlorobiphenyl

UU52:01683

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A044.d
Data file 2: 20120523.b/0525-2.b/0525A044.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 25-MAY-2012 21:53
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.611 | 0.001 | 59474973 | 4.612 | 0.001 | 37391819 | 20.2 | 20.5 | 1.6 | Tetrachloro-m-xylene |
| 12.991 | 0.000 | 67515613 | 13.364 | -0.002 | 24542134 | 19.0 | 19.7 | 3.9 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 50.5 | 51.3 |
| Decachlorobiphenyl | 47.4 | 49.3 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 183205555 | 18.8 |
| Hexabromobiphenyl | 248602423 | 232118987 | -6.6 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 129531011 | 17.1 |
| Hexabromobiphenyl | 108855531 | 96406184 | -11.4 |

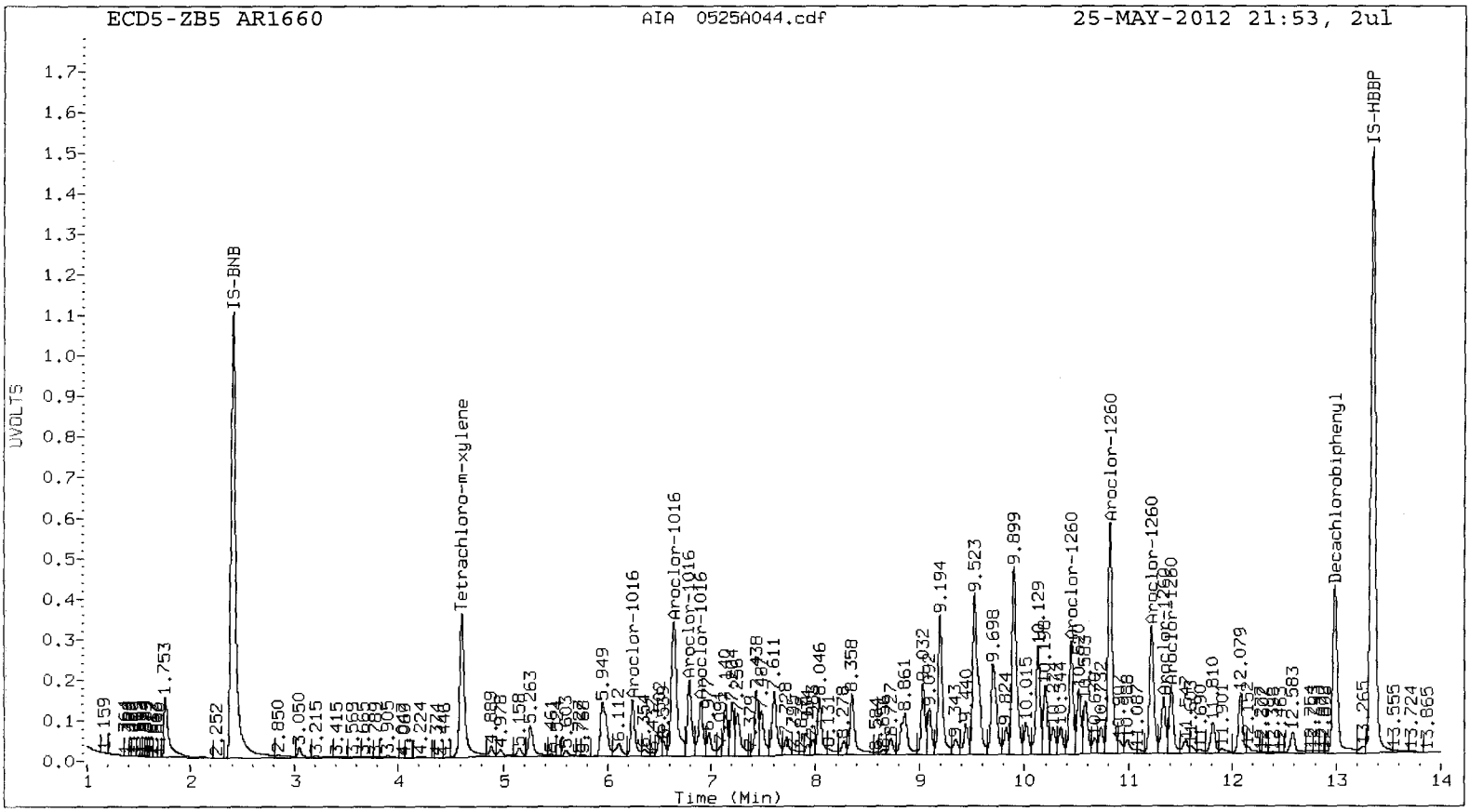
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

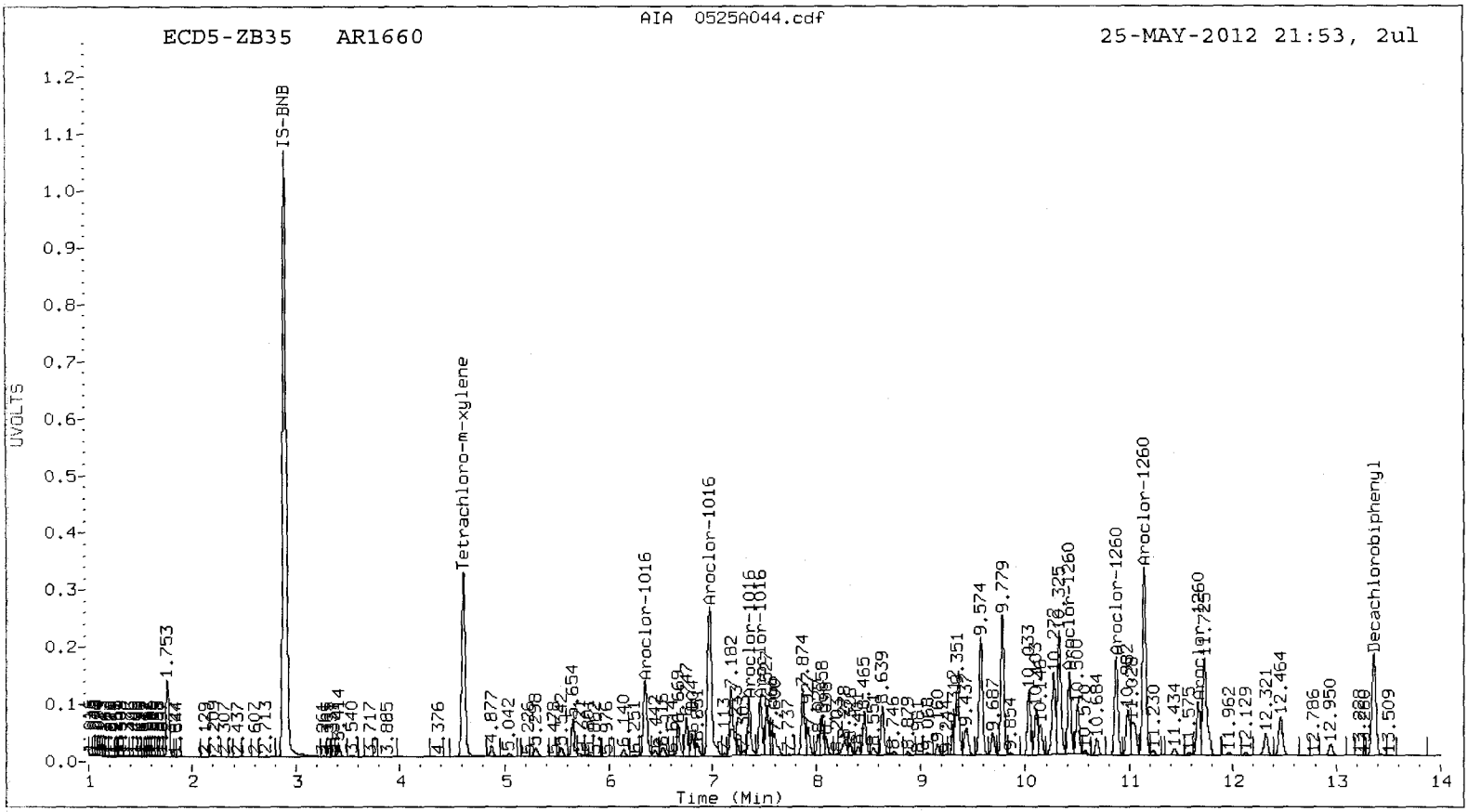
| Aroclor | Peak# | RT | Shift | Area | Amount | Peak# | RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ZB5 Col | | | | | ZB35 Col | | | |
| Aroclor-1016 | 1 | 6.242 | 0.001 | 19843471 | 259.6 | 1 | 6.348 | 0.001 | 16429459 | 243.0 |
| Aroclor-1016 | 2 | 6.643 | 0.001 | 64421214 | 258.6 | 2 | 6.974 | 0.001 | 38135939 | 248.5 |
| Aroclor-1016 | 3 | 6.791 | 0.001 | 27005130 | 274.8 | 3 | 7.356 | 0.000 | 10212172 | 257.9 |
| Aroclor-1016 | 4 | 6.901 | 0.001 | 20695484 | 267.4 | 4 | 7.463 | 0.000 | 10931447 | 248.3 |
| | Total Col1Ave (4 peaks): | | | | 265.1 | Total Col2Ave (4 peaks): | | | | 249.4 RPD = 6 |
| | Corrected Ave (3 peaks): | | | | 261.8 | Corrected Ave (3 peaks): | | | | 246.6 RPD = 6 |
| Aroclor-1260 | 1 | 10.446 | 0.000 | 36407019 | 289.1 | 1 | 10.421 | -0.001 | 15673058 | 283.5 |
| Aroclor-1260 | 2 | 10.820 | -0.001 | 83356641 | 266.7 | 2 | 10.871 | -0.001 | 19650518 | 286.2 |
| Aroclor-1260 | 3 | 11.220 | -0.001 | 47314377 | 272.4 | 3 | 11.144 | -0.001 | 39073387 | 280.3 |
| Aroclor-1260 | 4 | 11.336 | -0.001 | 20384869 | 273.3 | 4 | 11.665 | -0.001 | 10643867 | 261.5 |
| Aroclor-1260 | 5 | 11.410 | -0.001 | 24977018 | 280.5 | NS | --- | | | ---- |
| | Total Col1Ave (5 peaks): | | | | 276.4 | Total Col2Ave (4 peaks): | | | | 277.9 RPD = 1 |
| | Corrected Ave (4 peaks): | | | | 273.2 | Corrected Ave (3 peaks): | | | | 275.1 RPD = 1 |

Total PCB Area Col1 (4.710 - 12.891) = 1182160783 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 520653967 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD5-ZB5 AR1660
AIA 0525A044.cdf
25-MAY-2012 21:53, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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AIA 0525A044.cdf
25-MAY-2012 21:53, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A045.d
Data file 2: 20120523.b/0525-2.b/0525A045.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52MBS1
Client ID:
Injection Date: 25-MAY-2012 22:12
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.609 | -0.001 | 71093015 | 4.610 | -0.001 | 44020367 | 29.1 | 29.0 | 0.4 | Tetrachloro-m-xylene |
| 12.991 | 0.001 | 107986947 | 13.364 | -0.001 | 40729935 | 34.5 | 38.3 | 10.3 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 72.8 | 72.5 |
| Decachlorobiphenyl | 86.3 | 95.6 |

5/29/12

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 151934719 | -1.5 |
| Hexabromobiphenyl | 248602423 | 203842677 | -18.0 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 107842922 | -2.5 |
| Hexabromobiphenyl | 108855531 | 82401791 | -24.3 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | ZB5 Col RT | Shift | Area | Amount | Peak# | ZB35 Col RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.240 | -0.001 | 613992 | 9.7 | 1 | 6.345 | -0.002 | 355300 | 6.3 |
| Aroclor-1016 | 2 | 6.642 | 0.000 | 1328086 | 6.4 | 2 | 6.962 | -0.012 | 804293 | 6.3 |
| Aroclor-1016 | 3 | 6.792 | 0.002 | 606484 | 7.4 | 3 | 7.359 | 0.002 | 277378 | 8.4 |
| Aroclor-1016 | 4 | 6.897 | -0.004 | 947501 | 14.8 | 4 | 7.461 | -0.002 | 242472 | 6.6 |
| | Total Col1Ave (4 peaks): | | | | 9.6 | Total Col2Ave (4 peaks): | | | | 6.9 RPD = 32 |
| | Corrected Ave (3 peaks): | | | | 7.9 | Corrected Ave (3 peaks): | | | | 6.4 RPD = 20 |
| Aroclor-1221 | 1 | 4.889 | 0.005 | 6383971 | 560.5 | 1 | 5.313 | 0.023 | 688681 | 40.5 |
| Aroclor-1221 | 2 | 5.143 | -0.010 | 1788549 | 97.5 | 2 | 5.566 | 0.030 | 192823 | 19.2 |
| Aroclor-1221 | 3 | 5.255 | -0.003 | 618841 | 10.3 | 3 | 5.660 | 0.011 | 243383 | 7.7 |
| Aroclor-1221 | NS | --- | | | ---- | 4 | 5.709 | -0.008 | 18391 | 3.2 |
| | Total Col1Ave (3 peaks): | | | | 222.8 | Total Col2Ave (4 peaks): | | | | 17.7 RPD = 171* |
| | Corrected Ave: < 3 Peaks | | | | | Corrected Ave (3 peaks): | | | | 10.1 |
| Aroclor-1232 | 1 | 6.240 | 0.002 | 613992 | 23.2 | 1 | 6.345 | -0.001 | 355300 | 13.7 |
| Aroclor-1232 | 2 | 6.642 | 0.003 | 1328086 | 15.1 | 2 | 6.962 | -0.009 | 804293 | 14.8 |
| Aroclor-1232 | 3 | 6.792 | 0.004 | 606484 | 17.0 | 3 | 7.182 | 0.002 | 177458 | 9.7 |
| Aroclor-1232 | 4 | 7.984 | 0.004 | 567488 | 16.5 | 4 | 8.326 | 0.000 | 200183 | 10.0 |
| | Total Col1Ave (4 peaks): | | | | 18.0 | Total Col2Ave (4 peaks): | | | | 12.0 RPD = 40 |
| | Corrected Ave (3 peaks): | | | | 16.2 | Corrected Ave (3 peaks): | | | | 11.1 RPD = 37 |
| Aroclor-1242 | 1 | 6.240 | -0.002 | 613992 | 12.8 | 1 | 6.345 | -0.003 | 355300 | 8.1 |
| Aroclor-1242 | 2 | 6.642 | 0.000 | 1328086 | 8.3 | 2 | 6.962 | -0.013 | 804293 | 8.0 |
| Aroclor-1242 | 3 | 6.792 | 0.001 | 606484 | 9.5 | 3 | 7.182 | -0.001 | 177458 | 4.4 |
| Aroclor-1242 | 4 | 7.984 | 0.001 | 567488 | 9.6 | 4 | 8.326 | -0.001 | 200183 | 5.7 |
| | Total Col1Ave (4 peaks): | | | | 10.1 | Total Col2Ave (4 peaks): | | | | 6.5 RPD = 42* |
| | Corrected Ave (3 peaks): | | | | 9.1 | Corrected Ave (3 peaks): | | | | 6.0 RPD = 41* |
| Aroclor-1248 | 1 | 6.642 | 0.002 | 1328086 | 12.5 | 1 | 6.962 | -0.009 | 804293 | 12.4 |
| Aroclor-1248 | 2 | 7.419 | -0.019 | 2593668 | 32.2 | 2 | 7.905 | 0.030 | 2690437 | 51.9 |
| Aroclor-1248 | 3 | 7.984 | 0.000 | 567488 | 5.5 | 3 | 8.326 | -0.001 | 200183 | 3.2 |
| Aroclor-1248 | 4 | 8.262 | -0.012 | 1871729 | 18.0 | 4 | 8.694 | -0.054 | 641302 | 9.1 |
| | Total Col1Ave (4 peaks): | | | | 17.0 | Total Col2Ave (4 peaks): | | | | 19.1 RPD = 12 |
| | Corrected Ave (3 peaks): | | | | 12.0 | Corrected Ave (3 peaks): | | | | 8.2 RPD = 37 |
| Aroclor-1254 | 1 | 8.358 | 0.002 | 1053414 | 7.6 | 1 | 8.467 | 0.000 | 204446 | 4.3 |
| Aroclor-1254 | 2 | 8.750 | 0.023 | 1056912 | 11.8 | 2 | 8.638 | -0.001 | 173161 | 2.9 |
| Aroclor-1254 | 3 | 8.873 | 0.009 | 1549501 | 8.9 | 3 | 9.178 | 0.018 | 972434 | 21.1 |
| Aroclor-1254 | 4 | 9.134 | -0.079 | 10003408 | 53.6 | 4 | 9.310 | 0.000 | 144867 | 1.4 |
| Aroclor-1254 | 5 | 9.566 | -0.008 | 1222672 | 10.5 | 5 | 10.099 | 0.006 | 87527 | 1.5 |
| | Total Col1Ave (5 peaks): | | | | 18.5 | Total Col2Ave (5 peaks): | | | | 6.2 RPD = 99* |
| | Corrected Ave (4 peaks): | | | | 9.7 | Corrected Ave (4 peaks): | | | | 2.5 RPD = 117* |
| Aroclor-1260 | 1 | 10.443 | -0.004 | 1343577 | 12.1 | 1 | 10.423 | 0.001 | 61921 | 1.3 |
| Aroclor-1260 | 2 | 10.859 | 0.038 | 3978519 | 14.5 | 2 | 10.871 | -0.001 | 138732 | 2.4 |
| Aroclor-1260 | 3 | 11.218 | -0.003 | 1184081 | 7.8 | 3 | 11.143 | -0.001 | 136171 | 1.1 |
| Aroclor-1260 | 4 | 11.325 | -0.012 | 1163099 | 17.8 | 4 | 11.616 | -0.050 | 532186 | 15.3 |
| Aroclor-1260 | 5 | 11.408 | -0.002 | 1023462 | 13.1 | NS | --- | | | ---- |
| | Total Col1Ave (5 peaks): | | | | 13.1 | Total Col2Ave (4 peaks): | | | | 5.0 RPD = 89* |
| | Corrected Ave (4 peaks): | | | | 11.9 | Corrected Ave (3 peaks): | | | | 1.6 RPD = 152* |
| Aroclor-1262 | 1 | 10.131 | 0.003 | 1882809 | 11.6 | 1 | 10.423 | 0.004 | 61921 | 0.8 |
| Aroclor-1262 | 2 | 10.443 | -0.001 | 1343577 | 10.8 | 2 | 10.871 | 0.001 | 138732 | 2.1 |
| Aroclor-1262 | 3 | 10.859 | 0.040 | 3978519 | 11.7 | 3 | 11.143 | 0.001 | 136171 | 0.9 |
| Aroclor-1262 | 4 | 11.325 | -0.009 | 1163099 | 9.4 | 4 | 11.616 | -0.048 | 532186 | 8.8 |
| Aroclor-1262 | 5 | 11.408 | 0.001 | 1023462 | 7.3 | 5 | 12.503 | 0.040 | 175942 | 3.1 |
| | Total Col1Ave (5 peaks): | | | | 10.2 | Total Col2Ave (5 peaks): | | | | 3.1 RPD = 106* |
| | Corrected Ave (4 peaks): | | | | 9.8 | Corrected Ave (4 peaks): | | | | 1.7 RPD = 140* |
| Aroclor-1268 | 1 | 11.325 | -0.011 | 1163099 | 3.4 | 1 | 11.616 | -0.048 | 532186 | 3.4 |
| Aroclor-1268 | 2 | 11.408 | 0.001 | 1023462 | 2.9 | 2 | 11.726 | -0.004 | 119608 | 0.8 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1268 3 | 11.747 | -0.046 | 1675961 | 5.8 | 3 | 12.121 | -0.007 | 77915 | 0.6 |
| Aroclor-1268 4 | 12.579 | -0.006 | 1205955 | 1.4 | 4 | 12.952 | 0.003 | 90472 | 0.3 |

Total Col1Ave (4 peaks): 3.4 Total Col2Ave (4 peaks): 1.3 RPD = 90*

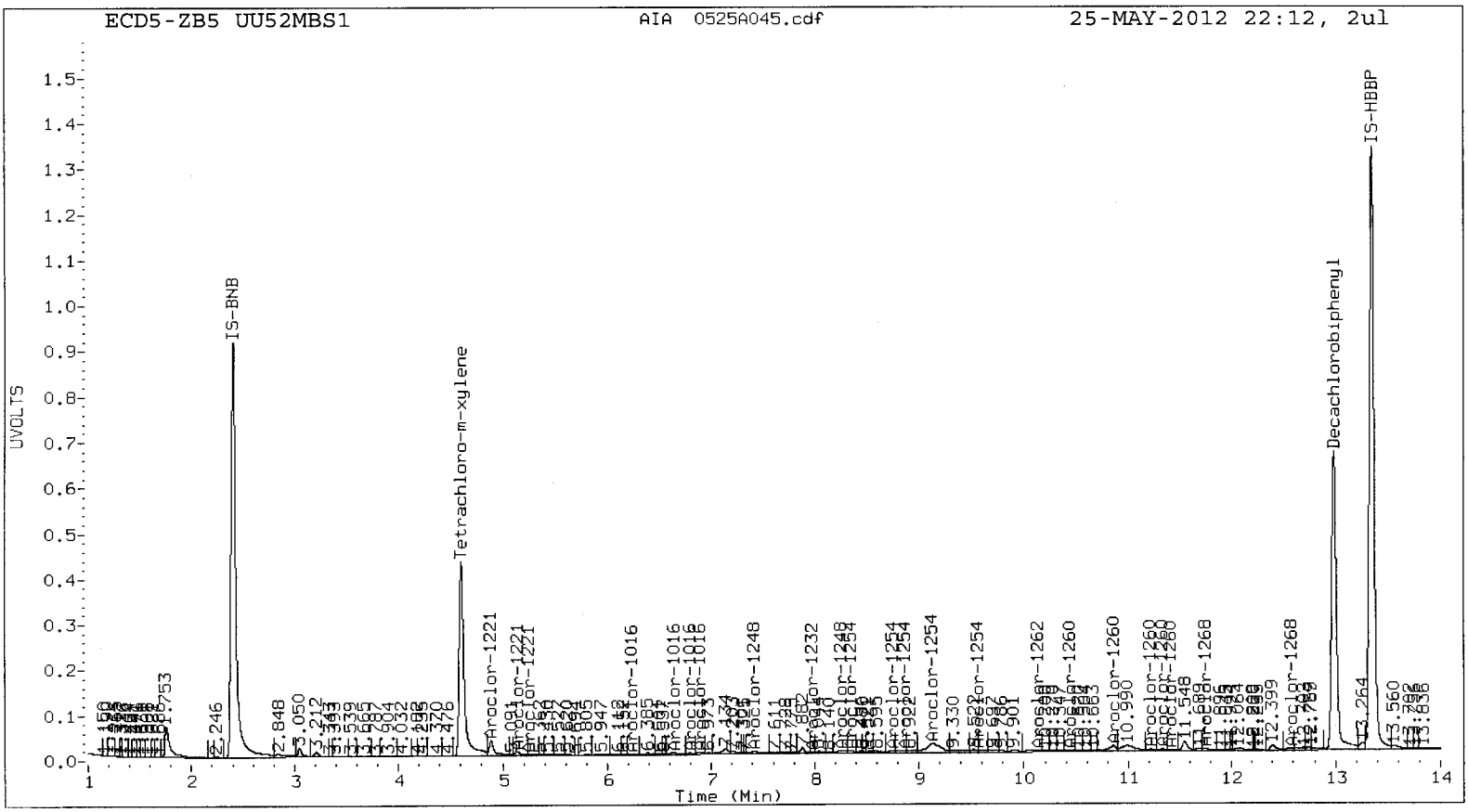
Corrected Ave (3 peaks): 2.6 Corrected Ave (3 peaks): 0.6 RPD = 128*

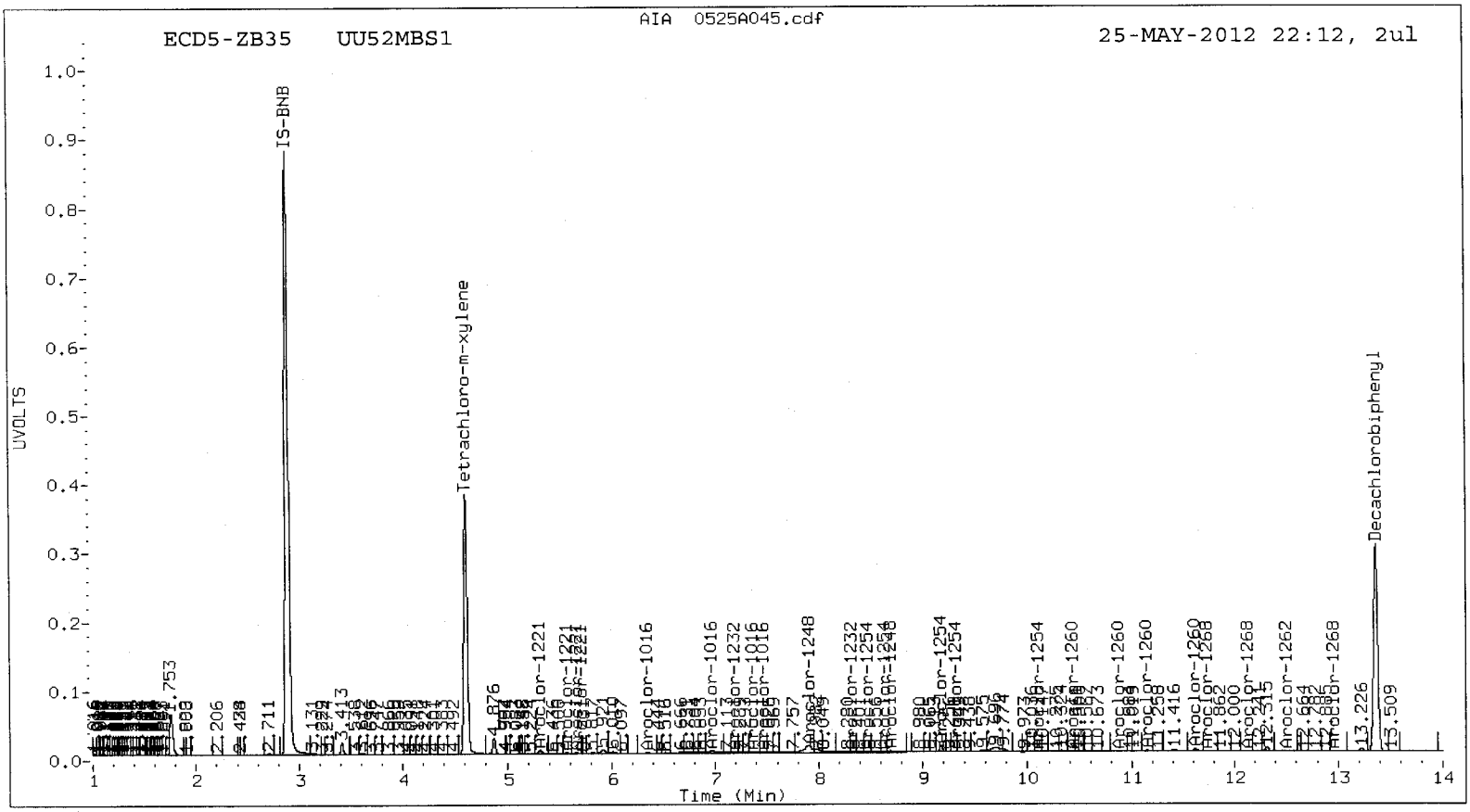
Total PCB Area Col1 (4.710 - 12.891) = 101022448 Col1 Total PCB = 0.1 ppm*

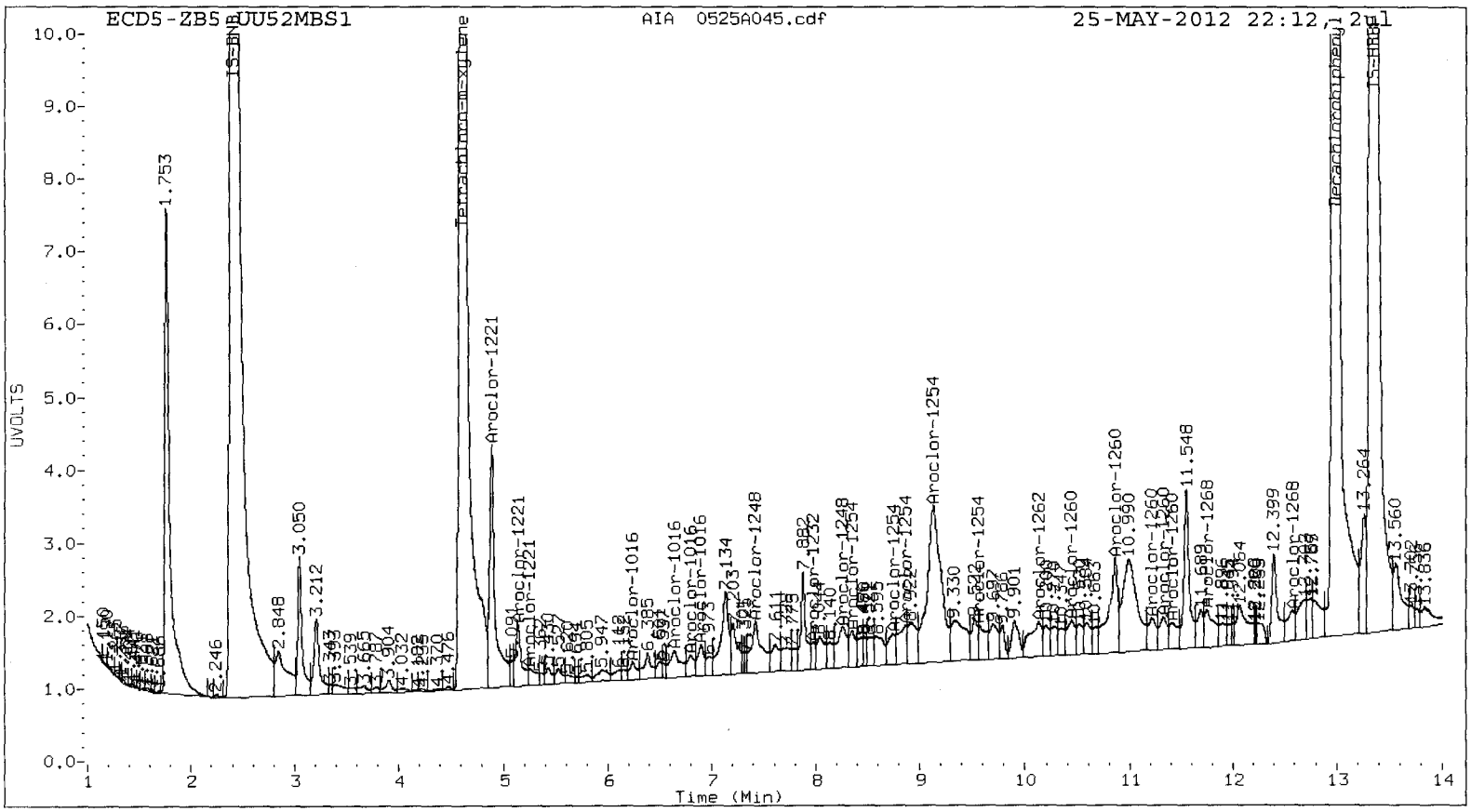
Total PCB Area Col2 (4.711 - 13.265) = 24687836 Col2 Total PCB = 0.0 ppm*

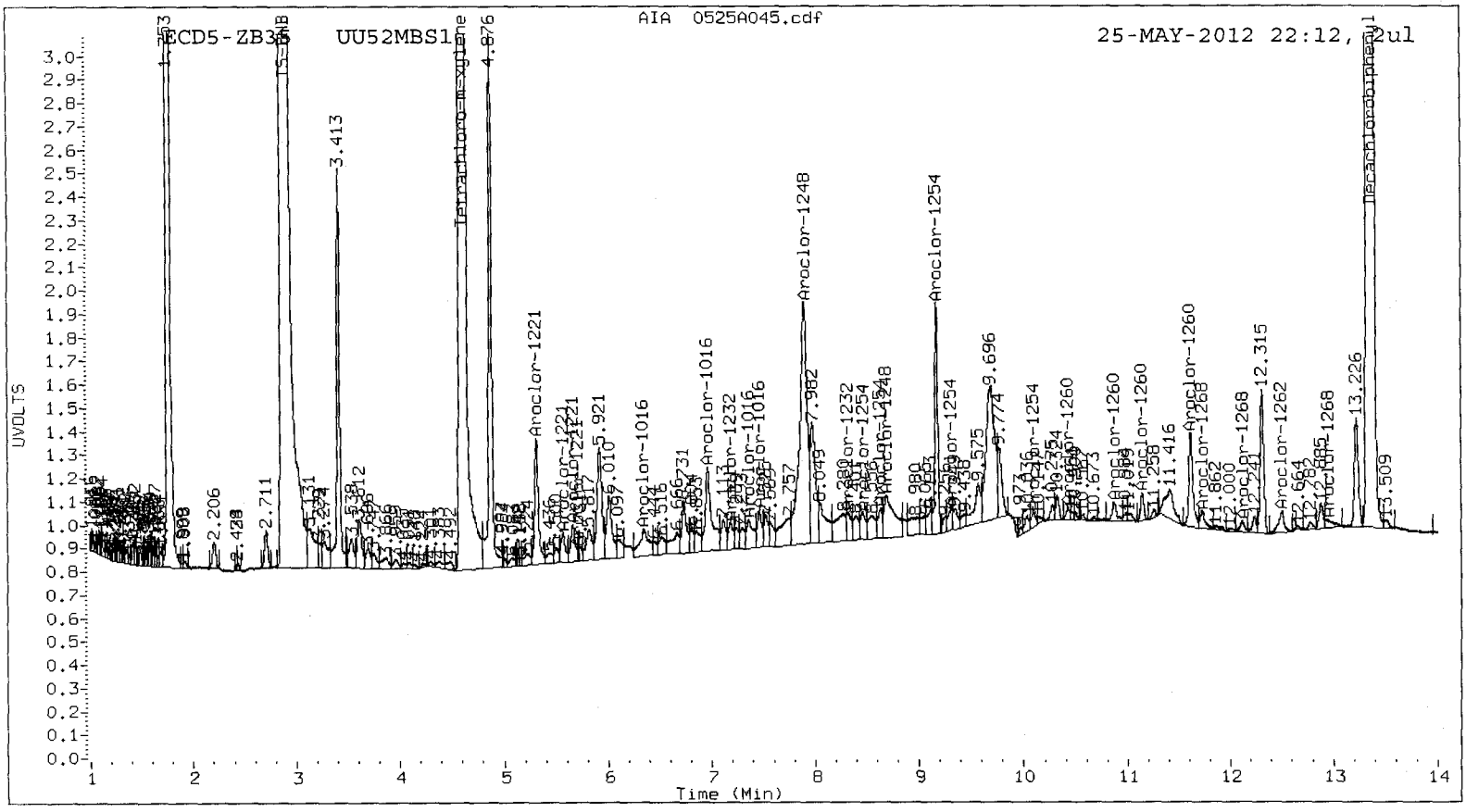
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.


ECD5-ZB5 UU52MBS1
AIA 0525A045.cdf
25-MAY-2012 22:12, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBBP


AIA 0525A045.cdf
ECD5-ZB35 UU52MBS1
25-MAY-2012 22:12, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Decachlorobiphenyl


ECD5-ZB5 UU52MBS1
AIA 0525A045.cdf
25-MAY-2012 22:12, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268


ECD5-ZB35 UU52MBS1
AIA 0525A045.cdf
25-MAY-2012 22:12, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A046.d
Data file 2: 20120523.b/0525-2.b/0525A046.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52LCSS1
Client ID:
Injection Date: 25-MAY-2012 22:31
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.609 | 0.000 | 73963619 | 4.610 | -0.001 | 46990034 | 27.7 | 28.2 | 1.9 | Tetrachloro-m-xylene |
| 12.992 | 0.002 | 116208307 | 13.365 | -0.001 | 43932409 | 33.3 | 37.3 | 11.4 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 69.2 | 70.5 |
| Decachlorobiphenyl | 83.1 | 93.2 |

05/29/12
05/29/12

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 166230424 | 7.8 |
| Hexabromobiphenyl | 248602423 | 227742315 | -8.4 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 118374711 | 7.0 |
| Hexabromobiphenyl | 108855531 | 91190750 | -16.2 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | RT | ZB5 Col Shift | Area | Amount | Peak# | RT | ZB35 Col Shift | Area | Amount | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.242 | 0.000 | 25561909 | 368.6 | 1 | 6.347 | 0.000 | 21514375 | 348.2 | |
| Aroclor-1016 | 2 | 6.642 | 0.001 | 85553664 | 378.4 | 2 | 6.974 | 0.001 | 51846539 | 369.7 | |
| Aroclor-1016 | 3 | 6.790 | 0.000 | 36091929 | 404.8 | 3 | 7.356 | 0.000 | 14302577 | 395.3 | |
| Aroclor-1016 | 4 | 6.900 | 0.000 | 28277849 | 402.6 | 4 | 7.463 | 0.000 | 15151349 | 376.6 | |
| | Total Col1Ave (4 peaks): | | | | 388.6 | | Total Col2Ave (4 peaks): | | | 372.5 | RPD = 4 |
| | Corrected Ave (3 peaks): | | | | 383.2 | | Corrected Ave (3 peaks): | | | 364.8 | RPD = 5 |
| Aroclor-1221 | 1 | 4.889 | 0.005 | 5027261 | 403.4 | 1 | 5.297 | 0.008 | 2461749 | 132.0 | |
| Aroclor-1221 | 2 | 5.157 | 0.004 | 4798159 | 239.2 | 2 | 5.541 | 0.005 | 2060427 | 186.9 | |
| Aroclor-1221 | 3 | 5.262 | 0.004 | 17168551 | 261.2 | 3 | 5.653 | 0.004 | 8980994 | 260.5 | |
| Aroclor-1221 | NS | --- | | | ---- | 4 | 5.720 | 0.003 | 754515 | 119.5 | |
| | Total Col1Ave (3 peaks): | | | | 301.3 | | Total Col2Ave (4 peaks): | | | 174.7 | RPD = 53* |
| | Corrected Ave: < 3 Peaks | | | | | | Corrected Ave (3 peaks): | | | 146.1 | |
| Aroclor-1232 | 1 | 6.242 | 0.003 | 25561909 | 882.6 | 1 | 6.347 | 0.002 | 21514375 | 754.6 | |
| Aroclor-1232 | 2 | 6.642 | 0.003 | 85553664 | 888.1 | 2 | 6.974 | 0.003 | 51846539 | 868.6 | |
| Aroclor-1232 | 3 | 6.790 | 0.003 | 36091929 | 923.8 | 3 | 7.182 | 0.003 | 18301755 | 908.9 | |
| Aroclor-1232 | 4 | 7.983 | 0.003 | 6661331 | 177.5 | 4 | 8.326 | 0.001 | 3410580 | 154.5 | |
| | Total Col1Ave (4 peaks): | | | | 718.0 | | Total Col2Ave (4 peaks): | | | 671.6 | RPD = 7 |
| | Corrected Ave (3 peaks): | | | | 649.4 | | Corrected Ave (3 peaks): | | | 592.6 | RPD = 9 |
| Aroclor-1242 | 1 | 6.242 | -0.001 | 25561909 | 488.5 | 1 | 6.347 | 0.000 | 21514375 | 445.5 | |
| Aroclor-1242 | 2 | 6.642 | 0.000 | 85553664 | 490.4 | 2 | 6.974 | 0.000 | 51846539 | 472.7 | |
| Aroclor-1242 | 3 | 6.790 | 0.000 | 36091929 | 518.4 | 3 | 7.182 | 0.000 | 18301755 | 410.7 | |
| Aroclor-1242 | 4 | 7.983 | 0.000 | 6661331 | 102.7 | 4 | 8.326 | -0.001 | 3410580 | 88.0 | |
| | Total Col1Ave (4 peaks): | | | | 400.0 | | Total Col2Ave (4 peaks): | | | 354.2 | RPD = 12 |
| | Corrected Ave (3 peaks): | | | | 360.6 | | Corrected Ave (3 peaks): | | | 314.7 | RPD = 14 |
| Aroclor-1248 | 1 | 6.642 | 0.003 | 85553664 | 733.1 | 1 | 6.974 | 0.003 | 51846539 | 729.4 | |
| Aroclor-1248 | 2 | 7.437 | -0.001 | 28776488 | 326.4 | 2 | 7.874 | -0.001 | 18693736 | 328.3 | |
| Aroclor-1248 | 3 | 7.983 | 0.000 | 6661331 | 59.0 | 3 | 8.326 | -0.001 | 3410580 | 49.8 | |
| Aroclor-1248 | 4 | 8.278 | 0.004 | 7685721 | 67.4 | 4 | 8.747 | -0.001 | 1847598 | 23.9 | |
| | Total Col1Ave (4 peaks): | | | | 296.5 | | Total Col2Ave (4 peaks): | | | 282.9 | RPD = 5 |
| | Corrected Ave (3 peaks): | | | | 150.9 | | Corrected Ave (3 peaks): | | | 134.0 | RPD = 12 |
| Aroclor-1254 | 1 | 8.358 | 0.002 | 35148763 | 230.3 | 1 | 8.466 | 0.000 | 11845932 | 227.9 | |
| Aroclor-1254 | 2 | 8.727 | 0.000 | 8289883 | 84.4 | 2 | 8.638 | 0.000 | 13725252 | 207.8 | |
| Aroclor-1254 | 3 | 8.862 | -0.002 | 33012981 | 174.1 | 3 | 9.162 | 0.002 | 4228519 | 83.8 | |
| Aroclor-1254 | 4 | 9.195 | -0.018 | 74937710 | 367.0 | 4 | 9.312 | 0.002 | 6708385 | 60.1 | |
| Aroclor-1254 | 5 | 9.524 | -0.050 | 106016233 | 834.7 | 5 | 10.103 | 0.010 | 12864561 | 196.6 | |
| | Total Col1Ave (5 peaks): | | | | 338.1 | | Total Col2Ave (5 peaks): | | | 155.2 | RPD = 74* |
| | Corrected Ave (4 peaks): | | | | 214.0 | | Corrected Ave (4 peaks): | | | 137.1 | RPD = 44* |
| Aroclor-1260 | 1 | 10.447 | 0.000 | 54846827 | 443.9 | 1 | 10.421 | -0.001 | 23505404 | 449.4 | |
| Aroclor-1260 | 2 | 10.820 | -0.001 | 127016551 | 414.2 | 2 | 10.872 | 0.000 | 29946770 | 461.1 | |
| Aroclor-1260 | 3 | 11.220 | -0.001 | 69979558 | 410.6 | 3 | 11.145 | 0.000 | 60306673 | 457.3 | |
| Aroclor-1260 | 4 | 11.336 | -0.001 | 30328426 | 414.5 | 4 | 11.665 | -0.001 | 17242809 | 447.9 | |
| Aroclor-1260 | 5 | 11.409 | -0.001 | 37557048 | 429.9 | NS | --- | | | ---- | |
| | Total Col1Ave (5 peaks): | | | | 422.6 | | Total Col2Ave (4 peaks): | | | 453.9 | RPD = 7 |
| | Corrected Ave (4 peaks): | | | | 417.3 | | Corrected Ave (3 peaks): | | | 451.8 | RPD = 8 |
| Aroclor-1262 | 1 | 10.130 | 0.002 | 55042851 | 303.2 | 1 | 10.421 | 0.002 | 23505404 | 275.2 | |
| Aroclor-1262 | 2 | 10.447 | 0.002 | 54846827 | 395.4 | 2 | 10.872 | 0.002 | 29946770 | 406.5 | |
| Aroclor-1262 | 3 | 10.820 | 0.002 | 127016551 | 335.1 | 3 | 11.145 | 0.002 | 60306673 | 360.5 | |
| Aroclor-1262 | 4 | 11.336 | 0.002 | 30328426 | 218.9 | 4 | 11.665 | 0.001 | 17242809 | 256.2 | |
| Aroclor-1262 | 5 | 11.409 | 0.002 | 37557048 | 238.4 | 5 | 12.464 | 0.001 | 13767013 | 219.7 | |
| | Total Col1Ave (5 peaks): | | | | 298.2 | | Total Col2Ave (5 peaks): | | | 303.6 | RPD = 2 |
| | Corrected Ave (4 peaks): | | | | 273.9 | | Corrected Ave (4 peaks): | | | 277.9 | RPD = 1 |
| Aroclor-1268 | 1 | 11.336 | 0.000 | 30328426 | 78.2 | 1 | 11.665 | 0.001 | 17242809 | 99.0 | |
| Aroclor-1268 | 2 | 11.409 | 0.002 | 37557048 | 96.3 | 2 | 11.725 | -0.005 | 40425481 | 246.3 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1268 | 3 | 11.810 | 0.018 | 18972054 | 58.3 | 3 | 12.129 | 0.002 | 1038351 | 7.5 |
| Aroclor-1268 | 4 | 12.583 | -0.002 | 16291837 | 17.0 | 4 | 12.950 | 0.000 | 4027115 | 10.3 |

Total Col1Ave (4 peaks): 62.5 Total Col2Ave (4 peaks): 90.8 RPD = 37

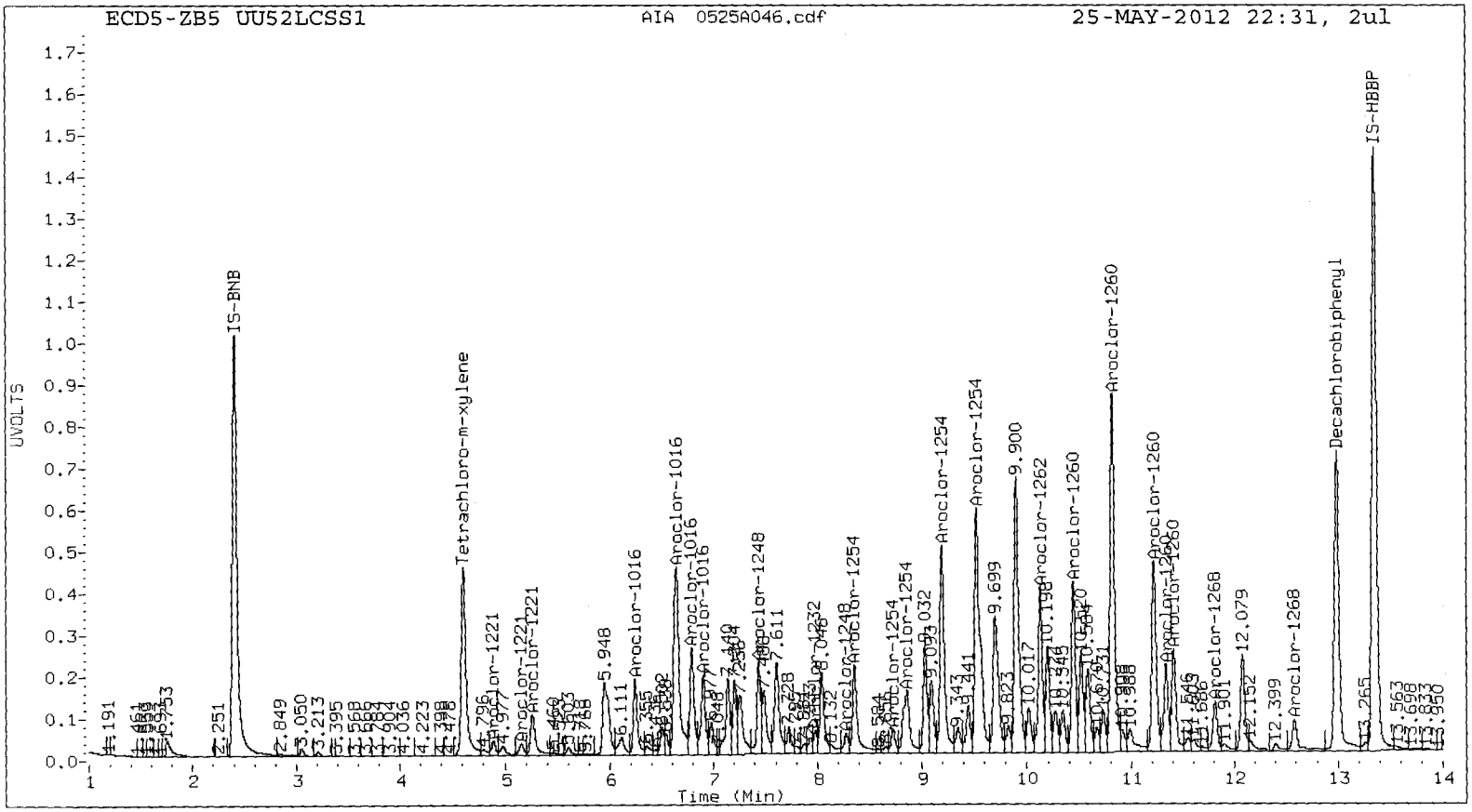
Corrected Ave (3 peaks): 51.2 Corrected Ave (3 peaks): 39.0 RPD = 27

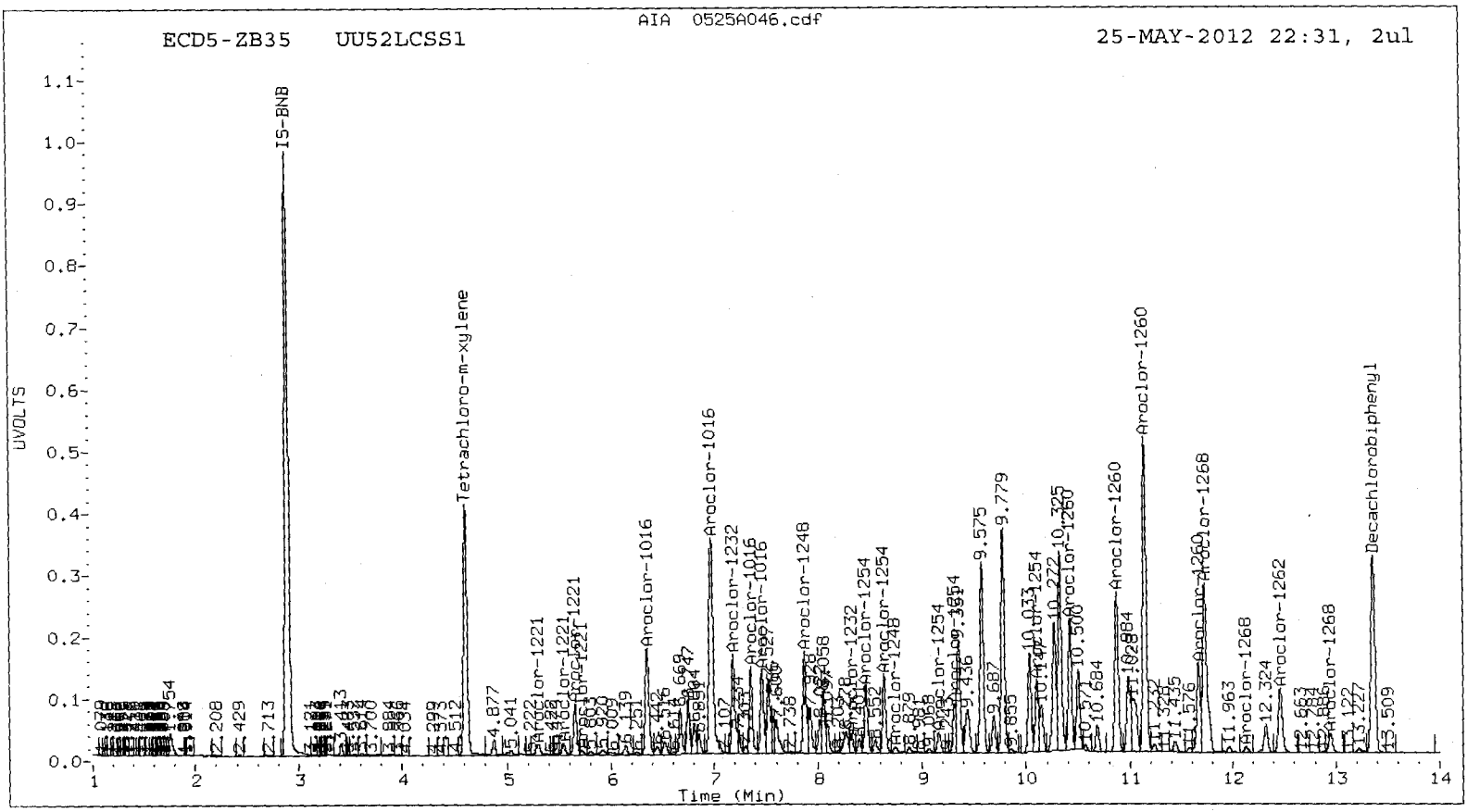
Total PCB Area Col1 (4.710 - 12.891) = 1694845244 Col1 Total PCB = 0.9 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 774123985 Col2 Total PCB = 0.8 ppm*

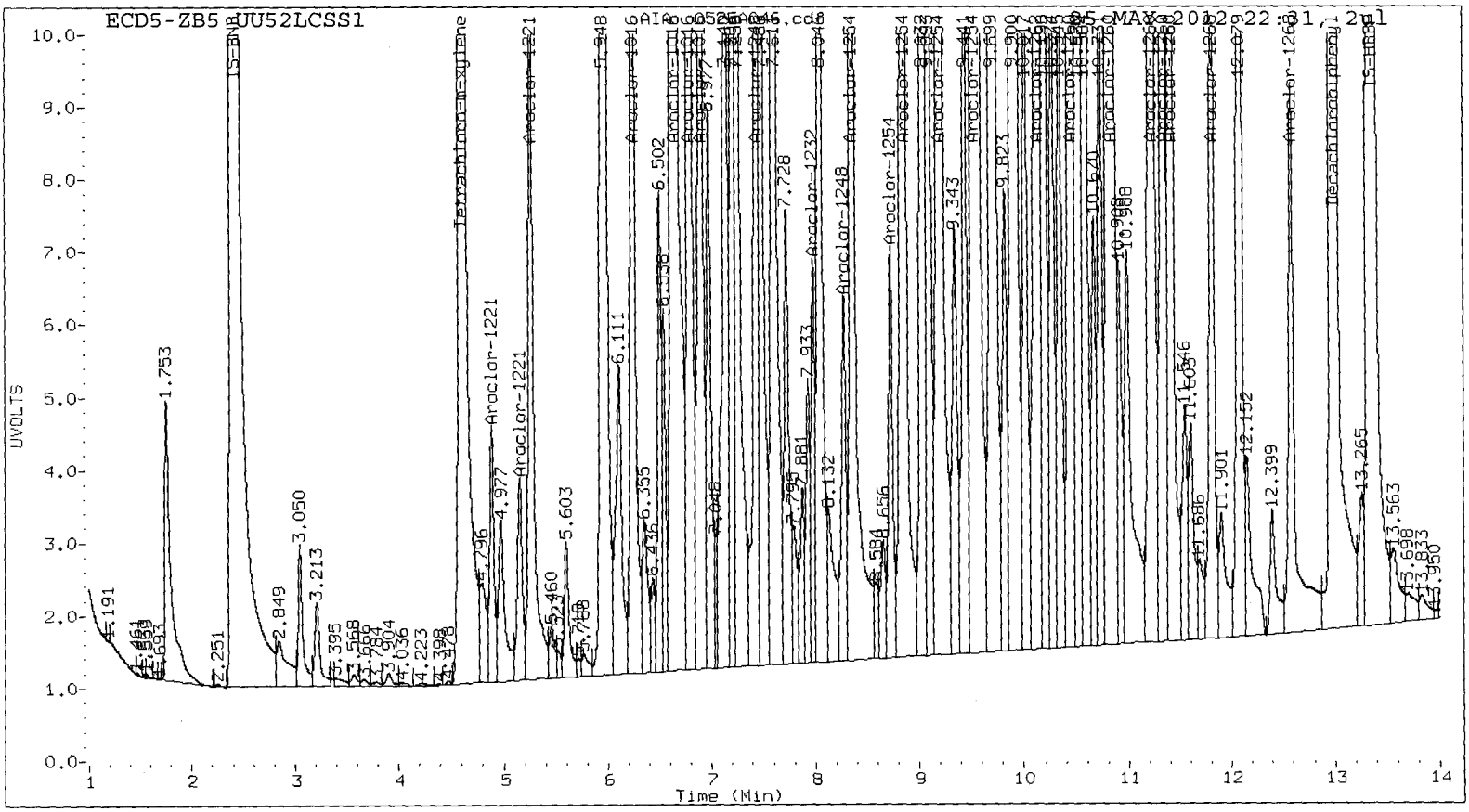
* Quantitated against AR1660 0.25ppm in Ical

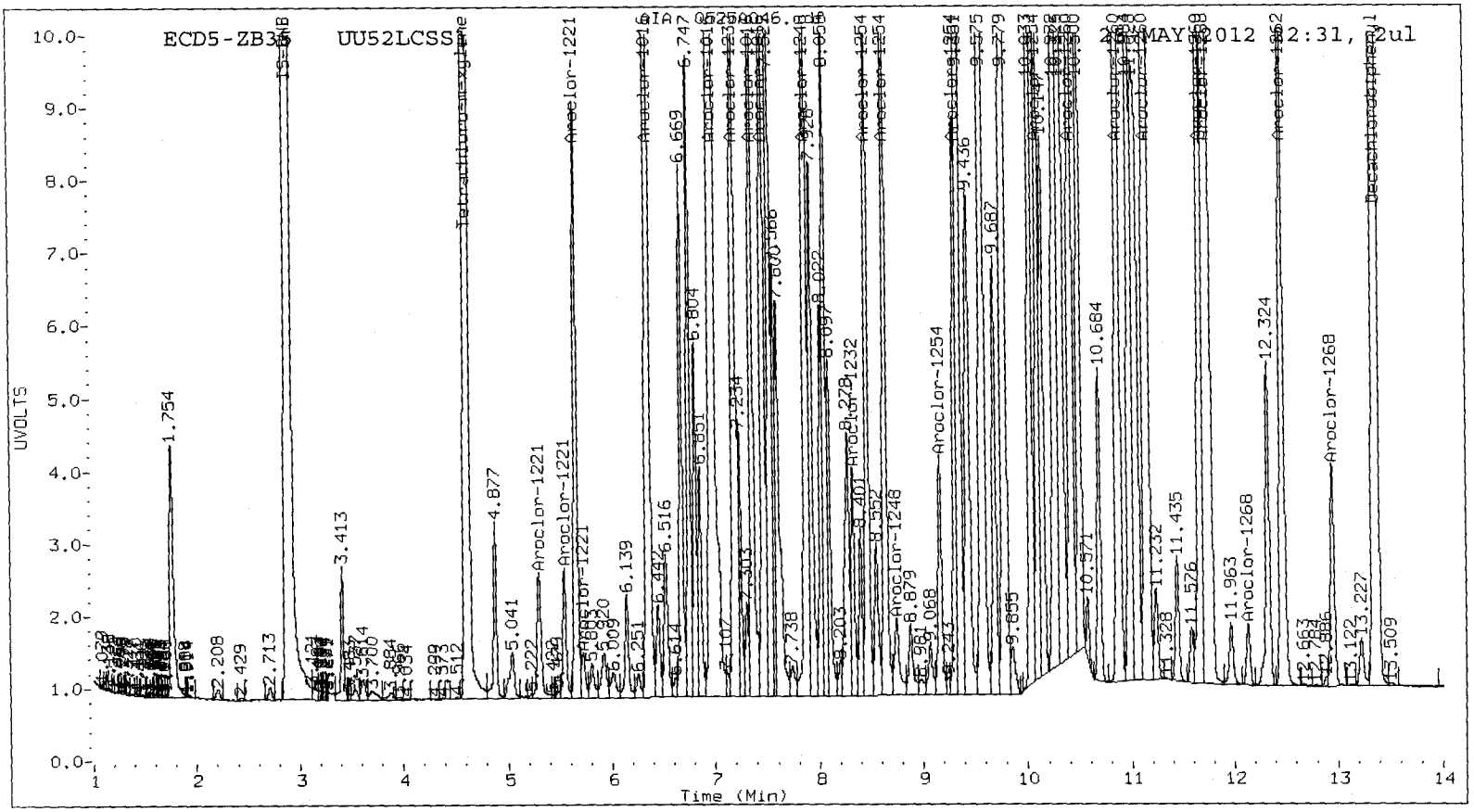
PCB-Form 10 Mod.


ECD5-ZB5 UU52LCSS1
AIA 0525A046.cdf
25-MAY-2012 22:31, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP


ECD5-ZB35 UU52LCSS1
AIA 0525A046.cdf
25-MAY-2012 22:31, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

UU52:51695


ECD5-ZB5 UU52LCSS1
25-MAY-2012 22:31, 2ul
UVOLTS
Time (Min)


ECD5-ZB35 UU52LCSS1
25-MAY-2012 22:31, 2ul
UVOLTS
Time (Min)

UU52:01696

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A047.d
Data file 2: 20120523.b/0525-2.b/0525A047.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52A
Client ID:
Injection Date: 25-MAY-2012 22:50
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.611 | 0.001 | 74042418 | 4.613 | 0.002 | 38080976 | 33.6 | 30.3 | 10.2 | Tetrachloro-m-xylene |
| 12.993 | 0.002 | 93935709 | 13.366 | 0.000 | 38457929 | 32.7 | 39.3 | 18.3 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 84.0 | 75.8 |
| Decachlorobiphenyl | 81.7 | 98.2 |

05/29/12

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 137150739 | -11.1 |
| Hexabromobiphenyl | 248602423 | 187389119 | -24.6 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 89256090 | -19.3 |
| Hexabromobiphenyl | 108855531 | 75797350 | -30.4 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | RT | ZB5 Col Shift | Area | Amount | Peak# | RT | ZB35 Col Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.236 | -0.006 | 1428722 | 25.0 | 1 | 6.354 | 0.007 | 2354464 | 50.5 |
| Aroclor-1016 | 2 | 6.641 | -0.001 | 8345790 | 44.7 | 2 | 6.973 | 0.000 | 3748457 | 35.4 |
| Aroclor-1016 | 3 | 6.791 | 0.001 | 1999807 | 27.2 | 3 | 7.355 | -0.001 | 1136565 | 41.7 |
| Aroclor-1016 | 4 | 6.896 | -0.004 | 4175586 | 72.1 | 4 | 7.462 | -0.001 | 2783635 | 91.8 |
| | Total Col1Ave (4 peaks): | | | 42.2 | | Total Col2Ave (4 peaks): | | | 54.9 | RPD = 26 |
| | Corrected Ave (3 peaks): | | | 32.3 | | Corrected Ave (3 peaks): | | | 42.5 | RPD = 27 |
| Aroclor-1221 | 1 | 4.909 | 0.025 | 12754542 | 1240.6 | 1 | 5.307 | 0.017 | 6824633 | 485.2 |
| Aroclor-1221 | 2 | 5.146 | -0.007 | 1380581 | 83.4 | 2 | 5.568 | 0.032 | 4462440 | 537.0 |
| Aroclor-1221 | 3 | 5.277 | 0.019 | 13213915 | 243.7 | 3 | 5.678 | 0.029 | 15427210 | 593.5 |
| Aroclor-1221 | NS | --- | | | ---- | 4 | --- | | | 0.0 |
| | Total Col1Ave (3 peaks): | | | 522.6 | | Total Col2Ave (3 peaks): | | | 538.6 | RPD = 3 |
| | Corrected Ave: < 3 Peaks | | | | | Corrected Ave: < 3 Peaks | | | | |
| Aroclor-1232 | 1 | 6.236 | -0.003 | 1428722 | 59.8 | 1 | 6.354 | 0.009 | 2354464 | 109.5 |
| Aroclor-1232 | 2 | 6.641 | 0.002 | 8345790 | 105.0 | 2 | 6.973 | 0.002 | 3748457 | 83.3 |
| Aroclor-1232 | 3 | 6.791 | 0.003 | 1999807 | 62.0 | 3 | 7.187 | 0.008 | 2070608 | 136.4 |
| Aroclor-1232 | 4 | 7.981 | 0.001 | 8758750 | 282.9 | 4 | 8.327 | 0.002 | 4527370 | 271.9 |
| | Total Col1Ave (4 peaks): | | | 127.4 | | Total Col2Ave (4 peaks): | | | 150.3 | RPD = 16 |
| | Corrected Ave (3 peaks): | | | 75.6 | | Corrected Ave (3 peaks): | | | 109.7 | RPD = 37 |
| Aroclor-1242 | 1 | 6.236 | -0.007 | 1428722 | 33.1 | 1 | 6.354 | 0.006 | 2354464 | 64.7 |
| Aroclor-1242 | 2 | 6.641 | -0.001 | 8345790 | 58.0 | 2 | 6.973 | -0.001 | 3748457 | 45.3 |
| Aroclor-1242 | 3 | 6.791 | 0.000 | 1999807 | 34.8 | 3 | 7.187 | 0.005 | 2070608 | 61.6 |
| Aroclor-1242 | 4 | 7.981 | -0.002 | 8758750 | 163.7 | 4 | 8.327 | 0.000 | 4527370 | 155.0 |
| | Total Col1Ave (4 peaks): | | | 72.4 | | Total Col2Ave (4 peaks): | | | 81.6 | RPD = 12 |
| | Corrected Ave (3 peaks): | | | 42.0 | | Corrected Ave (3 peaks): | | | 57.2 | RPD = 31 |
| Aroclor-1248 | 1 | 6.641 | 0.002 | 8345790 | 86.7 | 1 | 6.973 | 0.002 | 3748457 | 69.9 |
| Aroclor-1248 | 2 | 7.440 | 0.001 | 6993018 | 96.1 | 2 | 7.878 | 0.003 | 7751291 | 180.5 |
| Aroclor-1248 | 3 | 7.981 | -0.002 | 8758750 | 94.0 | 3 | 8.327 | 0.000 | 4527370 | 87.7 |
| Aroclor-1248 | 4 | 8.266 | -0.008 | 14762567 | 157.0 | 4 | 8.738 | -0.009 | 10802374 | 185.3 |
| | Total Col1Ave (4 peaks): | | | 108.5 | | Total Col2Ave (4 peaks): | | | 130.9 | RPD = 19 |
| | Corrected Ave (3 peaks): | | | 92.3 | | Corrected Ave (3 peaks): | | | 112.7 | RPD = 20 |
| Aroclor-1254 | 1 | 8.356 | -0.001 | 16212781 | 128.8 | 1 | 8.466 | -0.001 | 4432475 | 113.1 |
| Aroclor-1254 | 2 | 8.750 | 0.022 | 42187828 | 520.6 | 2 | 8.640 | 0.001 | 10000067 | 200.8 |
| Aroclor-1254 | 3 | 8.864 | 0.000 | 51178202 | 327.1 | 3 | 9.172 | 0.012 | 10212259 | 268.3 |
| Aroclor-1254 | 4 | 9.211 | -0.002 | 34962353 | 207.5 | 4 | 9.310 | 0.001 | 13794240 | 163.9 |
| Aroclor-1254 | 5 | 9.575 | 0.001 | 23515539 | 224.4 | 5 | 10.091 | -0.002 | 9859662 | 199.8 |
| | Total Col1Ave (5 peaks): | | | 281.7 | | Total Col2Ave (5 peaks): | | | 189.2 | RPD = 39 |
| | Corrected Ave (4 peaks): | | | 222.0 | | Corrected Ave (4 peaks): | | | 169.4 | RPD = 27 |
| Aroclor-1260 | 1 | 10.446 | -0.001 | 5988426 | 58.9 | 1 | 10.423 | 0.001 | 3151523 | 72.5 |
| Aroclor-1260 | 2 | 10.821 | 0.000 | 27998152 | 111.0 | 2 | 10.871 | -0.001 | 7729287 | 143.2 |
| Aroclor-1260 | 3 | 11.223 | 0.002 | 10504147 | 74.9 | 3 | 11.146 | 0.001 | 11566852 | 105.5 |
| Aroclor-1260 | 4 | 11.335 | -0.002 | 6441746 | 107.0 | 4 | 11.669 | 0.003 | 3405401 | 106.4 |
| Aroclor-1260 | 5 | 11.407 | -0.004 | 56853224 | 790.9 | NS | --- | | | ---- |
| | Total Col1Ave (5 peaks): | | | 228.5 | | Total Col2Ave (4 peaks): | | | 106.9 | RPD = 73* |
| | Corrected Ave (4 peaks): | | | 87.9 | | Corrected Ave (3 peaks): | | | 94.8 | RPD = 8 |
| Aroclor-1262 | 1 | 10.129 | 0.002 | 10441140 | 69.9 | 1 | 10.423 | 0.003 | 3151523 | 44.4 |
| Aroclor-1262 | 2 | 10.446 | 0.002 | 5988426 | 52.5 | 2 | 10.871 | 0.001 | 7729287 | 126.2 |
| Aroclor-1262 | 3 | 10.821 | 0.002 | 27998152 | 89.8 | 3 | 11.146 | 0.003 | 11566852 | 83.2 |
| Aroclor-1262 | 4 | 11.335 | 0.001 | 6441746 | 56.5 | 4 | 11.669 | 0.005 | 3405401 | 60.9 |
| Aroclor-1262 | 5 | 11.407 | -0.001 | 56853224 | 438.7 | 5 | 12.473 | 0.011 | 4539280 | 87.1 |
| | Total Col1Ave (5 peaks): | | | 141.5 | | Total Col2Ave (5 peaks): | | | 80.4 | RPD = 55* |
| | Corrected Ave (4 peaks): | | | 67.2 | | Corrected Ave (4 peaks): | | | 68.9 | RPD = 3 |
| Aroclor-1268 | 1 | 11.335 | -0.001 | 6441746 | 20.2 | 1 | 11.669 | 0.005 | 3405401 | 23.5 |
| Aroclor-1268 | 2 | 11.407 | 0.000 | 56853224 | 177.2 | 2 | 11.726 | -0.005 | 7874063 | 57.7 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1268 3 | 11.808 | 0.015 | 5512122 | 20.6 | 3 | 12.132 | 0.005 | 1567311 | 13.7 |
| Aroclor-1268 4 | 12.586 | 0.001 | 2957674 | 3.8 | 4 | 12.946 | -0.004 | 4793505 | 14.8 |

Total Col1Ave (4 peaks): 55.4 Total Col2Ave (4 peaks): 27.4 RPD = 68*

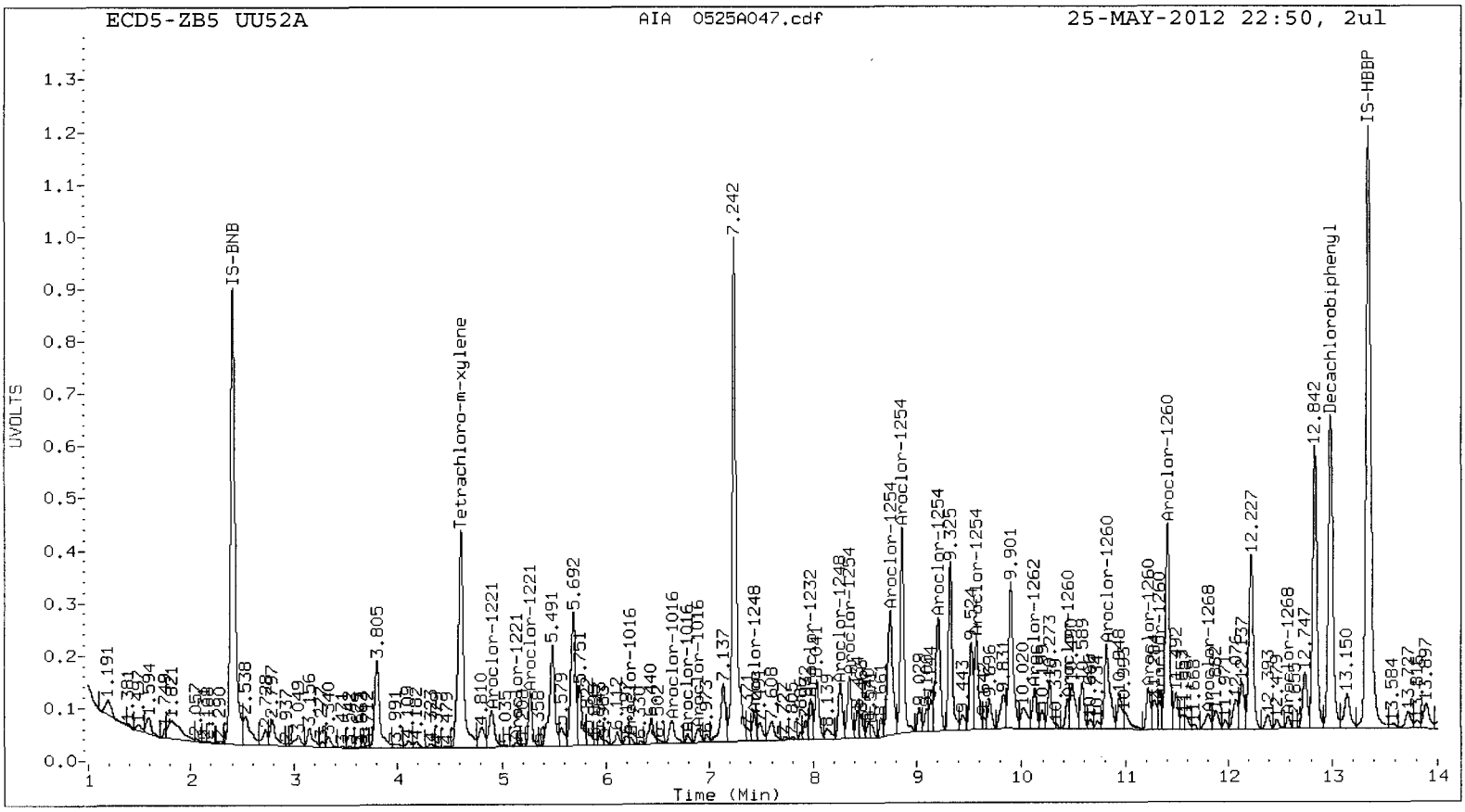
Corrected Ave (3 peaks): 14.8 Corrected Ave (3 peaks): 17.3 RPD = 16

Total PCB Area Col1 (4.710 - 12.891) = 1152991978 Col1 Total PCB = 0.7 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 597221761 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Time (Min)
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Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
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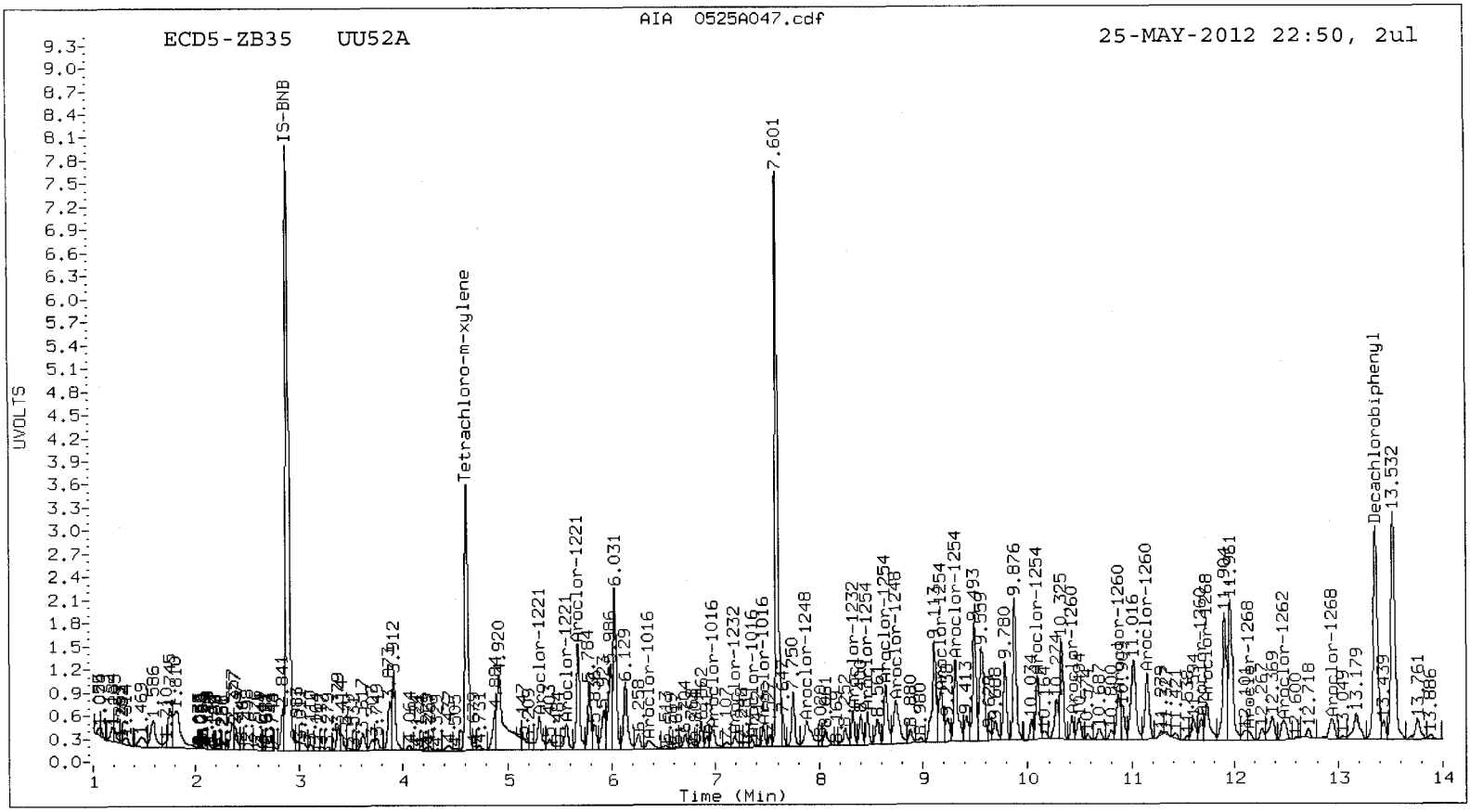
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Aroclor-1232
Aroclor-1248
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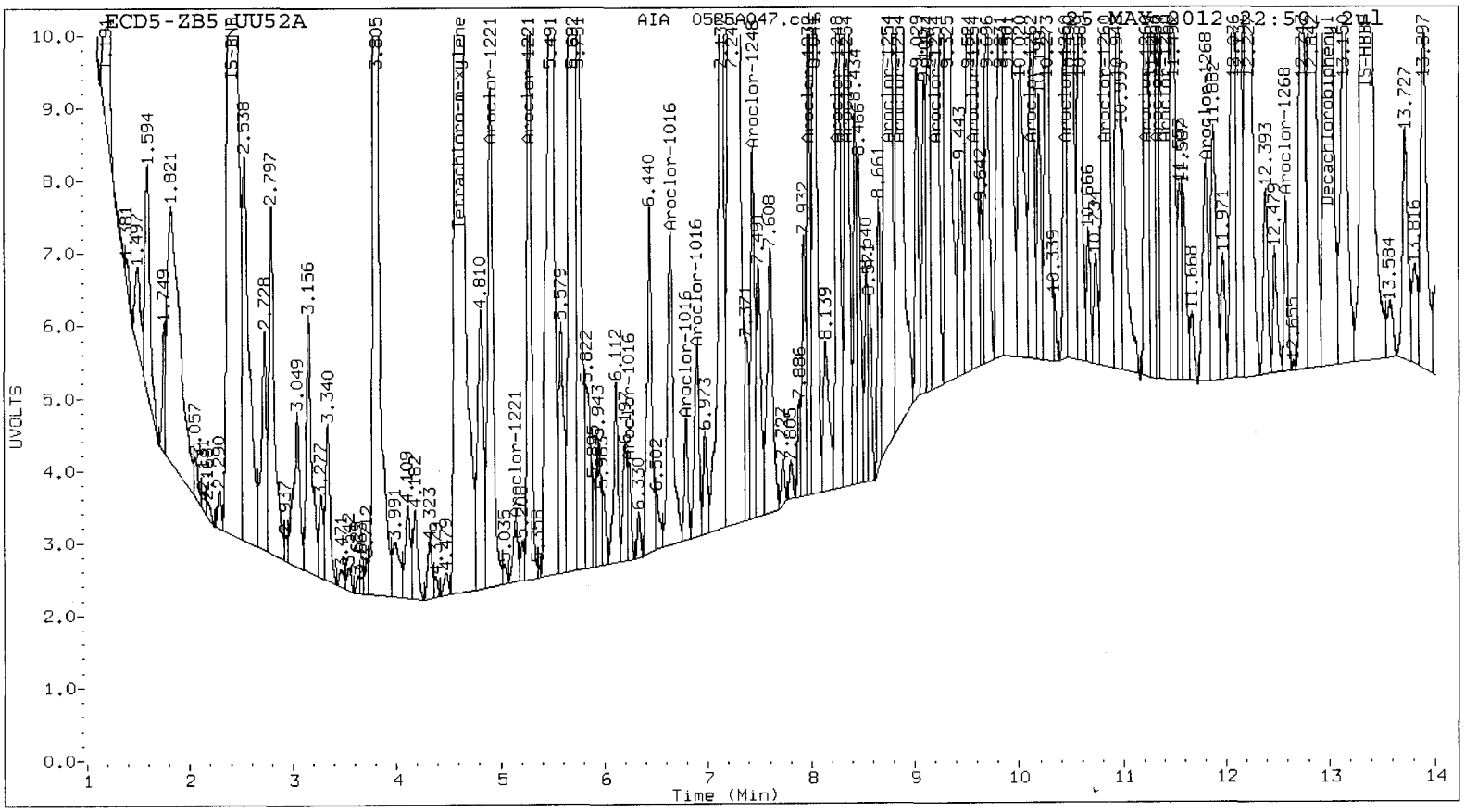
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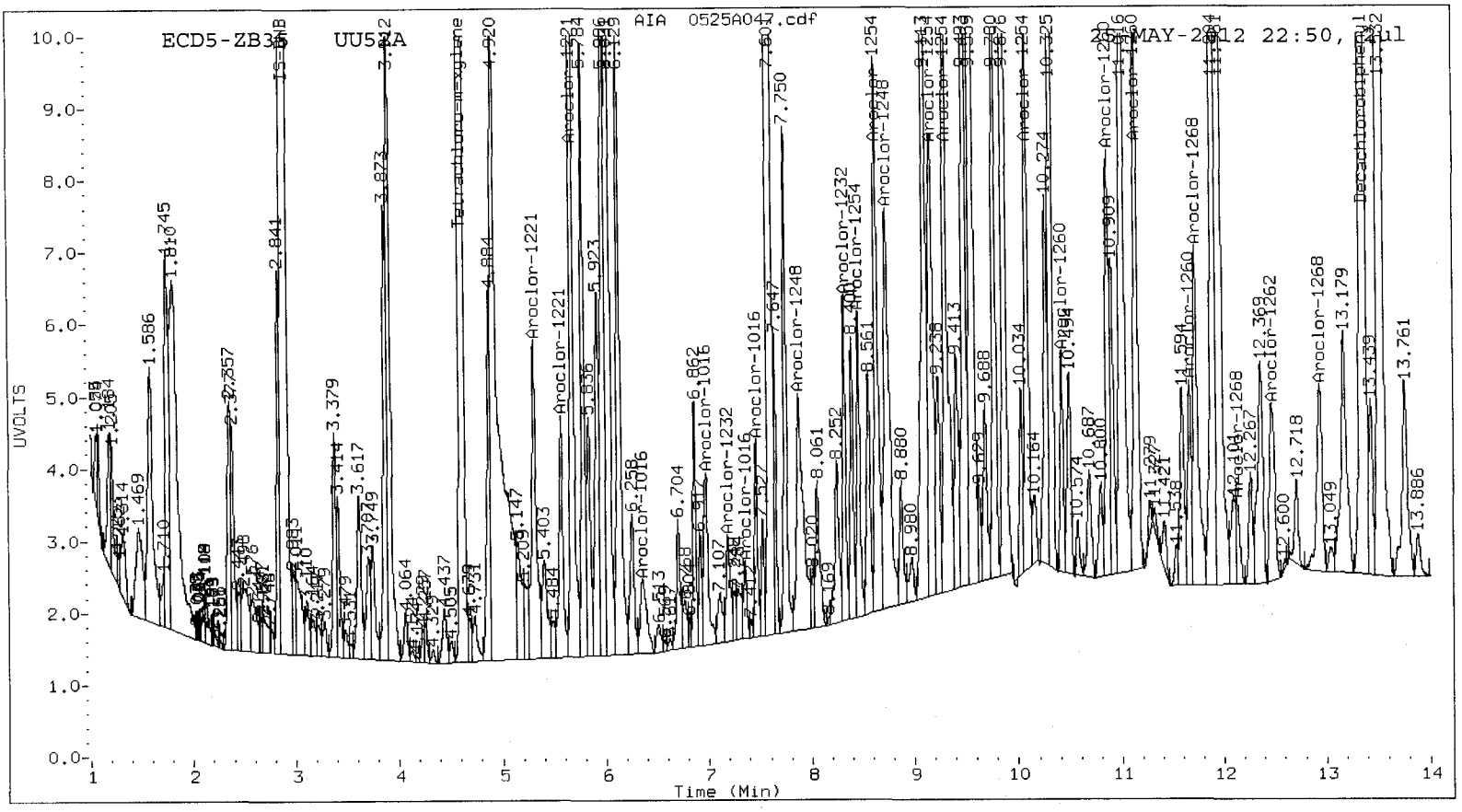
IS-HBB
IS-DNB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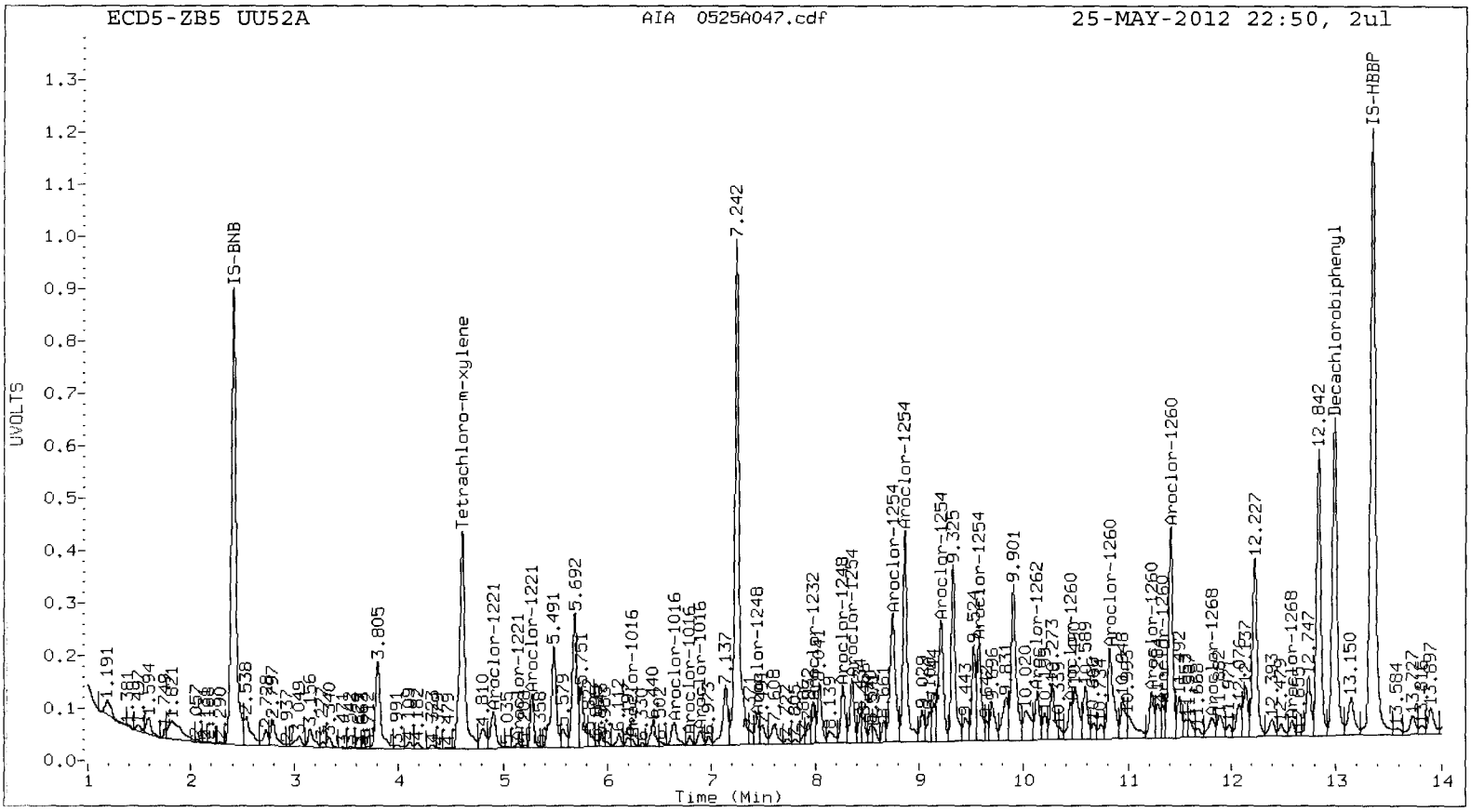
Decachlorobiphenyl
IS-DNB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Aroclor-1016
Aroclor-1248
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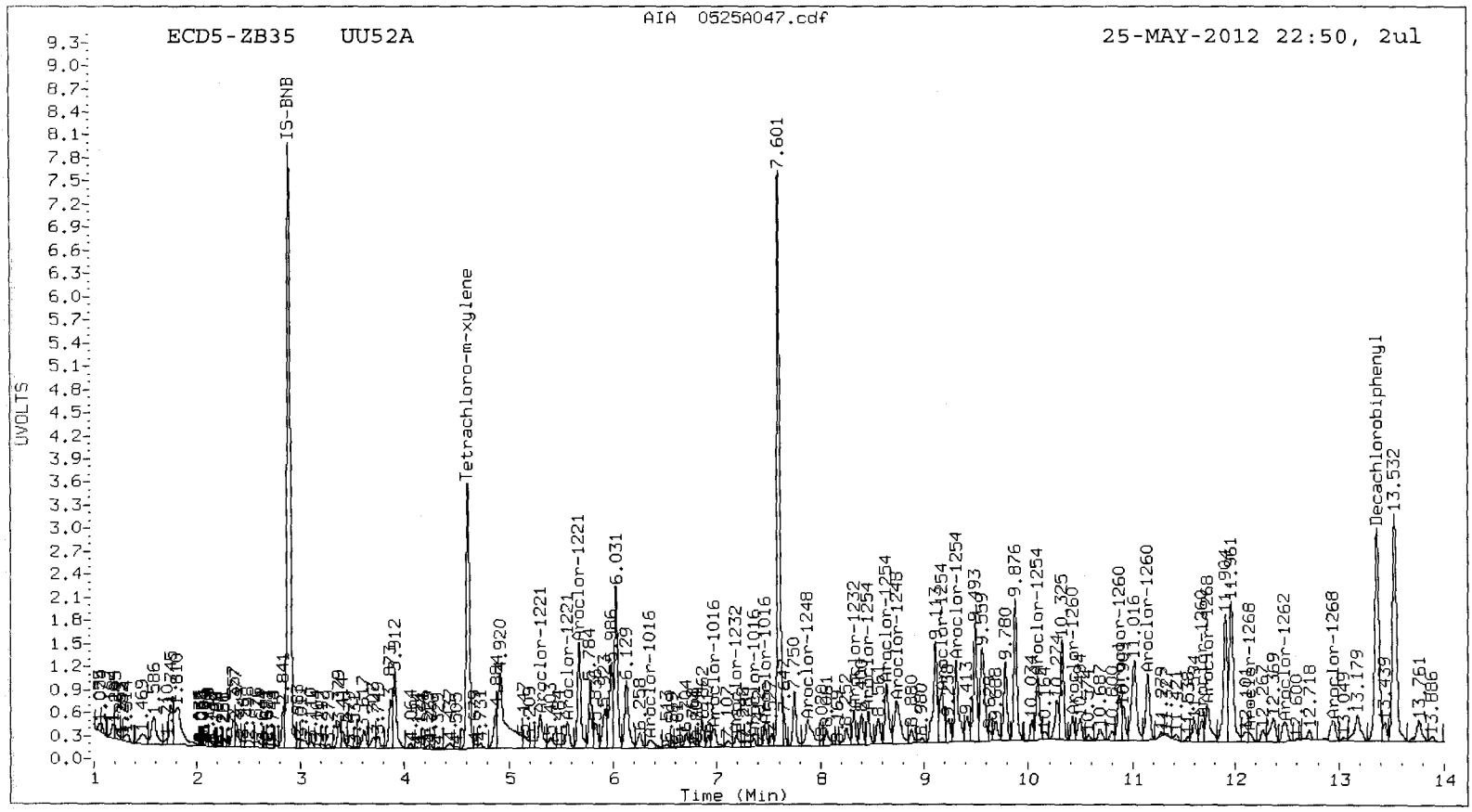
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP
UVOLTS
Time (Min)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Tetrachloro-m-xylene
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Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A048.d
Data file 2: 20120523.b/0525-2.b/0525A048.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52B
Client ID:
Injection Date: 25-MAY-2012 23:09
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.611 | 0.001 | 77225580 | 4.612 | 0.001 | 39333257 | 30.9 | 28.6 | 7.6 | Tetrachloro-m-xylene |
| 12.995 | 0.004 | 92945441 | 13.366 | 0.001 | 38932189 | 29.7 | 36.6 | 20.8 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 77.2 | 71.5 |
| Decachlorobiphenyl | 74.3 | 91.6 |

JM05/2 9/12

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 155679232 | 0.9 |
| Hexabromobiphenyl | 248602423 | 203740008 | -18.0 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 97771108 | -11.6 |
| Hexabromobiphenyl | 108855531 | 82250498 | -24.4 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | ZB5 Col Peak# | RT | Shift | Area | Amount | ZB35 Col Peak# | RT | Shift | Area | Amount | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.236 | -0.005 | 1475955 | 22.7 | 1 | 6.352 | 0.005 | 2561170 | 50.2 | |
| Aroclor-1016 | 2 | 6.644 | 0.002 | 8964051 | 42.3 | 2 | 6.974 | 0.000 | 3746484 | 32.3 | |
| Aroclor-1016 | 3 | 6.790 | 0.000 | 2100989 | 25.2 | 3 | 7.355 | -0.001 | 1194199 | 40.0 | |
| Aroclor-1016 | 4 | 6.899 | -0.001 | 3201228 | 48.7 | 4 | 7.461 | -0.002 | 3005871 | 90.5 | |
| Total Col1Ave (4 peaks): | | | | | 34.7 | Total Col2Ave (4 peaks): | | | | 53.2 | RPD = 42* |
| Corrected Ave (3 peaks): | | | | | 30.1 | Corrected Ave (3 peaks): | | | | 40.8 | RPD = 30 |
| Aroclor-1221 | 1 | 4.910 | 0.026 | 10678651 | 915.1 | 1 | 5.307 | 0.017 | 6632903 | 430.5 | |
| Aroclor-1221 | 2 | 5.148 | -0.005 | 975354 | 51.9 | 2 | 5.568 | 0.032 | 4828001 | 530.4 | |
| Aroclor-1221 | 3 | 5.276 | 0.018 | 7472768 | 121.4 | 3 | 5.678 | 0.029 | 16237507 | 570.3 | |
| Aroclor-1221 | NS | --- | | | ---- | 4 | --- | | | 0.0 | |
| Total Col1Ave (3 peaks): | | | | | 362.8 | Total Col2Ave (3 peaks): | | | | 510.4 | RPD = 34 |
| Corrected Ave: < 3 Peaks | | | | | | Corrected Ave: < 3 Peaks | | | | | |
| Aroclor-1232 | 1 | 6.236 | -0.002 | 1475955 | 54.4 | 1 | 6.352 | 0.006 | 2561170 | 108.8 | |
| Aroclor-1232 | 2 | 6.644 | 0.005 | 8964051 | 99.4 | 2 | 6.974 | 0.003 | 3746484 | 76.0 | |
| Aroclor-1232 | 3 | 6.790 | 0.003 | 2100989 | 57.4 | 3 | 7.186 | 0.007 | 1987221 | 119.5 | |
| Aroclor-1232 | 4 | 7.983 | 0.003 | 9723650 | 276.7 | 4 | 8.326 | 0.001 | 4806891 | 263.6 | |
| Total Col1Ave (4 peaks): | | | | | 122.0 | Total Col2Ave (4 peaks): | | | | 141.9 | RPD = 15 |
| Corrected Ave (3 peaks): | | | | | 70.4 | Corrected Ave (3 peaks): | | | | 101.4 | RPD = 36 |
| Aroclor-1242 | 1 | 6.236 | -0.006 | 1475955 | 30.1 | 1 | 6.352 | 0.004 | 2561170 | 64.2 | |
| Aroclor-1242 | 2 | 6.644 | 0.001 | 8964051 | 54.9 | 2 | 6.974 | 0.000 | 3746484 | 41.4 | |
| Aroclor-1242 | 3 | 6.790 | 0.000 | 2100989 | 32.2 | 3 | 7.186 | 0.004 | 1987221 | 54.0 | |
| Aroclor-1242 | 4 | 7.983 | 0.000 | 9723650 | 160.1 | 4 | 8.326 | 0.000 | 4806891 | 150.2 | |
| Total Col1Ave (4 peaks): | | | | | 69.3 | Total Col2Ave (4 peaks): | | | | 77.4 | RPD = 11 |
| Corrected Ave (3 peaks): | | | | | 39.1 | Corrected Ave (3 peaks): | | | | 53.2 | RPD = 31 |
| Aroclor-1248 | 1 | 6.644 | 0.004 | 8964051 | 82.0 | 1 | 6.974 | 0.003 | 3746484 | 63.8 | |
| Aroclor-1248 | 2 | 7.438 | -0.001 | 6507394 | 78.8 | 2 | 7.875 | 0.001 | 3198377 | 68.0 | |
| Aroclor-1248 | 3 | 7.983 | 0.000 | 9723650 | 91.9 | 3 | 8.326 | 0.000 | 4806891 | 85.0 | |
| Aroclor-1248 | 4 | 8.267 | -0.007 | 14386370 | 134.8 | 4 | 8.739 | -0.009 | 10903865 | 170.8 | |
| Total Col1Ave (4 peaks): | | | | | 96.9 | Total Col2Ave (4 peaks): | | | | 96.9 | RPD = 0 |
| Corrected Ave (3 peaks): | | | | | 84.3 | Corrected Ave (3 peaks): | | | | 72.3 | RPD = 15 |
| Aroclor-1254 | 1 | 8.357 | 0.001 | 16824605 | 117.7 | 1 | 8.465 | -0.001 | 4534985 | 105.7 | |
| Aroclor-1254 | 2 | 8.749 | 0.021 | 43189697 | 469.5 | 2 | 8.639 | 0.000 | 9917794 | 181.8 | |
| Aroclor-1254 | 3 | 8.863 | 0.000 | 47451774 | 267.2 | 3 | 9.173 | 0.013 | 11295347 | 270.9 | |
| Aroclor-1254 | 4 | 9.214 | 0.001 | 33015086 | 172.6 | 4 | 9.309 | -0.001 | 14249793 | 154.5 | |
| Aroclor-1254 | 5 | 9.574 | 0.000 | 22669321 | 190.6 | 5 | 10.091 | -0.001 | 9469872 | 175.2 | |
| Total Col1Ave (5 peaks): | | | | | 243.5 | Total Col2Ave (5 peaks): | | | | 177.6 | RPD = 31 |
| Corrected Ave (4 peaks): | | | | | 187.0 | Corrected Ave (4 peaks): | | | | 154.3 | RPD = 19 |
| Aroclor-1260 | 1 | 10.446 | -0.001 | 5903125 | 53.4 | 1 | 10.423 | 0.001 | 3163220 | 67.1 | |
| Aroclor-1260 | 2 | 10.822 | 0.001 | 26616250 | 97.0 | 2 | 10.870 | -0.002 | 7229879 | 123.4 | |
| Aroclor-1260 | 3 | 11.224 | 0.003 | 9223675 | 60.5 | 3 | 11.146 | 0.001 | 11073692 | 93.1 | |
| Aroclor-1260 | 4 | 11.334 | -0.003 | 6508488 | 99.4 | 4 | 11.667 | 0.001 | 3310273 | 95.3 | |
| Aroclor-1260 | 5 | 11.409 | -0.002 | 58867057 | 753.2 | NS | --- | | | ---- | |
| Total Col1Ave (5 peaks): | | | | | 282.7 | Total Col2Ave (4 peaks): | | | | 94.7 | RPD = 77* |
| Corrected Ave (4 peaks): | | | | | 76.6 | Corrected Ave (3 peaks): | | | | 85.2 | RPD = 9 |
| Aroclor-1262 | 1 | 10.128 | 0.000 | 10274053 | 63.3 | 1 | 10.423 | 0.003 | 3163220 | 41.1 | |
| Aroclor-1262 | 2 | 10.446 | 0.001 | 5903125 | 47.6 | 2 | 10.870 | 0.000 | 7229879 | 108.8 | |
| Aroclor-1262 | 3 | 10.822 | 0.004 | 26616250 | 78.5 | 3 | 11.146 | 0.004 | 11073692 | 73.4 | |
| Aroclor-1262 | 4 | 11.334 | 0.000 | 6508488 | 52.5 | 4 | 11.667 | 0.003 | 3310273 | 54.5 | |
| Aroclor-1262 | 5 | 11.409 | 0.001 | 58867057 | 417.8 | 5 | 12.474 | 0.011 | 4385447 | 77.6 | |
| Total Col1Ave (5 peaks): | | | | | 131.9 | Total Col2Ave (5 peaks): | | | | 71.1 | RPD = 60* |
| Corrected Ave (4 peaks): | | | | | 60.5 | Corrected Ave (4 peaks): | | | | 61.6 | RPD = 2 |
| Aroclor-1268 | 1 | 11.334 | -0.002 | 6508488 | 18.8 | 1 | 11.667 | 0.003 | 3310273 | 21.1 | |
| Aroclor-1268 | 2 | 11.409 | 0.002 | 58867057 | 168.8 | 2 | 11.727 | -0.004 | 7455194 | 50.4 | |

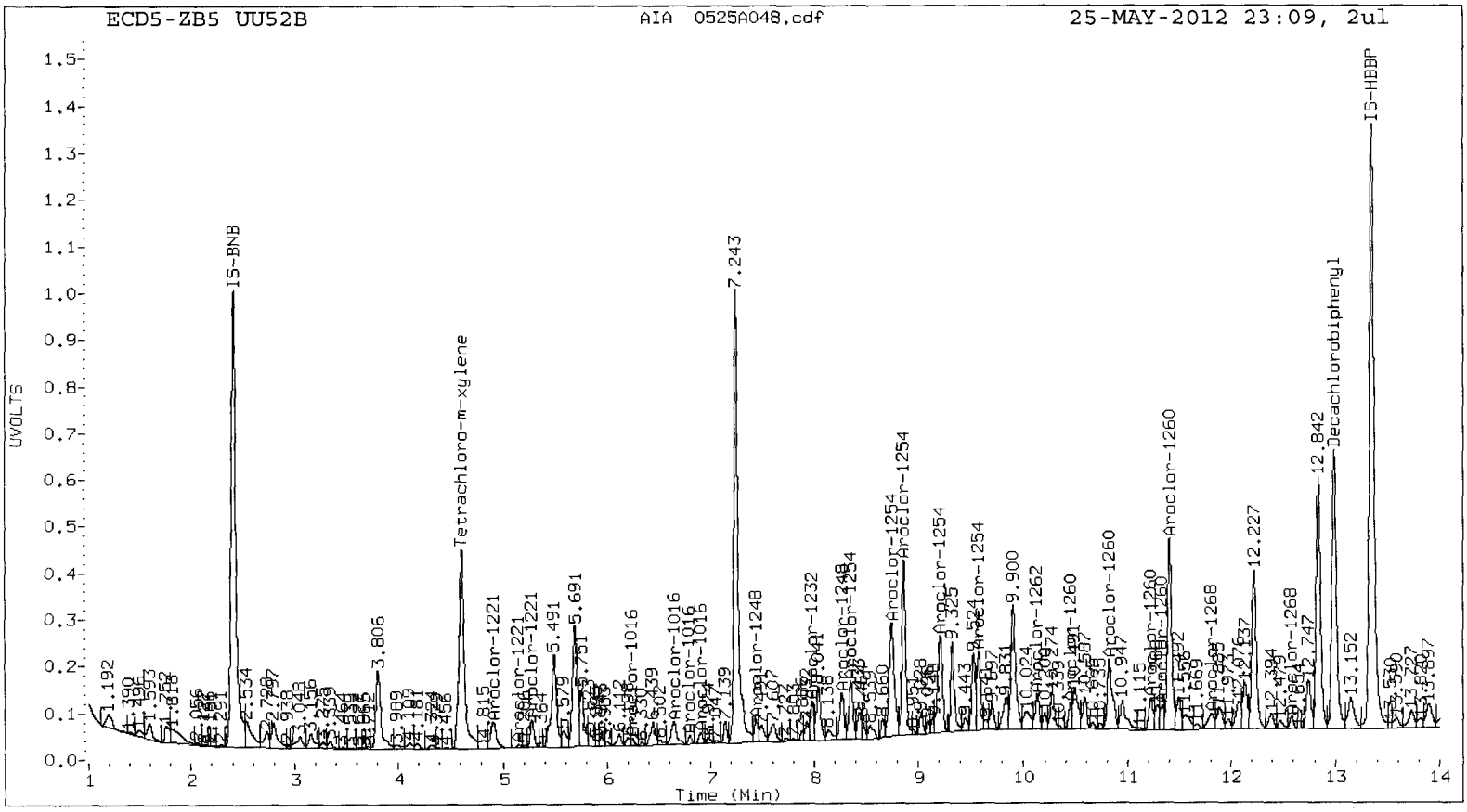
| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1268 3 | 11.807 | 0.015 | 7079750 | 24.3 | 3 | 12.129 | 0.001 | 3533980 | 28.4 |
| Aroclor-1268 4 | 12.587 | 0.002 | 3464959 | 4.0 | 4 | 12.946 | -0.003 | 5283461 | 15.0 |
| Total Col1Ave (4 peaks): | | | | 54.0 | Total Col2Ave (4 peaks): | | | 28.7 | RPD = 61* |
| Corrected Ave (3 peaks): | | | | 15.7 | Corrected Ave (3 peaks): | | | 21.5 | RPD = 31 |

Total PCB Area Col1 (4.710 - 12.891) = 1109213334 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 579315473 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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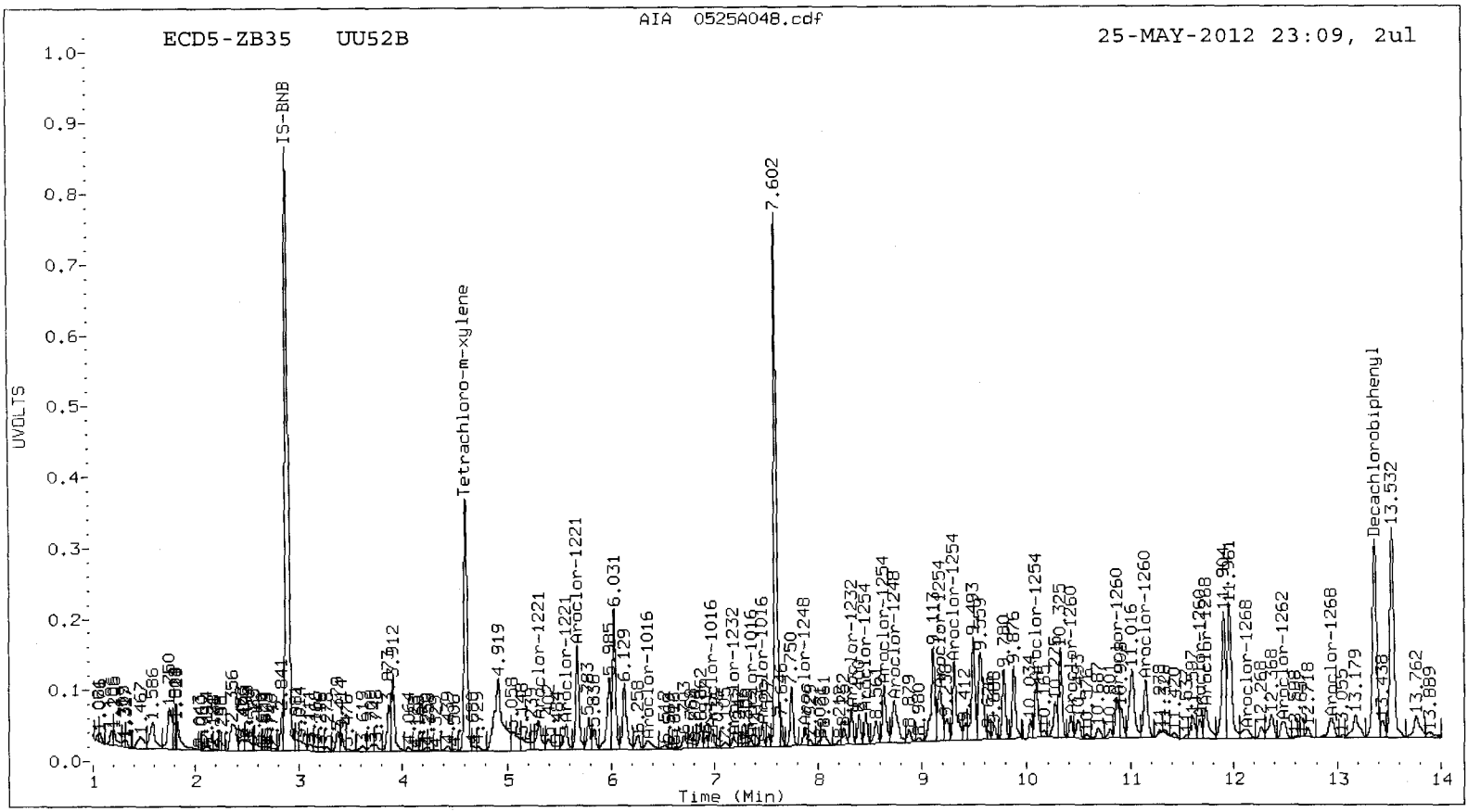
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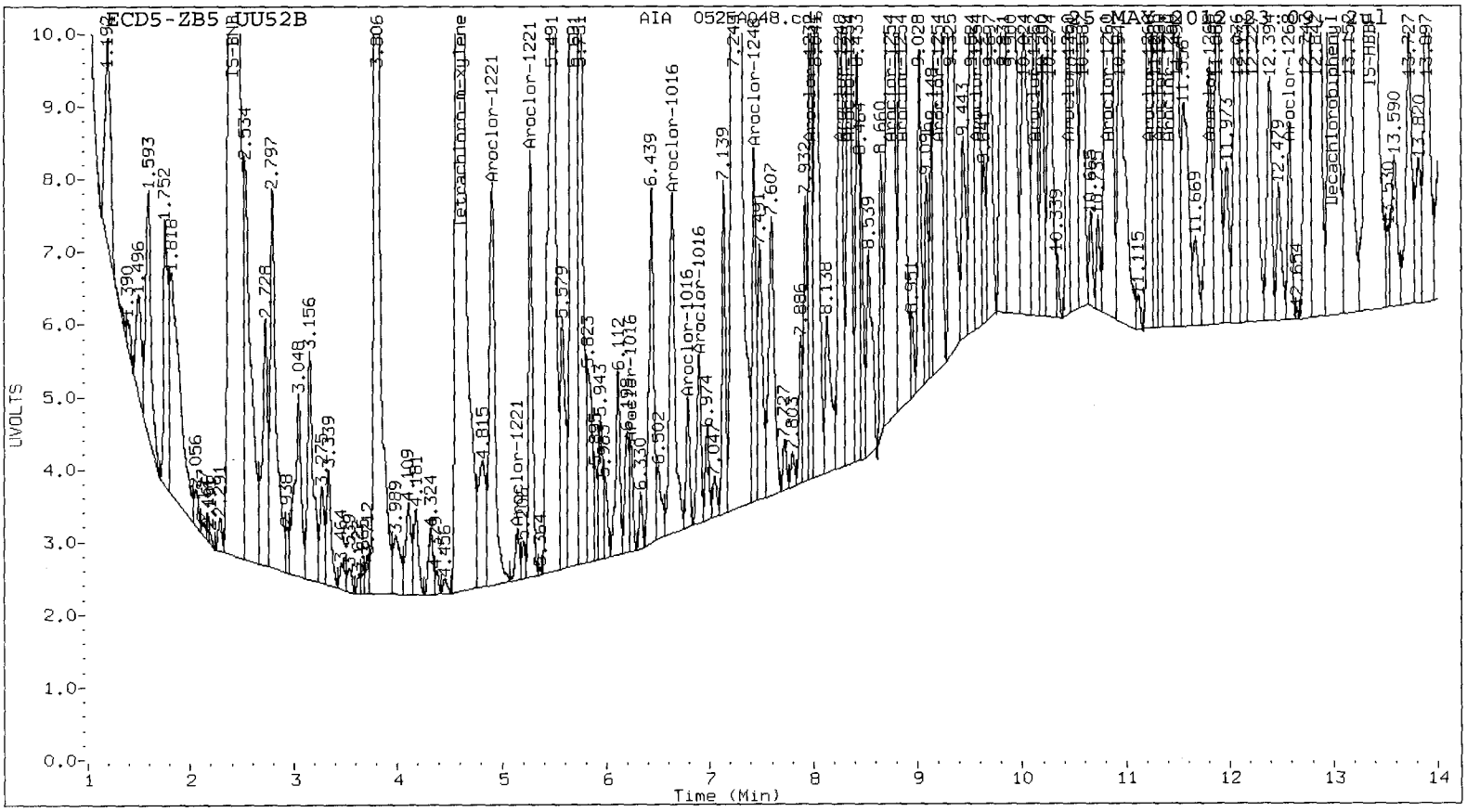
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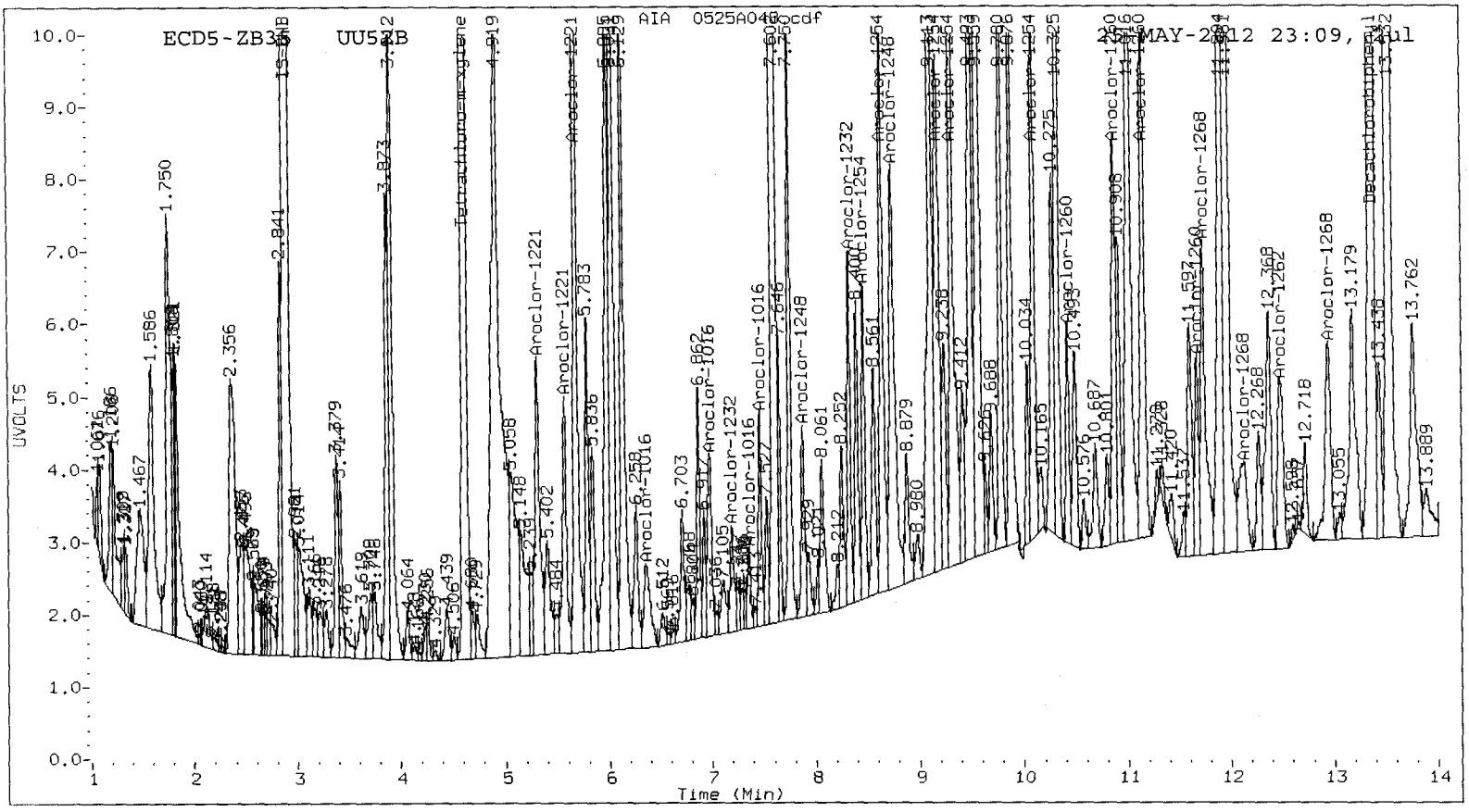
Decachlorobiphenyl
IS-HBB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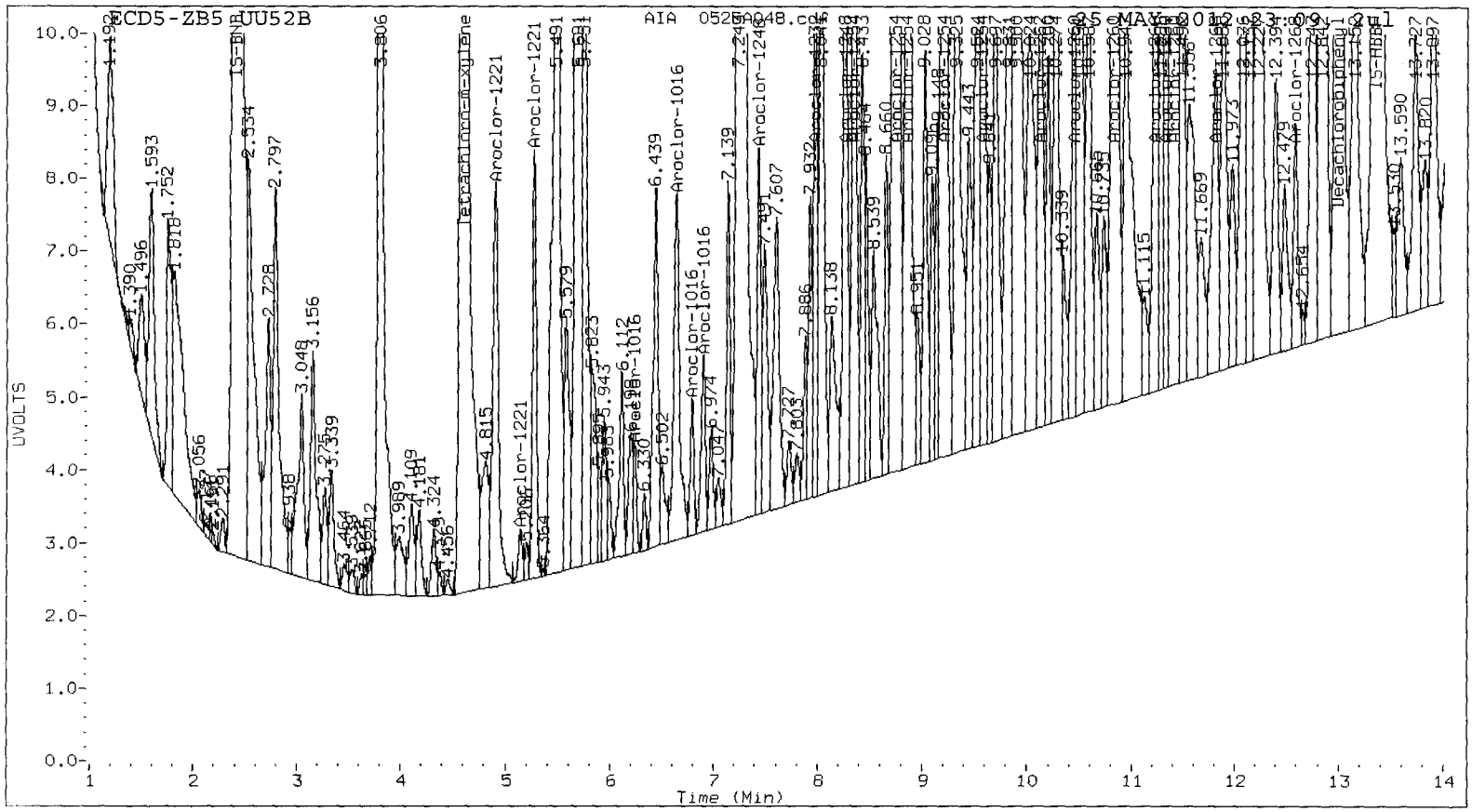
Decachlorobiphenyl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Decachlorobiphenyl
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Aroclor-1232
Aroclor-1242
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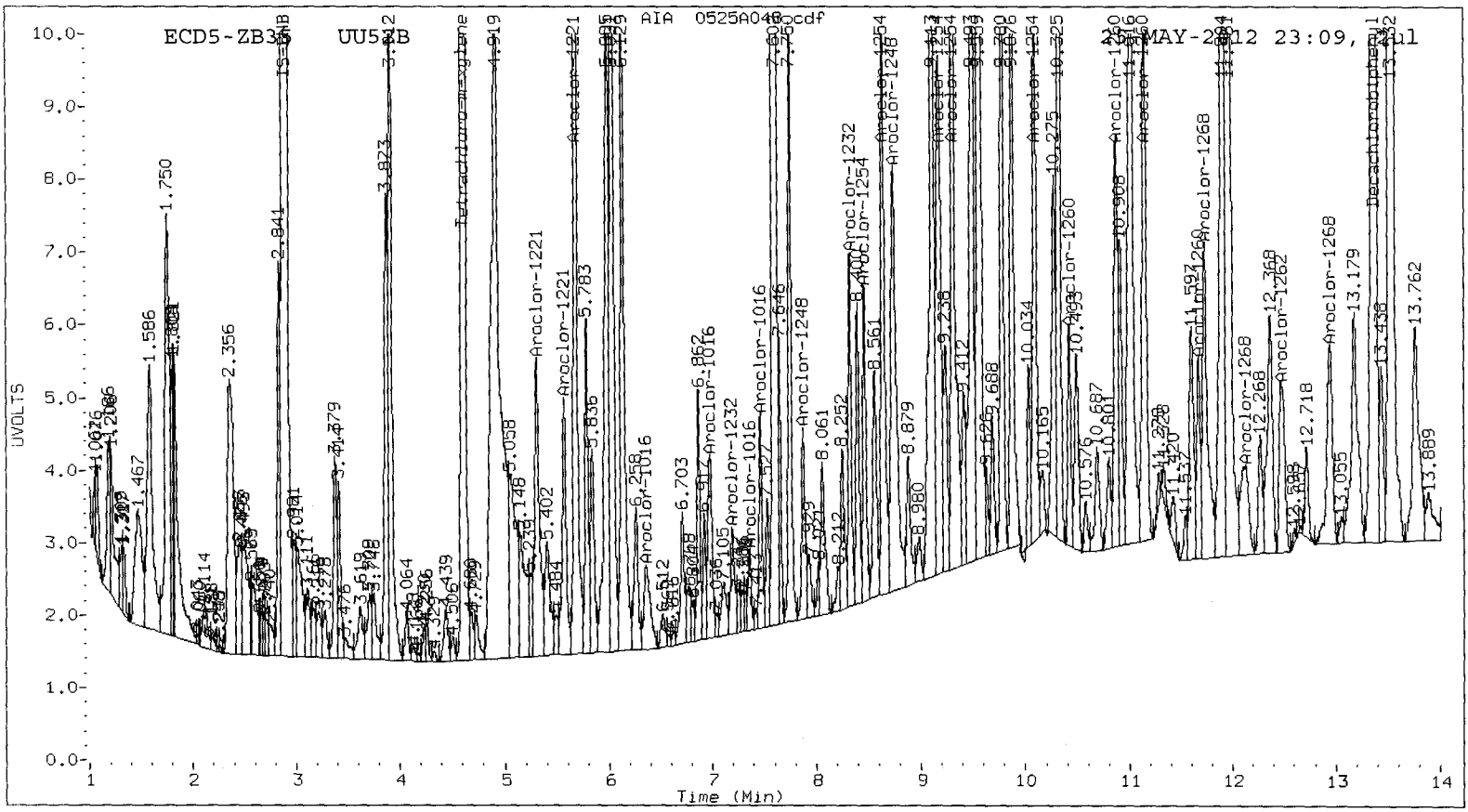
Aroclor-1260
Aroclor-1262
Aroclor-1268
IS-DNB
IS-HBB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Time (Min)
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Decachlorobiphenyl
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Aroclor-1221
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Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
IS-DNB
IS-HBB

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A049.d
Data file 2: 20120523.b/0525-2.b/0525A049.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52C
Client ID:
Injection Date: 25-MAY-2012 23:28
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.610 | 0.001 | 81060267 | 4.612 | 0.001 | 42577760 | 34.1 | 31.8 | 7.0 | Tetrachloro-m-xylene |
| 12.993 | 0.002 | 97440671 | 13.366 | 0.001 | 40345328 | 31.5 | 41.2 | 26.5 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 85.2 | 79.4 |
| Decachlorobiphenyl | 78.8 | 102.9 |

05/29/12

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 148018037 | -4.0 |
| Hexabromobiphenyl | 248602423 | 201405366 | -19.0 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 95290249 | -13.9 |
| Hexabromobiphenyl | 108855531 | 75841965 | -30.3 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | ZB5 Col RT | Shift | Area | Amount | Peak# | ZB35 Col RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.196 | -0.045 | 4213345 | 68.2 | 1 | 6.389 | 0.042 | 3552395 | 71.4 |
| Aroclor-1016 | 2 | 6.642 | 0.000 | 7994915 | 39.7 | 2 | 6.973 | 0.000 | 2555443 | 22.6 |
| Aroclor-1016 | 3 | 6.790 | -0.001 | 1658628 | 20.9 | 3 | 7.353 | -0.003 | 1110409 | 38.1 |
| Aroclor-1016 | 4 | 6.900 | -0.001 | 3087233 | 49.4 | 4 | 7.462 | -0.001 | 2348577 | 72.5 |
| | Total Col1Ave (4 peaks): | | | | 44.5 | Total Col2Ave (4 peaks): | | | | 51.2 RPD = 14 |
| | Corrected Ave (3 peaks): | | | | 36.7 | Corrected Ave (3 peaks): | | | | 44.1 RPD = 18 |
| Aroclor-1221 | 1 | 4.905 | 0.021 | 10782075 | 971.7 | 1 | 5.307 | 0.017 | 6510614 | 433.5 |
| Aroclor-1221 | 2 | 5.146 | -0.007 | 855169 | 47.9 | 2 | 5.568 | 0.032 | 4589371 | 517.3 |
| Aroclor-1221 | 3 | 5.277 | 0.018 | 12080432 | 206.4 | 3 | 5.677 | 0.028 | 11564794 | 416.8 |
| Aroclor-1221 | NS | --- | | | ---- | 4 | --- | | | 0.0 |
| | Total Col1Ave (3 peaks): | | | | 408.7 | Total Col2Ave (3 peaks): | | | | 455.9 RPD = 11 |
| | Corrected Ave: < 3 Peaks | | | | | Corrected Ave: < 3 Peaks | | | | |
| Aroclor-1232 | 1 | 6.196 | -0.042 | 4213345 | 163.4 | 1 | 6.389 | 0.044 | 3552395 | 154.8 |
| Aroclor-1232 | 2 | 6.642 | 0.003 | 7994915 | 93.2 | 2 | 6.973 | 0.002 | 2555443 | 53.2 |
| Aroclor-1232 | 3 | 6.790 | 0.002 | 1658628 | 47.7 | 3 | 7.188 | 0.008 | 2104376 | 129.8 |
| Aroclor-1232 | 4 | 7.982 | 0.002 | 7964564 | 238.4 | 4 | 8.327 | 0.001 | 3743393 | 210.6 |
| | Total Col1Ave (4 peaks): | | | | 135.7 | Total Col2Ave (4 peaks): | | | | 137.1 RPD = 1 |
| | Corrected Ave (3 peaks): | | | | 101.4 | Corrected Ave (3 peaks): | | | | 112.6 RPD = 10 |
| Aroclor-1242 | 1 | 6.196 | -0.046 | 4213345 | 90.4 | 1 | 6.389 | 0.042 | 3552395 | 91.4 |
| Aroclor-1242 | 2 | 6.642 | -0.001 | 7994915 | 51.5 | 2 | 6.973 | -0.001 | 2555443 | 28.9 |
| Aroclor-1242 | 3 | 6.790 | -0.001 | 1658628 | 26.8 | 3 | 7.188 | 0.005 | 2104376 | 58.7 |
| Aroclor-1242 | 4 | 7.982 | -0.001 | 7964564 | 138.0 | 4 | 8.327 | 0.000 | 3743393 | 120.0 |
| | Total Col1Ave (4 peaks): | | | | 76.7 | Total Col2Ave (4 peaks): | | | | 74.7 RPD = 3 |
| | Corrected Ave (3 peaks): | | | | 56.2 | Corrected Ave (3 peaks): | | | | 59.7 RPD = 6 |
| Aroclor-1248 | 1 | 6.642 | 0.002 | 7994915 | 76.9 | 1 | 6.973 | 0.002 | 2555443 | 44.7 |
| Aroclor-1248 | 2 | 7.438 | 0.000 | 8297785 | 105.7 | 2 | 7.876 | 0.001 | 2376271 | 51.8 |
| Aroclor-1248 | 3 | 7.982 | -0.002 | 7964564 | 79.2 | 3 | 8.327 | 0.000 | 3743393 | 67.9 |
| Aroclor-1248 | 4 | 8.268 | -0.006 | 13343173 | 131.5 | 4 | 8.737 | -0.010 | 11267844 | 181.1 |
| | Total Col1Ave (4 peaks): | | | | 98.3 | Total Col2Ave (4 peaks): | | | | 86.4 RPD = 13 |
| | Corrected Ave (3 peaks): | | | | 87.3 | Corrected Ave (3 peaks): | | | | 54.8 RPD = 46* |
| Aroclor-1254 | 1 | 8.358 | 0.001 | 14126668 | 104.0 | 1 | 8.465 | -0.001 | 4256683 | 101.8 |
| Aroclor-1254 | 2 | 8.749 | 0.021 | 38770407 | 443.3 | 2 | 8.641 | 0.002 | 9156007 | 172.2 |
| Aroclor-1254 | 3 | 8.863 | 0.000 | 55876666 | 330.9 | 3 | 9.179 | 0.019 | 13705766 | 337.3 |
| Aroclor-1254 | 4 | 9.211 | -0.001 | 29907865 | 164.5 | 4 | 9.310 | 0.000 | 11089598 | 123.4 |
| Aroclor-1254 | 5 | 9.574 | 0.000 | 20768723 | 183.6 | 5 | 10.092 | -0.001 | 8517432 | 161.7 |
| | Total Col1Ave (5 peaks): | | | | 245.3 | Total Col2Ave (5 peaks): | | | | 179.3 RPD = 31 |
| | Corrected Ave (4 peaks): | | | | 195.8 | Corrected Ave (4 peaks): | | | | 139.8 RPD = 33 |
| Aroclor-1260 | 1 | 10.448 | 0.001 | 6514508 | 59.6 | 1 | 10.423 | 0.001 | 3459766 | 79.5 |
| Aroclor-1260 | 2 | 10.823 | 0.002 | 29228349 | 107.8 | 2 | 10.872 | 0.000 | 8035857 | 148.8 |
| Aroclor-1260 | 3 | 11.222 | 0.002 | 11980373 | 79.5 | 3 | 11.146 | 0.001 | 11726753 | 106.9 |
| Aroclor-1260 | 4 | 11.336 | -0.001 | 6592553 | 101.9 | 4 | 11.668 | 0.002 | 3561823 | 111.2 |
| Aroclor-1260 | 5 | 11.407 | -0.004 | 44150286 | 571.4 | NS | --- | | | ---- |
| | Total Col1Ave (5 peaks): | | | | 184.0 | Total Col2Ave (4 peaks): | | | | 111.6 RPD = 49* |
| | Corrected Ave (4 peaks): | | | | 87.2 | Corrected Ave (3 peaks): | | | | 99.2 RPD = 13 |
| Aroclor-1262 | 1 | 10.129 | 0.001 | 10757992 | 67.0 | 1 | 10.423 | 0.004 | 3459766 | 48.7 |
| Aroclor-1262 | 2 | 10.448 | 0.003 | 6514508 | 53.1 | 2 | 10.872 | 0.002 | 8035857 | 131.2 |
| Aroclor-1262 | 3 | 10.823 | 0.004 | 29228349 | 87.2 | 3 | 11.146 | 0.004 | 11726753 | 84.3 |
| Aroclor-1262 | 4 | 11.336 | 0.002 | 6592553 | 53.8 | 4 | 11.668 | 0.004 | 3561823 | 63.6 |
| Aroclor-1262 | 5 | 11.407 | -0.001 | 44150286 | 317.0 | 5 | 12.470 | 0.007 | 4019412 | 77.1 |
| | Total Col1Ave (5 peaks): | | | | 115.6 | Total Col2Ave (5 peaks): | | | | 81.0 RPD = 35 |
| | Corrected Ave (4 peaks): | | | | 65.3 | Corrected Ave (4 peaks): | | | | 68.4 RPD = 5 |
| Aroclor-1268 | 1 | 11.336 | 0.000 | 6592553 | 19.2 | 1 | 11.668 | 0.004 | 3561823 | 24.6 |
| Aroclor-1268 | 2 | 11.407 | 0.000 | 44150286 | 128.1 | 2 | 11.728 | -0.003 | 8273627 | 60.6 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1268 | 3 | 11.808 | 0.015 | 7116056 | 24.7 | 3 | 12.150 | 0.022 | 2116705 | 18.5 |
| Aroclor-1268 | 4 | 12.586 | 0.001 | 2862768 | 3.4 | 4 | 12.936 | -0.013 | 7965232 | 24.6 |

Total Col1Ave (4 peaks): 43.8 Total Col2Ave (4 peaks): 32.1 RPD = 31

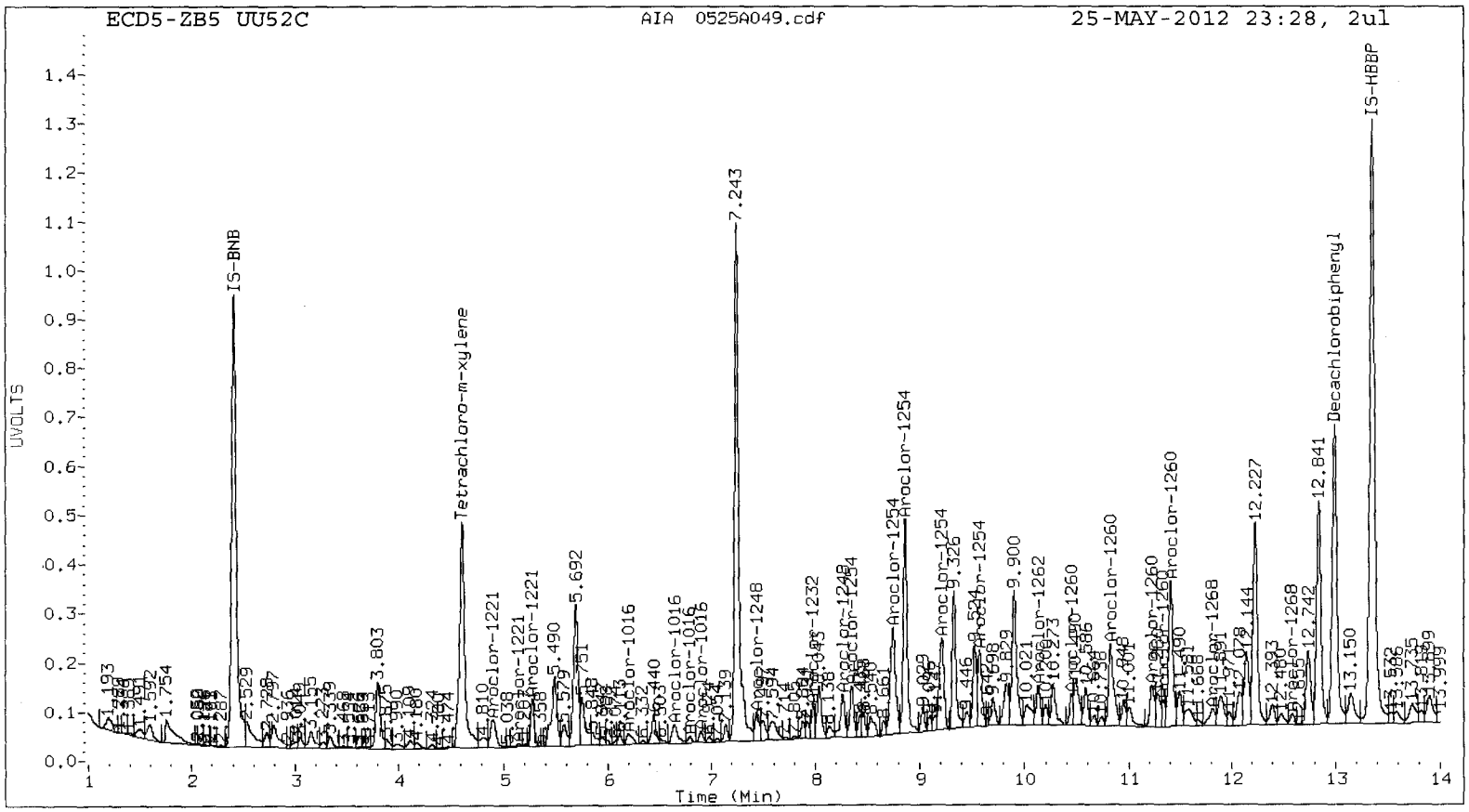
Corrected Ave (3 peaks): 15.8 Corrected Ave (3 peaks): 22.6 RPD = 35

Total PCB Area Col1 (4.710 - 12.891) = 1154155408 Col1 Total PCB = 0.7 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 609292491 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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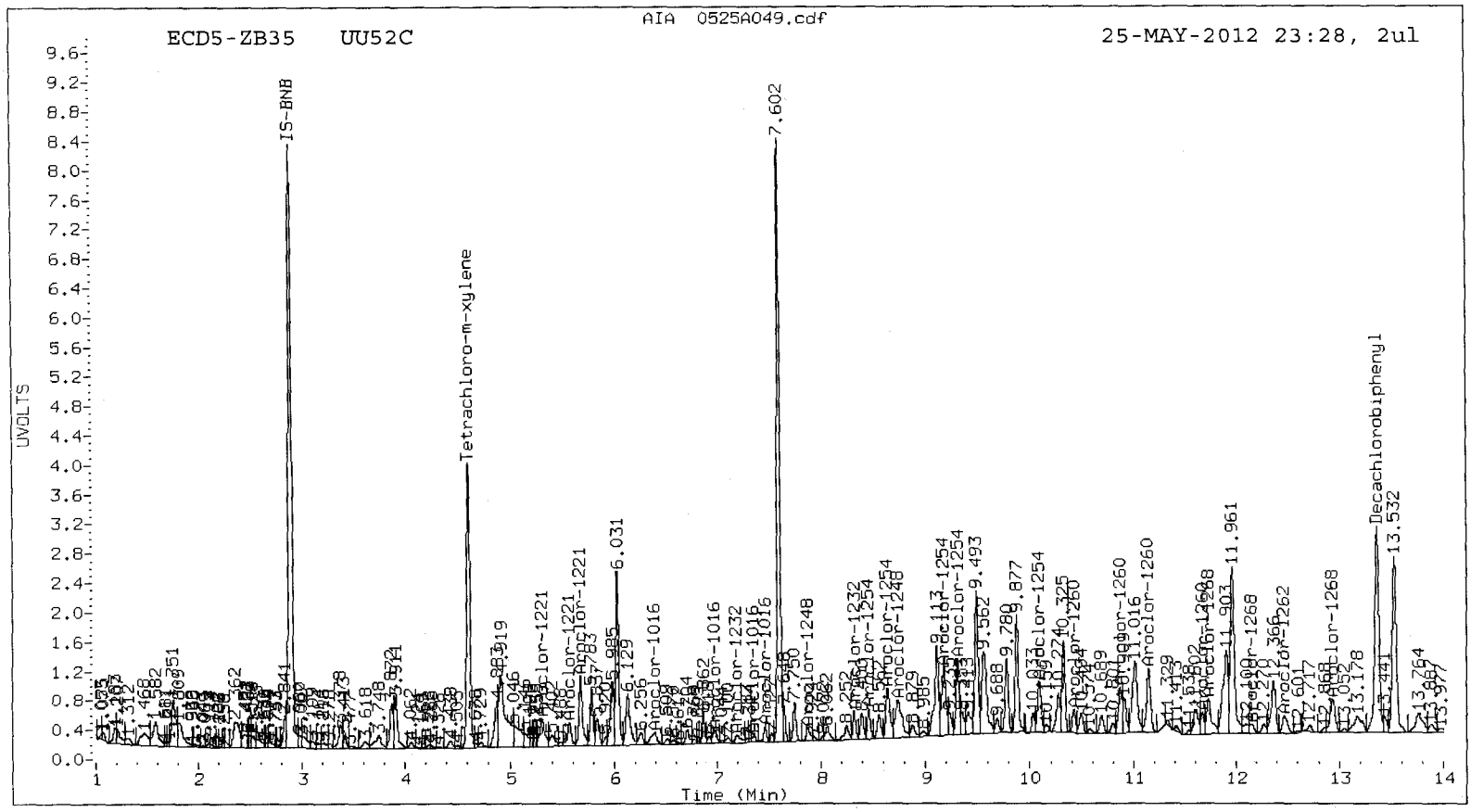
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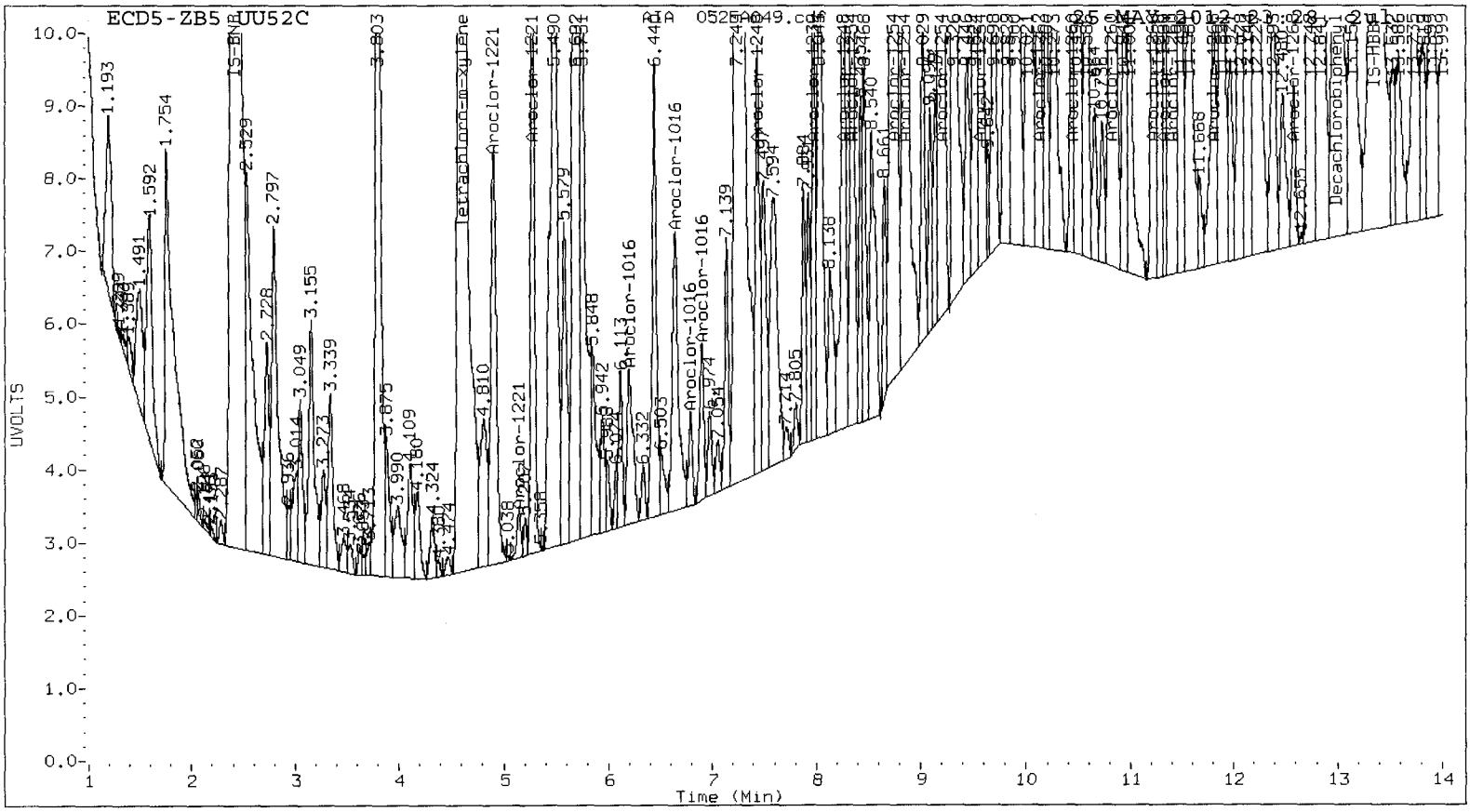
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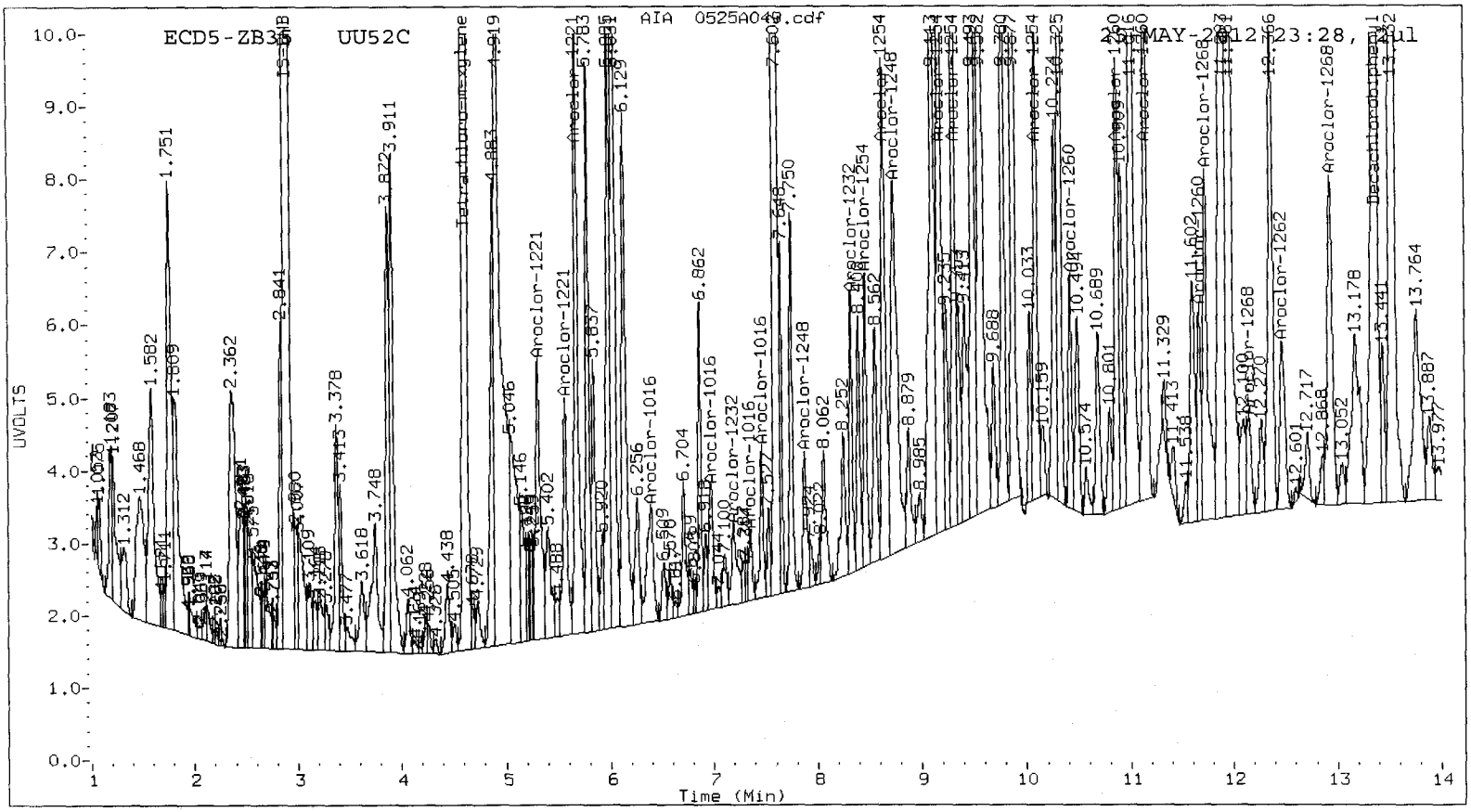
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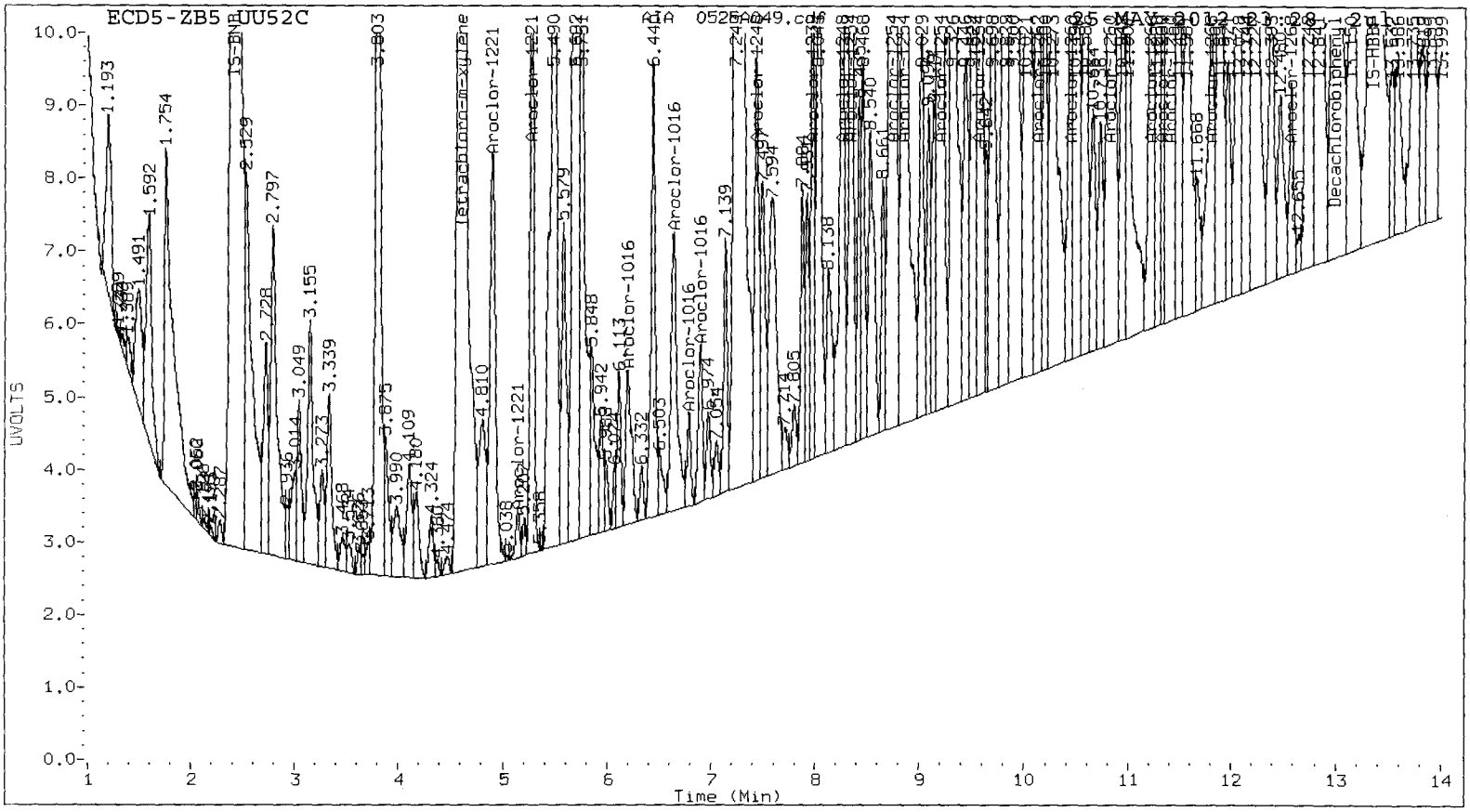
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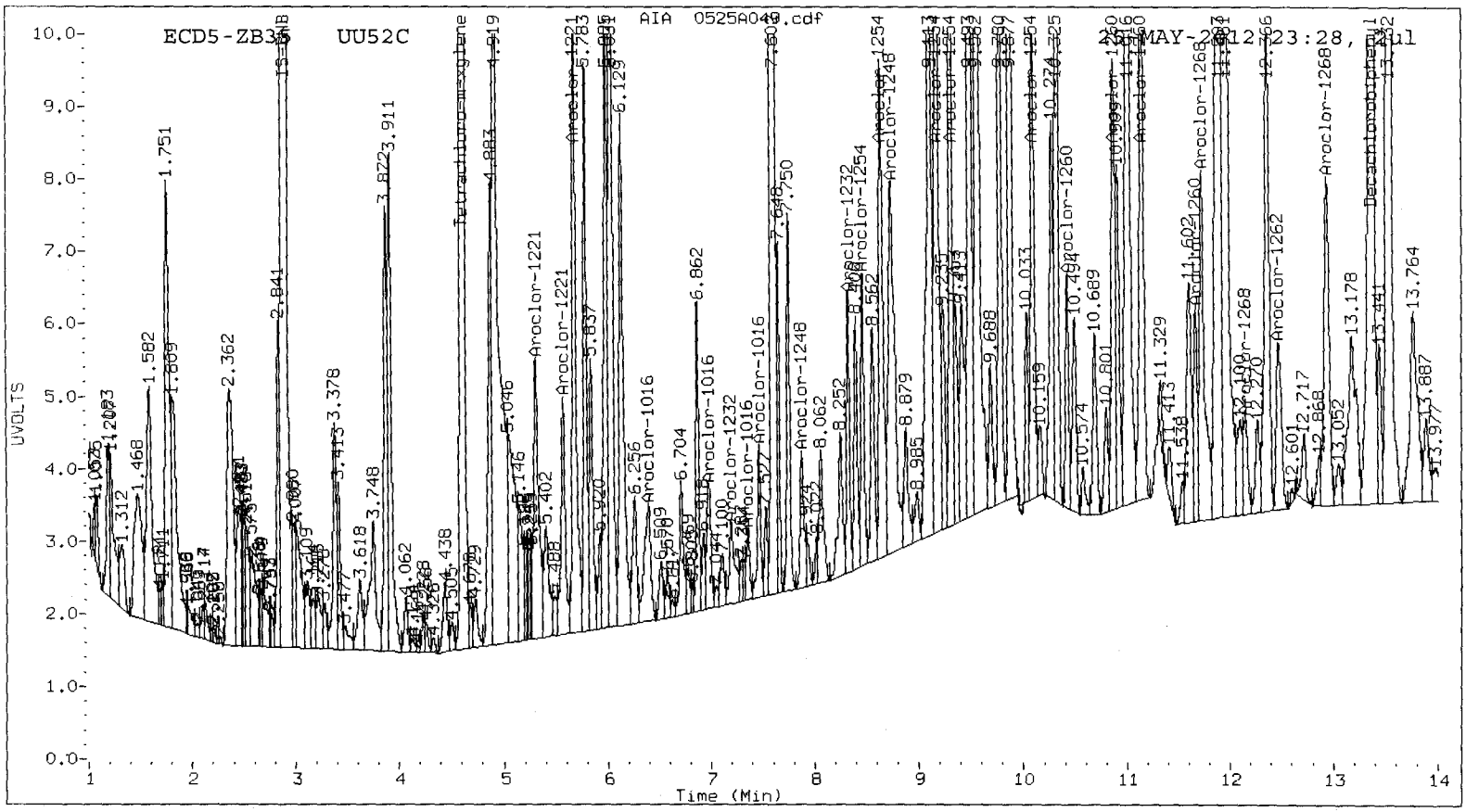
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Time (Min)

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Analytical Resources Inc.
Dual Column PCBs by SW8082

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Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52D
Client ID:
Injection Date: 25-MAY-2012 23:47
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.611 | 0.001 | 82755903 | 4.613 | 0.002 | 43822075 | 32.6 | 30.2 | 7.5 | Tetrachloro-m-xylene |
| 12.991 | 0.000 | 180388132 | 13.368 | 0.002 | 38642306 | 56.8 | 38.9 | 37.6 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 81.4 | 75.6 |
| Decachlorobiphenyl | 142 1M | 97.2 |

05/29/12

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 158091448 | 2.5 |
| Hexabromobiphenyl | 248602423 | 206785616 | -16.8 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 103030460 | -6.9 |
| Hexabromobiphenyl | 108855531 | 76927516 | -29.3 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | ZB5 Col RT | Shift | Area | Amount | Peak# | ZB35 Col RT | Shift | Area | Amount | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.239 | -0.002 | 1521303 | 23.1 | 1 | 6.392 | 0.045 | 8768308 | 163.1 | |
| Aroclor-1016 | 2 | 6.646 | 0.004 | 11397104 | 53.0 | 2 | 6.966 | -0.008 | 2949597 | 24.2 | |
| Aroclor-1016 | 3 | 6.787 | -0.004 | 1495222 | 17.6 | 3 | 7.352 | -0.004 | 2211040 | 70.2 | |
| Aroclor-1016 | 4 | 6.903 | 0.003 | 2626304 | 39.3 | 4 | 7.462 | -0.001 | 2496812 | 71.3 | |
| | Total Col1Ave (4 peaks): | | | | 33.3 | | Total Col2Ave (4 peaks): | | | 82.2 | RPD = 85* |
| | Corrected Ave (3 peaks): | | | | 26.7 | | Corrected Ave (3 peaks): | | | 55.2 | RPD = 70* |
| Aroclor-1221 | 1 | 4.907 | 0.023 | 11483507 | 969.0 | 1 | 5.307 | 0.018 | 7217003 | 444.5 | |
| Aroclor-1221 | 2 | 5.148 | -0.005 | 851361 | 44.6 | 2 | 5.569 | 0.033 | 5519571 | 575.4 | |
| Aroclor-1221 | 3 | 5.277 | 0.019 | 11422348 | 182.7 | 3 | 5.678 | 0.029 | 11784659 | 392.8 | |
| Aroclor-1221 | NS | --- | | | ---- | 4 | --- | | | 0.0 | |
| | Total Col1Ave (3 peaks): | | | | 398.8 | | Total Col2Ave (3 peaks): | | | 470.9 | RPD = 17 |
| | Corrected Ave: < 3 Peaks | | | | | | Corrected Ave: < 3 Peaks | | | | |
| Aroclor-1232 | 1 | 6.239 | 0.001 | 1521303 | 55.2 | 1 | 6.392 | 0.047 | 8768308 | 353.4 | |
| Aroclor-1232 | 2 | 6.646 | 0.007 | 11397104 | 124.4 | 2 | 6.966 | -0.006 | 2949597 | 56.8 | |
| Aroclor-1232 | 3 | 6.787 | -0.001 | 1495222 | 40.2 | 3 | 7.190 | 0.010 | 2633791 | 150.3 | |
| Aroclor-1232 | 4 | 7.984 | 0.004 | 8179188 | 229.2 | 4 | 8.326 | 0.001 | 3384664 | 176.1 | |
| | Total Col1Ave (4 peaks): | | | | 112.3 | | Total Col2Ave (4 peaks): | | | 184.1 | RPD = 48* |
| | Corrected Ave (3 peaks): | | | | 73.3 | | Corrected Ave (3 peaks): | | | 127.7 | RPD = 54* |
| Aroclor-1242 | 1 | 6.239 | -0.003 | 1521303 | 30.6 | 1 | 6.392 | 0.045 | 8768308 | 208.6 | |
| Aroclor-1242 | 2 | 6.646 | 0.004 | 11397104 | 68.7 | 2 | 6.966 | -0.009 | 2949597 | 30.9 | |
| Aroclor-1242 | 3 | 6.787 | -0.004 | 1495222 | 22.6 | 3 | 7.190 | 0.007 | 2633791 | 67.9 | |
| Aroclor-1242 | 4 | 7.984 | 0.001 | 8179188 | 132.6 | 4 | 8.326 | -0.001 | 3384664 | 100.4 | |
| | Total Col1Ave (4 peaks): | | | | 63.6 | | Total Col2Ave (4 peaks): | | | 101.9 | RPD = 46* |
| | Corrected Ave (3 peaks): | | | | 40.6 | | Corrected Ave (3 peaks): | | | 66.4 | RPD = 48* |
| Aroclor-1248 | 1 | 6.646 | 0.006 | 11397104 | 102.7 | 1 | 6.966 | -0.005 | 2949597 | 47.7 | |
| Aroclor-1248 | 2 | 7.442 | 0.003 | 18918908 | 225.6 | 2 | 7.876 | 0.001 | 2296290 | 46.3 | |
| Aroclor-1248 | 3 | 7.984 | 0.000 | 8179188 | 76.1 | 3 | 8.326 | -0.001 | 3384664 | 56.8 | |
| Aroclor-1248 | 4 | 8.267 | -0.007 | 10741404 | 99.1 | 4 | 8.739 | -0.008 | 9525582 | 141.6 | |
| | Total Col1Ave (4 peaks): | | | | 125.9 | | Total Col2Ave (4 peaks): | | | 73.1 | RPD = 53* |
| | Corrected Ave (3 peaks): | | | | 92.6 | | Corrected Ave (3 peaks): | | | 50.3 | RPD = 59* |
| Aroclor-1254 | 1 | 8.356 | -0.001 | 10049933 | 69.3 | 1 | 8.465 | -0.001 | 2707250 | 61.8 | |
| Aroclor-1254 | 2 | 8.748 | 0.020 | 32575299 | 348.7 | 2 | 8.640 | 0.002 | 6749004 | 117.4 | |
| Aroclor-1254 | 3 | 8.862 | -0.001 | 44834156 | 248.6 | 3 | 9.180 | 0.021 | 10940088 | 249.0 | |
| Aroclor-1254 | 4 | 9.212 | 0.000 | 23592748 | 121.5 | 4 | 9.310 | 0.000 | 8571878 | 88.2 | |
| Aroclor-1254 | 5 | 9.578 | 0.004 | 16125812 | 133.5 | 5 | 10.090 | -0.002 | 6629841 | 116.4 | |
| | Total Col1Ave (5 peaks): | | | | 184.3 | | Total Col2Ave (5 peaks): | | | 126.6 | RPD = 37 |
| | Corrected Ave (4 peaks): | | | | 143.2 | | Corrected Ave (4 peaks): | | | 96.0 | RPD = 40 |
| Aroclor-1260 | 1 | 10.492 | 0.045 | 21533367 | 191.9 | 1 | 10.423 | 0.001 | 2431367 | 55.1 | |
| Aroclor-1260 | 2 | 10.822 | 0.001 | 20254376 | 72.8 | 2 | 10.873 | 0.002 | 4104410 | 74.9 | |
| Aroclor-1260 | 3 | 11.276 | 0.056 | 16372626 | 105.8 | 3 | 11.146 | 0.001 | 7104449 | 63.9 | |
| Aroclor-1260 | 4 | 11.339 | 0.002 | 4074460 | 61.3 | 4 | 11.684 | 0.018 | 2642078 | 81.4 | |
| Aroclor-1260 | 5 | 11.410 | -0.001 | 60365123 | 761.0 | NS | --- | | | ---- | |
| | Total Col1Ave (5 peaks): | | | | 238.6 | | Total Col2Ave (4 peaks): | | | 68.8 | RPD = 110* |
| | Corrected Ave (4 peaks): | | | | 108.0 | | Corrected Ave (3 peaks): | | | 64.6 | RPD = 50* |
| Aroclor-1262 | 1 | 10.132 | 0.004 | 7996065 | 48.5 | 1 | 10.423 | 0.004 | 2431367 | 33.7 | |
| Aroclor-1262 | 2 | 10.492 | 0.048 | 21533367 | 171.0 | 2 | 10.873 | 0.003 | 4104410 | 66.0 | |
| Aroclor-1262 | 3 | 10.822 | 0.004 | 20254376 | 58.9 | 3 | 11.146 | 0.004 | 7104449 | 50.3 | |
| Aroclor-1262 | 4 | 11.339 | 0.005 | 4074460 | 32.4 | 4 | 11.684 | 0.020 | 2642078 | 46.5 | |
| Aroclor-1262 | 5 | 11.410 | 0.002 | 60365123 | 422.1 | 5 | 12.473 | 0.010 | 2991500 | 56.6 | |
| | Total Col1Ave (5 peaks): | | | | 146.6 | | Total Col2Ave (5 peaks): | | | 50.6 | RPD = 97* |
| | Corrected Ave (4 peaks): | | | | 77.7 | | Corrected Ave (4 peaks): | | | 46.8 | RPD = 50* |
| Aroclor-1268 | 1 | 11.339 | 0.003 | 4074460 | 11.6 | 1 | 11.684 | 0.020 | 2642078 | 18.0 | |
| Aroclor-1268 | 2 | 11.410 | 0.003 | 60365123 | 170.5 | 2 | 11.740 | 0.010 | 5532573 | 40.0 | |

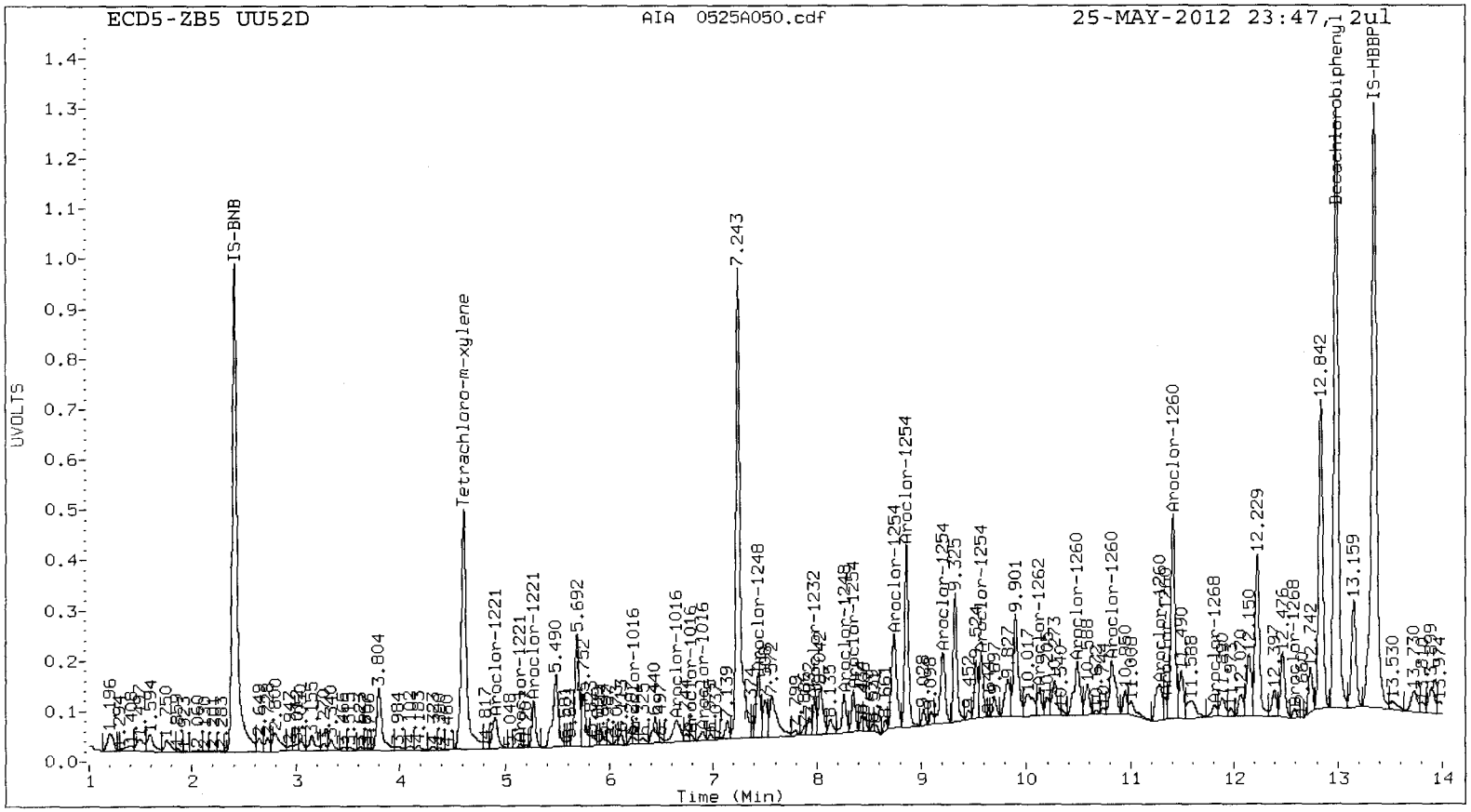
| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1268 3 | 11.812 | 0.019 | 3828199 | 13.0 | 3 | 12.150 | 0.022 | 1389421 | 12.0 |
| Aroclor-1268 4 | 12.588 | 0.003 | 2125314 | 2.4 | 4 | 12.936 | -0.013 | 6018508 | 18.3 |
| Total Col1Ave (4 peaks): | | | | 49.4 | Total Col2Ave (4 peaks): | | | 22.1 | RPD = 76* |
| Corrected Ave (3 peaks): | | | | 9.0 | Corrected Ave (3 peaks): | | | 16.1 | RPD = 57* |

Total PCB Area Col1 (4.710 - 12.891) = 1053635871 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 549147918 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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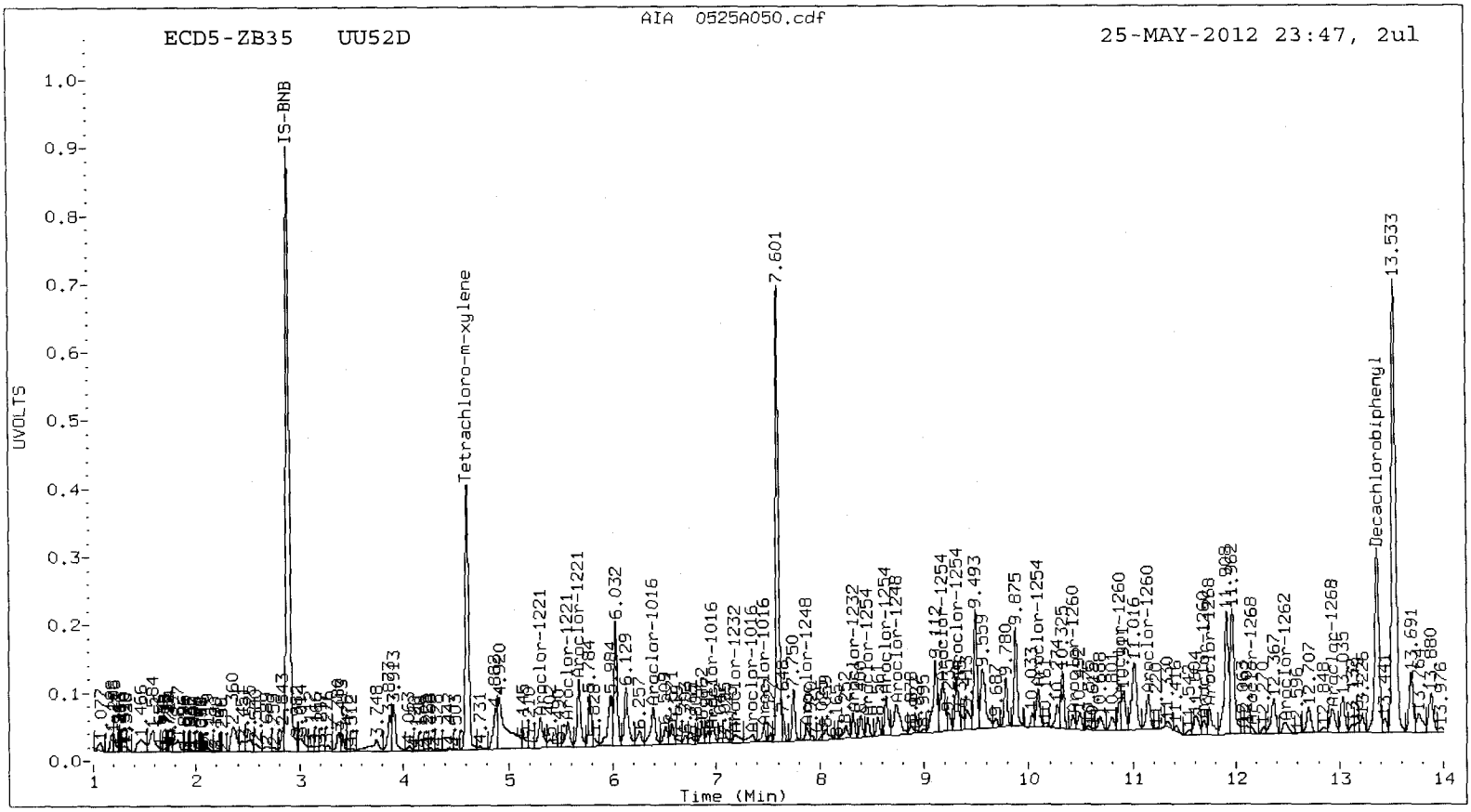
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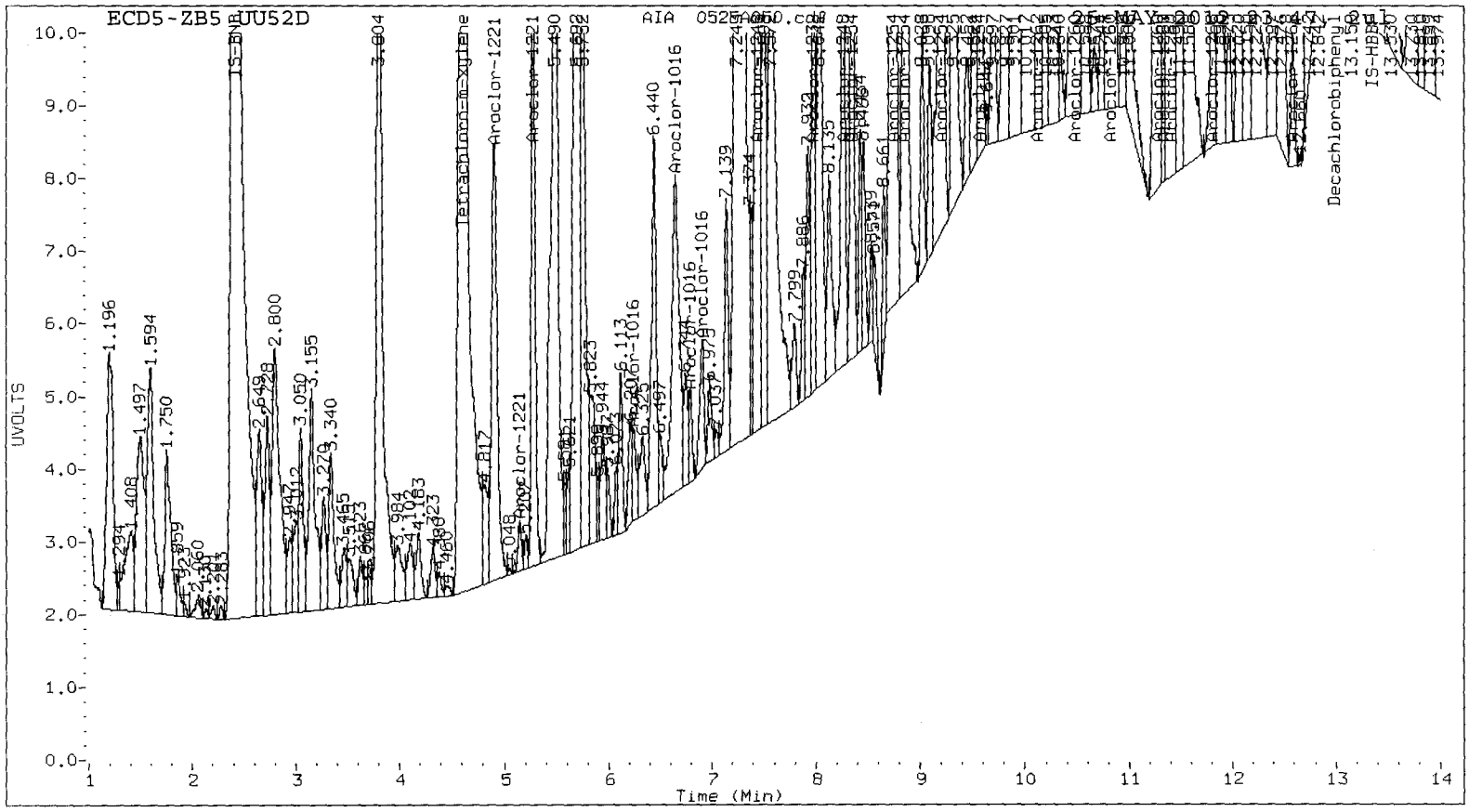
Time (Min)
IS-BNB
Tetrachloro-m-xylene
7.601
Decachlorobiphenyl
13.533
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268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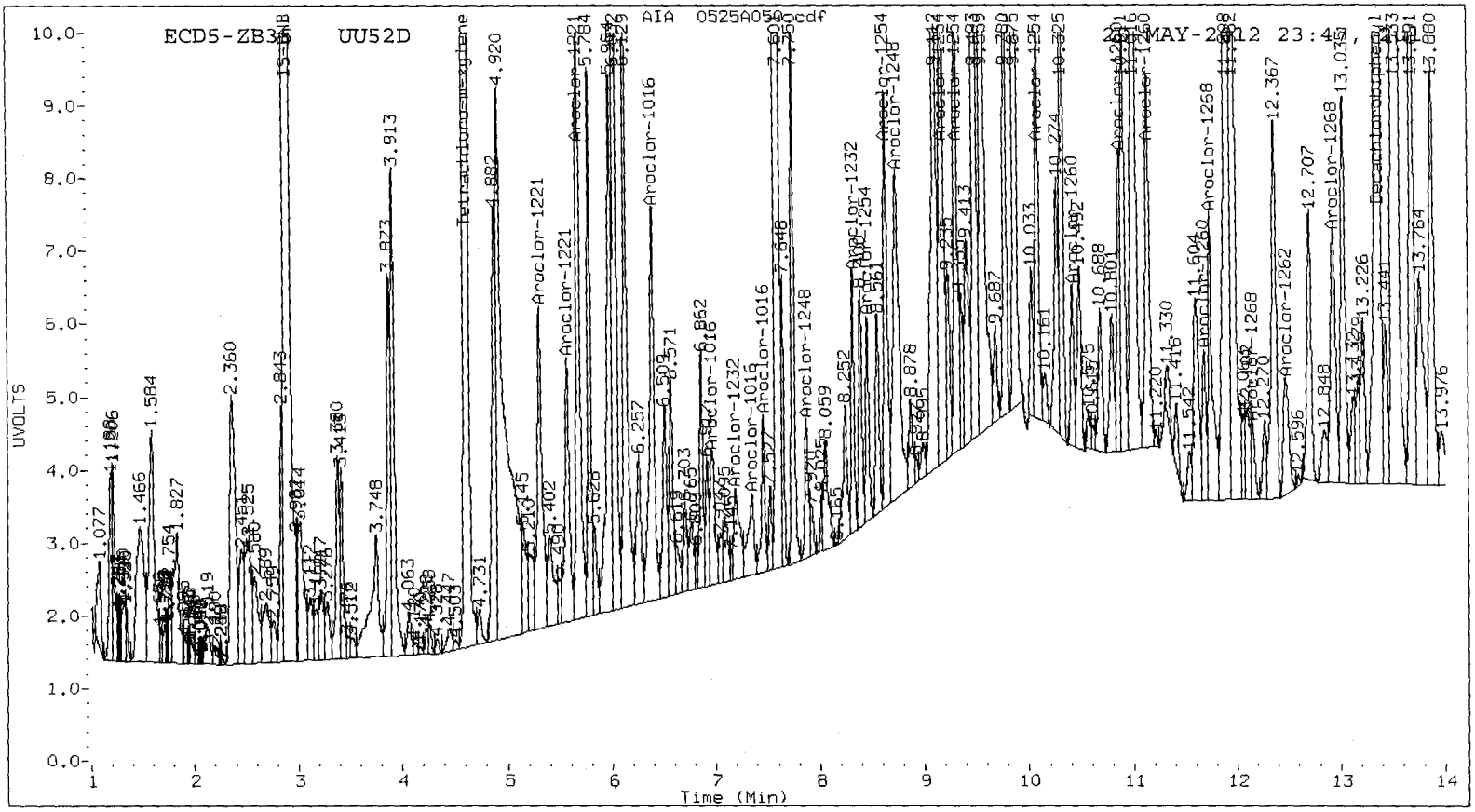
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBB
UVOLTS
Time (Min)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IS-DNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
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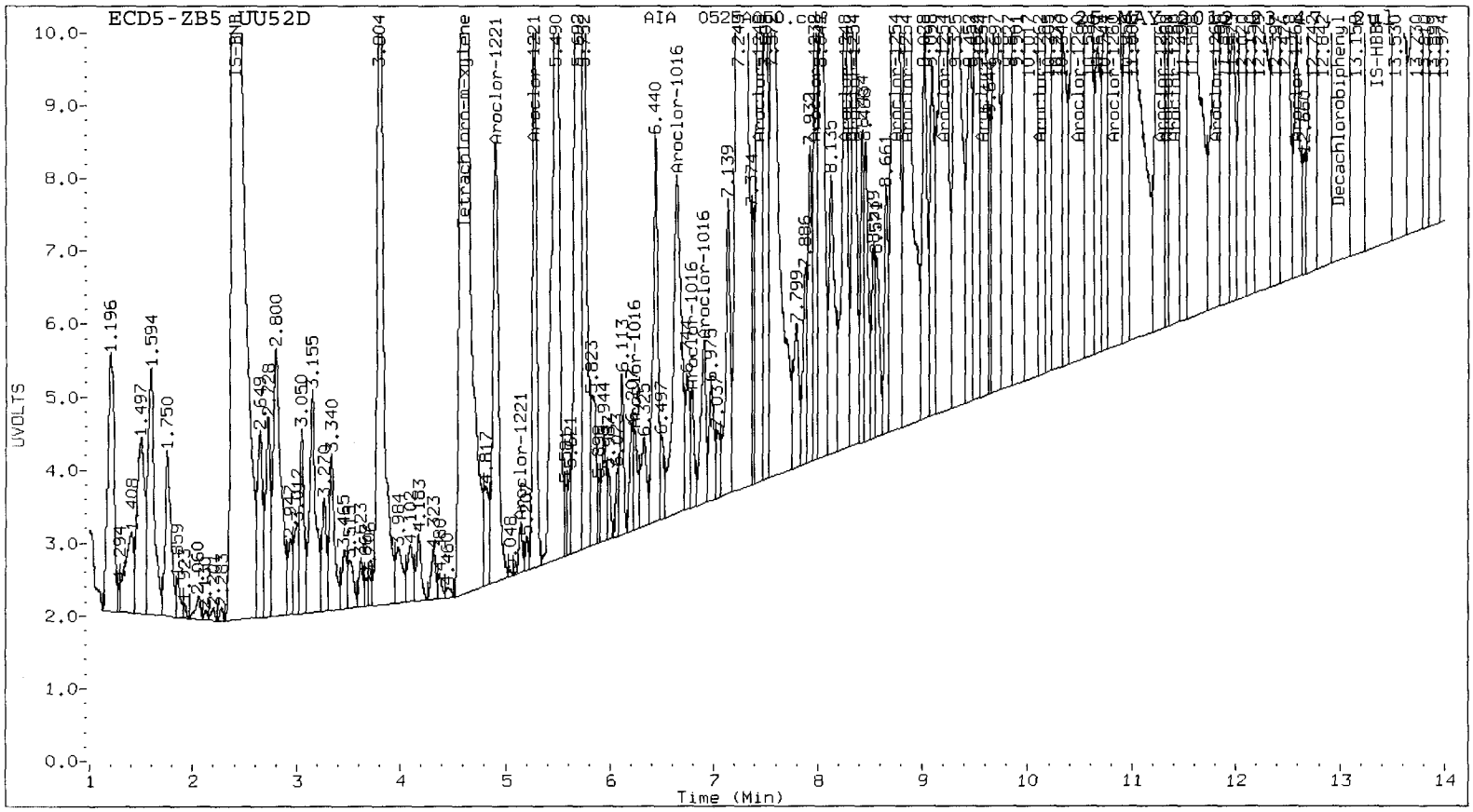
Aroclor-1260
Aroclor-1268
Aroclor-1262
Decachlorobiphenyl
UVOLTS
Time (Min)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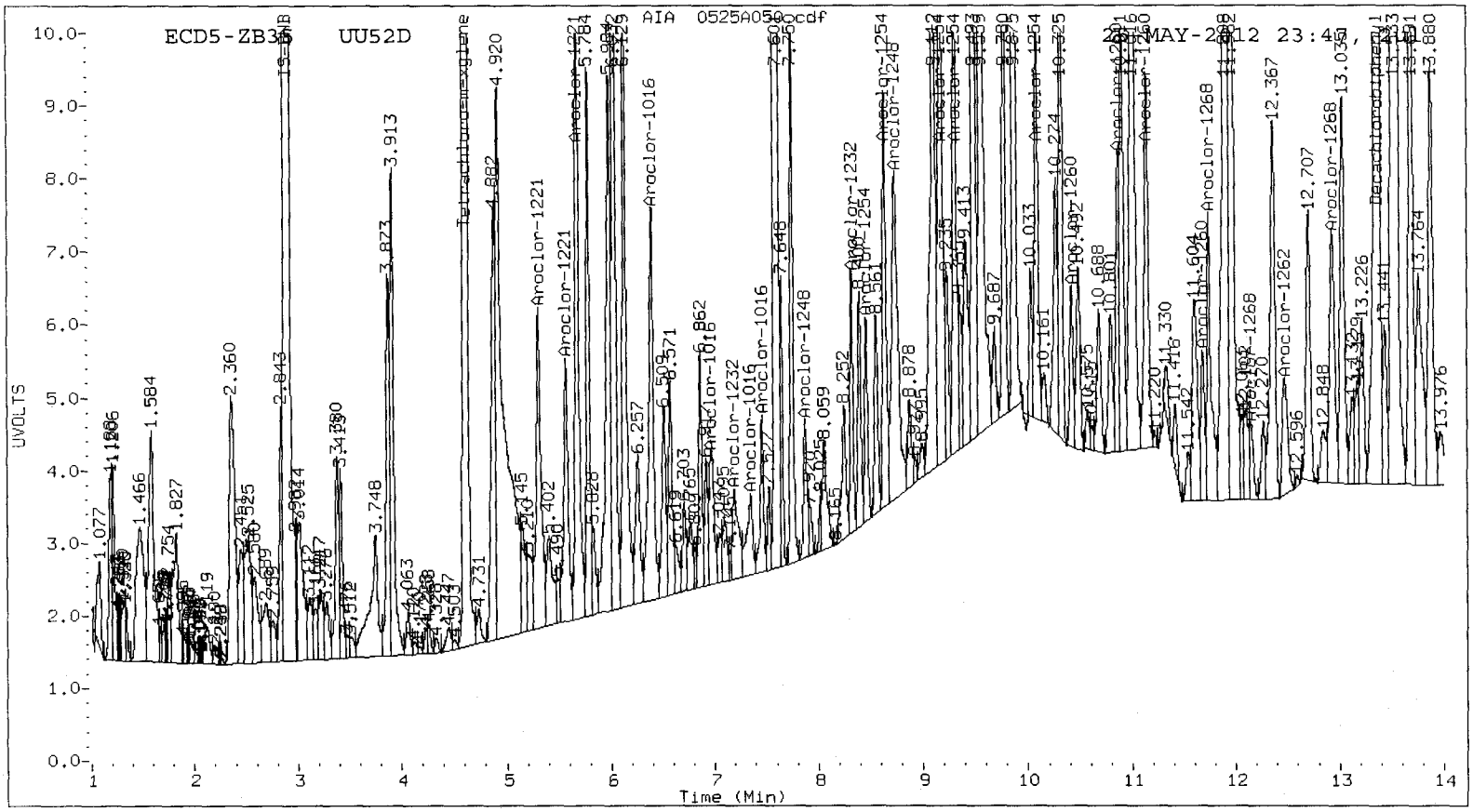
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Decachlorobiphenyl
IS-HBBL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IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

UU52:01720

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A051.d
Data file 2: 20120523.b/0525-2.b/0525A051.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52E
Client ID:
Injection Date: 26-MAY-2012 00:06
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.611 | 0.001 | 79674646 | 4.613 | 0.002 | 40369182 | 31.9 | 32.2 | 1.0 | Tetrachloro-m-xylene |
| 12.993 | 0.002 | 90893888 | 13.366 | 0.000 | 33628196 | 31.7 | 35.6 | 11.6 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 79.7 | 80.5 |
| Decachlorobiphenyl | 79.4 | 89.1 |

05/29/12

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 155584352 | 0.9 |
| Hexabromobiphenyl | 248602423 | 186599931 | -24.9 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 89134654 | -19.4 |
| Hexabromobiphenyl | 108855531 | 73010686 | -32.9 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | ZB5 Col RT | Shift | Area | Amount | Peak# | ZB35 Col RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.208 | -0.033 | 2997305 | 46.2 | 1 | 6.390 | 0.043 | 3650008 | 78.5 |
| Aroclor-1016 | 2 | 6.642 | 0.000 | 7523325 | 35.6 | 2 | 6.973 | -0.001 | 2033032 | 19.3 |
| Aroclor-1016 | 3 | 6.790 | 0.000 | 1455691 | 17.4 | 3 | 7.353 | -0.003 | 1288102 | 47.3 |
| Aroclor-1016 | 4 | 6.902 | 0.001 | 3118772 | 47.4 | 4 | 7.462 | -0.001 | 1563629 | 51.6 |
| Total Col1Ave (4 peaks): | | 36.7 | | | | Total Col2Ave (4 peaks): | | | 49.2 | RPD = 29 |
| Corrected Ave (3 peaks): | | 33.1 | | | | Corrected Ave (3 peaks): | | | 39.4 | RPD = 17 |
| Aroclor-1221 | 1 | 4.903 | 0.019 | 9438254 | 809.3 | 1 | 5.308 | 0.018 | 6059354 | 431.4 |
| Aroclor-1221 | 2 | 5.145 | -0.008 | 875209 | 46.6 | 2 | 5.568 | 0.032 | 4746234 | 571.9 |
| Aroclor-1221 | 3 | 5.277 | 0.019 | 10044280 | 163.3 | 3 | 5.624 | -0.025 | 66171 | 2.5 |
| Aroclor-1221 | NS | --- | | | ---- | 4 | 5.679 | -0.038 | 10713453 | 2253.0 |
| Total Col1Ave (3 peaks): | | 339.7 | | | | Total Col2Ave (4 peaks): | | | 814.7 | RPD = 82* |
| Corrected Ave: < 3 Peaks | | | | | | Corrected Ave (3 peaks): | | | 335.3 | |
| Aroclor-1232 | 1 | 6.208 | -0.030 | 2997305 | 110.6 | 1 | 6.390 | 0.045 | 3650008 | 170.0 |
| Aroclor-1232 | 2 | 6.642 | 0.003 | 7523325 | 83.4 | 2 | 6.973 | 0.002 | 2033032 | 45.2 |
| Aroclor-1232 | 3 | 6.790 | 0.003 | 1455691 | 39.8 | 3 | 7.187 | 0.008 | 1263219 | 83.3 |
| Aroclor-1232 | 4 | 7.982 | 0.002 | 6517756 | 185.6 | 4 | 8.326 | 0.001 | 2709920 | 163.0 |
| Total Col1Ave (4 peaks): | | 104.9 | | | | Total Col2Ave (4 peaks): | | | 115.4 | RPD = 10 |
| Corrected Ave (3 peaks): | | 77.9 | | | | Corrected Ave (3 peaks): | | | 97.2 | RPD = 22 |
| Aroclor-1242 | 1 | 6.208 | -0.034 | 2997305 | 61.2 | 1 | 6.390 | 0.042 | 3650008 | 100.4 |
| Aroclor-1242 | 2 | 6.642 | 0.000 | 7523325 | 46.1 | 2 | 6.973 | -0.001 | 2033032 | 24.6 |
| Aroclor-1242 | 3 | 6.790 | 0.000 | 1455691 | 22.3 | 3 | 7.187 | 0.005 | 1263219 | 37.6 |
| Aroclor-1242 | 4 | 7.982 | -0.001 | 6517756 | 107.4 | 4 | 8.326 | 0.000 | 2709920 | 92.9 |
| Total Col1Ave (4 peaks): | | 59.3 | | | | Total Col2Ave (4 peaks): | | | 63.9 | RPD = 8 |
| Corrected Ave (3 peaks): | | 43.2 | | | | Corrected Ave (3 peaks): | | | 51.7 | RPD = 18 |
| Aroclor-1248 | 1 | 6.642 | 0.003 | 7523325 | 68.9 | 1 | 6.973 | 0.002 | 2033032 | 38.0 |
| Aroclor-1248 | 2 | 7.440 | 0.002 | 8628237 | 104.6 | 2 | 7.877 | 0.002 | 1772161 | 41.3 |
| Aroclor-1248 | 3 | 7.982 | -0.001 | 6517756 | 61.7 | 3 | 8.326 | 0.000 | 2709920 | 52.6 |
| Aroclor-1248 | 4 | 8.261 | -0.013 | 12605386 | 118.2 | 4 | 8.738 | -0.009 | 7770144 | 133.5 |
| Total Col1Ave (4 peaks): | | 88.3 | | | | Total Col2Ave (4 peaks): | | | 66.3 | RPD = 28 |
| Corrected Ave (3 peaks): | | 78.4 | | | | Corrected Ave (3 peaks): | | | 44.0 | RPD = 56* |
| Aroclor-1254 | 1 | 8.356 | 0.000 | 8762168 | 61.4 | 1 | 8.465 | -0.001 | 2581667 | 66.0 |
| Aroclor-1254 | 2 | 8.746 | 0.018 | 31351798 | 341.1 | 2 | 8.641 | 0.002 | 4866847 | 97.8 |
| Aroclor-1254 | 3 | 8.862 | -0.001 | 45417356 | 255.9 | 3 | 9.183 | 0.023 | 16572919 | 436.0 |
| Aroclor-1254 | 4 | 9.215 | 0.003 | 19612434 | 102.6 | 4 | 9.309 | 0.000 | 7078480 | 84.2 |
| Aroclor-1254 | 5 | 9.575 | 0.002 | 16362025 | 137.6 | 5 | 10.090 | -0.003 | 5082712 | 103.1 |
| Total Col1Ave (5 peaks): | | 179.7 | | | | Total Col2Ave (5 peaks): | | | 157.4 | RPD = 13 |
| Corrected Ave (4 peaks): | | 139.4 | | | | Corrected Ave (4 peaks): | | | 87.8 | RPD = 45* |
| Aroclor-1260 | 1 | 10.488 | 0.042 | 24964803 | 246.6 | 1 | 10.423 | 0.001 | 1690327 | 40.4 |
| Aroclor-1260 | 2 | 10.823 | 0.002 | 18536124 | 73.8 | 2 | 10.909 | 0.037 | 11230125 | 216.0 |
| Aroclor-1260 | 3 | 11.276 | 0.055 | 26473683 | 189.6 | 3 | 11.145 | 0.000 | 6995029 | 66.3 |
| Aroclor-1260 | 4 | --- | | | 0.0 | 4 | 11.668 | 0.002 | 1906642 | 61.9 |
| Aroclor-1260 | 5 | 11.406 | -0.005 | 55858216 | 780.3 | NS | --- | | | ---- |
| Total Col1Ave (4 peaks): | | 322.6 | | | | Total Col2Ave (4 peaks): | | | 96.1 | RPD = 108* |
| Corrected Ave (3 peaks): | | 170.0 | | | | Corrected Ave (3 peaks): | | | 56.3 | RPD = 101* |
| Aroclor-1262 | 1 | 10.130 | 0.002 | 6703854 | 45.1 | 1 | 10.423 | 0.004 | 1690327 | 24.7 |
| Aroclor-1262 | 2 | 10.488 | 0.044 | 24964803 | 219.7 | 2 | 10.909 | 0.039 | 11230125 | 190.4 |
| Aroclor-1262 | 3 | 10.823 | 0.004 | 18536124 | 59.7 | 3 | 11.145 | 0.002 | 6995029 | 52.2 |
| Aroclor-1262 | 4 | 11.276 | -0.058 | 26473683 | 233.3 | 4 | 11.668 | 0.004 | 1906642 | 35.4 |
| Aroclor-1262 | 5 | 11.406 | -0.002 | 55858216 | 432.8 | 5 | 12.469 | 0.007 | 2357906 | 47.0 |
| Total Col1Ave (5 peaks): | | 198.1 | | | | Total Col2Ave (5 peaks): | | | 69.9 | RPD = 96* |
| Corrected Ave (4 peaks): | | 139.4 | | | | Corrected Ave (4 peaks): | | | 39.8 | RPD = 111* |
| Aroclor-1268 | 1 | 11.276 | -0.060 | 26473683 | 83.3 | 1 | 11.668 | 0.004 | 1906642 | 13.7 |
| Aroclor-1268 | 2 | 11.406 | -0.001 | 55858216 | 174.9 | 2 | 11.726 | -0.005 | 3571249 | 27.2 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1268 | 3 | 11.810 | 0.017 | 2630674 | 9.9 | 3 | 12.159 | 0.031 | 3500372 | 31.7 |
| Aroclor-1268 | 4 | 12.586 | 0.001 | 2935267 | 3.7 | 4 | 12.938 | -0.012 | 4549955 | 14.6 |

Total Col1Ave (4 peaks): 67.9 Total Col2Ave (4 peaks): 21.8 RPD = 103*

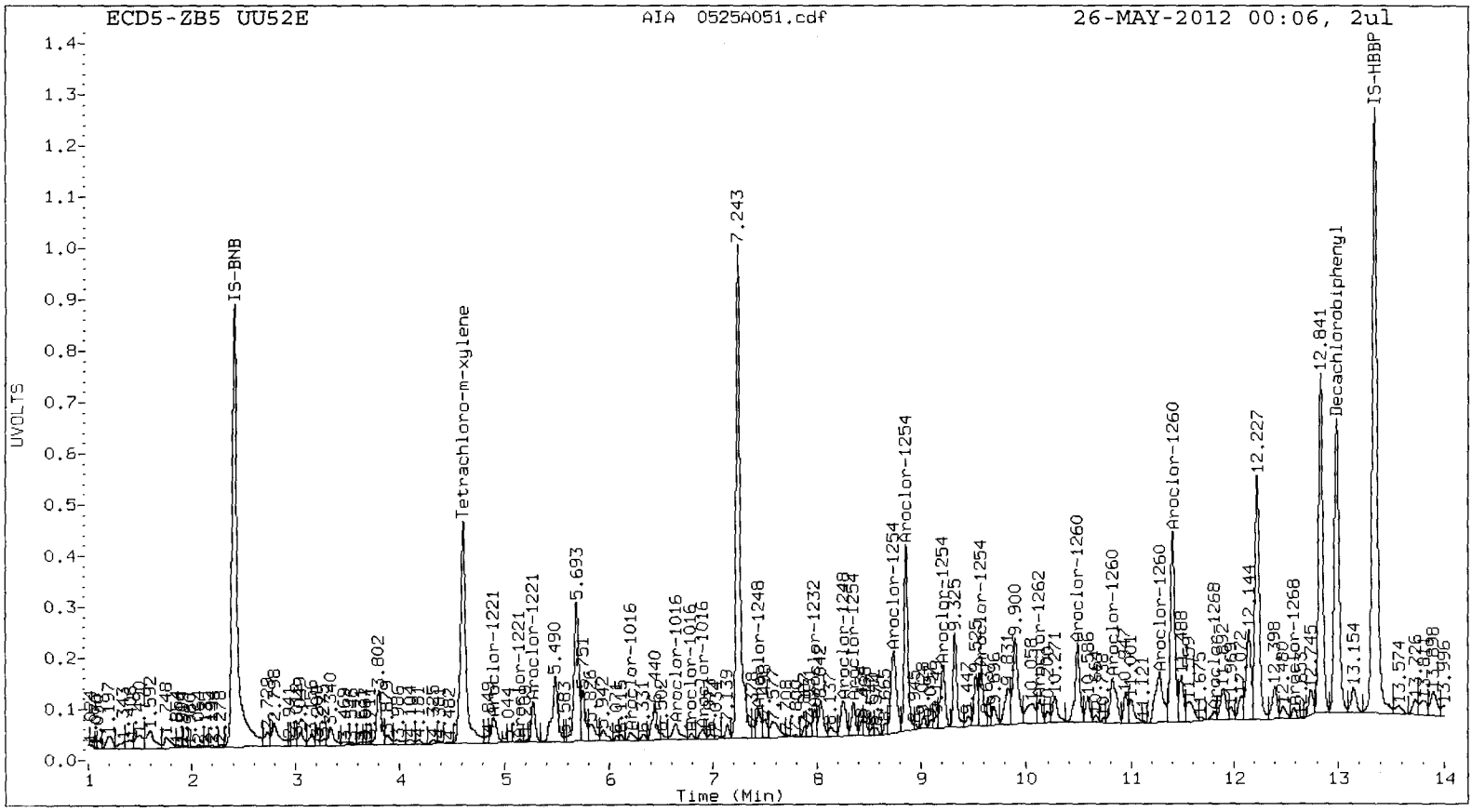
Corrected Ave (3 peaks): 32.3 Corrected Ave (3 peaks): 18.5 RPD = 54*

Total PCB Area Col1 (4.710 - 12.891) = 1038016811 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 535183858 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Time (Min)
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IS-HBBP
Decachlorobiphenyl
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13.154
5.693
5.490
12.227
Aroclor-1254
Aroclor-1260
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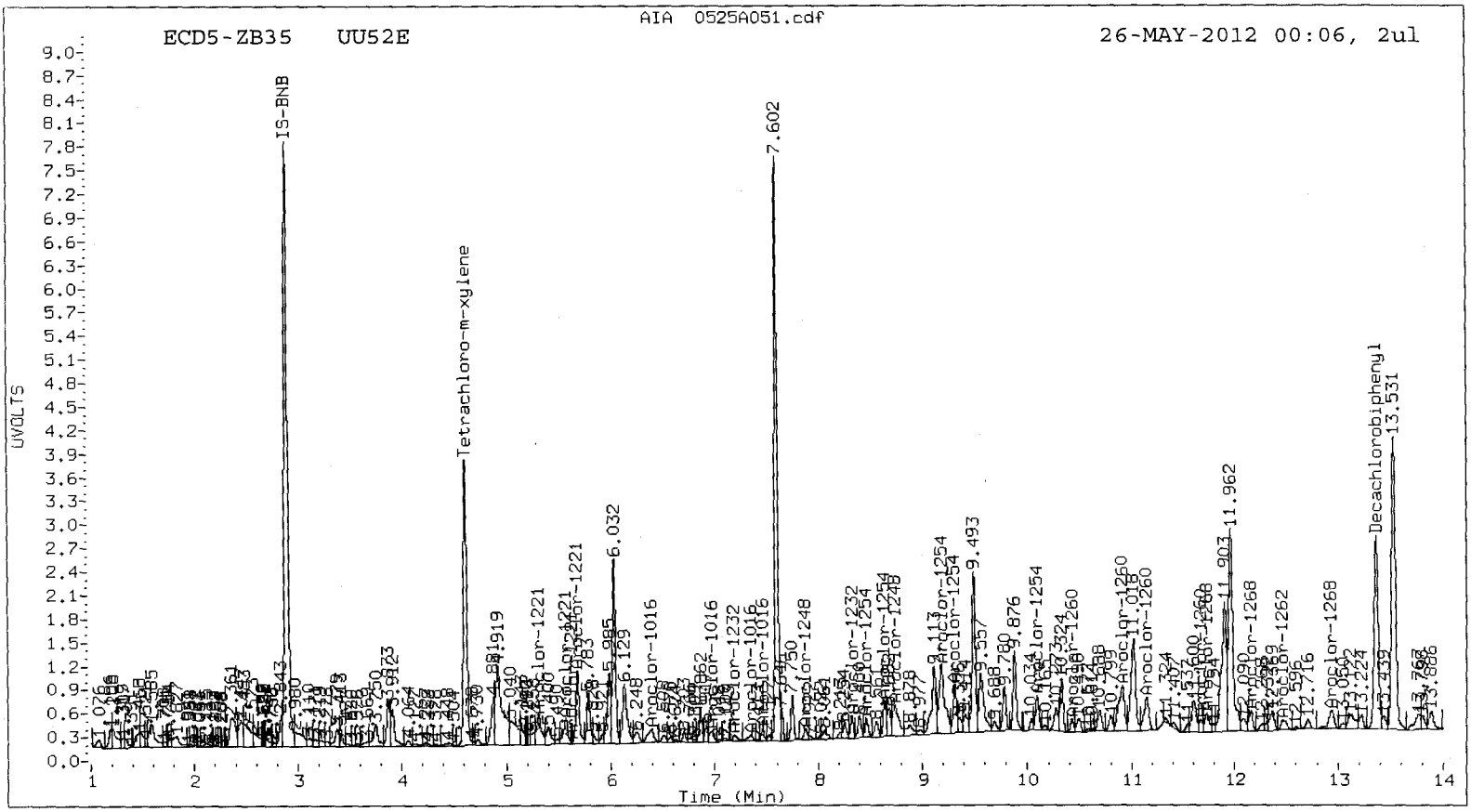
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1262
Aroclor-1268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Decachlorobiphenyl
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Aroclor-1254
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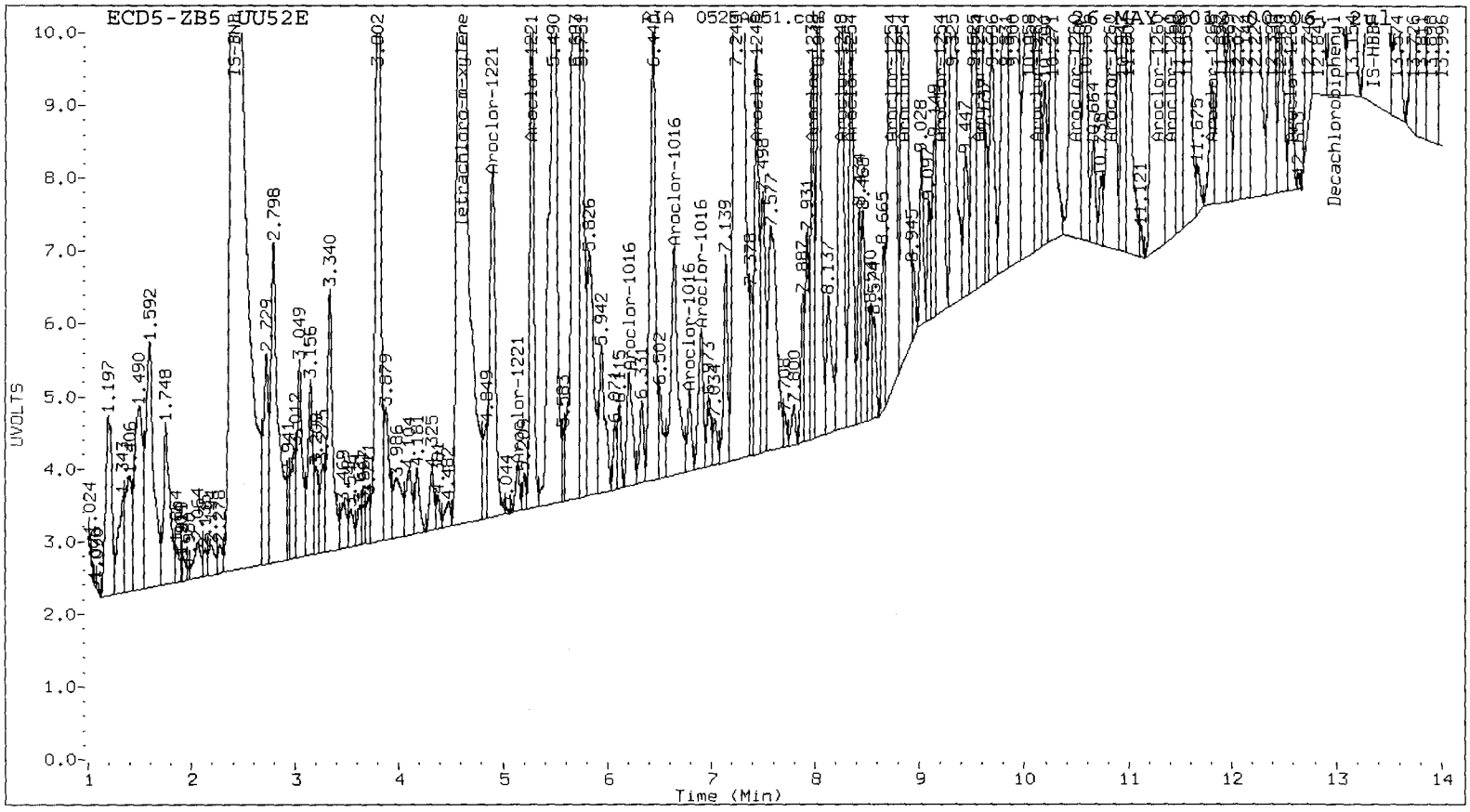
Aroclor-1262
Aroclor-1268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Time (Min)
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Tetrachloro-m-xylene
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Aroclor-1016
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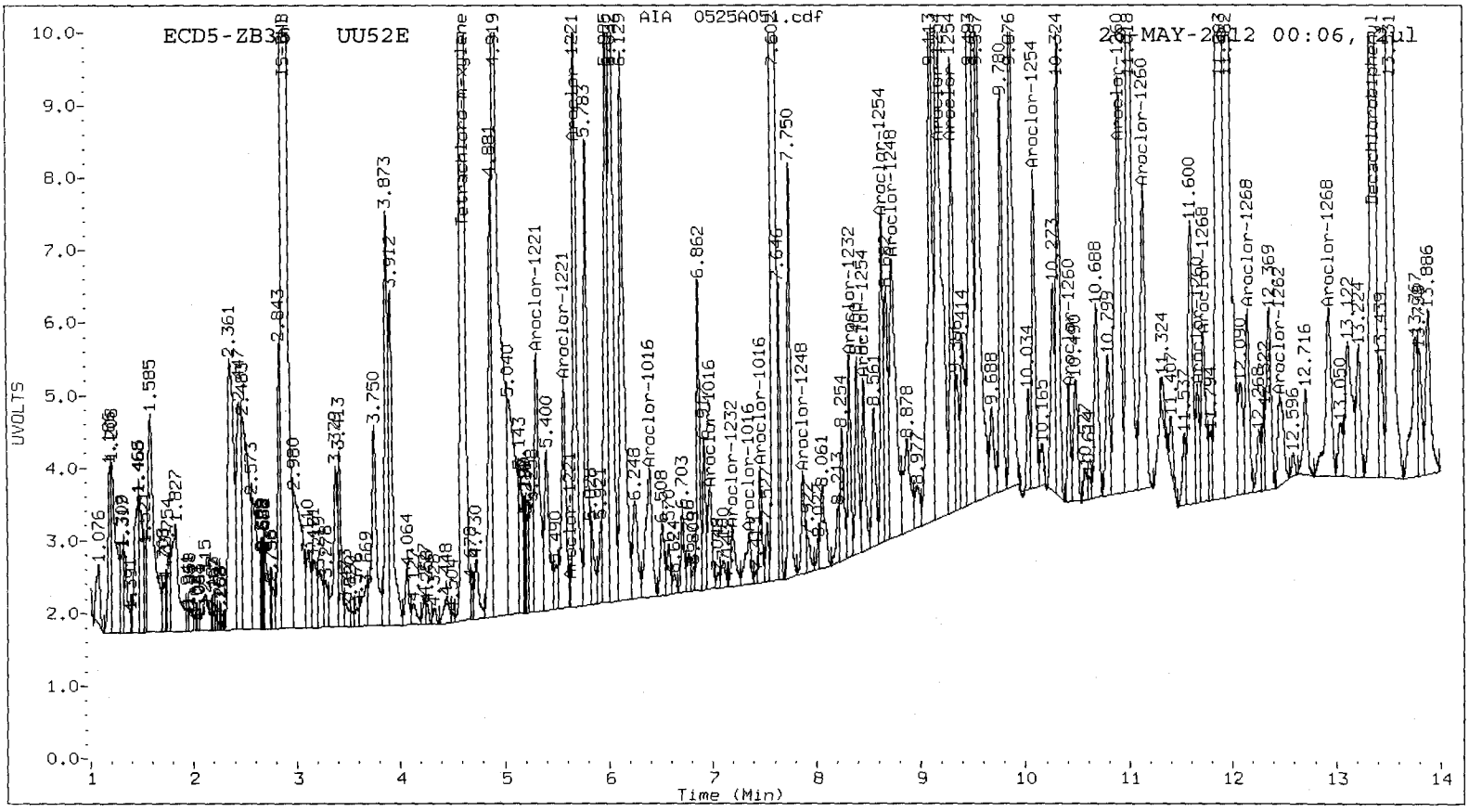
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBB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UVOLTS
Time (Min)
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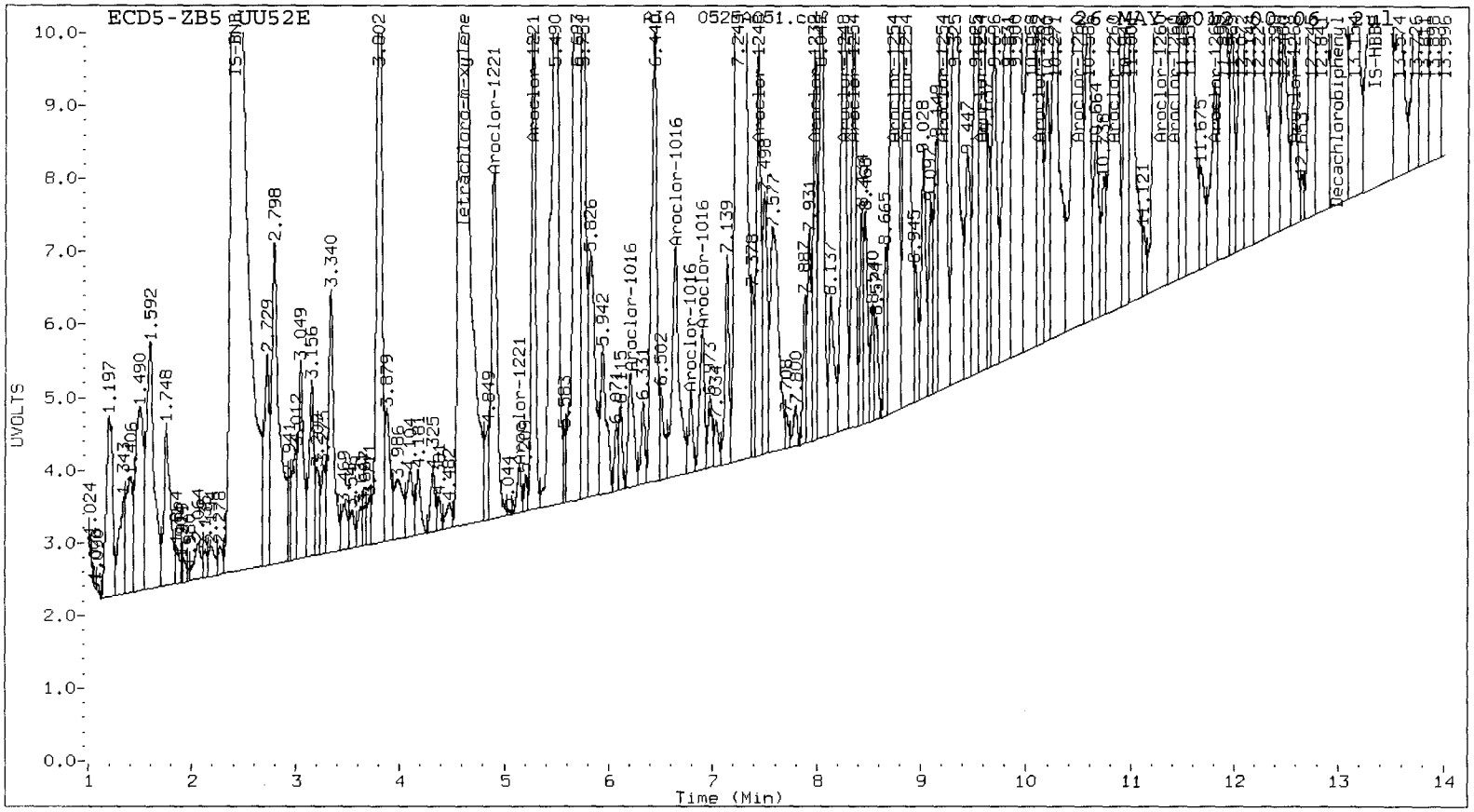
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl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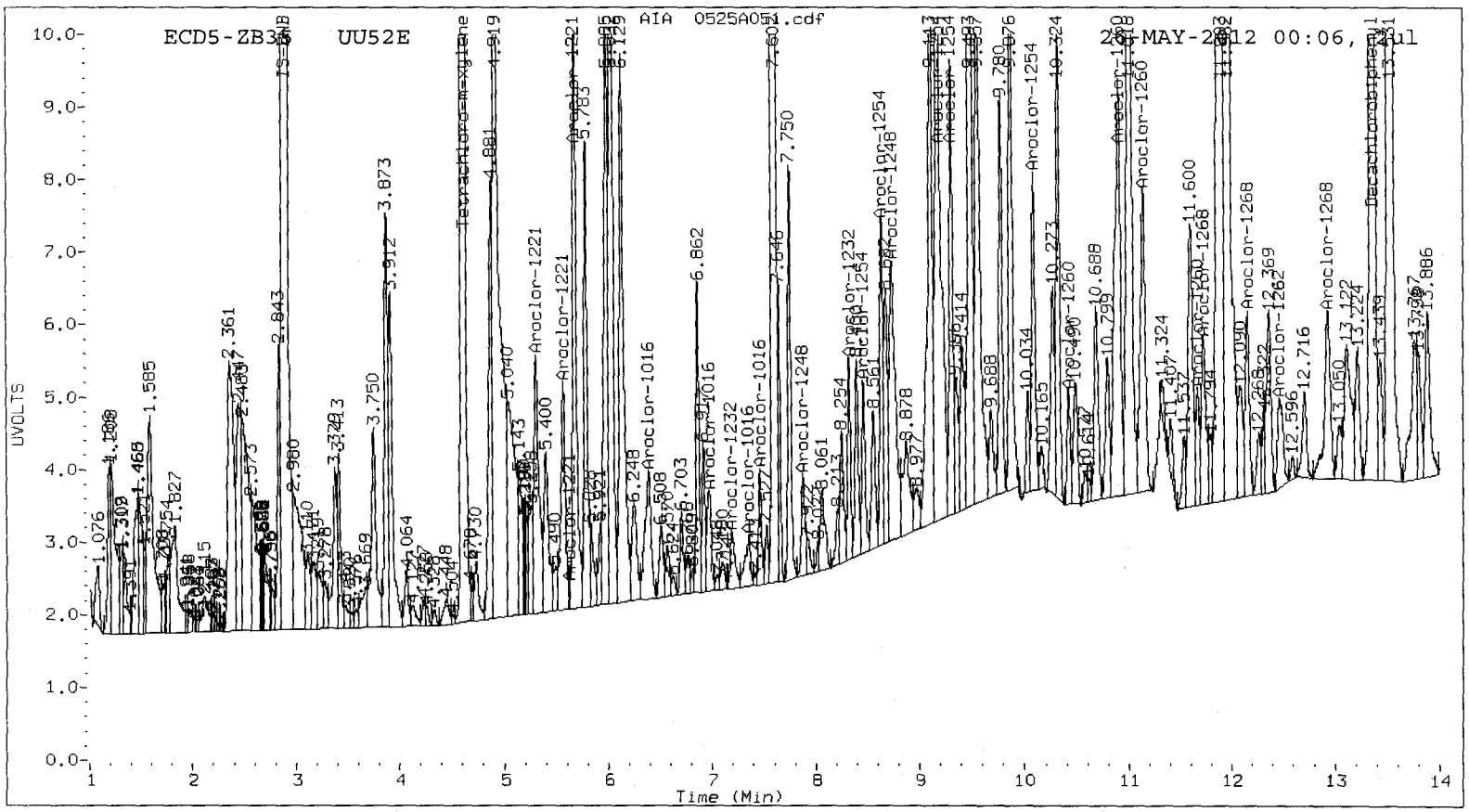
Aroclor-1268
Decachlorobiphenyl
IS-HBB
UVOLTS
Time (Min)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UU52E
AIA 0525A051.cdf
26-MAY-2012 00:06, Aul
IS-DNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBB
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A052.d
Data file 2: 20120523.b/0525-2.b/0525A052.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52F
Client ID:
Injection Date: 26-MAY-2012 00:25
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.611 | 0.001 | 68059051 | 4.612 | 0.001 | 37772511 | 24.5 | 26.8 | 9.0 | Tetrachloro-m-xylene |
| 12.993 | 0.002 | 97515288 | 13.366 | 0.001 | 34379402 | 33.9 | 34.8 | 2.7 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 61.2 | 67.0 |
| Decachlorobiphenyl | 84.6 | 87.0 |

JM 05/29/12

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 172898823 | 12.1 |
| Hexabromobiphenyl | 248602423 | 187722287 | -24.5 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 100165112 | -9.4 |
| Hexabromobiphenyl | 108855531 | 76493069 | -29.7 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | ZB5 Col RT | Shift | Area | Amount | Peak# | ZB35 Col RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.209 | -0.033 | 2651168 | 36.8 | 1 | 6.359 | 0.012 | 1595842 | 30.5 |
| Aroclor-1016 | 2 | 6.642 | 0.000 | 6119289 | 26.0 | 2 | 6.975 | 0.002 | 2341539 | 19.7 |
| Aroclor-1016 | 3 | 6.790 | 0.000 | 1235717 | 13.3 | 3 | 7.355 | -0.001 | 605046 | 19.8 |
| Aroclor-1016 | 4 | 6.899 | -0.002 | 2676942 | 36.6 | 4 | 7.462 | -0.001 | 1609607 | 47.3 |
| | Total Col1Ave (4 peaks): | | | | 28.2 | | Total Col2Ave (4 peaks): | | | 29.3 RPD = 4 |
| | Corrected Ave (3 peaks): | | | | 25.3 | | Corrected Ave (3 peaks): | | | 23.3 RPD = 8 |
| Aroclor-1221 | 1 | 4.897 | 0.013 | 8921879 | 688.4 | 1 | 5.307 | 0.018 | 4939928 | 312.9 |
| Aroclor-1221 | 2 | 5.147 | -0.006 | 995050 | 47.7 | 2 | 5.568 | 0.032 | 8992888 | 964.3 |
| Aroclor-1221 | 3 | 5.277 | 0.018 | 7319798 | 107.1 | 3 | 5.678 | 0.029 | 6634913 | 227.5 |
| Aroclor-1221 | NS | --- | | | ---- | 4 | 5.730 | 0.013 | 733500 | 137.3 |
| | Total Col1Ave (3 peaks): | | | | 281.0 | | Total Col2Ave (4 peaks): | | | 410.5 RPD = 37 |
| | Corrected Ave: < 3 Peaks | | | | | | Corrected Ave (3 peaks): | | | 225.9 |
| Aroclor-1232 | 1 | 6.209 | -0.030 | 2651168 | 88.0 | 1 | 6.359 | 0.014 | 1595842 | 66.2 |
| Aroclor-1232 | 2 | 6.642 | 0.003 | 6119289 | 61.1 | 2 | 6.975 | 0.004 | 2341539 | 46.4 |
| Aroclor-1232 | 3 | 6.790 | 0.003 | 1235717 | 30.4 | 3 | 7.188 | 0.008 | 1338697 | 78.6 |
| Aroclor-1232 | 4 | 7.983 | 0.003 | 6069771 | 155.5 | 4 | 8.327 | 0.001 | 2671013 | 142.9 |
| | Total Col1Ave (4 peaks): | | | | 83.8 | | Total Col2Ave (4 peaks): | | | 83.5 RPD = 0 |
| | Corrected Ave (3 peaks): | | | | 59.8 | | Corrected Ave (3 peaks): | | | 63.7 RPD = 6 |
| Aroclor-1242 | 1 | 6.209 | -0.034 | 2651168 | 48.7 | 1 | 6.359 | 0.012 | 1595842 | 39.0 |
| Aroclor-1242 | 2 | 6.642 | 0.000 | 6119289 | 33.7 | 2 | 6.975 | 0.001 | 2341539 | 25.2 |
| Aroclor-1242 | 3 | 6.790 | 0.000 | 1235717 | 17.1 | 3 | 7.188 | 0.005 | 1338697 | 35.5 |
| Aroclor-1242 | 4 | 7.983 | 0.000 | 6069771 | 90.0 | 4 | 8.327 | 0.000 | 2671013 | 81.5 |
| | Total Col1Ave (4 peaks): | | | | 47.4 | | Total Col2Ave (4 peaks): | | | 45.3 RPD = 4 |
| | Corrected Ave (3 peaks): | | | | 33.2 | | Corrected Ave (3 peaks): | | | 33.3 RPD = 0 |
| Aroclor-1248 | 1 | 6.642 | 0.002 | 6119289 | 50.4 | 1 | 6.975 | 0.004 | 2341539 | 38.9 |
| Aroclor-1248 | 2 | 7.439 | 0.000 | 4440634 | 48.4 | 2 | 7.878 | 0.003 | 4264686 | 88.5 |
| Aroclor-1248 | 3 | 7.983 | 0.000 | 6069771 | 51.7 | 3 | 8.327 | 0.000 | 2671013 | 46.1 |
| Aroclor-1248 | 4 | 8.268 | -0.006 | 9088121 | 76.7 | 4 | 8.740 | -0.007 | 8742323 | 133.7 |
| | Total Col1Ave (4 peaks): | | | | 56.8 | | Total Col2Ave (4 peaks): | | | 76.8 RPD = 30 |
| | Corrected Ave (3 peaks): | | | | 50.2 | | Corrected Ave (3 peaks): | | | 57.8 RPD = 14 |
| Aroclor-1254 | 1 | 8.356 | 0.000 | 9399732 | 59.2 | 1 | 8.466 | 0.000 | 2650541 | 60.3 |
| Aroclor-1254 | 2 | 8.751 | 0.024 | 23947071 | 234.4 | 2 | 8.641 | 0.002 | 6338355 | 113.4 |
| Aroclor-1254 | 3 | 8.863 | 0.000 | 37634904 | 190.8 | 3 | 9.177 | 0.017 | 10043040 | 235.1 |
| Aroclor-1254 | 4 | 9.210 | -0.002 | 25220730 | 118.8 | 4 | 9.310 | 0.000 | 8276277 | 87.6 |
| Aroclor-1254 | 5 | 9.575 | 0.001 | 17900620 | 135.5 | 5 | 10.090 | -0.002 | 4962460 | 89.6 |
| | Total Col1Ave (5 peaks): | | | | 147.7 | | Total Col2Ave (5 peaks): | | | 117.2 RPD = 23 |
| | Corrected Ave (4 peaks): | | | | 126.1 | | Corrected Ave (4 peaks): | | | 87.7 RPD = 36 |
| Aroclor-1260 | 1 | 10.445 | -0.002 | 4715305 | 46.3 | 1 | 10.422 | 0.001 | 1837795 | 41.9 |
| Aroclor-1260 | 2 | 10.821 | 0.001 | 14688628 | 58.1 | 2 | 10.872 | 0.000 | 3476060 | 63.8 |
| Aroclor-1260 | 3 | 11.226 | 0.005 | 4794518 | 34.1 | 3 | 11.146 | 0.001 | 5150054 | 46.6 |
| Aroclor-1260 | 4 | 11.336 | 0.000 | 3742612 | 62.1 | 4 | 11.672 | 0.006 | 2296347 | 71.1 |
| Aroclor-1260 | 5 | 11.409 | -0.002 | 109515372 | 1520.8 | NS | --- | | | ---- |
| | Total Col1Ave (5 peaks): | | | | 344.3 | | Total Col2Ave (4 peaks): | | | 55.8 RPD = 144* |
| | Corrected Ave (4 peaks): | | | | 50.1 | | Corrected Ave (3 peaks): | | | 50.8 RPD = 1 |
| Aroclor-1262 | 1 | 10.128 | 0.000 | 6173615 | 41.3 | 1 | 10.422 | 0.003 | 1837795 | 25.7 |
| Aroclor-1262 | 2 | 10.445 | 0.001 | 4715305 | 41.2 | 2 | 10.872 | 0.002 | 3476060 | 56.2 |
| Aroclor-1262 | 3 | 10.821 | 0.003 | 14688628 | 47.0 | 3 | 11.146 | 0.004 | 5150054 | 36.7 |
| Aroclor-1262 | 4 | 11.336 | 0.002 | 3742612 | 32.8 | 4 | 11.672 | 0.008 | 2296347 | 40.7 |
| Aroclor-1262 | 5 | 11.409 | 0.001 | 109515372 | 843.5 | 5 | 12.476 | 0.013 | 2605889 | 49.6 |
| | Total Col1Ave (5 peaks): | | | | 201.2 | | Total Col2Ave (5 peaks): | | | 41.8 RPD = 131* |
| | Corrected Ave (4 peaks): | | | | 40.6 | | Corrected Ave (4 peaks): | | | 38.1 RPD = 6 |
| Aroclor-1268 | 1 | 11.336 | 0.001 | 3742612 | 11.7 | 1 | 11.672 | 0.008 | 2296347 | 15.7 |
| Aroclor-1268 | 2 | 11.409 | 0.002 | 109515372 | 340.8 | 2 | 11.726 | -0.004 | 4828205 | 35.1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1268 3 | 11.807 | 0.014 | 3275901 | 12.2 | 3 | 12.134 | 0.007 | 2579424 | 22.3 |
| Aroclor-1268 4 | 12.587 | 0.002 | 4229778 | 5.4 | 4 | 12.953 | 0.004 | 1958166 | 6.0 |

Total Col1Ave (4 peaks): 92.5 Total Col2Ave (4 peaks): 19.8 RPD = 130*

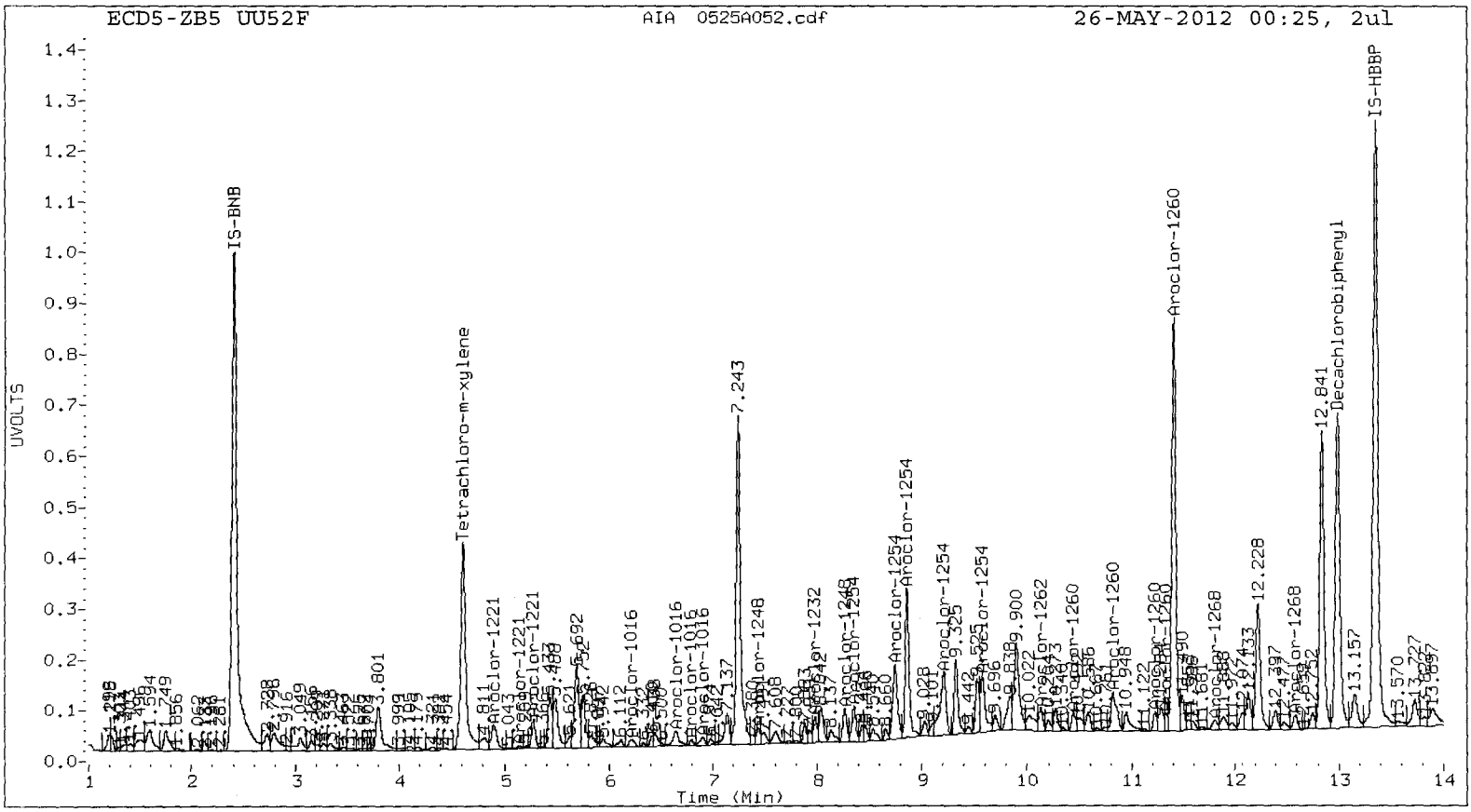
Corrected Ave (3 peaks): 9.8 Corrected Ave (3 peaks): 14.7 RPD = 40*

Total PCB Area Col1 (4.710 - 12.891) = 866630705 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 428663004 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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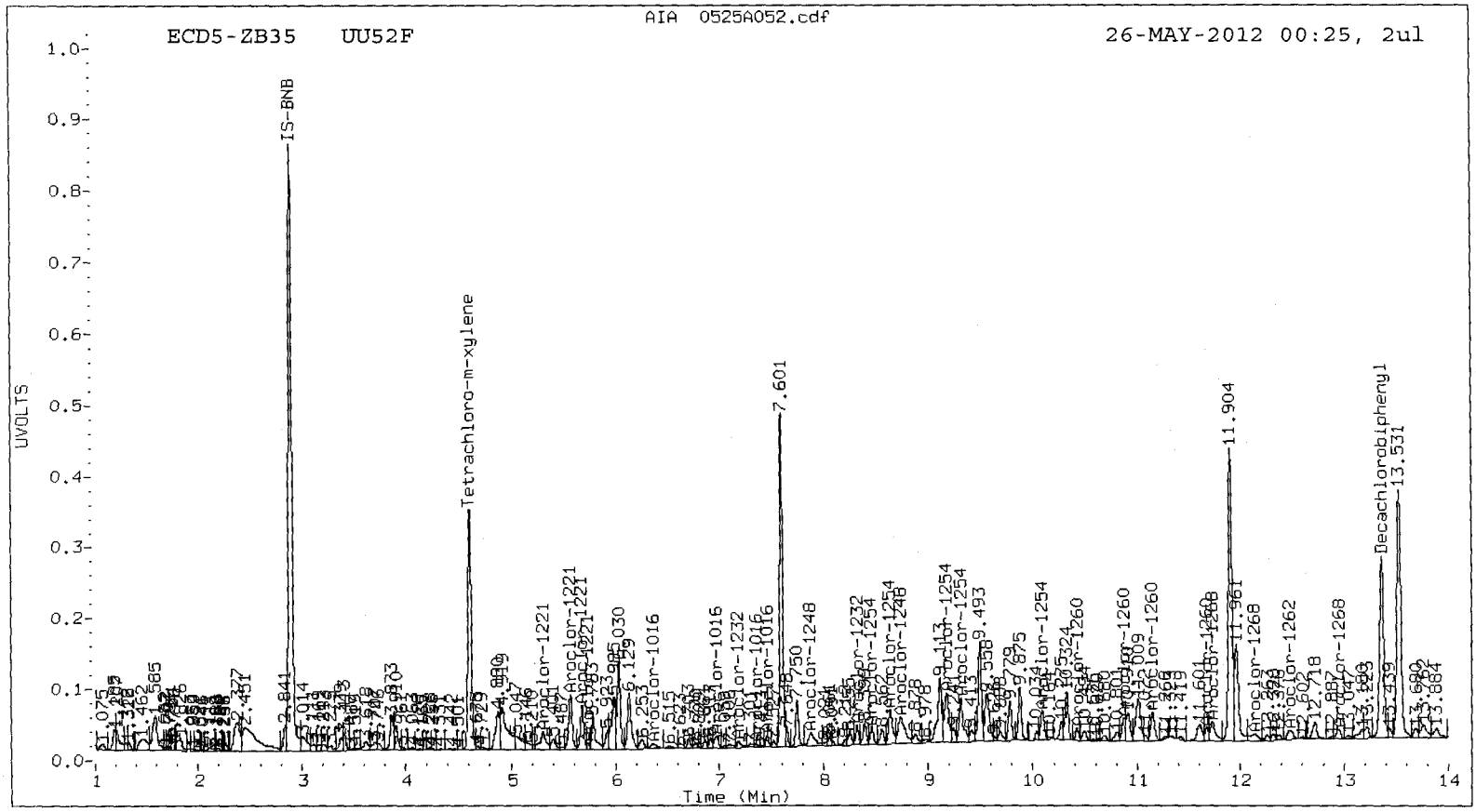
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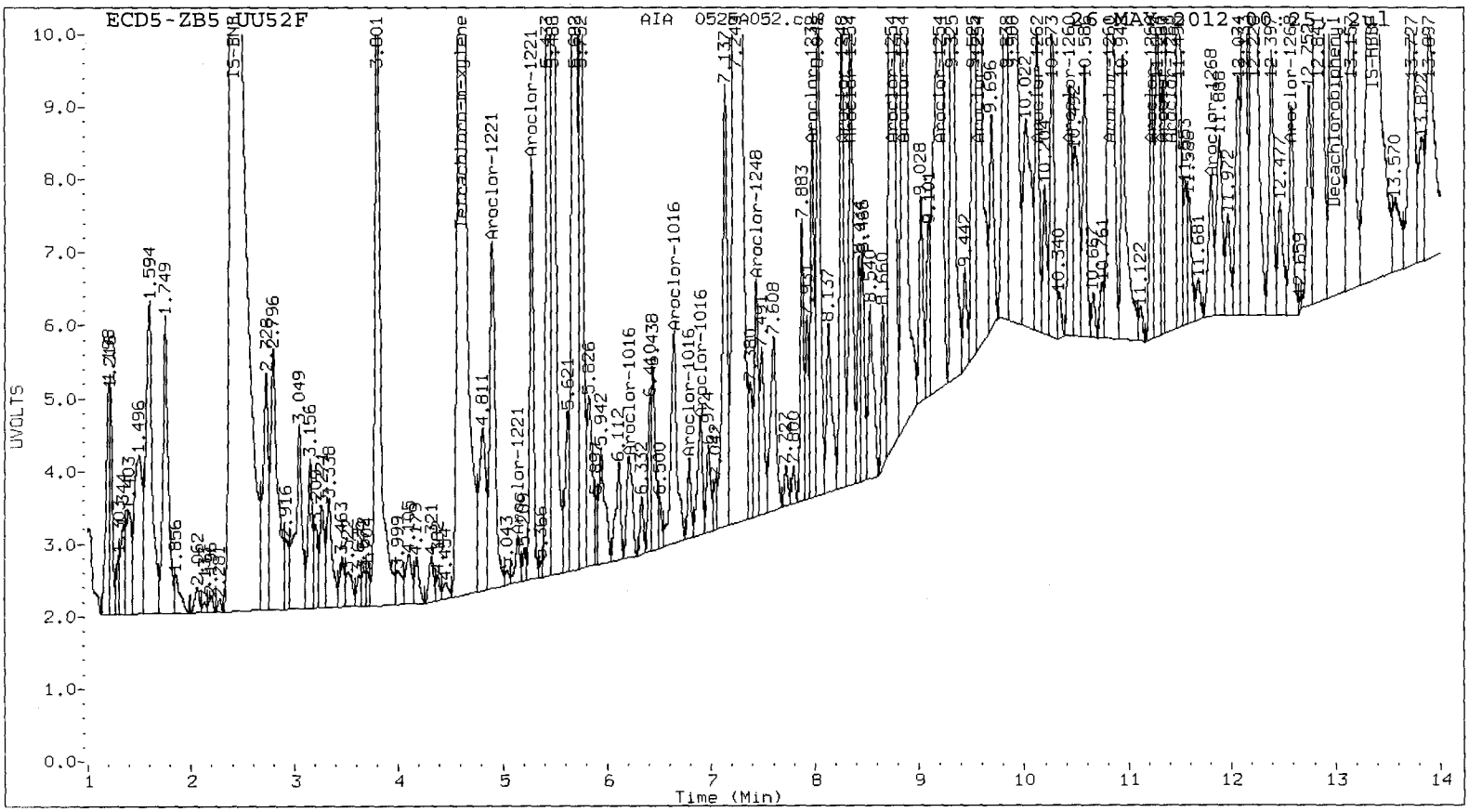
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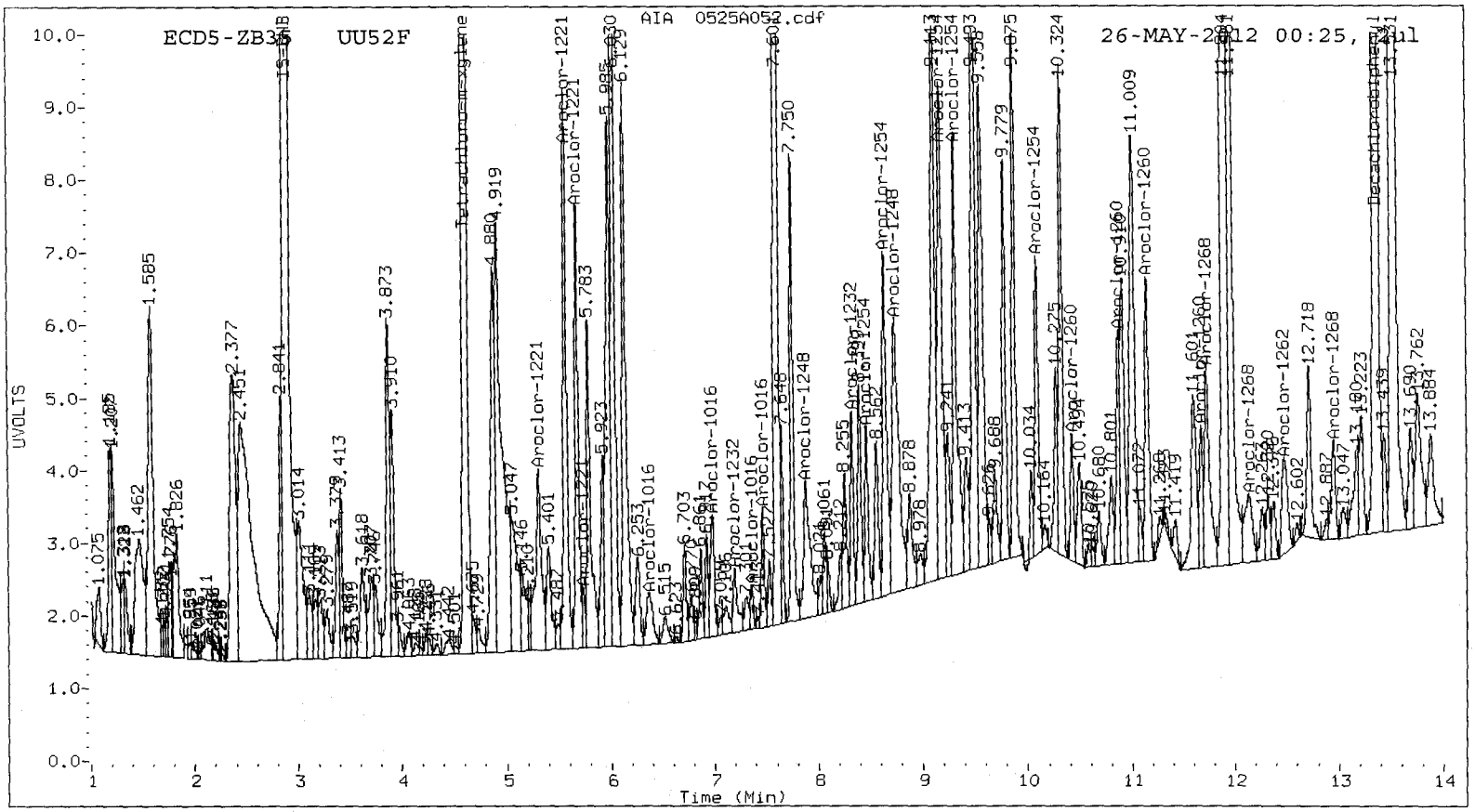
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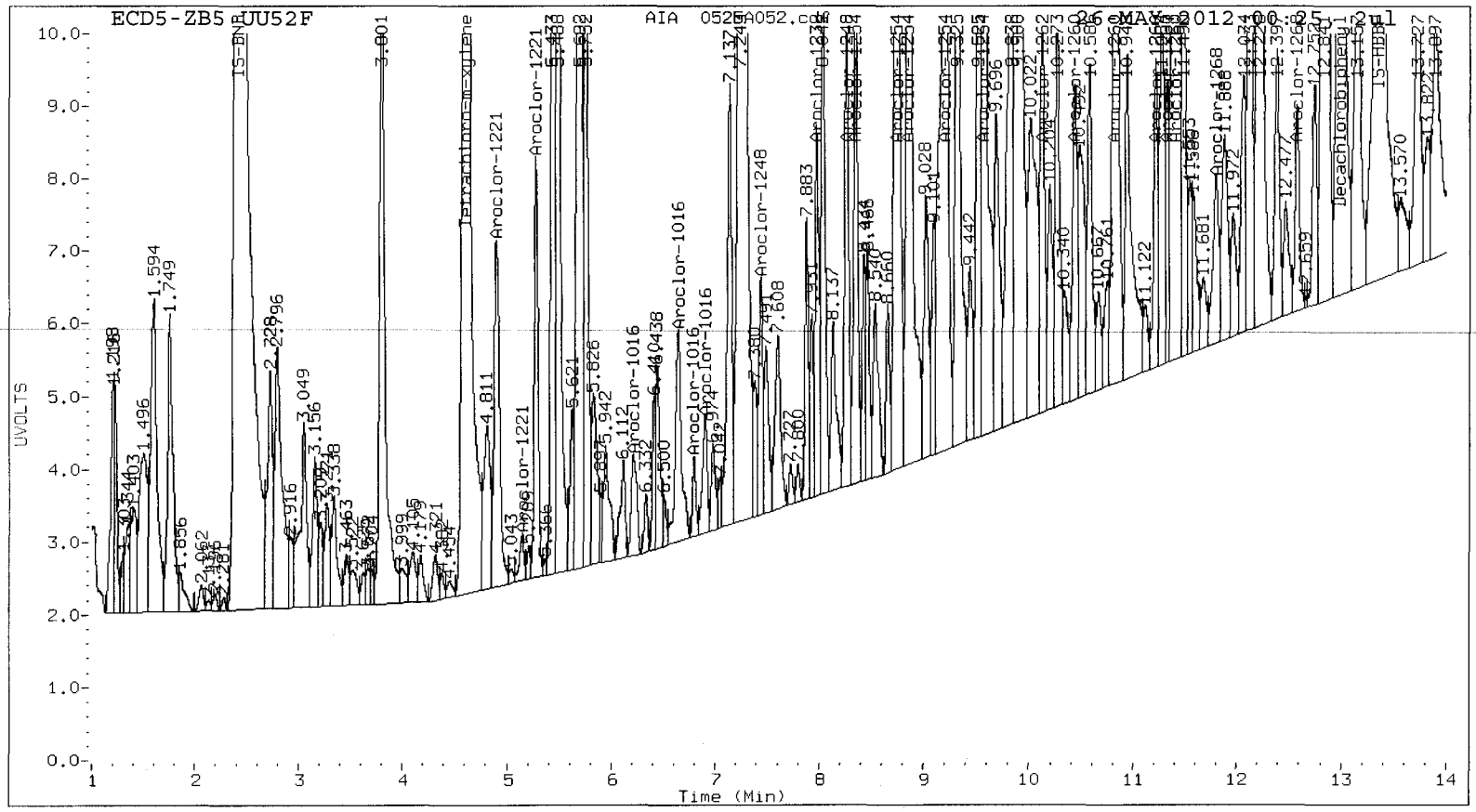
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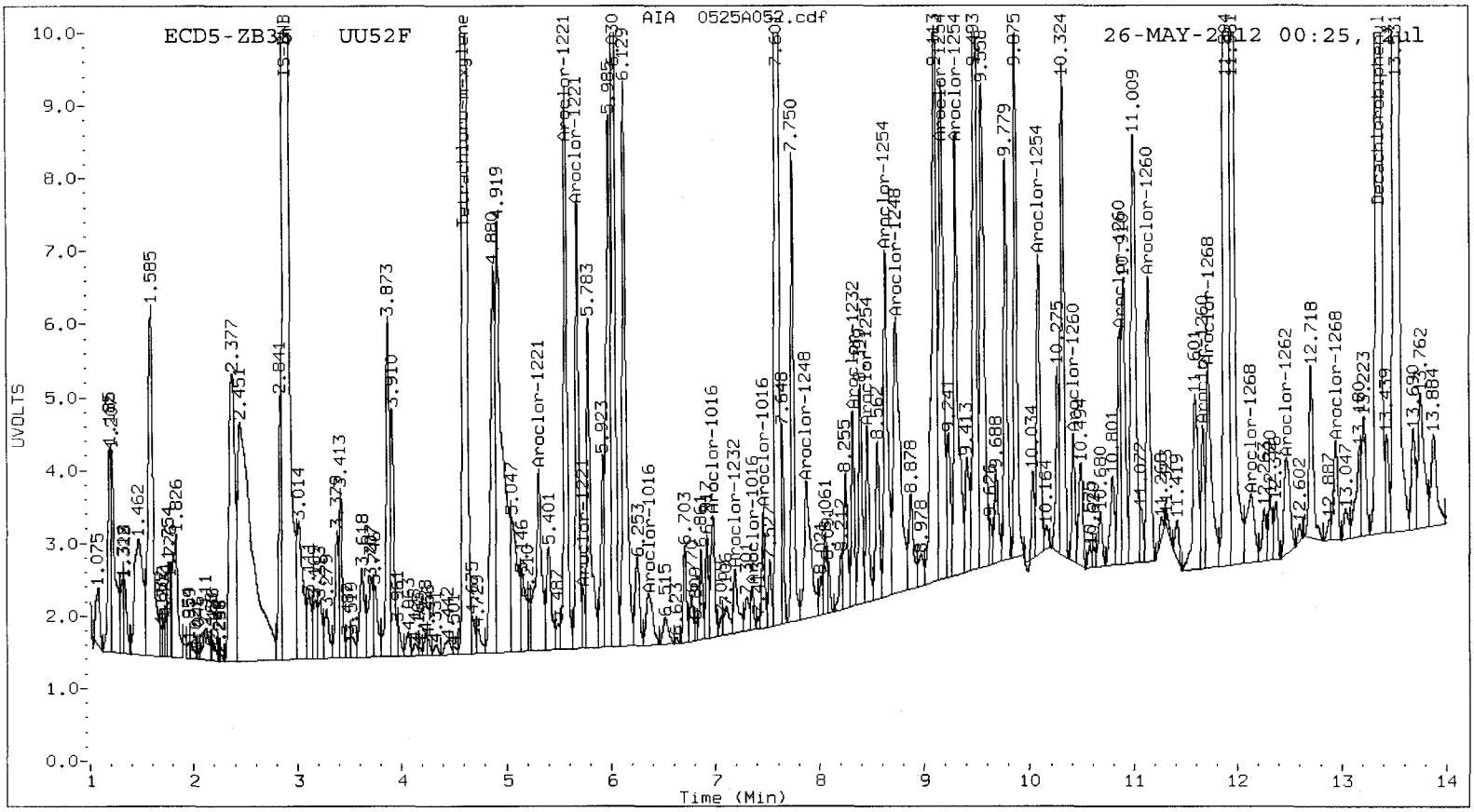
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Analytical Resources Inc.
Dual Column PCBs by SW8082

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Data file 2: 20120523.b/0525-2.b/0525A053.d
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Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52G
Client ID:
Injection Date: 26-MAY-2012 00:44
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | Shift | Response | ZB35 Col RT | Shift | Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.610 | 0.000 | 93087465 | 4.612 | 0.001 | 39211581 | 31.0 | 29.3 | 5.6 | Tetrachloro-m-xylene |
| 12.993 | 0.002 | 107522128 | 13.366 | 0.001 | 37189907 | 37.1 | 35.4 | 4.7 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 77.6 | 73.4 |
| Decachlorobiphenyl | 92.7 | 88.5 |

JL 05/29/12

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 186718284 | 21.1 |
| Hexabromobiphenyl | 248602423 | 189013662 | -24.0 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 94995771 | -14.1 |
| Hexabromobiphenyl | 108855531 | 81349843 | -25.3 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | ZB5 Col RT | Shift | Area | Amount | Peak# | ZB35 Col RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.232 | -0.009 | 1675746 | 21.5 | 1 | 6.354 | 0.006 | 2563329 | 51.7 |
| Aroclor-1016 | 2 | 6.642 | 0.000 | 10357365 | 40.8 | 2 | 6.978 | 0.004 | 3993735 | 35.5 |
| Aroclor-1016 | 3 | 6.793 | 0.003 | 1884425 | 18.8 | 3 | 7.351 | -0.005 | 1453609 | 50.1 |
| Aroclor-1016 | 4 | 6.895 | -0.005 | 3501808 | 44.4 | 4 | 7.462 | -0.001 | 3490080 | 108.1 |
| Total Col1Ave (4 peaks): | | 31.4 | | | | Total Col2Ave (4 peaks): | | 61.3 | RPD = 65* | |
| Corrected Ave (3 peaks): | | 27.0 | | | | Corrected Ave (3 peaks): | | 45.7 | RPD = 51* | |
| Aroclor-1221 | 1 | 4.911 | 0.027 | 11871102 | 848.1 | 1 | 5.306 | 0.016 | 8488308 | 567.0 |
| Aroclor-1221 | 2 | 5.147 | -0.006 | 1030741 | 45.7 | 2 | 5.567 | 0.031 | 5909639 | 668.2 |
| Aroclor-1221 | 3 | 5.277 | 0.019 | 44755608 | 606.2 | 3 | 5.677 | 0.028 | 12407307 | 448.5 |
| Aroclor-1221 | NS | --- | | | ---- | 4 | --- | | | 0.0 |
| Total Col1Ave (3 peaks): | | 500.0 | | | | Total Col2Ave (3 peaks): | | 561.2 | RPD = 12 | |
| Corrected Ave: < 3 Peaks | | | | | | Corrected Ave: < 3 Peaks | | | | |
| Aroclor-1232 | 1 | 6.232 | -0.006 | 1675746 | 51.5 | 1 | 6.354 | 0.008 | 2563329 | 112.0 |
| Aroclor-1232 | 2 | 6.642 | 0.003 | 10357365 | 95.7 | 2 | 6.978 | 0.007 | 3993735 | 83.4 |
| Aroclor-1232 | 3 | 6.793 | 0.005 | 1884425 | 42.9 | 3 | 7.191 | 0.012 | 2714966 | 168.0 |
| Aroclor-1232 | 4 | 7.983 | 0.002 | 9067374 | 215.2 | 4 | 8.326 | 0.001 | 3971257 | 224.1 |
| Total Col1Ave (4 peaks): | | 101.3 | | | | Total Col2Ave (4 peaks): | | 146.9 | RPD = 37 | |
| Corrected Ave (3 peaks): | | 63.4 | | | | Corrected Ave (3 peaks): | | 121.1 | RPD = 63* | |
| Aroclor-1242 | 1 | 6.232 | -0.010 | 1675746 | 28.5 | 1 | 6.354 | 0.006 | 2563329 | 66.1 |
| Aroclor-1242 | 2 | 6.642 | 0.000 | 10357365 | 52.9 | 2 | 6.978 | 0.004 | 3993735 | 45.4 |
| Aroclor-1242 | 3 | 6.793 | 0.002 | 1884425 | 24.1 | 3 | 7.191 | 0.009 | 2714966 | 75.9 |
| Aroclor-1242 | 4 | 7.983 | -0.001 | 9067374 | 124.5 | 4 | 8.326 | -0.001 | 3971257 | 127.7 |
| Total Col1Ave (4 peaks): | | 57.5 | | | | Total Col2Ave (4 peaks): | | 78.8 | RPD = 31 | |
| Corrected Ave (3 peaks): | | 35.2 | | | | Corrected Ave (3 peaks): | | 62.5 | RPD = 56* | |
| Aroclor-1248 | 1 | 6.642 | 0.002 | 10357365 | 79.0 | 1 | 6.978 | 0.007 | 3993735 | 70.0 |
| Aroclor-1248 | 2 | 7.437 | -0.001 | 5500691 | 55.5 | 2 | 7.875 | 0.000 | 4176825 | 91.4 |
| Aroclor-1248 | 3 | 7.983 | -0.001 | 9067374 | 71.5 | 3 | 8.326 | -0.001 | 3971257 | 72.3 |
| Aroclor-1248 | 4 | 8.266 | -0.008 | 19299195 | 150.8 | 4 | 8.737 | -0.010 | 8033654 | 129.5 |
| Total Col1Ave (4 peaks): | | 89.2 | | | | Total Col2Ave (4 peaks): | | 90.8 | RPD = 2 | |
| Corrected Ave (3 peaks): | | 68.7 | | | | Corrected Ave (3 peaks): | | 77.9 | RPD = 13 | |
| Aroclor-1254 | 1 | 8.355 | -0.001 | 16778756 | 97.9 | 1 | 8.466 | -0.001 | 4268875 | 102.4 |
| Aroclor-1254 | 2 | 8.752 | 0.024 | 44726557 | 405.4 | 2 | 8.638 | 0.000 | 9637529 | 181.8 |
| Aroclor-1254 | 3 | 8.865 | 0.001 | 46722574 | 219.3 | 3 | 9.178 | 0.019 | 13219739 | 326.4 |
| Aroclor-1254 | 4 | 9.211 | -0.002 | 25403909 | 110.8 | 4 | 9.310 | 0.000 | 8828375 | 98.5 |
| Aroclor-1254 | 5 | 9.577 | 0.003 | 16015896 | 112.3 | 5 | 10.091 | -0.001 | 6593844 | 125.6 |
| Total Col1Ave (5 peaks): | | 189.1 | | | | Total Col2Ave (5 peaks): | | 166.9 | RPD = 12 | |
| Corrected Ave (4 peaks): | | 135.1 | | | | Corrected Ave (4 peaks): | | 127.1 | RPD = 6 | |
| Aroclor-1260 | 1 | 10.444 | -0.003 | 6729811 | 65.6 | 1 | 10.422 | 0.000 | 2813294 | 60.3 |
| Aroclor-1260 | 2 | 10.821 | 0.000 | 14894880 | 58.5 | 2 | 10.868 | -0.004 | 8879327 | 153.3 |
| Aroclor-1260 | 3 | 11.240 | 0.019 | 9123936 | 64.5 | 3 | 11.148 | 0.003 | 9139719 | 77.7 |
| Aroclor-1260 | 4 | 11.335 | -0.002 | 5718643 | 94.2 | 4 | 11.672 | 0.006 | 3817099 | 111.1 |
| Aroclor-1260 | 5 | 11.408 | -0.003 | 107281210 | 1479.6 | NS | --- | | | ---- |
| Total Col1Ave (5 peaks): | | 352.5 | | | | Total Col2Ave (4 peaks): | | 100.6 | RPD = 111* | |
| Corrected Ave (4 peaks): | | 70.7 | | | | Corrected Ave (3 peaks): | | 83.0 | RPD = 16 | |
| Aroclor-1262 | 1 | 10.127 | 0.000 | 10858475 | 72.1 | 1 | 10.422 | 0.003 | 2813294 | 36.9 |
| Aroclor-1262 | 2 | 10.444 | -0.001 | 6729811 | 58.5 | 2 | 10.868 | -0.002 | 8879327 | 135.1 |
| Aroclor-1262 | 3 | 10.821 | 0.003 | 14894880 | 47.3 | 3 | 11.148 | 0.006 | 9139719 | 61.2 |
| Aroclor-1262 | 4 | 11.335 | 0.001 | 5718643 | 49.7 | 4 | 11.672 | 0.008 | 3817099 | 63.6 |
| Aroclor-1262 | 5 | 11.408 | 0.000 | 107281210 | 820.7 | 5 | 12.469 | 0.006 | 3751236 | 67.1 |
| Total Col1Ave (5 peaks): | | 209.7 | | | | Total Col2Ave (5 peaks): | | 72.8 | RPD = 97* | |
| Corrected Ave (4 peaks): | | 56.9 | | | | Corrected Ave (4 peaks): | | 57.2 | RPD = 1 | |
| Aroclor-1268 | 1 | 11.335 | -0.001 | 5718643 | 17.8 | 1 | 11.672 | 0.008 | 3817099 | 24.6 |
| Aroclor-1268 | 2 | 11.408 | 0.001 | 107281210 | 331.5 | 2 | 11.728 | -0.002 | 6788213 | 46.4 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1268 3 | 11.804 | 0.012 | 4019807 | 14.9 | 3 | 12.158 | 0.030 | 4299864 | 35.0 |
| Aroclor-1268 4 | 12.586 | 0.001 | 6557270 | 8.3 | 4 | 12.953 | 0.004 | 2736616 | 7.9 |

Total Col1Ave (4 peaks): 93.1 Total Col2Ave (4 peaks): 28.5 RPD = 106*

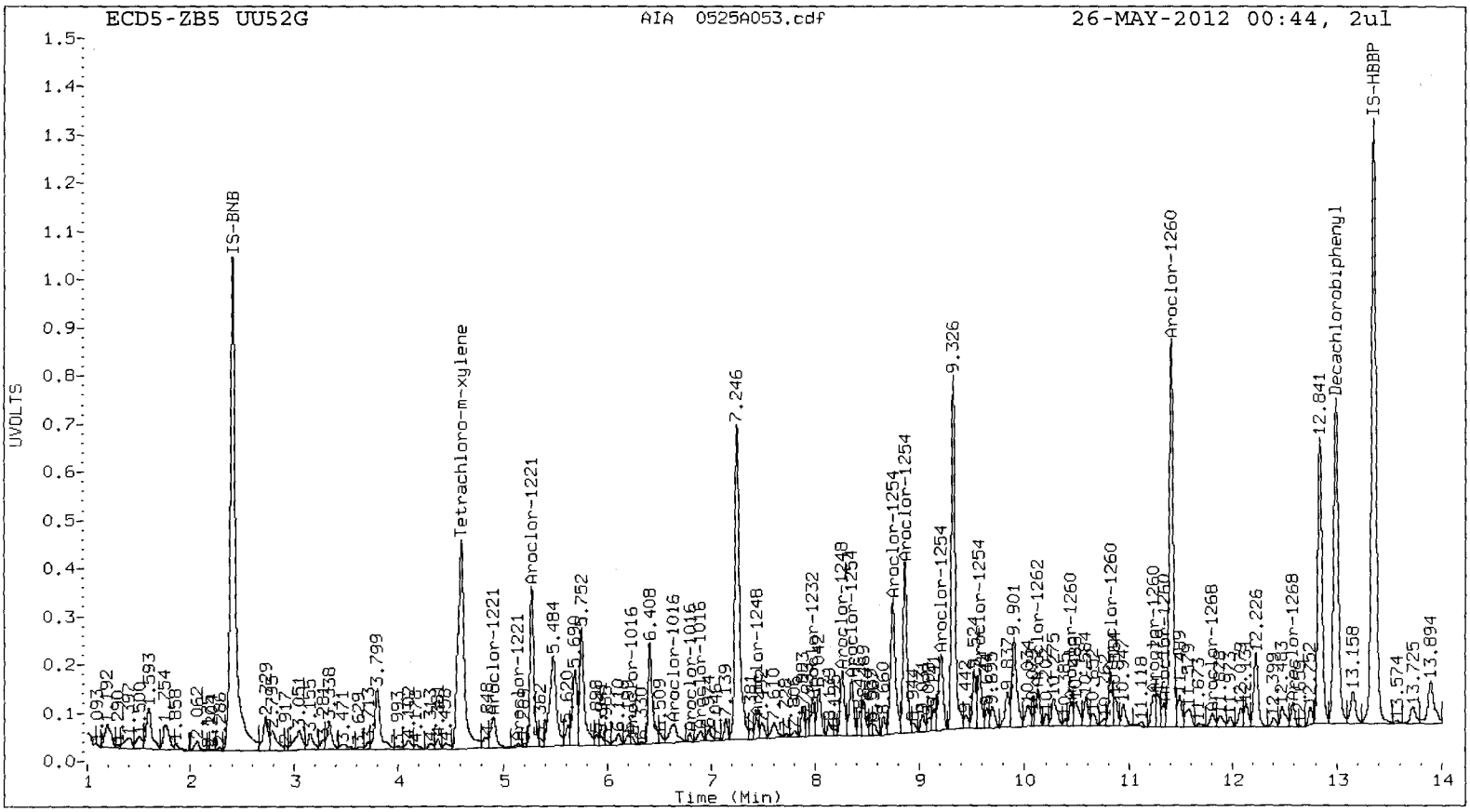
Corrected Ave (3 peaks): 13.6 Corrected Ave (3 peaks): 22.5 RPD = 49*

Total PCB Area Col1 (4.710 - 12.891) = 1178997654 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 665267709 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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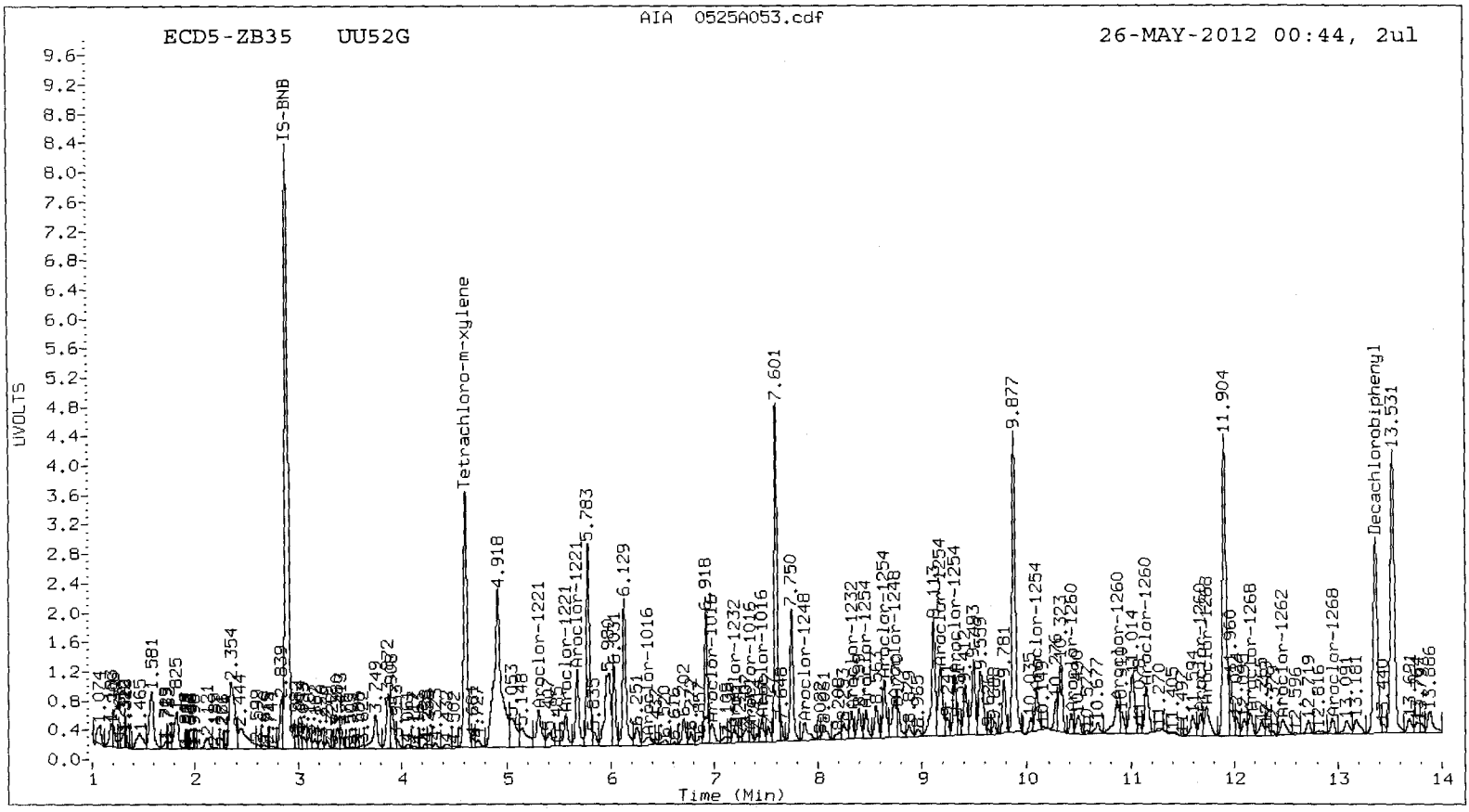
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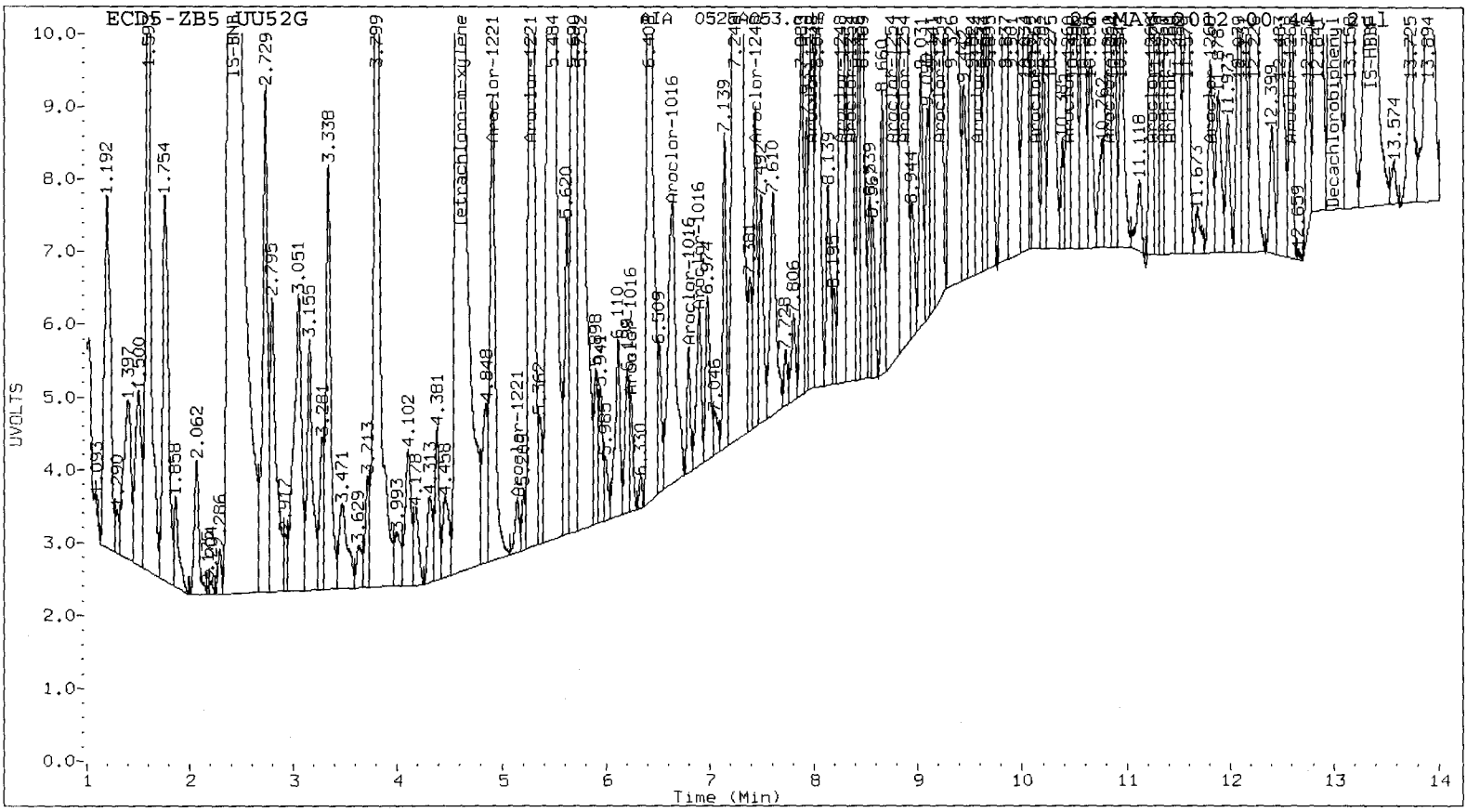
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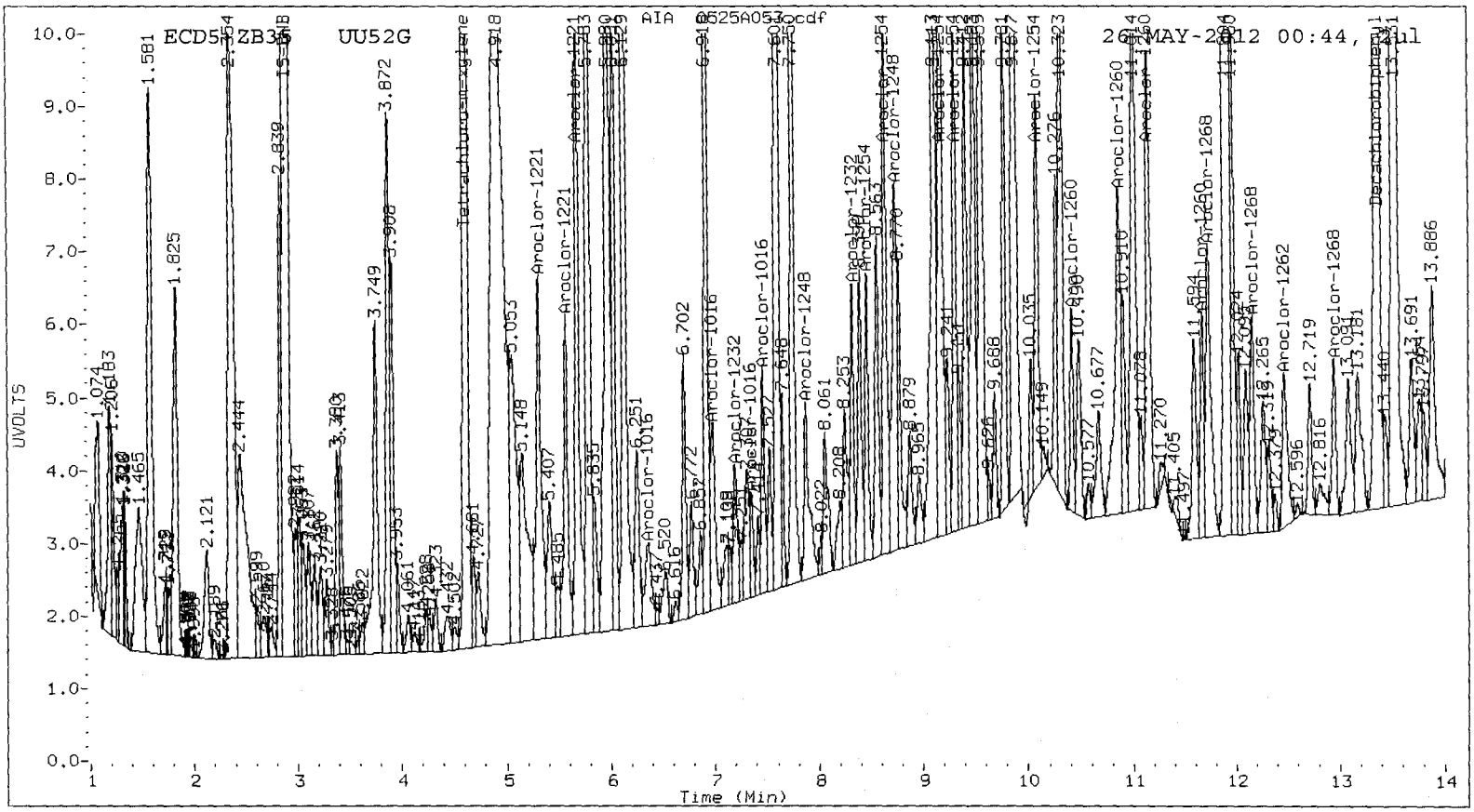
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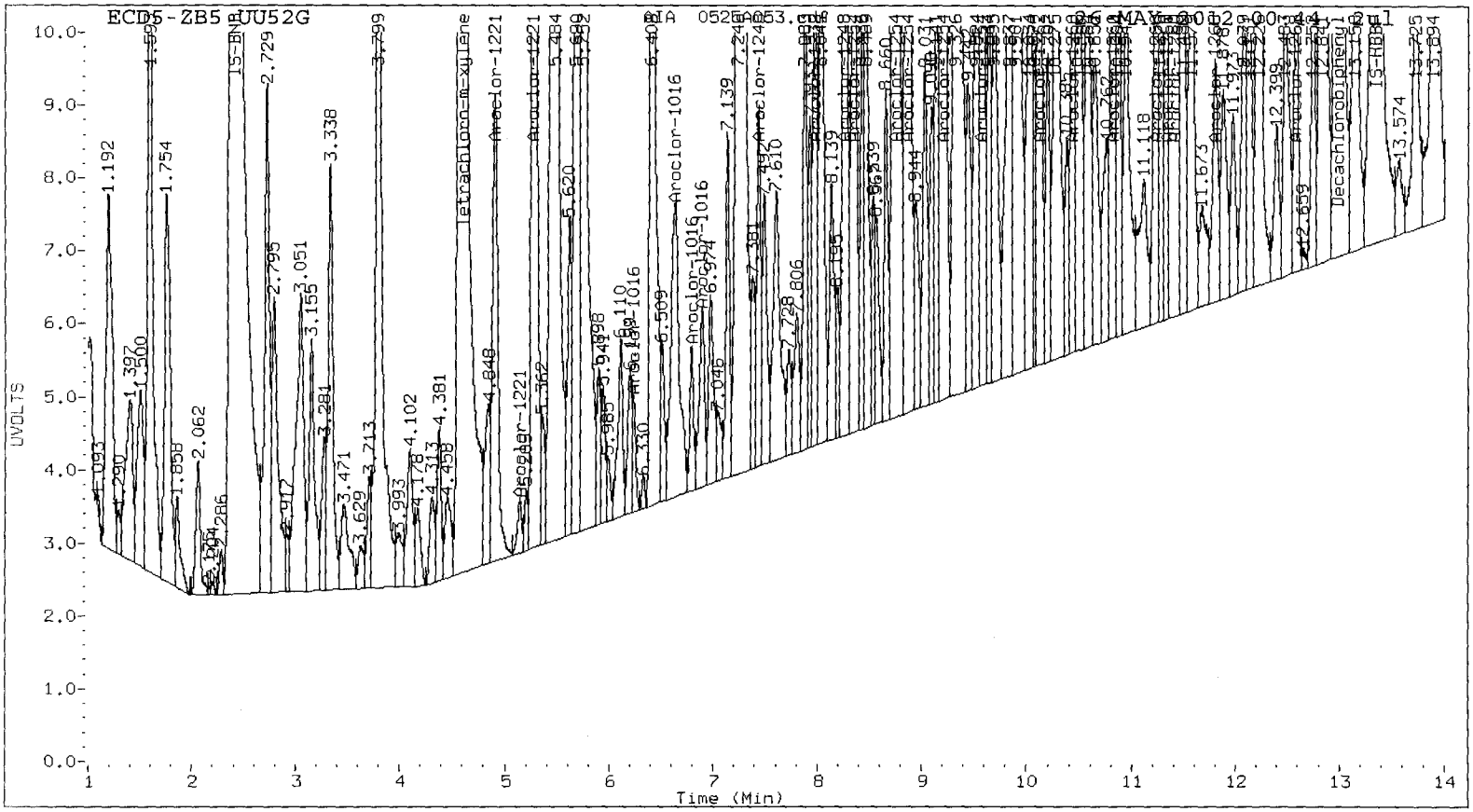
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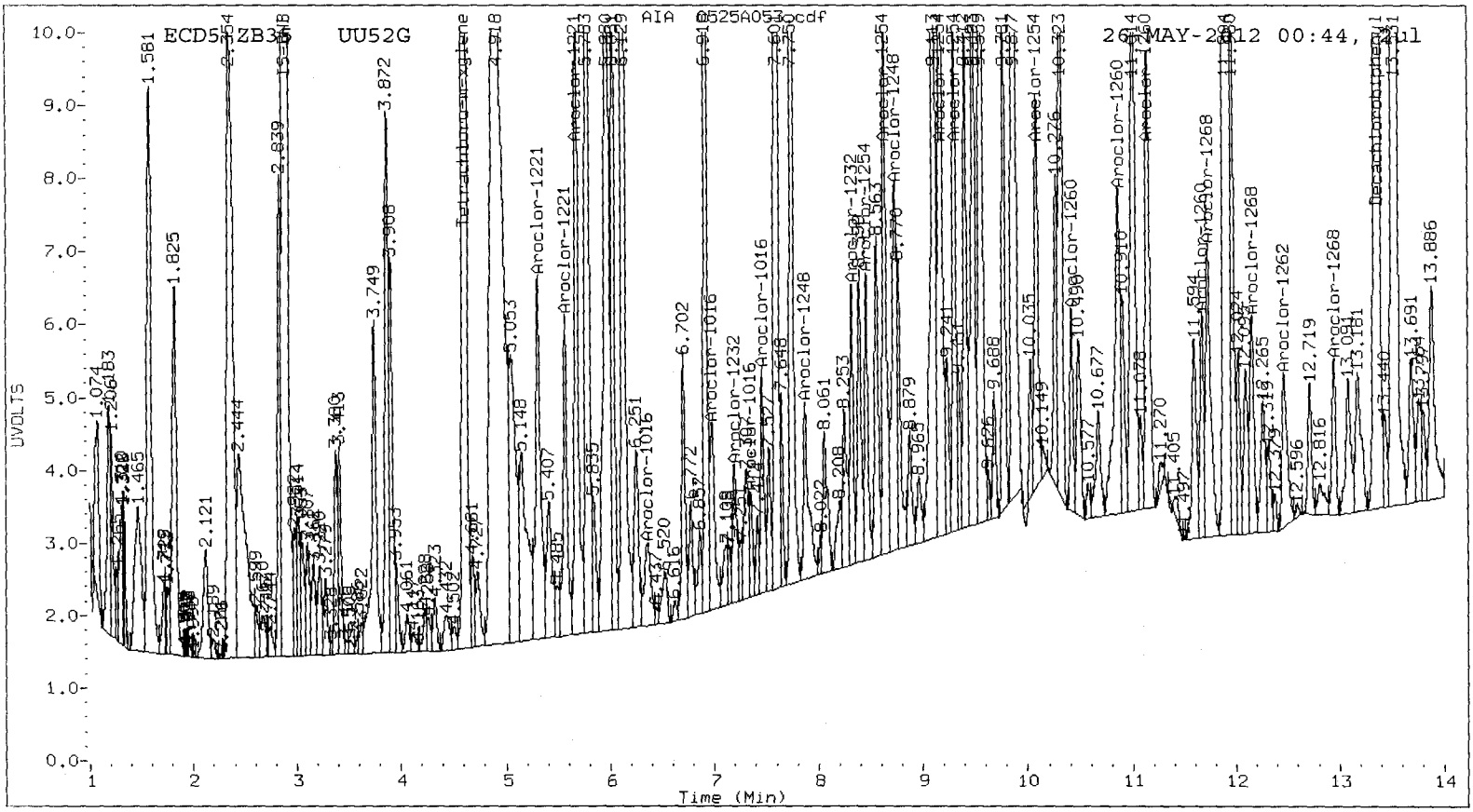
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UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
IS-HBB
IS-BNB
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A056.d
Data file 2: 20120523.b/0525-2.b/0525A056.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52H
Client ID:
Injection Date: 26-MAY-2012 01:41
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.611 | 0.001 | 76848228 | 4.613 | 0.002 | 40481713 | 27.7 | 27.7 | 0.1 | Tetrachloro-m-xylene |
| 12.993 | 0.002 | 93683612 | 13.365 | 0.000 | 35883828 | 29.0 | 32.6 | 11.6 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 69.2 | 69.3 |
| Decachlorobiphenyl | 72.4 | 81.4 |

05/29/12

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 172760776 | 12.0 |
| Hexabromobiphenyl | 248602423 | 210736401 | -15.2 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 103821331 | -6.1 |
| Hexabromobiphenyl | 108855531 | 85307879 | -21.6 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | ZB5 Col RT | Shift | Area | Amount | Peak# | ZB35 Col RT | Shift | Area | Amount | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.237 | -0.004 | 2204955 | 30.6 | 1 | 6.366 | 0.018 | 1970825 | 36.4 | |
| Aroclor-1016 | 2 | 6.639 | -0.003 | 9538016 | 40.6 | 2 | 6.973 | 0.000 | 3209899 | 26.1 | |
| Aroclor-1016 | 3 | 6.787 | -0.003 | 1885286 | 20.3 | 3 | 7.355 | -0.001 | 1013487 | 31.9 | |
| Aroclor-1016 | 4 | 6.897 | -0.003 | 2682320 | 36.7 | 4 | 7.462 | -0.001 | 2586825 | 73.3 | |
| Total Col1Ave (4 peaks): | | | | | 32.1 | Total Col2Ave (4 peaks): | | | | 41.9 | RPD = 27 |
| Corrected Ave (3 peaks): | | | | | 29.2 | Corrected Ave (3 peaks): | | | | 31.5 | RPD = 7 |
| Aroclor-1221 | 1 | 4.897 | 0.013 | 8285904 | 639.8 | 1 | 5.308 | 0.018 | 4923636 | 300.9 | |
| Aroclor-1221 | 2 | 5.147 | -0.006 | 898395 | 43.1 | 2 | 5.568 | 0.032 | 6063139 | 627.2 | |
| Aroclor-1221 | 3 | 5.277 | 0.019 | 11249144 | 164.7 | 3 | 5.678 | 0.029 | 7747127 | 256.2 | |
| Aroclor-1221 | NS | --- | | | ---- | 4 | 5.728 | 0.010 | 512506 | 92.5 | |
| Total Col1Ave (3 peaks): | | | | | 282.5 | Total Col2Ave (4 peaks): | | | | 319.2 | RPD = 12 |
| Corrected Ave: < 3 Peaks | | | | | | Corrected Ave (3 peaks): | | | | 216.6 | |
| Aroclor-1232 | 1 | 6.237 | -0.001 | 2204955 | 73.3 | 1 | 6.366 | 0.020 | 1970825 | 78.8 | |
| Aroclor-1232 | 2 | 6.639 | 0.000 | 9538016 | 95.3 | 2 | 6.973 | 0.002 | 3209899 | 61.3 | |
| Aroclor-1232 | 3 | 6.787 | -0.001 | 1885286 | 46.4 | 3 | 7.191 | 0.012 | 2985504 | 169.0 | |
| Aroclor-1232 | 4 | 7.980 | 0.000 | 8323435 | 213.5 | 4 | 8.327 | 0.002 | 4802824 | 248.0 | |
| Total Col1Ave (4 peaks): | | | | | 107.1 | Total Col2Ave (4 peaks): | | | | 139.3 | RPD = 26 |
| Corrected Ave (3 peaks): | | | | | 71.7 | Corrected Ave (3 peaks): | | | | 103.1 | RPD = 36 |
| Aroclor-1242 | 1 | 6.237 | -0.005 | 2204955 | 40.5 | 1 | 6.366 | 0.018 | 1970825 | 46.5 | |
| Aroclor-1242 | 2 | 6.639 | -0.003 | 9538016 | 52.6 | 2 | 6.973 | -0.001 | 3209899 | 33.4 | |
| Aroclor-1242 | 3 | 6.787 | -0.004 | 1885286 | 26.1 | 3 | 7.191 | 0.009 | 2985504 | 76.4 | |
| Aroclor-1242 | 4 | 7.980 | -0.003 | 8323435 | 123.5 | 4 | 8.327 | 0.000 | 4802824 | 141.3 | |
| Total Col1Ave (4 peaks): | | | | | 60.7 | Total Col2Ave (4 peaks): | | | | 74.4 | RPD = 20 |
| Corrected Ave (3 peaks): | | | | | 39.7 | Corrected Ave (3 peaks): | | | | 52.1 | RPD = 27 |
| Aroclor-1248 | 1 | 6.639 | -0.001 | 9538016 | 78.6 | 1 | 6.973 | 0.003 | 3209899 | 51.5 | |
| Aroclor-1248 | 2 | 7.437 | -0.001 | 4782687 | 52.2 | 2 | 7.877 | 0.002 | 4636958 | 92.8 | |
| Aroclor-1248 | 3 | 7.980 | -0.003 | 8323435 | 70.9 | 3 | 8.327 | 0.000 | 4802824 | 80.0 | |
| Aroclor-1248 | 4 | 8.263 | -0.010 | 32108907 | 271.1 | 4 | 8.776 | 0.029 | 21999216 | 324.5 | |
| Total Col1Ave (4 peaks): | | | | | 118.2 | Total Col2Ave (4 peaks): | | | | 137.2 | RPD = 15 |
| Corrected Ave (3 peaks): | | | | | 67.2 | Corrected Ave (3 peaks): | | | | 74.8 | RPD = 11 |
| Aroclor-1254 | 1 | 8.353 | -0.004 | 22462865 | 141.6 | 1 | 8.467 | 0.001 | 4546361 | 99.7 | |
| Aroclor-1254 | 2 | 8.753 | 0.025 | 104920309 | 1027.9 | 2 | 8.659 | 0.020 | 26432236 | 456.2 | |
| Aroclor-1254 | 3 | 8.864 | 0.001 | 40171026 | 203.8 | 3 | 9.177 | 0.017 | 9694422 | 219.0 | |
| Aroclor-1254 | 4 | 9.211 | -0.002 | 26935891 | 126.9 | 4 | 9.310 | 0.001 | 12012064 | 122.7 | |
| Aroclor-1254 | 5 | 9.575 | 0.001 | 20346967 | 154.1 | 5 | 10.091 | -0.002 | 10031516 | 174.8 | |
| Total Col1Ave (5 peaks): | | | | | 330.9 | Total Col2Ave (5 peaks): | | | | 214.5 | RPD = 43* |
| Corrected Ave (4 peaks): | | | | | 156.6 | Corrected Ave (4 peaks): | | | | 154.0 | RPD = 2 |
| Aroclor-1260 | 1 | 10.444 | -0.003 | 4688932 | 41.0 | 1 | 10.422 | 0.000 | 2578305 | 52.7 | |
| Aroclor-1260 | 2 | 10.820 | -0.001 | 19944152 | 70.3 | 2 | 10.869 | -0.003 | 5866206 | 96.6 | |
| Aroclor-1260 | 3 | 11.224 | 0.003 | 7281902 | 46.2 | 3 | 11.145 | 0.000 | 8063299 | 65.4 | |
| Aroclor-1260 | 4 | 11.334 | -0.003 | 5743342 | 84.8 | 4 | 11.668 | 0.002 | 2872207 | 79.8 | |
| Aroclor-1260 | 5 | 11.406 | -0.005 | 45642146 | 564.6 | NS | --- | | | ---- | |
| Total Col1Ave (5 peaks): | | | | | 161.4 | Total Col2Ave (4 peaks): | | | | 73.6 | RPD = 75* |
| Corrected Ave (4 peaks): | | | | | 60.6 | Corrected Ave (3 peaks): | | | | 65.9 | RPD = 8 |
| Aroclor-1262 | 1 | 10.128 | 0.000 | 8566258 | 51.0 | 1 | 10.422 | 0.003 | 2578305 | 32.3 | |
| Aroclor-1262 | 2 | 10.444 | 0.000 | 4688932 | 36.5 | 2 | 10.869 | -0.001 | 5866206 | 85.1 | |
| Aroclor-1262 | 3 | 10.820 | 0.001 | 19944152 | 56.9 | 3 | 11.145 | 0.003 | 8063299 | 51.5 | |
| Aroclor-1262 | 4 | 11.334 | 0.000 | 5743342 | 44.8 | 4 | 11.668 | 0.004 | 2872207 | 45.6 | |
| Aroclor-1262 | 5 | 11.406 | -0.002 | 45642146 | 313.2 | 5 | 12.468 | 0.005 | 2978316 | 50.8 | |
| Total Col1Ave (5 peaks): | | | | | 100.5 | Total Col2Ave (5 peaks): | | | | 53.1 | RPD = 62* |
| Corrected Ave (4 peaks): | | | | | 47.3 | Corrected Ave (4 peaks): | | | | 45.1 | RPD = 5 |
| Aroclor-1268 | 1 | 11.334 | -0.002 | 5743342 | 16.0 | 1 | 11.668 | 0.004 | 2872207 | 17.6 | |
| Aroclor-1268 | 2 | 11.406 | -0.001 | 45642146 | 126.5 | 2 | 11.726 | -0.004 | 6005735 | 39.1 | |

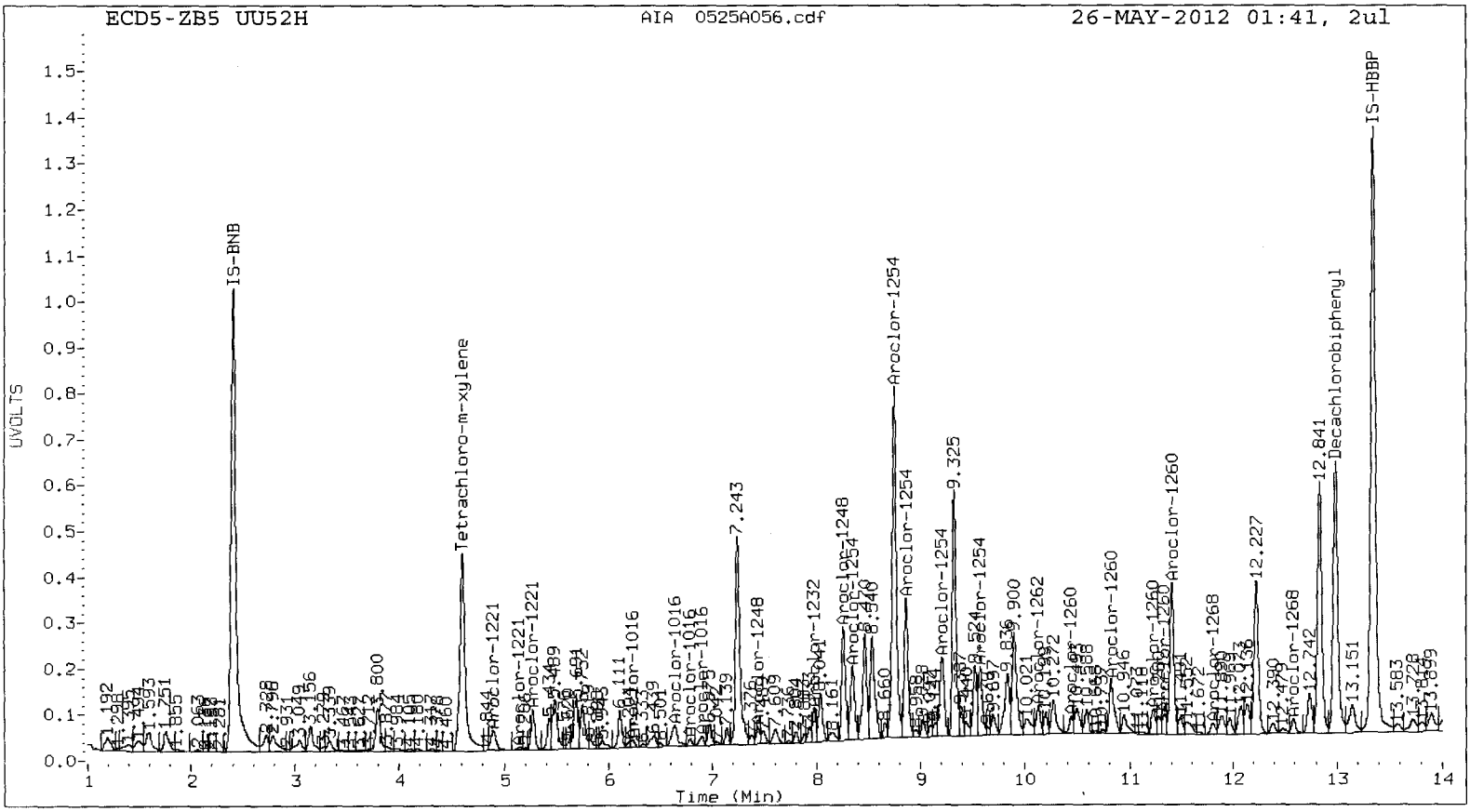
| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1268 3 | 11.806 | 0.014 | 3860941 | 12.8 | 3 | 12.151 | 0.023 | 2629375 | 20.4 |
| Aroclor-1268 4 | 12.586 | 0.001 | 4510240 | 5.1 | 4 | 12.940 | -0.010 | 4956687 | 13.6 |
| Total Col1Ave (4 peaks): | | | 40.1 | | Total Col2Ave (4 peaks): | | | 22.7 | RPD = 55* |
| Corrected Ave (3 peaks): | | | 11.3 | | Corrected Ave (3 peaks): | | | 17.2 | RPD = 41* |

Total PCB Area Col1 (4.710 - 12.891) = 1095196964 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 560954272 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Time (Min)
IS-BNB
Tetrachloro-m-xylene
IS-HBBP
Decachlorobiphenyl
Aroclor-1254
Aroclor-1221
Aroclor-1016
Aroclor-1248
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Aroclor-1262
Aroclor-1268
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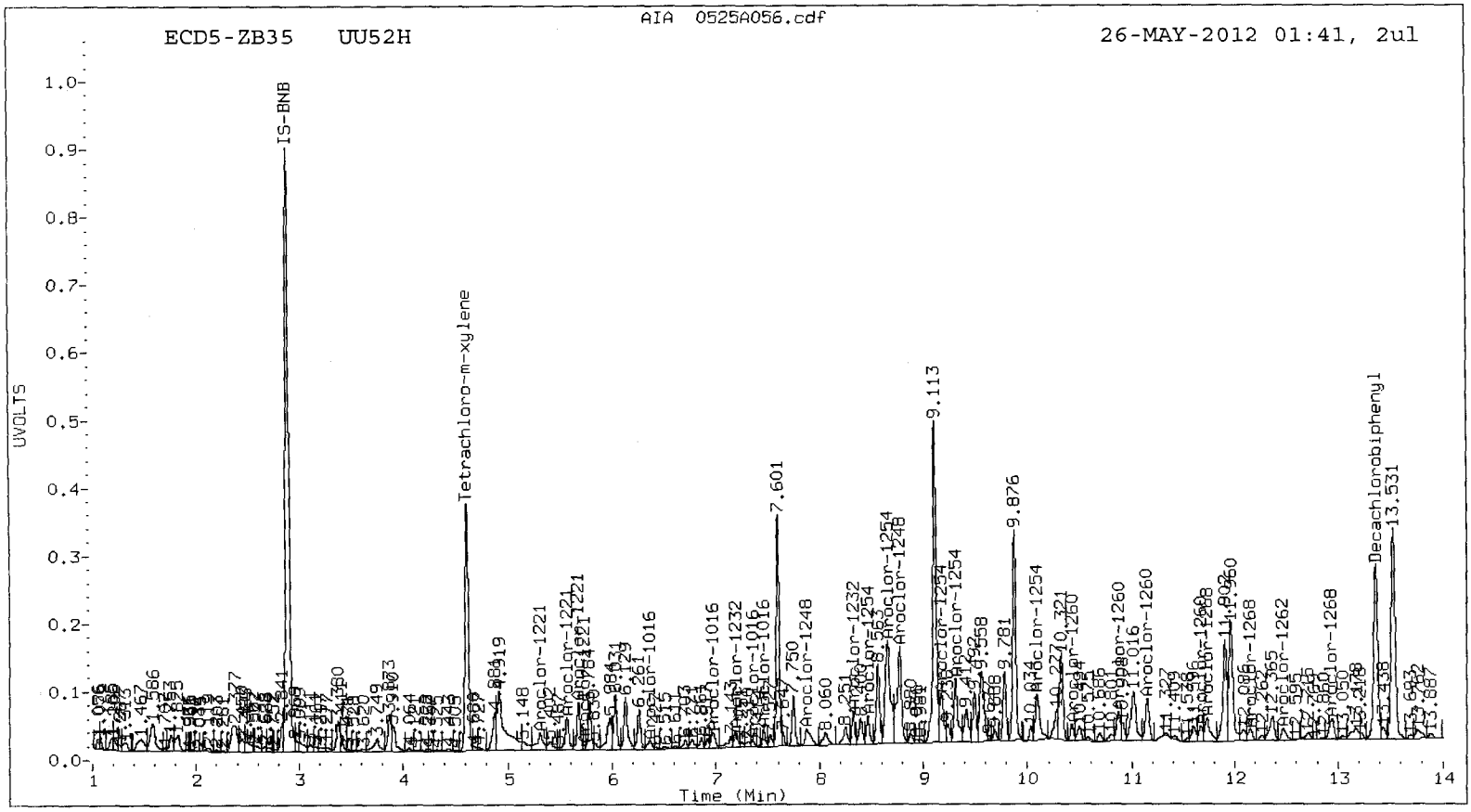
13.151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Decachlorobiphenyl
Aroclor-1254
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Aroclor-1016
Aroclor-1232
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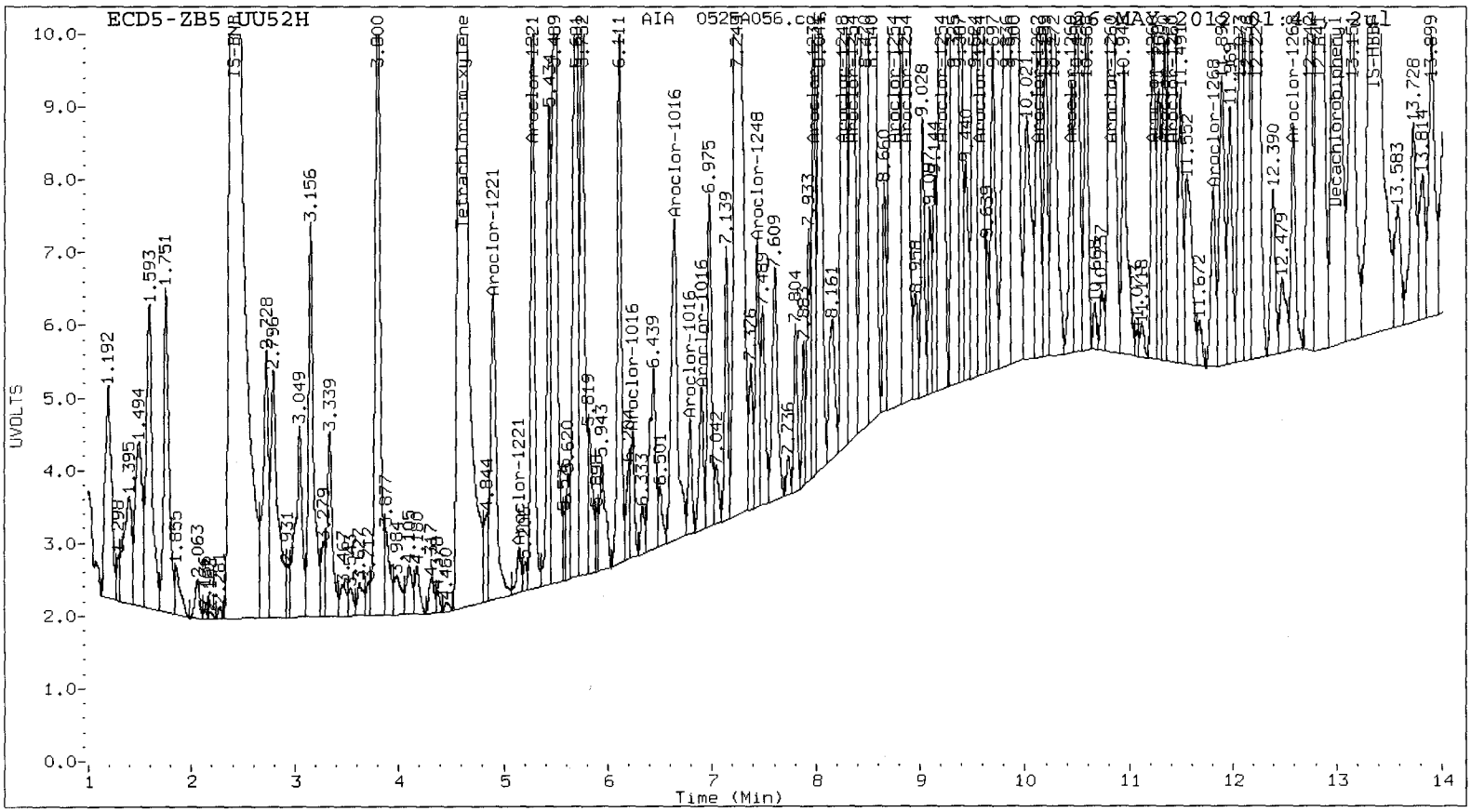
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UVOLTS
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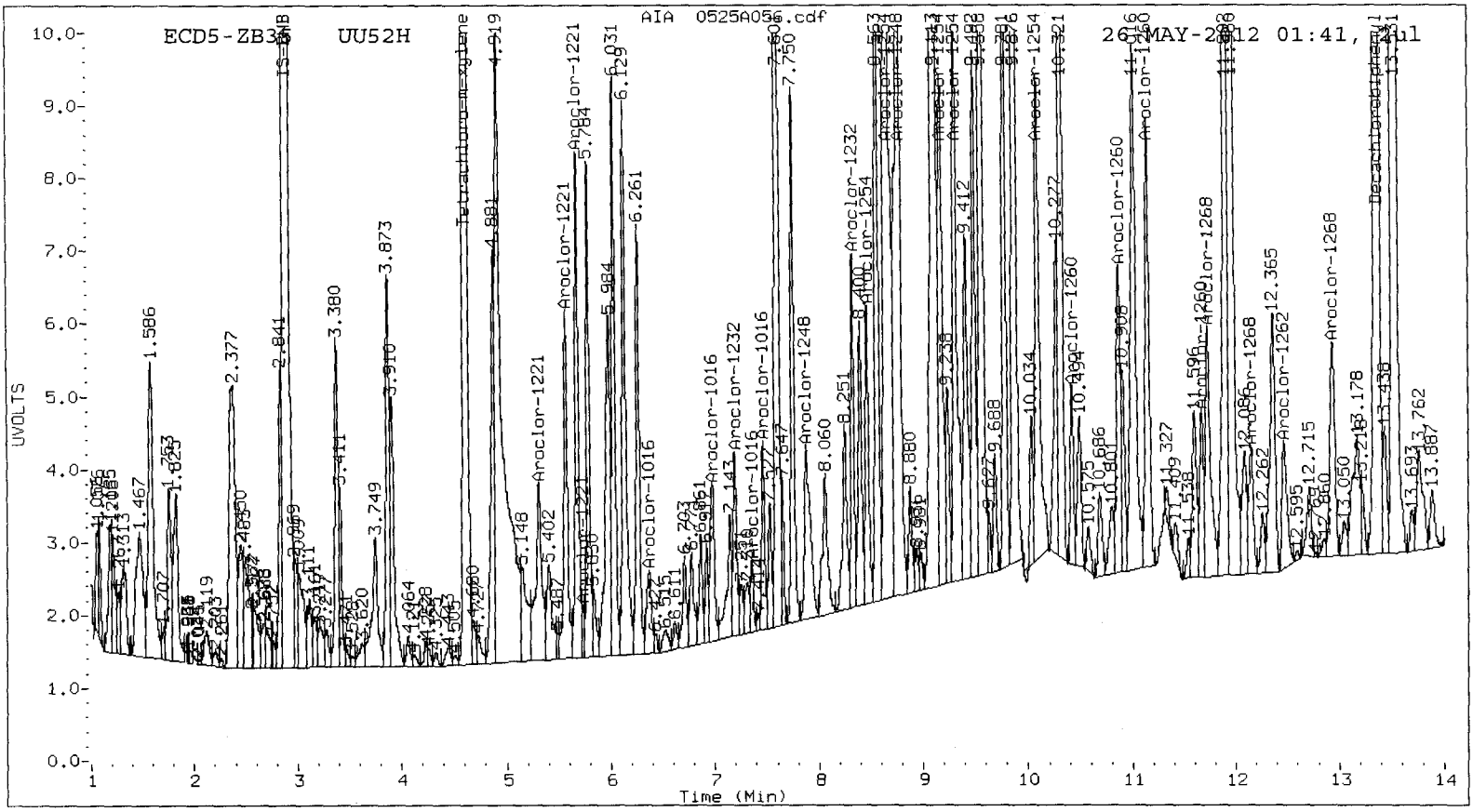
Decachlorobiphenyl
IS-HBB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Time (Min)
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Aroclor-1016
Aroclor-1232
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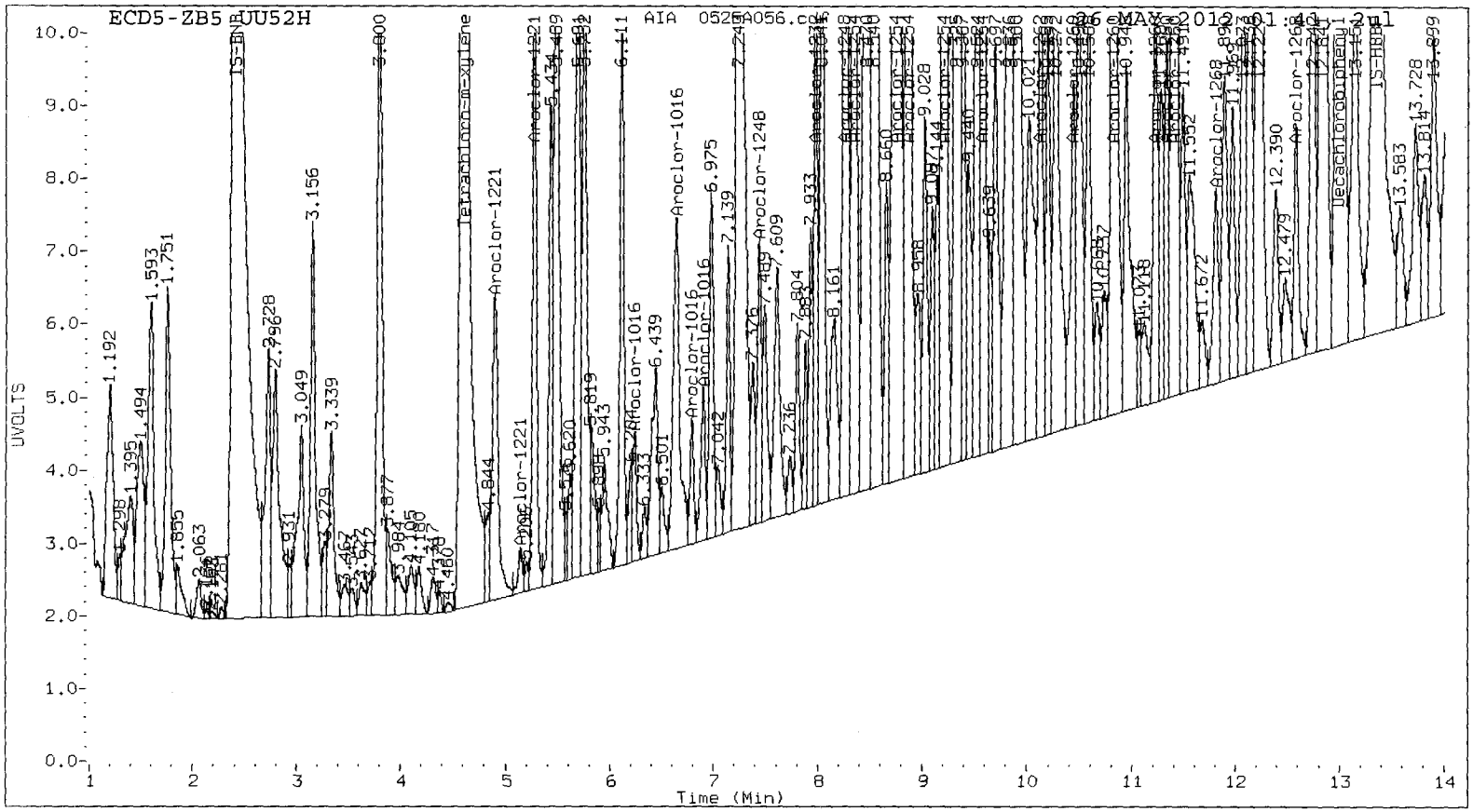
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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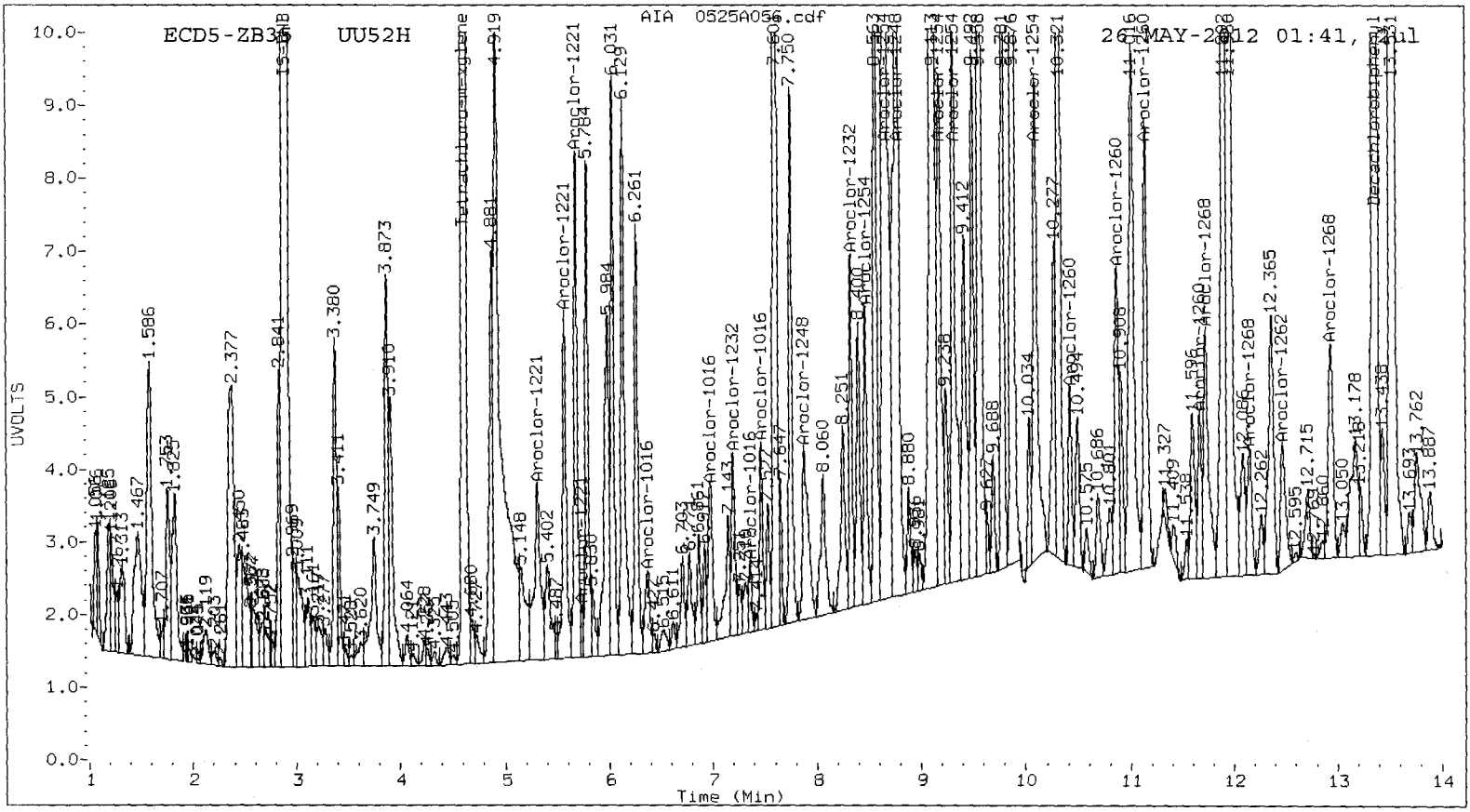
UVOLTS
Time (Min)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26-MAY-2012 01:41
UVOLTS
Time (Min)

UU52:0175

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A057.d
Data file 2: 20120523.b/0525-2.b/0525A057.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52I
Client ID:
Injection Date: 26-MAY-2012 02:00
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.611 | 0.002 | 70764451 | 4.612 | 0.001 | 40606165 | 25.8 | 26.1 | 1.2 | Tetrachloro-m-xylene |
| 12.993 | 0.002 | 122739749 | 13.366 | 0.000 | 35991657 | 39.1 | 34.3 | 13.1 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 64.4 | 65.2 |
| Decachlorobiphenyl | 97.7 | 85.7 |

05/29/12

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 170997221 | 10.9 |
| Hexabromobiphenyl | 248602423 | 204648375 | -17.7 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 110753933 | 0.1 |
| Hexabromobiphenyl | 108855531 | 81238436 | -25.4 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | ZB5 Col RT | Shift | Area | Amount | Peak# | ZB35 Col RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.208 | -0.034 | 2578757 | 36.1 | 1 | 6.363 | 0.016 | 1970803 | 34.1 |
| Aroclor-1016 | 2 | 6.643 | 0.002 | 6036980 | 26.0 | 2 | 6.974 | 0.001 | 1870492 | 14.3 |
| Aroclor-1016 | 3 | 6.790 | 0.000 | 1335379 | 14.6 | 3 | 7.352 | -0.004 | 831702 | 24.6 |
| Aroclor-1016 | 4 | 6.905 | 0.005 | 2260216 | 31.3 | 4 | 7.462 | -0.001 | 1736542 | 46.1 |
| | Total Col1Ave (4 peaks): | | | | 27.0 | Total Col2Ave (4 peaks): | | | | 29.8 RPD = 10 |
| | Corrected Ave (3 peaks): | | | | 23.9 | Corrected Ave (3 peaks): | | | | 24.3 RPD = 2 |
| Aroclor-1221 | 1 | 4.893 | 0.009 | 7064558 | 551.1 | 1 | 5.308 | 0.018 | 3172707 | 181.8 |
| Aroclor-1221 | 2 | 5.147 | -0.006 | 905017 | 43.9 | 2 | 5.567 | 0.031 | 4331391 | 420.0 |
| Aroclor-1221 | 3 | 5.277 | 0.018 | 3213797 | 47.5 | 3 | 5.677 | 0.029 | 4164378 | 129.1 |
| Aroclor-1221 | NS | --- | | | ---- | 4 | 5.729 | 0.012 | 411406 | 69.6 |
| | Total Col1Ave (3 peaks): | | | | 214.2 | Total Col2Ave (4 peaks): | | | | 200.1 RPD = 7 |
| | Corrected Ave: < 3 Peaks | | | | | Corrected Ave (3 peaks): | | | | 126.8 |
| Aroclor-1232 | 1 | 6.208 | -0.031 | 2578757 | 86.6 | 1 | 6.363 | 0.018 | 1970803 | 73.9 |
| Aroclor-1232 | 2 | 6.643 | 0.004 | 6036980 | 60.9 | 2 | 6.974 | 0.003 | 1870492 | 33.5 |
| Aroclor-1232 | 3 | 6.790 | 0.002 | 1335379 | 33.2 | 3 | 7.186 | 0.006 | 929939 | 49.4 |
| Aroclor-1232 | 4 | 7.983 | 0.002 | 5438232 | 140.9 | 4 | 8.326 | 0.001 | 2511716 | 121.6 |
| | Total Col1Ave (4 peaks): | | | | 80.4 | Total Col2Ave (4 peaks): | | | | 69.6 RPD = 14 |
| | Corrected Ave (3 peaks): | | | | 60.2 | Corrected Ave (3 peaks): | | | | 52.2 RPD = 14 |
| Aroclor-1242 | 1 | 6.208 | -0.035 | 2578757 | 47.9 | 1 | 6.363 | 0.016 | 1970803 | 43.6 |
| Aroclor-1242 | 2 | 6.643 | 0.001 | 6036980 | 33.6 | 2 | 6.974 | 0.000 | 1870492 | 18.2 |
| Aroclor-1242 | 3 | 6.790 | -0.001 | 1335379 | 18.6 | 3 | 7.186 | 0.004 | 929939 | 22.3 |
| Aroclor-1242 | 4 | 7.983 | -0.001 | 5438232 | 81.5 | 4 | 8.326 | -0.001 | 2511716 | 69.3 |
| | Total Col1Ave (4 peaks): | | | | 45.4 | Total Col2Ave (4 peaks): | | | | 38.4 RPD = 17 |
| | Corrected Ave (3 peaks): | | | | 33.4 | Corrected Ave (3 peaks): | | | | 28.0 RPD = 17 |
| Aroclor-1248 | 1 | 6.643 | 0.004 | 6036980 | 50.3 | 1 | 6.974 | 0.003 | 1870492 | 28.1 |
| Aroclor-1248 | 2 | 7.439 | 0.001 | 3199188 | 35.3 | 2 | 7.876 | 0.001 | 1843476 | 34.6 |
| Aroclor-1248 | 3 | 7.983 | -0.001 | 5438232 | 46.8 | 3 | 8.326 | -0.001 | 2511716 | 39.2 |
| Aroclor-1248 | 4 | 8.267 | -0.007 | 8256140 | 70.4 | 4 | 8.737 | -0.011 | 10357626 | 143.2 |
| | Total Col1Ave (4 peaks): | | | | 50.7 | Total Col2Ave (4 peaks): | | | | 61.3 RPD = 19 |
| | Corrected Ave (3 peaks): | | | | 44.1 | Corrected Ave (3 peaks): | | | | 34.0 RPD = 26 |
| Aroclor-1254 | 1 | 8.356 | -0.001 | 9900117 | 63.1 | 1 | 8.465 | -0.001 | 3165078 | 65.1 |
| Aroclor-1254 | 2 | 8.748 | 0.021 | 26849263 | 265.7 | 2 | 8.641 | 0.003 | 7226718 | 116.9 |
| Aroclor-1254 | 3 | 8.863 | -0.001 | 26991173 | 138.4 | 3 | 9.180 | 0.020 | 21542626 | 456.1 |
| Aroclor-1254 | 4 | 9.212 | -0.001 | 25967592 | 123.6 | 4 | 9.310 | 0.001 | 10129753 | 97.0 |
| Aroclor-1254 | 5 | 9.574 | 0.001 | 18395044 | 140.8 | 5 | 10.091 | -0.002 | 5539515 | 90.5 |
| | Total Col1Ave (5 peaks): | | | | 146.3 | Total Col2Ave (5 peaks): | | | | 165.1 RPD = 12 |
| | Corrected Ave (4 peaks): | | | | 116.5 | Corrected Ave (4 peaks): | | | | 92.4 RPD = 23 |
| Aroclor-1260 | 1 | 10.445 | -0.001 | 2452101 | 22.1 | 1 | 10.422 | 0.001 | 1560080 | 33.5 |
| Aroclor-1260 | 2 | 10.822 | 0.002 | 14914260 | 54.1 | 2 | 10.871 | -0.001 | 3523422 | 60.9 |
| Aroclor-1260 | 3 | 11.278 | 0.057 | 14249573 | 93.0 | 3 | 11.146 | 0.001 | 5598297 | 47.7 |
| Aroclor-1260 | 4 | 11.332 | -0.005 | 2714511 | 41.3 | 4 | 11.673 | 0.007 | 1608124 | 46.9 |
| Aroclor-1260 | 5 | 11.408 | -0.002 | 88919598 | 1132.6 | NS | --- | | | ---- |
| | Total Col1Ave (5 peaks): | | | | 268.6 | Total Col2Ave (4 peaks): | | | | 47.2 RPD = 140* |
| | Corrected Ave (4 peaks): | | | | 52.6 | Corrected Ave (3 peaks): | | | | 42.7 RPD = 21 |
| Aroclor-1262 | 1 | 10.130 | 0.002 | 5503741 | 34.1 | 1 | 10.422 | 0.003 | 1560080 | 20.5 |
| Aroclor-1262 | 2 | 10.445 | 0.001 | 2452101 | 19.7 | 2 | 10.871 | 0.001 | 3523422 | 53.7 |
| Aroclor-1262 | 3 | 10.822 | 0.004 | 14914260 | 43.8 | 3 | 11.146 | 0.004 | 5598297 | 37.6 |
| Aroclor-1262 | 4 | 11.332 | -0.002 | 2714511 | 21.8 | 4 | 11.673 | 0.009 | 1608124 | 26.8 |
| Aroclor-1262 | 5 | 11.408 | 0.001 | 88919598 | 628.3 | 5 | 12.492 | 0.029 | 2992529 | 53.6 |
| | Total Col1Ave (5 peaks): | | | | 149.5 | Total Col2Ave (5 peaks): | | | | 38.4 RPD = 118* |
| | Corrected Ave (4 peaks): | | | | 29.8 | Corrected Ave (4 peaks): | | | | 34.6 RPD = 15 |
| Aroclor-1268 | 1 | 11.332 | -0.004 | 2714511 | 7.8 | 1 | 11.673 | 0.009 | 1608124 | 10.4 |
| Aroclor-1268 | 2 | 11.408 | 0.001 | 88919598 | 253.8 | 2 | 11.725 | -0.005 | 4021148 | 27.5 |

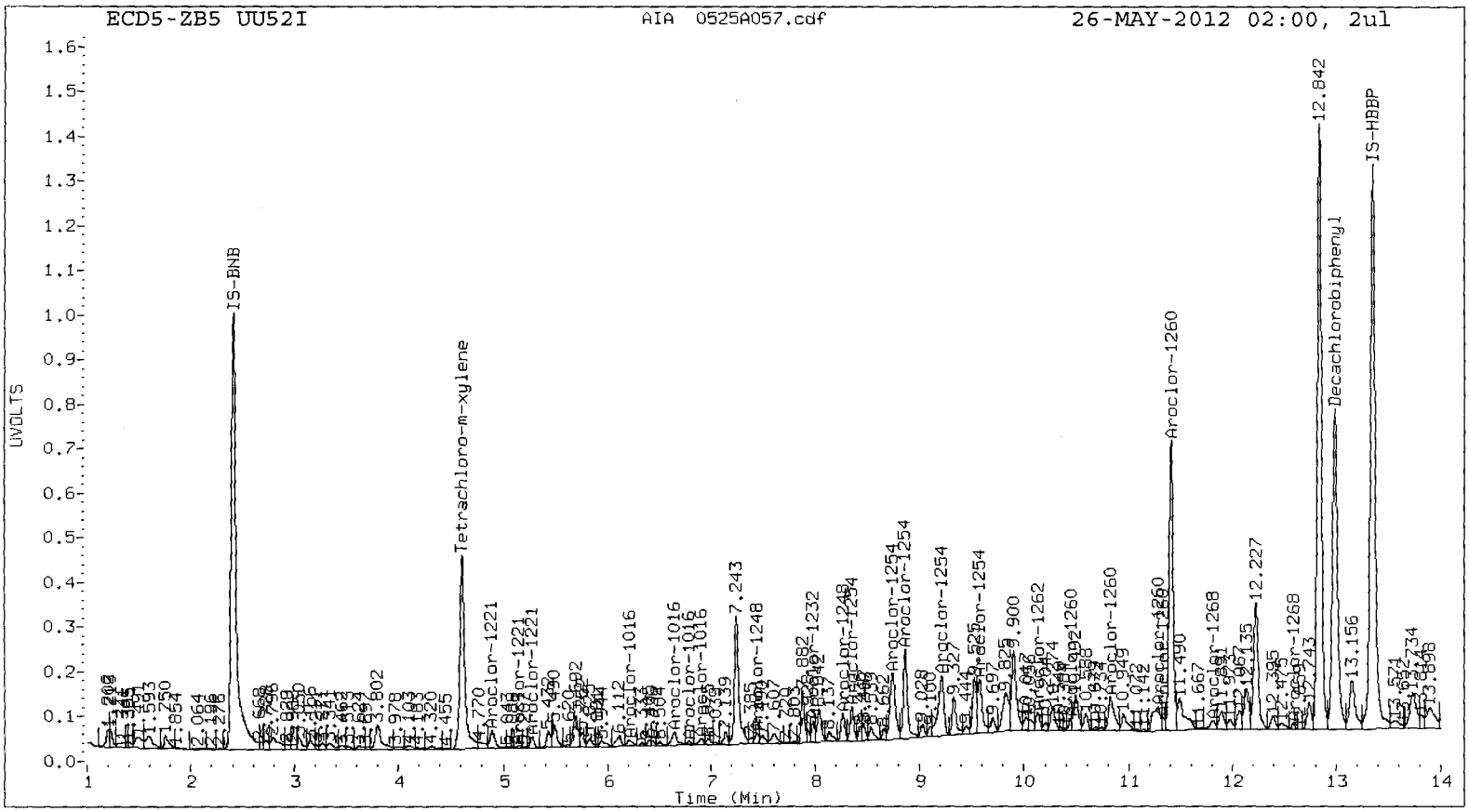
| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1268 3 | 11.809 | 0.016 | 2944894 | 10.1 | 3 | 12.156 | 0.029 | 2156287 | 17.6 |
| Aroclor-1268 4 | 12.591 | 0.006 | 1495370 | 1.7 | 4 | 12.939 | -0.010 | 3195187 | 9.2 |
| Total Col1Ave (4 peaks): | | | 68.4 | | Total Col2Ave (4 peaks): | | | 16.2 | RPD = 124* |
| Corrected Ave (3 peaks): | | | 6.5 | | Corrected Ave (3 peaks): | | | 12.4 | RPD = 62* |

Total PCB Area Col1 (4.710 - 12.891) = 867061260 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 397662044 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Time (Min)
IS-BNB
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Aroclor-1016
Aroclor-1248
Aroclor-1254
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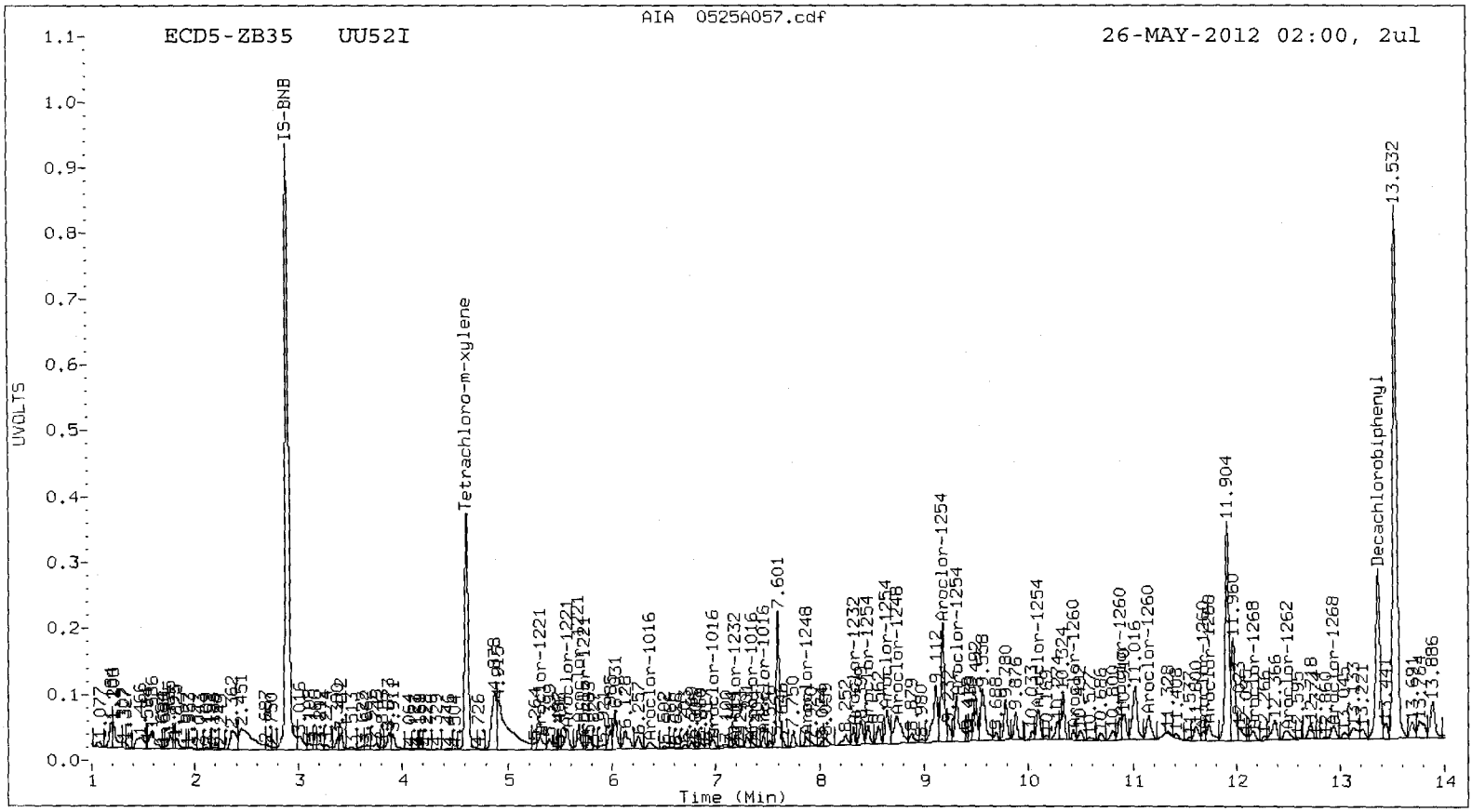
12.227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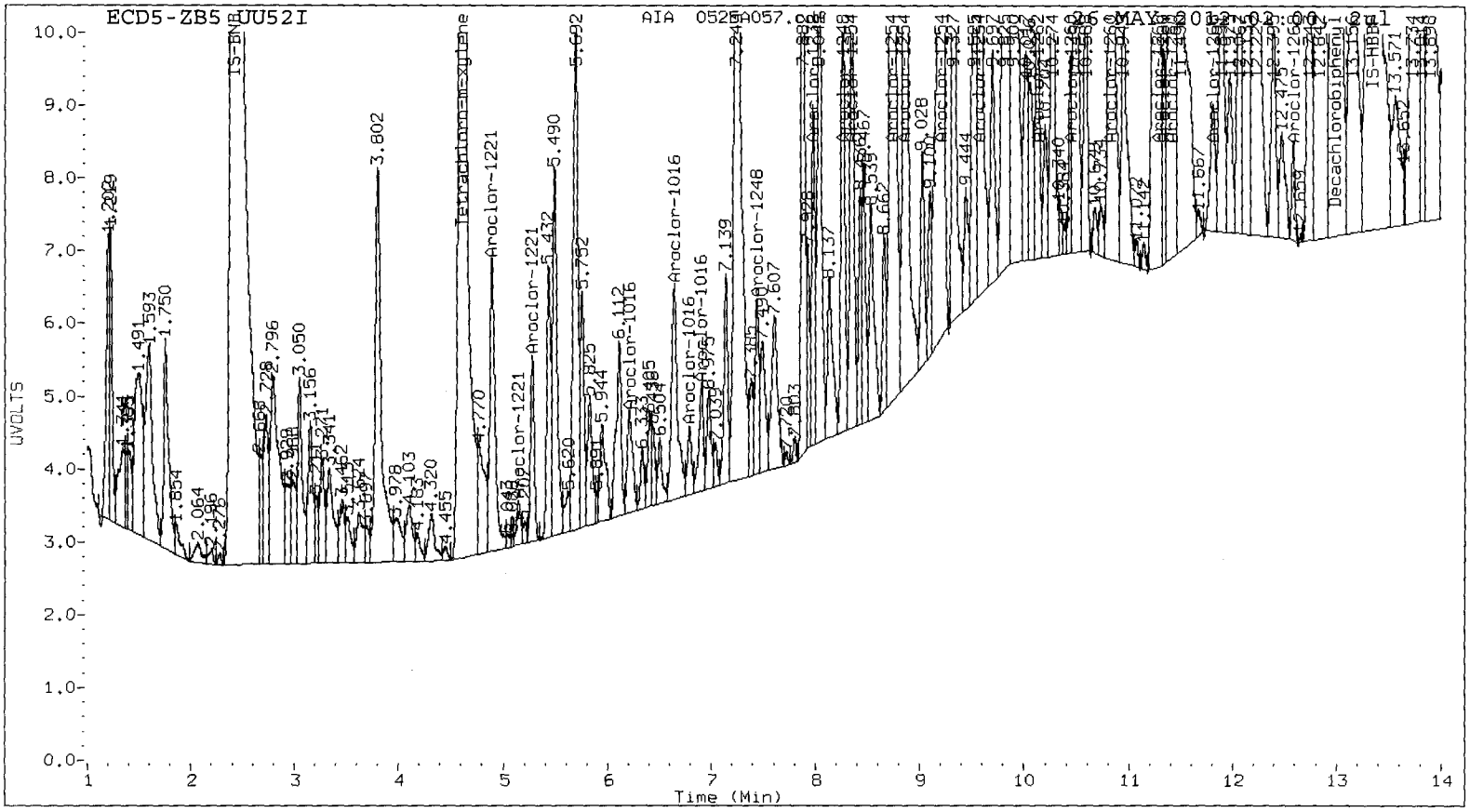
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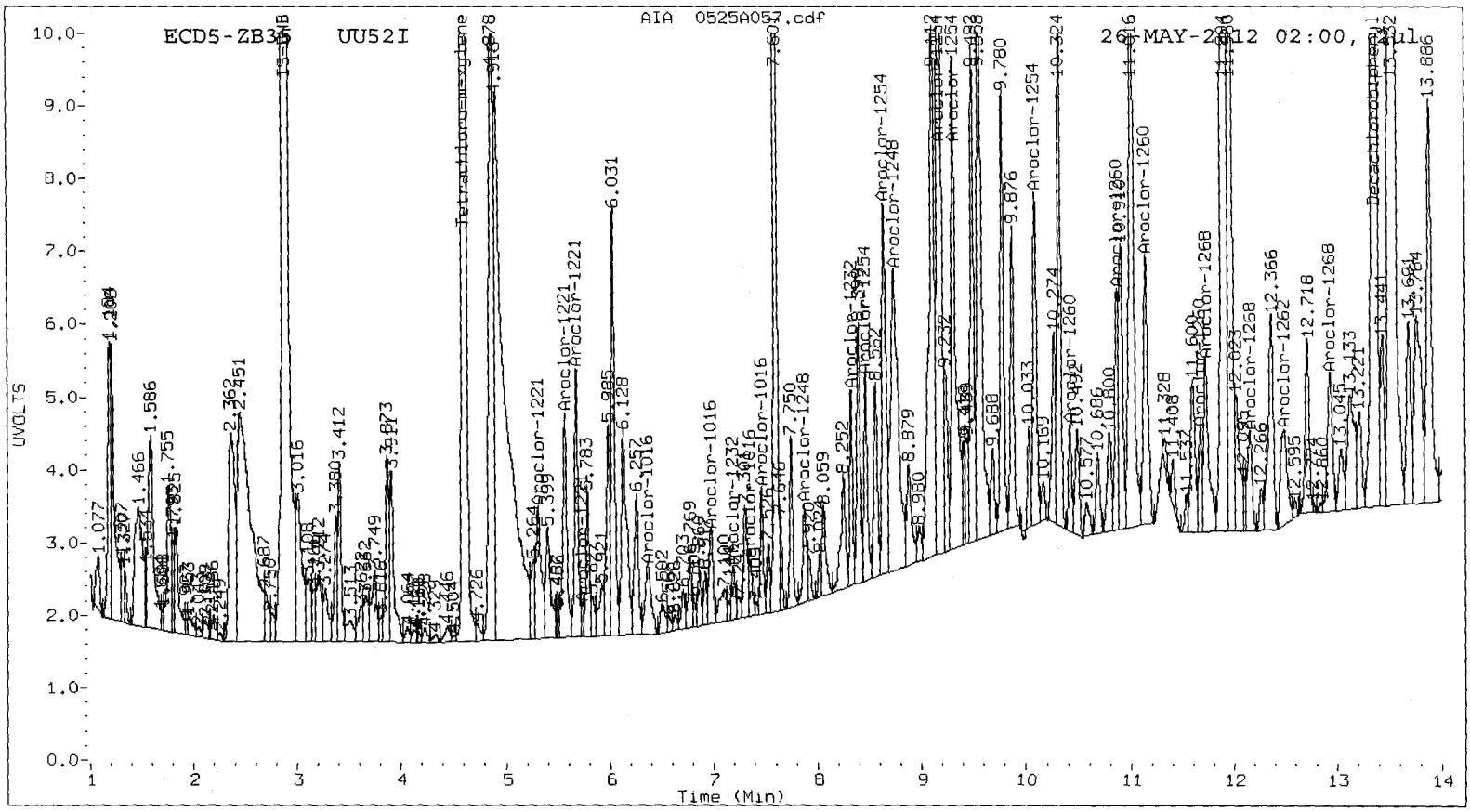
Aroclor-1268
Decachlorobiphenyl
IS-HBB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Aroclor-1016
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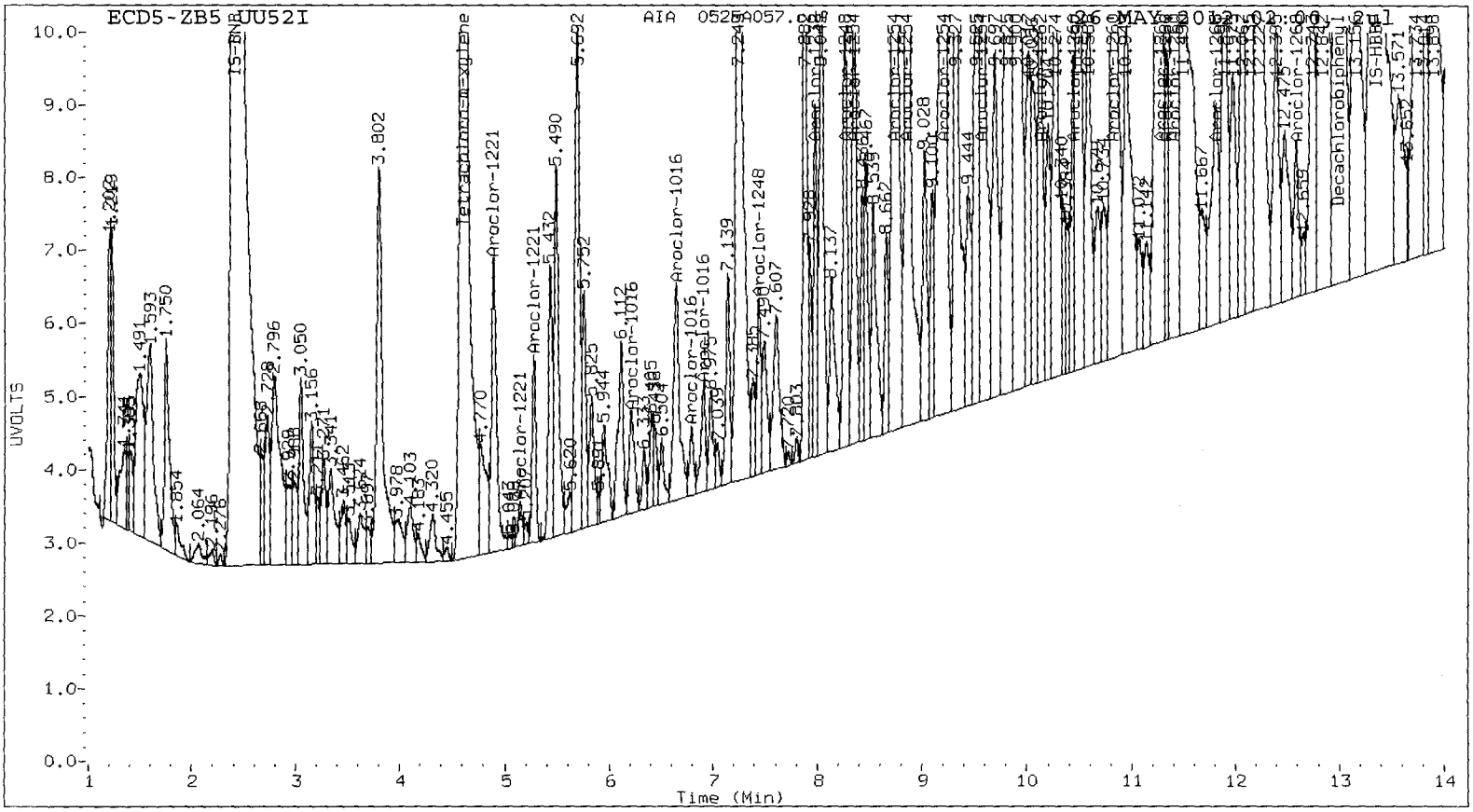
Decachlorobiphenyl
IS-HBB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Tetrachloro-m-xylene
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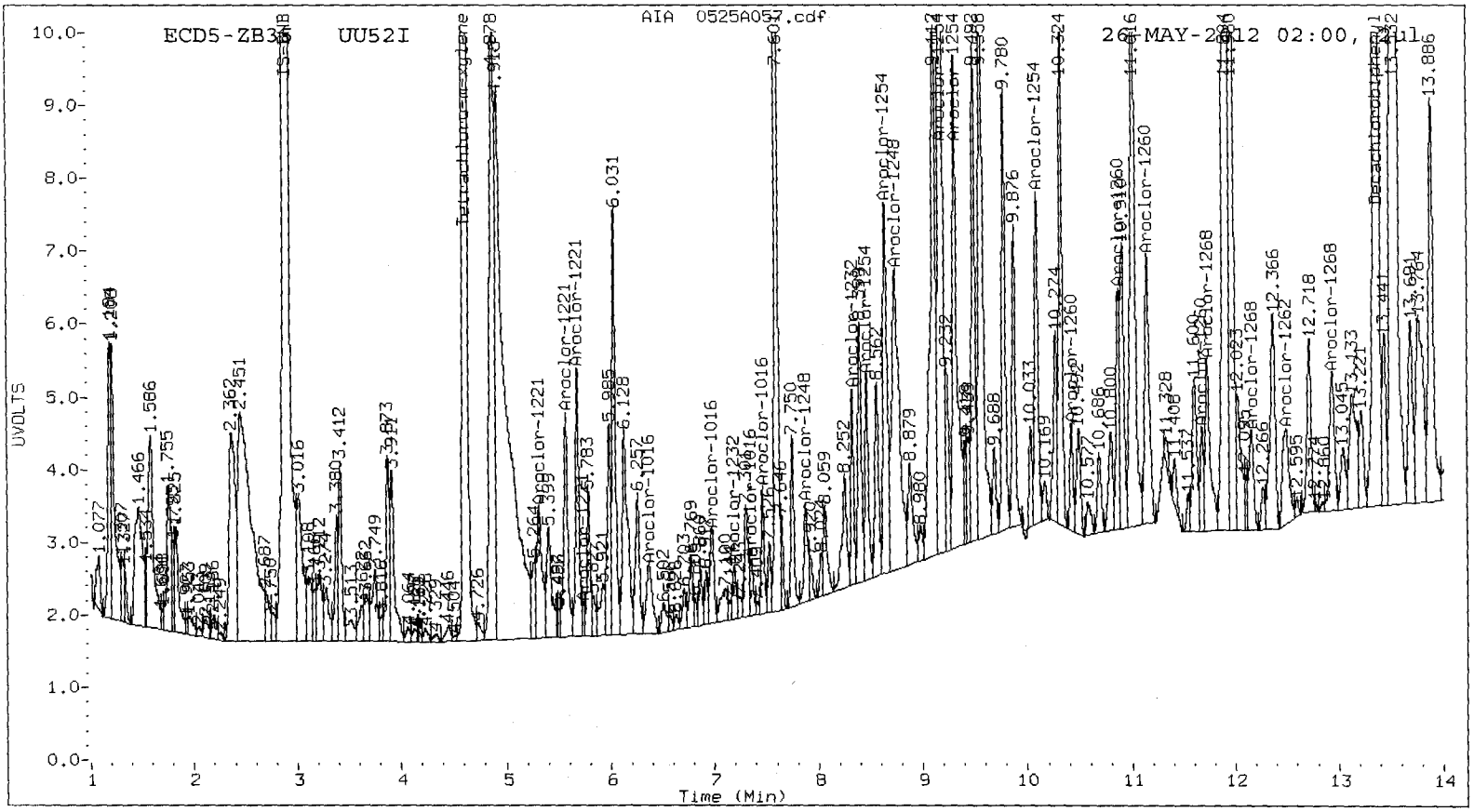
Decachlorobiphenyl
IS-HBB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UVOLTS
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IS-DNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A058.d
Data file 2: 20120523.b/0525-2.b/0525A058.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52J
Client ID:
Injection Date: 26-MAY-2012 02:19
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.611 | 0.001 | 73942264 | 4.612 | 0.001 | 42537124 | 27.8 | 26.5 | 4.9 | Tetrachloro-m-xylene |
| 12.992 | 0.001 | 97503291 | 13.366 | 0.000 | 37720878 | 29.7 | 36.8 | 21.5 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 69.6 | 66.2 |
| Decachlorobiphenyl | 74.2 | 92.1 |

JR 05/29/12

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 165312726 | 7.2 |
| Hexabromobiphenyl | 248602423 | 213969653 | -13.9 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 114133347 | 3.2 |
| Hexabromobiphenyl | 108855531 | 79253731 | -27.2 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | RT | Shift | Area | Amount | Peak# | RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ZB5 Col | | | | | ZB35 Col | | | |
| Aroclor-1016 | 1 | 6.204 | -0.038 | 2335413 | 33.9 | 1 | 6.360 | 0.013 | 1792872 | 30.1 |
| Aroclor-1016 | 2 | 6.643 | 0.001 | 6268669 | 27.9 | 2 | 6.974 | 0.001 | 1667363 | 12.3 |
| Aroclor-1016 | 3 | 6.790 | 0.000 | 1590125 | 17.9 | 3 | 7.351 | -0.006 | 1462881 | 41.9 |
| Aroclor-1016 | 4 | 6.901 | 0.001 | 2116685 | 30.3 | 4 | 7.461 | -0.002 | 1550921 | 40.0 |
| | Total Col1Ave (4 peaks): | | | | 27.5 | Total Col2Ave (4 peaks): | | | | 31.1 RPD = 12 |
| | Corrected Ave (3 peaks): | | | | 25.4 | Corrected Ave (3 peaks): | | | | 27.5 RPD = 8 |
| Aroclor-1221 | 1 | 4.892 | 0.008 | 7333895 | 591.8 | 1 | 5.309 | 0.019 | 4264795 | 237.1 |
| Aroclor-1221 | 2 | 5.146 | -0.007 | 1065419 | 53.4 | 2 | 5.514 | -0.022 | 175301 | 16.5 |
| Aroclor-1221 | 3 | 5.276 | 0.017 | 2651069 | 40.6 | 3 | 5.677 | 0.028 | 3743811 | 112.6 |
| Aroclor-1221 | NS | --- | | | ---- | 4 | --- | | | 0.0 |
| | Total Col1Ave (3 peaks): | | | | 228.6 | Total Col2Ave (3 peaks): | | | | 122.1 RPD = 61* |
| | Corrected Ave: < 3 Peaks | | | | | Corrected Ave: < 3 Peaks | | | | |
| Aroclor-1232 | 1 | 6.204 | -0.035 | 2335413 | 81.1 | 1 | 6.360 | 0.015 | 1792872 | 65.2 |
| Aroclor-1232 | 2 | 6.643 | 0.004 | 6268669 | 65.4 | 2 | 6.974 | 0.003 | 1667363 | 29.0 |
| Aroclor-1232 | 3 | 6.790 | 0.003 | 1590125 | 40.9 | 3 | 7.183 | 0.004 | 618209 | 31.8 |
| Aroclor-1232 | 4 | 7.983 | 0.002 | 6585155 | 176.5 | 4 | 8.326 | 0.001 | 2669550 | 125.4 |
| | Total Col1Ave (4 peaks): | | | | 91.0 | Total Col2Ave (4 peaks): | | | | 62.9 RPD = 37 |
| | Corrected Ave (3 peaks): | | | | 62.5 | Corrected Ave (3 peaks): | | | | 42.0 RPD = 39 |
| Aroclor-1242 | 1 | 6.204 | -0.039 | 2335413 | 44.9 | 1 | 6.360 | 0.013 | 1792872 | 38.5 |
| Aroclor-1242 | 2 | 6.643 | 0.001 | 6268669 | 36.1 | 2 | 6.974 | 0.000 | 1667363 | 15.8 |
| Aroclor-1242 | 3 | 6.790 | 0.000 | 1590125 | 23.0 | 3 | 7.183 | 0.001 | 618209 | 14.4 |
| Aroclor-1242 | 4 | 7.983 | -0.001 | 6585155 | 102.1 | 4 | 8.326 | -0.001 | 2669550 | 71.5 |
| | Total Col1Ave (4 peaks): | | | | 51.5 | Total Col2Ave (4 peaks): | | | | 35.0 RPD = 38 |
| | Corrected Ave (3 peaks): | | | | 34.7 | Corrected Ave (3 peaks): | | | | 22.9 RPD = 41* |
| Aroclor-1248 | 1 | 6.643 | 0.004 | 6268669 | 54.0 | 1 | 6.974 | 0.003 | 1667363 | 24.3 |
| Aroclor-1248 | 2 | 7.437 | -0.001 | 4289164 | 48.9 | 2 | 7.876 | 0.001 | 2002818 | 36.5 |
| Aroclor-1248 | 3 | 7.983 | -0.001 | 6585155 | 58.6 | 3 | 8.326 | 0.000 | 2669550 | 40.4 |
| Aroclor-1248 | 4 | 8.270 | -0.004 | 6613104 | 58.3 | 4 | 8.739 | -0.009 | 9604640 | 128.9 |
| | Total Col1Ave (4 peaks): | | | | 55.0 | Total Col2Ave (4 peaks): | | | | 57.5 RPD = 5 |
| | Corrected Ave (3 peaks): | | | | 53.8 | Corrected Ave (3 peaks): | | | | 33.7 RPD = 46* |
| Aroclor-1254 | 1 | 8.356 | 0.000 | 7654465 | 50.4 | 1 | 8.465 | -0.001 | 2612087 | 52.1 |
| Aroclor-1254 | 2 | 8.745 | 0.018 | 20487889 | 209.8 | 2 | 8.639 | 0.000 | 6170373 | 96.9 |
| Aroclor-1254 | 3 | 8.864 | 0.001 | 21191779 | 112.4 | 3 | 9.183 | 0.023 | 12748398 | 261.9 |
| Aroclor-1254 | 4 | 9.214 | 0.001 | 22438330 | 110.5 | 4 | 9.310 | 0.000 | 8667468 | 80.5 |
| Aroclor-1254 | 5 | 9.574 | 0.000 | 15838568 | 125.4 | 5 | 10.089 | -0.003 | 5046612 | 80.0 |
| | Total Col1Ave (5 peaks): | | | | 121.7 | Total Col2Ave (5 peaks): | | | | 114.3 RPD = 6 |
| | Corrected Ave (4 peaks): | | | | 99.7 | Corrected Ave (4 peaks): | | | | 77.4 RPD = 25 |
| Aroclor-1260 | 1 | 10.444 | -0.003 | 1402458 | 12.1 | 1 | 10.422 | 0.001 | 1242448 | 27.3 |
| Aroclor-1260 | 2 | 10.822 | 0.002 | 12007531 | 41.7 | 2 | 10.910 | 0.038 | 10801343 | 191.4 |
| Aroclor-1260 | 3 | 11.227 | 0.007 | 2943330 | 18.4 | 3 | 11.145 | 0.000 | 4221616 | 36.8 |
| Aroclor-1260 | 4 | 11.280 | -0.056 | 11639603 | 169.3 | 4 | 11.672 | 0.006 | 1329235 | 39.7 |
| Aroclor-1260 | 5 | 11.407 | -0.003 | 47546329 | 579.3 | NS | --- | | | ---- |
| | Total Col1Ave (5 peaks): | | | | 164.1 | Total Col2Ave (4 peaks): | | | | 73.8 RPD = 76* |
| | Corrected Ave (4 peaks): | | | | 80.4 | Corrected Ave (3 peaks): | | | | 34.6 RPD = 54* |
| Aroclor-1262 | 1 | 10.132 | 0.004 | 4622438 | 27.1 | 1 | 10.422 | 0.003 | 1242448 | 16.7 |
| Aroclor-1262 | 2 | 10.444 | 0.000 | 1402458 | 10.8 | 2 | 10.910 | 0.040 | 10801343 | 168.7 |
| Aroclor-1262 | 3 | 10.822 | 0.004 | 12007531 | 33.7 | 3 | 11.145 | 0.003 | 4221616 | 29.0 |
| Aroclor-1262 | 4 | 11.280 | -0.054 | 11639603 | 89.4 | 4 | 11.672 | 0.008 | 1329235 | 22.7 |
| Aroclor-1262 | 5 | 11.407 | 0.000 | 47546329 | 321.3 | 5 | 12.489 | 0.026 | 1730993 | 31.8 |
| | Total Col1Ave (5 peaks): | | | | 96.5 | Total Col2Ave (5 peaks): | | | | 53.8 RPD = 57* |
| | Corrected Ave (4 peaks): | | | | 40.3 | Corrected Ave (4 peaks): | | | | 25.1 RPD = 46* |
| Aroclor-1268 | 1 | 11.280 | -0.055 | 11639603 | 31.9 | 1 | 11.672 | 0.008 | 1329235 | 8.8 |
| Aroclor-1268 | 2 | 11.407 | 0.000 | 47546329 | 129.8 | 2 | 11.724 | -0.006 | 2674437 | 18.8 |

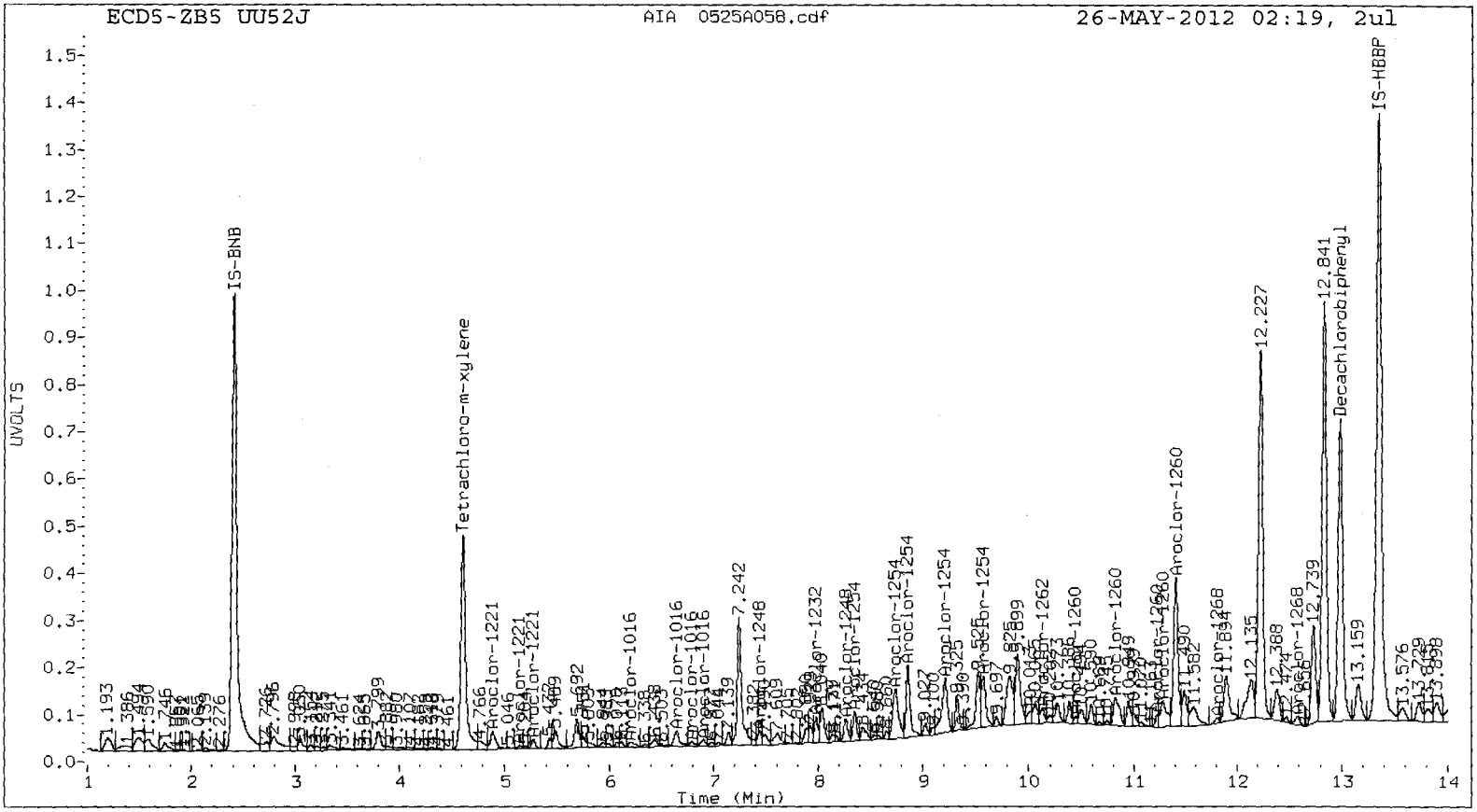
| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1268 3 | 11.807 | 0.015 | 1708880 | 5.6 | 3 | 12.073 | -0.055 | 5301829 | 44.3 |
| Aroclor-1268 4 | 12.587 | 0.002 | 2749897 | 3.1 | 4 | 12.933 | -0.017 | 10747010 | 31.8 |
| Total Col1Ave (4 peaks): | | | 42.6 | Total Col2Ave (4 peaks): | | | | 25.9 | RPD = 49* |
| Corrected Ave (3 peaks): | | | 13.5 | Corrected Ave (3 peaks): | | | | 19.8 | RPD = 37 |

Total PCB Area Col1 (4.710 - 12.891) = 816876940 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 418949275 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Aroclor-1016
Aroclor-1248
Aroclor-1254
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Decachlorobiphenyl
IS-HBBP
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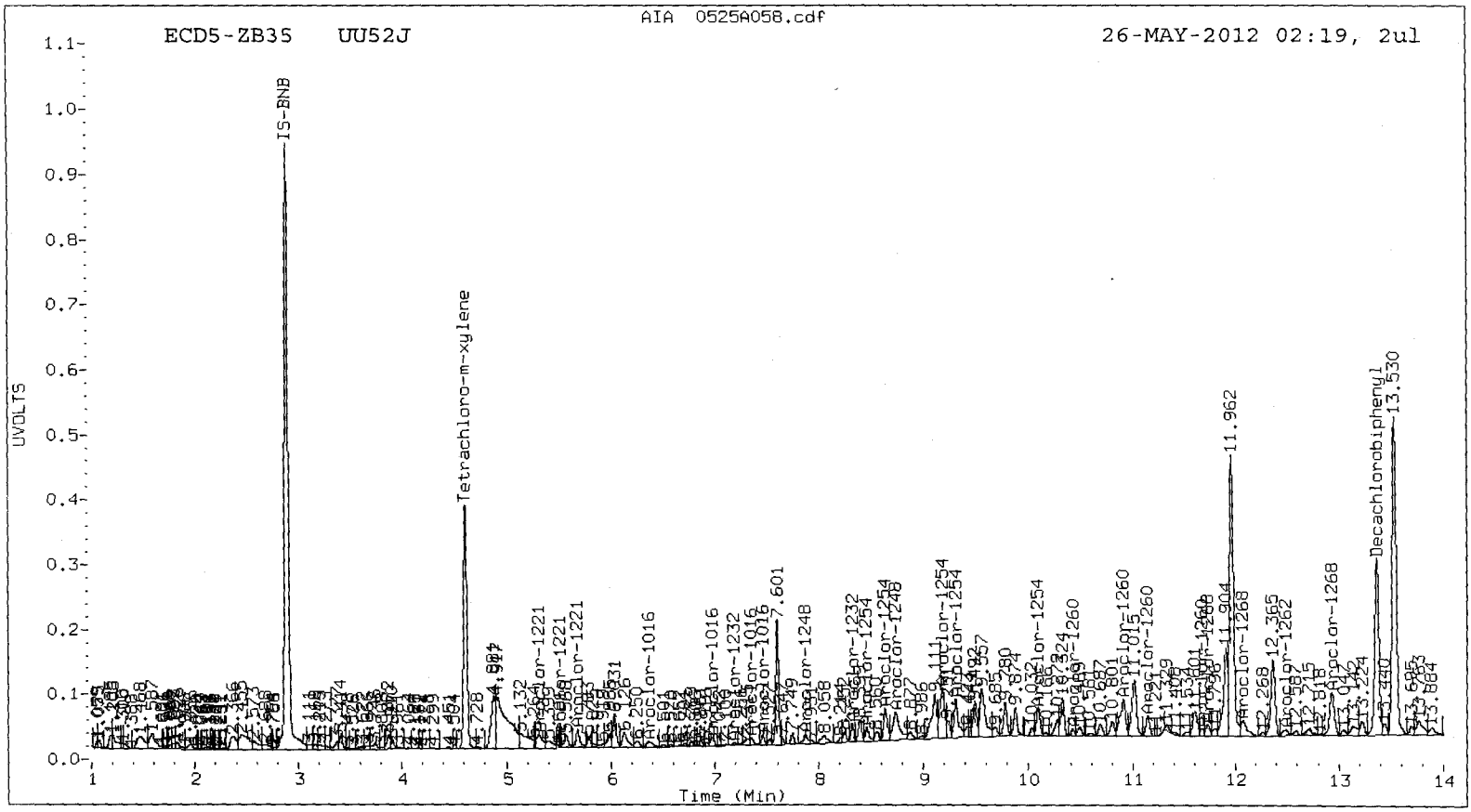
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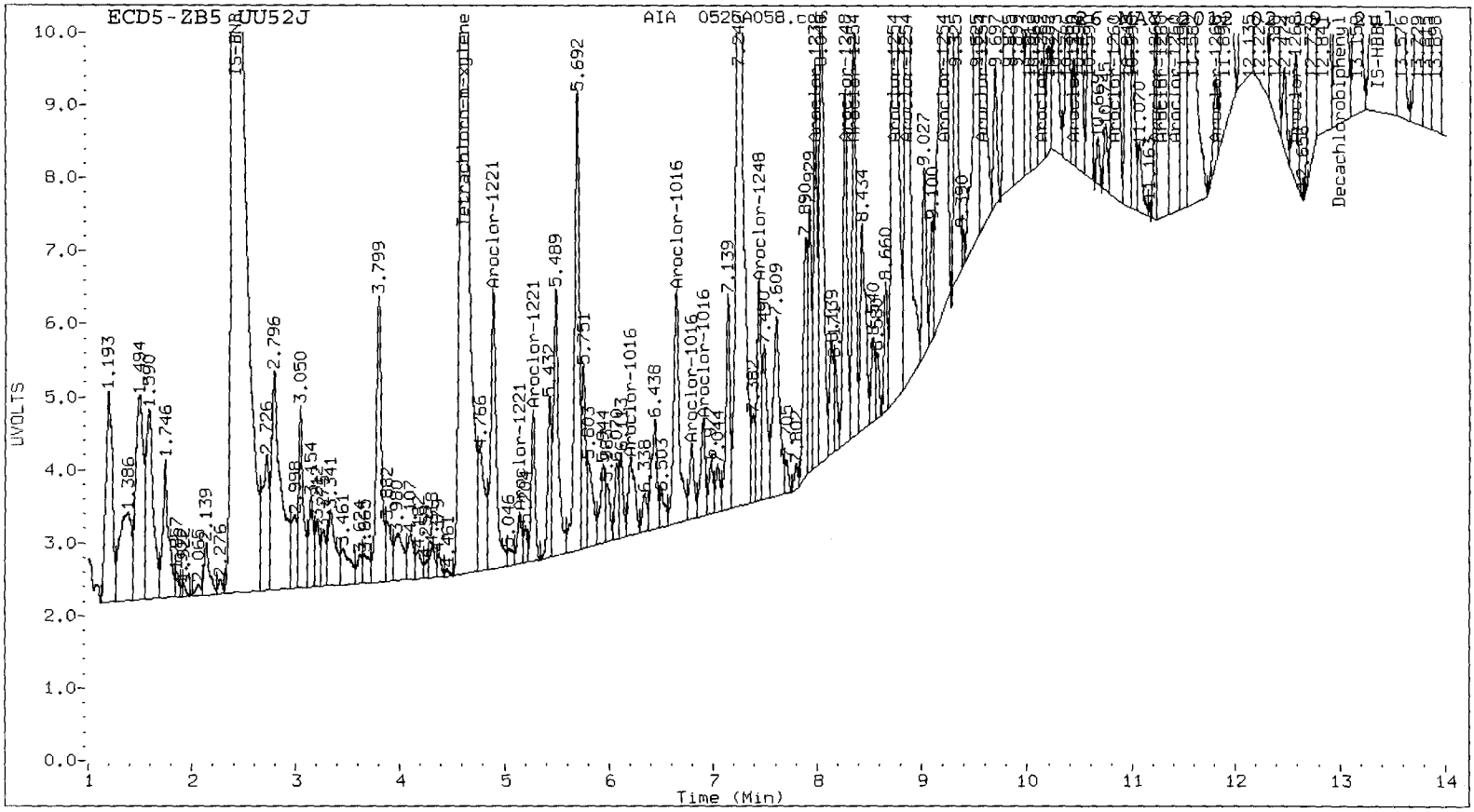
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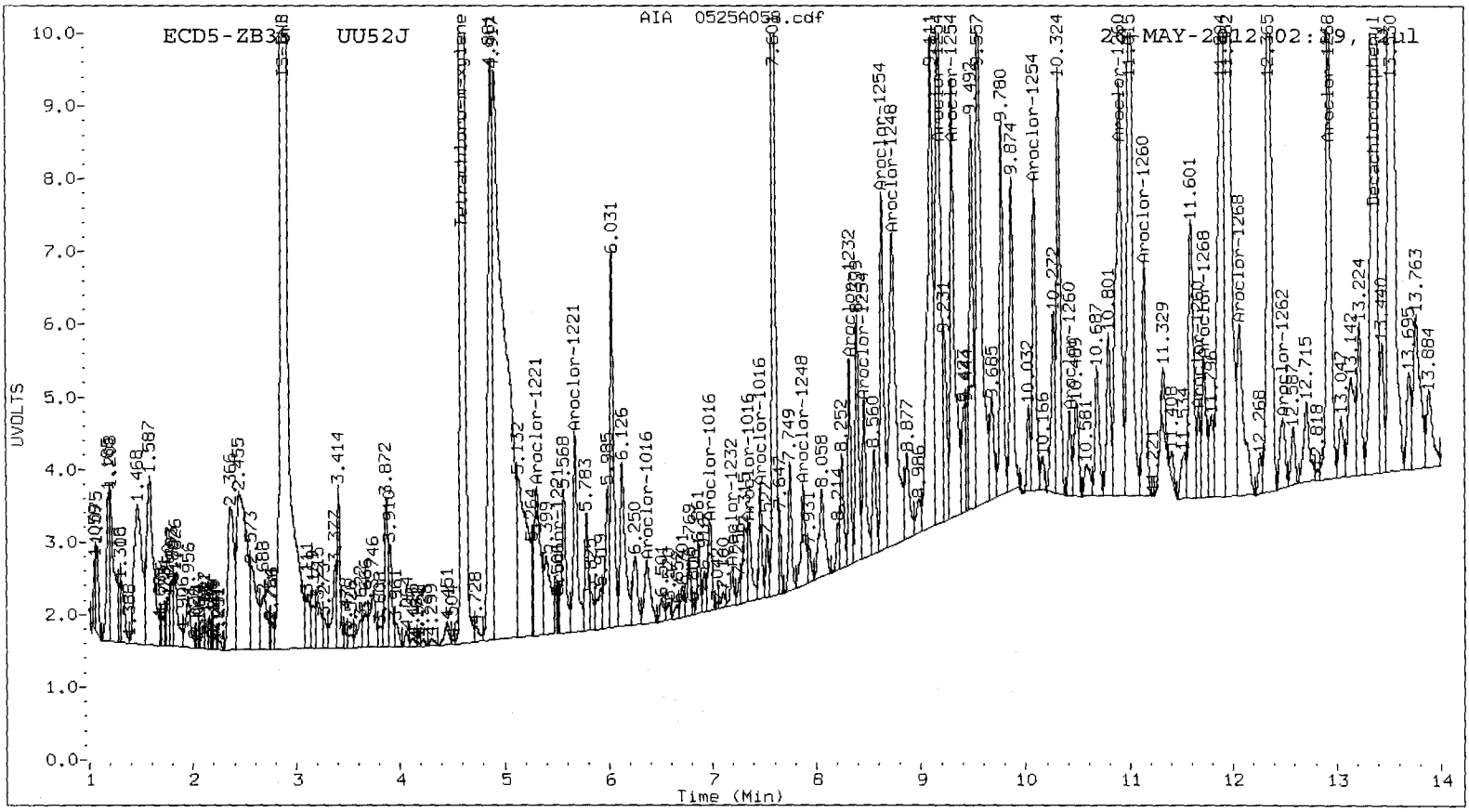
Decachlorobiphenyl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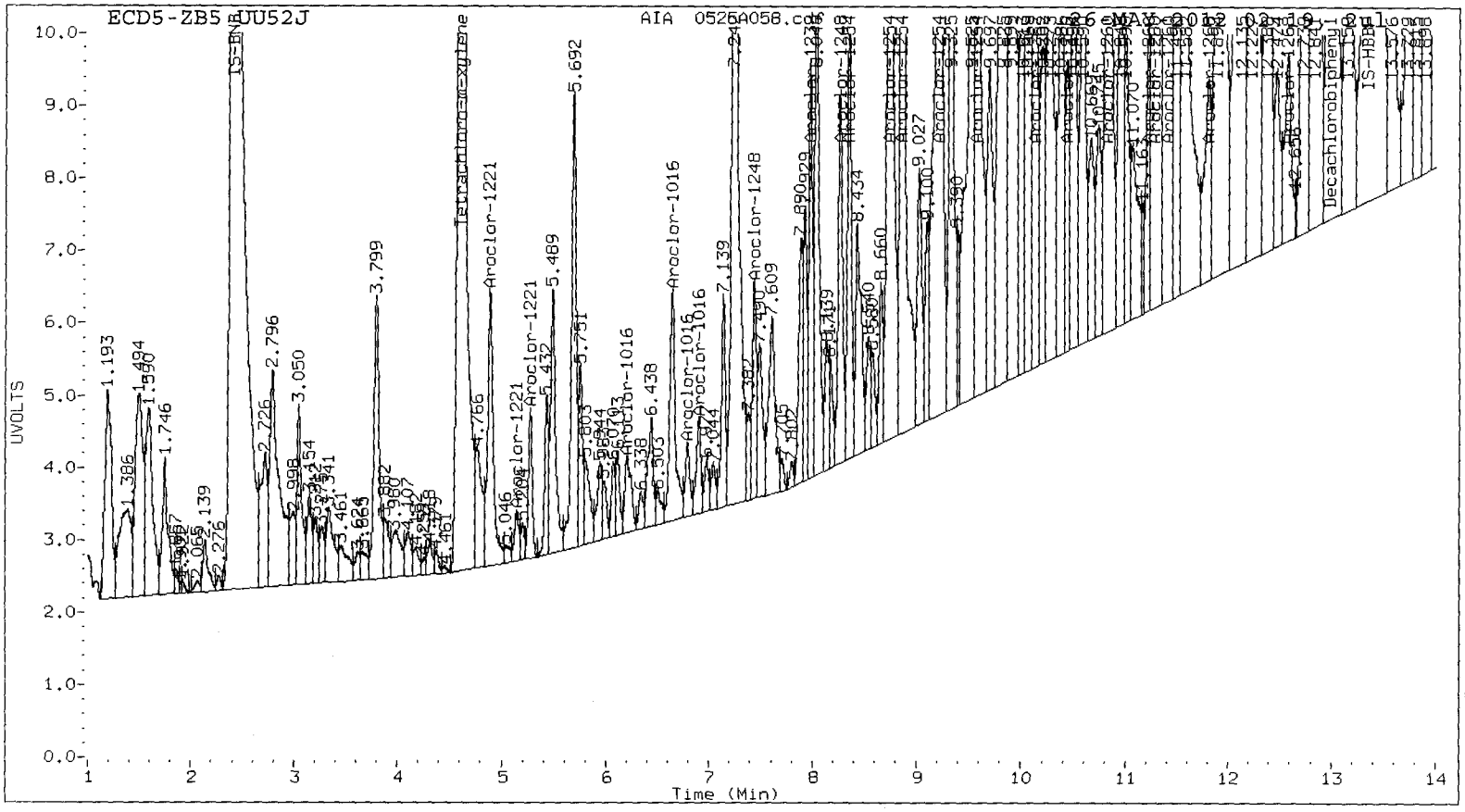
Decachlorobiphenyl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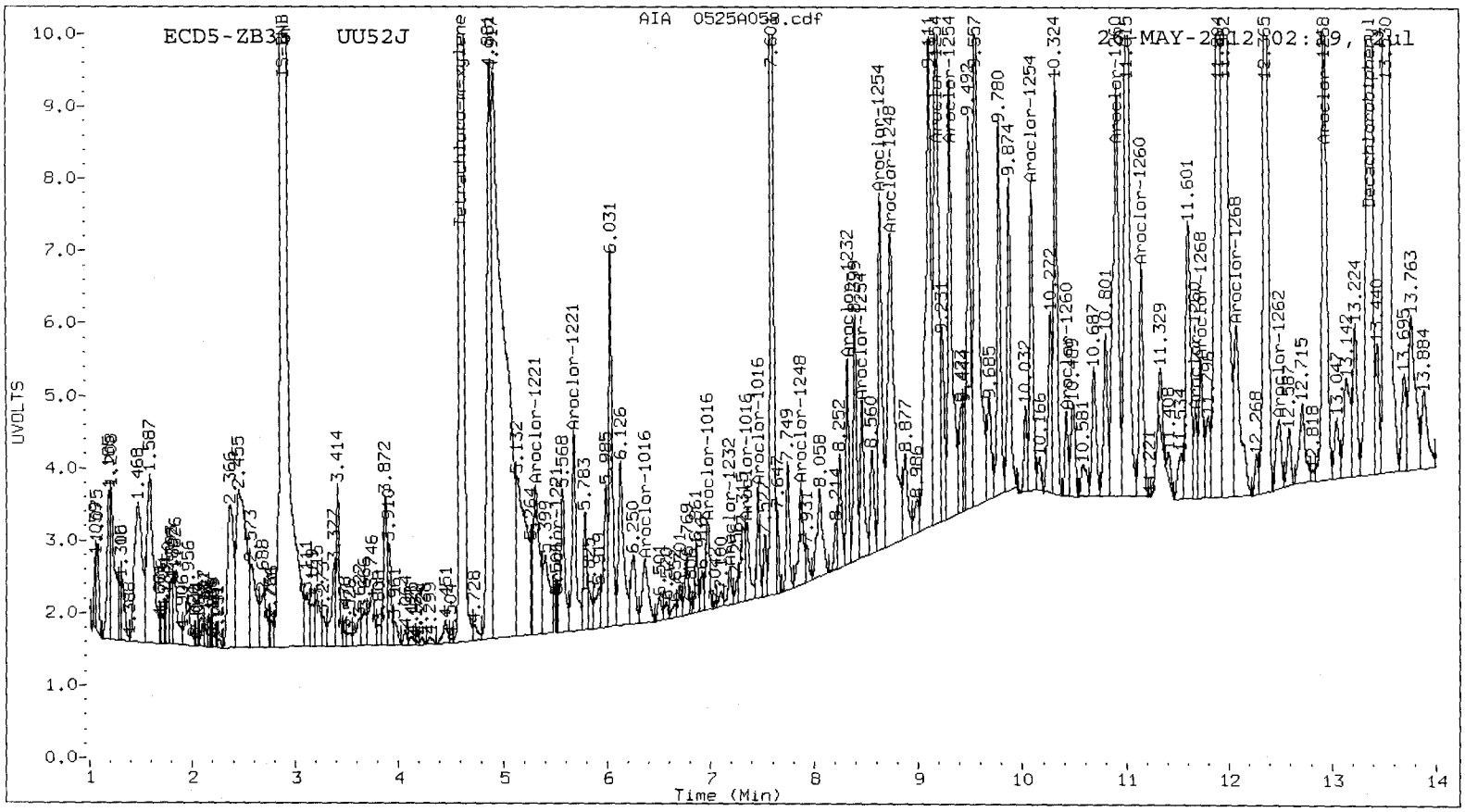
Decachlorobiphenyl
IS-HBB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Time (Min)
IS-DNB
Tetrachloro-m-xylene
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Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Aroclor-1262
Decachlorobiphenyl
IS-HBB

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A059.d
Data file 2: 20120523.b/0525-2.b/0525A059.d
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Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52JMS
Client ID:
Injection Date: 26-MAY-2012 02:38
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.611 | 0.001 | 77289363 | 4.613 | 0.002 | 43563901 | 28.2 | 26.9 | 4.8 | Tetrachloro-m-xylene |
| 12.993 | 0.002 | 87878541 | 13.366 | 0.000 | 35683163 | 26.5 | 35.4 | 28.6 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 70.5 | 67.2 |
| Decachlorobiphenyl | 66.3 | 88.5 |

JL 05/29/12

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 170569379 | 10.6 |
| Hexabromobiphenyl | 248602423 | 215844910 | -13.2 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 115176537 | 4.1 |
| Hexabromobiphenyl | 108855531 | 78007406 | -28.3 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | ZB5 Col RT | Shift | Area | Amount | Peak# | ZB35 Col RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.243 | 0.002 | 17517624 | 246.2 | 1 | 6.349 | 0.001 | 16664558 | 277.2 |
| Aroclor-1016 | 2 | 6.644 | 0.002 | 63377600 | 273.2 | 2 | 6.973 | -0.001 | 29616268 | 217.0 |
| Aroclor-1016 | 3 | 6.791 | 0.001 | 23341488 | 255.1 | 3 | 7.356 | 0.000 | 8373248 | 237.8 |
| Aroclor-1016 | 4 | 6.902 | 0.002 | 18335580 | 254.4 | 4 | 7.463 | 0.000 | 9281654 | 237.1 |
| | Total Col1Ave (4 peaks): | | | | 257.2 | | Total Col2Ave (4 peaks): | | | 242.3 RPD = 6 |
| | Corrected Ave (3 peaks): | | | | 251.9 | | Corrected Ave (3 peaks): | | | 230.7 RPD = 9 |
| Aroclor-1221 | 1 | 4.893 | 0.009 | 6359549 | 497.4 | 1 | 5.302 | 0.012 | 7748754 | 426.9 |
| Aroclor-1221 | 2 | 5.156 | 0.003 | 2861643 | 139.0 | 2 | 5.562 | 0.026 | 5291992 | 493.5 |
| Aroclor-1221 | 3 | 5.268 | 0.010 | 14980804 | 222.1 | 3 | 5.658 | 0.009 | 10124654 | 301.9 |
| Aroclor-1221 | NS | --- | | | ---- | 4 | 5.724 | 0.007 | 655076 | 106.6 |
| | Total Col1Ave (3 peaks): | | | | 286.2 | | Total Col2Ave (4 peaks): | | | 332.2 RPD = 15 |
| | Corrected Ave: < 3 Peaks | | | | | | Corrected Ave (3 peaks): | | | 278.5 |
| Aroclor-1232 | 1 | 6.243 | 0.005 | 17517624 | 589.5 | 1 | 6.349 | 0.003 | 16664558 | 600.8 |
| Aroclor-1232 | 2 | 6.644 | 0.005 | 63377600 | 641.2 | 2 | 6.973 | 0.002 | 29616268 | 509.9 |
| Aroclor-1232 | 3 | 6.791 | 0.004 | 23341488 | 582.2 | 3 | 7.182 | 0.003 | 10576385 | 539.8 |
| Aroclor-1232 | 4 | 7.983 | 0.003 | 8905525 | 231.3 | 4 | 8.327 | 0.001 | 4096443 | 190.7 |
| | Total Col1Ave (4 peaks): | | | | 511.1 | | Total Col2Ave (4 peaks): | | | 460.3 RPD = 10 |
| | Corrected Ave (3 peaks): | | | | 467.7 | | Corrected Ave (3 peaks): | | | 413.5 RPD = 12 |
| Aroclor-1242 | 1 | 6.243 | 0.001 | 17517624 | 326.3 | 1 | 6.349 | 0.001 | 16664558 | 354.6 |
| Aroclor-1242 | 2 | 6.644 | 0.001 | 63377600 | 354.0 | 2 | 6.973 | -0.001 | 29616268 | 277.5 |
| Aroclor-1242 | 3 | 6.791 | 0.001 | 23341488 | 326.8 | 3 | 7.182 | 0.000 | 10576385 | 243.9 |
| Aroclor-1242 | 4 | 7.983 | 0.000 | 8905525 | 133.9 | 4 | 8.327 | 0.000 | 4096443 | 108.7 |
| | Total Col1Ave (4 peaks): | | | | 285.2 | | Total Col2Ave (4 peaks): | | | 246.2 RPD = 15 |
| | Corrected Ave (3 peaks): | | | | 262.3 | | Corrected Ave (3 peaks): | | | 210.0 RPD = 22 |
| Aroclor-1248 | 1 | 6.644 | 0.004 | 63377600 | 529.2 | 1 | 6.973 | 0.002 | 29616268 | 428.2 |
| Aroclor-1248 | 2 | 7.438 | 0.000 | 19110224 | 211.2 | 2 | 7.875 | 0.000 | 11242147 | 202.9 |
| Aroclor-1248 | 3 | 7.983 | -0.001 | 8905525 | 76.8 | 3 | 8.327 | 0.000 | 4096443 | 61.5 |
| Aroclor-1248 | 4 | 8.273 | -0.001 | 8869209 | 75.8 | 4 | 8.740 | -0.008 | 11451263 | 152.3 |
| | Total Col1Ave (4 peaks): | | | | 223.3 | | Total Col2Ave (4 peaks): | | | 211.2 RPD = 6 |
| | Corrected Ave (3 peaks): | | | | 121.3 | | Corrected Ave (3 peaks): | | | 138.9 RPD = 14 |
| Aroclor-1254 | 1 | 8.359 | 0.002 | 20258969 | 129.4 | 1 | 8.466 | 0.000 | 8145218 | 161.1 |
| Aroclor-1254 | 2 | 8.740 | 0.012 | 21148943 | 209.9 | 2 | 8.640 | 0.001 | 11922906 | 185.5 |
| Aroclor-1254 | 3 | 8.863 | 0.000 | 33713192 | 173.3 | 3 | 9.181 | 0.021 | 14732607 | 300.0 |
| Aroclor-1254 | 4 | 9.197 | -0.015 | 58432241 | 278.9 | 4 | 9.311 | 0.001 | 10479549 | 96.5 |
| Aroclor-1254 | 5 | 9.523 | -0.050 | 93499351 | 717.4 | 5 | 10.099 | 0.007 | 11754820 | 184.6 |
| | Total Col1Ave (5 peaks): | | | | 301.8 | | Total Col2Ave (5 peaks): | | | 185.5 RPD = 48* |
| | Corrected Ave (4 peaks): | | | | 197.8 | | Corrected Ave (4 peaks): | | | 156.8 RPD = 23 |
| Aroclor-1260 | 1 | 10.447 | 0.000 | 31627025 | 270.1 | 1 | 10.423 | 0.001 | 13794335 | 308.3 |
| Aroclor-1260 | 2 | 10.821 | 0.000 | 87205761 | 300.1 | 2 | 10.874 | 0.002 | 27390961 | 493.1 |
| Aroclor-1260 | 3 | 11.221 | 0.000 | 42511153 | 263.2 | 3 | 11.145 | 0.000 | 38011550 | 337.0 |
| Aroclor-1260 | 4 | 11.337 | 0.000 | 19903980 | 287.0 | 4 | 11.667 | 0.001 | 10823156 | 328.6 |
| Aroclor-1260 | 5 | 11.407 | -0.004 | 72092462 | 870.7 | NS | --- | | | ---- |
| | Total Col1Ave (5 peaks): | | | | 298.2 | | Total Col2Ave (4 peaks): | | | 366.8 RPD = 8 |
| | Corrected Ave (4 peaks): | | | | 280.1 | | Corrected Ave (3 peaks): | | | 324.6 RPD = 15 |
| Aroclor-1262 | 1 | 10.131 | 0.004 | 36469288 | 212.0 | 1 | 10.423 | 0.003 | 13794335 | 188.8 |
| Aroclor-1262 | 2 | 10.447 | 0.002 | 31627025 | 240.6 | 2 | 10.874 | 0.004 | 27390961 | 434.6 |
| Aroclor-1262 | 3 | 10.821 | 0.002 | 87205761 | 242.8 | 3 | 11.145 | 0.003 | 38011550 | 265.6 |
| Aroclor-1262 | 4 | 11.337 | 0.003 | 19903980 | 151.6 | 4 | 11.667 | 0.003 | 10823156 | 188.0 |
| Aroclor-1262 | 5 | 11.407 | 0.000 | 72092462 | 482.9 | 5 | 12.465 | 0.002 | 9958348 | 185.8 |
| | Total Col1Ave (5 peaks): | | | | 266.0 | | Total Col2Ave (5 peaks): | | | 252.6 RPD = 5 |
| | Corrected Ave (4 peaks): | | | | 211.7 | | Corrected Ave (4 peaks): | | | 207.0 RPD = 2 |
| Aroclor-1268 | 1 | 11.337 | 0.001 | 19903980 | 54.2 | 1 | 11.667 | 0.003 | 10823156 | 72.7 |
| Aroclor-1268 | 2 | 11.407 | 0.000 | 72092462 | 195.1 | 2 | 11.725 | -0.005 | 26678202 | 190.0 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1268 | 3 | 11.810 | 0.018 | 11207303 | 36.3 | 3 | 12.128 | 0.000 | 1746325 | 14.8 |
| Aroclor-1268 | 4 | 12.586 | 0.001 | 8088899 | 8.9 | 4 | 12.935 | -0.015 | 13986682 | 42.0 |

Total Col1Ave (4 peaks): 73.6 Total Col2Ave (4 peaks): 79.9 RPD = 8

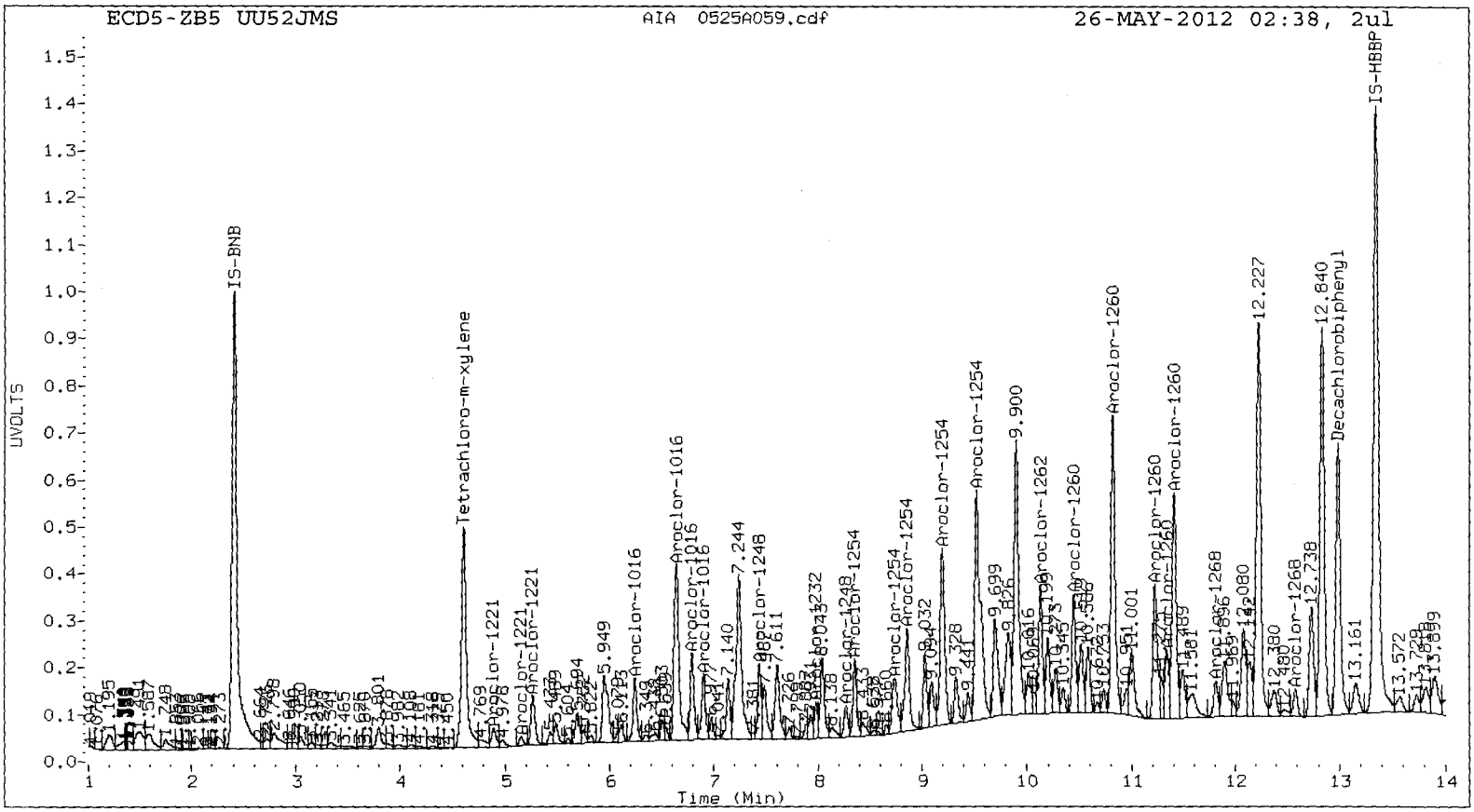
Corrected Ave (3 peaks): 33.1 Corrected Ave (3 peaks): 43.2 RPD = 26

Total PCB Area Col1 (4.710 - 12.891) = 1737509586 Col1 Total PCB = 0.9 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 860408353 Col2 Total PCB = 0.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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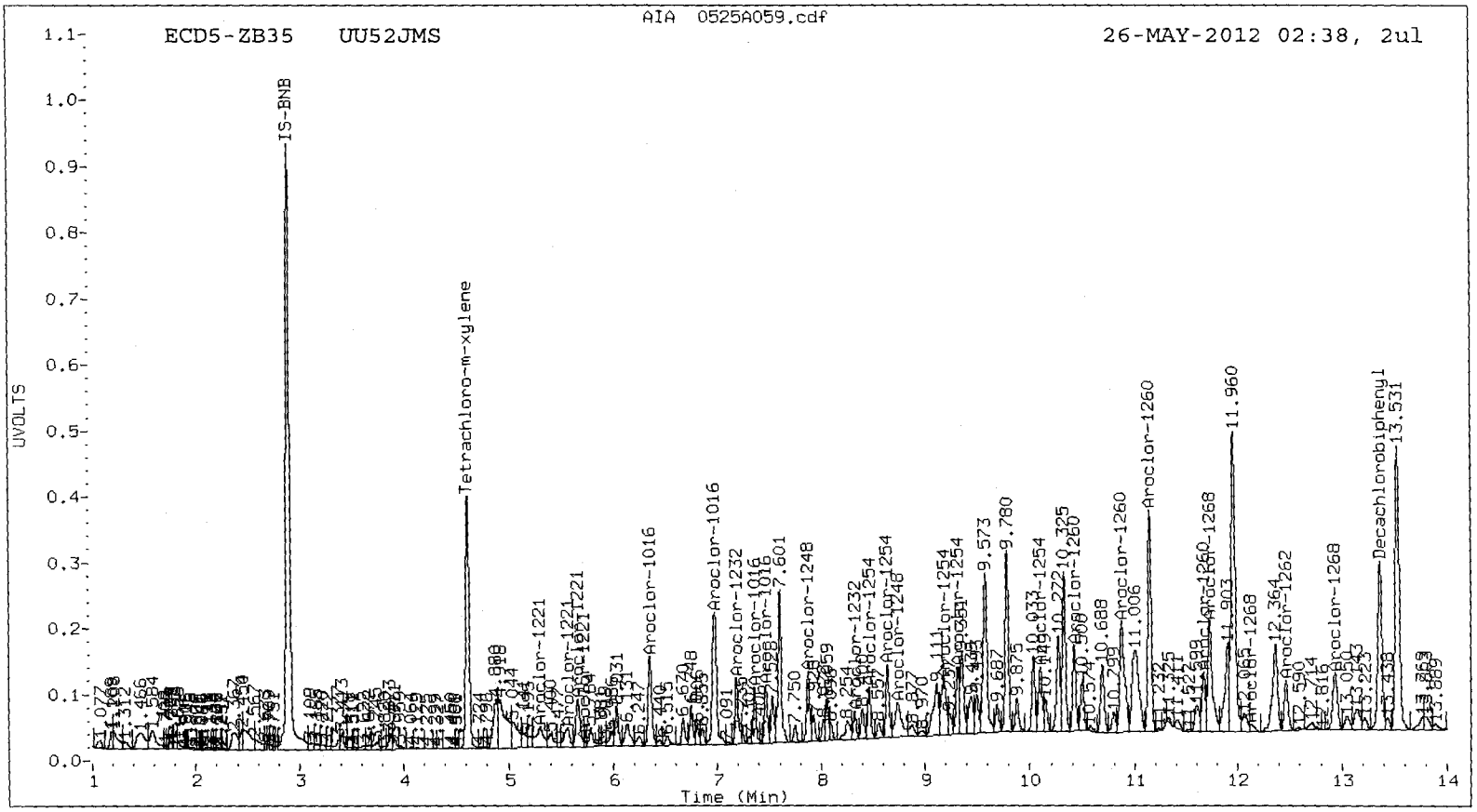
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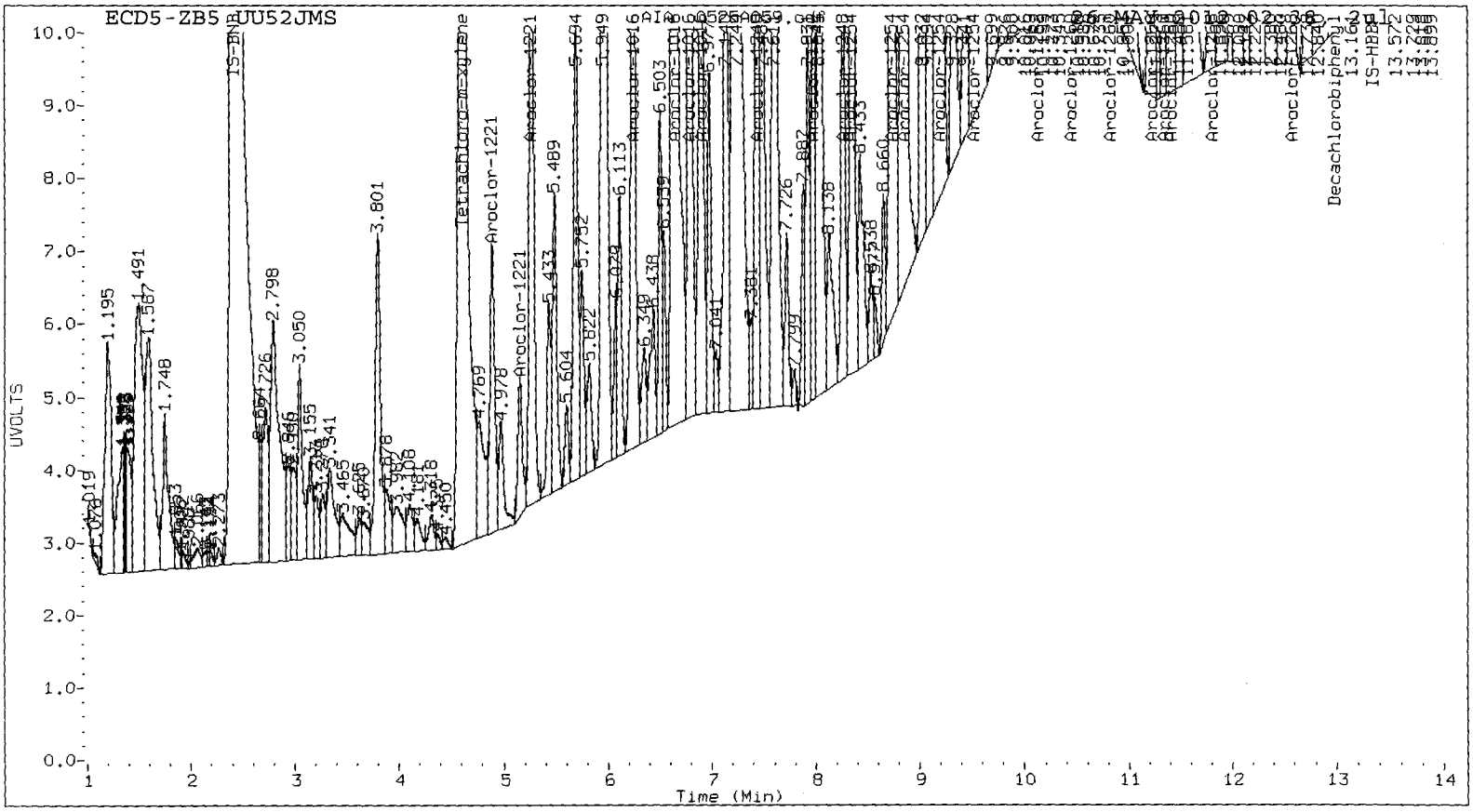
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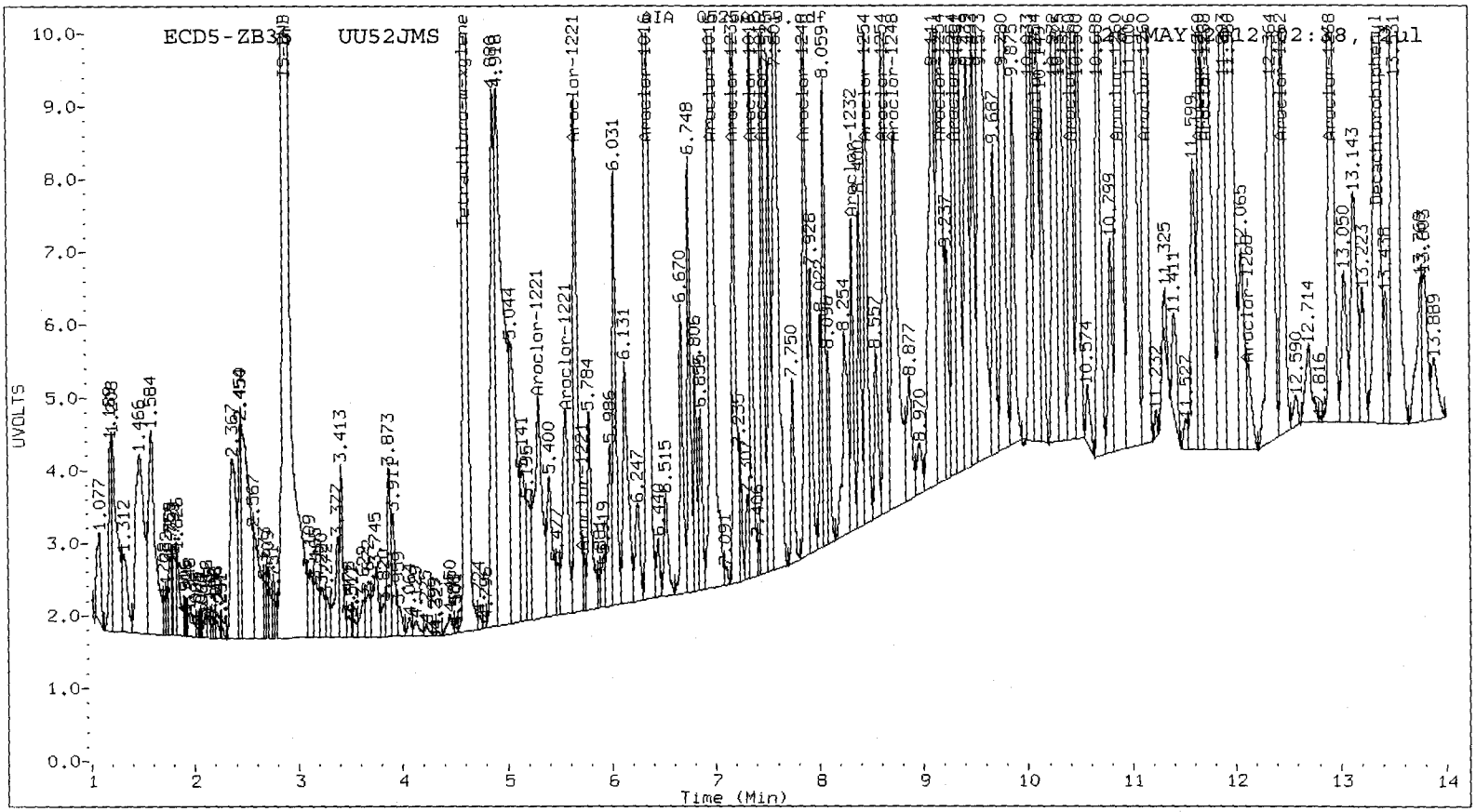
Decachlorobiphenyl
IS-HBB
UVOLTS
Time (Min)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Aroclor-1232
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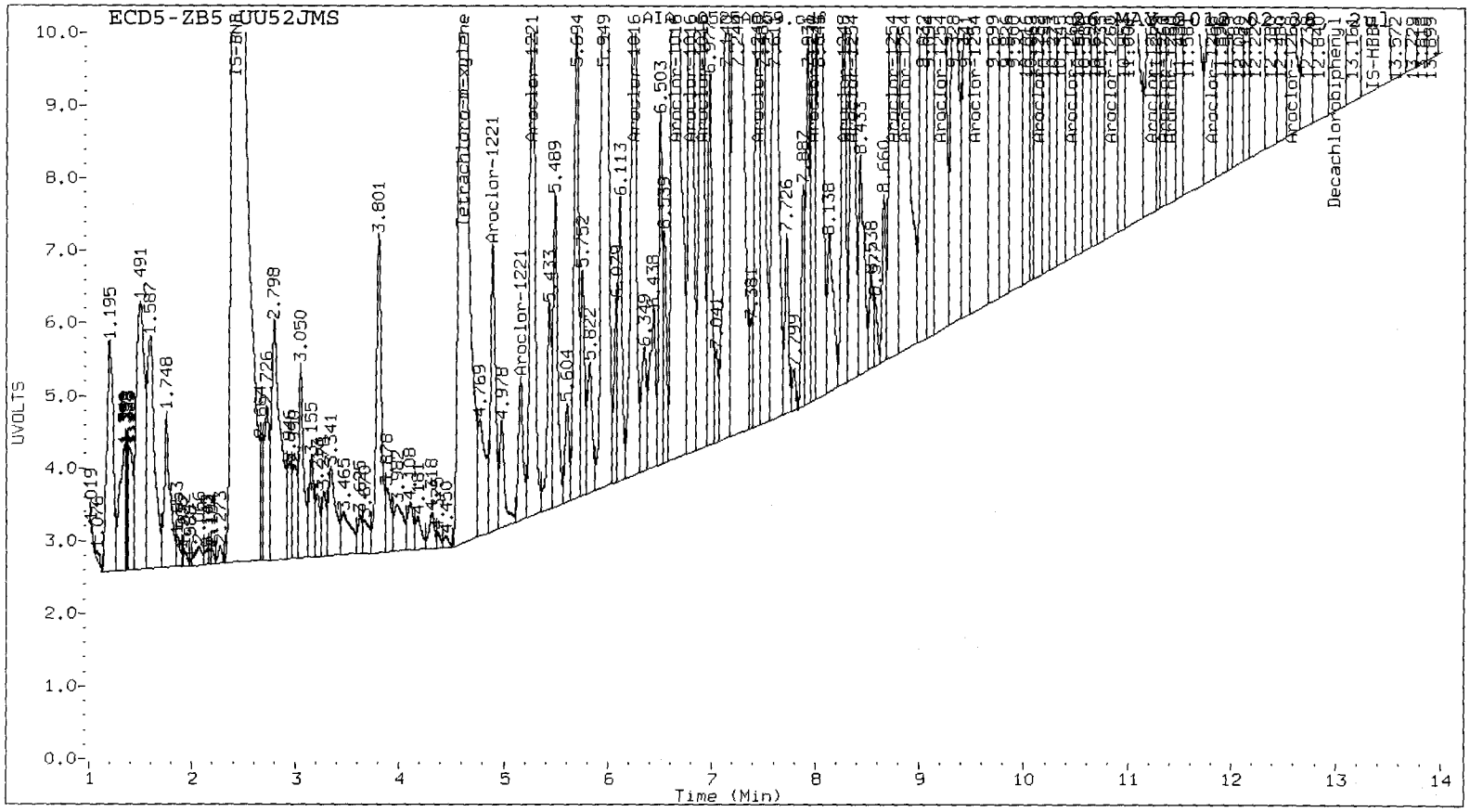
Decachlorobiphenyl
UVOLTS
Time (Min)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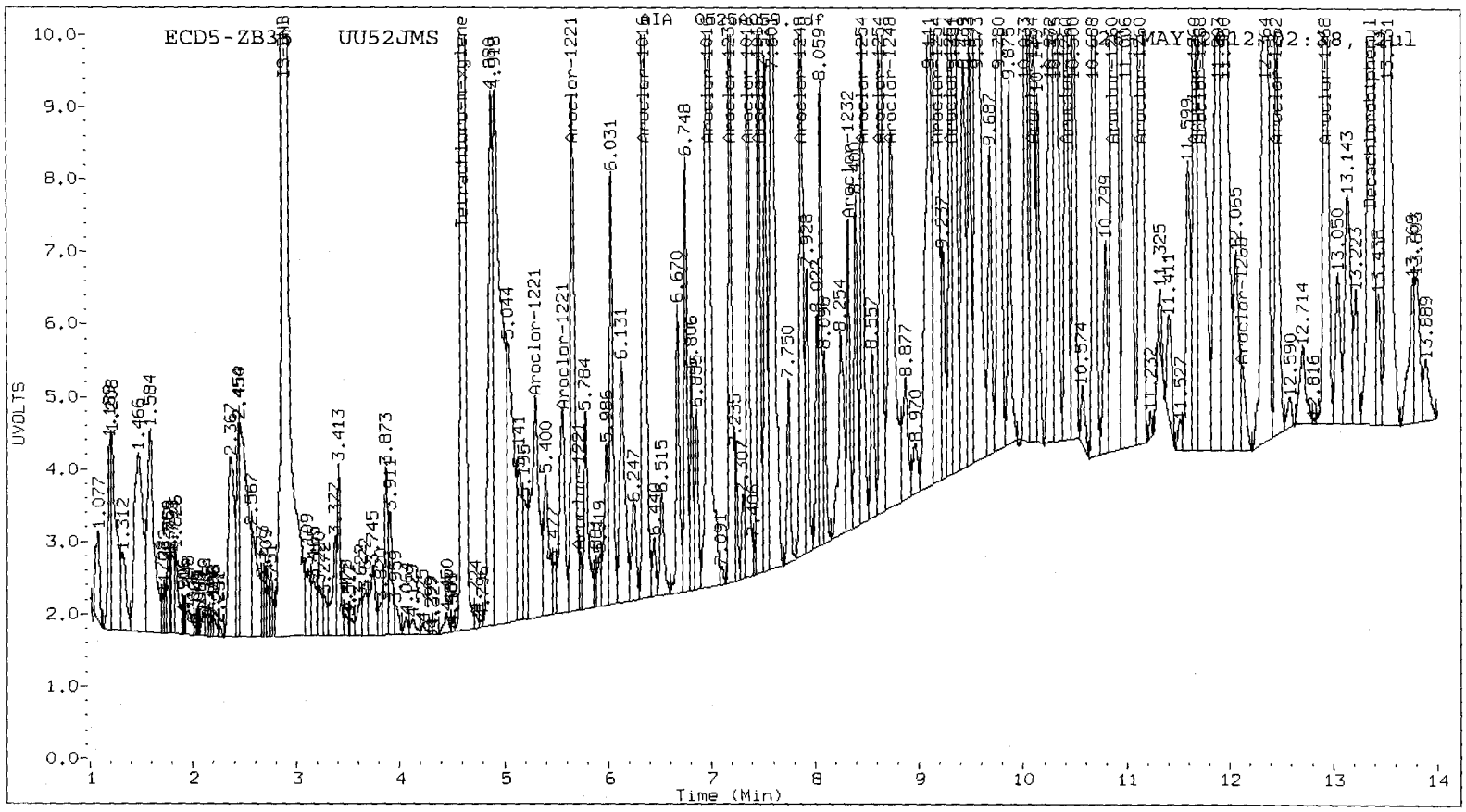
IS-HBB
UVOLTS
Time (Min)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Aroclor-1232
Aroclor-1254
Aroclor-1260
Decachlorobiphenyl
UVOLTS
Time (Min)

Analytical Resources Inc.
Dual Column PCBs by SW8082

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Data file 2: 20120523.b/0525-2.b/0525A060.d
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Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU52JMSD
Client ID:
Injection Date: 26-MAY-2012 02:57
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.612 | 0.002 | 73245610 | 4.613 | 0.002 | 38744008 | 28.7 | 25.8 | 10.6 | Tetrachloro-m-xylene |
| 12.992 | 0.001 | 80978083 | 13.366 | 0.000 | 34273996 | 26.3 | 35.4 | 29.3 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 71.8 | 64.6 |
| Decachlorobiphenyl | 65.9 | 88.5 |

JL 05/29/12

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 158624279 | 2.9 |
| Hexabromobiphenyl | 248602423 | 200326069 | -19.4 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 106578291 | -3.7 |
| Hexabromobiphenyl | 108855531 | 74927298 | -31.2 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | RT | Shift | ZB5 Col Area | Amount | Peak# | RT | Shift | ZB35 Col Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.243 | 0.002 | 16933237 | 255.9 | 1 | 6.349 | 0.002 | 15504055 | 278.7 |
| Aroclor-1016 | 2 | 6.643 | 0.001 | 61176409 | 283.6 | 2 | 6.973 | 0.000 | 26312803 | 208.4 |
| Aroclor-1016 | 3 | 6.791 | 0.001 | 22857458 | 268.7 | 3 | 7.356 | 0.000 | 7674510 | 235.6 |
| Aroclor-1016 | 4 | 6.901 | 0.001 | 12824238 | 265.9 | 4 | 7.464 | 0.000 | 8552195 | 236.1 |
| Total Col1Ave (4 peaks): | | | | | 268.5 | Total Col2Ave (4 peaks): | | | | 239.7 RPD = 11 |
| Corrected Ave (3 peaks): | | | | | 263.5 | Corrected Ave (3 peaks): | | | | 226.7 RPD = 15 |
| Aroclor-1221 | 1 | 4.893 | 0.009 | 5890405 | 495.4 | 1 | 5.303 | 0.013 | 5071413 | 301.9 |
| Aroclor-1221 | 2 | 5.159 | 0.006 | 2828767 | 147.8 | 2 | 5.563 | 0.027 | 3777963 | 380.7 |
| Aroclor-1221 | 3 | 5.268 | 0.010 | 14602233 | 232.8 | 3 | 5.658 | 0.009 | 8718150 | 280.9 |
| Aroclor-1221 | NS | --- | | | ---- | 4 | 5.724 | 0.007 | 489326 | 86.1 |
| Total Col1Ave (3 peaks): | | | | | 292.0 | Total Col2Ave (4 peaks): | | | | 262.4 RPD = 11 |
| Corrected Ave: < 3 Peaks | | | | | | Corrected Ave (3 peaks): | | | | 223.0 |
| Aroclor-1232 | 1 | 6.243 | 0.005 | 16933237 | 612.7 | 1 | 6.349 | 0.004 | 15504055 | 604.0 |
| Aroclor-1232 | 2 | 6.643 | 0.004 | 61176409 | 665.5 | 2 | 6.973 | 0.002 | 26312803 | 489.6 |
| Aroclor-1232 | 3 | 6.791 | 0.003 | 22857458 | 613.1 | 3 | 7.183 | 0.003 | 9872111 | 544.5 |
| Aroclor-1232 | 4 | 7.983 | 0.003 | 8158041 | 227.9 | 4 | 8.326 | 0.001 | 3778876 | 190.1 |
| Total Col1Ave (4 peaks): | | | | | 529.8 | Total Col2Ave (4 peaks): | | | | 457.0 RPD = 15 |
| Corrected Ave (3 peaks): | | | | | 484.6 | Corrected Ave (3 peaks): | | | | 408.1 RPD = 17 |
| Aroclor-1242 | 1 | 6.243 | 0.001 | 16933237 | 339.1 | 1 | 6.349 | 0.001 | 15504055 | 356.5 |
| Aroclor-1242 | 2 | 6.643 | 0.001 | 61176409 | 367.5 | 2 | 6.973 | -0.001 | 26312803 | 266.4 |
| Aroclor-1242 | 3 | 6.791 | 0.000 | 22857458 | 344.1 | 3 | 7.183 | 0.001 | 9872111 | 246.1 |
| Aroclor-1242 | 4 | 7.983 | 0.000 | 8158041 | 131.9 | 4 | 8.326 | -0.001 | 3778876 | 108.3 |
| Total Col1Ave (4 peaks): | | | | | 295.6 | Total Col2Ave (4 peaks): | | | | 244.3 RPD = 19 |
| Corrected Ave (3 peaks): | | | | | 271.7 | Corrected Ave (3 peaks): | | | | 206.9 RPD = 27 |
| Aroclor-1248 | 1 | 6.643 | 0.003 | 61176409 | 549.3 | 1 | 6.973 | 0.002 | 26312803 | 411.2 |
| Aroclor-1248 | 2 | 7.438 | 0.000 | 18080842 | 214.9 | 2 | 7.875 | 0.000 | 10455344 | 203.9 |
| Aroclor-1248 | 3 | 7.983 | -0.001 | 8158041 | 75.7 | 3 | 8.326 | 0.000 | 3778876 | 61.3 |
| Aroclor-1248 | 4 | 8.273 | -0.001 | 8423605 | 77.5 | 4 | 8.738 | -0.009 | 10108558 | 145.3 |
| Total Col1Ave (4 peaks): | | | | | 229.3 | Total Col2Ave (4 peaks): | | | | 205.4 RPD = 11 |
| Corrected Ave (3 peaks): | | | | | 122.7 | Corrected Ave (3 peaks): | | | | 136.8 RPD = 11 |
| Aroclor-1254 | 1 | 8.358 | 0.002 | 19402629 | 133.2 | 1 | 8.466 | 0.000 | 7650073 | 163.5 |
| Aroclor-1254 | 2 | 8.739 | 0.011 | 19839830 | 211.7 | 2 | 8.640 | 0.001 | 11414709 | 191.9 |
| Aroclor-1254 | 3 | 8.863 | 0.000 | 31463634 | 173.9 | 3 | 9.178 | 0.018 | 11415177 | 251.2 |
| Aroclor-1254 | 4 | 9.197 | -0.016 | 54143584 | 277.9 | 4 | 9.311 | 0.001 | 9562646 | 95.1 |
| Aroclor-1254 | 5 | 9.524 | -0.050 | 86651223 | 715.0 | 5 | 10.100 | 0.007 | 11194206 | 190.0 |
| Total Col1Ave (5 peaks): | | | | | 302.3 | Total Col2Ave (5 peaks): | | | | 178.3 RPD = 52* |
| Corrected Ave (4 peaks): | | | | | 199.8 | Corrected Ave (4 peaks): | | | | 160.1 RPD = 22 |
| Aroclor-1260 | 1 | 10.445 | -0.002 | 30290875 | 278.7 | 1 | 10.422 | 0.000 | 12956990 | 301.5 |
| Aroclor-1260 | 2 | 10.822 | 0.001 | 84924384 | 314.9 | 2 | 10.873 | 0.001 | 23498185 | 440.4 |
| Aroclor-1260 | 3 | 11.219 | -0.001 | 46814230 | 312.3 | 3 | 11.146 | 0.001 | 35545857 | 328.1 |
| Aroclor-1260 | 4 | 11.337 | 0.000 | 18848173 | 292.8 | 4 | 11.667 | 0.001 | 10172555 | 321.6 |
| Aroclor-1260 | 5 | 11.407 | -0.003 | 62942553 | 819.0 | NS | --- | | | ---- |
| Total Col1Ave (5 peaks): | | | | | 403.5 | Total Col2Ave (4 peaks): | | | | 347.9 RPD = 15 |
| Corrected Ave (4 peaks): | | | | | 299.7 | Corrected Ave (3 peaks): | | | | 317.1 RPD = 6 |
| Aroclor-1262 | 1 | 10.131 | 0.003 | 35685337 | 223.5 | 1 | 10.422 | 0.003 | 12956990 | 184.6 |
| Aroclor-1262 | 2 | 10.445 | 0.001 | 30290875 | 248.3 | 2 | 10.873 | 0.003 | 23498185 | 388.2 |
| Aroclor-1262 | 3 | 10.822 | 0.003 | 84924384 | 254.7 | 3 | 11.146 | 0.003 | 35545857 | 258.6 |
| Aroclor-1262 | 4 | 11.337 | 0.003 | 18848173 | 154.7 | 4 | 11.667 | 0.003 | 10172555 | 184.0 |
| Aroclor-1262 | 5 | 11.407 | 0.000 | 62942553 | 454.3 | 5 | 12.465 | 0.003 | 9584529 | 186.1 |
| Total Col1Ave (5 peaks): | | | | | 267.1 | Total Col2Ave (5 peaks): | | | | 240.3 RPD = 11 |
| Corrected Ave (4 peaks): | | | | | 220.3 | Corrected Ave (4 peaks): | | | | 203.3 RPD = 8 |
| Aroclor-1268 | 1 | 11.337 | 0.001 | 18848173 | 55.3 | 1 | 11.667 | 0.003 | 10172555 | 71.1 |
| Aroclor-1268 | 2 | 11.407 | 0.000 | 62942553 | 183.5 | 2 | 11.727 | -0.003 | 25037280 | 185.7 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1268 3 | 11.811 | 0.019 | 10483862 | 36.6 | 3 | 12.127 | -0.001 | 1192750 | 10.5 |
| Aroclor-1268 4 | 12.585 | 0.000 | 8093425 | 9.6 | 4 | 12.936 | -0.013 | 11843884 | 37.0 |
| Total Col1Ave (4 peaks): | | | | 71.3 | Total Col2Ave (4 peaks): | | | 76.1 | RPD = 7 |
| Corrected Ave (3 peaks): | | | | 33.8 | Corrected Ave (3 peaks): | | | 39.6 | RPD = 16 |

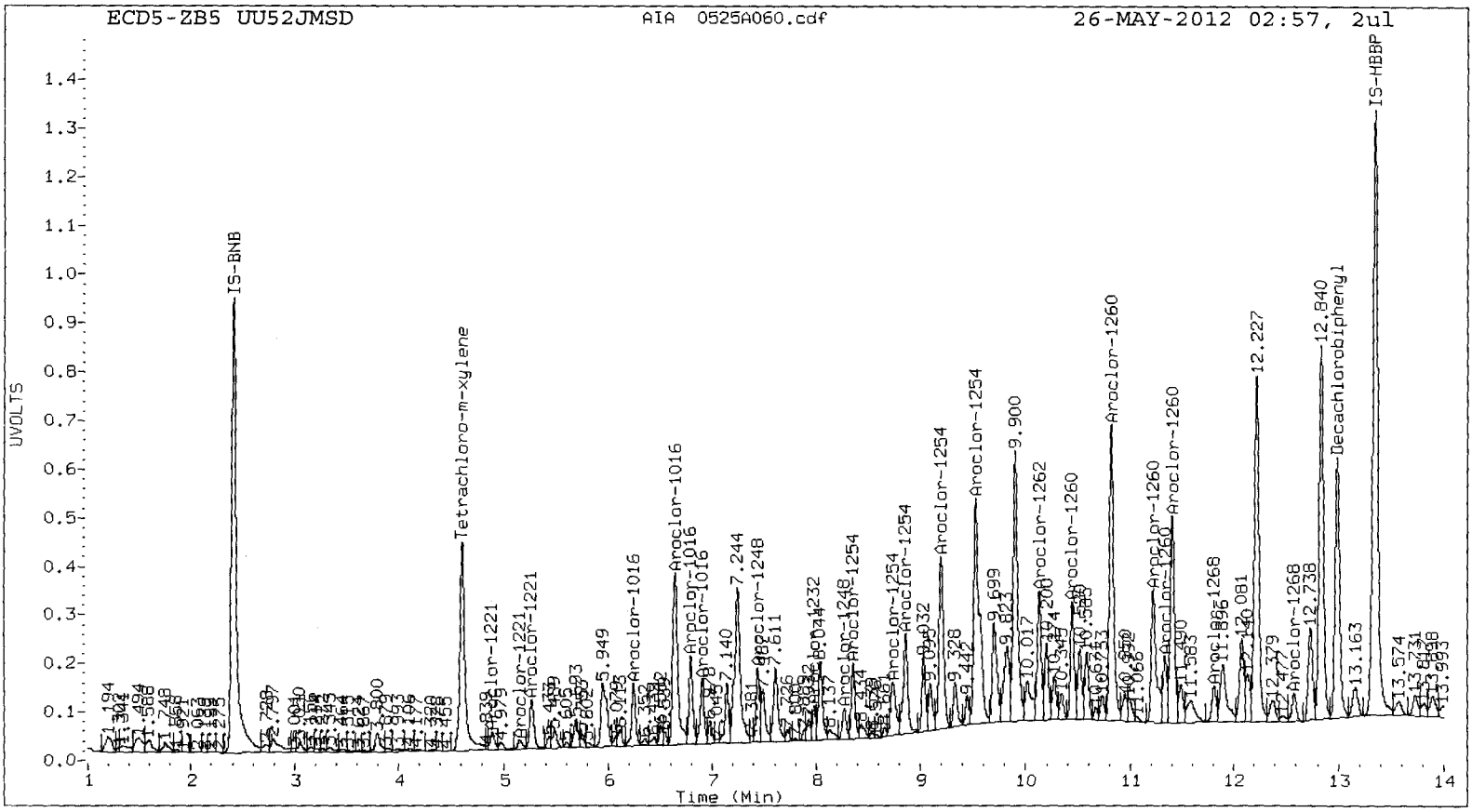
Total PCB Area Col1 (4.710 - 12.891) = 1598251164  Col1 Total PCB = 0.8 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 749455991  Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical



UU52:01765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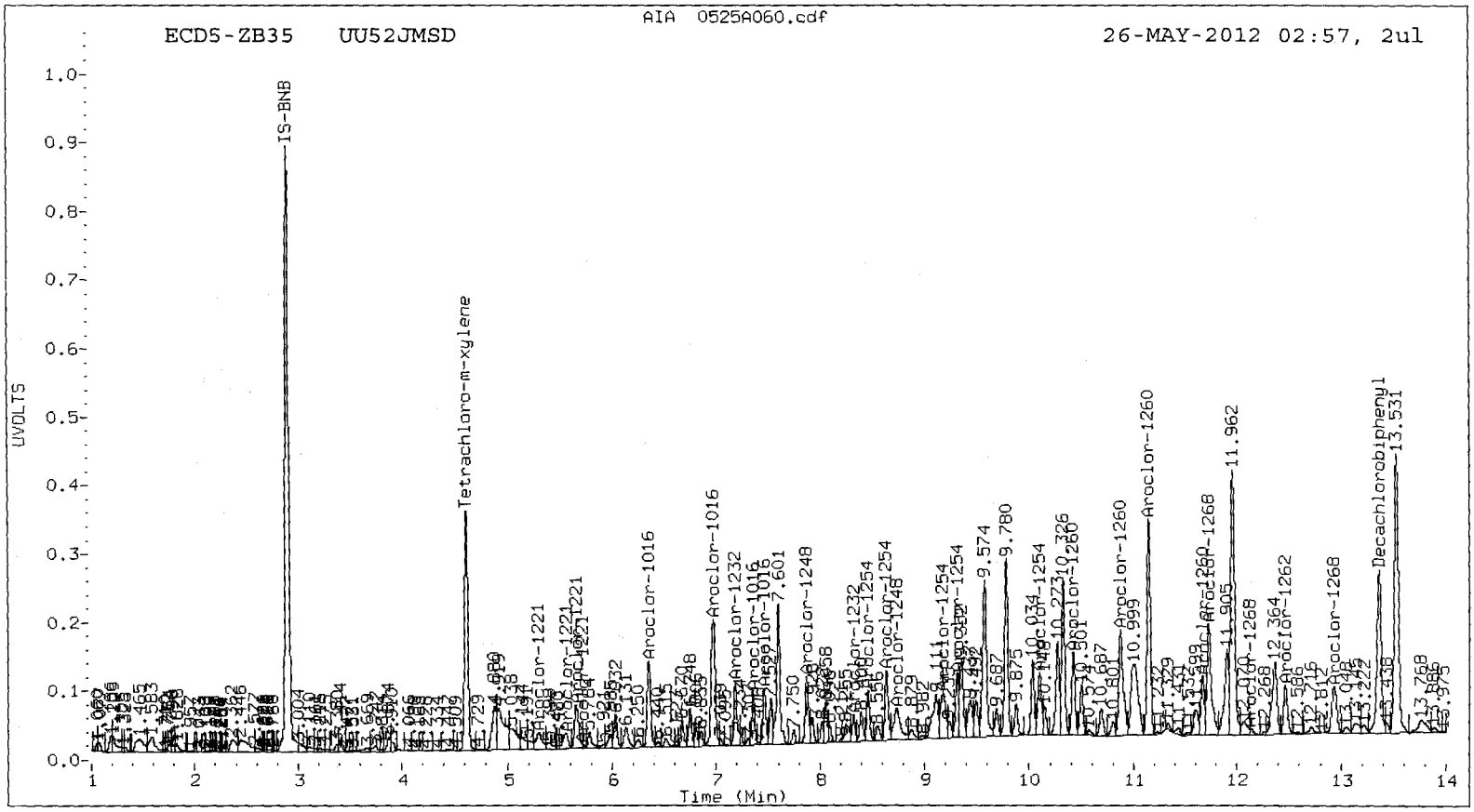
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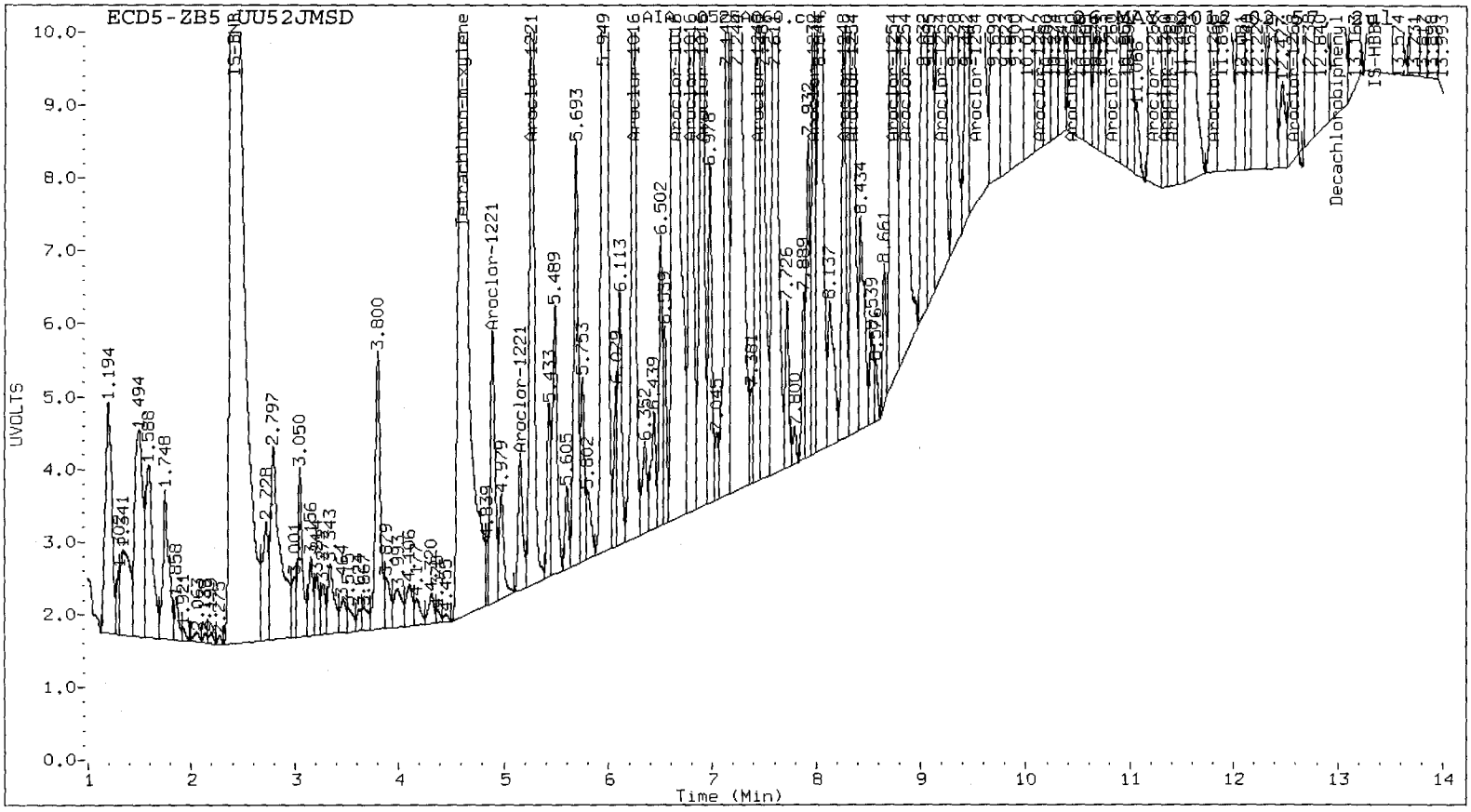
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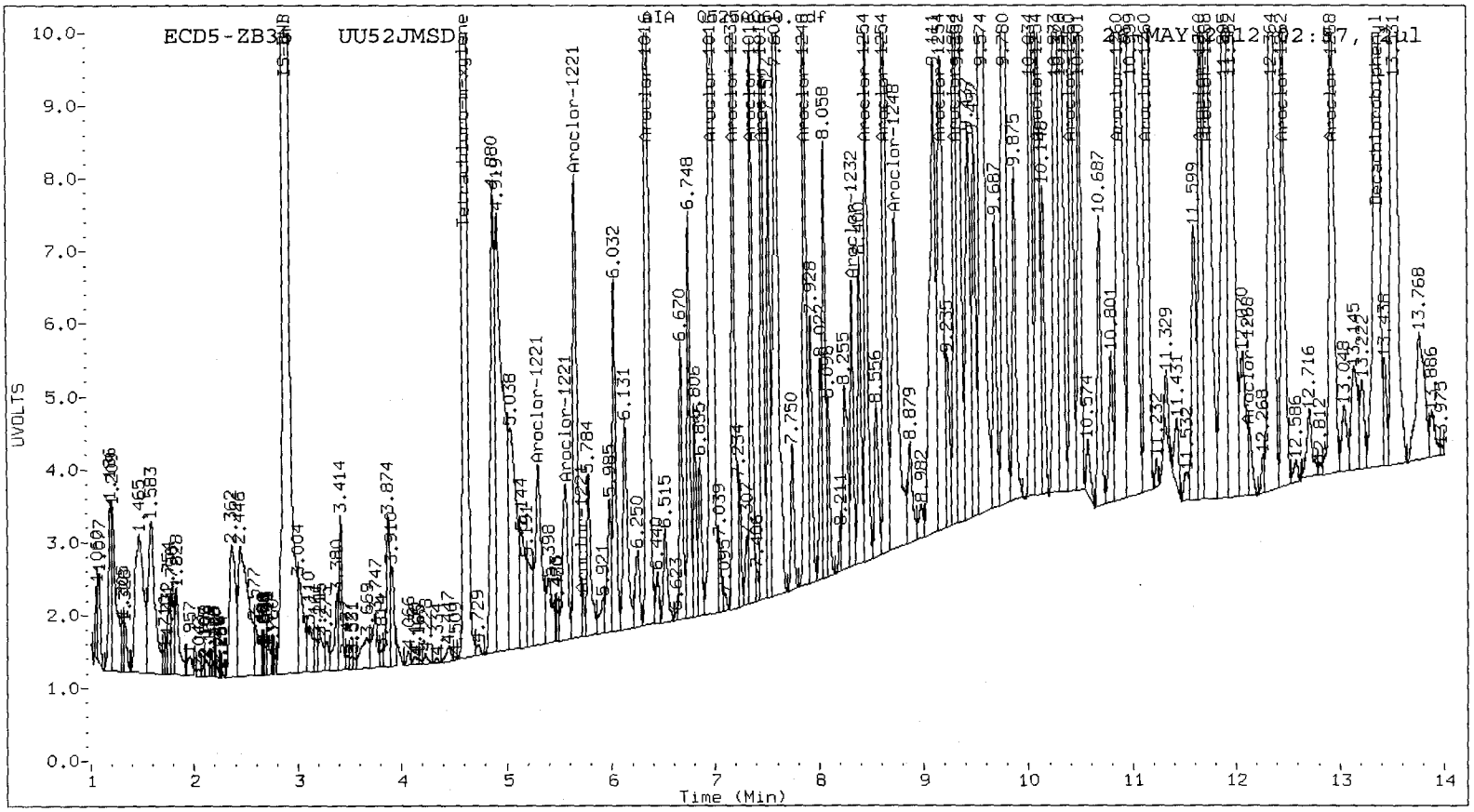
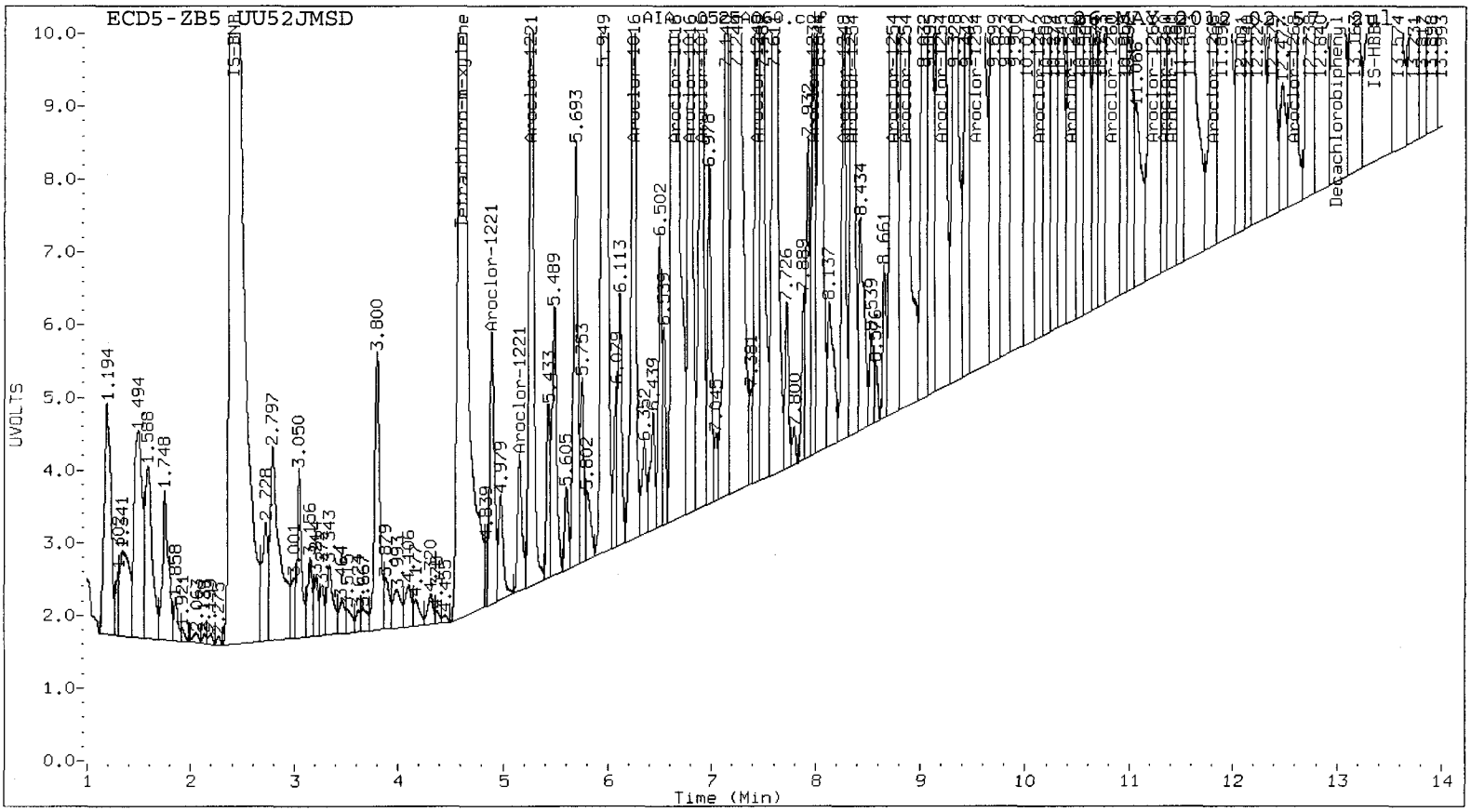
Decachlorobiphenyl
IS-HBB


ECD5-ZB3 UU52JMSD
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
AIA
Aroclor-1254
Aroclor-1260
Decachlorobiphenyl
IS-HBB


ECD5-ZB5
UU52JMSD
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1221
Aroclor-1221

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A061.d
Data file 2: 20120523.b/0525-2.b/0525A061.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1248
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248
Client ID:
Injection Date: 26-MAY-2012 03:16
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.611 | 0.001 | 55664977 | 4.612 | 0.001 | 34866180 | 19.2 | 19.4 | 0.9 | Tetrachloro-m-xylene |
| 12.992 | 0.001 | 54024042 | 13.364 | -0.001 | 20644898 | 17.1 | 18.5 | 8.2 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 48.1 | 48.5 |
| Decachlorobiphenyl | 42.7 | 46.4 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 180219526 | 16.9 |
| Hexabromobiphenyl | 248602423 | 206032453 | -17.1 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 127736774 | 15.5 |
| Hexabromobiphenyl | 108855531 | 86154804 | -20.9 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | ZB5 Col RT | Shift | Area | Amount | Peak# | ZB35 Col RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 1 | 6.640 | 0.000 | 29413471 | 232.5 | 1 | 6.971 | 0.000 | 17185958 | 224.1 |
| Aroclor-1248 | 2 | 7.438 | 0.000 | 21281056 | 222.6 | 2 | 7.875 | 0.000 | 12818572 | 208.6 |
| Aroclor-1248 | 3 | 7.984 | 0.000 | 26867900 | 219.4 | 3 | 8.327 | 0.000 | 15618957 | 211.4 |
| Aroclor-1248 | 4 | 8.274 | 0.000 | 25967189 | 210.2 | 4 | 8.747 | 0.000 | 17004290 | 203.9 |

Total Col1Ave (4 peaks): 221.2 Total Col2Ave (4 peaks): 212.0 RPD = 4

Corrected Ave (3 peaks): 217.4 Corrected Ave (3 peaks): 207.9 RPD = 4

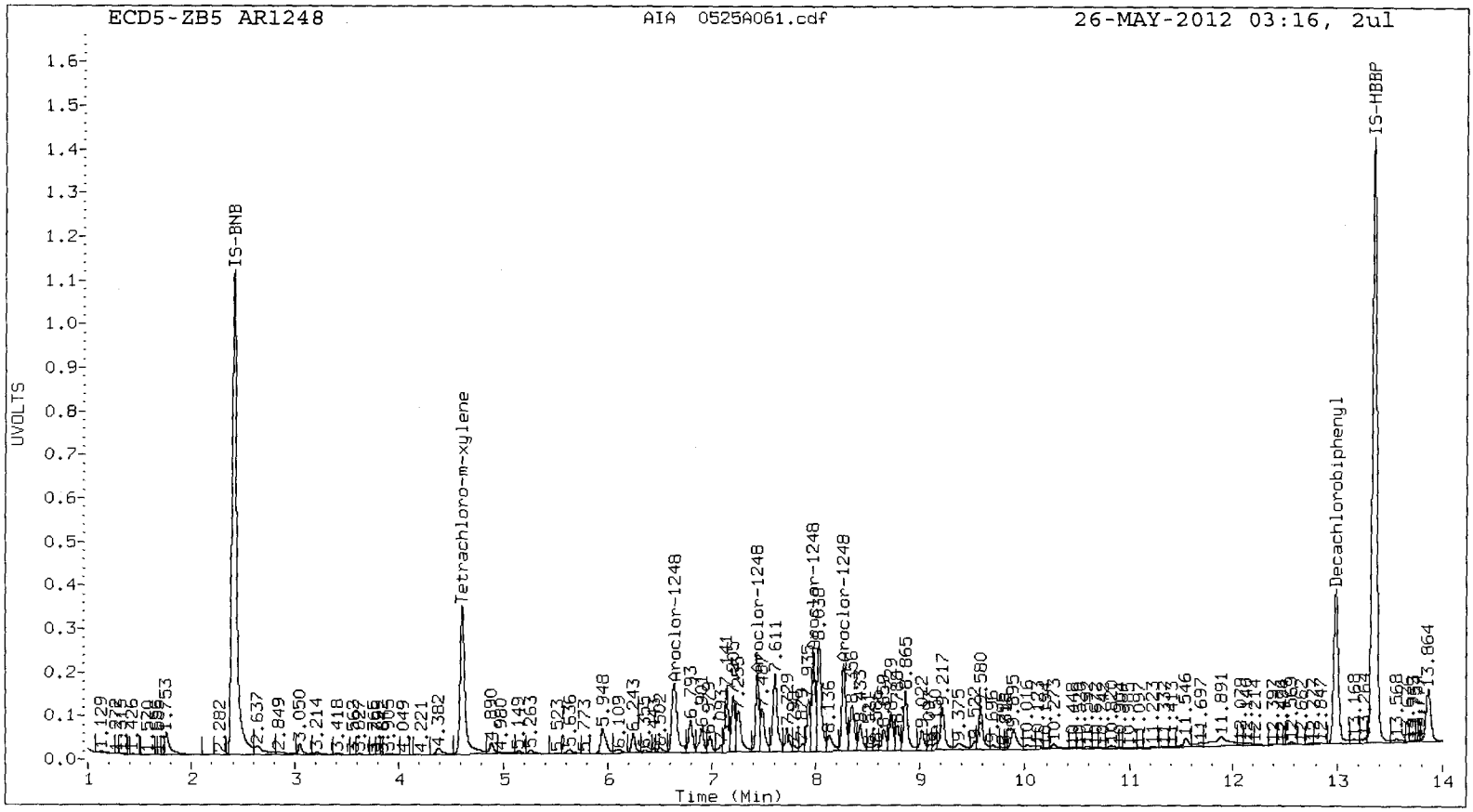
Total PCB Area Col1 (4.710 - 12.891) = 486178736 Col1 Total PCB = 0.2 ppm*

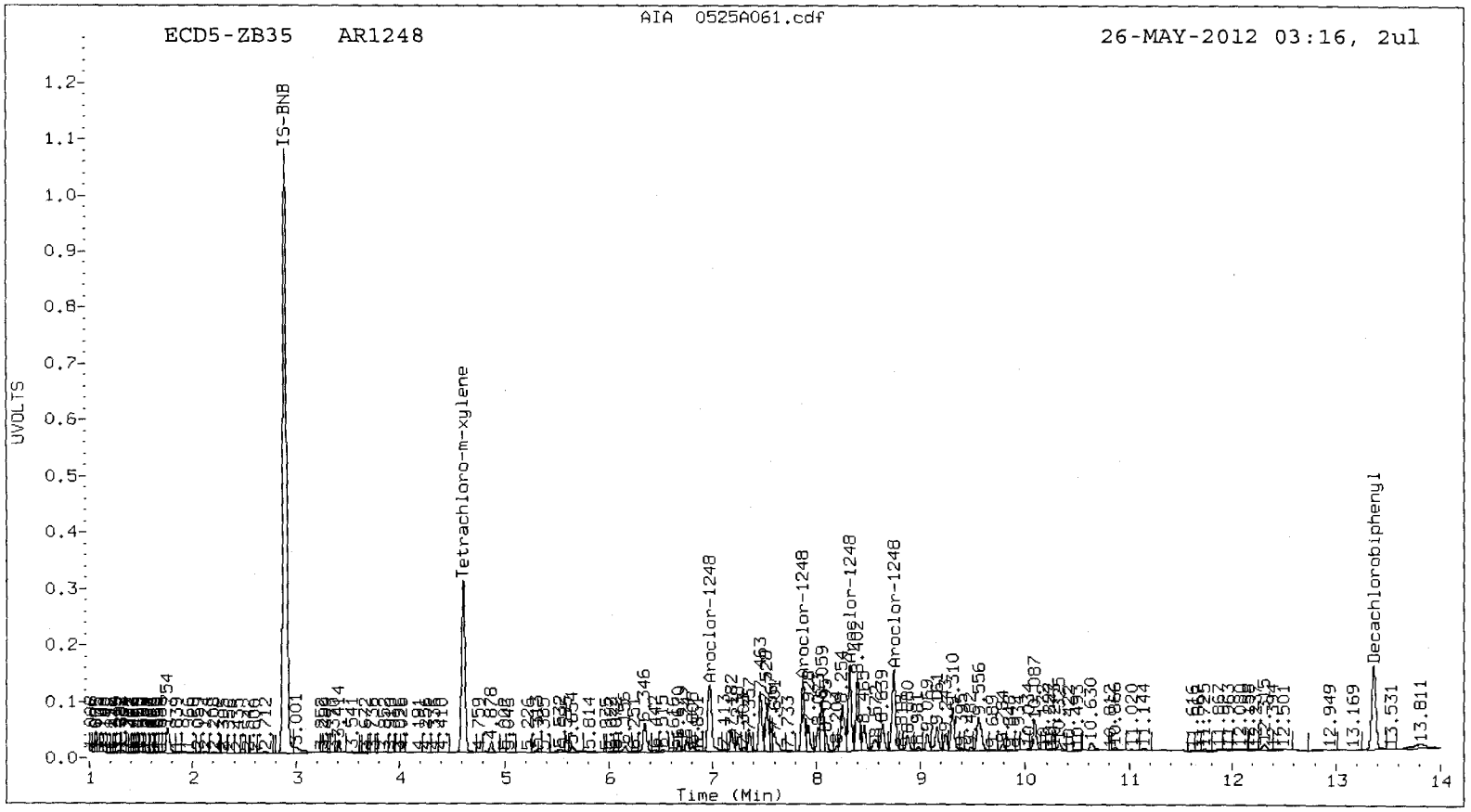
Total PCB Area Col2 (4.711 - 13.265) = 234297744 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical



UU52:01770


ECD5-ZB5 AR1248
AIA 0525A061.cdf
26-MAY-2012 03:16, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
IS-HBBP
Decachlorobiphenyl


AIA 0525A061.cdf
ECD5-ZB35 AR1248
26-MAY-2012 03:16, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0525-1.b/0525A062.d
Data file 2: 20120523.b/0525-2.b/0525A062.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 26-MAY-2012 03:35
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.610 | 0.000 | 59864883 | 4.611 | 0.000 | 37720720 | 19.9 | 20.2 | 1.4 | Tetrachloro-m-xylene |
| 12.991 | 0.000 | 60484239 | 13.365 | 0.000 | 22807990 | 17.8 | 19.2 | 7.7 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 49.8 | 50.5 |
| Decachlorobiphenyl | 44.5 | 48.1 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 186870454 | 21.2 |
| Hexabromobiphenyl | 248602423 | 221590214 | -10.9 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 132614849 | 19.9 |
| Hexabromobiphenyl | 108855531 | 91835798 | -15.6 |

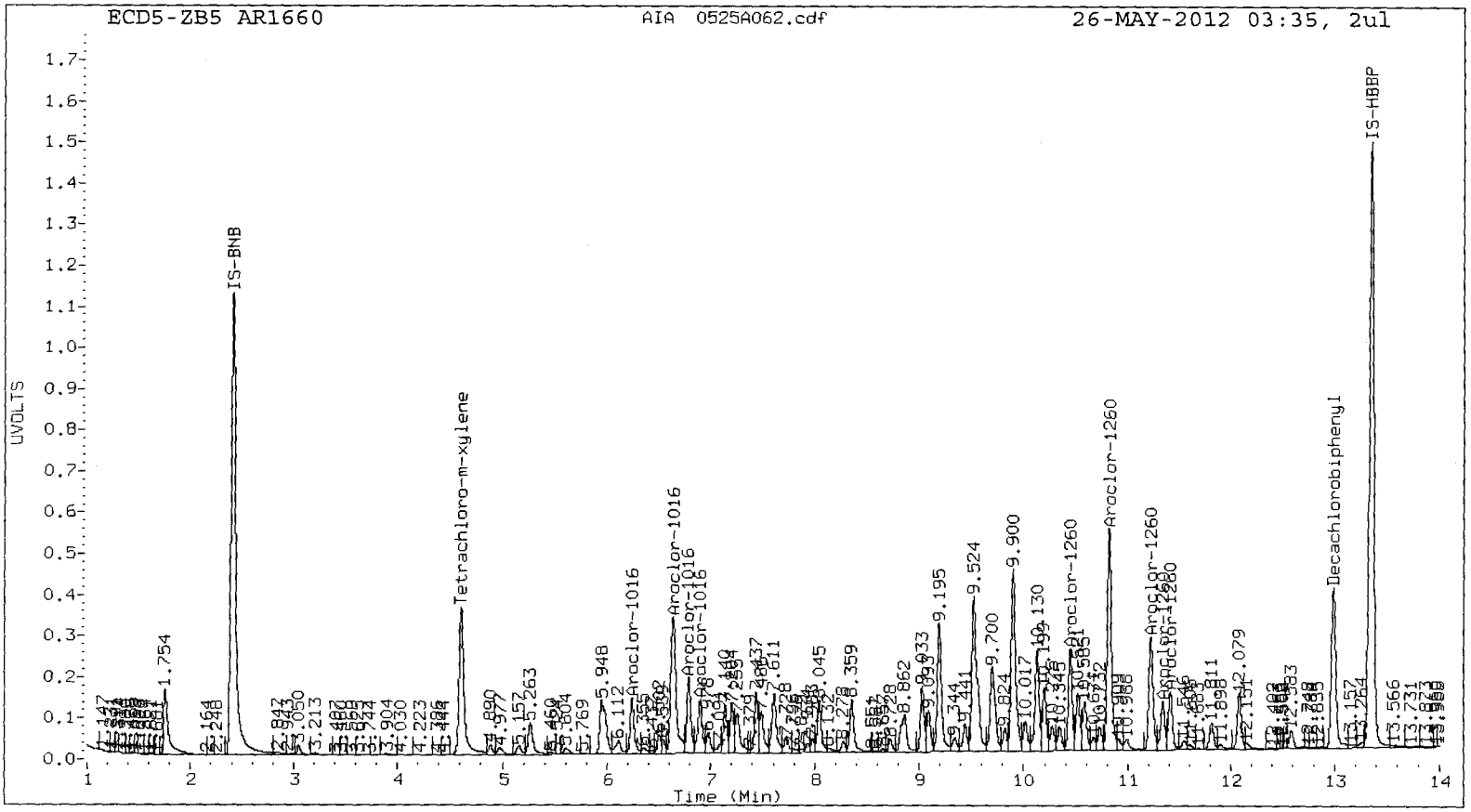
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

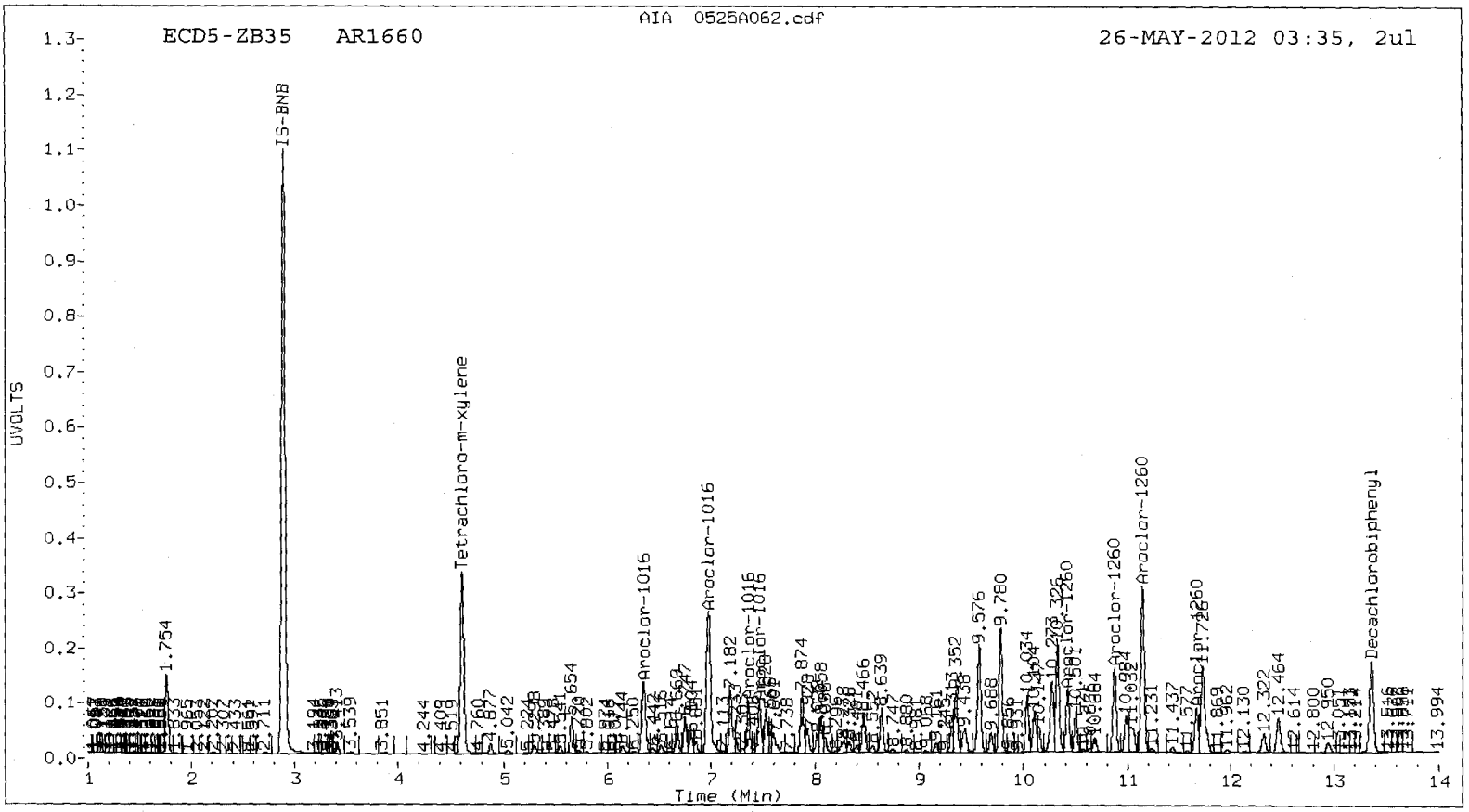
| Aroclor | Peak# | ZB5 Col RT | Shift | Area | Amount | Peak# | ZB35 Col RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.241 | 0.000 | 18639965 | 239.1 | 1 | 6.347 | 0.000 | 16454009 | 237.7 |
| Aroclor-1016 | 2 | 6.642 | 0.000 | 61801836 | 243.2 | 2 | 6.974 | 0.000 | 37504534 | 238.7 |
| Aroclor-1016 | 3 | 6.790 | 0.000 | 25328770 | 252.7 | 3 | 7.356 | 0.000 | 9218884 | 227.4 |
| Aroclor-1016 | 4 | 6.900 | 0.000 | 19132307 | 242.3 | 4 | 7.463 | 0.000 | 10124031 | 224.6 |
| Total Col1Ave (4 peaks): | | | | | 244.3 | Total Col2Ave (4 peaks): | | | | 232.1 RPD = 5 |
| Corrected Ave (3 peaks): | | | | | 241.5 | Corrected Ave (3 peaks): | | | | 229.9 RPD = 5 |
| Aroclor-1260 | 1 | 10.447 | 0.000 | 31861107 | 265.0 | 1 | 10.422 | 0.000 | 12315712 | 233.8 |
| Aroclor-1260 | 2 | 10.821 | 0.000 | 75919821 | 254.5 | 2 | 10.872 | 0.000 | 17648866 | 269.9 |
| Aroclor-1260 | 3 | 11.221 | 0.000 | 39255507 | 236.7 | 3 | 11.145 | 0.000 | 35124002 | 264.5 |
| Aroclor-1260 | 4 | 11.337 | 0.000 | 16446171 | 231.0 | 4 | 11.666 | 0.000 | 9198188 | 237.2 |
| Aroclor-1260 | 5 | 11.411 | 0.000 | 20212782 | 237.8 | NS | --- | | | ---- |
| Total Col1Ave (5 peaks): | | | | | 245.0 | Total Col2Ave (4 peaks): | | | | 251.4 RPD = 3 |
| Corrected Ave (4 peaks): | | | | | 240.0 | Corrected Ave (3 peaks): | | | | 245.2 RPD = 2 |

Total PCB Area Col1 (4.710 - 12.891) = 1024685832 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.711 - 13.265) = 482305083 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical


ECD5-ZB5 AR1660
AIA 0525A062.cdf
26-MAY-2012 03:35, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP


ECD5-ZB35 AR1660
AIA 0525A062.cdf
26-MAY-2012 03:35, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

WU52:01774

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120523.b/ddt-1.b/0525A047.d ARI ID: UU52A

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 8.356 | 0.035 | 17089718 | 8.738 | 0.012 | 10802374 | 0.011 | 0.014 | 25.1 | 2,4-DDE |
| 8.863 | -0.007 | 56721812 | 9.413 | 0.003 | 4587197 | 0.038 | 0.007 | 140.3* | 2,4-DDD |
| 0.000 | -9.375 | 0 | 9.876 | 0.004 | 19226213 | 0.000 | 0.020# | ---- | 2,4-DDT |
| 8.749 | -0.004 | 45076245 | 9.113 | 0.001 | 17158740 | 0.018 | 0.013 | 29.7 | 4,4-DDE |
| 9.325 | 0.000 | 46852565 | 9.876 | 0.004 | 19226213 | 0.023 | 0.020# | 12.3 | 4,4-DDD |
| 9.831 | -0.006 | 15991071 | 10.325 | 0.014 | 14423810 | 0.007 | 0.013 | 59.4* | 4,4-DDT |

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120523.b/ddt-1.b/0525A048.d ARI ID: UU52B

| ZB5 Col | | | ZB35 Col | | | ZB5 | ZB35 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 8.356 | 0.035 | 17482321 | 8.739 | 0.012 | 10903865 | 0.010 | 0.013 | 27.3 | 2,4-DDE |
| 8.863 | -0.008 | 50460894 | 9.412 | 0.003 | 2971081 | 0.030 | 0.004 | 153.2* | 2,4-DDD |
| 0.000 | -9.375 | 0 | 9.876 | 0.004 | 11216137 | 0.000 | 0.011# | ---- | 2,4-DDT |
| 8.749 | -0.004 | 45892421 | 9.113 | 0.001 | 17149939 | 0.016 | 0.012 | 28.1 | 4,4-DDE |
| 9.325 | 0.000 | 29954977 | 9.876 | 0.004 | 11216137 | 0.013 | 0.011# | 17.9 | 4,4-DDD |
| 9.831 | -0.006 | 16804358 | 10.325 | 0.015 | 13853647 | 0.006 | 0.011 | 54.4* | 4,4-DDT |

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120523.b/ddt-1.b/0525A049.d ARI ID: UU52C

| ZB5 Col | | | ZB35 Col | | | ZB5 | ZB35 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 8.357 | 0.036 | 14753357 | 8.737 | 0.011 | 11267844 | 0.009 | 0.014 | 44.5* | 2,4-DDE |
| 8.863 | -0.007 | 60229432 | 9.413 | 0.004 | 4767357 | 0.037 | 0.006 | 140.8* | 2,4-DDD |
| 0.000 | -9.375 | 0 | 9.877 | 0.005 | 16691989 | 0.000 | 0.017# | ---- | 2,4-DDT |
| 8.749 | -0.004 | 41231070 | 9.113 | 0.000 | 16959648 | 0.015 | 0.012 | 21.1 | 4,4-DDE |
| 9.326 | 0.001 | 41484704 | 9.877 | 0.005 | 16691989 | 0.019 | 0.017# | 13.2 | 4,4-DDD |
| 9.829 | -0.009 | 20343304 | 10.325 | 0.014 | 13455883 | 0.008 | 0.011 | 31.1 | 4,4-DDT |

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120523.b/ddt-1.b/0525A050.d ARI ID: UU52D

| ZB5 Col | | | ZB35 Col | | | ZB5 | ZB35 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 8.356 | 0.035 | 13231699 | 8.739 | 0.013 | 9525582 | 0.007 | 0.011 | 37.7 | 2,4-DDE |
| 8.863 | -0.008 | 54186126 | 9.413 | 0.004 | 4455071 | 0.031 | 0.006 | 139.5* | 2,4-DDD |
| 0.000 | -9.375 | 0 | 9.875 | 0.003 | 15011970 | 0.000 | 0.014# | ---- | 2,4-DDT |
| 8.748 | -0.006 | 39114208 | 9.112 | 0.000 | 14593374 | 0.014 | 0.010 | 31.8 | 4,4-DDE |
| 9.325 | 0.001 | 42095503 | 9.875 | 0.003 | 15011970 | 0.018 | 0.014# | 26.3 | 4,4-DDD |
| 9.827 | -0.011 | 24101218 | 10.325 | 0.014 | 9212364 | 0.009 | 0.007 | 24.6 | 4,4-DDT |

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120523.b/ddt-1.b/0525A051.d ARI ID: UU52E

| ZB5 Col | | | ZB35 Col | | | ZB5 | ZB35 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 8.356 | 0.035 | 8762168 | 8.738 | 0.012 | 7770144 | 0.005 | 0.010 | 68.9* | 2,4-DDE |
| 8.862 | -0.008 | 47878859 | 9.414 | 0.005 | 3247790 | 0.028 | 0.005 | 142.7* | 2,4-DDD |
| 0.000 | -9.375 | 0 | 9.876 | 0.004 | 10658727 | 0.000 | 0.011# | ---- | 2,4-DDT |
| 8.745 | -0.008 | 32480734 | 9.113 | 0.001 | 12535540 | 0.012 | 0.010 | 15.8 | 4,4-DDE |
| 9.325 | 0.000 | 27743649 | 9.876 | 0.004 | 10658727 | 0.012 | 0.011# | 6.1 | 4,4-DDD |
| 9.831 | -0.007 | 17389065 | 10.324 | 0.014 | 7113444 | 0.007 | 0.006 | 5.1 | 4,4-DDT |

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120523.b/ddt-1.b/0525A052.d ARI ID: UU52F

| ZB5 Col | | | ZB35 Col | | | ZB5 | ZB35 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 8.356 | 0.035 | 9399732 | 8.740 | 0.014 | 8742323 | 0.005 | 0.010 | 72.1* | 2,4-DDE |
| 8.863 | -0.008 | 40699535 | 9.413 | 0.003 | 2164367 | 0.022 | 0.003 | 154.1* | 2,4-DDD |
| 0.000 | -9.375 | 0 | 9.875 | 0.003 | 7683177 | 0.000 | 0.007# | ---- | 2,4-DDT |
| 8.750 | -0.003 | 25113574 | 9.113 | 0.000 | 12906024 | 0.008 | 0.009 | 11.7 | 4,4-DDE |
| 9.325 | 0.000 | 22278320 | 9.875 | 0.003 | 7683177 | 0.009 | 0.007# | 18.0 | 4,4-DDD |
| 9.838 | 0.001 | 15993150 | 10.324 | 0.013 | 7420892 | 0.006 | 0.006 | 6.4 | 4,4-DDT |

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120523.b/ddt-1.b/0525A053.d ARI ID: UU52G

| ZB5 Col | | | ZB35 Col | | | ZB5 | ZB35 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 8.355 | 0.034 | 18650269 | 8.737 | 0.011 | 8033654 | 0.009 | 0.010 | 11.5 | 2,4-DDE |
| 8.865 | -0.005 | 49650099 | 9.412 | 0.002 | 7739212 | 0.024 | 0.011 | 79.2* | 2,4-DDD |
| 0.000 | -9.375 | 0 | 9.877 | 0.005 | 43285684 | 0.000 | 0.043# | ---- | 2,4-DDT |
| 8.751 | -0.002 | 47509712 | 9.113 | 0.001 | 19822376 | 0.014 | 0.015 | 3.8 | 4,4-DDE |
| 9.326 | 0.001 | 98576406 | 9.877 | 0.005 | 43285684 | 0.036 | 0.043# | 19.0 | 4,4-DDD |
| 9.837 | -0.001 | 15085451 | 10.323 | 0.012 | 11277353 | 0.005 | 0.009 | 64.7* | 4,4-DDT |

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120523.b/ddt-1.b/0525A056.d ARI ID: UU52H

| ZB5 Col | | | ZB35 Col | | | ZB5 | ZB35 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 8.351 | 0.030 | 24451011 | 8.776 | 0.050 | 21999216 | 0.012 | 0.025 | 66.0* | 2,4-DDE |
| 8.865 | -0.006 | 43604358 | 9.412 | 0.003 | 6684271 | 0.023 | 0.008 | 94.1* | 2,4-DDD |
| 9.387 | 0.012 | 9042567 | 9.876 | 0.004 | 32147787 | 0.004 | 0.029# | 152.2* | 2,4-DDT |
| 8.752 | -0.001 | 108994224 | 9.113 | 0.001 | 52674002 | 0.035 | 0.035 | 1.9 | 4,4-DDE |
| 9.325 | 0.000 | 67284029 | 9.876 | 0.004 | 32147787 | 0.026 | 0.029# | 10.9 | 4,4-DDD |
| 9.836 | -0.002 | 25588072 | 10.321 | 0.010 | 15783229 | 0.009 | 0.012 | 31.0 | 4,4-DDT |

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120523.b/ddt-1.b/0525A057.d ARI ID: UU52I

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 8.356 | 0.035 | 10470549 | 8.737 | 0.011 | 10357626 | 0.005 | 0.011 | 67.7* | 2,4-DDE |
| 8.863 | -0.007 | 29985139 | 9.418 | 0.009 | 1245190 | 0.016 | 0.001 | 166.8* | 2,4-DDD |
| 0.000 | -9.375 | 0 | 9.876 | 0.004 | 4544954 | 0.000 | 0.004# | ---- | 2,4-DDT |
| 8.746 | -0.007 | 28395672 | 9.112 | 0.000 | 13201841 | 0.009 | 0.008 | 9.5 | 4,4-DDE |
| 9.327 | 0.002 | 16267310 | 9.876 | 0.004 | 4544954 | 0.006 | 0.004# | 49.2* | 4,4-DDD |
| 9.825 | -0.013 | 22862699 | 10.324 | 0.014 | 7606877 | 0.008 | 0.005 | 37.5 | 4,4-DDT |

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: 20120523.b/ddt-1.b/0525A058.d ARI ID: UU52J

| ZB5 Col | | | ZB35 Col | | | ZB5 | ZB35 | | |
|---|---|---|---|---|---|---|---|---|---|
| RT | Shift | Response | RT | Shift | Response | on col | on col | RPD | Compound/Flag |
| 8.357 | 0.036 | 8509548 | 8.739 | 0.012 | 9604640 | 0.005 | 0.010 | 73.7* | 2,4-DDE |
| 8.864 | -0.007 | 24918556 | 9.423 | 0.013 | 1731580 | 0.014 | 0.002 | 150.2* | 2,4-DDD |
| 9.390 | 0.015 | 2395190 | 9.874 | 0.002 | 4994191 | 0.001 | 0.004# | 116.0* | 2,4-DDT |
| 8.746 | -0.008 | 22622347 | 9.111 | -0.001 | 11806658 | 0.008 | 0.007 | 4.3 | 4,4-DDE |
| 9.325 | 0.000 | 13885326 | 9.874 | 0.002 | 4994191 | 0.006 | 0.004# | 31.1 | 4,4-DDD |
| 9.825 | -0.013 | 31539621 | 10.324 | 0.014 | 6669175 | 0.011 | 0.005 | 84.1* | 4,4-DDT |

\# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

**Analytical Resources, Incorporated**
Analytical Chemists and Consultants

# GC Analyst Notes / Corrective Action Log

ARI Project ID: UU62 Client ID: Anchor QEA

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
**427S**(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): PCBs

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7

Dates: Curve: 5/23/12 Analysis Start: 5/23/12

Endrin/DDT Breakdown <15%? YES / NO / NA
Method Blank In Control? YES / NO
ICal Meets RF & %RSD Criteria? YES / NO
LCS/LCSD Recovery In Control? YES / NO
CCal Meets RF & %RSD Criteria? YES / NO
Surrogate Recovery In Control? YES / NO
Manual Integrations for ICal? YES / NO
Manual Integrations for Samples? YES / NO
Internal Standard Meets Criteria? YES / NO / NA
Special Analysis Criteria Met? YES / NO / NA

**Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):**

Sample J: DCBP surr. recovery below QC due to heavy emulsion. (see extraction analyst notes).

**Additional Details on Reverse: Yes / No**

**Analyst:** YE **Date:** 5/24/12

**Reviewer:** [signature] **Date:** 5/24



UU52:01785

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0523-1.b/0523A032.d
Data file 2: 20120523.b/0523-2.b/0523A032.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1248
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248
Client ID:
Injection Date: 23-MAY-2012 20:17
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.610 | 0.002 | 50812075 | 4.611 | 0.002 | 31728329 | 20.0 | 20.1 | 0.3 | Tetrachloro-m-xylene |
| 12.990 | 0.000 | 66607044 | 13.364 | 0.000 | 25849060 | 18.6 | 19.3 | 3.6 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 50.0 | 50.2 |
| Decachlorobiphenyl | 46.5 | 48.2 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 157953737 | 2.4 |
| Hexabromobiphenyl | 248602423 | 233547465 | -6.1 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 112376967 | 1.6 |
| Hexabromobiphenyl | 108855531 | 103819809 | -4.6 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | RT | ZB5 Col Shift | Area | Amount | Peak# | RT | ZB35 Col Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1248 | 1 | 6.639 | 0.000 | 27232969 | 245.6 | 1 | 6.970 | 0.000 | 16320102 | 241.9 |
| Aroclor-1248 | 2 | 7.437 | 0.000 | 19997447 | 238.7 | 2 | 7.875 | 0.000 | 12386028 | 229.1 |
| Aroclor-1248 | 3 | 7.983 | 0.000 | 26241490 | 244.5 | 3 | 8.327 | 0.000 | 15018975 | 231.0 |
| Aroclor-1248 | 4 | 8.273 | 0.000 | 26247550 | 242.4 | 4 | 8.748 | 0.000 | 17621276 | 240.1 |
| Total Col1Ave (4 peaks): | | | | | 242.8 | Total Col2Ave (4 peaks): | | | | 235.5 RPD = 3 |
| Corrected Ave (3 peaks): | | | | | 241.9 | Corrected Ave (3 peaks): | | | | 233.4 RPD = 4 |

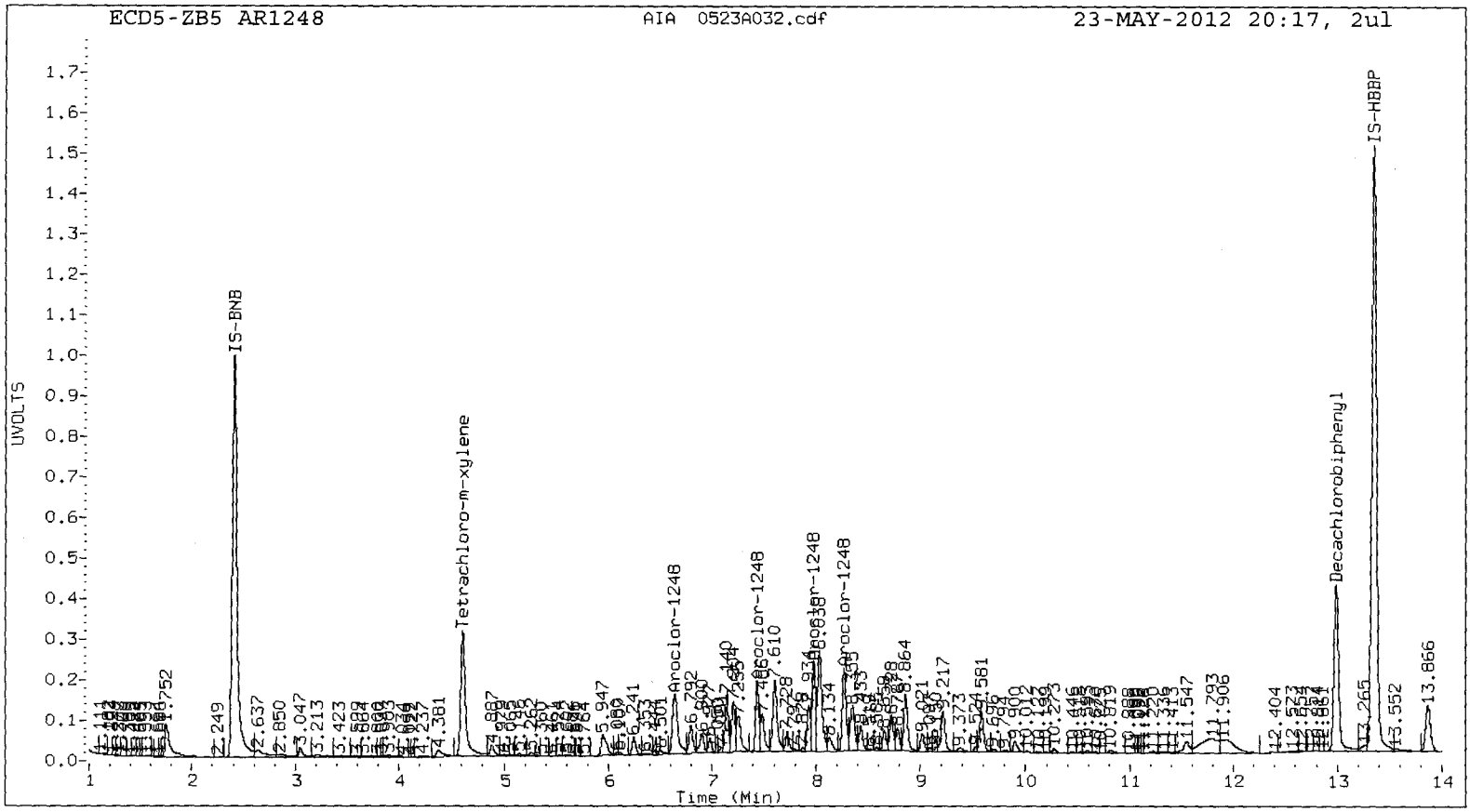
Total PCB Area Col1 (4.708 - 12.891) = 456397264 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (4.708 - 13.264) = 226545406 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical



UU52:01787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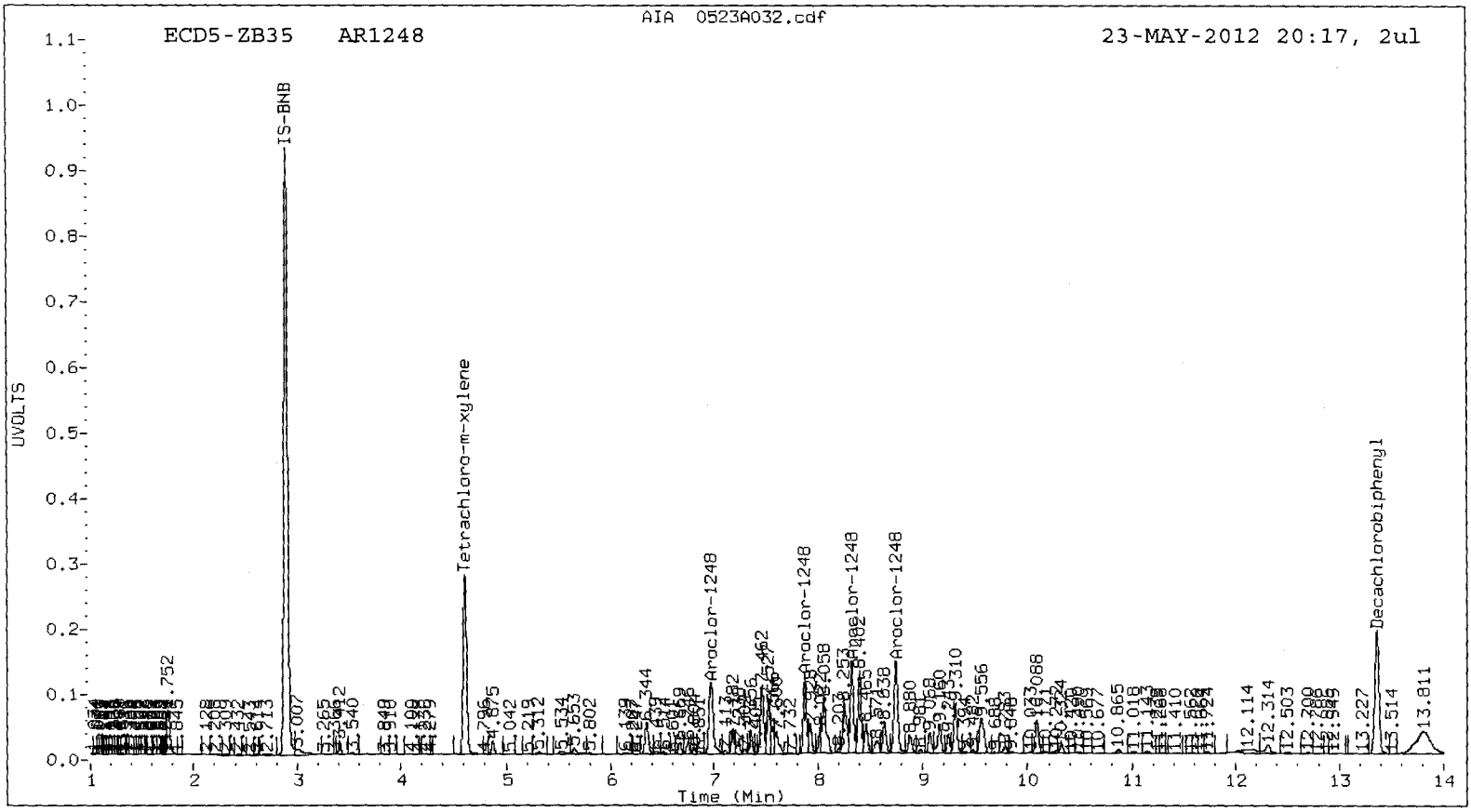
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl
IS-HBBP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23-MAY-2012 20:17, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1248
Decachlorobiphenyl

UU52:01788

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0523-1.b/0523A033.d
Data file 2: 20120523.b/0523-2.b/0523A033.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 23-MAY-2012 20:37
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.608 | 0.000 | 52582348 | 4.607 | -0.001 | 33060233 | 20.0 | 20.3 | 1.6 | Tetrachloro-m-xylene |
| 12.991 | 0.000 | 69890847 | 13.364 | 0.000 | 27438903 | 18.7 | 20.0 | 6.7 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 50.1 | 50.9 |
| Decachlorobiphenyl | 46.7 | 50.0 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 163348755 | 5.9 |
| Hexabromobiphenyl | 248602423 | 243593184 | -2.0 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 115501356 | 4.4 |
| Hexabromobiphenyl | 108855531 | 106216352 | -2.4 |

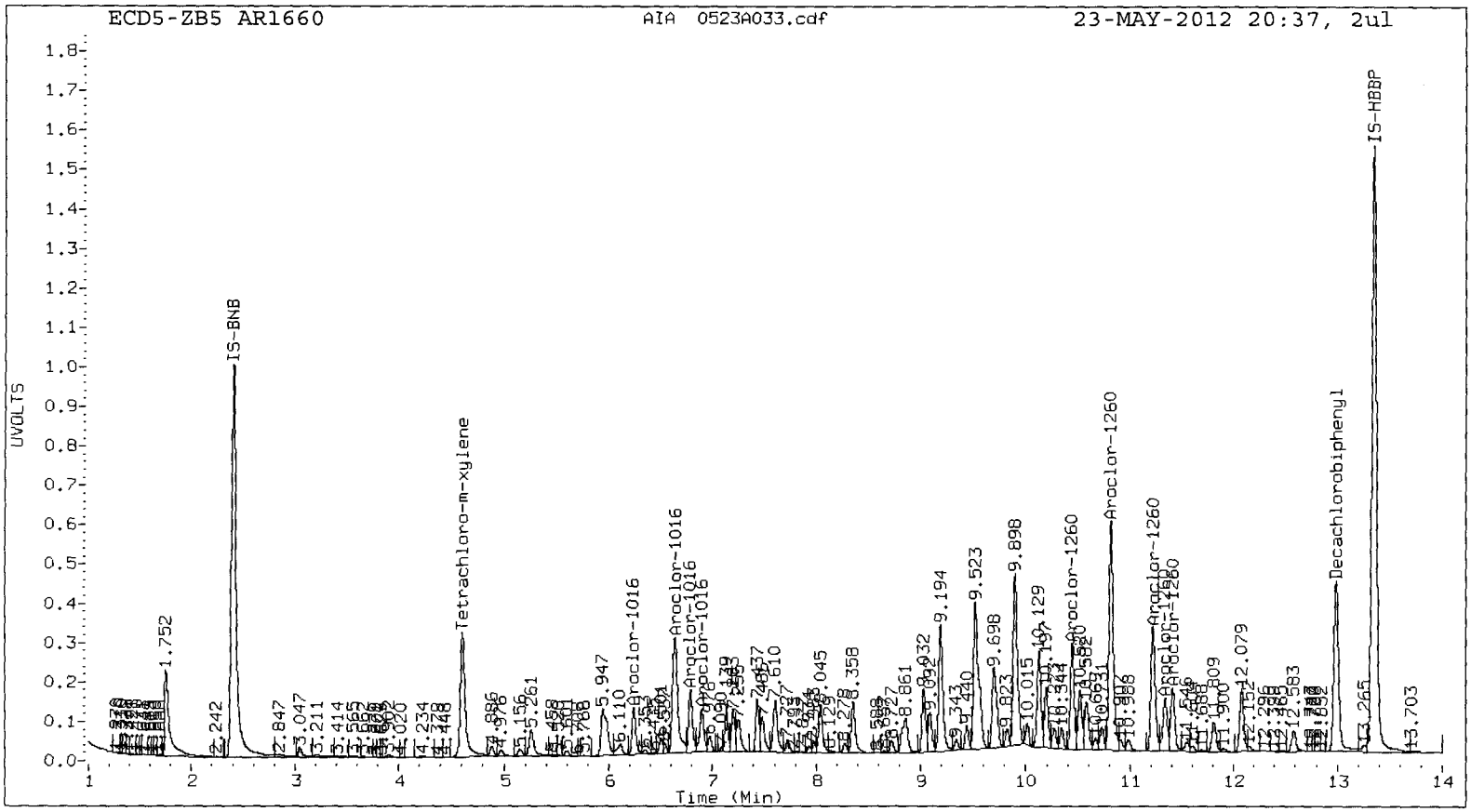
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | ZB5 Col RT | Shift | Area | Amount | Peak# | ZB35 Col RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.240 | 0.000 | 15867501 | 232.8 | 1 | 6.345 | 0.000 | 14738489 | 244.5 |
| Aroclor-1016 | 2 | 6.642 | 0.001 | 53691414 | 241.7 | 2 | 6.972 | -0.001 | 34075307 | 249.0 |
| Aroclor-1016 | 3 | 6.789 | 0.000 | 21404787 | 244.3 | 3 | 7.355 | -0.001 | 8958109 | 253.7 |
| Aroclor-1016 | 4 | 6.900 | 0.000 | 15388398 | 223.0 | 4 | 7.462 | 0.000 | 9666815 | 246.3 |
| Total Col1Ave (4 peaks): | | | | | 235.4 | Total Col2Ave (4 peaks): | | | | 248.4 RPD = 5 |
| Corrected Ave (3 peaks): | | | | | 232.5 | Corrected Ave (3 peaks): | | | | 246.6 RPD = 6 |
| Aroclor-1260 | 1 | 10.445 | -0.001 | 33394688 | 252.7 | 1 | 10.420 | 0.000 | 15730934 | 258.2 |
| Aroclor-1260 | 2 | 10.819 | -0.001 | 82139903 | 250.5 | 2 | 10.871 | 0.000 | 19879374 | 262.8 |
| Aroclor-1260 | 3 | 11.219 | -0.001 | 46117873 | 253.0 | 3 | 11.144 | 0.000 | 40751186 | 265.3 |
| Aroclor-1260 | 4 | 11.335 | -0.002 | 19362068 | 247.4 | 4 | 11.664 | -0.001 | 11607060 | 258.8 |
| Aroclor-1260 | 5 | 11.409 | -0.001 | 23464038 | 251.1 | NS | --- | | | ---- |
| Total Col1Ave (5 peaks): | | | | | 250.9 | Total Col2Ave (4 peaks): | | | | 261.3 RPD = 4 |
| Corrected Ave (4 peaks): | | | | | 250.4 | Corrected Ave (3 peaks): | | | | 260.0 RPD = 4 |

Total PCB Area Col1 (4.708 - 12.891) = 952009462 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.708 - 13.264) = 504148953 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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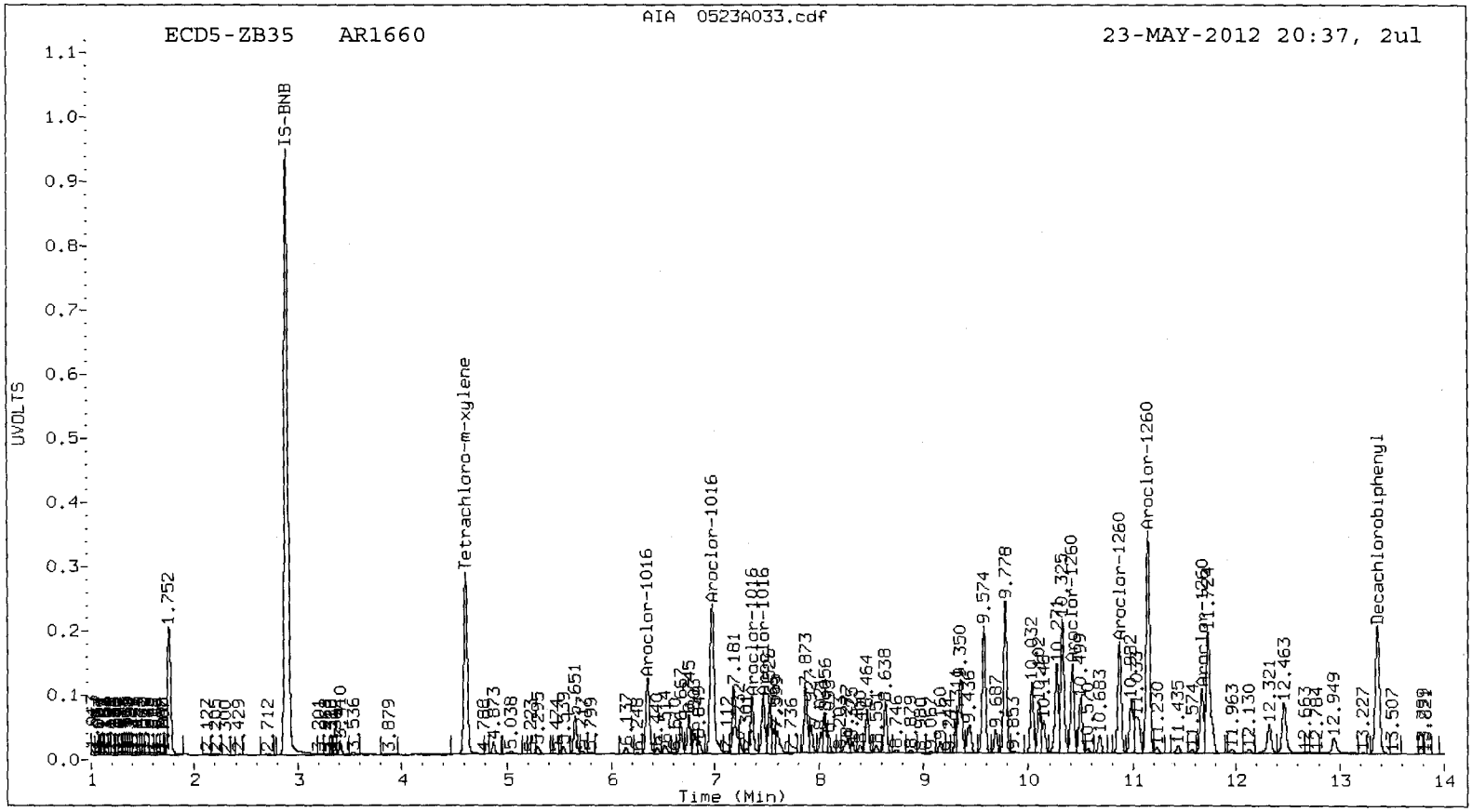
23-MAY-2012 20:37, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

Analytical Resources Inc.
Dual Column PCBs by SW8082

YZ 5/24/12

Data file 1: 20120523.b/0523-1.b/0523A038.d
Data file 2: 20120523.b/0523-2.b/0523A038.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU62MBW1
Client ID:
Injection Date: 23-MAY-2012 22:11
Ical Date: 23-MAY-2012
Matrix: WATER
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.608 | 0.000 | 75189491 | 4.610 | 0.001 | 48663739 | 31.2 | 28.3 | 9.8 | Tetrachloro-m-xylene |
| 12.991 | 0.000 | 130896269 | 13.364 | 0.000 | 52576056 | 30.5 | 33.5 | 9.4 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 77.9 | 70.6 |
| Decachlorobiphenyl | 76.2 | 83.7 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 150139970 | -2.7 |
| Hexabromobiphenyl | 248602423 | 280007398 | 12.6 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 122436878 | 10.7 |
| Hexabromobiphenyl | 108855531 | 121592797 | 11.7 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | ZB5 Col RT | Shift | Area | Amount | Peak# | ZB35 Col RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.241 | 0.000 | 236274 | 3.8 | 1 | 6.344 | -0.001 | 101799 | 1.6 |
| Aroclor-1016 | 2 | 6.578 | -0.063 | 998744 | 4.9 | 2 | 6.969 | -0.004 | 170900 | 1.2 |
| Aroclor-1016 | 3 | 6.786 | -0.003 | 140768 | 1.7 | 3 | 7.359 | 0.003 | 28225 | 0.8 |
| Aroclor-1016 | 4 | 6.898 | -0.002 | 344541 | 5.4 | 4 | 7.465 | 0.003 | 26475 | 0.6 |
| | Total Col1Ave (4 peaks): | | | | 4.0 | Total Col2Ave (4 peaks): | | | | 1.0 RPD = 117* |
| | Corrected Ave (3 peaks): | | | | 3.5 | Corrected Ave (3 peaks): | | | | 0.9 RPD = 121* |
| Aroclor-1221 | 1 | 4.887 | 0.003 | 6712270 | 596.4 | 1 | 5.314 | 0.024 | 811151 | 42.0 |
| Aroclor-1221 | 2 | 5.143 | -0.010 | 1603058 | 88.5 | 2 | 5.502 | -0.034 | 15287 | 1.3 |
| Aroclor-1221 | 3 | 5.256 | -0.002 | 317710 | 5.4 | 3 | 5.659 | 0.010 | 131127 | 3.7 |
| Aroclor-1221 | NS | --- | | | ---- | 4 | --- | | | 0.0 |
| | Total Col1Ave (3 peaks): | | | | 230.1 | Total Col2Ave (3 peaks): | | | | 15.7 RPD = 174* |
| | Corrected Ave: < 3 Peaks | | | | | Corrected Ave: < 3 Peaks | | | | |
| Aroclor-1232 | 1 | 6.241 | 0.003 | 236274 | 9.0 | 1 | 6.344 | -0.001 | 101799 | 3.5 |
| Aroclor-1232 | 2 | 6.578 | -0.061 | 998744 | 11.5 | 2 | 6.969 | -0.002 | 170900 | 2.8 |
| Aroclor-1232 | 3 | 6.786 | -0.001 | 140768 | 4.0 | 3 | 7.180 | 0.001 | 31349 | 1.5 |
| Aroclor-1232 | 4 | 7.976 | -0.005 | 14143 | 0.4 | 4 | 8.322 | -0.003 | 19633 | 0.9 |
| | Total Col1Ave (4 peaks): | | | | 6.2 | Total Col2Ave (4 peaks): | | | | 2.1 RPD = 98* |
| | Corrected Ave (3 peaks): | | | | 4.5 | Corrected Ave (3 peaks): | | | | 1.7 RPD = 89* |
| Aroclor-1242 | 1 | 6.241 | 0.004 | 236274 | 5.0 | 1 | 6.344 | 0.001 | 101799 | 2.0 |
| Aroclor-1242 | 2 | 6.578 | -0.059 | 998744 | 6.3 | 2 | 6.969 | -0.002 | 170900 | 1.5 |
| Aroclor-1242 | 3 | 6.786 | 0.000 | 140768 | 2.2 | 3 | 7.180 | 0.001 | 31349 | 0.7 |
| Aroclor-1242 | 4 | 7.976 | -0.004 | 14143 | 0.2 | 4 | 8.322 | -0.001 | 19633 | 0.5 |
| | Total Col1Ave (4 peaks): | | | | 3.5 | Total Col2Ave (4 peaks): | | | | 1.2 RPD = 98* |
| | Corrected Ave (3 peaks): | | | | 2.5 | Corrected Ave (3 peaks): | | | | 0.9 RPD = 95* |
| Aroclor-1248 | 1 | 6.578 | -0.060 | 998744 | 9.5 | 1 | 6.969 | -0.001 | 170900 | 2.3 |
| Aroclor-1248 | 2 | 7.439 | 0.002 | 141212 | 1.8 | 2 | 7.878 | 0.003 | 43650 | 0.7 |
| Aroclor-1248 | 3 | 7.976 | -0.007 | 14143 | 0.1 | 3 | 8.322 | -0.004 | 19633 | 0.3 |
| Aroclor-1248 | 4 | 8.255 | -0.018 | 3467153 | 33.7 | 4 | 8.691 | -0.057 | 1653977 | 20.7 |
| | Total Col1Ave (4 peaks): | | | | 11.3 | Total Col2Ave (4 peaks): | | | | 6.0 RPD = 61* |
| | Corrected Ave (3 peaks): | | | | 3.8 | Corrected Ave (3 peaks): | | | | 1.1 RPD = 109* |
| Aroclor-1254 | 1 | 8.255 | -0.101 | 3467153 | 25.2 | 1 | 8.468 | 0.003 | 17018 | 0.3 |
| Aroclor-1254 | 2 | 8.791 | 0.064 | 293419 | 3.3 | 2 | 8.691 | 0.052 | 1653977 | 24.2 |
| Aroclor-1254 | 3 | 8.861 | -0.003 | 140119 | 0.8 | 3 | 9.178 | 0.018 | 32876 | 0.6 |
| Aroclor-1254 | 4 | 9.192 | -0.021 | 475411 | 2.6 | 4 | 9.308 | -0.002 | 25634 | 0.2 |
| Aroclor-1254 | 5 | 9.574 | 0.001 | 118375 | 1.0 | 5 | 10.089 | -0.004 | 17384 | 0.3 |
| | Total Col1Ave (5 peaks): | | | | 6.6 | Total Col2Ave (5 peaks): | | | | 5.1 RPD = 25 |
| | Corrected Ave (4 peaks): | | | | 1.9 | Corrected Ave (4 peaks): | | | | 0.4 RPD = 138* |
| Aroclor-1260 | 1 | 10.445 | -0.001 | 200052 | 1.3 | 1 | 10.453 | 0.033 | 73970 | 1.1 |
| Aroclor-1260 | 2 | 10.859 | 0.039 | 766541 | 2.0 | 2 | 10.869 | -0.002 | 58137 | 0.7 |
| Aroclor-1260 | 3 | 11.217 | -0.004 | 146743 | 0.7 | 3 | 11.145 | 0.002 | 46554 | 0.3 |
| Aroclor-1260 | 4 | 11.319 | -0.018 | 222293 | 2.5 | 4 | 11.616 | -0.049 | 232719 | 4.5 |
| Aroclor-1260 | 5 | 11.443 | 0.033 | 19641 | 0.2 | NS | --- | | | ---- |
| | Total Col1Ave (5 peaks): | | | | 1.3 | Total Col2Ave (4 peaks): | | | | 1.6 RPD = 20 |
| | Corrected Ave (4 peaks): | | | | 1.1 | Corrected Ave (3 peaks): | | | | 0.7 RPD = 46* |
| Aroclor-1262 | 1 | 10.139 | 0.011 | 444926 | 2.0 | 1 | 10.453 | 0.034 | 73970 | 0.6 |
| Aroclor-1262 | 2 | 10.445 | 0.000 | 200052 | 1.2 | 2 | 10.869 | -0.001 | 58137 | 0.6 |
| Aroclor-1262 | 3 | 10.859 | 0.041 | 766541 | 1.6 | 3 | 11.145 | 0.003 | 46554 | 0.2 |
| Aroclor-1262 | 4 | 11.319 | -0.015 | 222293 | 1.3 | 4 | 11.616 | -0.048 | 232719 | 2.6 |
| Aroclor-1262 | 5 | 11.443 | 0.036 | 19641 | 0.1 | 5 | 12.426 | -0.037 | 30813 | 0.4 |
| | Total Col1Ave (5 peaks): | | | | 1.2 | Total Col2Ave (5 peaks): | | | | 0.9 RPD = 34 |
| | Corrected Ave (4 peaks): | | | | 1.1 | Corrected Ave (4 peaks): | | | | 0.5 RPD = 80* |
| Aroclor-1268 | 1 | 11.319 | -0.017 | 222293 | 0.5 | 1 | 11.616 | -0.048 | 232719 | 1.0 |
| Aroclor-1268 | 2 | 11.443 | 0.036 | 19641 | 0.0 | 2 | --- | | | 0.0 |

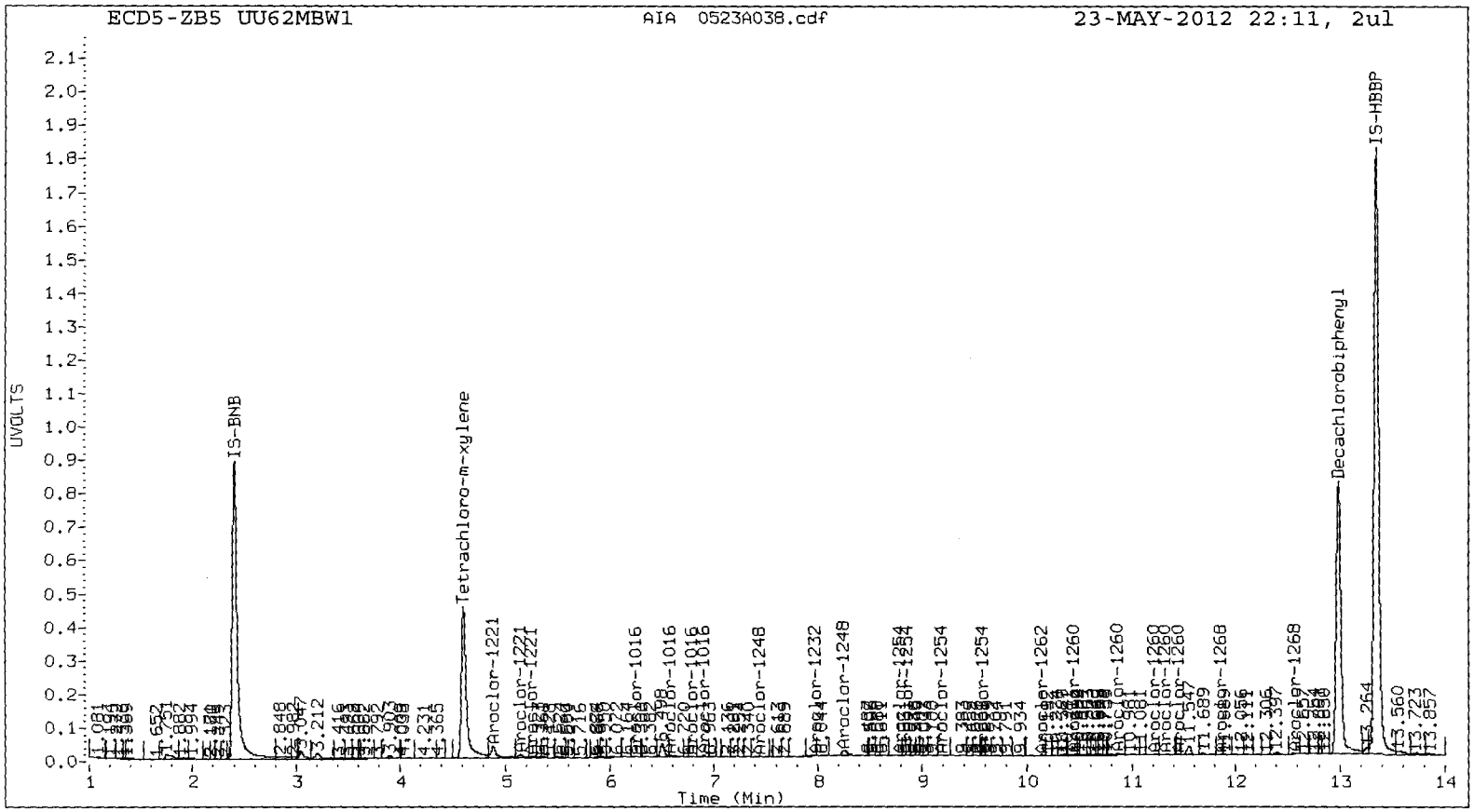
| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1268 | 3 | 11.858 | 0.065 | 87926 | 0.2 | 3 | --- | | 0.0 |
| Aroclor-1268 | 4 | 12.572 | -0.013 | 175952 | 0.1 | 4 | 12.940 | -0.009 | 64945 | 0.1 |
| Total Col1Ave (4 peaks): | | | | | 0.2 | Col2Ave: <3 Quant Peaks | | | |

Total PCB Area Col1 (4.708 - 12.891) = 36070686 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.708 - 13.264) = 11231670 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Time (Min)
IS-BNB
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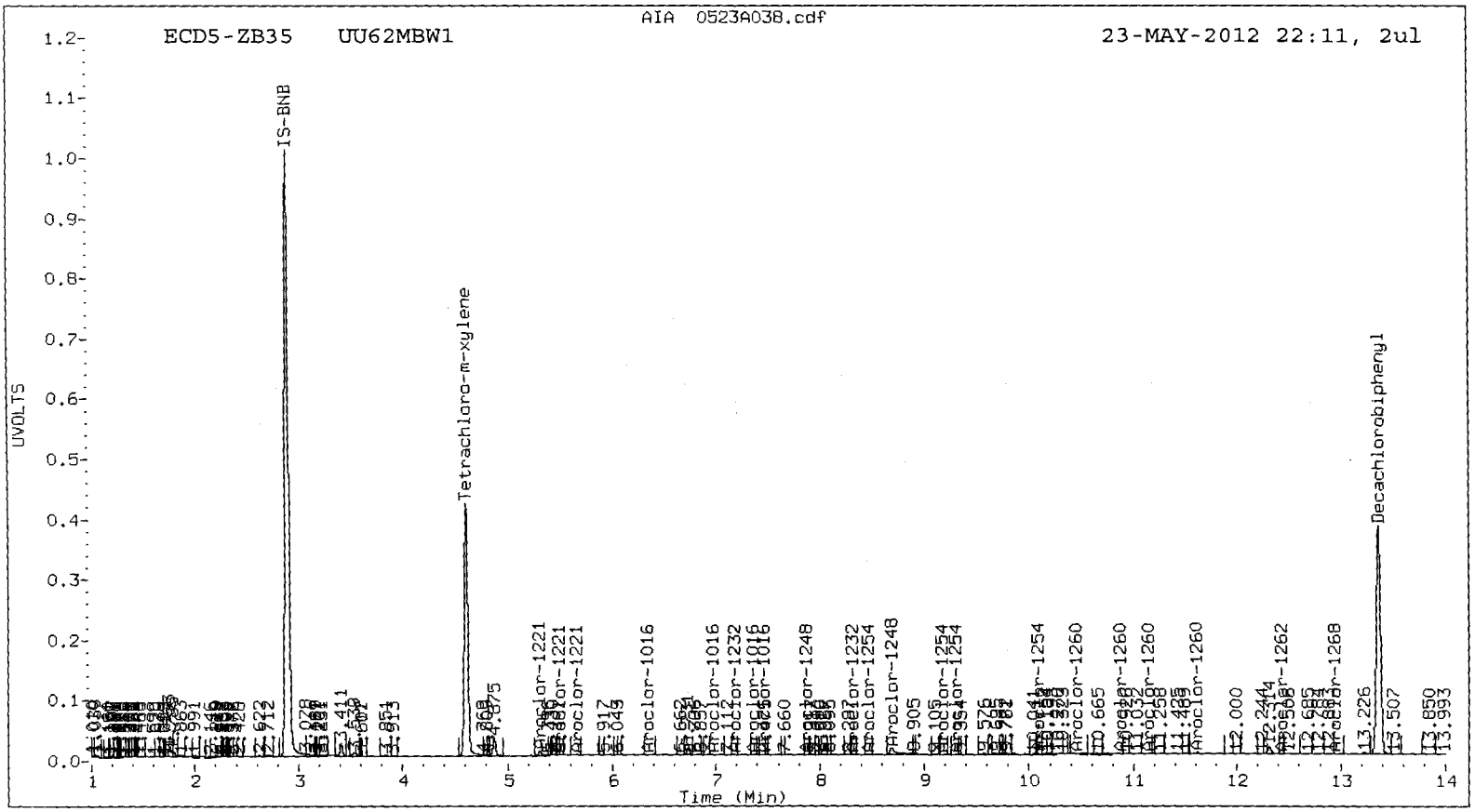
Decachlorobiphenyl
IS-HBBP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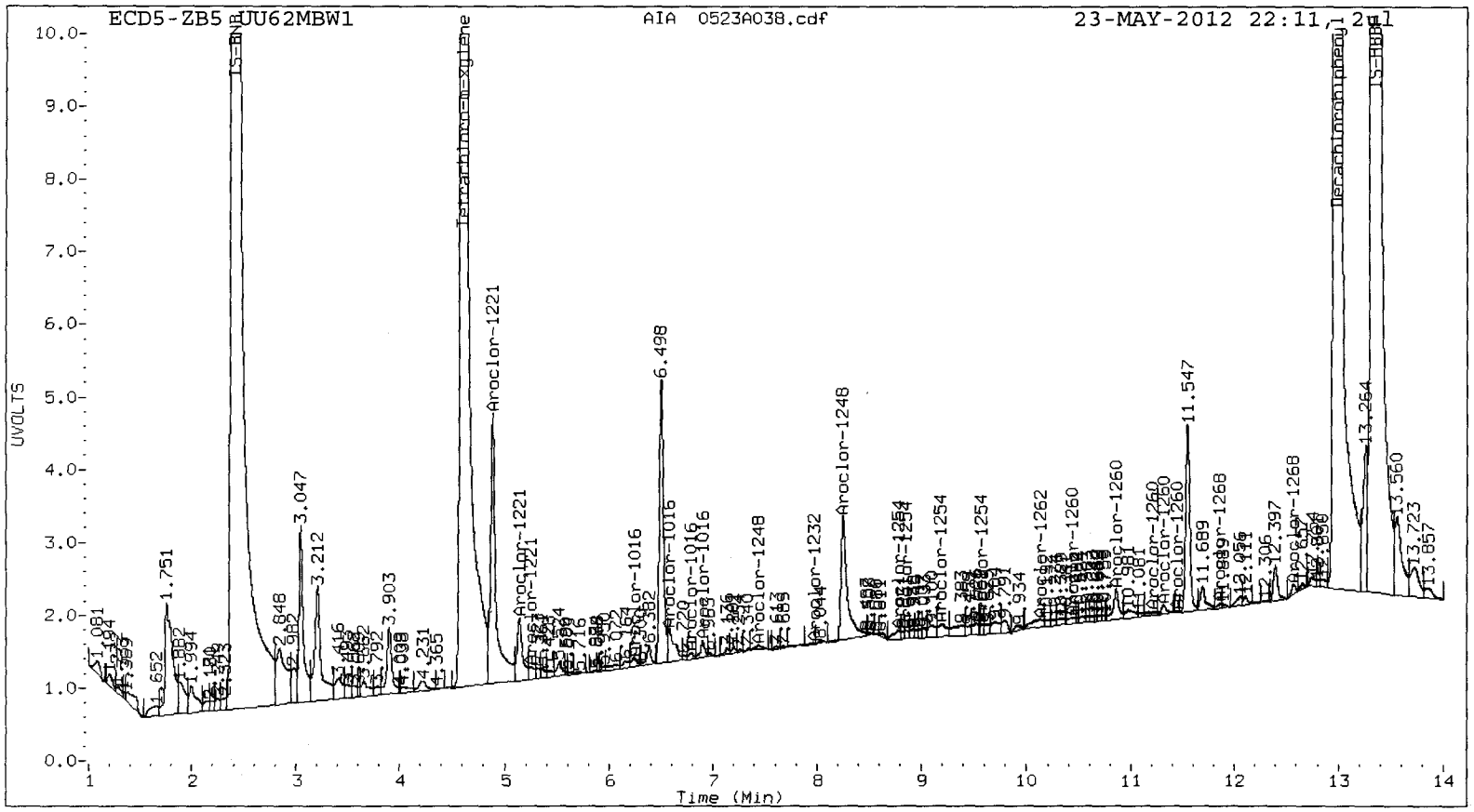
Decachlorobiphenyl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UVOLTS
Time (Min)
IS-HBB
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Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
1.751
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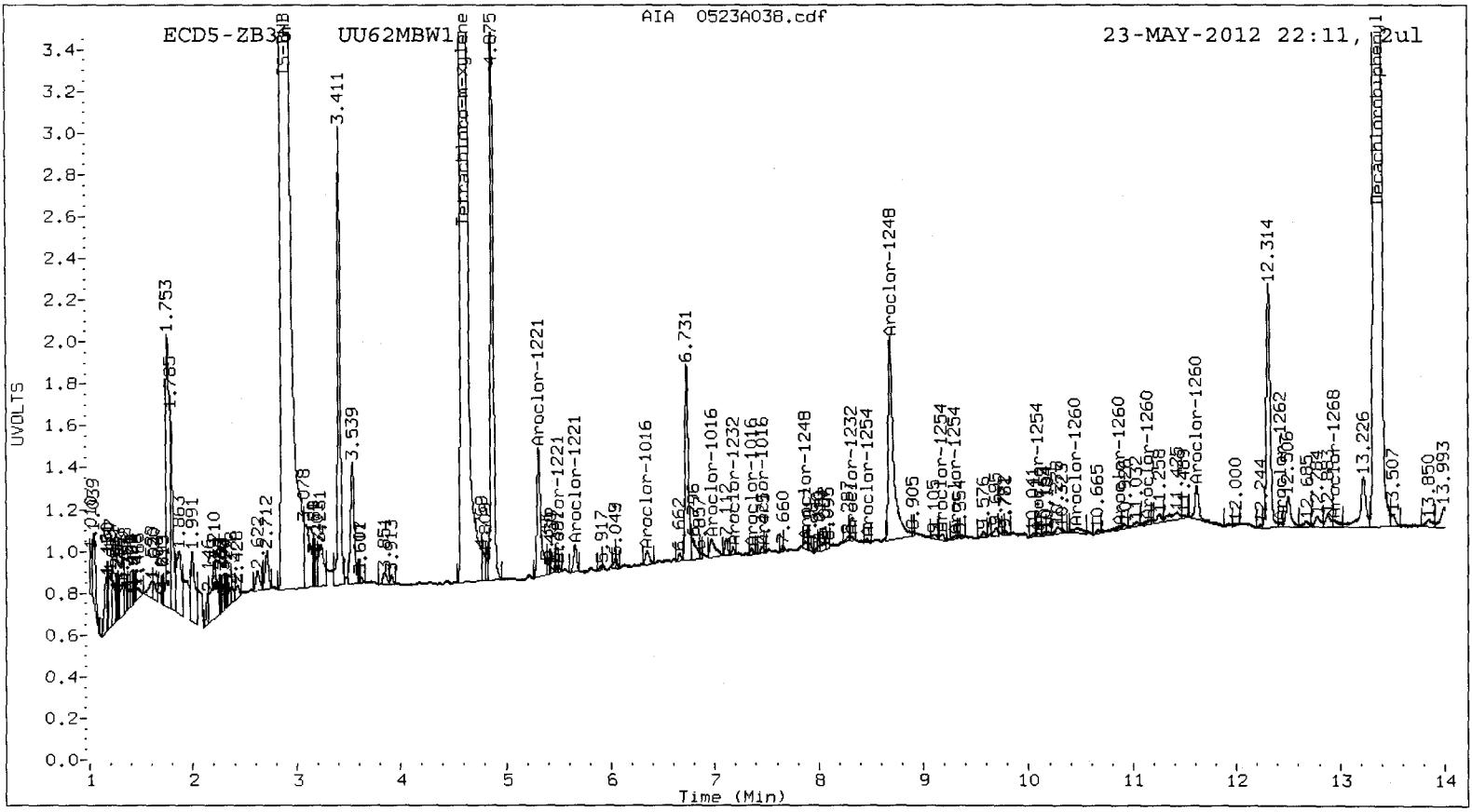
13.857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Time (Min)
IS-HBB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
1.753
3.411
3.539
4.675
6.731
12.314
13.226
13.507
13.850
13.993

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0523-1.b/0523A039.d
Data file 2: 20120523.b/0523-2.b/0523A039.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU62LCSW1
Client ID:
Injection Date: 23-MAY-2012 22:30
Ical Date: 23-MAY-2012
Matrix: WATER
Dilution Factor: 1.000

Y2 5/24/12

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.608 | 0.000 | 82705696 | 4.609 | 0.001 | 53444168 | 35.2 | 31.4 | 11.4 | Tetrachloro-m-xylene |
| 12.991 | 0.000 | 133623204 | 13.364 | 0.000 | 53139002 | 31.3 | 34.0 | 8.5 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 88.0 | 78.6 |
| Decachlorobiphenyl | 78.2 | 85.1 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 146162804 | -5.2 |
| Hexabromobiphenyl | 248602423 | 278529213 | 12.0 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 120879756 | 9.3 |
| Hexabromobiphenyl | 108855531 | 120832932 | 11.0 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | ZB5 Col RT | Shift | Area | Amount | Peak# | ZB35 Col RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.240 | -0.001 | 26687493 | 437.6 | 1 | 6.346 | 0.001 | 22769573 | 360.9 |
| Aroclor-1016 | 2 | 6.641 | 0.000 | 90169414 | 453.6 | 2 | 6.973 | 0.000 | 56017778 | 391.2 |
| Aroclor-1016 | 3 | 6.789 | -0.001 | 37702259 | 480.9 | 3 | 7.355 | -0.001 | 14877515 | 402.7 |
| Aroclor-1016 | 4 | 6.899 | -0.001 | 28945032 | 468.7 | 4 | 7.462 | 0.000 | 16308034 | 397.0 |
| | Total Col1Ave (4 peaks): | | | | 460.2 | | Total Col2Ave (4 peaks): | | | 387.9 RPD = 17 |
| | Corrected Ave (3 peaks): | | | | 453.3 | | Corrected Ave (3 peaks): | | | 383.0 RPD = 17 |
| Aroclor-1221 | 1 | 4.887 | 0.003 | 5570000 | 508.4 | 1 | 5.296 | 0.006 | 2759807 | 144.9 |
| Aroclor-1221 | 2 | 5.155 | 0.002 | 4716199 | 267.4 | 2 | 5.540 | 0.003 | 2137892 | 190.0 |
| Aroclor-1221 | 3 | 5.261 | 0.002 | 17589684 | 304.3 | 3 | 5.652 | 0.004 | 9651006 | 274.2 |
| Aroclor-1221 | NS | --- | | | ---- | 4 | 5.719 | 0.001 | 746973 | 115.8 |
| | Total Col1Ave (3 peaks): | | | | 360.0 | | Total Col2Ave (4 peaks): | | | 181.2 RPD = 66* |
| | Corrected Ave: < 3 Peaks | | | | | | Corrected Ave (3 peaks): | | | 150.2 |
| Aroclor-1232 | 1 | 6.240 | 0.002 | 26687493 | 1048.0 | 1 | 6.346 | 0.001 | 22769573 | 782.1 |
| Aroclor-1232 | 2 | 6.641 | 0.002 | 90169414 | 1064.6 | 2 | 6.973 | 0.002 | 56017778 | 919.0 |
| Aroclor-1232 | 3 | 6.789 | 0.001 | 37702259 | 1097.5 | 3 | 7.181 | 0.001 | 20082901 | 976.6 |
| Aroclor-1232 | 4 | 7.982 | 0.002 | 6007870 | 182.1 | 4 | 8.325 | 0.000 | 3326559 | 147.5 |
| | Total Col1Ave (4 peaks): | | | | 848.0 | | Total Col2Ave (4 peaks): | | | 706.3 RPD = 18 |
| | Corrected Ave (3 peaks): | | | | 764.9 | | Corrected Ave (3 peaks): | | | 616.2 RPD = 22 |
| Aroclor-1242 | 1 | 6.240 | 0.003 | 26687493 | 580.1 | 1 | 6.346 | 0.003 | 22769573 | 461.7 |
| Aroclor-1242 | 2 | 6.641 | 0.003 | 90169414 | 587.8 | 2 | 6.973 | 0.002 | 56017778 | 500.1 |
| Aroclor-1242 | 3 | 6.789 | 0.002 | 37702259 | 615.9 | 3 | 7.181 | 0.002 | 20082901 | 441.3 |
| Aroclor-1242 | 4 | 7.982 | 0.002 | 6007870 | 105.4 | 4 | 8.325 | 0.001 | 3326559 | 84.1 |
| | Total Col1Ave (4 peaks): | | | | 472.3 | | Total Col2Ave (4 peaks): | | | 371.8 RPD = 24 |
| | Corrected Ave (3 peaks): | | | | 424.4 | | Corrected Ave (3 peaks): | | | 329.0 RPD = 25 |
| Aroclor-1248 | 1 | 6.641 | 0.002 | 90169414 | 878.7 | 1 | 6.973 | 0.003 | 56017778 | 771.8 |
| Aroclor-1248 | 2 | 7.437 | -0.001 | 28049942 | 361.8 | 2 | 7.873 | -0.001 | 19035398 | 327.3 |
| Aroclor-1248 | 3 | 7.982 | -0.001 | 6007870 | 60.5 | 3 | 8.325 | -0.002 | 3326559 | 47.6 |
| Aroclor-1248 | 4 | 8.276 | 0.002 | 7856798 | 78.4 | 4 | 8.744 | -0.003 | 1569888 | 19.9 |
| | Total Col1Ave (4 peaks): | | | | 344.9 | | Total Col2Ave (4 peaks): | | | 291.6 RPD = 17 |
| | Corrected Ave (3 peaks): | | | | 166.9 | | Corrected Ave (3 peaks): | | | 131.6 RPD = 24 |
| Aroclor-1254 | 1 | 8.358 | 0.001 | 31934567 | 238.0 | 1 | 8.465 | 0.000 | 12546316 | 236.4 |
| Aroclor-1254 | 2 | 8.727 | 0.000 | 6371352 | 73.8 | 2 | 8.637 | -0.001 | 15385637 | 228.1 |
| Aroclor-1254 | 3 | 8.861 | -0.002 | 30587852 | 183.4 | 3 | 9.160 | 0.000 | 3319569 | 64.4 |
| Aroclor-1254 | 4 | 9.194 | -0.019 | 78033714 | 434.6 | 4 | 9.312 | 0.002 | 7237016 | 63.5 |
| Aroclor-1254 | 5 | 9.523 | -0.051 | 116220805 | 1040.7 | 5 | 10.102 | 0.008 | 15100818 | 226.0 |
| | Total Col1Ave (5 peaks): | | | | 394.1 | | Total Col2Ave (5 peaks): | | | 163.7 RPD = 83* |
| | Corrected Ave (4 peaks): | | | | 232.5 | | Corrected Ave (4 peaks): | | | 145.5 RPD = 46* |
| Aroclor-1260 | 1 | 10.446 | 0.000 | 62512365 | 413.7 | 1 | 10.421 | 0.001 | 28199415 | 406.9 |
| Aroclor-1260 | 2 | 10.821 | 0.001 | 147937448 | 394.5 | 2 | 10.871 | 0.000 | 35211915 | 409.2 |
| Aroclor-1260 | 3 | 11.220 | 0.000 | 83732492 | 401.7 | 3 | 11.144 | 0.000 | 71612258 | 409.9 |
| Aroclor-1260 | 4 | 11.336 | -0.001 | 36132326 | 403.7 | 4 | 11.665 | 0.000 | 20684456 | 405.5 |
| Aroclor-1260 | 5 | 11.410 | 0.000 | 44212198 | 413.8 | NS | --- | | | ---- |
| | Total Col1Ave (5 peaks): | | | | 405.5 | | Total Col2Ave (4 peaks): | | | 407.9 RPD = 1 |
| | Corrected Ave (4 peaks): | | | | 403.4 | | Corrected Ave (3 peaks): | | | 407.2 RPD = 1 |
| Aroclor-1262 | 1 | 10.129 | 0.001 | 61674453 | 277.8 | 1 | 10.421 | 0.002 | 28199415 | 249.2 |
| Aroclor-1262 | 2 | 10.446 | 0.002 | 62512365 | 368.5 | 2 | 10.871 | 0.001 | 35211915 | 360.7 |
| Aroclor-1262 | 3 | 10.821 | 0.002 | 147937448 | 319.1 | 3 | 11.144 | 0.002 | 71612258 | 323.1 |
| Aroclor-1262 | 4 | 11.336 | 0.002 | 36132326 | 213.3 | 4 | 11.665 | 0.001 | 20684456 | 231.9 |
| Aroclor-1262 | 5 | 11.410 | 0.003 | 44212198 | 229.5 | 5 | 12.464 | 0.002 | 19045004 | 229.3 |
| | Total Col1Ave (5 peaks): | | | | 281.7 | | Total Col2Ave (5 peaks): | | | 278.8 RPD = 1 |
| | Corrected Ave (4 peaks): | | | | 259.9 | | Corrected Ave (4 peaks): | | | 258.4 RPD = 1 |
| Aroclor-1268 | 1 | 11.336 | 0.000 | 36132326 | 76.2 | 1 | 11.665 | 0.001 | 20684456 | 89.7 |
| Aroclor-1268 | 2 | 11.410 | 0.003 | 44212198 | 92.7 | 2 | 11.725 | -0.006 | 49870433 | 229.3 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1268 | 3 | 11.809 | 0.017 | 21560612 | 54.2 | 3 | 12.129 | 0.002 | 1247154 | 6.8 |
| Aroclor-1268 | 4 | 12.583 | -0.002 | 15637333 | 13.4 | 4 | 12.950 | 0.001 | 5475909 | 10.6 |

Total Col1Ave (4 peaks): 59.1 Total Col2Ave (4 peaks): 84.1 RPD = 35

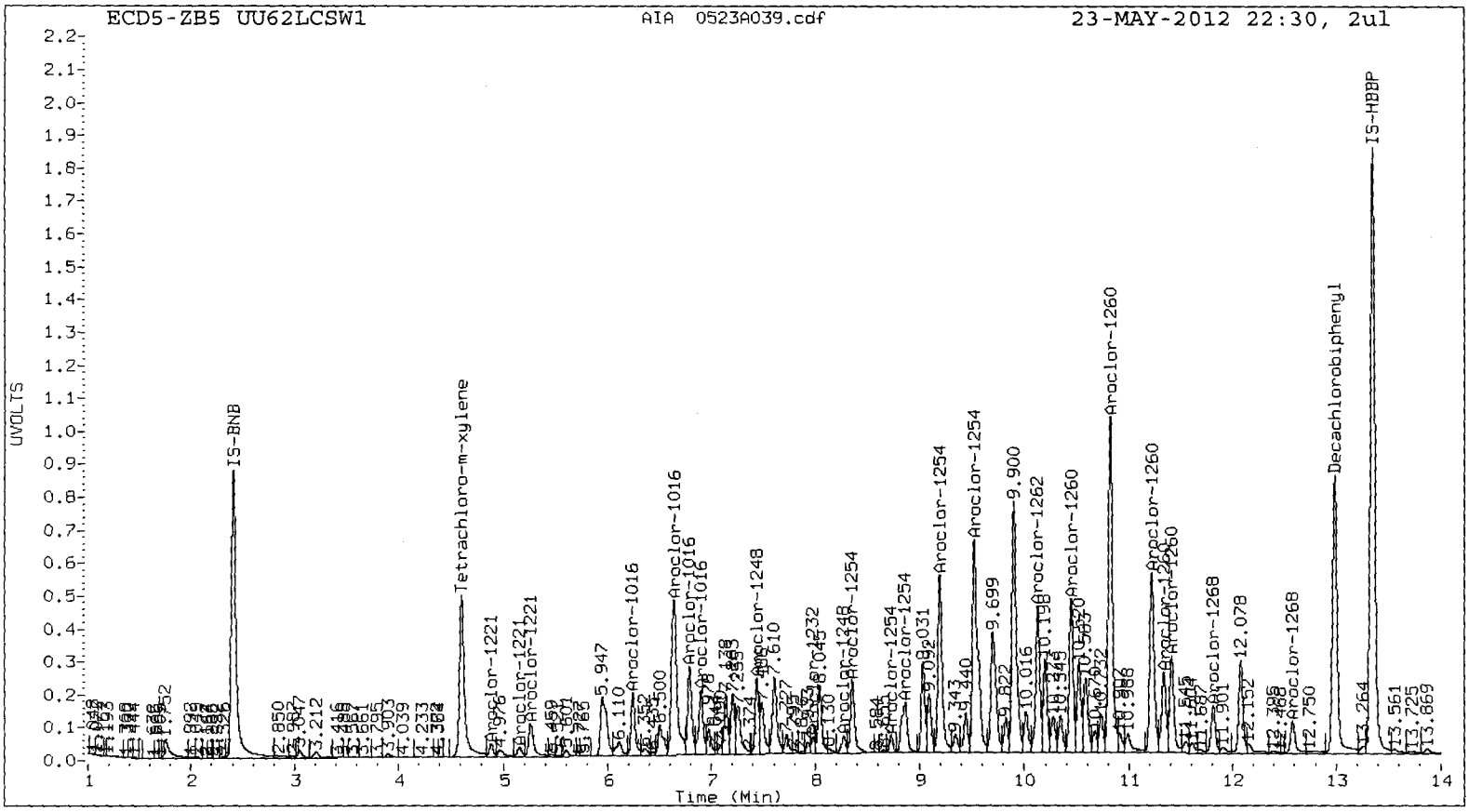
Corrected Ave (3 peaks): 47.9 Corrected Ave (3 peaks): 35.7 RPD = 29

Total PCB Area Col1 (4.708 - 12.891) = 1807404629 Col1 Total PCB = 1.0 ppm*

Total PCB Area Col2 (4.708 - 13.264) = 873038966 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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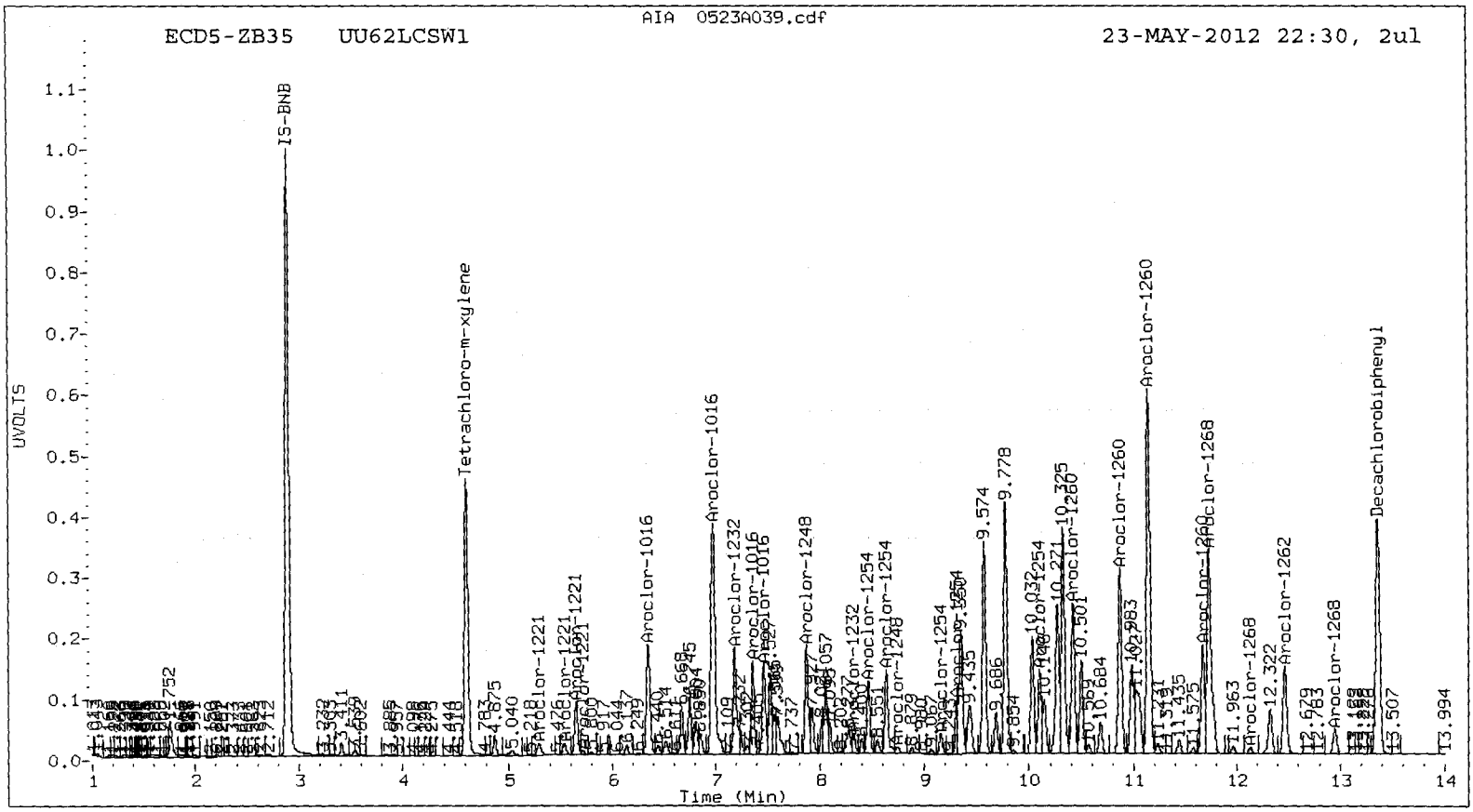
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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UVOLTS
Time (Min)
IS-BNB
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Aroclor-1016
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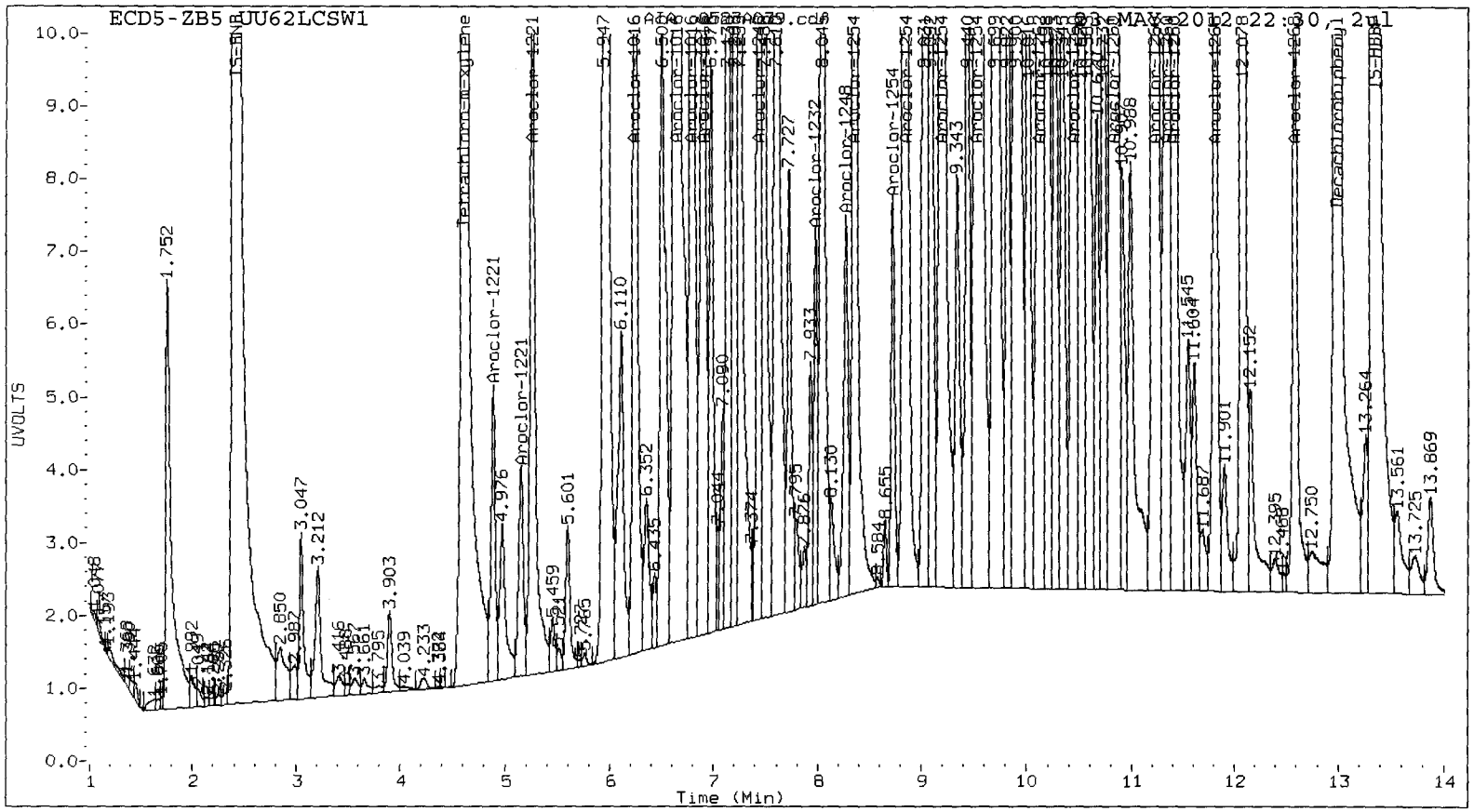
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl


ECD5-ZB5 UU62LCSW1
22:30, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
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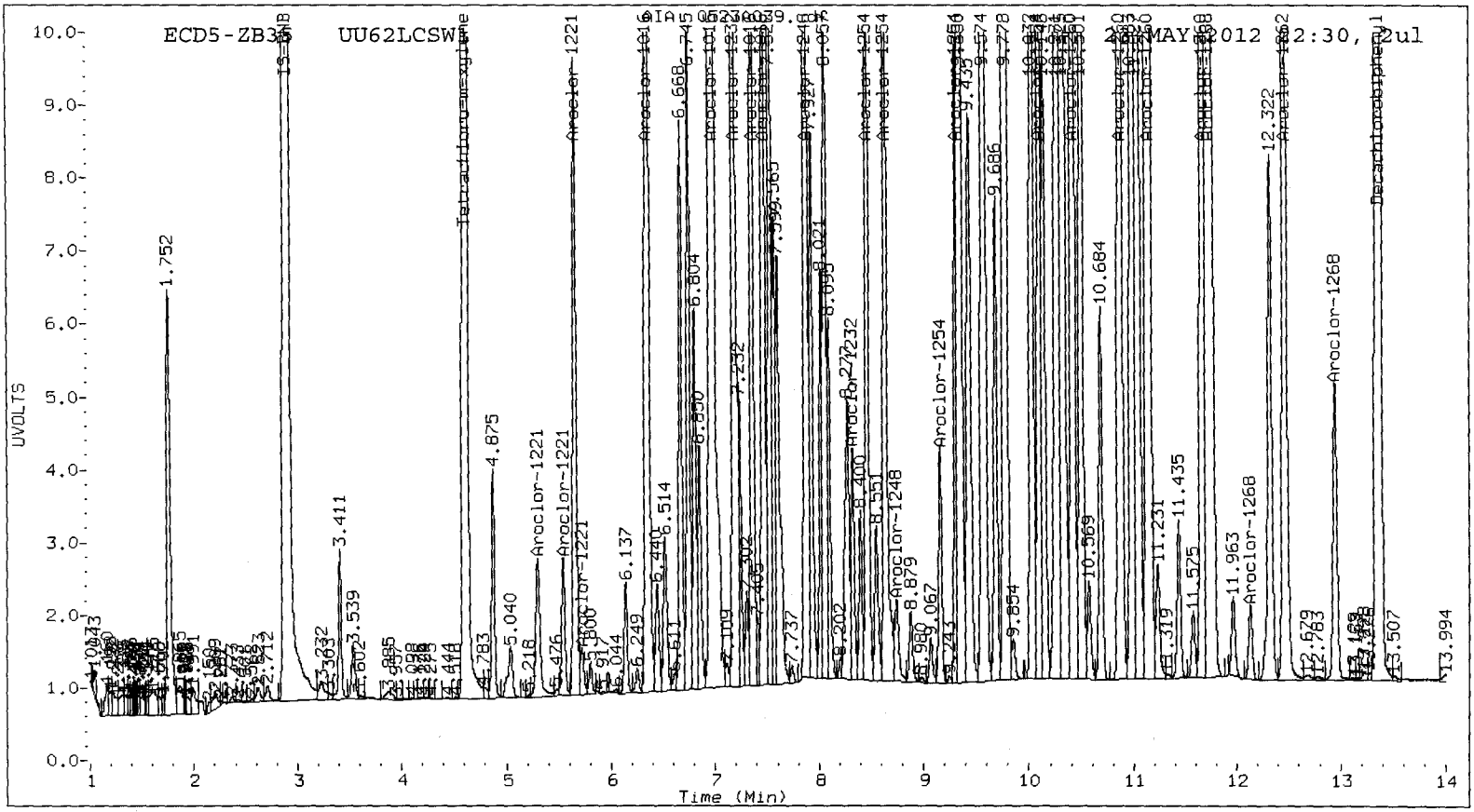
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
IS-HBB


ECD5-ZB3 UU62LCSW
22:30, 2ul
UVOLTS
Time (Min)
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0523-1.b/0523A040.d
Data file 2: 20120523.b/0523-2.b/0523A040.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU62LCSDW1
Client ID:
Injection Date: 23-MAY-2012 22:49
Ical Date: 23-MAY-2012
Matrix: WATER
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.609 | 0.001 | 79418028 | 4.610 | 0.002 | 51633210 | 33.9 | 29.9 | 12.4 | Tetrachloro-m-xylene |
| 12.992 | 0.001 | 129391946 | 13.364 | 0.000 | 51892458 | 29.5 | 32.4 | 9.4 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 84.7 | 74.8 |
| Decachlorobiphenyl | 73.8 | 81.1 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 145934035 | -5.4 |
| Hexabromobiphenyl | 248602423 | 285560925 | 14.9 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 122645230 | 10.9 |
| Hexabromobiphenyl | 108855531 | 123839457 | 13.8 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | ZB5 Col RT | Shift | Area | Amount | Peak# | ZB35 Col RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.241 | 0.000 | 25525431 | 419.2 | 1 | 6.347 | 0.001 | 21817842 | 340.8 |
| Aroclor-1016 | 2 | 6.642 | 0.001 | 87035881 | 438.5 | 2 | 6.974 | 0.000 | 54199352 | 373.0 |
| Aroclor-1016 | 3 | 6.789 | 0.000 | 36493474 | 466.2 | 3 | 7.356 | 0.000 | 15043215 | 401.3 |
| Aroclor-1016 | 4 | 6.900 | 0.000 | 28400431 | 460.6 | 4 | 7.463 | 0.001 | 15865864 | 380.7 |
| | Total Col1Ave (4 peaks): | | | | 446.1 | Total Col2Ave (4 peaks): | | | | 373.9 RPD = 18 |
| | Corrected Ave (3 peaks): | | | | 439.5 | Corrected Ave (3 peaks): | | | | 364.8 RPD = 19 |
| Aroclor-1221 | 1 | 4.887 | 0.003 | 5420536 | 495.5 | 1 | 5.298 | 0.008 | 2603513 | 134.7 |
| Aroclor-1221 | 2 | 5.156 | 0.003 | 4465208 | 253.5 | 2 | 5.541 | 0.005 | 2182658 | 191.1 |
| Aroclor-1221 | 3 | 5.261 | 0.003 | 16364681 | 283.6 | 3 | 5.653 | 0.004 | 9085459 | 254.4 |
| Aroclor-1221 | NS | --- | | | ---- | 4 | 5.720 | 0.003 | 707449 | 108.1 |
| | Total Col1Ave (3 peaks): | | | | 344.2 | Total Col2Ave (4 peaks): | | | | 172.1 RPD = 67* |
| | Corrected Ave: < 3 Peaks | | | | | Corrected Ave (3 peaks): | | | | 144.7 |
| Aroclor-1232 | 1 | 6.241 | 0.002 | 25525431 | 1003.9 | 1 | 6.347 | 0.001 | 21817842 | 738.6 |
| Aroclor-1232 | 2 | 6.642 | 0.003 | 87035881 | 1029.2 | 2 | 6.974 | 0.002 | 54199352 | 876.4 |
| Aroclor-1232 | 3 | 6.789 | 0.002 | 36493474 | 1064.0 | 3 | 7.182 | 0.002 | 18903255 | 906.0 |
| Aroclor-1232 | 4 | 7.983 | 0.003 | 5836972 | 177.2 | 4 | 8.325 | 0.000 | 3319772 | 145.1 |
| | Total Col1Ave (4 peaks): | | | | 818.6 | Total Col2Ave (4 peaks): | | | | 666.5 RPD = 20 |
| | Corrected Ave (3 peaks): | | | | 736.8 | Corrected Ave (3 peaks): | | | | 586.7 RPD = 23 |
| Aroclor-1242 | 1 | 6.241 | 0.004 | 25525431 | 555.7 | 1 | 6.347 | 0.003 | 21817842 | 436.0 |
| Aroclor-1242 | 2 | 6.642 | 0.004 | 87035881 | 568.2 | 2 | 6.974 | 0.003 | 54199352 | 476.9 |
| Aroclor-1242 | 3 | 6.789 | 0.003 | 36493474 | 597.1 | 3 | 7.182 | 0.003 | 18903255 | 409.4 |
| Aroclor-1242 | 4 | 7.983 | 0.003 | 5836972 | 102.5 | 4 | 8.325 | 0.002 | 3319772 | 82.7 |
| | Total Col1Ave (4 peaks): | | | | 455.9 | Total Col2Ave (4 peaks): | | | | 351.3 RPD = 26 |
| | Corrected Ave (3 peaks): | | | | 408.8 | Corrected Ave (3 peaks): | | | | 309.4 RPD = 28 |
| Aroclor-1248 | 1 | 6.642 | 0.003 | 87035881 | 849.5 | 1 | 6.974 | 0.004 | 54199352 | 736.0 |
| Aroclor-1248 | 2 | 7.438 | 0.000 | 27424266 | 354.3 | 2 | 7.874 | -0.001 | 18684048 | 316.7 |
| Aroclor-1248 | 3 | 7.983 | 0.000 | 5836972 | 58.9 | 3 | 8.325 | -0.001 | 3319772 | 46.8 |
| Aroclor-1248 | 4 | 8.276 | 0.002 | 8395198 | 83.9 | 4 | 8.745 | -0.003 | 1724972 | 21.5 |
| | Total Col1Ave (4 peaks): | | | | 336.6 | Total Col2Ave (4 peaks): | | | | 280.2 RPD = 18 |
| | Corrected Ave (3 peaks): | | | | 165.7 | Corrected Ave (3 peaks): | | | | 128.3 RPD = 25 |
| Aroclor-1254 | 1 | 8.359 | 0.002 | 31490265 | 235.1 | 1 | 8.466 | 0.000 | 12408292 | 230.4 |
| Aroclor-1254 | 2 | 8.728 | 0.001 | 6382799 | 74.0 | 2 | 8.638 | 0.000 | 15702597 | 229.4 |
| Aroclor-1254 | 3 | 8.862 | -0.002 | 30288799 | 181.9 | 3 | 9.160 | 0.000 | 3277088 | 62.7 |
| Aroclor-1254 | 4 | 9.195 | -0.018 | 77597613 | 432.9 | 4 | 9.313 | 0.003 | 7044154 | 60.9 |
| Aroclor-1254 | 5 | 9.524 | -0.050 | 115812079 | 1038.7 | 5 | 10.103 | 0.010 | 15421490 | 227.5 |
| | Total Col1Ave (5 peaks): | | | | 392.5 | Total Col2Ave (5 peaks): | | | | 162.2 RPD = 83* |
| | Corrected Ave (4 peaks): | | | | 231.0 | Corrected Ave (4 peaks): | | | | 145.1 RPD = 46* |
| Aroclor-1260 | 1 | 10.447 | 0.001 | 61723936 | 398.4 | 1 | 10.421 | 0.001 | 28567567 | 402.2 |
| Aroclor-1260 | 2 | 10.820 | 0.000 | 147435214 | 383.5 | 2 | 10.871 | 0.000 | 35741550 | 405.3 |
| Aroclor-1260 | 3 | 11.220 | 0.000 | 81836731 | 382.9 | 3 | 11.144 | 0.000 | 72558579 | 405.2 |
| Aroclor-1260 | 4 | 11.336 | -0.001 | 34885221 | 380.2 | 4 | 11.665 | 0.000 | 21241924 | 406.3 |
| Aroclor-1260 | 5 | 11.410 | 0.000 | 42454472 | 387.5 | NS | --- | | | ---- |
| | Total Col1Ave (5 peaks): | | | | 386.5 | Total Col2Ave (4 peaks): | | | | 404.7 RPD = 5 |
| | Corrected Ave (4 peaks): | | | | 383.5 | Corrected Ave (3 peaks): | | | | 404.2 RPD = 5 |
| Aroclor-1262 | 1 | 10.130 | 0.002 | 61146213 | 268.6 | 1 | 10.421 | 0.002 | 28567567 | 246.3 |
| Aroclor-1262 | 2 | 10.447 | 0.002 | 61723936 | 354.9 | 2 | 10.871 | 0.001 | 35741550 | 357.2 |
| Aroclor-1262 | 3 | 10.820 | 0.002 | 147435214 | 310.2 | 3 | 11.144 | 0.002 | 72558579 | 319.4 |
| Aroclor-1262 | 4 | 11.336 | 0.002 | 34885221 | 200.8 | 4 | 11.665 | 0.001 | 21241924 | 232.4 |
| Aroclor-1262 | 5 | 11.410 | 0.002 | 42454472 | 215.0 | 5 | 12.464 | 0.001 | 18947457 | 222.6 |
| | Total Col1Ave (5 peaks): | | | | 269.9 | Total Col2Ave (5 peaks): | | | | 275.6 RPD = 2 |
| | Corrected Ave (4 peaks): | | | | 248.7 | Corrected Ave (4 peaks): | | | | 255.2 RPD = 3 |
| Aroclor-1268 | 1 | 11.336 | 0.000 | 34885221 | 71.7 | 1 | 11.665 | 0.001 | 21241924 | 89.8 |
| Aroclor-1268 | 2 | 11.410 | 0.003 | 42454472 | 86.8 | 2 | 11.726 | -0.005 | 50817215 | 228.0 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1268 | 3 | 11.810 | 0.018 | 20044537 | 49.1 | 3 | 12.130 | 0.002 | 1292200 | 6.9 |
| Aroclor-1268 | 4 | 12.583 | -0.002 | 14570164 | 12.1 | 4 | 12.950 | 0.000 | 5640283 | 10.7 |

Total Col1Ave (4 peaks): 55.0 Total Col2Ave (4 peaks): 83.9 RPD = 42*

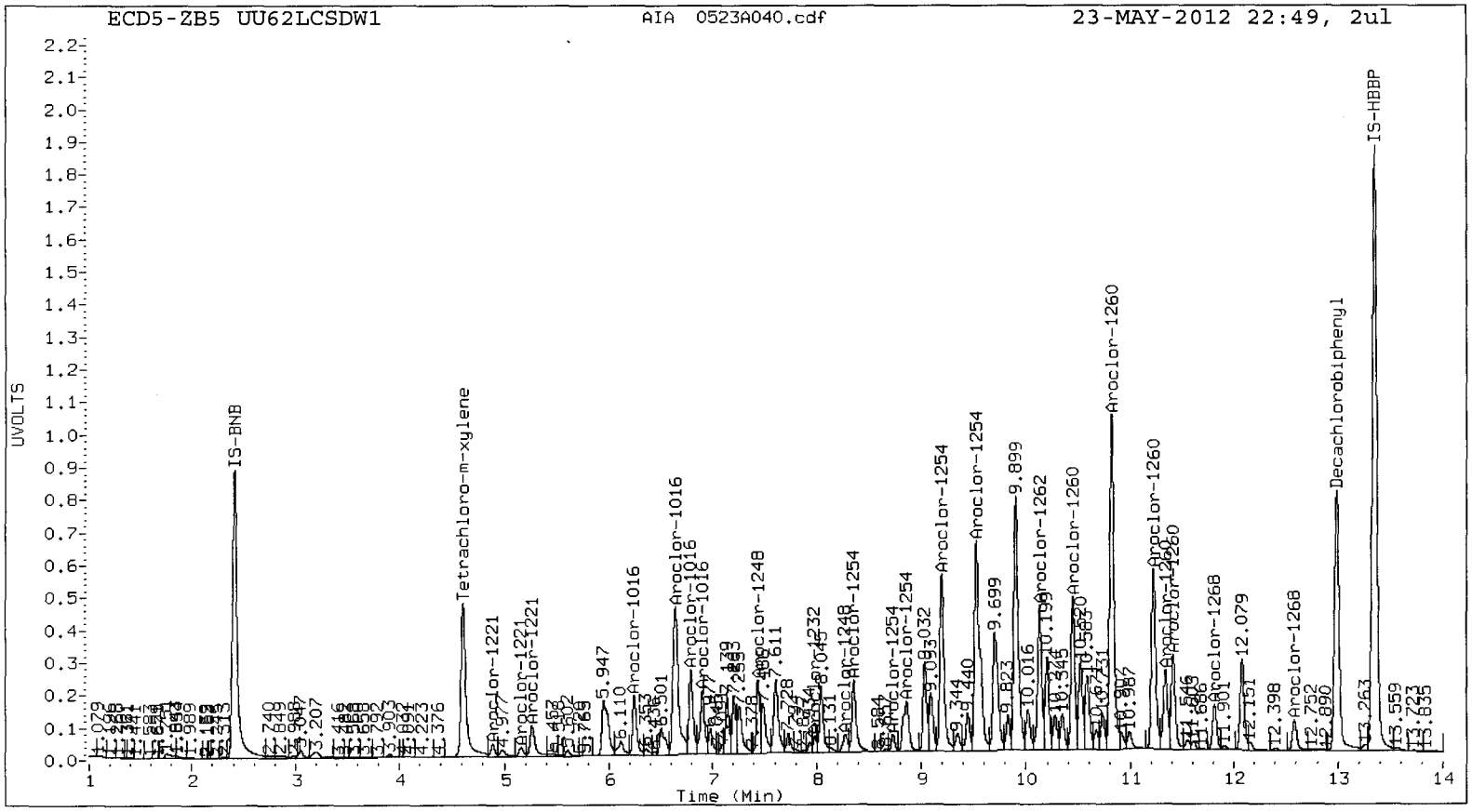
Corrected Ave (3 peaks): 44.3 Corrected Ave (3 peaks): 35.8 RPD = 21

Total PCB Area Col1 (4.708 - 12.891) = 1756369483 Col1 Total PCB = 1.0 ppm*

Total PCB Area Col2 (4.708 - 13.264) = 872663681 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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Time (Min)
IS-BNB
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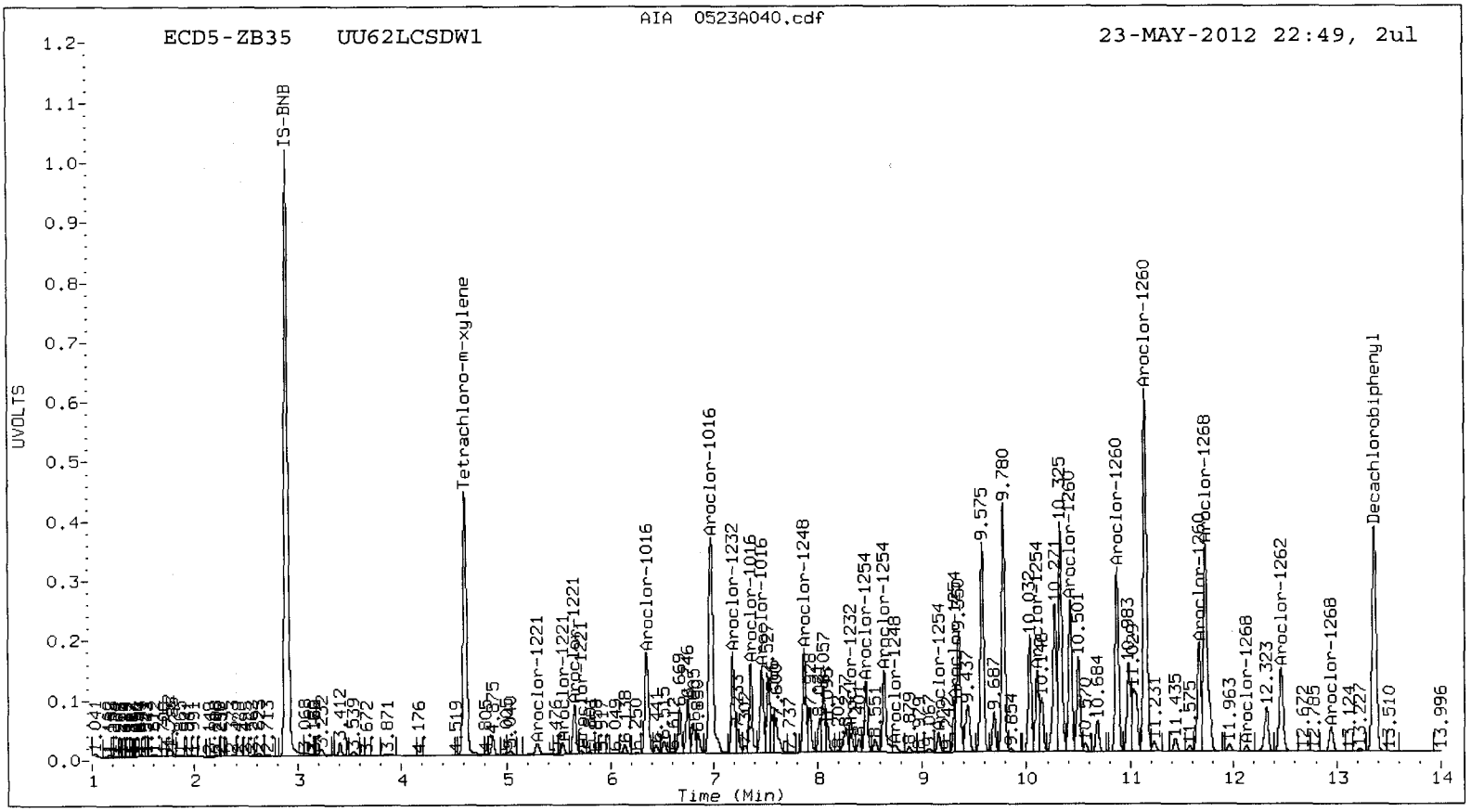
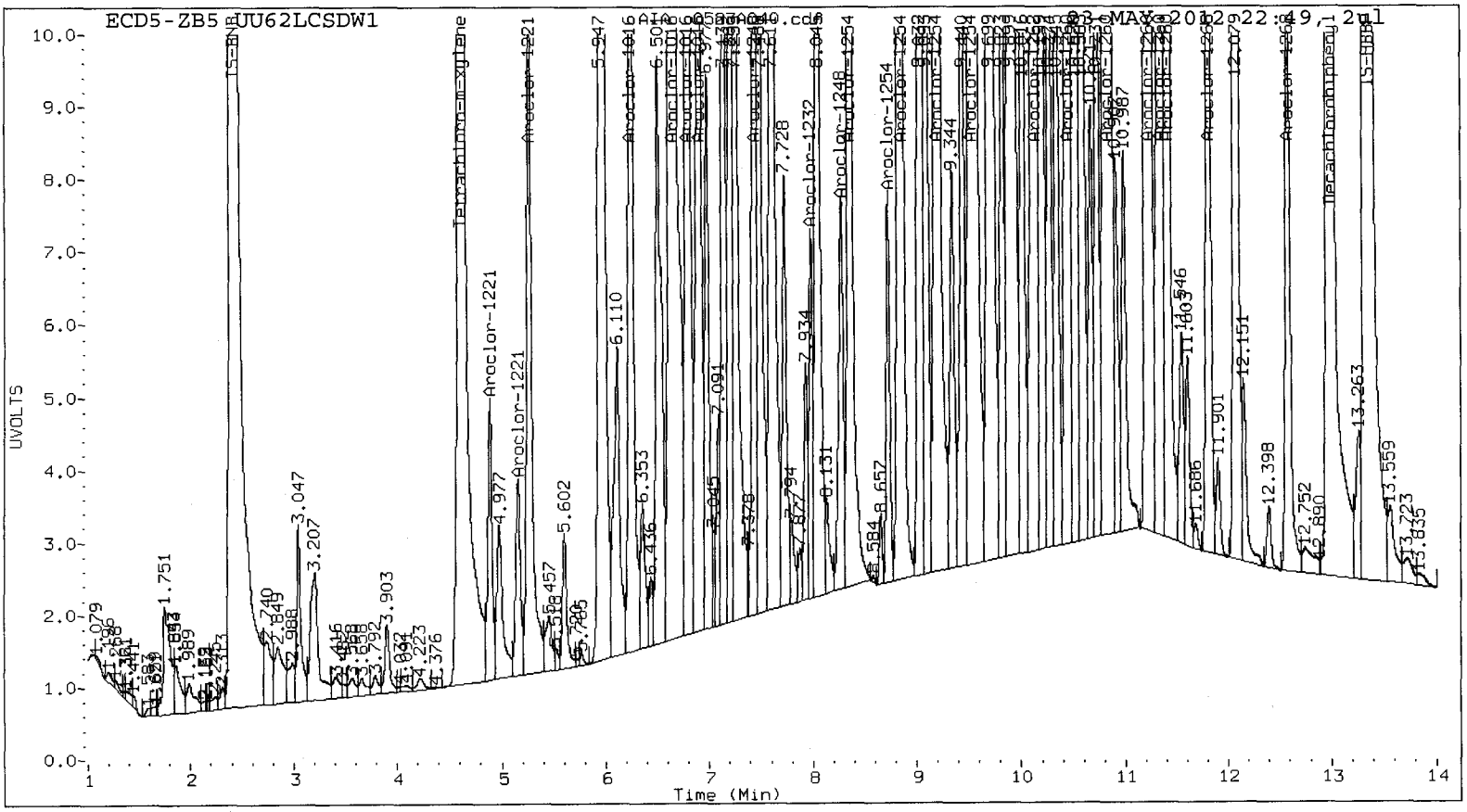
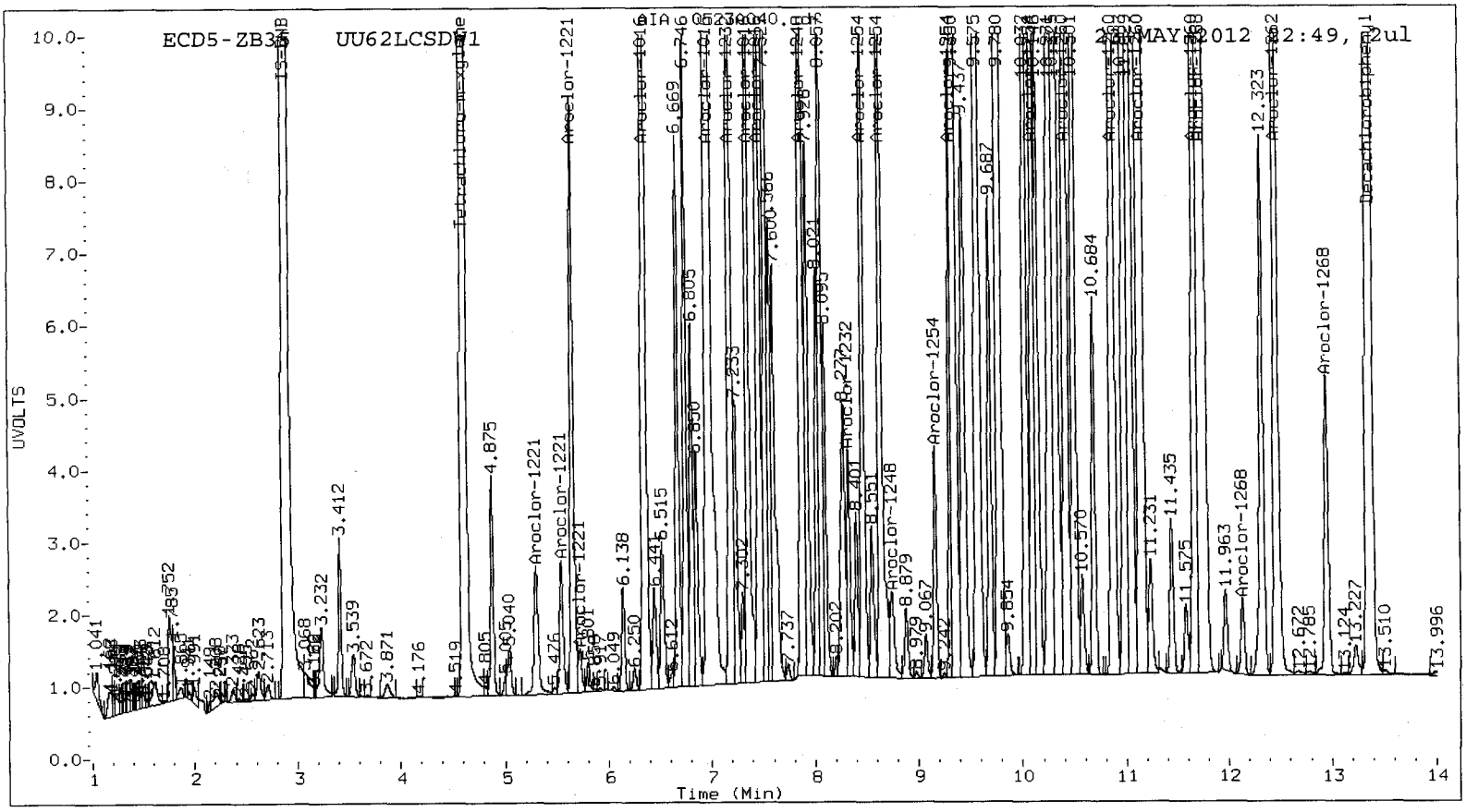
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl
IS-HBBP


AIA 0523A040.cdf
ECD5-ZB35 UU62LCSDW1
23-MAY-2012 22:49, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl

UU52:61865


ECD5-ZB5 UU62LCSDW1
UVOLTS
Time (Min)


ECD5-ZB3 UU62LCSDW1
UVOLTS
Time (Min)

UU52:01805

Analytical Resources Inc.
Dual Column PCBs by SW8082

YZ 5/24/12

Data file 1: 20120523.b/0523-1.b/0523A042.d
Data file 2: 20120523.b/0523-2.b/0523A042.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU62J
Client ID:
Injection Date: 23-MAY-2012 23:27
Ical Date: 23-MAY-2012
Matrix: WATER
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.609 | 0.001 | 59752136 | 4.611 | 0.002 | 38219584 | 25.5 | 22.5 | 12.5 | Tetrachloro-m-xylene |
| 12.990 | -0.001 | 37239091 | 13.364 | 0.000 | 13847100 | 8.8 | 9.0 | 2.0 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 63.7 | 56.3 |
| Decachlorobiphenyl | 22.1 | 22.5 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 145833693 | -5.4 |
| Hexabromobiphenyl | 248602423 | 274879722 | 10.6 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 120702373 | 9.1 |
| Hexabromobiphenyl | 108855531 | 119021355 | 9.3 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | ZB5 Col RT | Shift | Area | Amount | Peak# | ZB35 Col RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1016 | 1 | 6.232 | -0.009 | 204397 | 3.4 | 1 | 6.295 | -0.050 | 14054 | 0.2 |
| Aroclor-1016 | 2 | 6.577 | -0.065 | 905442 | 4.6 | 2 | 7.028 | 0.054 | 697214 | 4.9 |
| Aroclor-1016 | 3 | 6.779 | -0.011 | 183861 | 2.4 | 3 | 7.363 | 0.007 | 40906 | 1.1 |
| Aroclor-1016 | 4 | 6.898 | -0.002 | 325723 | 5.3 | 4 | 7.466 | 0.004 | 42301 | 1.0 |
| | Total Col1Ave (4 peaks): | | | | 3.9 | Total Col2Ave (4 peaks): | | | | 1.8 RPD = 73* |
| | Corrected Ave (3 peaks): | | | | 3.4 | Corrected Ave (3 peaks): | | | | 0.8 RPD = 125* |
| Aroclor-1221 | 1 | 4.888 | 0.004 | 5090937 | 465.7 | 1 | 5.314 | 0.025 | 858037 | 45.1 |
| Aroclor-1221 | 2 | 5.144 | -0.009 | 1177532 | 66.9 | 2 | 5.566 | 0.030 | 69695 | 6.2 |
| Aroclor-1221 | 3 | 5.250 | -0.008 | 212588 | 3.7 | 3 | 5.664 | 0.015 | 115484 | 3.3 |
| Aroclor-1221 | NS | --- | | | ---- | 4 | --- | | | 0.0 |
| | Total Col1Ave (3 peaks): | | | | 178.8 | Total Col2Ave (3 peaks): | | | | 18.2 RPD = 163* |
| | Corrected Ave: < 3 Peaks | | | | | Corrected Ave: < 3 Peaks | | | | |
| Aroclor-1232 | 1 | 6.232 | -0.007 | 204397 | 8.0 | 1 | 6.295 | -0.050 | 14054 | 0.5 |
| Aroclor-1232 | 2 | 6.577 | -0.062 | 905442 | 10.7 | 2 | 7.028 | 0.057 | 697214 | 11.5 |
| Aroclor-1232 | 3 | 6.779 | -0.008 | 183861 | 5.4 | 3 | 7.182 | 0.003 | 70993 | 3.5 |
| Aroclor-1232 | 4 | 7.998 | 0.018 | 38190 | 1.2 | 4 | 8.324 | -0.001 | 125418 | 5.6 |
| | Total Col1Ave (4 peaks): | | | | 6.3 | Total Col2Ave (4 peaks): | | | | 5.2 RPD = 19 |
| | Corrected Ave (3 peaks): | | | | 4.9 | Corrected Ave (3 peaks): | | | | 3.2 RPD = 42* |
| Aroclor-1242 | 1 | 6.232 | -0.006 | 204397 | 4.5 | 1 | 6.295 | -0.048 | 14054 | 0.3 |
| Aroclor-1242 | 2 | 6.577 | -0.061 | 905442 | 5.9 | 2 | 7.028 | 0.057 | 697214 | 6.2 |
| Aroclor-1242 | 3 | 6.779 | -0.007 | 183861 | 3.0 | 3 | 7.182 | 0.004 | 70993 | 1.6 |
| Aroclor-1242 | 4 | 7.998 | 0.018 | 38190 | 0.7 | 4 | 8.324 | 0.000 | 125418 | 3.2 |
| | Total Col1Ave (4 peaks): | | | | 3.5 | Total Col2Ave (4 peaks): | | | | 2.8 RPD = 22 |
| | Corrected Ave (3 peaks): | | | | 2.7 | Corrected Ave (3 peaks): | | | | 1.7 RPD = 47* |
| Aroclor-1248 | 1 | 6.577 | -0.062 | 905442 | 8.8 | 1 | 7.028 | 0.058 | 697214 | 9.6 |
| Aroclor-1248 | 2 | 7.436 | -0.001 | 105607 | 1.4 | 2 | 7.877 | 0.003 | 74919 | 1.3 |
| Aroclor-1248 | 3 | 7.998 | 0.015 | 38190 | 0.4 | 3 | 8.324 | -0.003 | 125418 | 1.8 |
| Aroclor-1248 | 4 | 8.255 | -0.019 | 9214656 | 92.2 | 4 | 8.692 | -0.056 | 5080296 | 64.5 |
| | Total Col1Ave (4 peaks): | | | | 25.7 | Total Col2Ave (4 peaks): | | | | 19.3 RPD = 28 |
| | Corrected Ave (3 peaks): | | | | 3.5 | Corrected Ave (3 peaks): | | | | 4.2 RPD = 18 |
| Aroclor-1254 | 1 | 8.255 | -0.102 | 9214656 | 68.8 | 1 | 8.469 | 0.003 | 65294 | 1.2 |
| Aroclor-1254 | 2 | 8.730 | 0.003 | 168023 | 1.9 | 2 | 8.692 | 0.054 | 5080296 | 75.4 |
| Aroclor-1254 | 3 | 8.863 | 0.000 | 467743 | 2.8 | 3 | 9.159 | 0.000 | 110726 | 2.2 |
| Aroclor-1254 | 4 | 9.207 | -0.006 | 593646 | 3.3 | 4 | 9.309 | -0.001 | 146976 | 1.3 |
| Aroclor-1254 | 5 | 9.573 | -0.001 | 359992 | 3.2 | 5 | 10.094 | 0.000 | 39449 | 0.6 |
| | Total Col1Ave (5 peaks): | | | | 16.0 | Total Col2Ave (5 peaks): | | | | 16.1 RPD = 1 |
| | Corrected Ave (4 peaks): | | | | 2.8 | Corrected Ave (4 peaks): | | | | 1.3 RPD = 73* |
| Aroclor-1260 | 1 | 10.442 | -0.004 | 171902 | 1.2 | 1 | 10.478 | 0.057 | 12564 | 0.2 |
| Aroclor-1260 | 2 | 10.859 | 0.039 | 553967 | 1.5 | 2 | 10.864 | -0.007 | 77808 | 0.9 |
| Aroclor-1260 | 3 | 11.227 | 0.006 | 58163 | 0.3 | 3 | 11.150 | 0.006 | 35900 | 0.2 |
| Aroclor-1260 | 4 | 11.320 | -0.017 | 130761 | 1.5 | 4 | 11.617 | -0.048 | 232668 | 4.6 |
| Aroclor-1260 | 5 | 11.408 | -0.002 | 20408 | 0.2 | NS | --- | | | ---- |
| | Total Col1Ave (5 peaks): | | | | 0.9 | Total Col2Ave (4 peaks): | | | | 1.5 RPD = 47* |
| | Corrected Ave (4 peaks): | | | | 0.8 | Corrected Ave (3 peaks): | | | | 0.4 RPD = 56* |
| Aroclor-1262 | 1 | 10.129 | 0.001 | 291218 | 1.3 | 1 | 10.478 | 0.058 | 12564 | 0.1 |
| Aroclor-1262 | 2 | 10.442 | -0.003 | 171902 | 1.0 | 2 | 10.864 | -0.006 | 77808 | 0.8 |
| Aroclor-1262 | 3 | 10.859 | 0.041 | 553967 | 1.2 | 3 | 11.150 | 0.008 | 35900 | 0.2 |
| Aroclor-1262 | 4 | 11.320 | -0.014 | 130761 | 0.8 | 4 | 11.617 | -0.047 | 232668 | 2.6 |
| Aroclor-1262 | 5 | 11.408 | 0.000 | 20408 | 0.1 | 5 | 12.506 | 0.043 | 339910 | 4.2 |
| | Total Col1Ave (5 peaks): | | | | 0.9 | Total Col2Ave (5 peaks): | | | | 1.6 RPD = 56* |
| | Corrected Ave (4 peaks): | | | | 0.8 | Corrected Ave (4 peaks): | | | | 0.9 RPD = 18 |
| Aroclor-1268 | 1 | 11.320 | -0.016 | 130761 | 0.3 | 1 | 11.617 | -0.047 | 232668 | 1.0 |
| Aroclor-1268 | 2 | 11.408 | 0.001 | 20408 | 0.0 | 2 | 11.724 | -0.006 | 29674 | 0.1 |

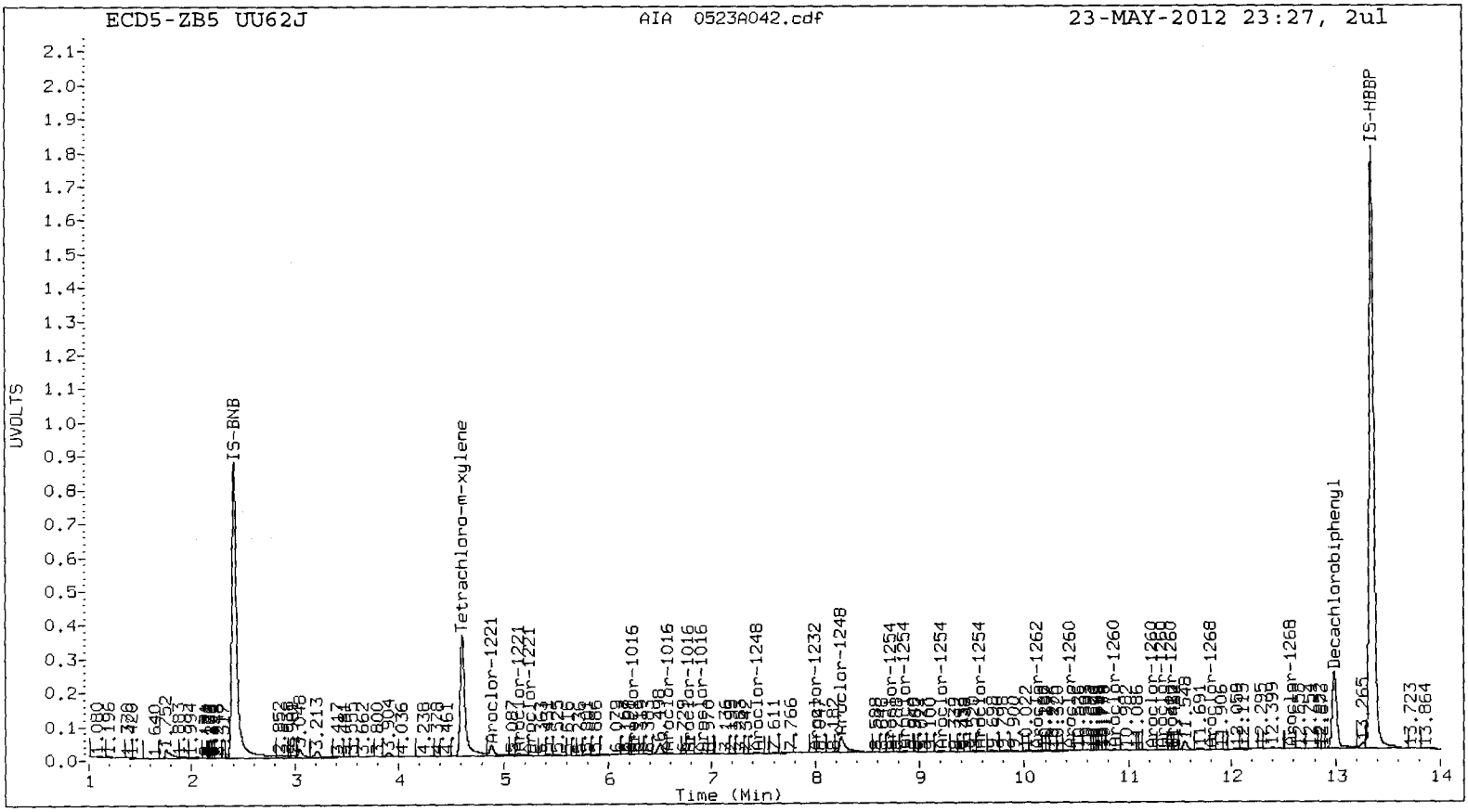
| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1268 3 | 11.799 | 0.007 | 32558 | 0.1 | 3 | 12.139 | 0.011 | 14090 | 0.1 |
| Aroclor-1268 4 | 12.567 | -0.018 | 145240 | 0.1 | 4 | 12.885 | -0.065 | 81746 | 0.2 |
| Total Col1Ave (4 peaks): | | | | 0.1 | Total Col2Ave (4 peaks): | | | 0.4 | RPD = 90* |
| Corrected Ave (3 peaks): | | | | 0.1 | Corrected Ave (3 peaks): | | | 0.1 | RPD = 40 |

Total PCB Area Col1 (4.708 - 12.891) = 37956763 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.708 - 13.264) = 16005703 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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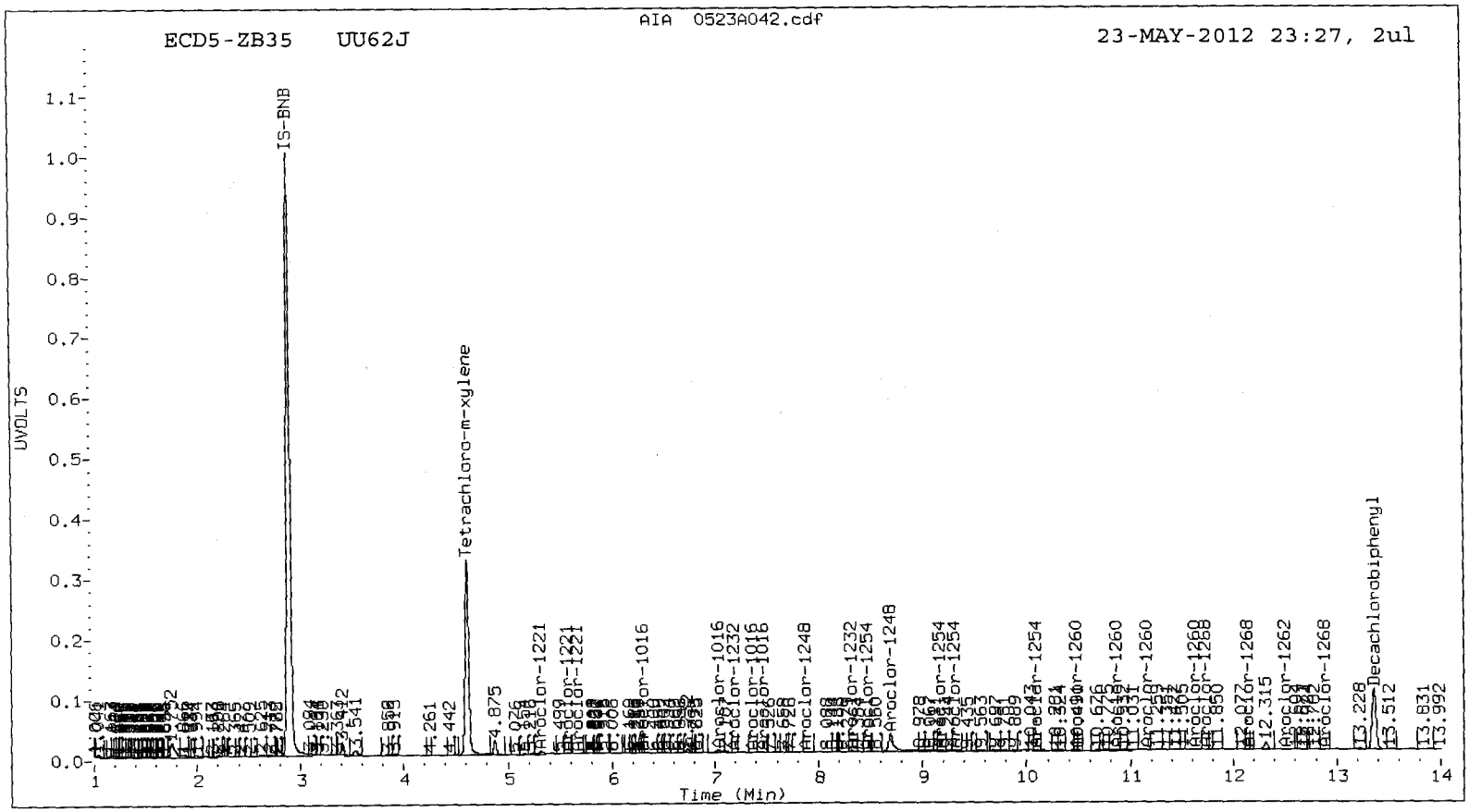
23-MAY-2012 23:27, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBBP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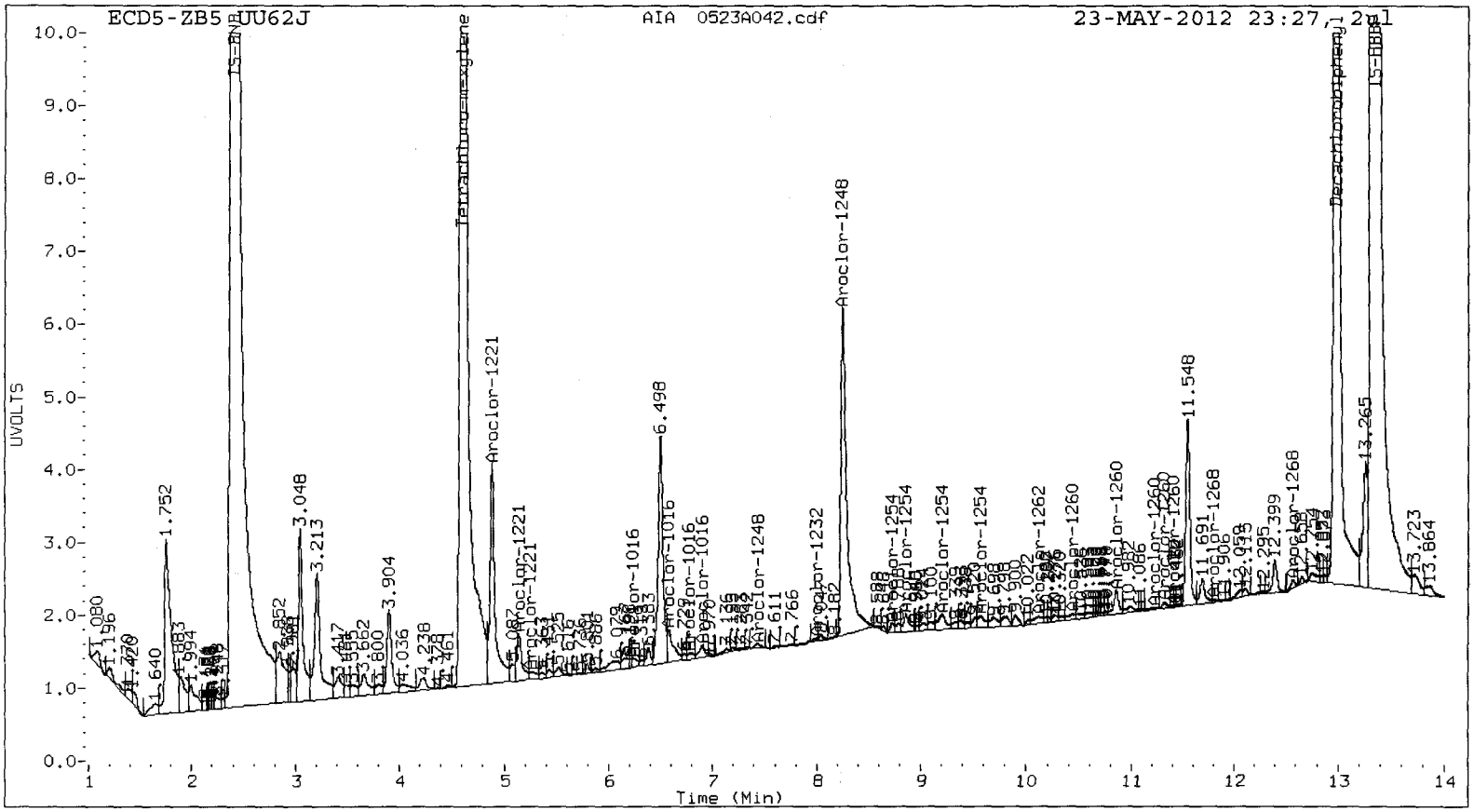
ECD5-ZB35 UU62J
23-MAY-2012 23:27, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1262
Aroclor-1268
Decachlorobiphenyl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23-MAY-2012 23:27, 2ul
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBB
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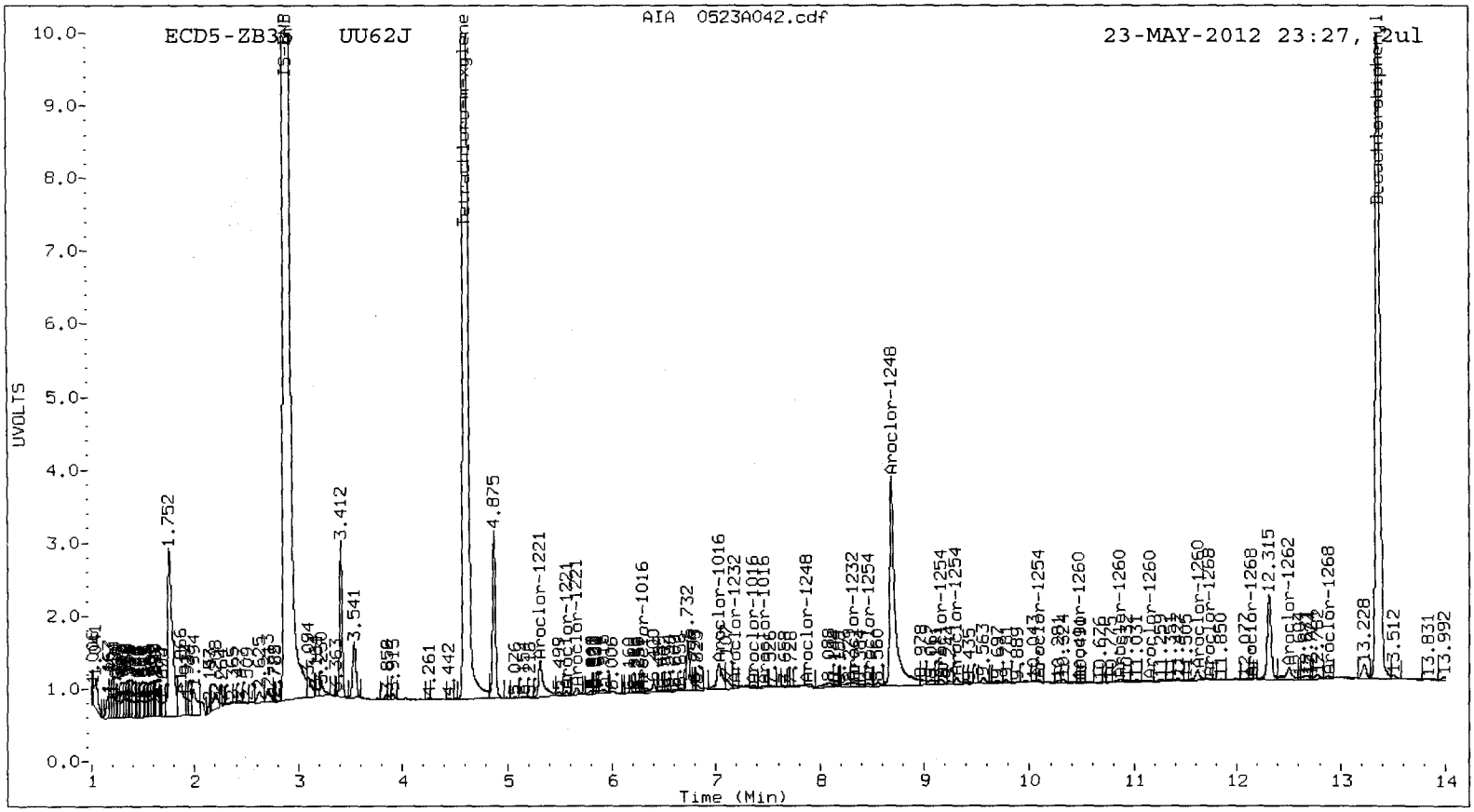
3.213
3.904
6.498
11.548
13.265
13.723
13.864


ECD5-ZB3 UU62J
AIA 0523A042.cdf
23-MAY-2012 23:27, 2ul
UVOLTS
Time (Min)
IS-DNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS-HBB
1.752
3.412
3.541
4.875
12.315
13.228
13.512
13.831
13.992

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0523-1.b/0523A043.d
Data file 2: 20120523.b/0523-2.b/0523A043.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: PCB
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: UU62K
Client ID:
Injection Date: 23-MAY-2012 23:46
Ical Date: 23-MAY-2012
Matrix: WATER
Dilution Factor: 1.000

YZ 5/24/12

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.608 | 0.000 | 82782170 | 4.610 | 0.001 | 53115120 | 36.0 | 31.5 | 13.3 | Tetrachloro-m-xylene |
| 12.991 | 0.001 | 120396598 | 13.365 | 0.001 | 48553247 | 28.4 | 31.2 | 9.4 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 89.9 | 78.7 |
| Decachlorobiphenyl | 70.9 | 78.0 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 143187362 | -7.2 |
| Hexabromobiphenyl | 248602423 | 276489856 | 11.2 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 119881217 | 8.4 |
| Hexabromobiphenyl | 108855531 | 120505308 | 10.7 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | RT | Shift | Area | Amount | Peak# | RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ZB5 Col | | | | | ZB35 Col | | | |
| Aroclor-1016 | 1 | 6.235 | -0.005 | 317135 | 5.3 | 1 | 6.345 | 0.000 | 42159 | 0.7 |
| Aroclor-1016 | 2 | 6.576 | -0.065 | 746693 | 3.8 | 2 | 7.027 | 0.053 | 372646 | 2.6 |
| Aroclor-1016 | 3 | 6.773 | -0.016 | 81709 | 1.1 | 3 | 7.296 | -0.060 | 11895 | 0.3 |
| Aroclor-1016 | 4 | 6.899 | -0.001 | 553440 | 9.1 | 4 | 7.475 | 0.013 | 38564 | 0.9 |
| | Total Col1Ave (4 peaks): | | | | 4.8 | Total Col2Ave (4 peaks): | | | 1.1 | RPD = 124* |
| | Corrected Ave (3 peaks): | | | | 3.4 | Corrected Ave (3 peaks): | | | 0.6 | RPD = 136* |
| Aroclor-1221 | 1 | 4.888 | 0.004 | 6835984 | 636.9 | 1 | 5.313 | 0.024 | 1167523 | 61.8 |
| Aroclor-1221 | 2 | 5.143 | -0.010 | 1787409 | 103.4 | 2 | 5.564 | 0.028 | 48333 | 4.3 |
| Aroclor-1221 | 3 | 5.265 | 0.006 | 340358 | 6.0 | 3 | 5.665 | 0.016 | 260295 | 7.5 |
| Aroclor-1221 | NS | --- | | | ---- | 4 | --- | | | 0.0 |
| | Total Col1Ave (3 peaks): | | | | 248.8 | Total Col2Ave (3 peaks): | | | 24.5 | RPD = 164* |
| | Corrected Ave: < 3 Peaks | | | | | Corrected Ave: < 3 Peaks | | | | |
| Aroclor-1232 | 1 | 6.235 | -0.003 | 317135 | 12.7 | 1 | 6.345 | 0.000 | 42159 | 1.5 |
| Aroclor-1232 | 2 | 6.576 | -0.063 | 746693 | 9.0 | 2 | 7.027 | 0.055 | 372646 | 6.2 |
| Aroclor-1232 | 3 | 6.773 | -0.014 | 81709 | 2.4 | 3 | 7.230 | 0.051 | 13500 | 0.7 |
| Aroclor-1232 | 4 | 7.981 | 0.001 | 24841 | 0.8 | 4 | 8.318 | -0.007 | 94291 | 4.2 |
| | Total Col1Ave (4 peaks): | | | | 6.2 | Total Col2Ave (4 peaks): | | | 3.1 | RPD = 66* |
| | Corrected Ave (3 peaks): | | | | 4.1 | Corrected Ave (3 peaks): | | | 2.1 | RPD = 63* |
| Aroclor-1242 | 1 | 6.235 | -0.002 | 317135 | 7.0 | 1 | 6.345 | 0.002 | 42159 | 0.9 |
| Aroclor-1242 | 2 | 6.576 | -0.061 | 746693 | 5.0 | 2 | 7.027 | 0.056 | 372646 | 3.4 |
| Aroclor-1242 | 3 | 6.773 | -0.013 | 81709 | 1.4 | 3 | 7.230 | 0.052 | 13500 | 0.3 |
| Aroclor-1242 | 4 | 7.981 | 0.001 | 24841 | 0.4 | 4 | 8.318 | -0.005 | 94291 | 2.4 |
| | Total Col1Ave (4 peaks): | | | | 3.5 | Total Col2Ave (4 peaks): | | | 1.7 | RPD = 67* |
| | Corrected Ave (3 peaks): | | | | 2.3 | Corrected Ave (3 peaks): | | | 1.2 | RPD = 62* |
| Aroclor-1248 | 1 | 6.576 | -0.062 | 746693 | 7.4 | 1 | 7.027 | 0.057 | 372646 | 5.2 |
| Aroclor-1248 | 2 | 7.446 | 0.009 | 63199 | 0.8 | 2 | 7.903 | 0.029 | 56835 | 1.0 |
| Aroclor-1248 | 3 | 7.981 | -0.002 | 24841 | 0.3 | 3 | 8.318 | -0.008 | 94291 | 1.4 |
| Aroclor-1248 | 4 | 8.254 | -0.020 | 11501623 | 117.2 | 4 | 8.691 | -0.056 | 6409890 | 81.9 |
| | Total Col1Ave (4 peaks): | | | | 31.4 | Total Col2Ave (4 peaks): | | | 22.4 | RPD = 34 |
| | Corrected Ave (3 peaks): | | | | 2.8 | Corrected Ave (3 peaks): | | | 2.5 | RPD = 12 |
| Aroclor-1254 | 1 | --- | | | 0.0 | 1 | 8.460 | -0.005 | 28134 | 0.5 |
| Aroclor-1254 | 2 | 8.730 | 0.003 | 132043 | 1.6 | 2 | 8.691 | 0.053 | 6409890 | 95.8 |
| Aroclor-1254 | 3 | 8.857 | -0.007 | 219676 | 1.3 | 3 | 9.159 | 0.000 | 73746 | 1.4 |
| Aroclor-1254 | 4 | 9.206 | -0.007 | 255757 | 1.5 | 4 | 9.309 | 0.000 | 30843 | 0.3 |
| Aroclor-1254 | 5 | 9.602 | 0.028 | 147606 | 1.3 | 5 | 10.066 | -0.027 | 25766 | 0.4 |
| | Total Col1Ave (4 peaks): | | | | 1.4 | Total Col2Ave (5 peaks): | | | 19.7 | RPD = 173* |
| | Corrected Ave (3 peaks): | | | | 1.4 | Corrected Ave (4 peaks): | | | 0.7 | RPD = 71* |
| Aroclor-1260 | 1 | 10.515 | 0.069 | 252263 | 1.7 | 1 | 10.460 | 0.040 | 138855 | 2.0 |
| Aroclor-1260 | 2 | 10.860 | 0.040 | 781622 | 2.1 | 2 | 10.879 | 0.008 | 11257 | 0.1 |
| Aroclor-1260 | 3 | 11.213 | -0.008 | 14008 | 0.1 | 3 | --- | | | 0.0 |
| Aroclor-1260 | 4 | 11.323 | -0.014 | 118502 | 1.3 | 4 | 11.617 | -0.048 | 293455 | 5.8 |
| Aroclor-1260 | 5 | 11.456 | 0.046 | 31034 | 0.3 | NS | --- | | | ---- |
| | Total Col1Ave (5 peaks): | | | | 1.1 | Total Col2Ave (3 peaks): | | | 2.6 | RPD = 83* |
| | Corrected Ave (4 peaks): | | | | 0.8 | Corrected Ave: < 3 Peaks | | | | |
| Aroclor-1262 | 1 | 10.135 | 0.007 | 331576 | 1.5 | 1 | 10.460 | 0.040 | 138855 | 1.2 |
| Aroclor-1262 | 2 | 10.515 | 0.071 | 252263 | 1.5 | 2 | 10.879 | 0.009 | 11257 | 0.1 |
| Aroclor-1262 | 3 | 10.860 | 0.042 | 781622 | 1.7 | 3 | --- | | | 0.0 |
| Aroclor-1262 | 4 | 11.323 | -0.011 | 118502 | 0.7 | 4 | 11.617 | -0.047 | 293455 | 3.3 |
| Aroclor-1262 | 5 | 11.456 | 0.048 | 31034 | 0.2 | 5 | 12.431 | -0.032 | 23436 | 0.3 |
| | Total Col1Ave (5 peaks): | | | | 1.1 | Total Col2Ave (4 peaks): | | | 1.2 | RPD = 10 |
| | Corrected Ave (4 peaks): | | | | 1.0 | Corrected Ave (3 peaks): | | | 0.5 | RPD = 56* |
| Aroclor-1268 | 1 | 11.323 | -0.012 | 118502 | 0.3 | 1 | 11.617 | -0.047 | 293455 | 1.3 |
| Aroclor-1268 | 2 | 11.456 | 0.049 | 31034 | 0.1 | 2 | 11.714 | -0.016 | 26422 | 0.1 |

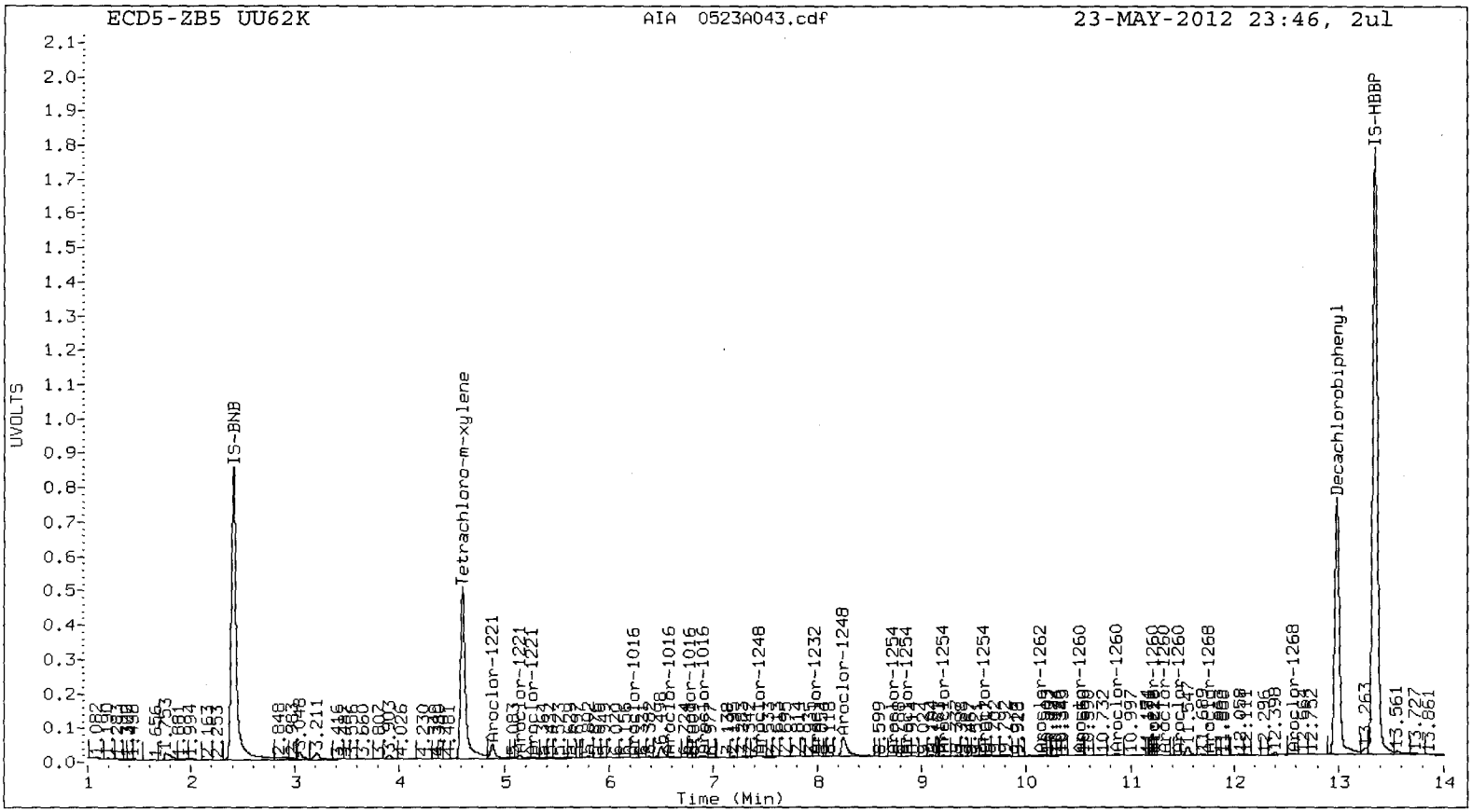
| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor-1268 3 | 11.746 | -0.046 | 106015 | 0.3 | 3 | 12.134 | 0.007 | 57249 | 0.3 |
| Aroclor-1268 4 | 12.575 | -0.010 | 160244 | 0.1 | 4 | 12.950 | 0.000 | 150530 | 0.3 |
| Total Col1Ave (4 peaks): | | | | 0.2 | Total Col2Ave (4 peaks): | | | 0.5 | RPD = 94* |
| Corrected Ave (3 peaks): | | | | 0.2 | Corrected Ave (3 peaks): | | | 0.2 | RPD = 46* |

Total PCB Area Col1 (4.708 - 12.891) = 43437831 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (4.708 - 13.264) = 18699081 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.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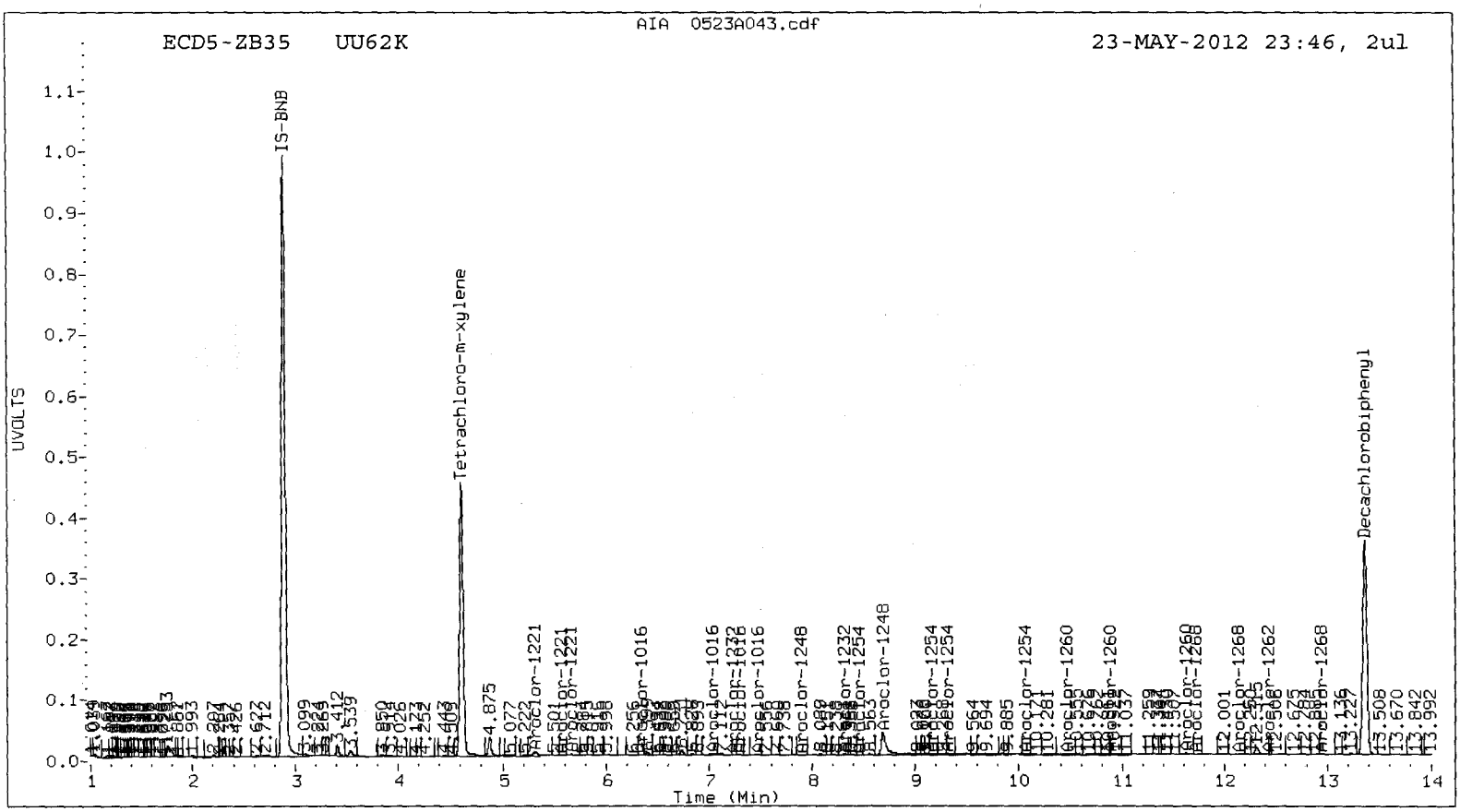
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1248
Decachlorobiphenyl
IS-HBBP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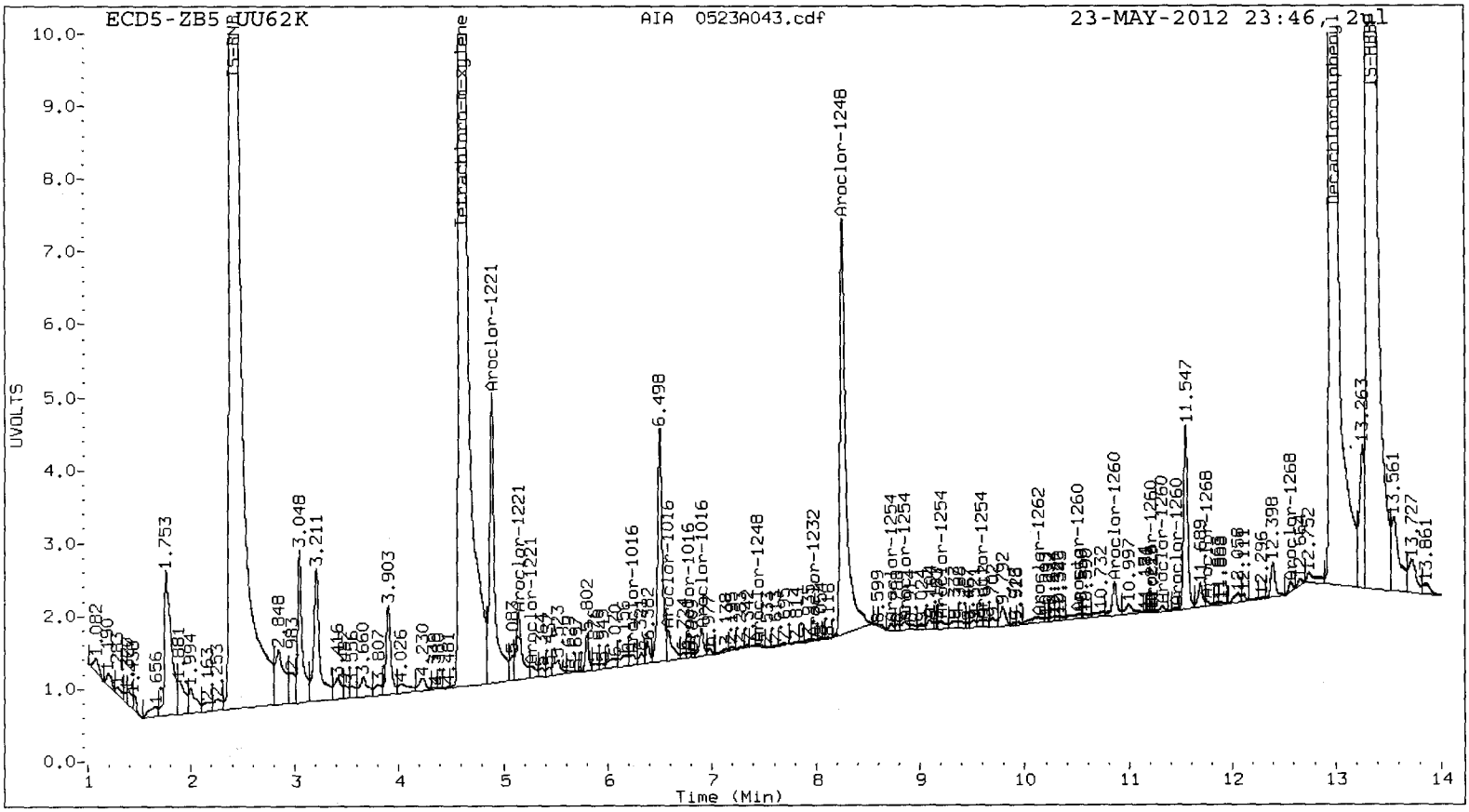
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1248
Decachlorobiphenyl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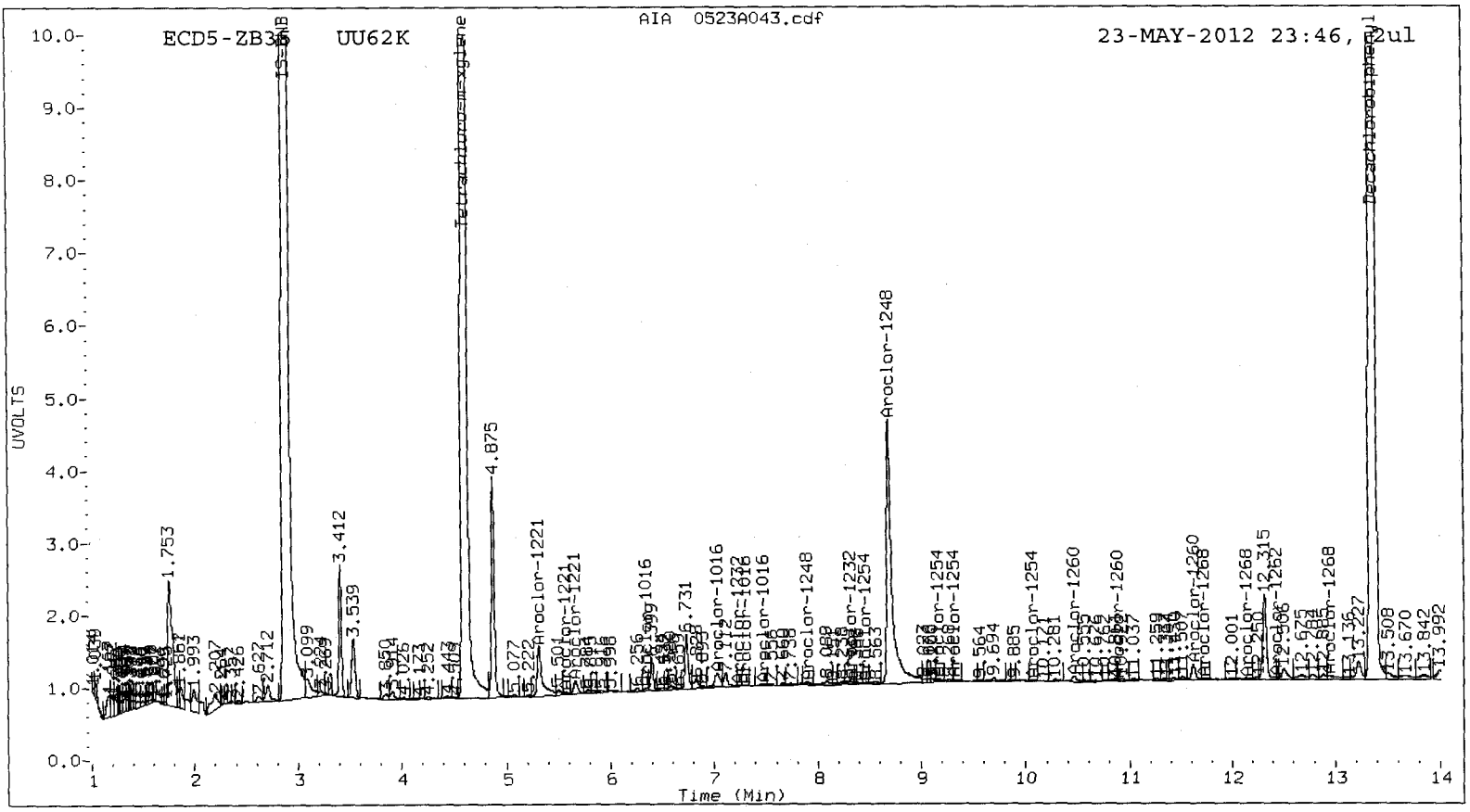
23-MAY-2012 23:46, 2ul
UVOLTS
Time (Min)
IS=BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
IS=HBB
1.753
3.048
3.211
3.903
6.498
11.547
13.263
13.561
13.727
13.861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23-MAY-2012 23:46, 2ul
UVOLTS
Time (Min)
IS=BNB
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl
1.753
3.412
3.539
4.875

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0523-1.b/0523A044.d
Data file 2: 20120523.b/0523-2.b/0523A044.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1254
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254
Client ID:
Injection Date: 24-MAY-2012 00:05
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.608 | 0.000 | 51085701 | 4.609 | 0.001 | 32971555 | 19.8 | 20.2 | 1.7 | Tetrachloro-m-xylene |
| 12.991 | 0.000 | 72685123 | 13.365 | 0.000 | 28426991 | 18.8 | 19.9 | 5.7 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 49.6 | 50.4 |
| Decachlorobiphenyl | 46.9 | 49.7 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 160327246 | 4.0 |
| Hexabromobiphenyl | 248602423 | 252246910 | 1.5 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 116212123 | 5.1 |
| Hexabromobiphenyl | 108855531 | 110664641 | 1.7 |

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| | | ZB5 Col | | | | ZB35 Col | | | |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor | Peak# | RT | Shift | Area | Amount | Peak# | RT | Shift | Area | Amount |
| Aroclor-1254 | 1 | 8.356 | 0.000 | 37200924 | 252.8 | 1 | 8.465 | 0.000 | 12745828 | 249.8 |
| Aroclor-1254 | 2 | 8.727 | 0.000 | 24090959 | 254.3 | 2 | 8.638 | 0.000 | 16245123 | 250.5 |
| Aroclor-1254 | 3 | 8.863 | 0.000 | 46499313 | 254.2 | 3 | 9.159 | 0.000 | 12403180 | 250.3 |
| Aroclor-1254 | 4 | 9.213 | 0.000 | 50279385 | 255.3 | 4 | 9.310 | 0.000 | 27253015 | 248.6 |
| Aroclor-1254 | 5 | 9.574 | 0.000 | 31347238 | 255.9 | 5 | 10.093 | 0.000 | 16109320 | 250.7 |
| Total Col1Ave (5 peaks): | | | | | 254.5 | Total Col2Ave (5 peaks): | | | | 250.0 RPD = 2 |
| Corrected Ave (4 peaks): | | | | | 254.2 | Corrected Ave (4 peaks): | | | | 249.8 RPD = 2 |

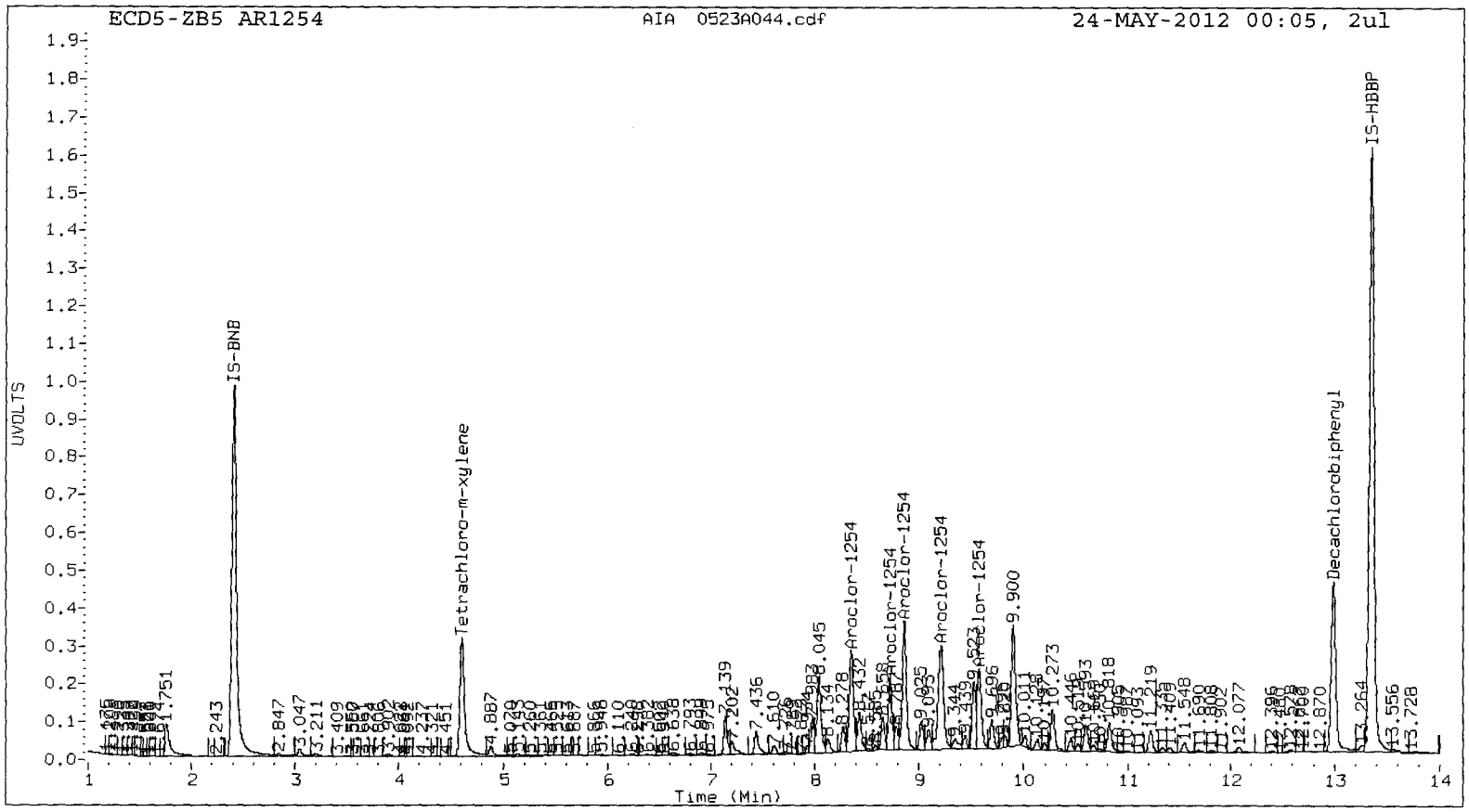
Total PCB Area Col1 (4.708 - 12.891) = 494798515 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (4.708 - 13.264) = 261176517 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical



UU52:01818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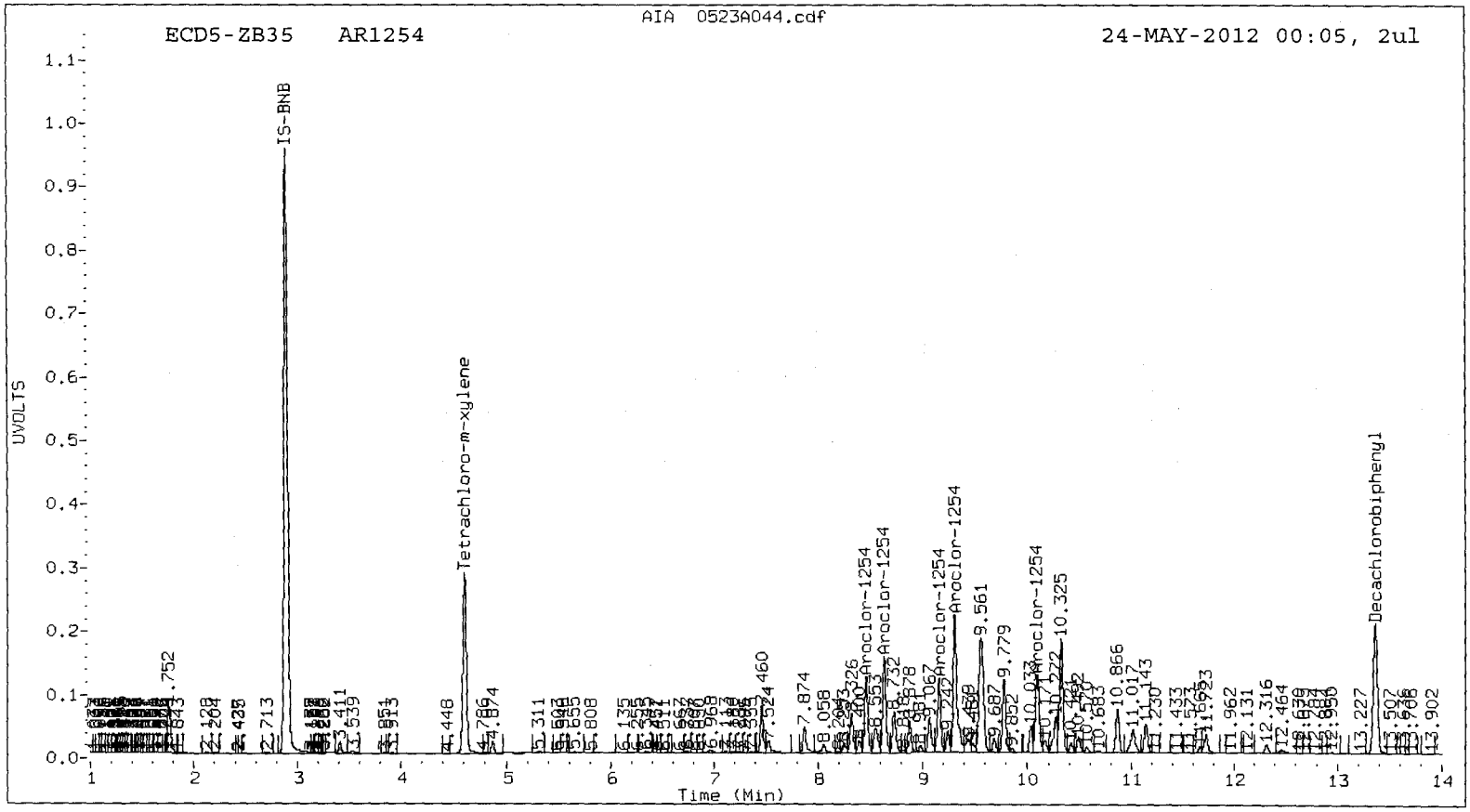
24-MAY-2012 00:05, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
9.900
Decachlorobiphenyl
IS-HBBP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ECD5-ZB35 AR1254
24-MAY-2012 00:05, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
9.561
9.779
10.325
Decachlorobiphenyl

UU52:01819

Analytical Resources Inc.
Dual Column PCBs by SW8082

Data file 1: 20120523.b/0523-1.b/0523A045.d
Data file 2: 20120523.b/0523-2.b/0523A045.d
Method: /chem2/ecd5.i/20120523.b/PCB1.m
Compound Sublist: AR1660
Instrument, Inj. Vol.: ecd5.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660
Client ID:
Injection Date: 24-MAY-2012 00:24
Ical Date: 23-MAY-2012
Matrix: SOIL
Dilution Factor: 1.000

| ZB5 Col RT | ZB5 Col Shift | ZB5 Col Response | ZB35 Col RT | ZB35 Col Shift | ZB35 Col Response | ZB5 on col | ZB35 on col | RPD | Compound/Flag |
|---|---|---|---|---|---|---|---|---|---|
| 4.608 | 0.000 | 52472578 | 4.608 | 0.000 | 33808642 | 20.2 | 20.4 | 0.9 | Tetrachloro-m-xylene |
| 12.991 | 0.000 | 74453161 | 13.364 | 0.000 | 29222130 | 18.9 | 20.1 | 6.3 | Decachlorobiphenyl |

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

| SURROGATE | Col1 | Col2 |
|---|---|---|
| Tetrachloro-m-xylene | 50.5 | 50.9 |
| Decachlorobiphenyl | 47.2 | 50.3 |

INTERNAL STANDARD SUMMARY

Column 1

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 154228462 | 161663605 | 4.8 |
| Hexabromobiphenyl | 248602423 | 256774071 | 3.3 |

Column 2

| Standard Cpnd | Standard Area* | Sample Area | %D |
|---|---|---|---|
| Bromo-Nitrobenzene | 110618229 | 117932972 | 6.6 |
| Hexabromobiphenyl | 108855531 | 112374282 | 3.2 |

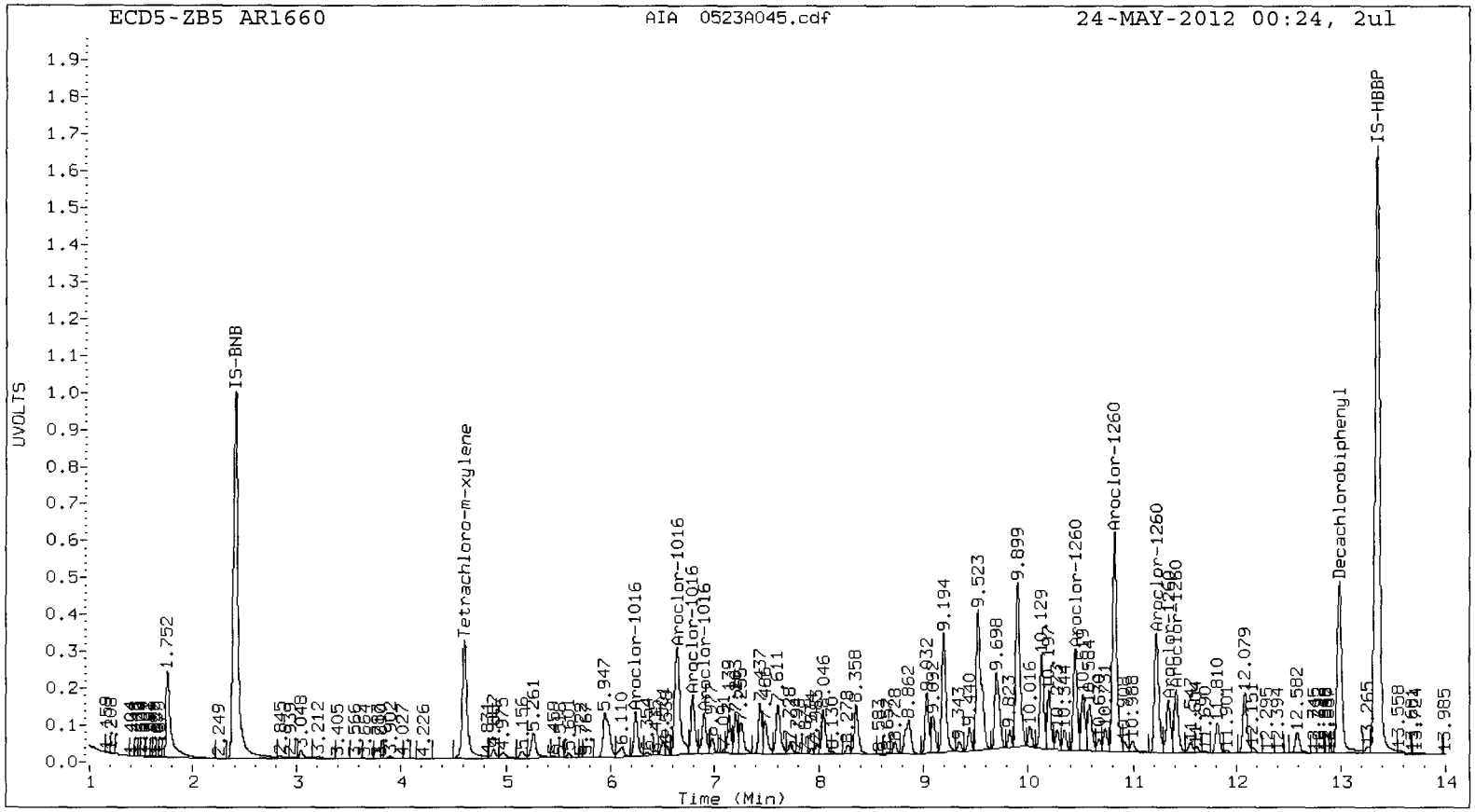
* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 23-MAY-2012
<- Indicates standard response outside Limits (-50 to +100%)

| Aroclor | Peak# | RT | Shift | Area | Amount | Peak# | RT | Shift | Area | Amount |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ZB5 Col | | | | | ZB35 Col | | | |
| Aroclor-1016 | 1 | 6.241 | 0.000 | 15942714 | 236.4 | 1 | 6.346 | 0.000 | 15003392 | 243.7 |
| Aroclor-1016 | 2 | 6.641 | 0.000 | 53749445 | 244.5 | 2 | 6.974 | 0.000 | 34586093 | 247.5 |
| Aroclor-1016 | 3 | 6.790 | 0.000 | 21441142 | 247.3 | 3 | 7.356 | 0.000 | 8797111 | 244.0 |
| Aroclor-1016 | 4 | 6.900 | 0.000 | 15440044 | 226.0 | 4 | 7.462 | 0.000 | 9905486 | 247.1 |
| Total Col1Ave (4 peaks): | | | | 238.5 | | Total Col2Ave (4 peaks): | | | 245.6 | RPD = 3 |
| Corrected Ave (3 peaks): | | | | 235.6 | | Corrected Ave (3 peaks): | | | 245.0 | RPD = 4 |
| Aroclor-1260 | 1 | 10.446 | 0.000 | 34566678 | 248.1 | 1 | 10.420 | 0.000 | 16388166 | 254.3 |
| Aroclor-1260 | 2 | 10.820 | 0.000 | 84317702 | 243.9 | 2 | 10.871 | 0.000 | 20378506 | 254.7 |
| Aroclor-1260 | 3 | 11.220 | 0.000 | 47777024 | 248.6 | 3 | 11.144 | 0.000 | 41510002 | 255.5 |
| Aroclor-1260 | 4 | 11.337 | 0.000 | 20240547 | 245.3 | 4 | 11.665 | 0.000 | 11960422 | 252.1 |
| Aroclor-1260 | 5 | 11.410 | 0.000 | 24585940 | 249.6 | NS | --- | | | ---- |
| Total Col1Ave (5 peaks): | | | | 247.1 | | Total Col2Ave (4 peaks): | | | 254.1 | RPD = 3 |
| Corrected Ave (4 peaks): | | | | 246.5 | | Corrected Ave (3 peaks): | | | 253.7 | RPD = 3 |

Total PCB Area Col1 (4.708 - 12.891) = 977782958 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (4.708 - 13.264) = 514300563 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical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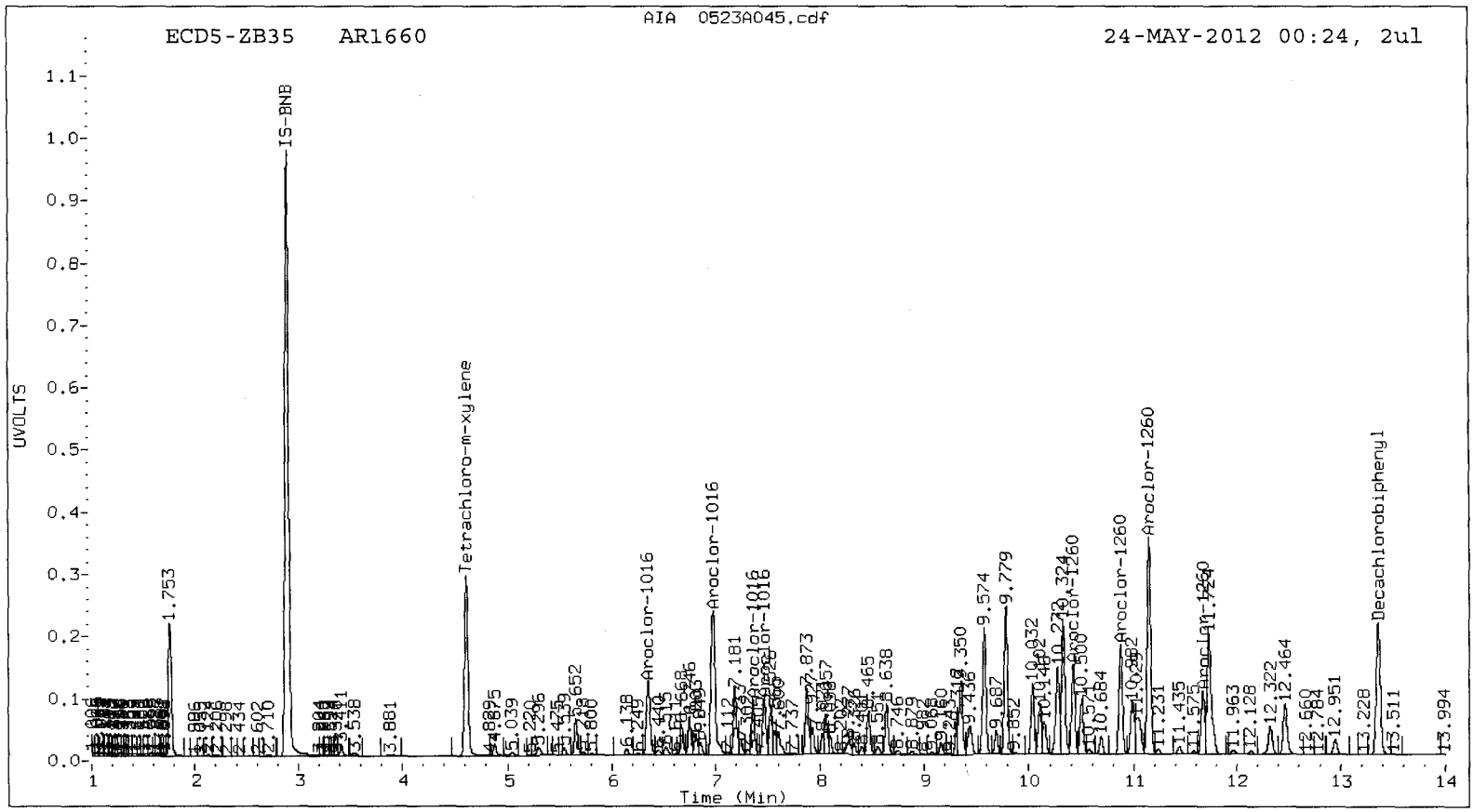
24-MAY-2012 00:24, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl
IS-HBBP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AIA 0523A045.cdf
24-MAY-2012 00:24, 2ul
UVOLTS
Time (Min)
IS-BNB
Tetrachloro-m-xylene
Aroclor-1016
Aroclor-1260
Decachlorobiphenyl

UU52:01822

TPHD Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: UU52, UU62

Incorporated
Analytical Chemists and
Consultants

Organic Extractions Benchsheet

**NWTPHD-Soil/Sediment**
**Microwave (3546) (SOP # 3304S)**

**Preparation Test TPHD # 3 (DIESMI)**
ARI Job No(s) UU52

Page 1 of 1

In-House (5ppm)
Batch set up by: JH

| Bottle # | Extraction Requirements | Weight Extracted (wet wt) | Acid Clean (1:1) Y/N | Silica Gel Clean (1:1) Y/N | Final Effective Volume | Volume to Lab | Comments | Verifty Client ID |
|---|---|---|---|---|---|---|---|---|
| | UU52 MBS | 10.00g | (1:1) (Y)/N | (1:1) (Y)/N | 1mL | 1mL | | NL 5/21/12 |
| | ↓ SBS | 10.00g | (1:1) (Y)/N | (1:1) (Y)/N | 1mL | 1mL | | |
| | ~~SBS Dup.~~ | ~~10.00g~~ | ~~(1:1) Y/N~~ | ~~(1:1) Y/N~~ | ~~1mL~~ | ~~1mL~~ | | Analyst/Date |
| | ~~QLS~~ | ~~10.00g~~ | ~~(1:1) Y/N~~ | ~~(1:1) Y/N~~ | ~~1mL~~ | ~~1mL~~ | | Microwave |
| 5 | UU52A | 10.18 | (1:1) (Y)/N | (1:1) (Y)/N | 1mL | 1mL | | |
| 5 | B | 10.15 | (1:1) (Y)/N | (1:1) (Y)/N | 1mL | 1mL | | NL 5/21/12 |
| 5 | C | 10.08 | (1:1) (Y)/N | (1:1) (Y)/N | 1mL | 1mL | | |
| 5 | D | 10.18 | (1:1) (Y)/N | (1:1) (Y)/N | 1mL | 1mL | | |
| 5 | E | 10.11 | (1:1) (Y)/N | (1:1) (Y)/N | 1mL | 1mL | | Analyst/Date |
| 5 | F | 10.27 | (1:1) (Y)/N | (1:1) (Y)/N | 1mL | 1mL | | TurboVap 1 2 3 Pre-Acid/Silica Clean |
| 5 | G | 10.16 | (1:1) (Y)/N | (1:1) (Y)/N | 1mL | 1mL | | MW 5/21/12 |
| 5 | H | 10.11 | (1:1) (Y)/N | (1:1) (Y)/N | 1mL | 1mL | | |
| 5 | I | 10.12 | (1:1) (Y)/N | (1:1) (Y)/N | 1mL | 1mL | | |
| 5 | Ims | 10.10 | (1:1) (Y)/N | (1:1) (Y)/N | 1mL | 1mL | | |
| 5 | Imsd | 10.10 | (1:1) (Y)/N | (1:1) (Y)/N | 1mL | 1mL | | |
| 5 | J | 10.18 | (1:1) (Y)/N | (1:1) (Y)/N | 1mL | 1mL | | Analyst/Date |
| | | 10. | (1:1) Y/N | (1:1) Y/N | 1mL | 1mL | | TurboVap 1 2 (3) Post Acid/Silica Clean |
| | | 10. | (1:1) Y/N | (1:1) Y/N | 1mL | 1mL | | MW 5/21/12 |
| | | 10. | (1:1) Y/N | (1:1) Y/N | 1mL | 1mL | | |
| | | 10. | (1:1) Y/N | (1:1) Y/N | 1mL | 1mL | | |
| | | 10. | (1:1) Y/N | (1:1) Y/N | 1mL | 1mL | | |
| Analyst/Date | NL 5/21/12 | | MW 5/21/12 | MW 5/21/12 | MW 5/21/12 | MW 5/21/12 | | Analyst/Date |

| Standard | Standard ID | Concentration | Volume | Expiration Date | Analyst | Witness |
|---|---|---|---|---|---|---|
| **Surrogate** | **O (1947-2)** | 450µg/mL | **100µL** | 9/28/12 | NL | SP |
| **Spike** | **11 (1965-2)** | 15000µg/mL | **100µL** | 4/09/13 | NL | SP |
| ~~QLS Spike~~ | ~~18 ( )~~ | ~~1000µg/mL~~ | ~~50µL~~ | | | |
| **Extraction Time:** 0935 | | | | **Balance ID:** B139296002 | | |

SPECIAL INSTRUCTIONS: 1. Weigh into 100mL beakers-dry with Sodium Sulfate. 2. Transfer to microwave vessel. 3. Add DCM to the vessel until the solvent is 1" above soil layer after homogenization. 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-Re-homogenize while hot then let cool 15 min. in cold water bath. 7. Collect into turbo tube with sm. funnel containing glasswool and 1" sodium sulfate. 8. Add (2) 10mL DCM rinses to vessel and transfer to turbo tube. 9. TurboVap. 10. Acid/Silica Clean-up?= Y/N. 11. TurboVap (if Silica Clean). 12. Vial in DCM.

A. Need Total Solids Y/(N) B. Archive/Freeze Y/(N)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Organic Extractions Laboratory Analyst Notes

ARI Job No.: UU52 Client ID: Anchor QEA, LLC

Parameter: TPHD W/Acid Client Project: Jeld Wen Mawlsby Marsh

| Screens: Soil/Sediment/Solid/Other: | Analyst/Date |
|---|---|
| ☐ No Anomalies (standard soil/wet sediment/sand/gravel)= | AC 5-16-12 |
| ☐ Standing Water Decanted (Not shared)= | |
| ☐ Standing Water Homogenized (Shared samples)= | |
| ☐ Clay/Clumps (Difficult to homogenize)= | |
| ☐ Rocks (%+size)? | |
| ☐ Organics (Leaves/sticks/grass)= B < 5% sticks D = 30% grass/sticks E = 10% grass F = 60% grass/sticks G = 50% grass/sticks H = 30% I = 50% | AC 5-16-12 |
| ☐ Oily, obvious fuel/sulfur odors= B- | |
| ☐ Other (Details)= | |
| | |
| | |
| | |
| **Aqueous:** | |
| ☐ No Anomalies | |
| ☐ Turbid/Color= | |
| ☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead) | |
| ☐ Emulsions (%)= | |
| ☐ Other (Details)= | |
| | |
| | |
| ☐ Other Notes/Comments= (Note problems, concerns, corrective actions). | |

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Organic Extractions Benchsheet

## NWTPHD / NWHCID –Water
## Separatory Funnel (3510C) (SOP # 3311S)

**Preparation Test TPHD/HCID # 1(DIEWSI)**
ARI Job No(s) UU62, UU74 Page 1 of 1

In-House (0.25-0.50ppm)
Batch set up by: SP

| Bottle # | Extraction Requirements | Volume Extracted | DryVap Module # Y/(N) | Acid/Silica Clean (1:1) (1mL) (Y) N | Final Effective Volume | Volume to Lab | Comments | Verify Client ID |
|---|---|---|---|---|---|---|---|---|
| | UU62 MBW | 500mL | # Y/(N) | (1:1) (Y)/N | 1mL | 1mL | | ML 5/18/12 |
| | SBW | 500mL | # Y/(N) | (1:1) (Y)/N | 1mL | 1mL | | |
| | SBW Dup. | 500mL | # Y/(N) | (1:1) (Y)/N | 1mL | 1mL | | |
| | QLS | 500mL | # Y/(N) | (1:1) (Y)/N | 1mL | 1mL | | |
| 6 | J | 500mL | # Y/(N) | (1:1) (Y)/N | 1mL | 1mL | | Analyst/Date |
| 3 | K | 500mL | # Y/(N) | (1:1) (Y)/N | 1mL | 1mL | | KD 80-85°C (Y) N |
| 4 | UU74 A | 500mL | # Y/(N) | (1:1) (Y)/N | 1mL | 1mL | | |
| 4 | B | 500mL | # Y/(N) | (1:1) (Y)/N | 1mL | 1mL | | |
| 4 | C | 500mL | # Y/(N) | (1:1) (Y)/N | 1mL | 1mL | | YL |
| 4 | D | 500mL | # Y/(N) | (1:1) (Y)/N | 1mL | 1mL | | |
| 4 | E | 500mL | # Y/(N) | (1:1) (Y)/N | 1mL | 1mL | | 5/18/12 |
| | | 500mL | # Y/N | (1:1) Y/N | 1mL | 1mL | | |
| | | 500mL | # Y/N | (1:1) Y/N | 1mL | 1mL | | Analyst/Date |
| | | 500mL | # Y/N | (1:1) Y/N | 1mL | 1mL | | Turbo Vap |
| | | 500mL | # Y/N | (1:1) Y/N | 1mL | 1mL | | (1) 2 3 |
| | | 500mL | # Y/N | (1:1) Y/N | 1mL | 1mL | | |
| | | 500mL | # Y/N | (1:1) Y/N | 1mL | 1mL | | MW 5/18/12 |
| | | 500mL | # Y/N | (1:1) Y/N | 1mL | 1mL | | |
| | | 500mL | # Y/N | (1:1) Y/N | 1mL | 1mL | | |
| | | 500mL | # Y/N | (1:1) Y/N | 1mL | 1mL | | |
| Analyst/Date | NL 5/18/12 | | | MW 5/18/12 | MW 5/18/12 | MW 5/18/12 | | Analyst/Date |

| Standard | Standard ID | Concentration | Volume | Expiration Date | Analyst | Witness |
|---|---|---|---|---|---|---|
| Surrogate | O (1647-2) | 450µg/mL | 100µL | 9/28/12 | ML | MP 5/18/12 |
| Spike | 11 (1965-2) | 15000µg/mL | 100µL | 4/9/13 | ML | MP 5/18/12 |
| QLS Spike | 18 (1970-1) | 1000µg/mL | 50µL | 5/7/13 | NL | MP 5/18/12 |
| Extraction Time: 11:50 | | | | | | |

SPECIAL INSTRUCTIONS: 1. Add Surr/Spk. 2. Acidify with 1 pipet of 1:1 Sulfuric Acid. 3. Check pH. 4. Extract 2X with 30mL DCM.
5. DryVap or KD at 80°. 6. TurboVap if KD. 7. Acid/Silica Clean-ups? (Y)/ N 8. Vial in DCM.

3014F

UU74 only (A. Archive Y)

UU52:01825

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Organic Extractions Laboratory Analyst Notes

ARI Job No.: UU 62

Client ID: Anchor QEA, LLC

Parameter: TPH A/S

Client Project: Jeld Wen - Maulsby Marsh

| Screens: Soil/Sediment/Solid/Other: | Analyst/Date |
|---|---|
| ☐ No Anomalies (standard soil/wet sediment/sand/gravel)= | |
| ☐ Standing Water Decanted (Not shared)= | |
| ☐ Standing Water Homogenized (Shared samples)= | |
| ☐ Clay/Clumps (Difficult to homogenize)= | |
| ☐ Rocks (%+size)? | |
| ☐ Organics (Leaves/sticks/grass)= | |
| ☐ Oily, obvious fuel/sulfur odors= | |
| ☐ Other (Details)= | |
| | |
| | |
| | |
| **Aqueous:** | |
| ☒ No Anomalies J, K | ML 5/18/12 |
| ☐ Turbid/Color= | |
| ☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead) | |
| ☐ Emulsions (%)= | |
| ☐ Other (Details)= | |
| | |
| | |
| ☐ Other Notes/Comments= (Note problems, concerns, corrective actions). | |
| | |
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3056F

Revision 008
11/02/11

UU52:01827

TPHD Raw Data
Initial Calibration

ARI Job ID: UU52, UU62

Diesel Curve

**Analytical Resources, Incorporated**
Analytical Chemists and Consultants

# GC Initial Calibration Notes

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
**427S**(Dir Inj) **428S**(EPH) **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date(s): 5/15/12 Internal Standard ID N/A Expiration N/A

| | | | |
|---|---|---|---|
| Endrin/DDT Breakdown <15%? YES / NO / NA | | ICV Exceeding ±20%? | YES / NO |
| ICal Meets %RSD & $r^2$ Criteria | YES / NO | ICV Exceeding ±30%? | YES / NO |
| Manual Integrations for ICal? | YES / NO | Linear Fits Used? | YES / NO |
| Minimum Response S/N Met | YES / NO | Quadratic Fits Used? | YES / NO |
| | | Calibration Points Dropped? (high point curving) | YES / NO |

| Primary Source | Standard # | Expiration | Secondary Source | Standard # | Expiration |
|---|---|---|---|---|---|
| 76 | 1972-1 | 9/28/12 | Shell | 1977-3 | 9/28/12 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

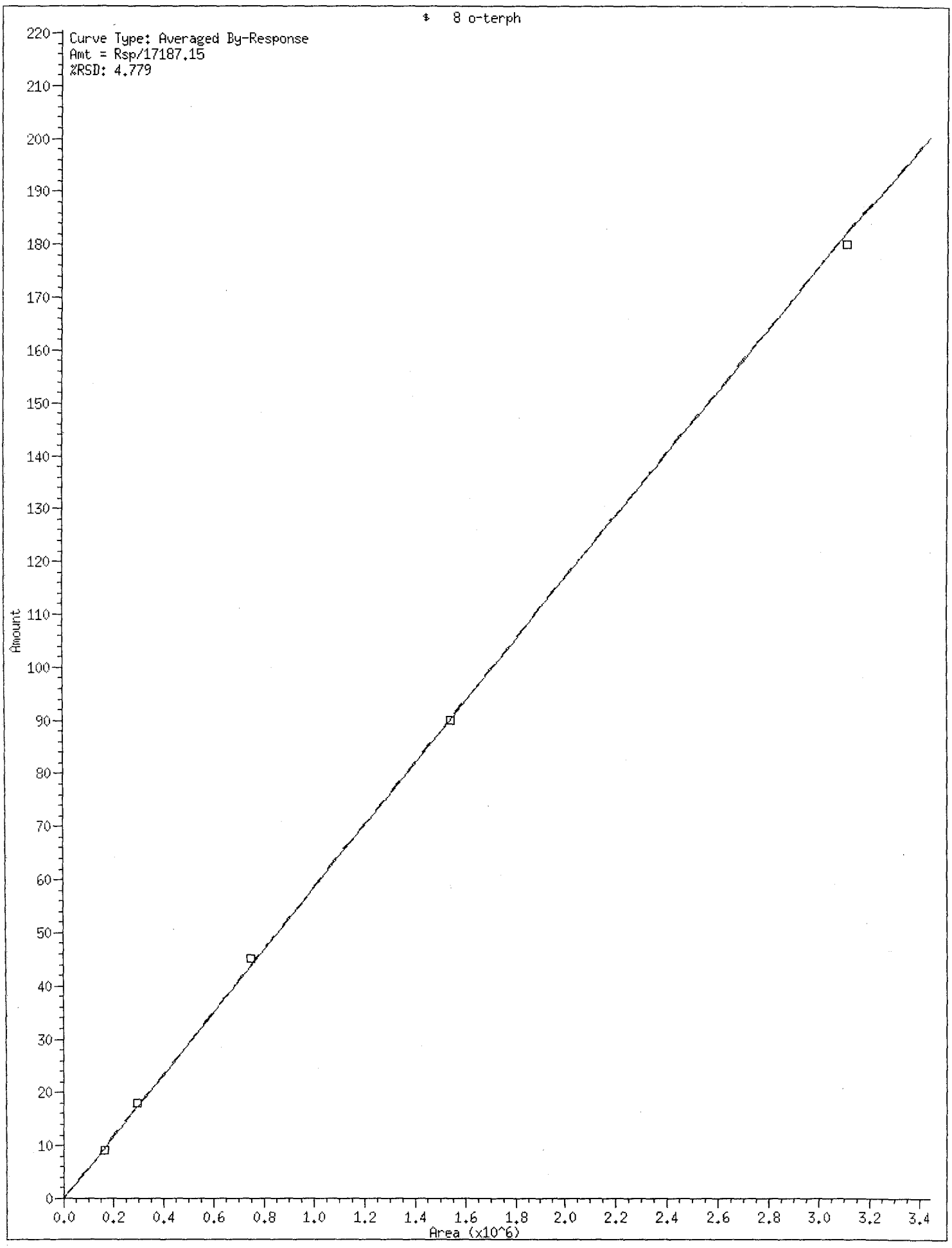
**Detail problems, corrective actions and/or other pertinent information below:**
high surr point taked out due to saturation. Surrogate curved by 5 points.

**Analyst:** [signature] **Date:** 5/17/12

**Reviewer:** [signature] **Date:** 5/17/12



UU52:01829


8 o-terph
Curve Type: Averaged By-Response
Amt = Rsp/17187.15
%RSD: 4.779
Amount
Area (x10^6)
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
210
220
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2
3.4

UU52:01830

MH 5/16/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120515.b/0515a002.d ARI ID: RT
Method: /chem3/fid4a.i/20120515.b/ftphfid4a.m Client ID:
Instrument: fid4a.i Injection: 15-MAY-2012 07:31
Operator: MH
Report Date: 05/16/2012 Dilution Factor: 1
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.282 | 0.000 | 295562 | 316220 | GAS (Tol-C12) | 1396580 | 92.83 |
| C8 | 1.486 | 0.000 | 174183 | 290313 | DIESEL (C12-C24) | 1365321 | 100.18 |
| C10 | 3.126 | 0.000 | 173951 | 199448 | M.OIL (C24-C38) | 1682363 | 172.56 |
| C12 | 4.163 | 0.000 | 45637 | 82476 | AK-102 (C10-C25) | 1904166 | 117.59 |
| C14 | 4.921 | 0.000 | 121973 | 205262 | AK-103 (C25-C36) | 1437777 | 185.30 |
| C16 | 5.557 | 0.000 | 152907 | 221149 | | | |
| C18 | 6.142 | 0.000 | 137445 | 194440 | | | |
| C20 | 6.724 | 0.000 | 134574 | 218406 | MIN.OIL (C24-C38) | 1682363 | 125.17 |
| C22 | 7.269 | 0.000 | 175346 | 209778 | | | |
| C24 | 7.782 | 0.000 | 222343 | 211185 | | | |
| C25 | 8.028 | 0.000 | 235062 | 282035 | | | |
| C26 | 8.270 | 0.000 | 153774 | 210833 | | | |
| C28 | 8.726 | 0.000 | 174021 | 211004 | | | |
| C32 | 9.667 | 0.000 | 155009 | 228125 | | | |
| C34 | 10.150 | 0.000 | 165448 | 238060 | CREOSOT (C12-C22) | 1152347 | 313.64 |
| Filter Peak | 10.518 | 0.000 | 62 | 44 | | | |
| C36 | 10.633 | 0.000 | 170232 | 253126 | | | |
| C38 | 11.105 | 0.000 | 154822 | 237343 | | | |
| C40 | 11.558 | 0.000 | 91770 | 127005 | | | |
| o-terph | 6.312 | 0.000 | 553314 | 748577 | JET-A (C10-C18) | 1241884 | 83.67 |
| Triacon Surr | 9.194 | 0.000 | 496233 | 668422 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.163 - 7.782) AK102(3.13 - 8.03) Jet A(3.13 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.13 - 8.73)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 748577 | 43.6 | 96.8 |
| Triacontane | 668422 | 39.0 | 86.7 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

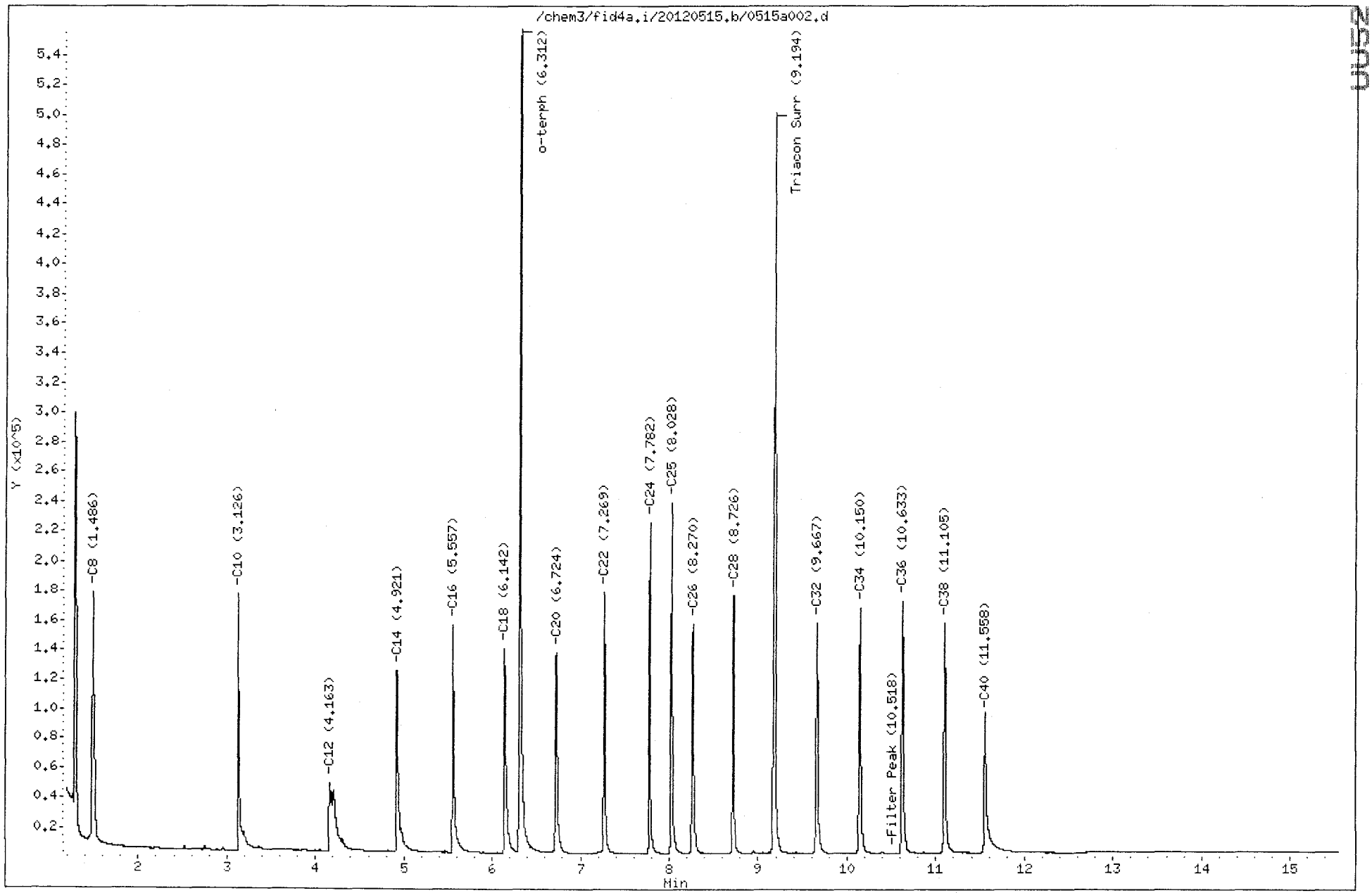
Data File: /chem3/fid4a.i/20120515.b/0515a002.d
Date : 15-MAY-2012 07:31
Client ID:
Sample Info: RT

Instrument: fid4a.i

Operator: MH
Column diameter: 0.25

Column phase: RTX-1





MH 5/16/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120515.b/0515a003.d ARI ID: IB
Method: /chem3/fid4a.i/20120515.b/ftphfid4a.m Client ID:
Instrument: fid4a.i Injection: 15-MAY-2012 07:56
Operator: MH
Report Date: 05/16/2012 Dilution Factor: 1
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.264 | -0.018 | 43465 | 98042 | GAS (Tol-C12) | 158567 | 10.54 |
| C8 | 1.531 | 0.045 | 759 | 523 | DIESEL (C12-C24) | 133538 | 9.80 |
| C10 | 3.137 | 0.011 | 378 | 280 | M.OIL (C24-C38) | 91429 | 9.38 |
| C12 | 4.146 | -0.017 | 751 | 1070 | AK-102 (C10-C25) | 173553 | 10.72 |
| C14 | 4.909 | -0.012 | 672 | 923 | AK-103 (C25-C36) | 82054 | 10.57 |
| C16 | 5.556 | -0.001 | 526 | 493 | | | |
| C18 | 6.146 | 0.005 | 368 | 546 | | | |
| C20 | 6.716 | -0.009 | 1521 | 2056 | MIN.OIL (C24-C38) | 91429 | 6.80 |
| C22 | 7.259 | -0.010 | 279 | 539 | | | |
| C24 | 7.782 | 0.000 | 40 | 7 | | | |
| C25 | 8.030 | 0.002 | 122 | 109 | | | |
| C26 | 8.262 | -0.008 | 53 | 23 | | | |
| C28 | 8.717 | -0.008 | 564 | 919 | | | |
| C32 | 9.664 | -0.003 | 1072 | 1572 | | | |
| C34 | 10.145 | -0.005 | 416 | 294 | CREOSOT (C12-C22) | 131561 | 35.81 |
| Filter Peak | 10.521 | 0.004 | 316 | 444 | | | |
| C36 | 10.634 | 0.000 | 314 | 434 | | | |
| C38 | 11.117 | 0.013 | 364 | 481 | | | |
| C40 | 11.554 | -0.004 | 379 | 358 | | | |
| o-terph | 6.310 | -0.001 | 608555 | 795132 | JET-A (C10-C18) | 101104 | 6.81 |
| Triacon Surr | 9.191 | -0.003 | 520959 | 731705 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.163 - 7.782) AK102(3.13 - 8.03) Jet A(3.13 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.13 - 8.73)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 795132 | 46.3 | 102.8 |
| Triacontane | 731705 | 42.7 | 94.9 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120515.b/0515a003.d

Date : 15-MAY-2012 07:56

Client ID:

Sample Info: IB

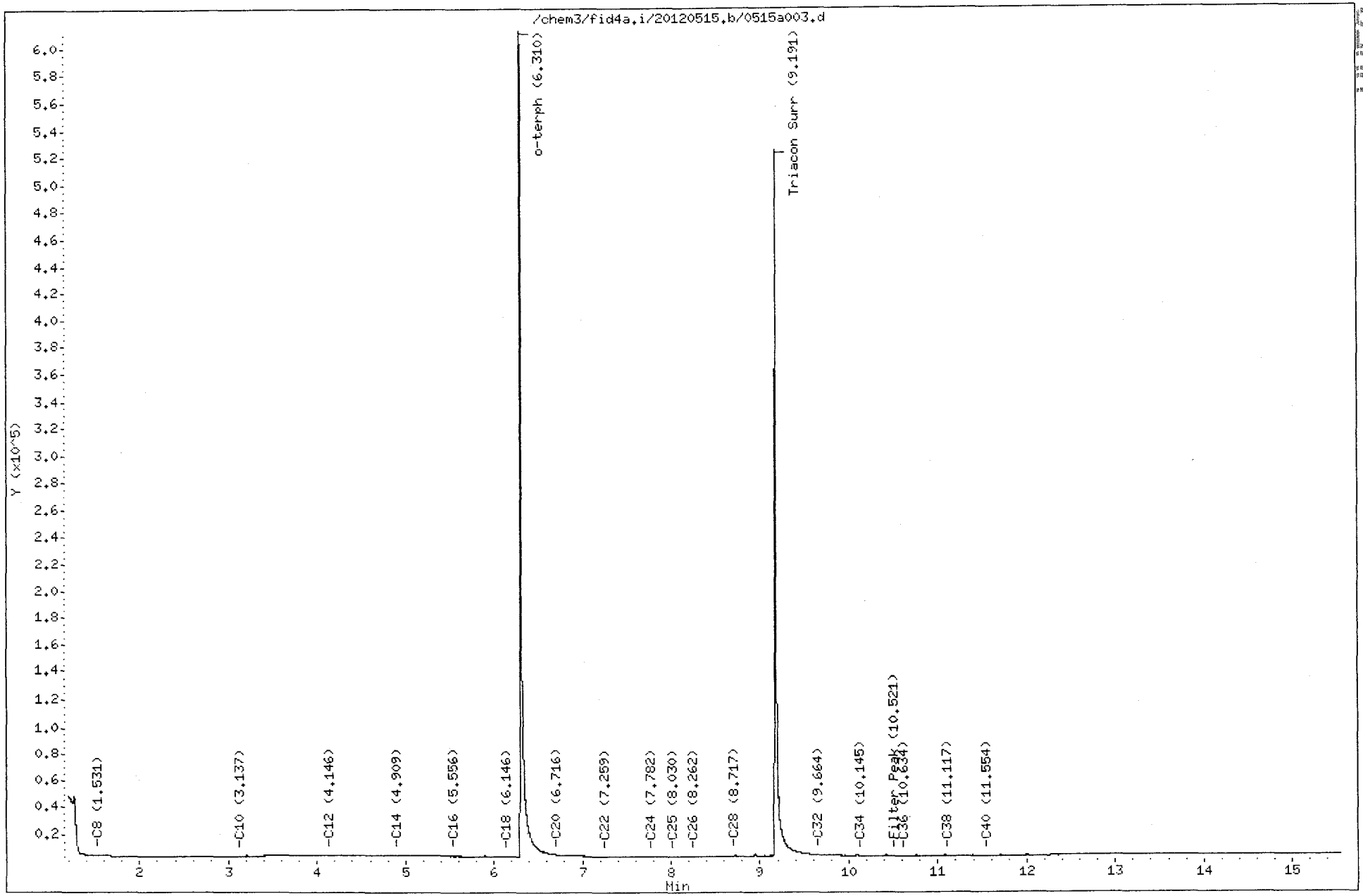
Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

Column diameter: 0.25





MH 5/16/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120515.b/0515a005a.d
Method: /chem3/fid4a.i/20120515.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/16/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: DIESEL 50
Client ID:
Injection: 15-MAY-2012 11:30

Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.272 | -0.010 | 1416 | 4387 | GAS (Tol-C12) | 141626 | 9.41 |
| C8 | 1.482 | -0.003 | 599 | 1456 | DIESEL (C12-C24) | 651098 | 47.78 |
| C10 | 3.129 | 0.004 | 625 | 793 | M.OIL (C24-C38) | 92907 | 9.53 |
| C12 | 4.153 | -0.009 | 2591 | 5784 | AK-102 (C10-C25) | 751006 | 46.38 |
| C14 | 4.913 | -0.008 | 3548 | 2811 | AK-103 (C25-C36) | 71299 | 9.19 |
| C16 | 5.550 | -0.007 | 4909 | 7015 | | | |
| C18 | 6.127 | -0.015 | 3664 | 4527 | | | |
| C20 | 6.722 | -0.002 | 2684 | 1665 | MIN.OIL (C24-C38) | 92907 | 6.91 |
| C22 | 7.255 | -0.014 | 3021 | 5929 | | | |
| C24 | 7.775 | -0.007 | 770 | 463 | | | |
| C25 | 8.026 | -0.002 | 2022 | 2225 | | | |
| C26 | 8.263 | -0.007 | 362 | 503 | | | |
| C28 | 8.732 | 0.007 | 1675 | 2392 | | | |
| C32 | 9.665 | -0.003 | 284 | 111 | | | |
| C34 | 10.135 | -0.015 | 275 | 316 | CREOSOT (C12-C22) | 622411 | 169.40 |
| Filter Peak | 10.522 | 0.004 | 252 | 244 | | | |
| C36 | 10.625 | -0.008 | 240 | 257 | | | |
| C38 | 11.145 | 0.041 | 309 | 402 | | | |
| C40 | 11.559 | 0.001 | 332 | 268 | | | |
| o-terph | 6.326 | 0.015 | 64679 | 165936 | JET-A (C10-C18) | 561919 | 37.86 |
| Triacon Surr | 9.190 | -0.004 | 294 | 300 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.163 - 7.782) AK102(3.13 - 8.03) Jet A(3.13 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.13 - 8.73)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 165936 | 9.7 | 21.5 |
| Triacontane | 300 | 0.0 | 0.0 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120515.b/0515a005a.d

Date : 15-MAY-2012 11:30

Client ID:

Sample Info: DIESEL 50

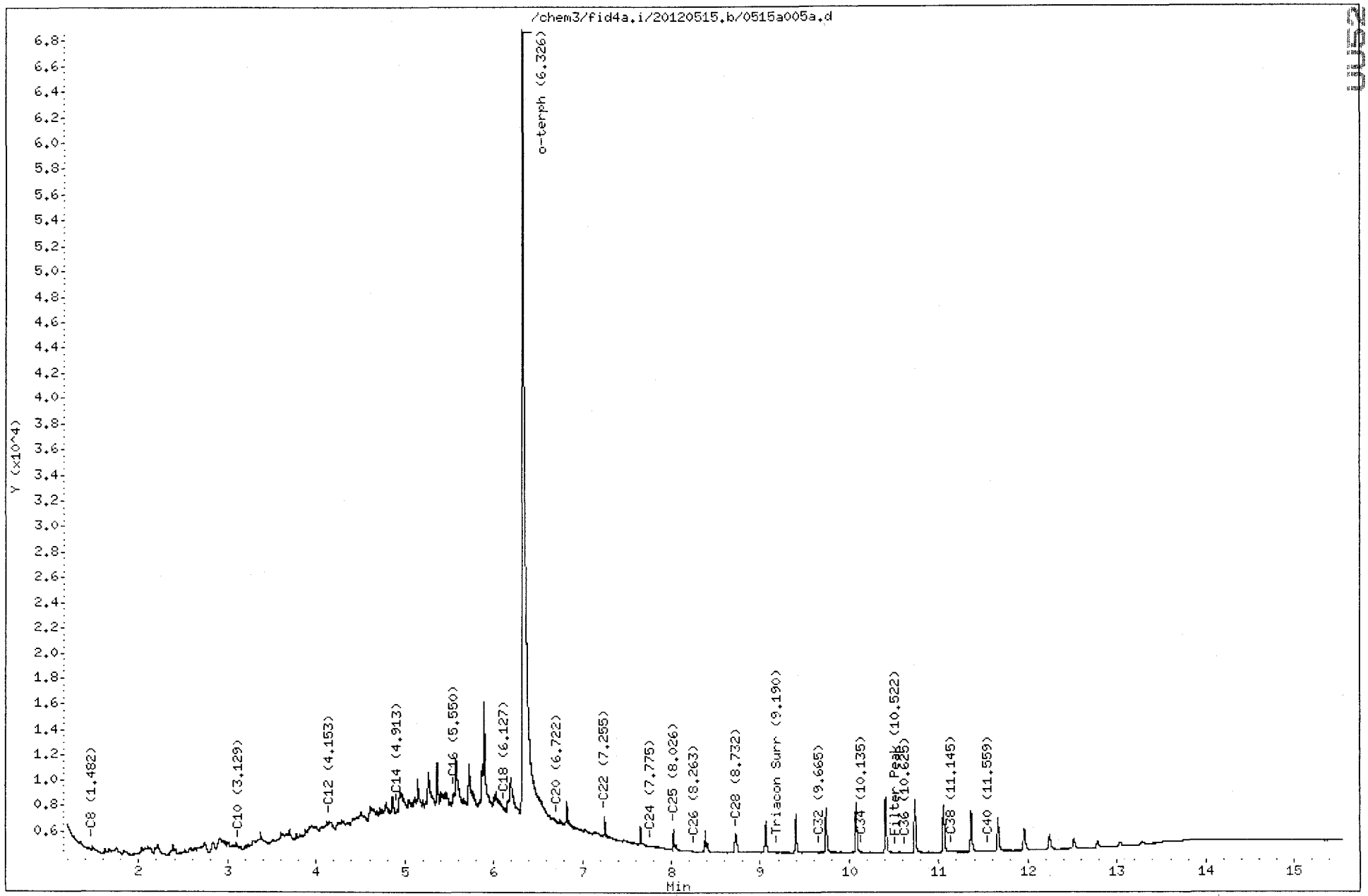
Instrument: fid4a.i

Operator: MH

Column phase: RTX-1

Column diameter: 0.25





MH 5/16/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120515.b/0515a005b.d
Method: /chem3/fid4a.i/20120515.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/16/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: DIESEL 100
Client ID:
Injection: 15-MAY-2012 11:53

Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.287 | 0.005 | 1780 | 3185 | GAS (Tol-C12) | 353140 | 23.47 |
| C8 | 1.497 | 0.012 | 1193 | 2678 | DIESEL (C12-C24) | 1384753 | 101.61 |
| C10 | 3.132 | 0.006 | 1724 | 1784 | M.OIL (C24-C38) | 41006 | 4.21 |
| C12 | 4.185 | 0.022 | 4654 | 3334 | AK-102 (C10-C25) | 1629784 | 100.65 M |
| C14 | 4.918 | -0.003 | 14628 | 22243 | AK-103 (C25-C36) | 30429 | 3.92 |
| C16 | 5.557 | 0.000 | 25842 | 30435 | | | |
| C18 | 6.146 | 0.004 | 14970 | 26890 | | | |
| C20 | 6.729 | 0.005 | 5535 | 7961 | MIN.OIL (C24-C38) | 41006 | 3.05 |
| C22 | 7.273 | 0.004 | 2774 | 876 | | | |
| C24 | 7.771 | -0.011 | 1301 | 891 | | | |
| C25 | 8.030 | 0.002 | 813 | 1281 | | | |
| C26 | 8.286 | 0.016 | 458 | 382 | | | |
| C28 | 8.716 | -0.010 | 275 | 401 | | | |
| C32 | 9.673 | 0.005 | 42 | 33 | | | |
| C34 | 10.143 | -0.007 | 45 | 44 | CREOSOT (C12-C22) | 1341025 | 364.99 M |
| Filter Peak | 10.532 | 0.014 | 38 | 21 | | | |
| C36 | 10.624 | -0.010 | 37 | 25 | | | |
| C38 | 11.070 | -0.035 | 804 | 1531 | | | |
| C40 | 11.559 | 0.001 | 121 | 150 | | | |
| o-terph | 6.313 | 0.002 | 200734 | 293398 | JET-A (C10-C18) | 1248071 | 84.09 |
| Triacon Surr | 9.193 | -0.001 | 93 | 106 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.163 - 7.782) AK102(3.13 - 8.03) Jet A(3.13 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.13 - 8.73)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 293398 | 17.1 | 37.9 |
| Triacontane | 106 | 0.0 | 0.0 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120515.b/0515a005b.d

Date : 15-MAY-2012 11:53

Client ID:

Sample Info: DIESEL 100

Instrument: fid4a.i

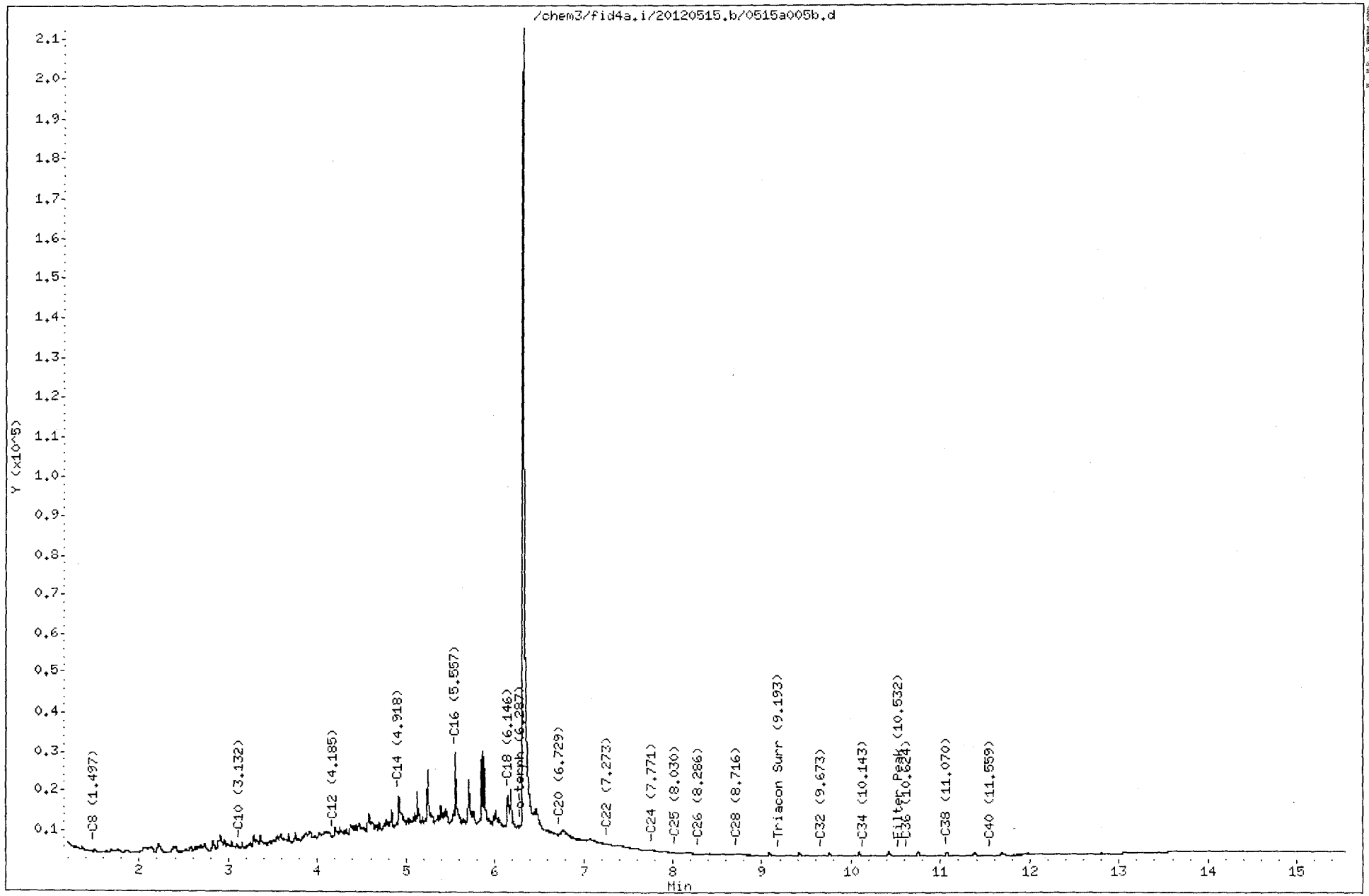
Operator: MH

Column phase: RTX-1

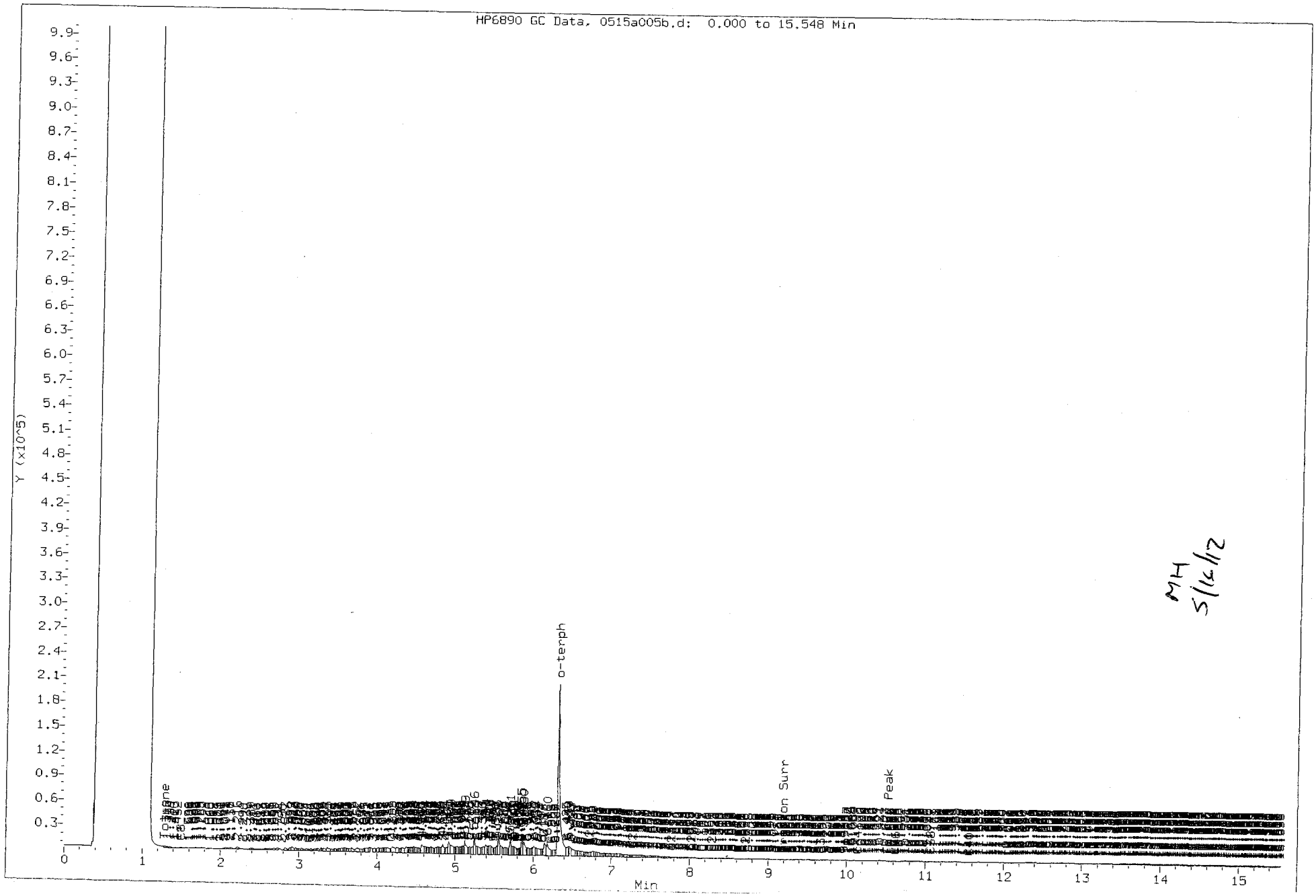
Column diameter: 0.25



J052-91838

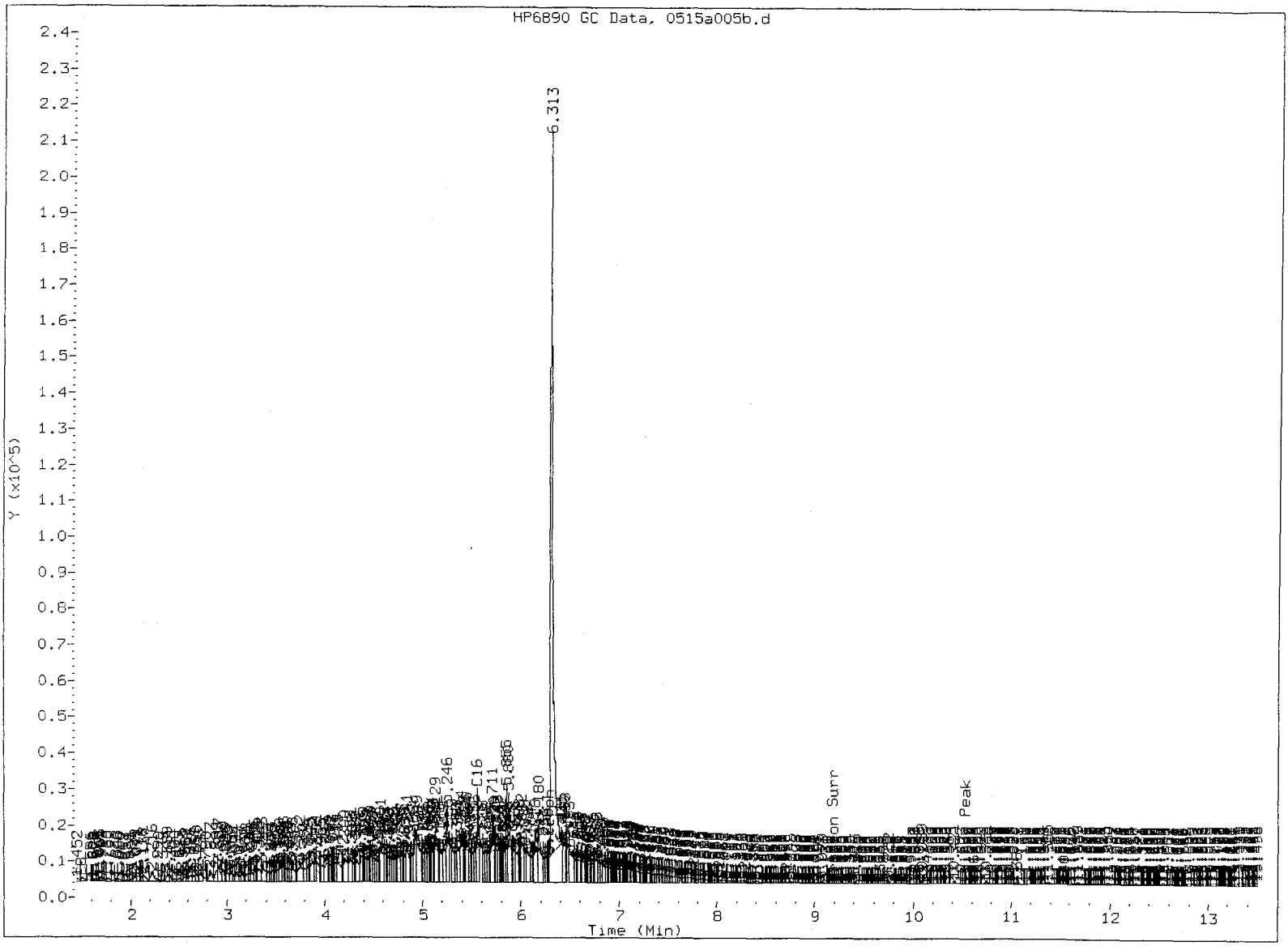


Data File: /chem3/fid4a.i/20120515.b/0515a005b.d
Injection Date: 15-MAY-2012 11:53
Instrument: fid4a.i
Client Sample ID:




UU52:01839

FID:4A-2C/RTX-1 DIESEL 100 FID:4A SIGNAL




MANUAL INTEGRATION

~~1~~. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/16/12

MH 5/16/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120515.b/0515a005c.d
Method: /chem3/fid4a.i/20120515.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/16/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: DIESEL 250
Client ID:
Injection: 15-MAY-2012 12:17

Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.292 | 0.010 | 2785 | 3551 | GAS (Tol-C12) | 911902 | 60.62 |
| C8 | 1.502 | 0.016 | 2410 | 3872 | DIESEL (C12-C24) | 3514900 | 257.92 |
| C10 | 3.119 | -0.007 | 4648 | 4831 | M.OIL (C24-C38) | 78924 | 8.10 |
| C12 | 4.162 | 0.000 | 22264 | 39052 | AK-102 (C10-C25) | 4165121 | 257.22 M |
| C14 | 4.937 | 0.016 | 24594 | 31946 | AK-103 (C25-C36) | 58766 | 7.57 |
| C16 | 5.548 | -0.009 | 91391 | 105637 | | | |
| C18 | 6.138 | -0.004 | 63047 | 79208 | | | |
| C20 | 6.725 | 0.001 | 26692 | 83466 | MIN.OIL (C24-C38) | 78924 | 5.87 |
| C22 | 7.265 | -0.004 | 6207 | 5660 | | | |
| C24 | 7.784 | 0.003 | 2588 | 4167 | | | |
| C25 | 8.021 | -0.007 | 1706 | 1343 | | | |
| C26 | 8.242 | -0.028 | 1090 | 3277 | | | |
| C28 | 8.737 | 0.011 | 980 | 2120 | | | |
| C32 | 9.670 | 0.002 | 127 | 294 | | | |
| C34 | 10.150 | 0.000 | 61 | 39 | CREOSOT (C12-C22) | 3403966 | 926.46 M |
| Filter Peak | 10.513 | -0.005 | 34 | 29 | | | |
| C36 | 10.630 | -0.003 | 30 | 9 | | | |
| C38 | 11.130 | 0.026 | 64 | 26 | | | |
| C40 | 11.574 | 0.016 | 90 | 209 | | | |
| o-terph | 6.311 | 0.000 | 706633 | 748623 | JET-A (C10-C18) | 3180606 | 214.30 |
| Triacon Surr | 9.191 | -0.002 | 201 | 312 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.163 - 7.782) AK102(3.13 - 8.03) Jet A(3.13 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.13 - 8.73)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 748623 | 43.6 | 96.8 |
| Triacontane | 312 | 0.0 | 0.0 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120515.b/0515a005c.d

Date : 15-MAY-2012 12:17

Client ID:

Sample Info: DIESEL 250

Instrument: fid4a.i

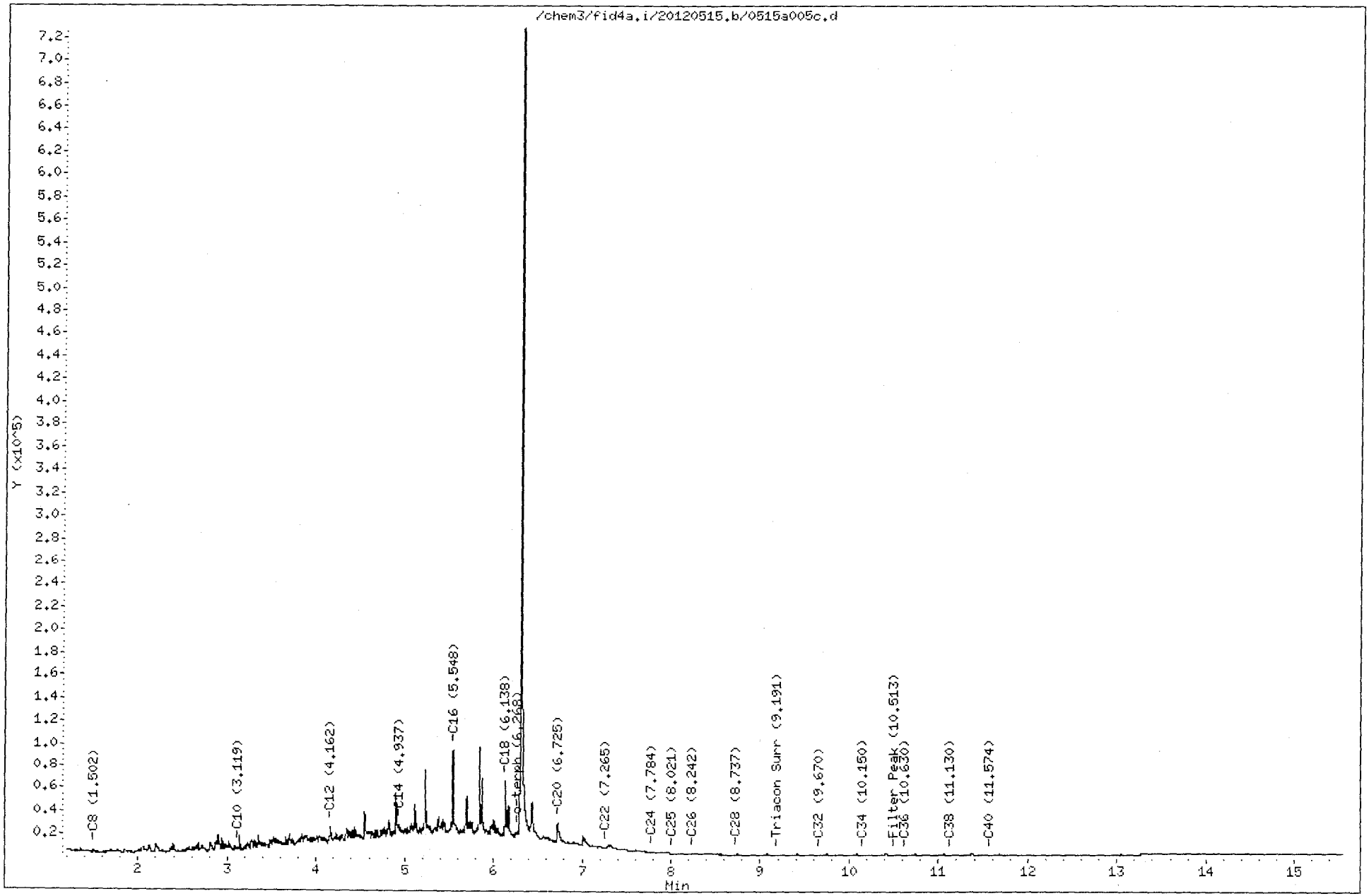
Operator: MH

Column phase: RTX-1

Column diameter: 0.25



US52-91812



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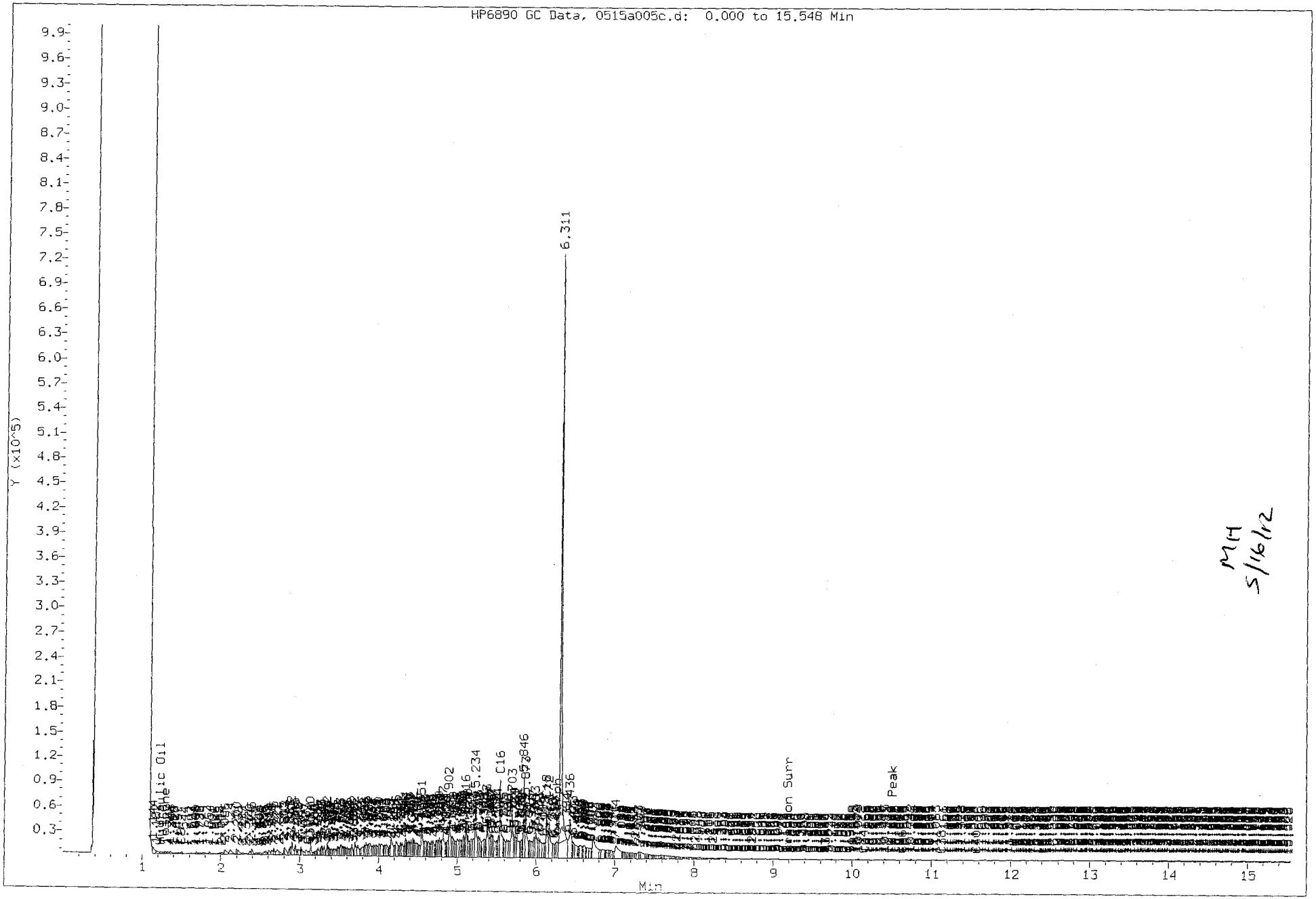
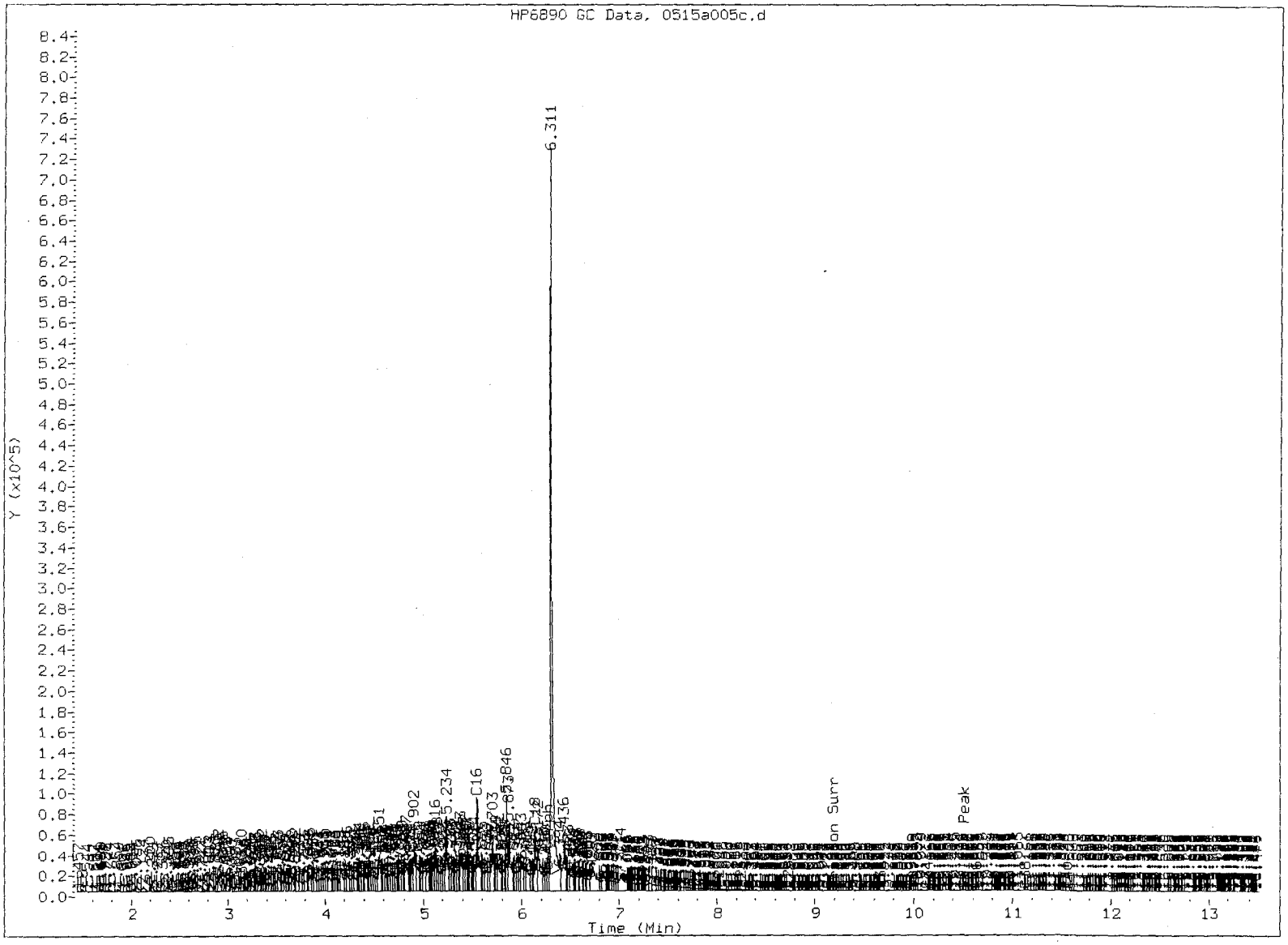
Injection Date: 15-MAY-2012 12:17
Instrument: fid4a.i
Client Sample ID:




MH
5/16/12

UU52:01843

FID:4A-2C/RTX-1 DIESEL 250 FID:4A SIGNAL




MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/16/12

MH 5/16/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120515.b/0515a005d.d
Method: /chem3/fid4a.i/20120515.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/16/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: DIESEL 500
Client ID:
Injection: 15-MAY-2012 12:41

Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.306 | 0.024 | 4576 | 4514 | GAS (Tol-C12) | 1943508 | 129.19 |
| C8 | 1.469 | -0.017 | 1808 | 2574 | DIESEL (C12-C24) | 6897445 | 506.12 |
| C10 | 3.131 | 0.005 | 35766 | 32301 | M.OIL (C24-C38) | 120345 | 12.34 |
| C12 | 4.142 | -0.021 | 61151 | 94618 | AK-102 (C10-C25) | 8278657 | 511.25 M |
| C14 | 4.931 | 0.010 | 47488 | 57085 | AK-103 (C25-C36) | 88377 | 11.39 |
| C16 | 5.544 | -0.013 | 197723 | 179840 | | | |
| C18 | 6.137 | -0.005 | 157925 | 165573 | | | |
| C20 | 6.716 | -0.008 | 78488 | 152306 | MIN.OIL (C24-C38) | 120345 | 8.95 |
| C22 | 7.280 | 0.012 | 21509 | 69131 | | | |
| C24 | 7.794 | 0.013 | 4270 | 2025 | | | |
| C25 | 8.028 | 0.000 | 2774 | 2352 | | | |
| C26 | 8.271 | 0.001 | 1752 | 2362 | | | |
| C28 | 8.713 | -0.013 | 767 | 450 | | | |
| C32 | 9.677 | 0.010 | 205 | 115 | | | |
| C34 | 10.152 | 0.002 | 78 | 91 | CREOSOT (C12-C22) | 6738327 | 1833.98 M |
| Filter Peak | 10.520 | 0.002 | 35 | 45 | | | |
| C36 | 10.633 | 0.000 | 25 | 8 | | | |
| C38 | 11.114 | 0.009 | 61 | 34 | | | |
| C40 | 11.557 | -0.001 | 59 | 44 | | | |
| o-terph | 6.322 | 0.010 | 1448465 | 1544870 | JET-A (C10-C18) | 6422421 | 432.72 |
| Triacon Surr | 9.205 | 0.011 | 319 | 147 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.163 - 7.782) AK102(3.13 - 8.03) Jet A(3.13 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.13 - 8.73)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 1544870 | 89.9 | 199.7 |
| Triacontane | 147 | 0.0 | 0.0 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120515.b/0515a005d.d
Date : 15-MAY-2012 12:41
Client ID:
Sample Info: DIESEL 500

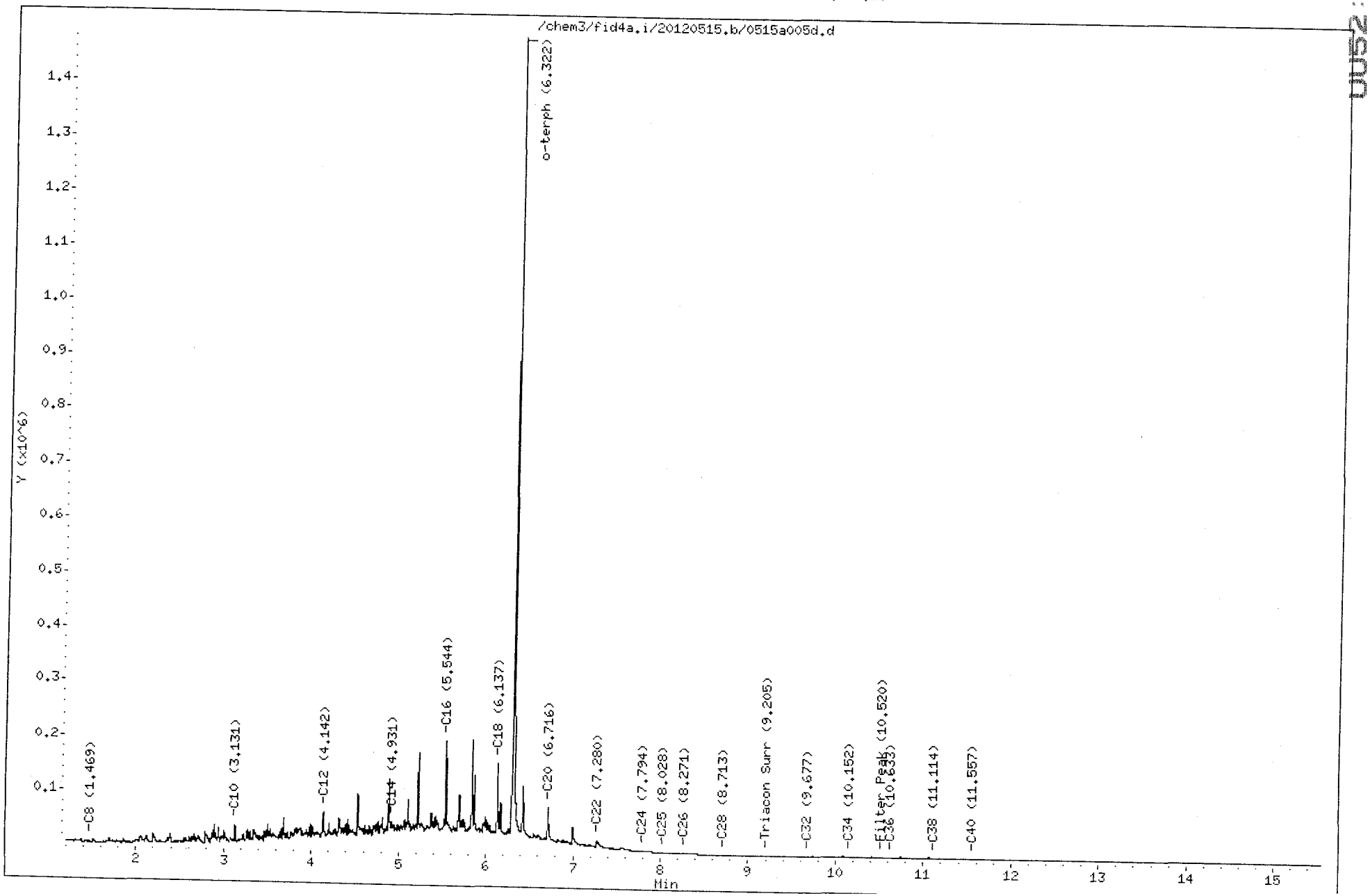
Instrument: fid4a.i

Operator: MH
Column diameter: 0.25

Column phase: RTX-1



0052 : 91815



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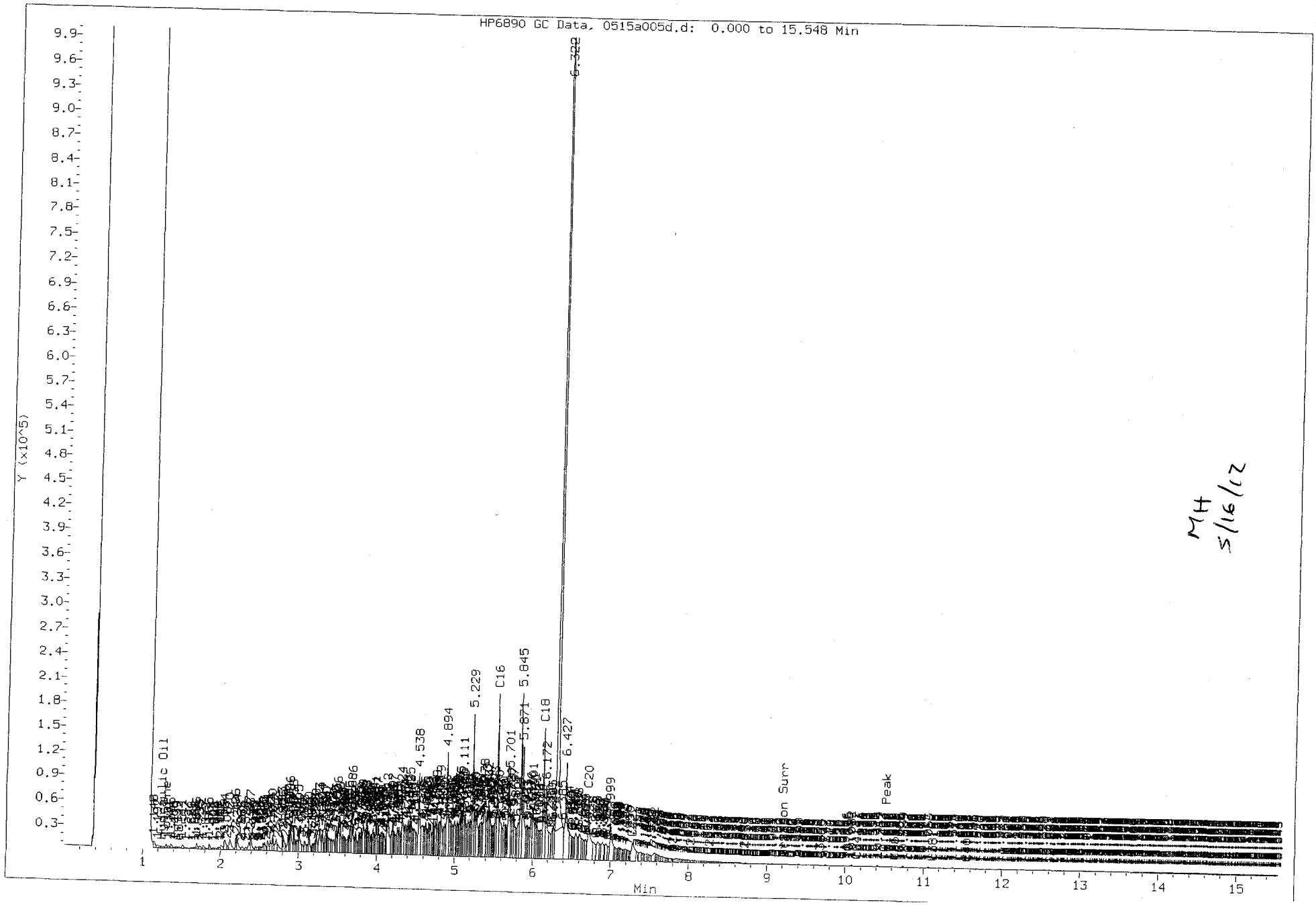
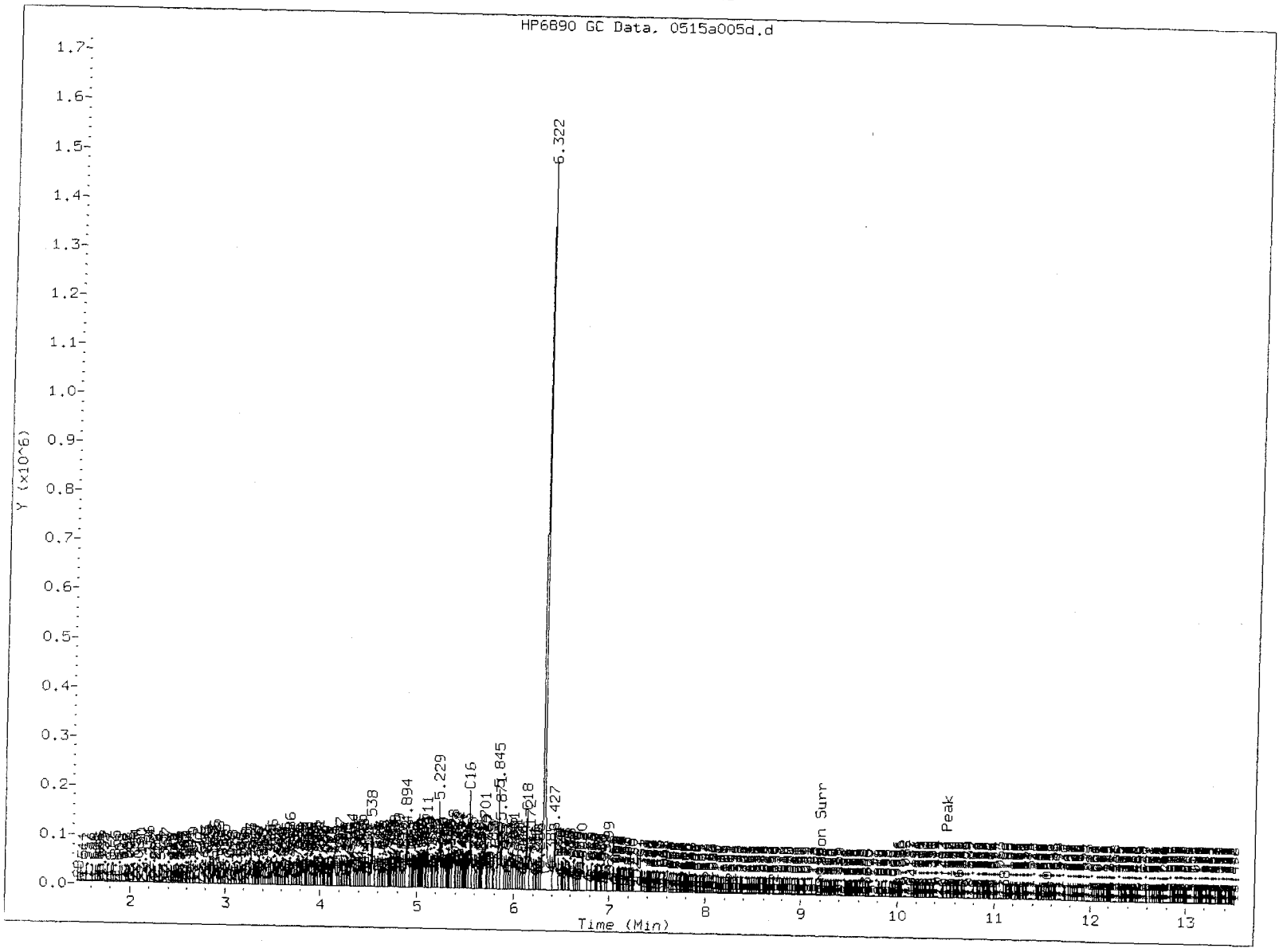
Injection Date: 15-MAY-2012 12:41
Instrument: fid4a.i
Client Sample ID:




MH
5/16/12

FID:4A-2C/RTX-1 DIESEL 500 FID:4A SIGNAL




MANUAL INTEGRATION

~~1.~~ Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MA Date: 5/16/12

MH 5/16/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120515.b/0515a005e.d
Method: /chem3/fid4a.i/20120515.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/16/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: DIESEL 1000
Client ID:
Injection: 15-MAY-2012 13:05

Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.268 | -0.014 | 2024 | 5239 | GAS (Tol-C12) | 3888585 | 258.48 |
| C8 | 1.487 | 0.001 | 3050 | 4129 | DIESEL (C12-C24) | 13350940 | 979.67 |
| C10 | 3.128 | 0.002 | 83610 | 67320 | M.OIL (C24-C38) | 181233 | 18.59 |
| C12 | 4.185 | 0.022 | 58359 | 52153 | AK-102 (C10-C25) | 16082648 | 993.19 M |
| C14 | 4.929 | 0.008 | 89945 | 127719 | AK-103 (C25-C36) | 142739 | 18.40 |
| C16 | 5.544 | -0.013 | 418248 | 343802 | | | |
| C18 | 6.138 | -0.003 | 323122 | 325580 | | | |
| C20 | 6.715 | -0.009 | 186437 | 267047 | MIN.OIL (C24-C38) | 181233 | 13.48 |
| C22 | 7.265 | -0.003 | 63234 | 175706 | | | |
| C24 | 7.790 | 0.008 | 7626 | 3964 | | | |
| C25 | 8.027 | -0.001 | 4429 | 1581 | | | |
| C26 | 8.266 | -0.004 | 2736 | 3408 | | | |
| C28 | 8.737 | 0.011 | 1628 | 4219 | | | |
| C32 | 9.657 | -0.010 | 325 | 405 | | | |
| C34 | 10.132 | -0.018 | 126 | 191 | CREOSOT (C12-C22) | 13002672 | 3538.96 M |
| Filter Peak | 10.525 | 0.007 | 57 | 24 | | | |
| C36 | 10.642 | 0.008 | 41 | 23 | | | |
| C38 | 11.118 | 0.013 | 56 | 30 | | | |
| C40 | 11.565 | 0.007 | 54 | 88 | | | |
| o-terph | 6.335 | 0.023 | 2243779 | 3131504 | JET-A (C10-C18) | 12522503 | 843.72 |
| Triacon Surr | 9.179 | -0.014 | 492 | 893 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.163 - 7.782) AK102(3.13 - 8.03) Jet A(3.13 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.13 - 8.73)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 3131504 | 182.2 | 404.9 |
| Triacontane | 893 | 0.1 | 0.1 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120515.b/0515a005e.d

Date : 15-MAY-2012 13:05

Client ID:

Sample Info: DIESEL 1000

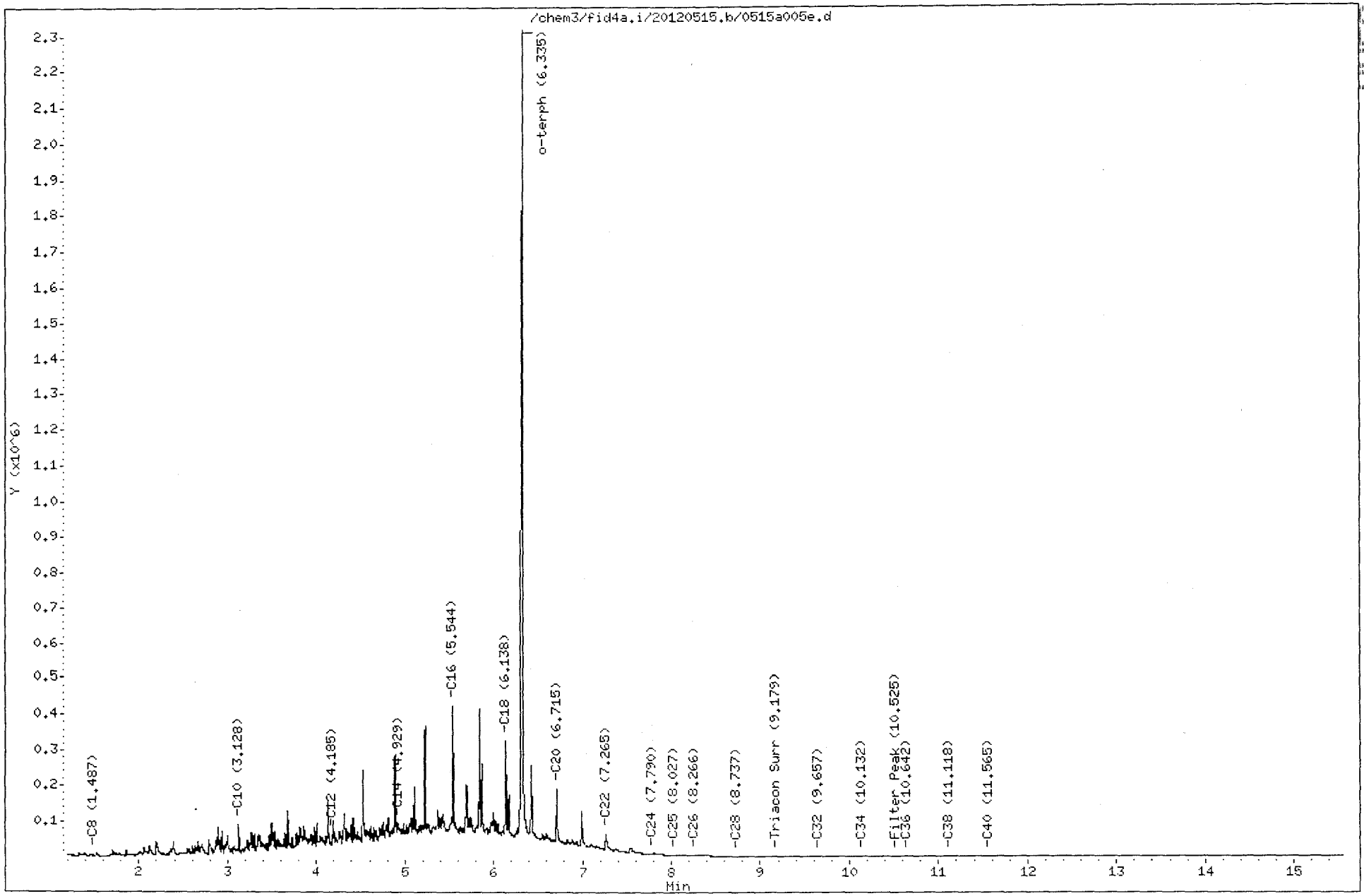
Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

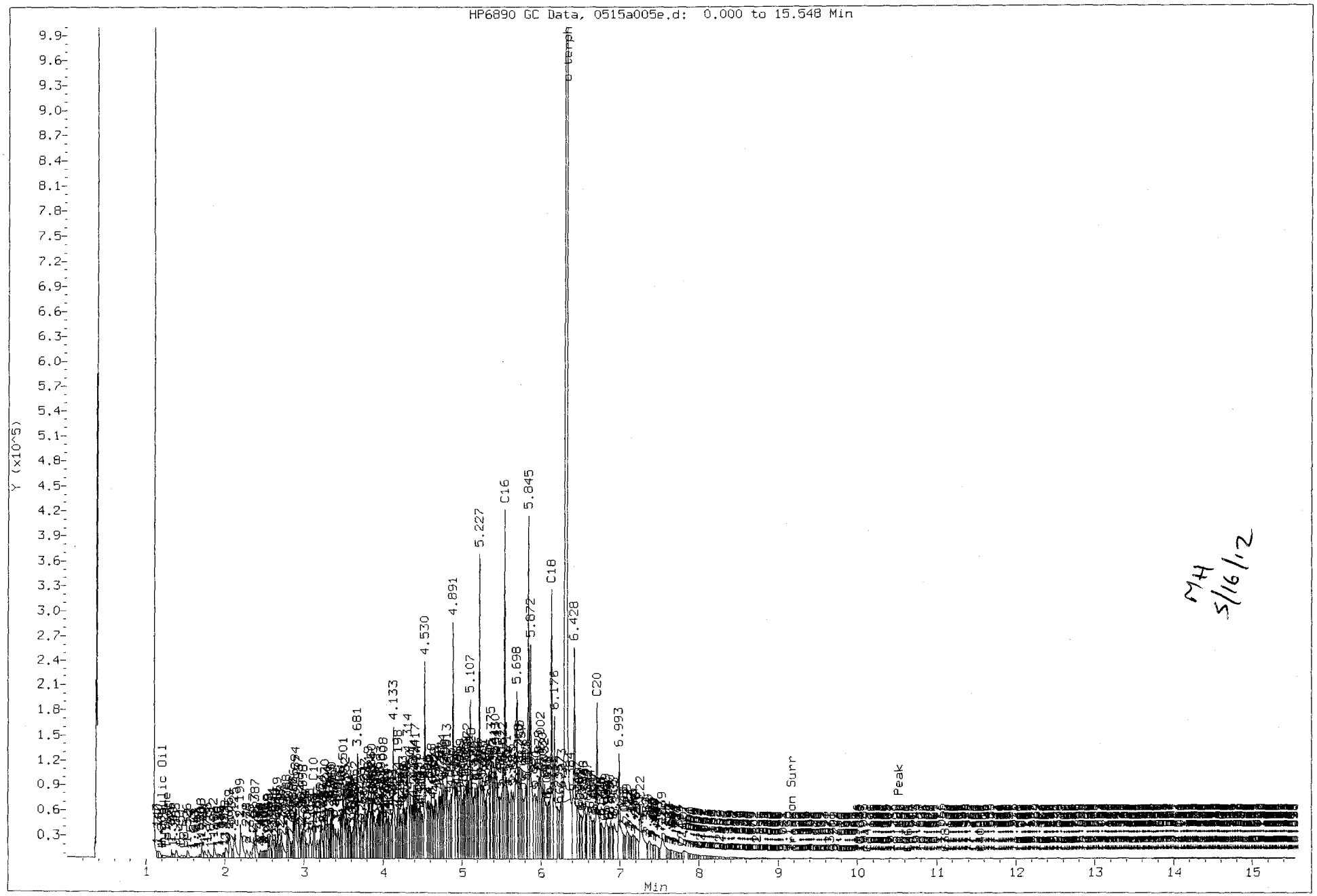
Column diameter: 0.25






UU52:01850

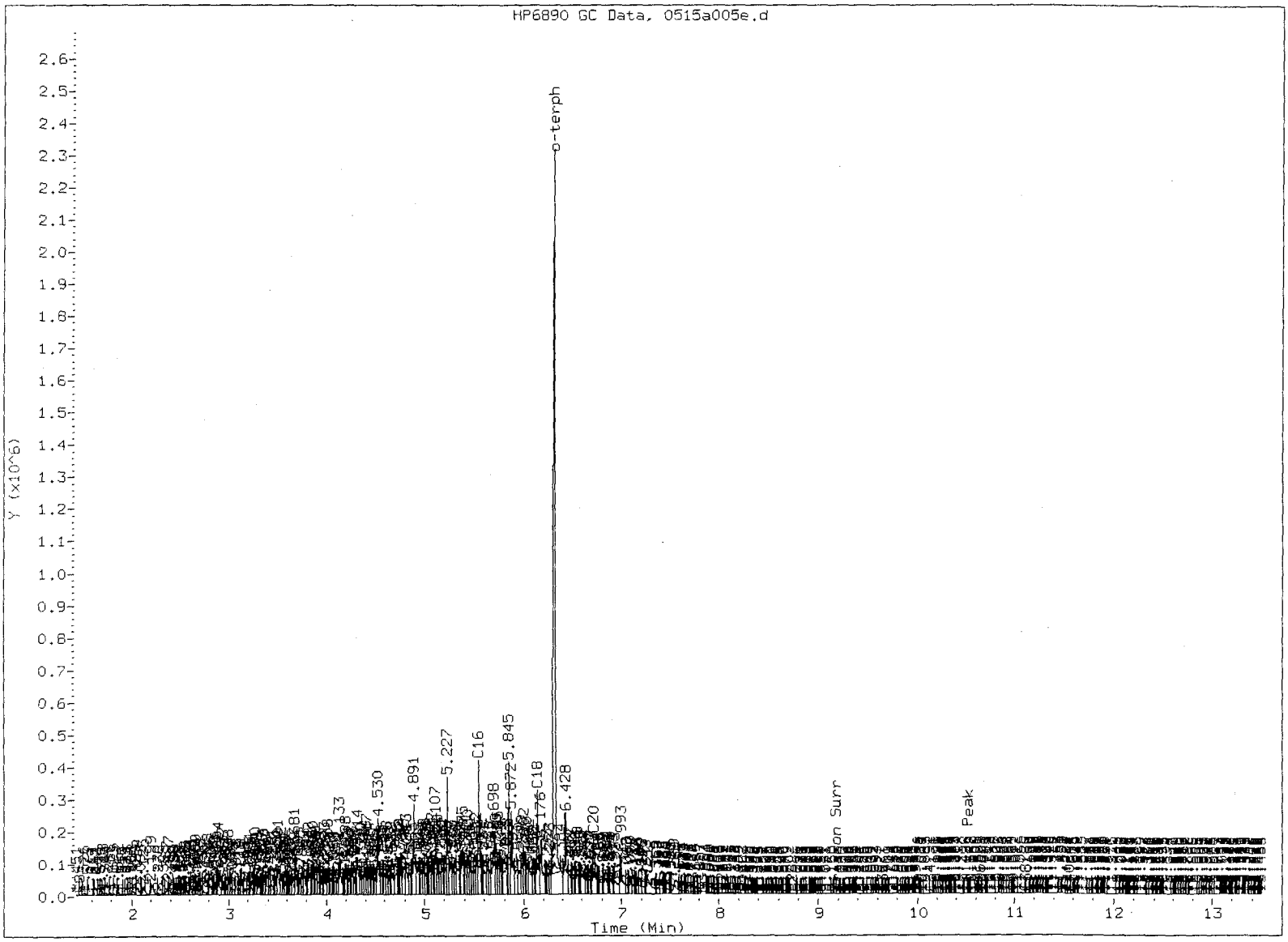
Data File: /chem3/fid4a.i/20120515.b/0515a005e.d
Injection Date: 15-MAY-2012 13:05
Instrument: fid4a.i
Client Sample ID:




MH
5/16/12

UU52:01851

FID:4A-2C/RTX-1 DIESEL 1000 FID:4A SIGNAL




MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/16/12

MH 5/16/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120515.b/0515a006.d
Method: /chem3/fid4a.i/20120515.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/16/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: DIESEL 2500
Client ID:
Injection: 15-MAY-2012 13:29

Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.292 | 0.010 | 2488 | 2731 | GAS (Tol-C12) | 10109817 | 672.02 |
| C8 | 1.489 | 0.003 | 6657 | 4794 | DIESEL (C12-C24) | 34235404 | 2512.14 |
| C10 | 3.133 | 0.007 | 222967 | 182366 | M.OIL (C24-C38) | 362187 | 37.15 |
| C12 | 4.163 | 0.000 | 88963 | 55182 | AK-102 (C10-C25) | 41349395 | 2553.54 M |
| C14 | 4.929 | 0.008 | 219226 | 459951 | AK-103 (C25-C36) | 259218 | 33.41 |
| C16 | 5.552 | -0.005 | 908389 | 930155 | | | |
| C18 | 6.152 | 0.010 | 646206 | 840739 | | | |
| C20 | 6.726 | 0.001 | 457150 | 795222 | MIN.OIL (C24-C38) | 362187 | 26.95 |
| C22 | 7.271 | 0.002 | 215354 | 387158 | | | |
| C24 | 7.787 | 0.005 | 37695 | 105686 | | | |
| C25 | 8.045 | 0.017 | 13593 | 32742 | | | |
| C26 | 8.270 | 0.000 | 5135 | 2115 | | | |
| C28 | 8.731 | 0.005 | 2480 | 7009 | | | |
| C32 | 9.665 | -0.002 | 424 | 325 | | | |
| C34 | 10.147 | -0.003 | 191 | 121 | CREOSOT (C12-C22) | 33230776 | 9044.47 M |
| Filter Peak | 10.510 | -0.008 | 102 | 65 | | | |
| C36 | 10.644 | 0.011 | 70 | 64 | | | |
| C38 | 11.117 | 0.012 | 46 | 44 | | | |
| C40 | 11.562 | 0.005 | 26 | 7 | | | |
| o-terph | 6.366 | 0.054 | 3885408 | 8382575 | JET-A (C10-C18) | 31989886 | 2155.36 |
| Triacon Surr | 9.189 | -0.005 | 724 | 942 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.163 - 7.782) AK102(3.13 - 8.03) Jet A(3.13 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.13 - 8.73)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 8382575 | 487.7 | 1083.8 |
| Triacontane | 942 | 0.1 | 0.1 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

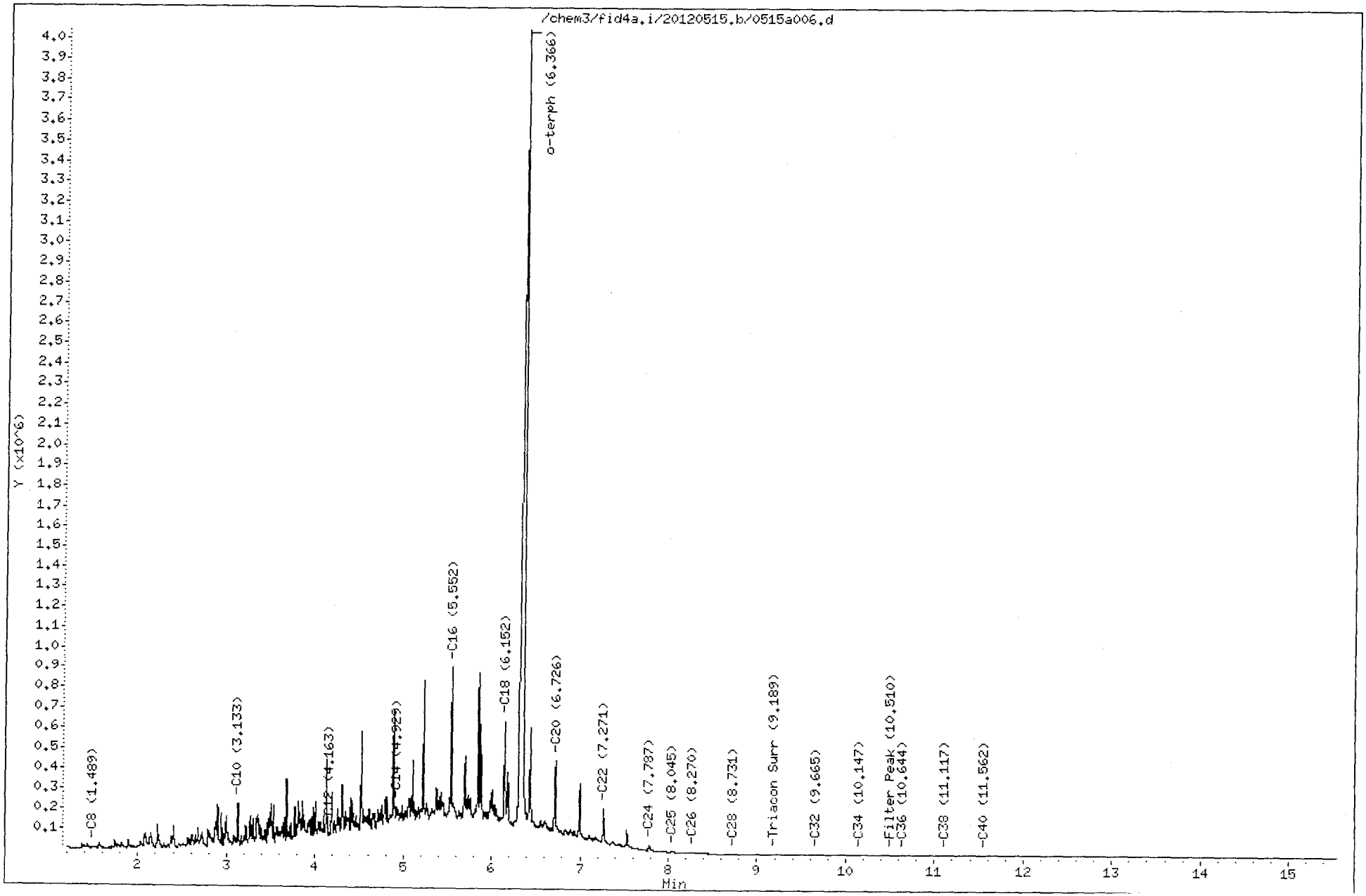
Data File: /chem3/fid4a.i/20120515.b/0515a006.d
Date : 15-MAY-2012 13:29
Client ID:
Sample Info: DIESEL 2500

Instrument: fid4a.i

Operator: MH
Column diameter: 0.25

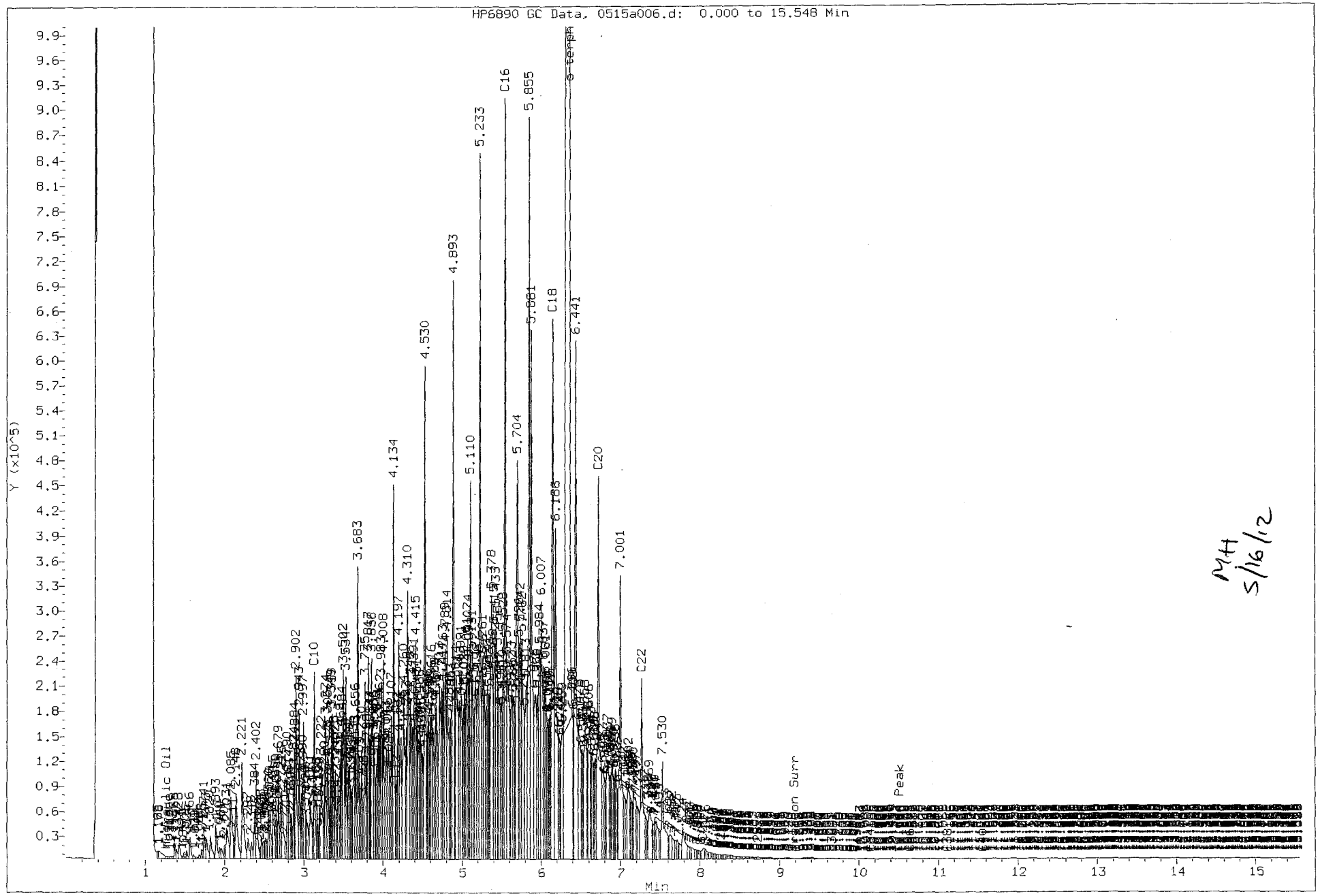
Column phase: RTX-1






US52-014851

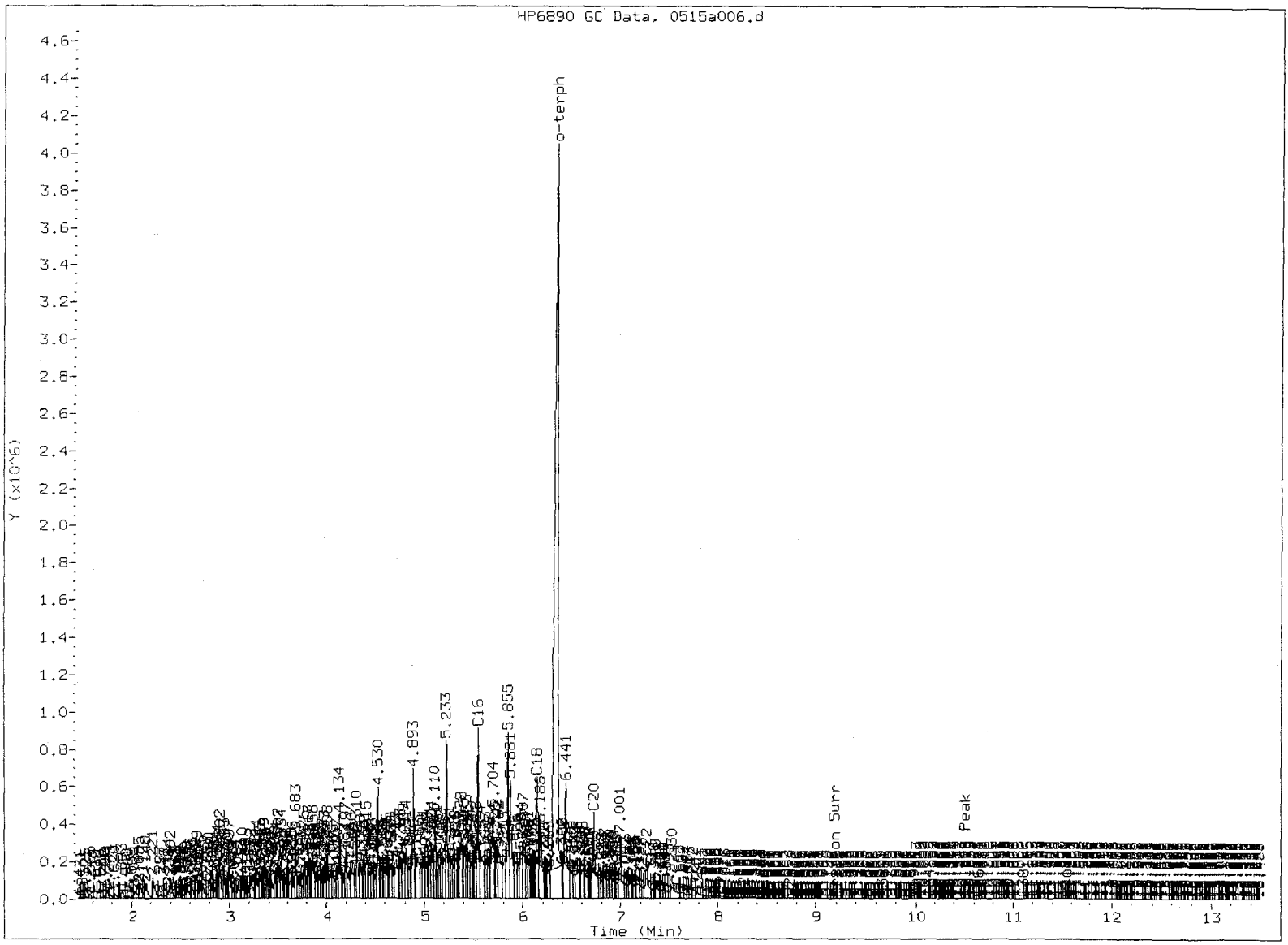
Data File: /chem3/fid4a.i/20120515.b/0515a006.d
Injection Date: 15-MAY-2012 13:29
Instrument: fid4a.i
Client Sample ID:




MH
5/16/12

UU52:01855

FID:4A-2C/RTX-1 DIESEL 2500 FID:4A SIGNAL




MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/16/12

MH 5/17/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120516.b/0516a029.d
Method: /chem3/fid4a.i/20120516.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/17/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: DIESEL ICV
Client ID:
Injection: 16-MAY-2012 18:42

Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.292 | 0.025 | 3120 | 4631 | GAS (Tol-C12) | 1004908 | 66.80 |
| C8 | 1.456 | -0.018 | 1500 | 2080 | DIESEL (C12-C24) | 2769048 | 203.19 |
| C10 | 3.137 | 0.014 | 26075 | 29019 | M.OIL (C24-C38) | 65672 | 6.74 |
| C12 | 4.142 | -0.009 | 14731 | 19328 | AK-102 (C10-C25) | 3544119 | 218.87 M |
| C14 | 4.910 | -0.013 | 41137 | 92662 | AK-103 (C25-C36) | 45532 | 5.87 |
| C16 | 5.554 | -0.007 | 49229 | 56359 | | | |
| C18 | 6.139 | -0.003 | 33720 | 47733 | | | |
| C20 | 6.728 | 0.004 | 16480 | 52809 | MIN.OIL (C24-C38) | 65672 | 4.89 |
| C22 | 7.270 | 0.001 | 4835 | 1883 | | | |
| C24 | 7.768 | -0.012 | 2253 | 3088 | | | |
| C25 | 8.025 | -0.002 | 1499 | 2380 | | | |
| C26 | 8.265 | -0.001 | 988 | 947 | | | |
| C28 | 8.724 | 0.001 | 603 | 1609 | | | |
| C32 | 9.668 | 0.003 | 73 | 37 | | | |
| C34 | 10.147 | 0.000 | 34 | 16 | CREOSOT (C12-C22) | 2697742 | 734.25 M |
| Filter Peak | 10.504 | -0.009 | 38 | 35 | | | |
| C36 | 10.619 | -0.004 | 44 | 22 | | | |
| C38 | 11.117 | 0.023 | 103 | 250 | | | |
| C40 | 11.565 | 0.006 | 190 | 227 | | | |
| o-terph | 6.312 | -0.001 | 571818 | 693660 | JET-A (C10-C18) | 2772533 | 186.80 |
| Triacon Surr | 9.192 | -0.001 | 137 | 100 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.151 - 7.780) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.09) AK103(8.03 - 10.62) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 693660 | 40.4 | 89.7 |
| Triacontane | 100 | 0.0 | 0.0 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120516.b/0516a029.d

Date : 16-MAY-2012 18:42

Client ID:

Sample Info: DIESEL ICV

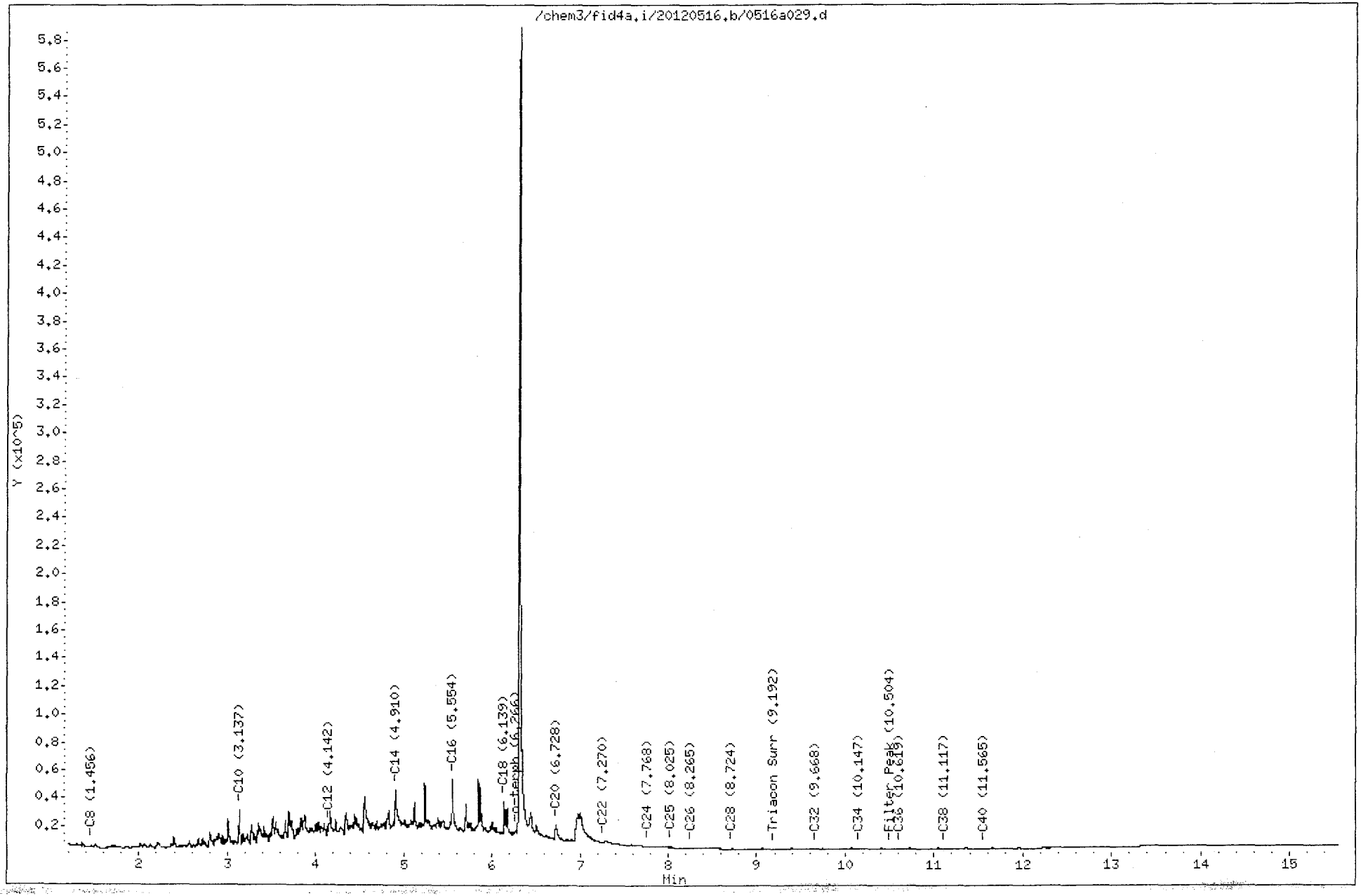
Instrument: fid4a.i

Operator: MH

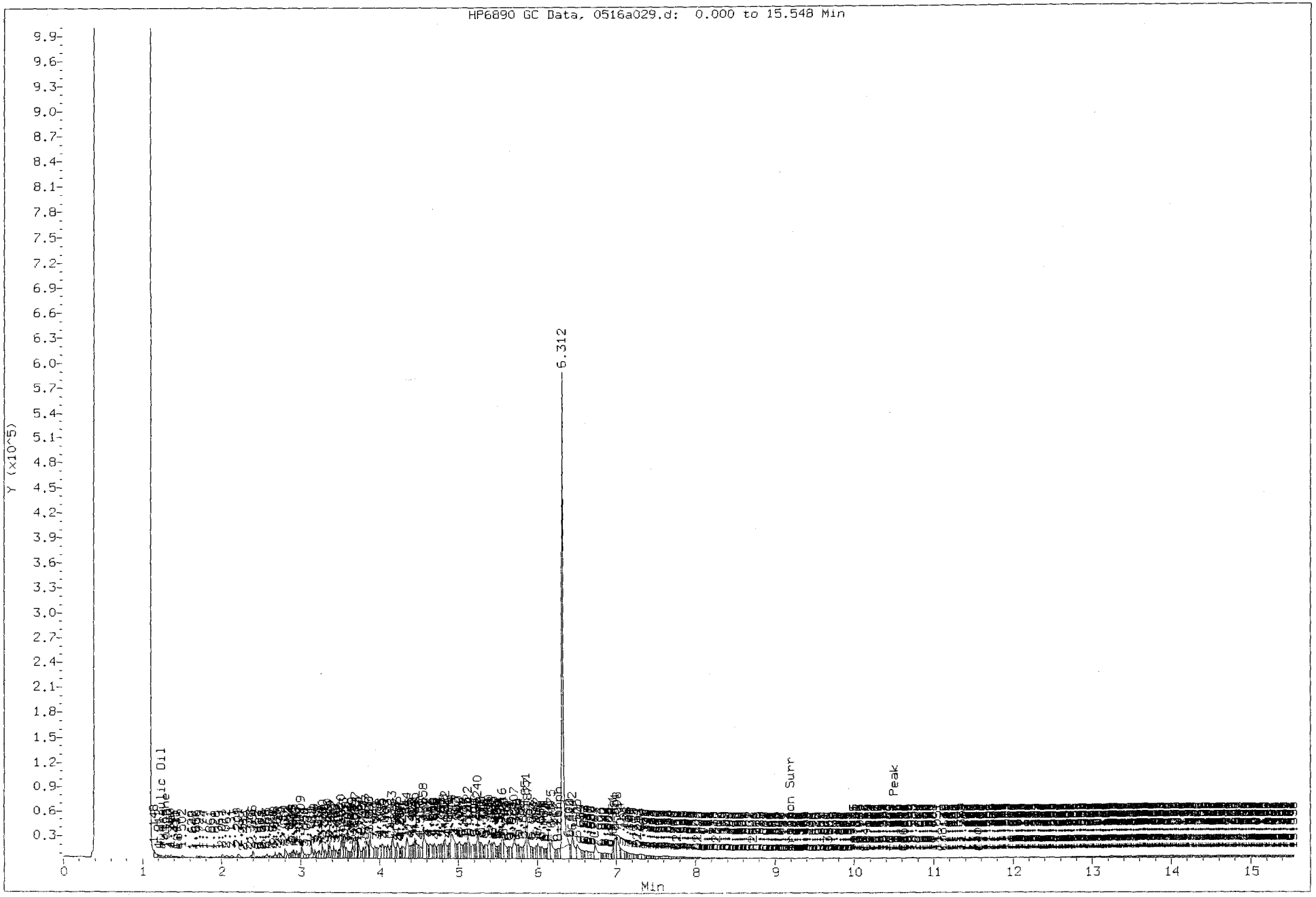
Column phase: RTX-1

Column diameter: 0.25



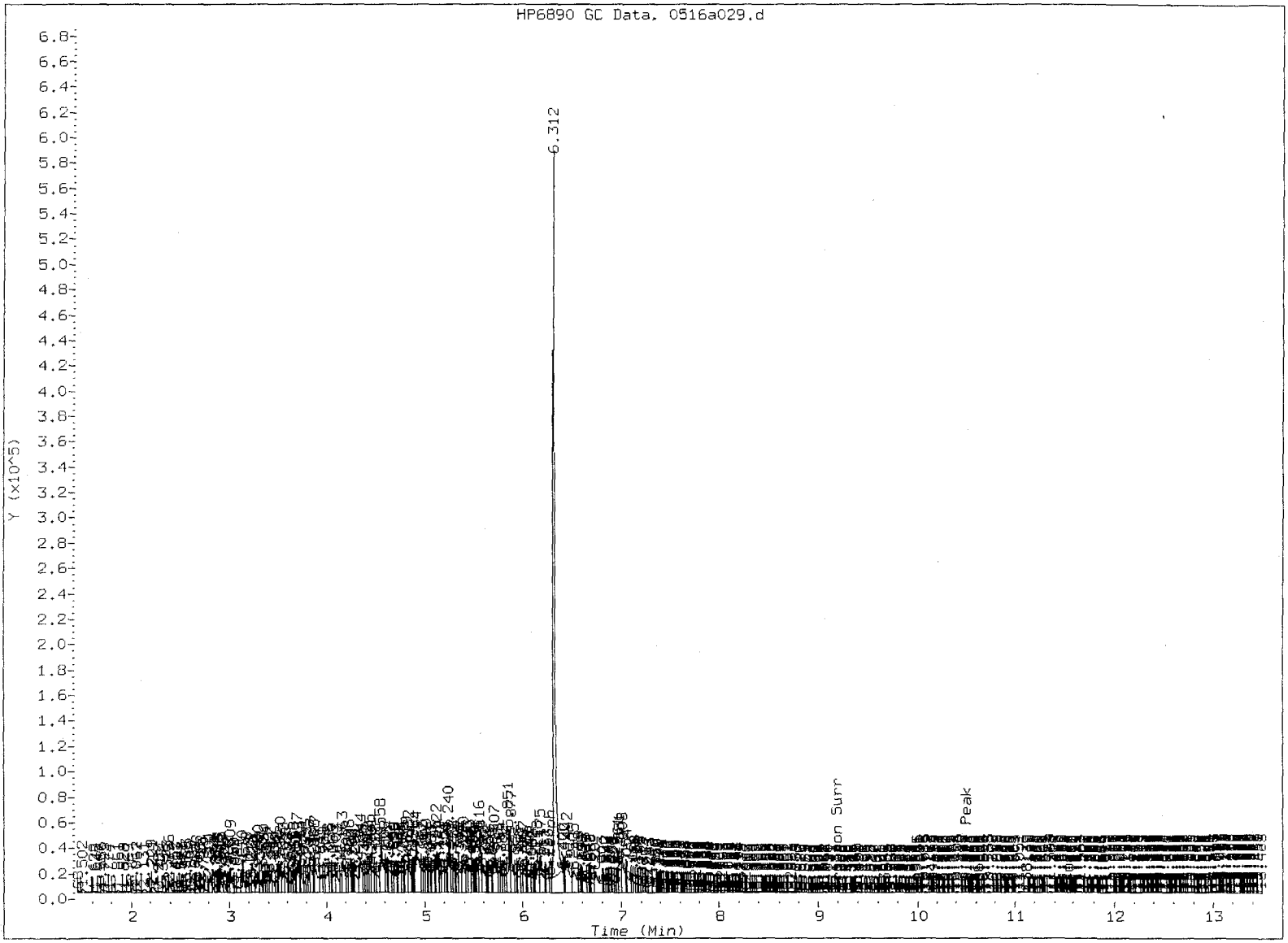


Data File: /chem3/fid4a.i/20120516.b/0516a029.d
Injection Date: 16-MAY-2012 18:42
Instrument: fid4a.i
Client Sample ID:




UU52:01859

FID:4A-2C/RTX-1 DIESEL ICV FID:4A SIGNAL




MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/17/12

# Analytical Resources, Inc.
## RETENTION TIME SUMMARY REPORT

Method File: /chem3/fid4a.i/20120515.b/ftphfid4a.m
Batch File: /chem3/fid4a.i/20120515.b
Inst ID: fid4a.i

| ID: | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 |
|---|---|---|---|---|---|---|
| FILENAME: | 0515a005a | 0515a005b | 0515a005c | 0515a005d | 0515a005e | 0515a006 |
| INJ.DATE: | 15-MAY-2012 | 15-MAY-2012 | 15-MAY-2012 | 15-MAY-2012 | 15-MAY-2012 | 15-MAY-2012 |
| INJ.TIME: | 11:30 | 11:53 | 12:17 | 12:41 | 13:05 | 13:29 |

| | Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Toluene | 1.272 | 1.287 | 1.292 | 1.306 | 1.268 | 1.292 | 1.282 | 1.182-1.382 | 1.286 | 0.014 |
| 40 | Mineral Oil | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 1.000 | 0.950-1.050 | +++++ | +++++ |
| 39 | Creosote | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.546 | 0.496-0.596 | +++++ | +++++ |
| 36 | JetA | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.787 | 0.737-0.837 | +++++ | +++++ |
| 37 | Bunker C | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.718 | 0.668-0.768 | +++++ | +++++ |
| 38 | Hydraulic Oil | +++++ | +++++ | 1.235 | 1.248 | 1.211 | 1.264 | 1.250 | 1.200-1.300 | 1.240 | 0.022 |
| 2 | C8 | 1.482 | 1.497 | 1.502 | 1.469 | 1.487 | 1.489 | 1.486 | 1.386-1.586 | 1.488 | 0.012 |
| 3 | C10 | 3.129 | 3.132 | 3.119 | 3.131 | 3.128 | 3.133 | 3.126 | 3.076-3.176 | 3.128 | 0.005 |
| 4 | C12 | 4.153 | 4.185 | 4.162 | 4.142 | 4.185 | 4.163 | 4.163 | 4.113-4.213 | 4.165 | 0.017 |
| 5 | C14 | 4.913 | 4.918 | 4.937 | 4.931 | 4.929 | 4.929 | 4.921 | 4.871-4.971 | 4.926 | 0.009 |
| 6 | C16 | 5.550 | 5.557 | 5.548 | 5.544 | 5.544 | 5.552 | 5.557 | 5.507-5.607 | 5.549 | 0.005 |
| 7 | C18 | 6.127 | 6.146 | 6.138 | 6.137 | 6.138 | 6.152 | 6.142 | 6.092-6.192 | 6.139 | 0.009 |
| $ 8 | o-terph | 6.326 | 6.313 | 6.311 | 6.322 | 6.335 | 6.366 | 6.312 | 6.262-6.362 | 6.329 | 0.020 |
| 9 | C20 | 6.722 | 6.729 | 6.725 | 6.716 | 6.715 | 6.726 | 6.724 | 6.674-6.774 | 6.722 | 0.006 |
| 10 | C22 | 7.255 | 7.273 | 7.265 | 7.280 | 7.265 | 7.271 | 7.269 | 7.219-7.319 | 7.268 | 0.009 |
| 11 | C24 | 7.775 | 7.771 | 7.784 | 7.794 | 7.790 | 7.787 | 7.782 | 7.732-7.832 | 7.784 | 0.009 |
| 12 | C25 | 8.026 | 8.030 | 8.021 | 8.028 | 8.027 | 8.045 | 8.028 | 7.978-8.078 | 8.029 | 0.008 |

Reviewer 1 MH Date: 5/16/12

Reviewer 2 _____ Date: 5/17/12

SGS 2 3 5 4

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/fid4a.i/20120515.b/ftphfid4a.m
Batch File: /chem3/fid4a.i/20120515.b
Inst ID: fid4a.i

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 C26 | 8.263 | 8.286 | 8.242 | 8.271 | 8.266 | 8.270 | 8.270 | 8.220-8.320 | 8.266 | 0.014 |
| 14 C28 | 8.732 | 8.716 | 8.737 | 8.713 | 8.737 | 8.731 | 8.726 | 8.676-8.776 | 8.728 | 0.011 |
| $ 15 Triacon Surr | 9.190 | 9.193 | 9.191 | 9.205 | 9.179 | 9.189 | 9.194 | 9.144-9.244 | 9.191 | 0.008 |
| 16 C32 | 9.665 | 9.673 | 9.670 | 9.677 | 9.657 | 9.665 | 9.667 | 9.617-9.717 | 9.668 | 0.007 |
| 17 C34 | 10.135 | 10.143 | 10.150 | 10.152 | 10.132 | 10.147 | 10.150 | 10.100-10.200 | 10.143 | 0.008 |
| 18 Filter Peak | 10.522 | 10.532 | 10.513 | 10.520 | 10.525 | 10.510 | 10.518 | 10.418-10.618 | 10.520 | 0.008 |
| 19 C36 | 10.625 | 10.624 | 10.630 | 10.633 | 10.642 | 10.644 | 10.633 | 10.583-10.683 | 10.633 | 0.008 |
| 20 C38 | 11.145 | 11.070 | 11.130 | 11.114 | 11.118 | 11.117 | 11.105 | 11.055-11.155 | 11.116 | 0.025 |
| 21 C40 | 11.559 | 11.559 | 11.574 | 11.557 | 11.565 | 11.562 | 11.558 | 11.508-11.608 | 11.563 | 0.006 |
| 31 NW Diesel | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 1.000 | 0.950-1.050 | +++++ | +++++ |
| 32 OR Diesel | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.687 | 0.637-0.737 | +++++ | +++++ |
| 33 AK Dies 102 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.660 | 0.610-0.710 | +++++ | +++++ |
| 30 NW MOil | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 1.000 | 0.950-1.050 | +++++ | +++++ |
| 34 CRUDE | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 1.000 | 0.950-1.050 | +++++ | +++++ |
| 35 AK MOil 103 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 0.612 | 0.562-0.662 | +++++ | +++++ |

UU52:01862

**Analytical Resources, Incorporated**
Analytical Chemists and Consultants

M.01/ curve

# GC Initial Calibration Notes

ARI SOP: **403S**(PCB) **405S**(Herb) ~~**407S**(TPH-D)~~ **409S**(HCID) **412S**(PCP) **423S**(Pest)
**427S**(Dir Inj) **428S**(EPH) **Other**

Instrument: FID-3A FID-3B (FID-4A) FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date(s): 5/14/12 Internal Standard ID — Expiration —

Endrin/DDT Breakdown <15%? YES / NO / NA

ICal Meets %RSD & $r^2$ Criteria (YES) / NO

Manual Integrations for ICal? (YES) / NO

Minimum Response S/N Met (YES) / NO

ICV Exceeding ±20%? (YES) / (NO)

ICV Exceeding ±30%? YES / NO

Linear Fits Used? YES / (NO)

Quadratic Fits Used? YES / (NO)

Calibration Points Dropped? high point surr (YES) / (NO)

| Primary Source | Standard # | Expiration | Secondary Source | Standard # | Expiration |
|---|---|---|---|---|---|
| Chevron | 1971-3 | 5/7/13 | Valvoline | 1977-1 | 11/23/12 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

**Detail problems, corrective actions and/or other pertinent information below:**
high point of curve 2500 & 5000 surr RT shifted due to saturation. Surrogat high point taked out 2500point keeped (shifting 0.033). n-Tricontane usually not requested.

**Analyst:** [signature] **Date:** 5/16/12

**Reviewer:** [signature] **Date:** 5/16/12



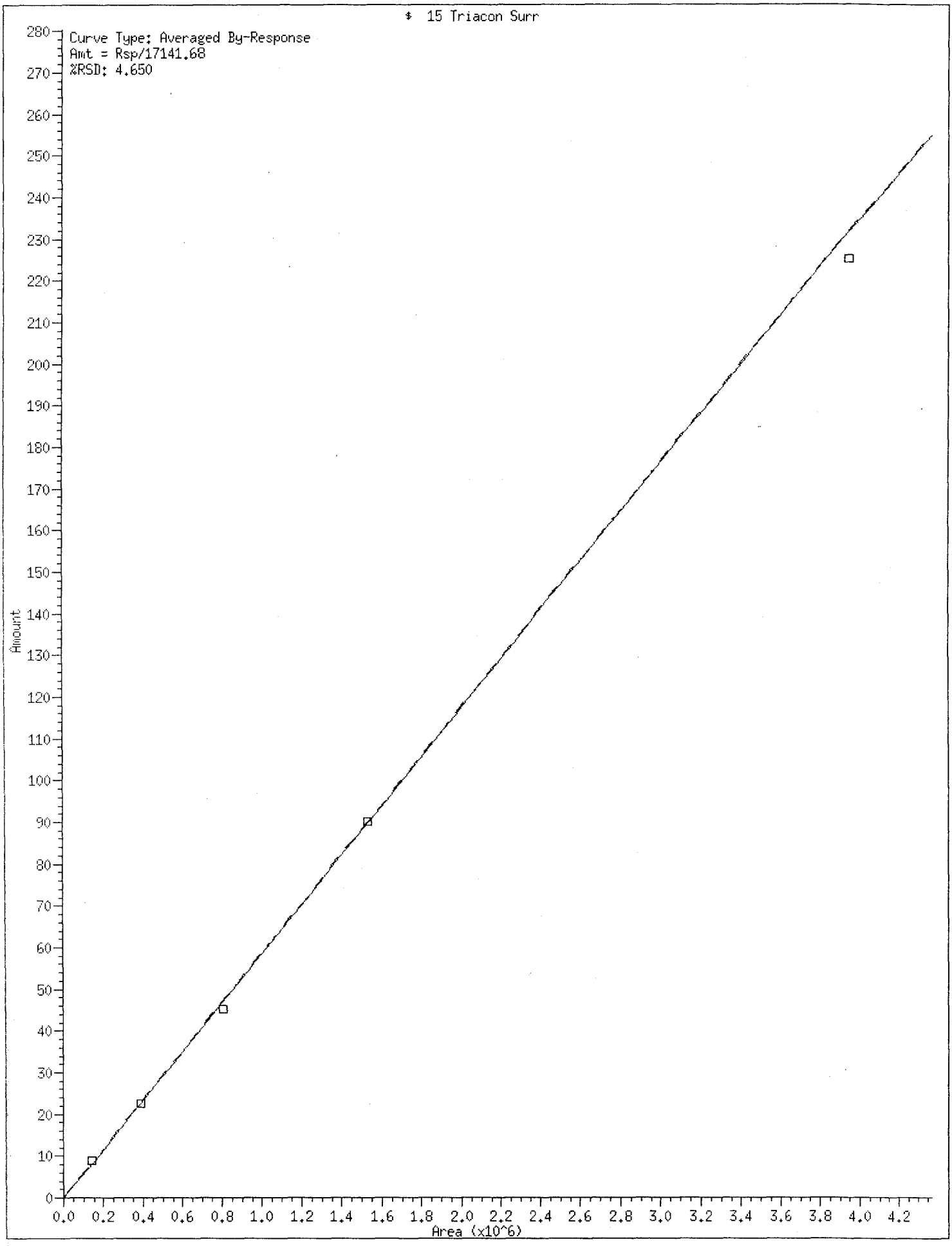
UU52 : 01863

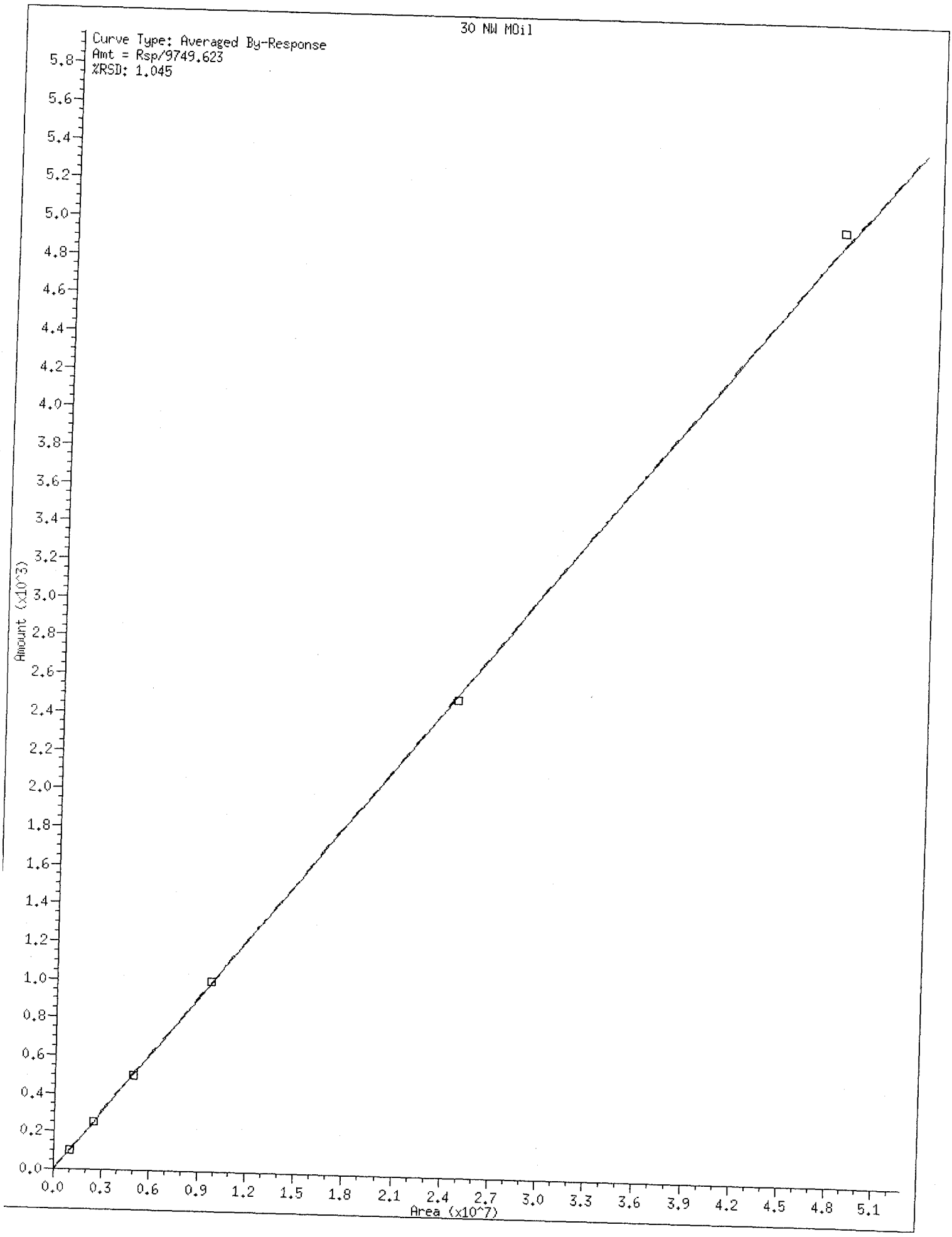
Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2004 08:49
End Cal Date : 14-MAY-2012 15:51
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem3/fid4a.i/20120514.b/ftphfid4a.m
Cal Date : 15-May-2012 06:49 monicah
Curve Type : Average

| Compound | 0.000e+00 Level 1 | 0.000e+00 Level 2 | 0.000e+00 Level 3 | 0.000e+00 Level 4 | 0.000e+00 Level 5 | 0.000e+00 Level 6 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| | 0.000e+00 Level 7 | 0.000e+00 Level 8 | 0.000e+00 Level 9 | 0.000e+00 Level 10 | 0.000e+00 Level 11 | 0.000e+00 Level 12 | | |
| $ 15 Triacon Surr | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | |
| | +++++ | 15850 | 17196 | 17920 | 17089 | 17653 | 17142 | 4.650 |


$ 15 Triacon Surr
Curve Type: Averaged By-Response
Amt = Rsp/17141.68
%RSD: 4.650
Amount
Area (x10^6)
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280
0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 3.6 3.8 4.0 4.2


30 NW MOil
Curve Type: Averaged By-Response
Amt = Rsp/9749.623
%RSD: 1.045
Amount (x10^3)
5.8
5.6
5.4
5.2
5.0
4.8
4.6
4.4
4.2
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
2.4
2.2
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0.0 0.3 0.6 0.9 1.2 1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1
Area (x10^7)

MH 5/15/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120514.b/0514a020.d ARI ID: MOIL 100
Method: /chem3/fid4a.i/20120514.b/ftphfid4a.m Client ID:
Instrument: fid4a.i Injection: 14-MAY-2012 13:51
Operator: MH
Report Date: 05/15/2012 Dilution Factor: 1
Macro: 14-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:08-FEB-2012 M.Oil:14-MAY-2012

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc | |
|---|---|---|---|---|---|---|---|---|
| Toluene | ---- | | | | GAS (Tol-C12) | 87527 | 6 | |
| C8 | 1.531 | 0.054 | 2053 | 8788 | DIESEL (C12-C24) | 104695 | 6.94 | |
| C10 | 3.133 | 0.011 | 378 | 424 | M.OIL (C24-C38) | 981859 | 100.71 | |
| C12 | 4.179 | -0.003 | 319 | 134 | AK-102 (C10-C25) | 166892 | 9.34 | |
| C14 | 4.923 | 0.008 | 235 | 162 | AK-103 (C25-C36) | 888971 | 114.57 | M |
| C16 | 5.568 | 0.011 | 137 | 86 | | | | |
| C18 | 6.131 | -0.008 | 69 | 79 | | | | |
| C20 | 6.724 | 0.002 | 110 | 65 | MIN.OIL (C24-C38) | 981859 | 73.05 | M |
| C22 | 7.286 | 0.017 | 853 | 717 | | | | |
| C24 | 7.790 | 0.005 | 4043 | 1768 | | | | |
| C25 | 8.025 | -0.007 | 5608 | 6655 | | | | |
| C26 | 8.275 | 0.006 | 6377 | 6427 | | | | |
| C28 | 8.735 | 0.009 | 7367 | 4708 | | | | |
| C32 | 9.671 | 0.000 | 6188 | 2285 | | | | |
| C34 | 10.163 | 0.011 | 4407 | 5189 | CREOSOT (C12-C22) | 33489 | 9.11 | |
| Filter Peak | 10.517 | 0.008 | 2892 | 3650 | | | | |
| C36 | 10.628 | -0.001 | 2651 | 3736 | | | | |
| C38 | 11.097 | -0.002 | 1478 | 1091 | | | | |
| C40 | 11.579 | 0.010 | 890 | 1052 | | | | |
| o-terph | 6.318 | 0.004 | 34 | 22 | JET-A (C10-C18) | 38494 | 2.59 | |
| Triacon Surr | 9.189 | -0.014 | 129870 | 142652 | | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.182 - 7.785) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.73)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 22 | 0.0 | 0.0 |
| Triacontane | 142652 | 8.3 | 18.5 |

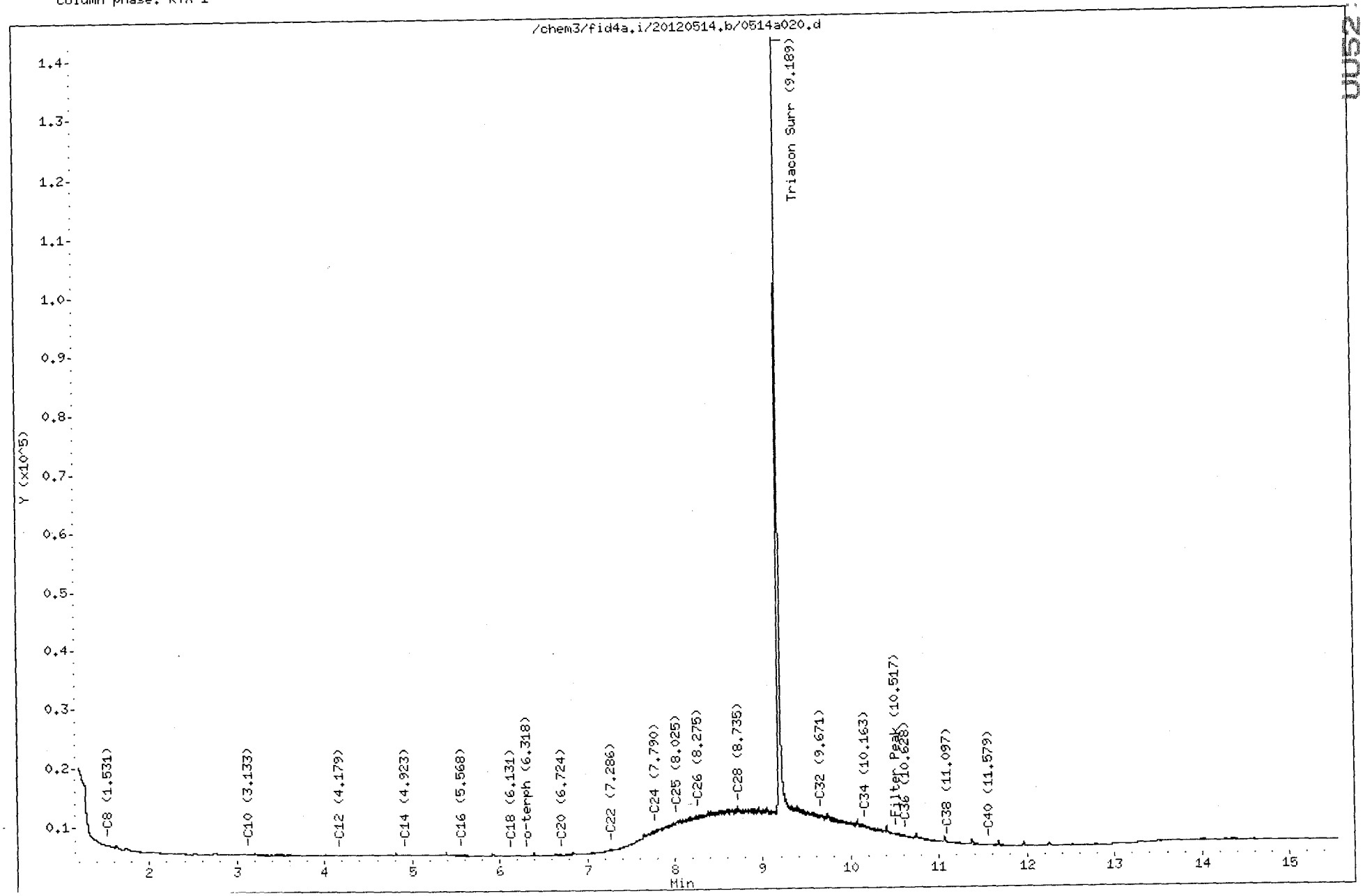
| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 19726.1 | 08-FEB-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 15079.0 | 08-FEB-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 17873.0 | 08-FEB-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120514.b/0514a020.d
Date : 14-MAY-2012 13:51
Client ID:
Sample Info: MOIL 100

Instrument: fid4a.i

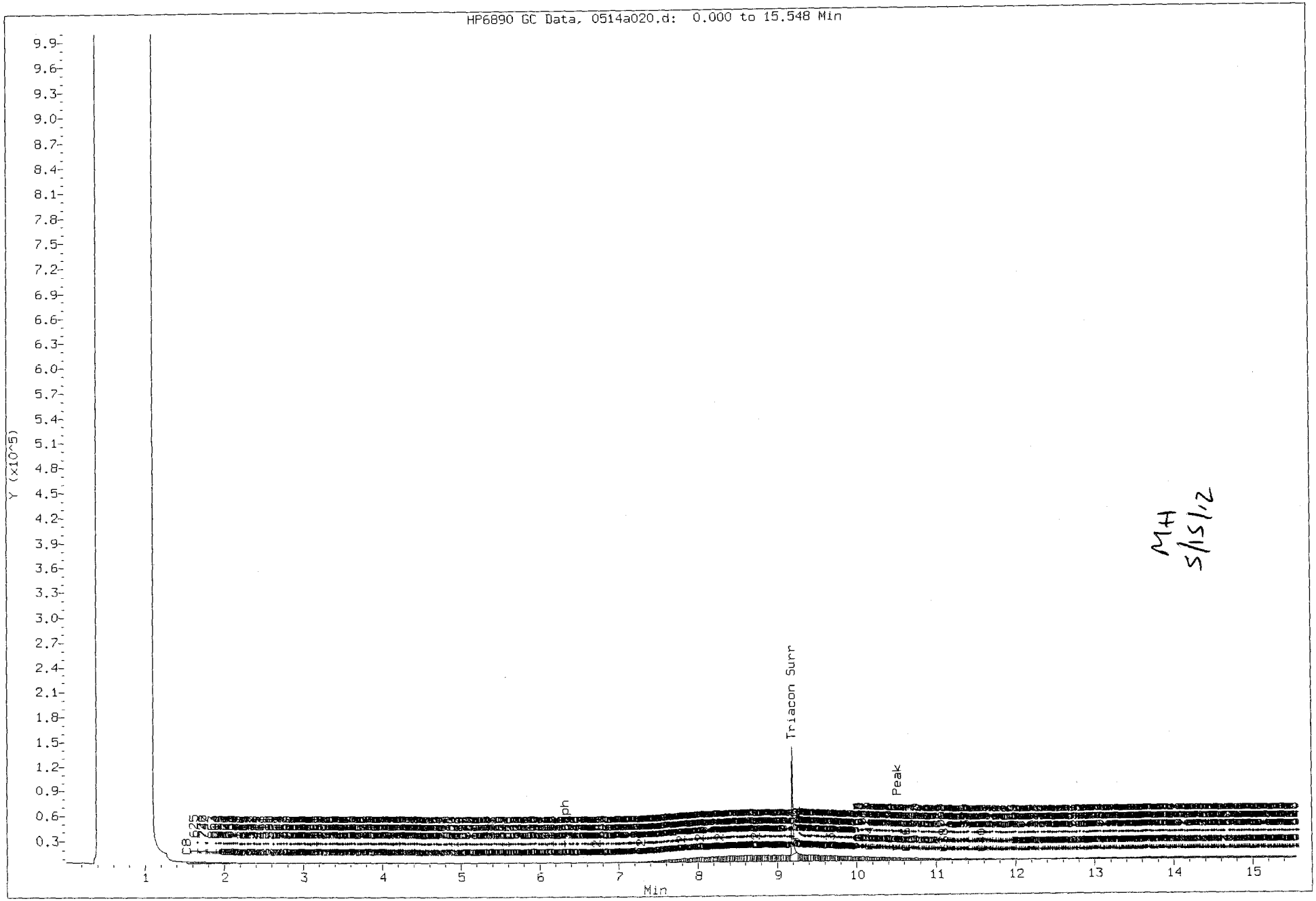
Operator: MH
Column diameter: 0.25

Column phase: RTX-1

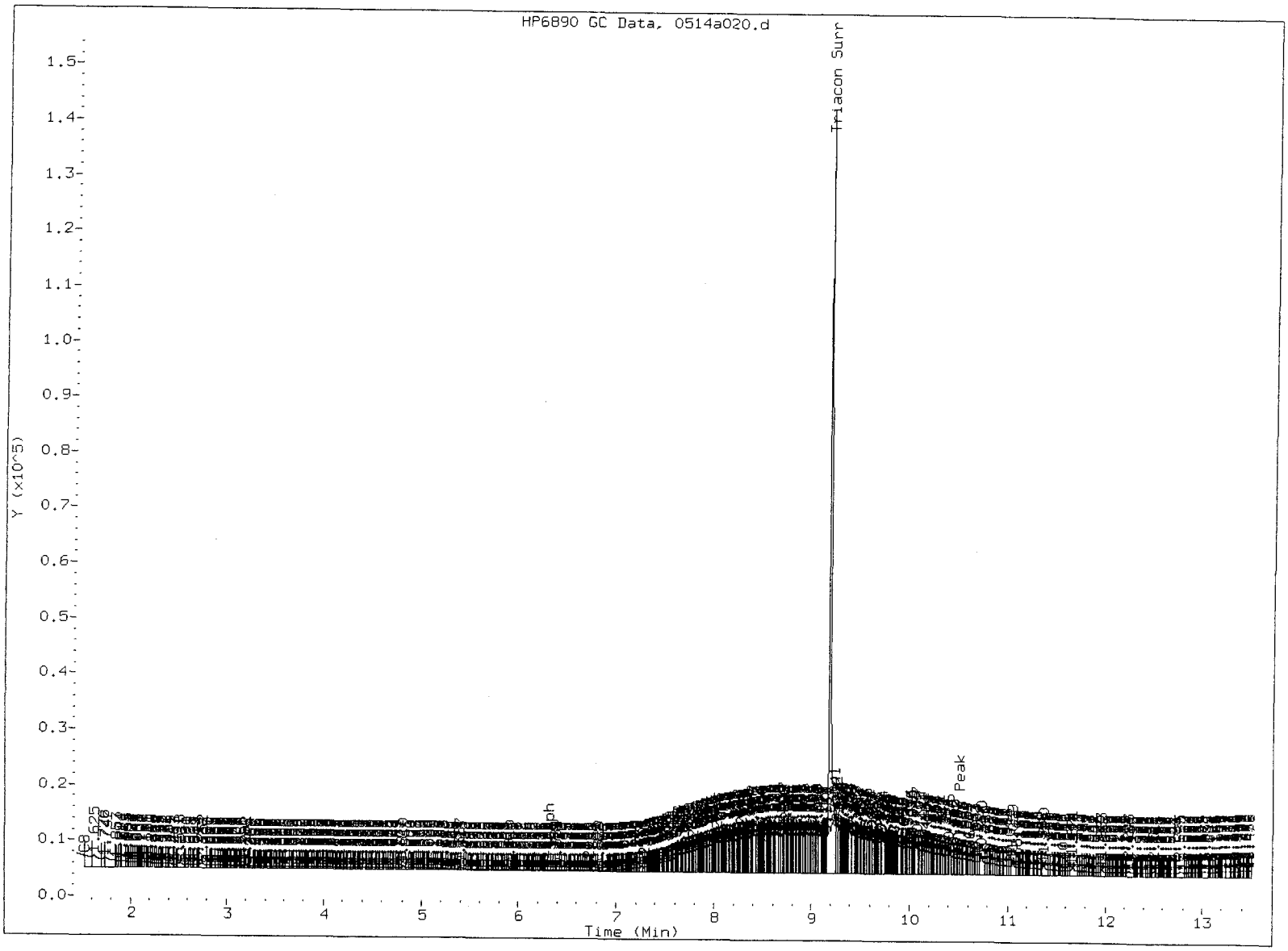



0052 91864

Data File: /chem3/fid4a.i/20120514.b/0514a020.d
Injection Date: 14-MAY-2012 13:51
Instrument: fid4a.i
Client Sample ID:



FID:4A-2C/RTX-1 MOIL 100 FID:4A SIGNAL




MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/15/12

MH 5/15/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120514.b/0514a021.d
Method: /chem3/fid4a.i/20120514.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/15/2012
Macro: 14-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:08-FEB-2012 M.Oil:14-MAY-2012

ARI ID: MOIL 250
Client ID:
Injection: 14-MAY-2012 14:15
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc | |
|---|---|---|---|---|---|---|---|---|
| Toluene | 1.269 | 0.000 | 21316 | 44262 | GAS (Tol-C12) | 125360 | 8.33 | |
| C8 | 1.494 | 0.017 | 627 | 1229 | DIESEL (C12-C24) | 309159 | 20.50 | |
| C10 | 3.123 | 0.000 | 341 | 213 | M.OIL (C24-C38) | 2450665 | 251.36 | |
| C12 | 4.193 | 0.010 | 902 | 1493 | AK-102 (C10-C25) | 460247 | 25.75 | |
| C14 | 4.922 | 0.007 | 799 | 1601 | AK-103 (C25-C36) | 2208866 | 284.67 | M |
| C16 | 5.555 | -0.002 | 546 | 223 | | | | |
| C18 | 6.115 | -0.024 | 383 | 1257 | | | | |
| C20 | 6.713 | -0.008 | 496 | 501 | MIN.OIL (C24-C38) | 2450665 | 182.33 | M |
| C22 | 7.278 | 0.009 | 2428 | 3244 | | | | |
| C24 | 7.783 | -0.001 | 10071 | 7215 | | | | |
| C25 | 8.025 | -0.007 | 13297 | 16004 | | | | |
| C26 | 8.278 | 0.009 | 16267 | 19168 | | | | |
| C28 | 8.721 | -0.005 | 18405 | 11588 | | | | |
| C32 | 9.685 | 0.014 | 14711 | 5200 | | | | |
| C34 | 10.150 | -0.001 | 11459 | 19879 | CREOSOT (C12-C22) | 120140 | 32.70 | |
| Filter Peak | 10.507 | -0.002 | 7831 | 10370 | | | | |
| C36 | 10.646 | 0.016 | 6700 | 6863 | | | | |
| C38 | 11.095 | -0.004 | 3985 | 3294 | | | | |
| C40 | 11.576 | 0.006 | 2169 | 969 | | | | |
| o-terph | 6.320 | 0.006 | 202 | 120 | JET-A (C10-C18) | 109691 | 7.39 | |
| Triacon Surr | 9.192 | -0.011 | 317894 | 386908 | | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.182 - 7.785) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.73)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 120 | 0.0 | 0.0 |
| Triacontane | 386908 | 22.6 | 50.2 |

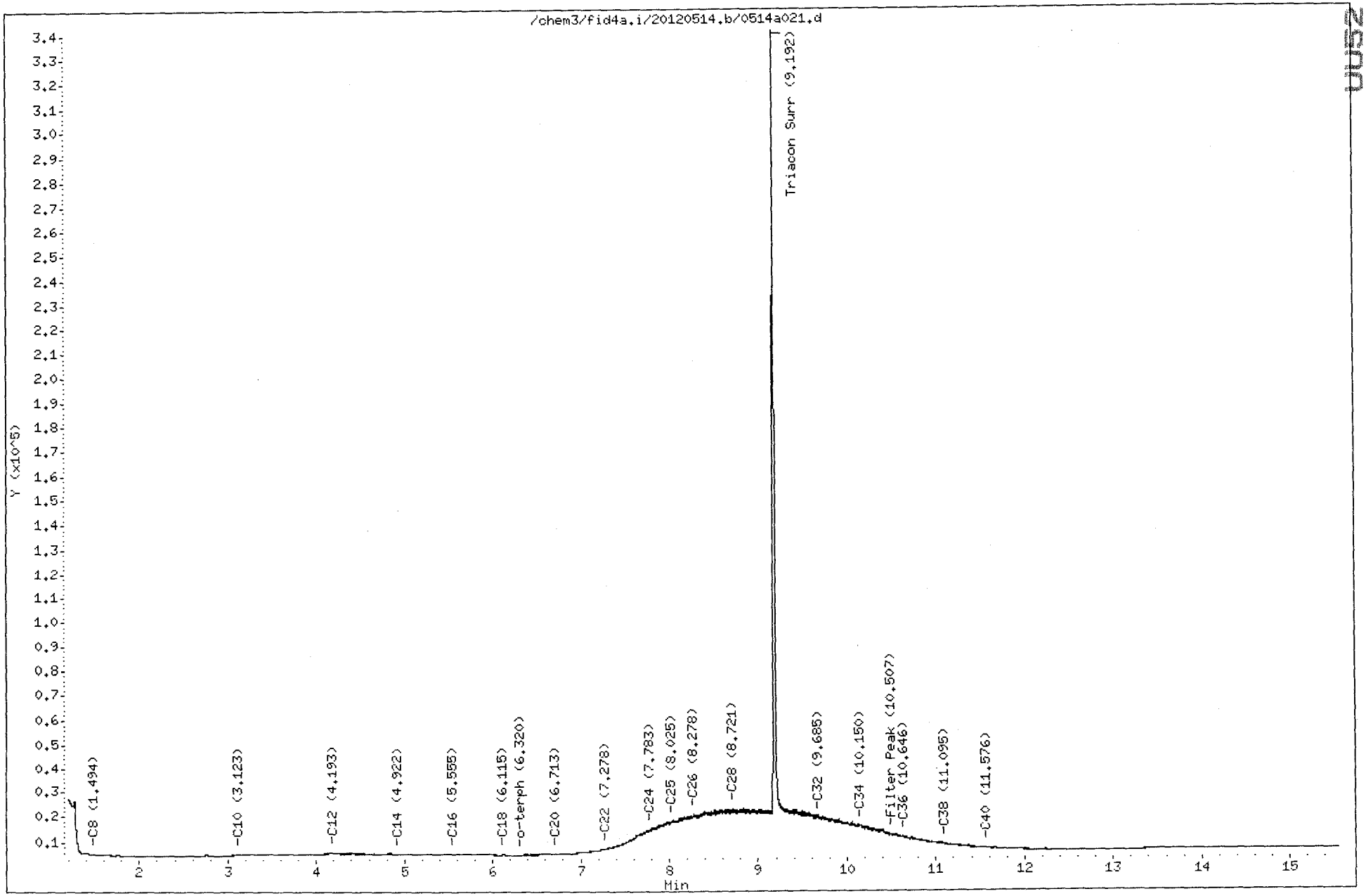
| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 19726.1 | 08-FEB-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 15079.0 | 08-FEB-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 17873.0 | 08-FEB-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120514.b/0514a021.d
Date : 14-MAY-2012 14:15
Client ID:
Sample Info: MOIL 250

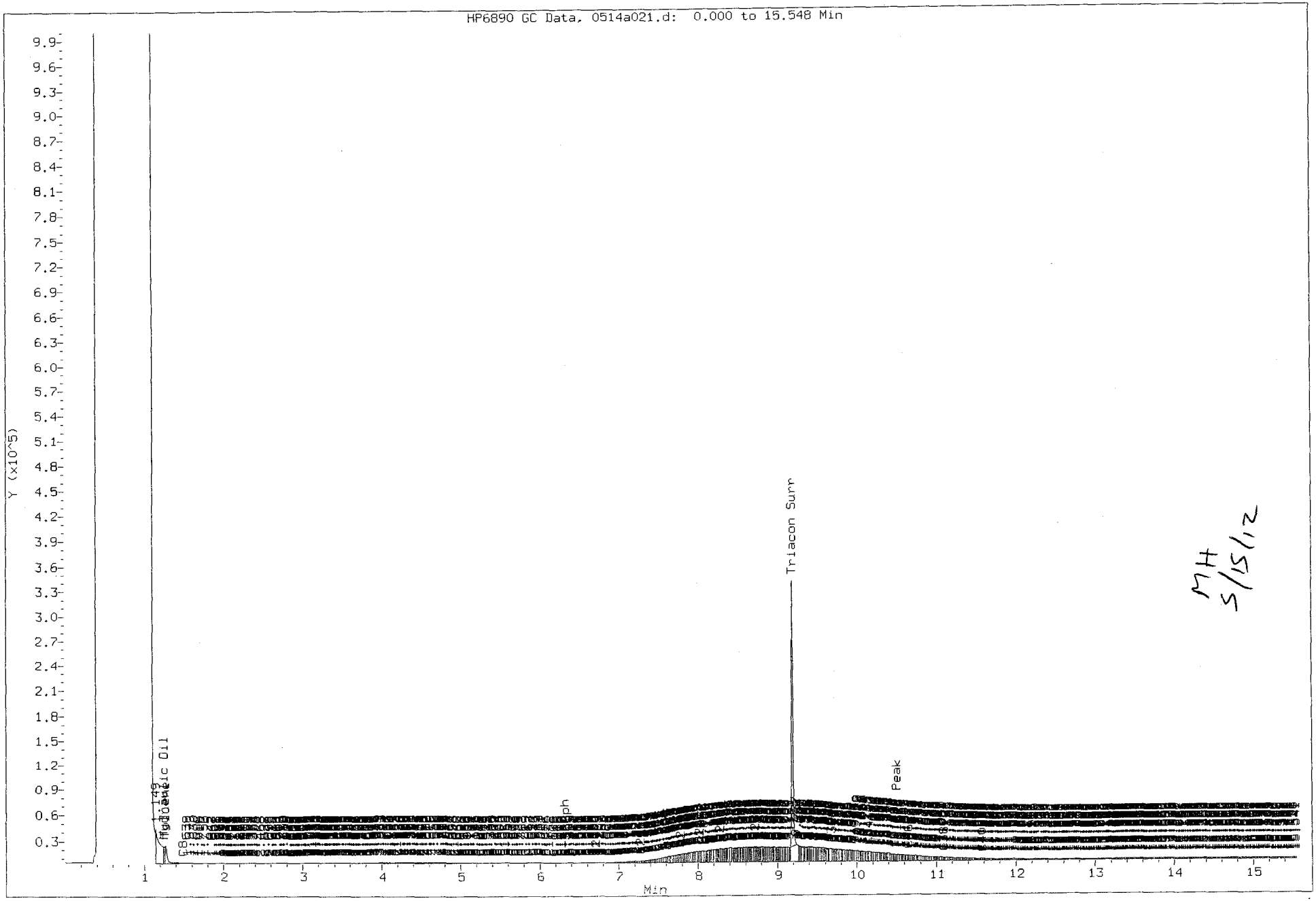
Instrument: fid4a.i

Operator: MH
Column diameter: 0.25

Column phase: RTX-1

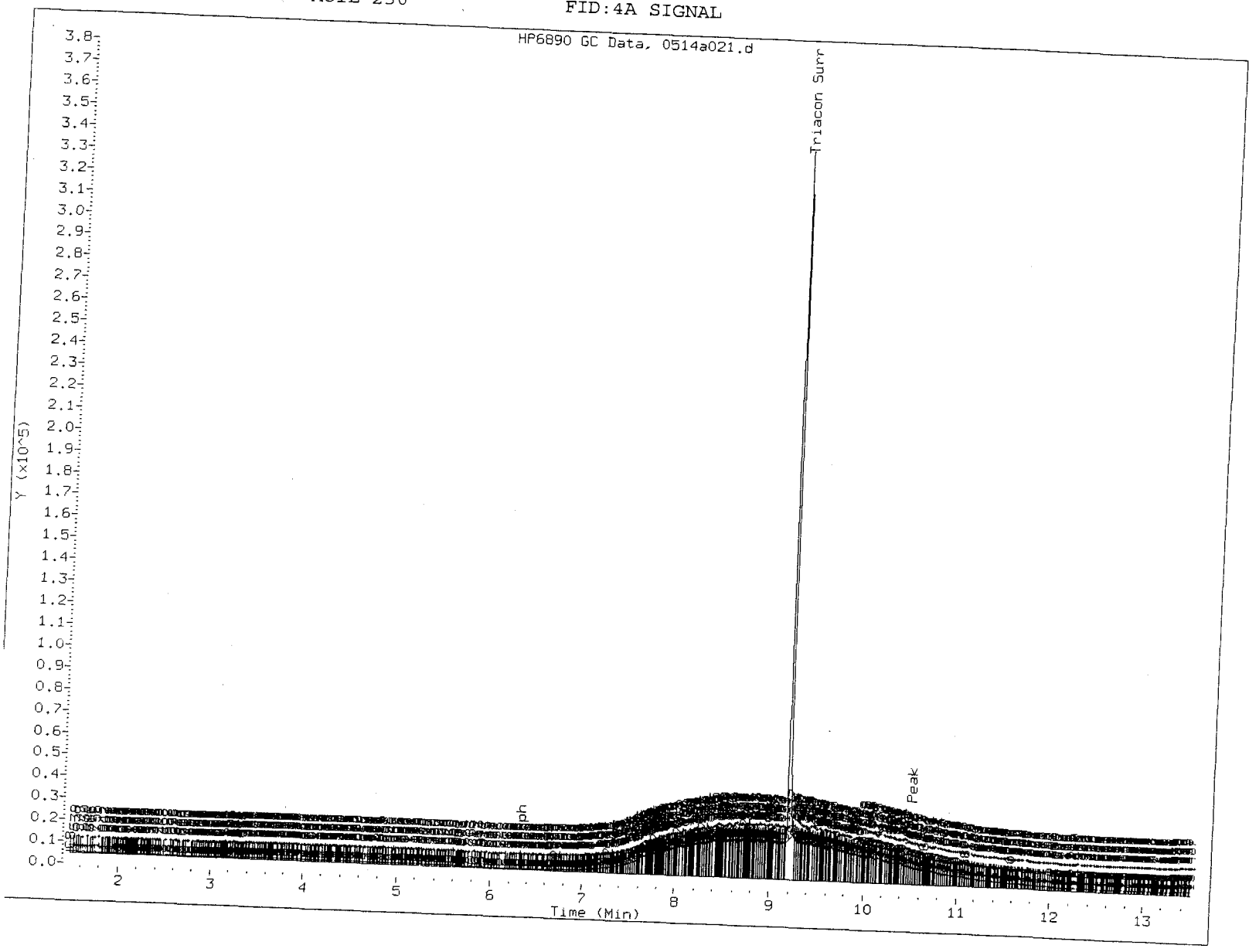


Data File: /chem3/fid4a.i/20120514.b/0514a021.d
Injection Date: 14-MAY-2012 14:15
Instrument: fid4a.i
Client Sample ID:



FID:4A-2C/RTX-1 MOIL 250

FID:4A SIGNAL




MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/15/12

MH 5/15/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120514.b/0514a022.d
Method: /chem3/fid4a.i/20120514.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/15/2012
Macro: 14-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:08-FEB-2012 M.Oil:14-MAY-2012

ARI ID: MOIL 500
Client ID:
Injection: 14-MAY-2012 14:39
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc | |
|---|---|---|---|---|---|---|---|---|
| Toluene | 1.267 | -0.002 | 40642 | 81043 | GAS (Tol-C12) | 211833 | 14.08 | |
| C8 | 1.499 | 0.022 | 662 | 1424 | DIESEL (C12-C24) | 591509 | 39.23 | |
| C10 | 3.119 | -0.004 | 406 | 269 | M.OIL (C24-C38) | 4908154 | 503.42 | |
| C12 | 4.187 | 0.004 | 1146 | 1721 | AK-102 (C10-C25) | 846293 | 47.35 | |
| C14 | 4.924 | 0.008 | 1017 | 1042 | AK-103 (C25-C36) | 4443084 | 572.61 | M |
| C16 | 5.565 | 0.007 | 619 | 303 | | | | |
| C18 | 6.155 | 0.016 | 313 | 305 | | | | |
| C20 | 6.721 | 0.000 | 993 | 656 | MIN.OIL (C24-C38) | 4908154 | 365.17 | M |
| C22 | 7.279 | 0.010 | 4969 | 7020 | | | | |
| C24 | 7.779 | -0.006 | 20195 | 7349 | | | | |
| C25 | 8.032 | 0.000 | 27177 | 24480 | | | | |
| C26 | 8.272 | 0.003 | 31273 | 20165 | | | | |
| C28 | 8.721 | -0.006 | 35981 | 36833 | | | | |
| C32 | 9.668 | -0.003 | 32152 | 42674 | | | | |
| C34 | 10.153 | 0.001 | 23828 | 25969 | CREOSOT (C12-C22) | 190465 | 51.84 | |
| Filter Peak | 10.511 | 0.001 | 15549 | 7679 | | | | |
| C36 | 10.639 | 0.009 | 14008 | 6230 | | | | |
| C38 | 11.093 | -0.007 | 8061 | 10780 | | | | |
| C40 | 11.569 | -0.001 | 4299 | 5405 | | | | |
| o-terph | 6.328 | 0.013 | 364 | 476 | JET-A (C10-C18) | 139068 | 9.37 | |
| Triacon Surr | 9.206 | 0.002 | 470389 | 806391 | | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.182 - 7.785) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.73)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 476 | 0.0 | 0.1 |
| Triacontane | 806391 | 47.0 | 104.5 |

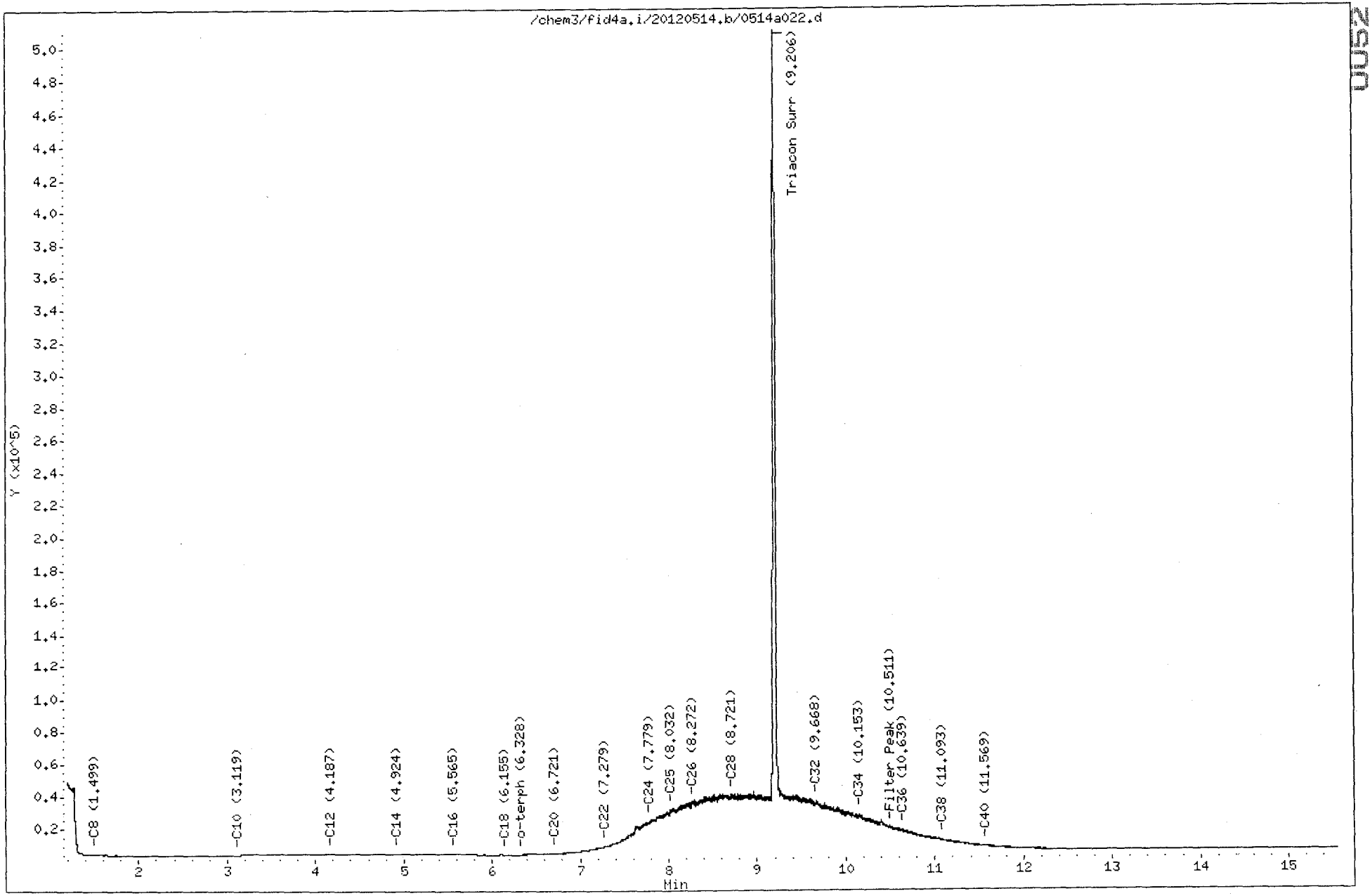
| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 19726.1 | 08-FEB-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 15079.0 | 08-FEB-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 17873.0 | 08-FEB-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120514.b/0514a022.d
Date : 14-MAY-2012 14:39
Client ID:
Sample Info: MOIL 500

Instrument: fid4a.i

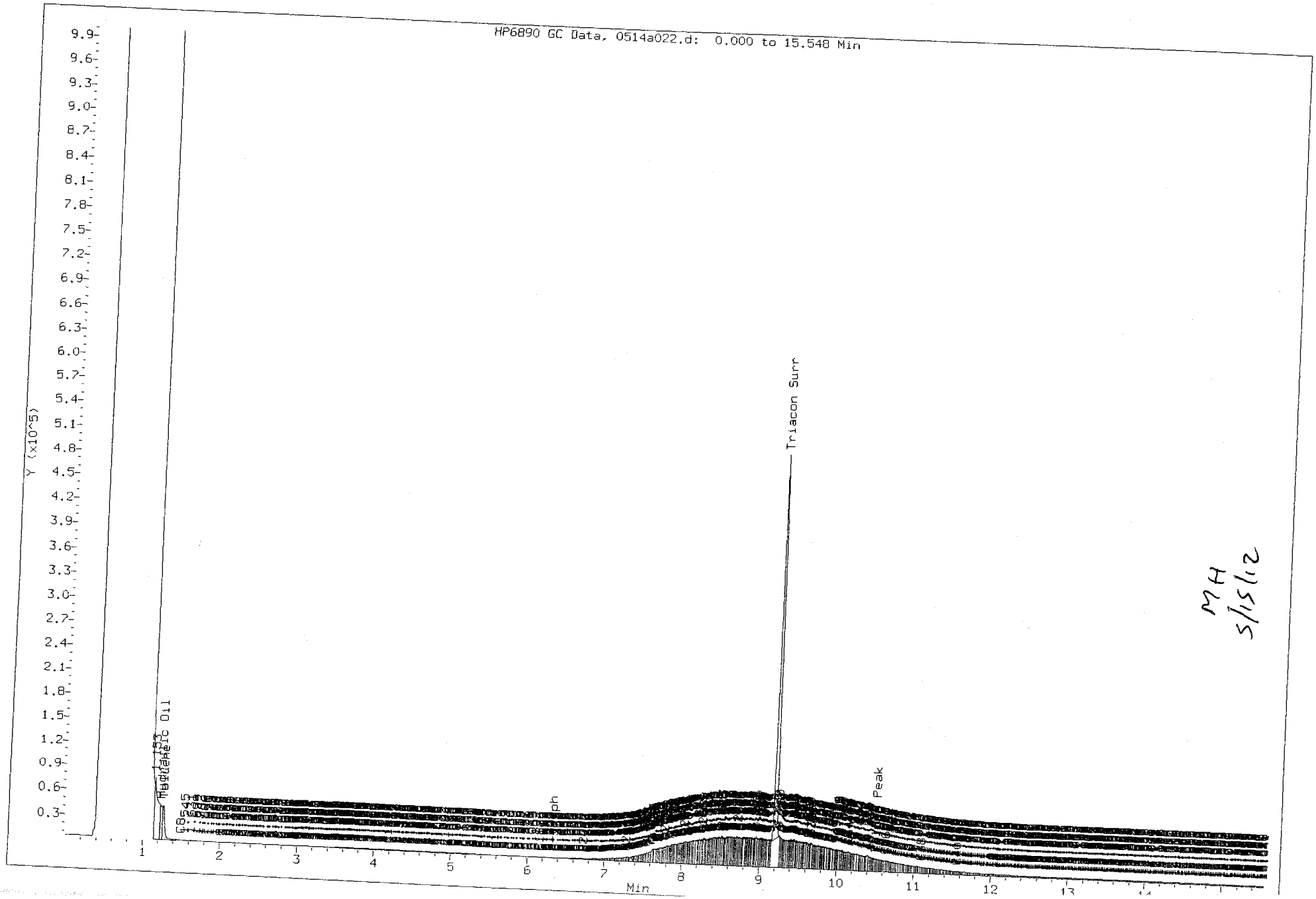
Operator: MH
Column diameter: 0.25

Column phase: RTX-1

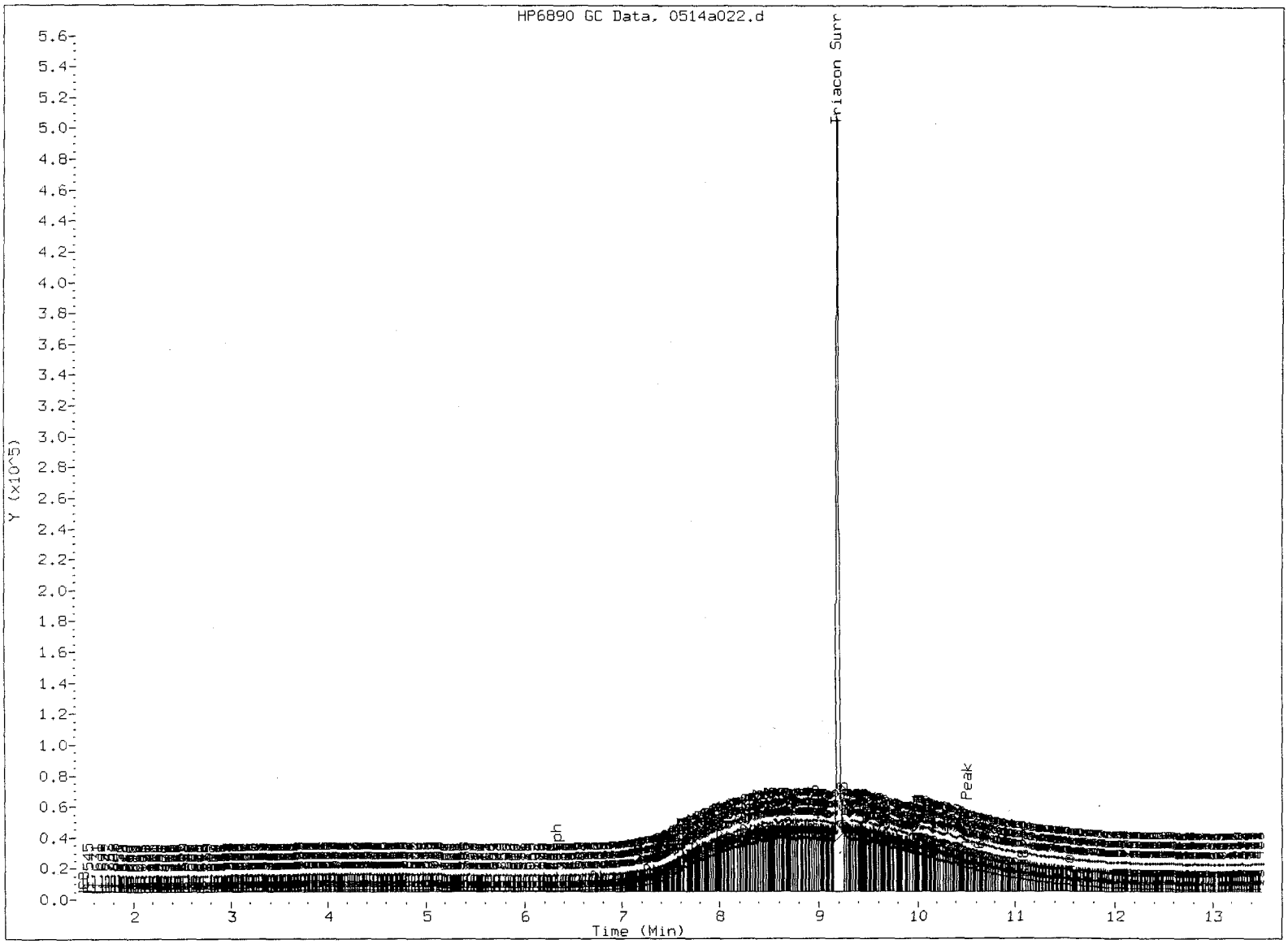



USZ: 91875

Data File: /chem3/fid4a.i/20120514.b/0514a022.d
Injection Date: 14-MAY-2012 14:39
Instrument: fid4a.i
Client Sample ID:



FID:4A-2C/RTX-1 MOIL 500 FID:4A SIGNAL




MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/15/12

MH 5/15/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120514.b/0514a023.d
Method: /chem3/fid4a.i/20120514.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/15/2012
Macro: 14-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:08-FEB-2012 M.Oil:14-MAY-2012

ARI ID: MOIL 1000
Client ID:
Injection: 14-MAY-2012 15:03
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.265 | -0.005 | 83357 | 153184 | GAS (Tol-C12) | 312893 | 20.80 |
| C8 | 1.555 | 0.078 | 724 | 2087 | DIESEL (C12-C24) | 1035882 | 68.70 |
| C10 | 3.127 | 0.004 | 576 | 313 | M.OIL (C24-C38) | 9634177 | 988.16 |
| C12 | 4.175 | -0.007 | 1392 | 2601 | AK-102 (C10-C25) | 1474244 | 82.48 |
| C14 | 4.907 | -0.009 | 1129 | 1139 | AK-103 (C25-C36) | 8730385 | 1125.15 M |
| C16 | 5.565 | 0.007 | 477 | 291 | | | |
| C18 | 6.153 | 0.013 | 300 | 269 | | | |
| C20 | 6.726 | 0.004 | 2030 | 2845 | MIN.OIL (C24-C38) | 9634177 | 716.79 M |
| C22 | 7.269 | -0.001 | 9993 | 12029 | | | |
| C24 | 7.786 | 0.001 | 39799 | 31106 | | | |
| C25 | 8.035 | 0.003 | 53322 | 64829 | | | |
| C26 | 8.268 | -0.001 | 61167 | 40508 | | | |
| C28 | 8.722 | -0.005 | 70994 | 23462 | | | |
| C32 | 9.663 | -0.009 | 60584 | 53372 | | | |
| C34 | 10.154 | 0.002 | 43775 | 24178 | CREOSOT (C12-C22) | 285948 | 77.83 |
| Filter Peak | 10.507 | -0.003 | 32606 | 36314 | | | |
| C36 | 10.631 | 0.001 | 27896 | 28986 | | | |
| C38 | 11.102 | 0.003 | 15122 | 18140 | | | |
| C40 | 11.566 | -0.003 | 7962 | 13369 | | | |
| o-terph | 6.320 | 0.006 | 501 | 679 | JET-A (C10-C18) | 161118 | 10.86 |
| Triacon Surr | 9.236 | 0.032 | 606468 | 1538017 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.182 - 7.785) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.73)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 679 | 0.0 | 0.1 |
| Triacontane | 1538017 | 89.7 | 199.4 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 19726.1 | 08-FEB-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 15079.0 | 08-FEB-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 17873.0 | 08-FEB-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120514.b/0514a023.d

Date : 14-MAY-2012 15:03

Client ID:

Sample Info: MOIL 1000

Column phase: RTX-1

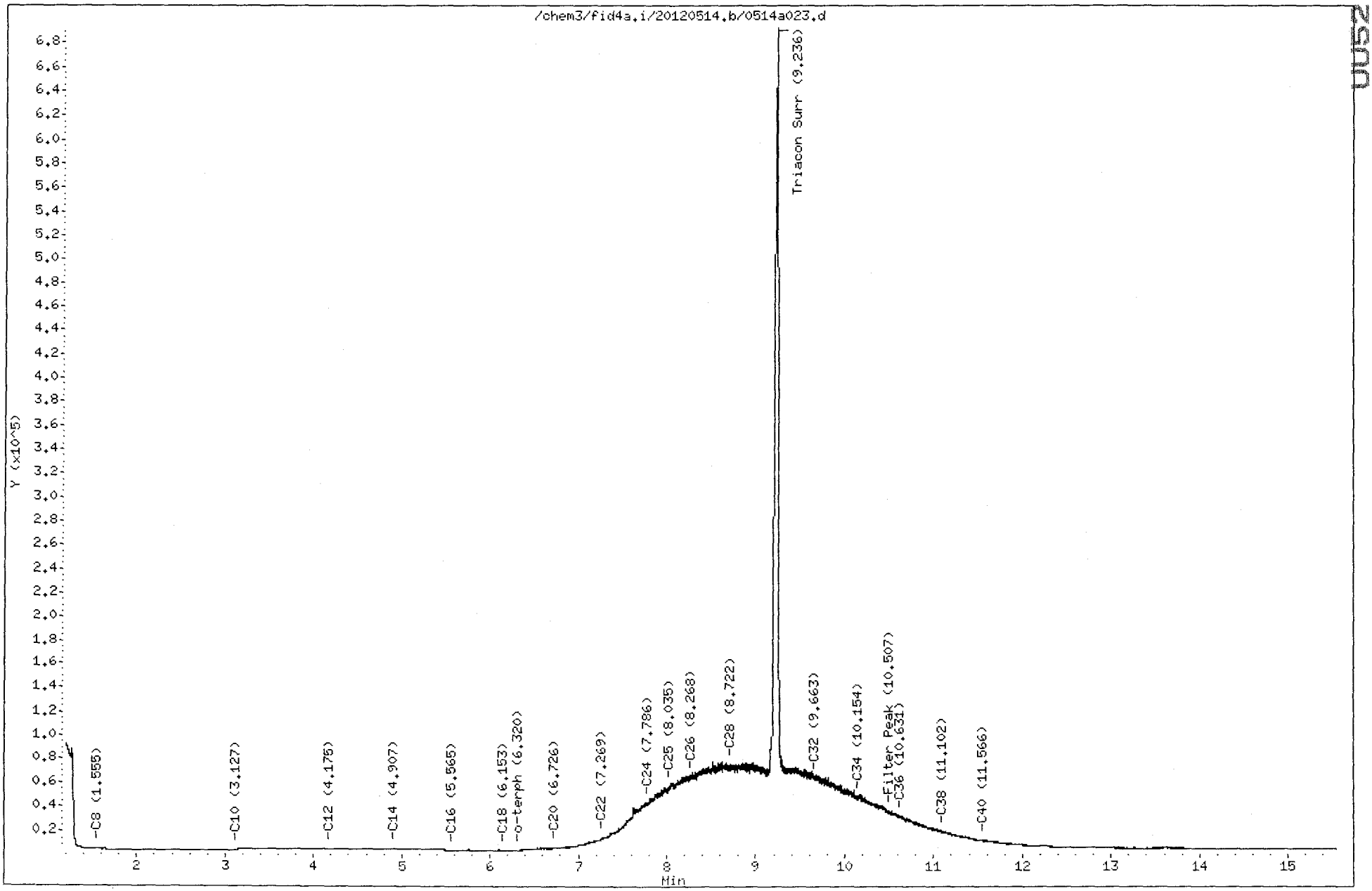
Instrument: fid4a.i

Operator: MH

Column diameter: 0.25



UU52-01835



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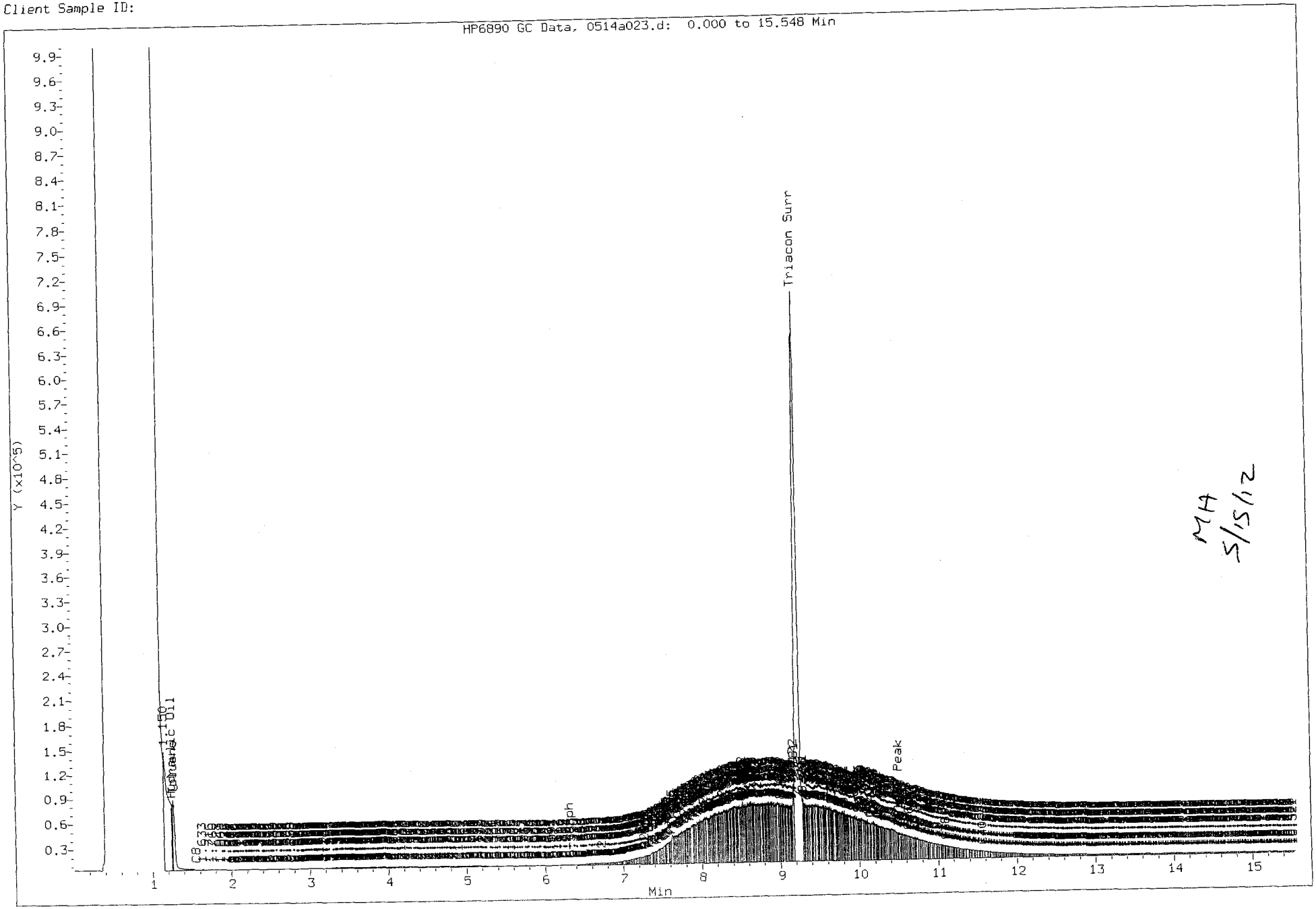
Injection Date: 14-MAY-2012 15:03
Instrument: fid4a.i
Client Sample ID:

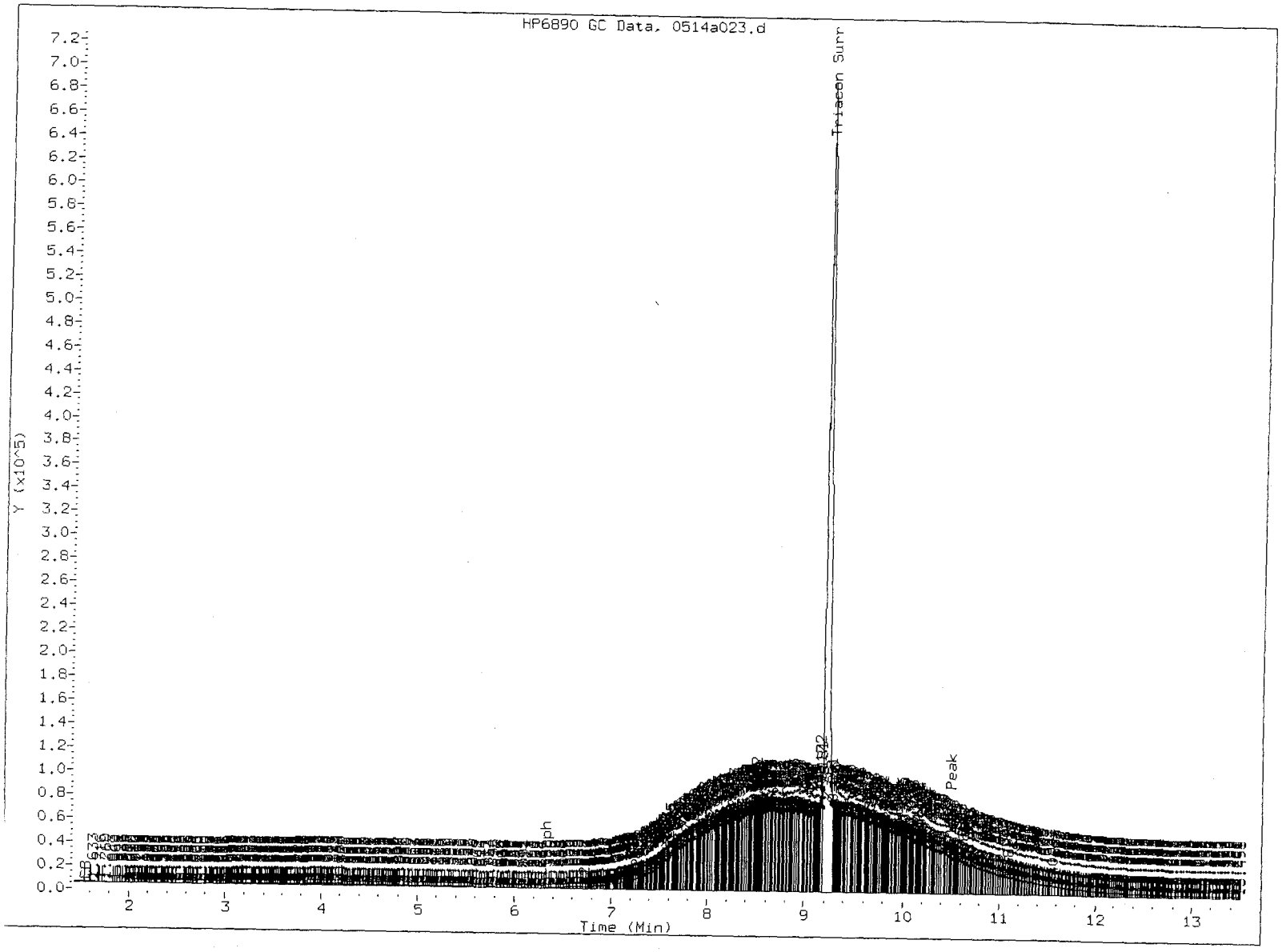



MH
5/15/12

UU52:01881

FID:4A-2C/RTX-1 MOIL 1000

FID:4A SIGNAL




MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/15/12

MH 5/15/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120514.b/0514a024.d
Method: /chem3/fid4a.i/20120514.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/15/2012
Macro: 14-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:08-FEB-2012 M.Oil:14-MAY-2012

ARI ID: MOIL 2500
Client ID:
Injection: 14-MAY-2012 15:27

Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc | |
|---|---|---|---|---|---|---|---|---|
| Toluene | 1.245 | -0.024 | 186518 | 169316 | GAS (Tol-C12) | 612751 | 40.73 | |
| C8 | 1.494 | 0.017 | 1138 | 1529 | DIESEL (C12-C24) | 2606755 | 172.87 | |
| C10 | 3.109 | -0.014 | 881 | 1928 | M.OIL (C24-C38) | 24555714 | 2518.63 | |
| C12 | 4.196 | 0.014 | 1631 | 2090 | AK-102 (C10-C25) | 3618263 | 202.44 | |
| C14 | 4.916 | 0.000 | 1510 | 1844 | AK-103 (C25-C36) | 22166014 | 2856.69 | M |
| C16 | 5.555 | -0.002 | 548 | 211 | | | | |
| C18 | 6.153 | 0.014 | 1109 | 1801 | | | | |
| C20 | 6.715 | -0.007 | 5741 | 7460 | MIN.OIL (C24-C38) | 24555714 | 1826.97 | M |
| C22 | 7.271 | 0.002 | 24895 | 35786 | | | | |
| C24 | 7.780 | -0.005 | 97314 | 114613 | | | | |
| C25 | 8.035 | 0.003 | 130426 | 107658 | | | | |
| C26 | 8.259 | -0.010 | 151964 | 70024 | | | | |
| C28 | 8.729 | 0.003 | 172296 | 80473 | | | | |
| C32 | 9.666 | -0.005 | 157574 | 137304 | | | | |
| C34 | 10.148 | -0.003 | 118401 | 118486 | CREOSOT (C12-C22) | 703719 | 191.53 | |
| Filter Peak | 10.515 | 0.005 | 89376 | 122499 | | | | |
| C36 | 10.629 | -0.001 | 76588 | 44026 | | | | |
| C38 | 11.104 | 0.005 | 41376 | 48265 | | | | |
| C40 | 11.574 | 0.005 | 21132 | 11065 | | | | |
| o-terph | 6.311 | -0.003 | 1586 | 1488 | JET-A (C10-C18) | 222897 | 15.02 | |
| Triacon Surr | 9.286 | 0.083 | 820344 | 3972016 | | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.182 - 7.785) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.73)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 1488 | 0.1 | 0.2 |
| Triacontane | 3972016 | 231.7 | 514.9 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 19726.1 | 08-FEB-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 15079.0 | 08-FEB-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 17873.0 | 08-FEB-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120514.b/0514a024.d

Date : 14-MAY-2012 15:27

Client ID:

Sample Info: MOIL 2500

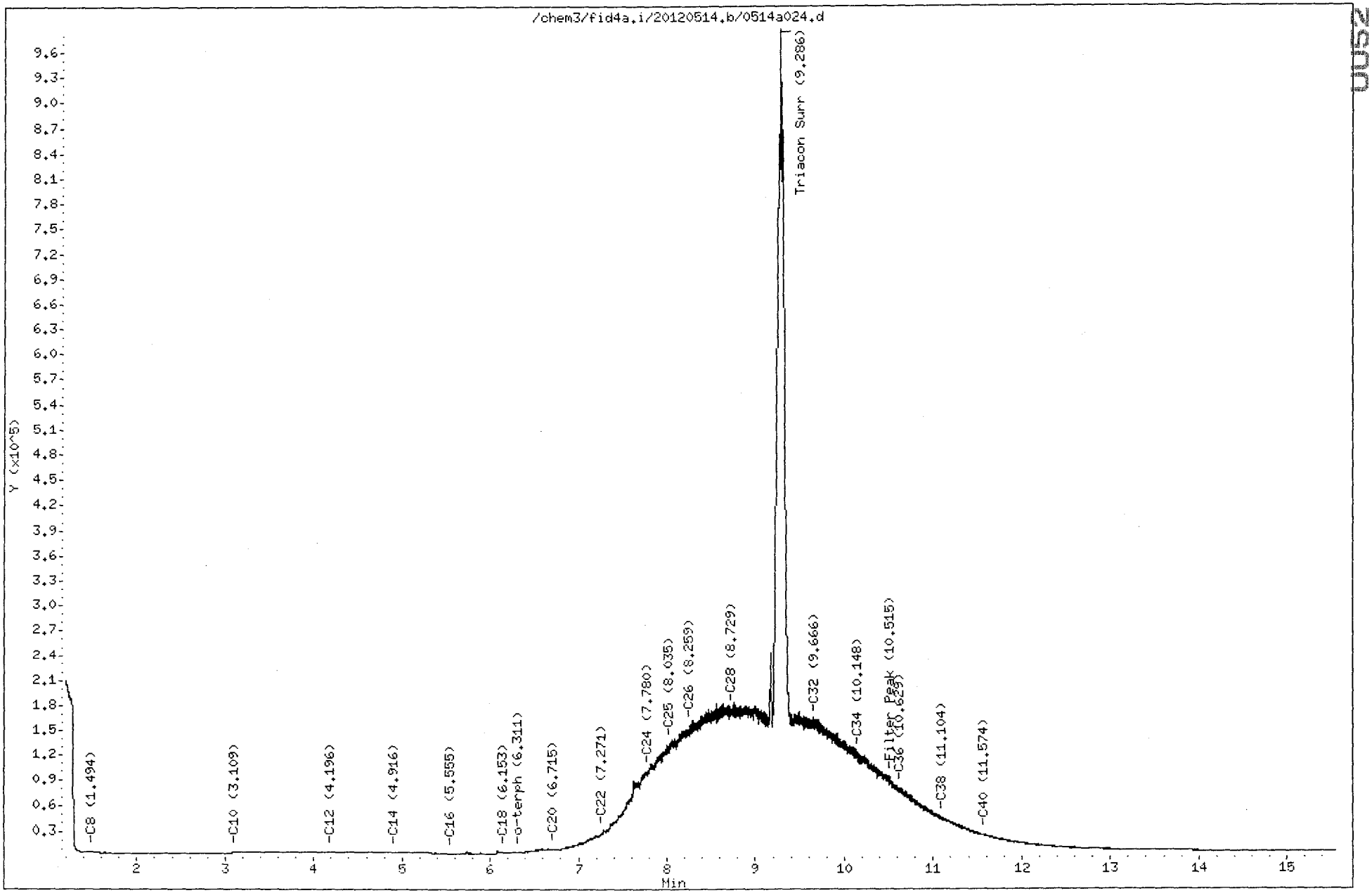
Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

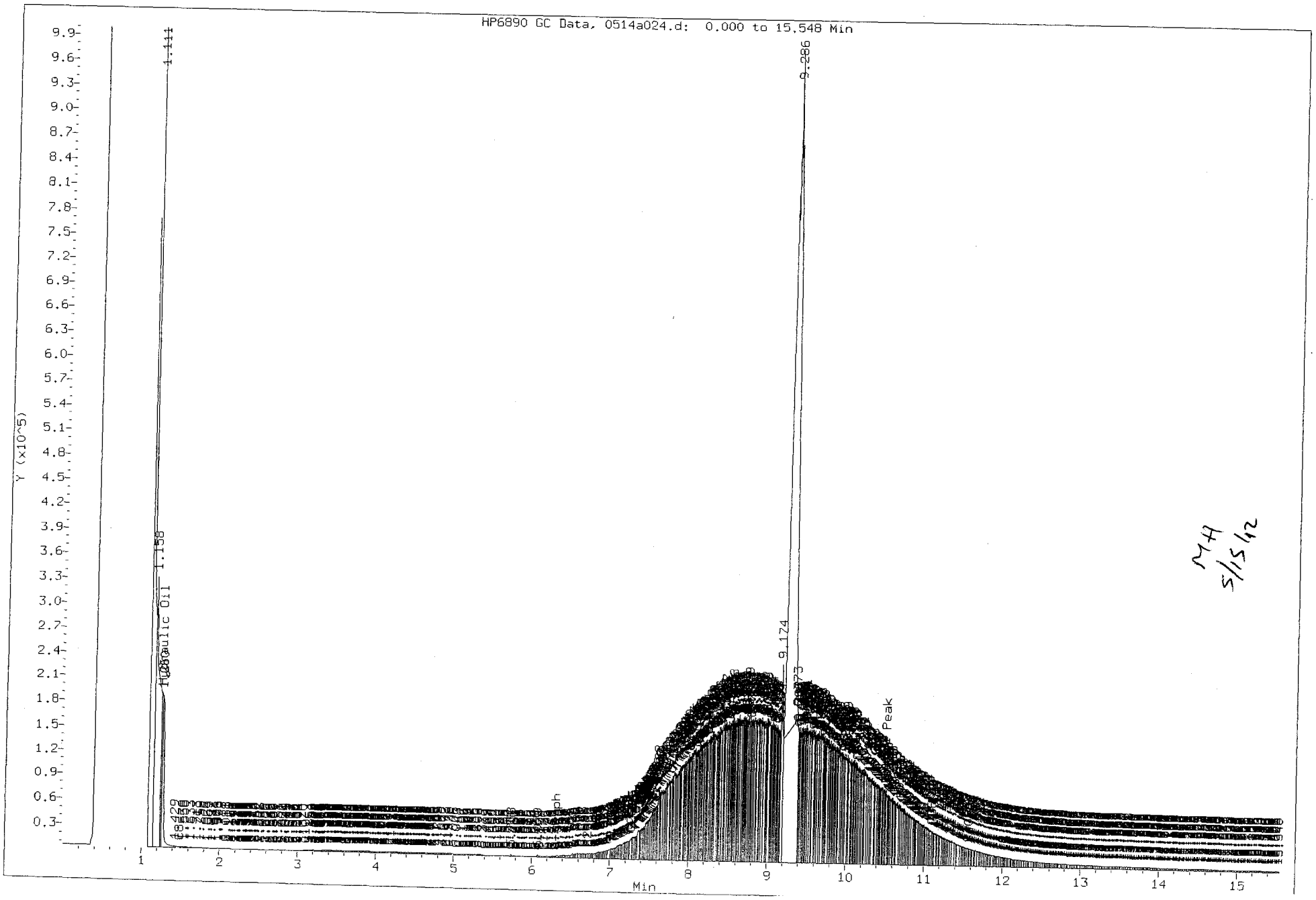
Column diameter: 0.25





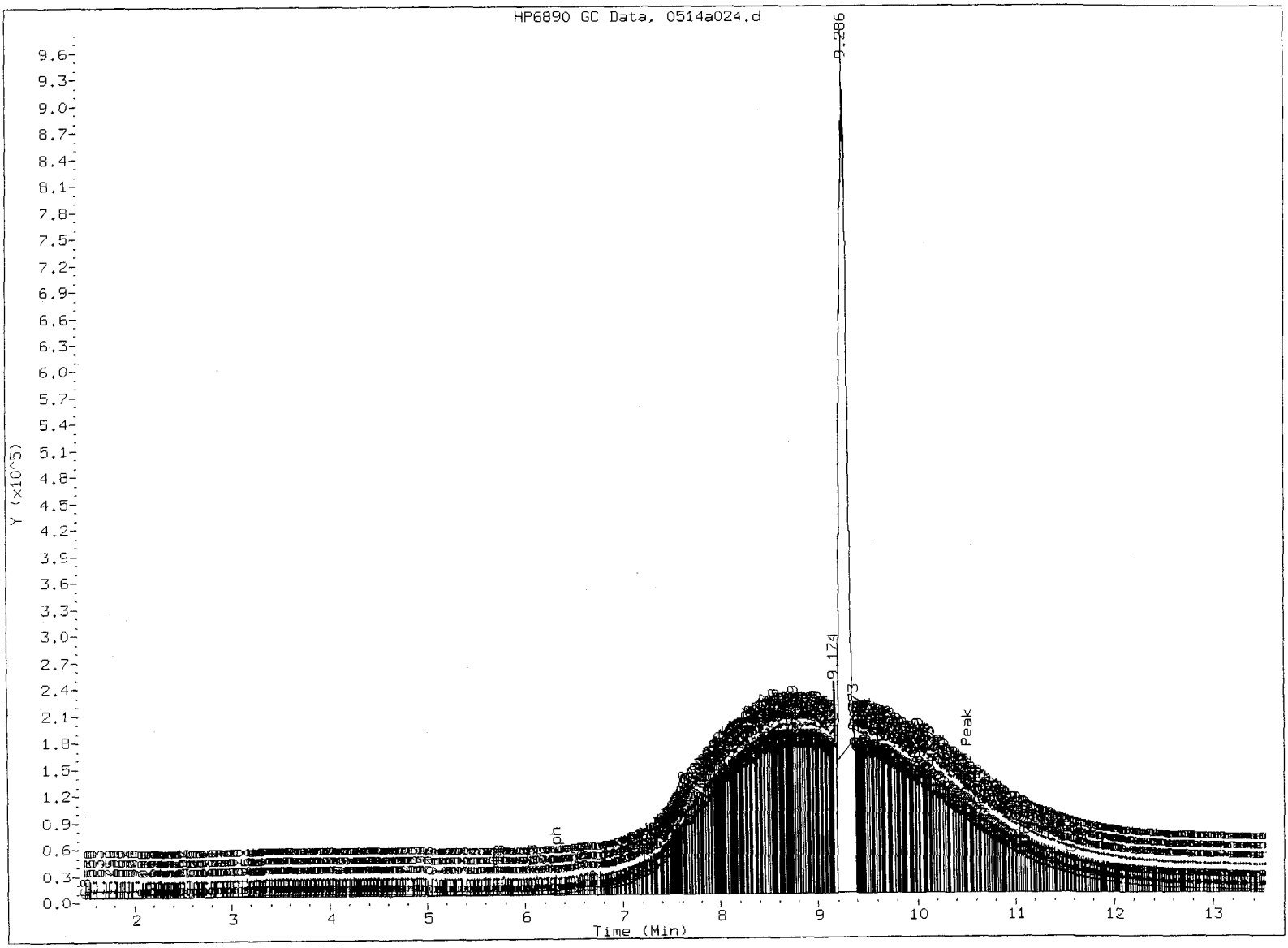

0052 01884

Data File: /chem3/fid4a.i/20120514.b/0514a024.d
Injection Date: 14-MAY-2012 15:27
Instrument: fid4a.i
Client Sample ID:




MH
5/15/12

FID:4A-2C/RTX-1 MOIL 2500 FID:4A SIGNAL




MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/15/12

MH 5/15/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120514.b/0514a025.d
Method: /chem3/fid4a.i/20120514.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/15/2012
Macro: 14-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:08-FEB-2012 M.Oil:14-MAY-2012

ARI ID: MOIL 5000
Client ID:
Injection: 14-MAY-2012 15:51

Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.256 | -0.013 | 380482 | 638450 | GAS (Tol-C12) | 1117964 | 74.31 |
| C8 | 1.495 | 0.018 | 1815 | 3216 | DIESEL (C12-C24) | 5120641 | 339.59 |
| C10 | 3.111 | -0.012 | 1122 | 1386 | M.OIL (C24-C38) | 48018584 | 4925.17 |
| C12 | 4.181 | -0.002 | 1838 | 1717 | AK-102 (C10-C25) | 7047305 | 394.30 |
| C14 | 4.927 | 0.011 | 2043 | 3970 | AK-103 (C25-C36) | 43227946 | 5571.09 M |
| C16 | 5.553 | -0.004 | 1123 | 1472 | | | |
| C18 | 6.149 | 0.010 | 2517 | 4294 | | | |
| C20 | 6.715 | -0.007 | 11511 | 19794 | MIN.OIL (C24-C38) | 48018584 | 3572.63 M |
| C22 | 7.272 | 0.003 | 49667 | 56701 | | | |
| C24 | 7.775 | -0.010 | 182466 | 194149 | | | |
| C25 | 8.035 | 0.003 | 246542 | 147747 | | | |
| C26 | 8.271 | 0.002 | 298202 | 149365 | | | |
| C28 | 8.729 | 0.003 | 346336 | 231436 | | | |
| C32 | 9.664 | -0.008 | 300923 | 294122 | | | |
| C34 | 10.143 | -0.009 | 246474 | 354341 | CREOSOT (C12-C22) | 1341882 | 365.22 |
| Filter Peak | 10.517 | 0.008 | 181903 | 199078 | | | |
| C36 | 10.625 | -0.005 | 158958 | 154240 | | | |
| C38 | 11.096 | -0.003 | 89959 | 112232 | | | |
| C40 | 11.565 | -0.004 | 44688 | 31350 | | | |
| o-terph | 6.309 | -0.005 | 3477 | 2579 | JET-A (C10-C18) | 307074 | 20.69 |
| Triacon Surr | 9.371 | 0.168 | 828772 | 7069158 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.182 - 7.785) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.73)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 2579 | 0.1 | 0.3 |
| Triacontane | 7069158 | 412.4 | 916.4 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 19726.1 | 08-FEB-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 15079.0 | 08-FEB-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 17873.0 | 08-FEB-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120514.b/0514a025.d

Date : 14-MAY-2012 15:51

Client ID:

Sample Info: MOIL 5000

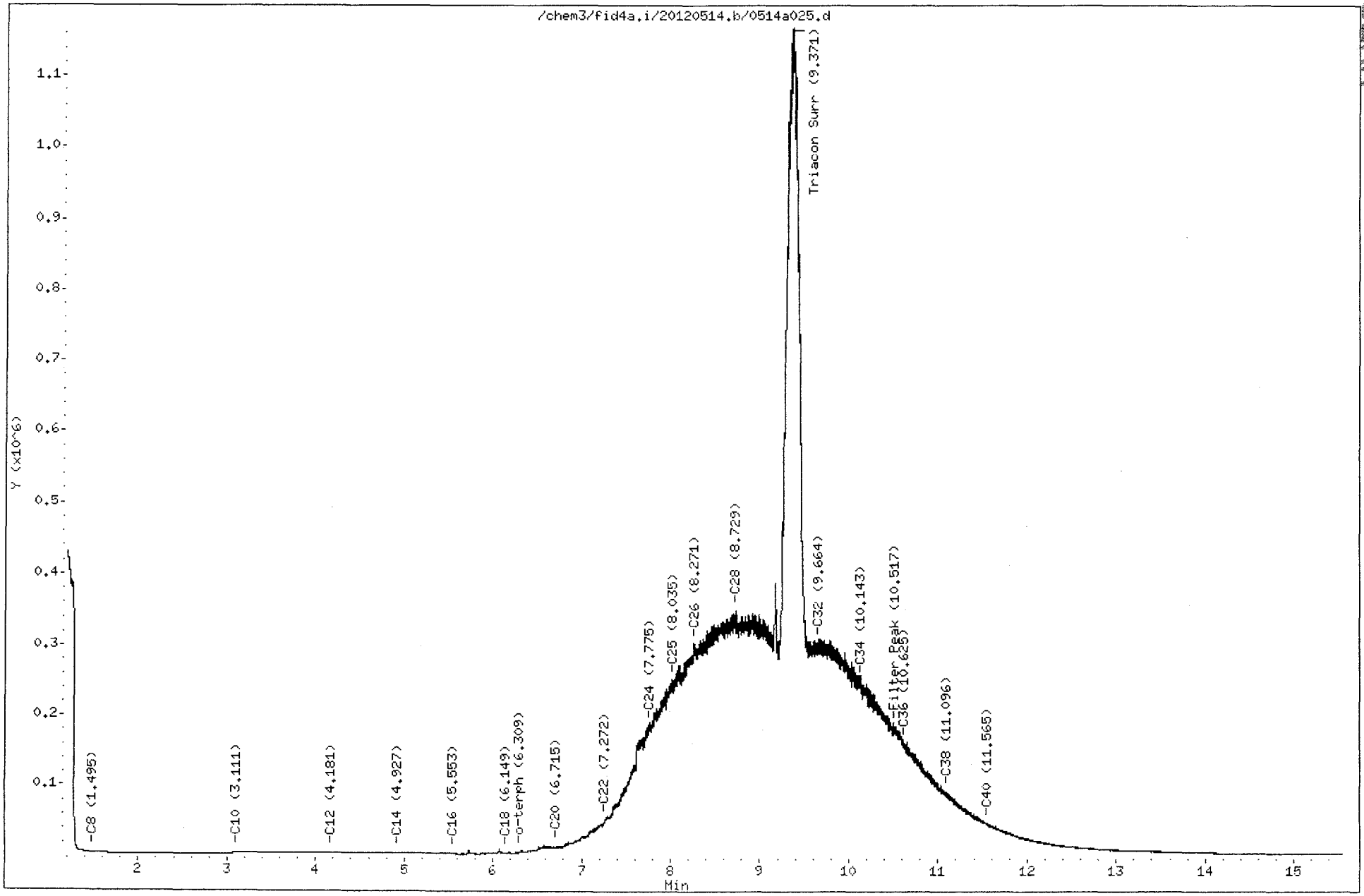
Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

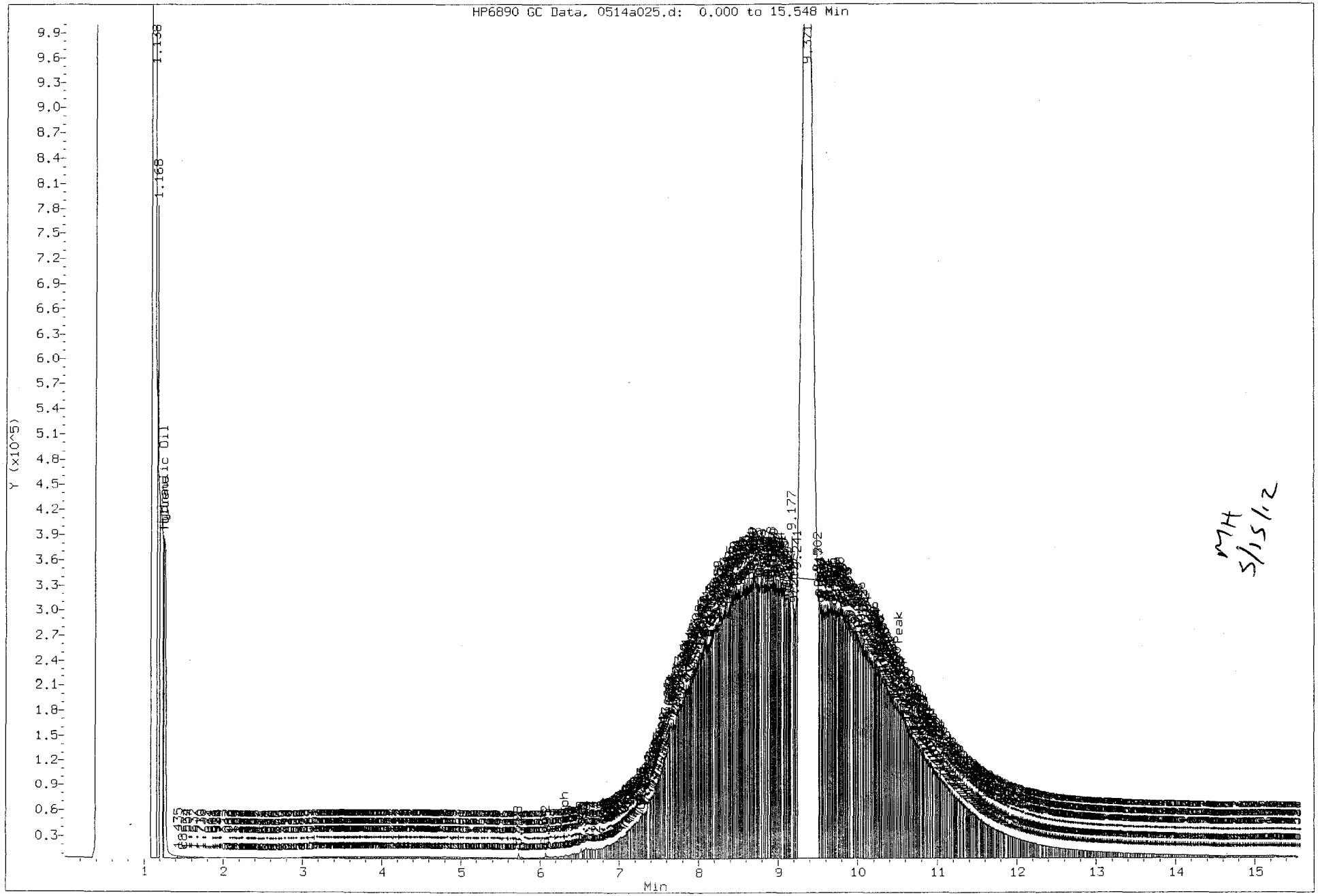
Column diameter: 0.25






0052:01888

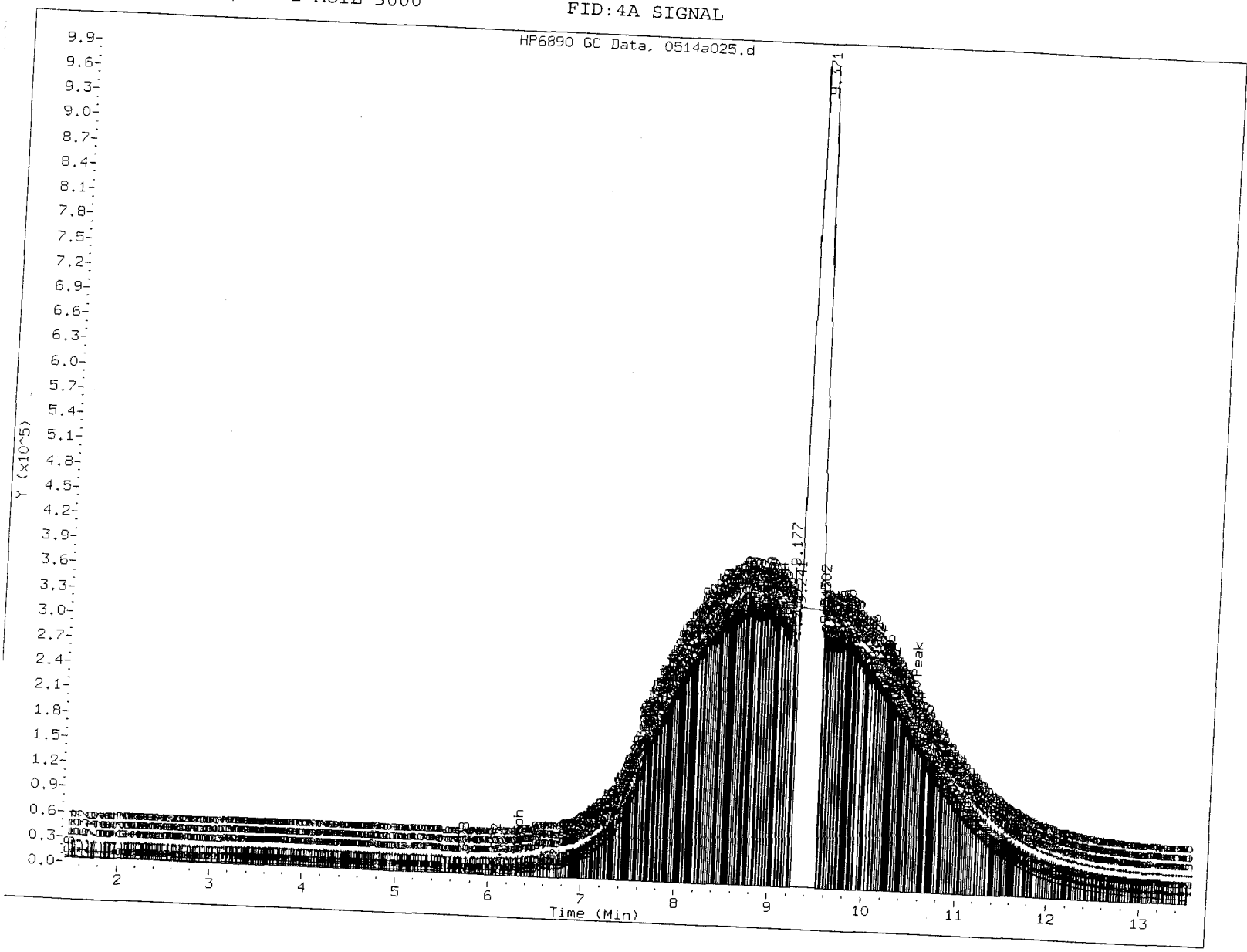
Data File: /chem3/fid4a.i/20120514.b/0514a025.d
Injection Date: 14-MAY-2012 15:51
Instrument: fid4a.i
Client Sample ID:




J552:91333

FID:4A-2C/RTX-1 MOIL 5000

FID:4A SIGNAL




MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/15/12

MH 5/16/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120515.b/0515a010.d
Method: /chem3/fid4a.i/20120515.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/16/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: MOIL ICV
Client ID:
Injection: 15-MAY-2012 15:05

Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.265 | -0.016 | 33605 | 72200 | GAS (Tol-C12) | 162957 | 10.83 |
| C8 | 1.504 | 0.018 | 747 | 849 | DIESEL (C12-C24) | 558900 | 41.01 |
| C10 | 3.119 | -0.007 | 268 | 204 | M.OIL (C24-C38) | 5260620 | 539.57 |
| C12 | 4.157 | -0.005 | 489 | 220 | AK-102 (C10-C25) | 760500 | 46.96 |
| C14 | 4.923 | 0.002 | 512 | 382 | AK-103 (C25-C36) | 4330909 | 558.15 M |
| C16 | 5.548 | -0.009 | 475 | 318 | | | |
| C18 | 6.126 | -0.016 | 336 | 546 | | | |
| C20 | 6.725 | 0.001 | 996 | 840 | MIN.OIL (C24-C38) | 5260620 | 391.40 M |
| C22 | 7.269 | 0.000 | 5441 | 6062 | | | |
| C24 | 7.775 | -0.006 | 17584 | 20833 | | | |
| C25 | 8.021 | -0.007 | 21001 | 19034 | | | |
| C26 | 8.267 | -0.003 | 24483 | 46620 | | | |
| C28 | 8.733 | 0.008 | 28180 | 50352 | | | |
| C32 | 9.668 | 0.000 | 31114 | 22864 | | | |
| C34 | 10.147 | -0.003 | 30884 | 19872 | CREOSOT (C12-C22) | 180070 | 49.01 |
| Filter Peak | 10.511 | -0.007 | 30371 | 47497 | | | |
| C36 | 10.625 | -0.009 | 29858 | 37630 | | | |
| C38 | 11.097 | -0.008 | 26548 | 18112 | | | |
| C40 | 11.555 | -0.003 | 22508 | 25660 | | | |
| o-terph | 6.322 | 0.010 | 316 | 352 | JET-A (C10-C18) | 79156 | 5.33 |
| Triacon Surr | 9.202 | 0.009 | 448750 | 683302 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.163 - 7.782) AK102(3.13 - 8.03) Jet A(3.13 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.13 - 8.73)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 352 | 0.0 | 0.0 |
| Triacontane | 683302 | 39.9 | 88.6 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120515.b/0515a010.d

Date : 15-MAY-2012 15:05

Client ID:

Sample Info: MOIL ICV

Instrument: fid4a.i

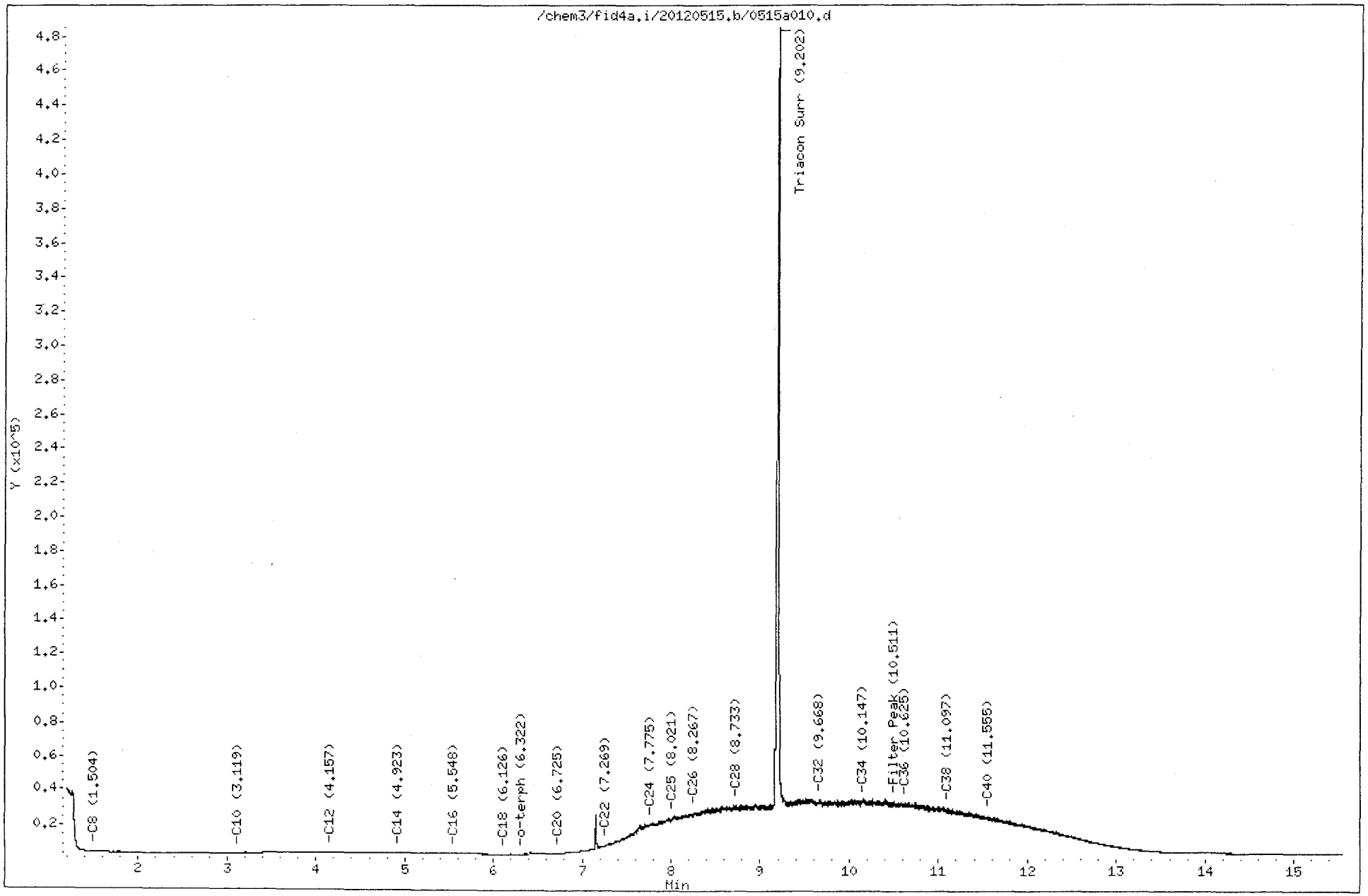
Operator: MH

Column phase: RTX-1

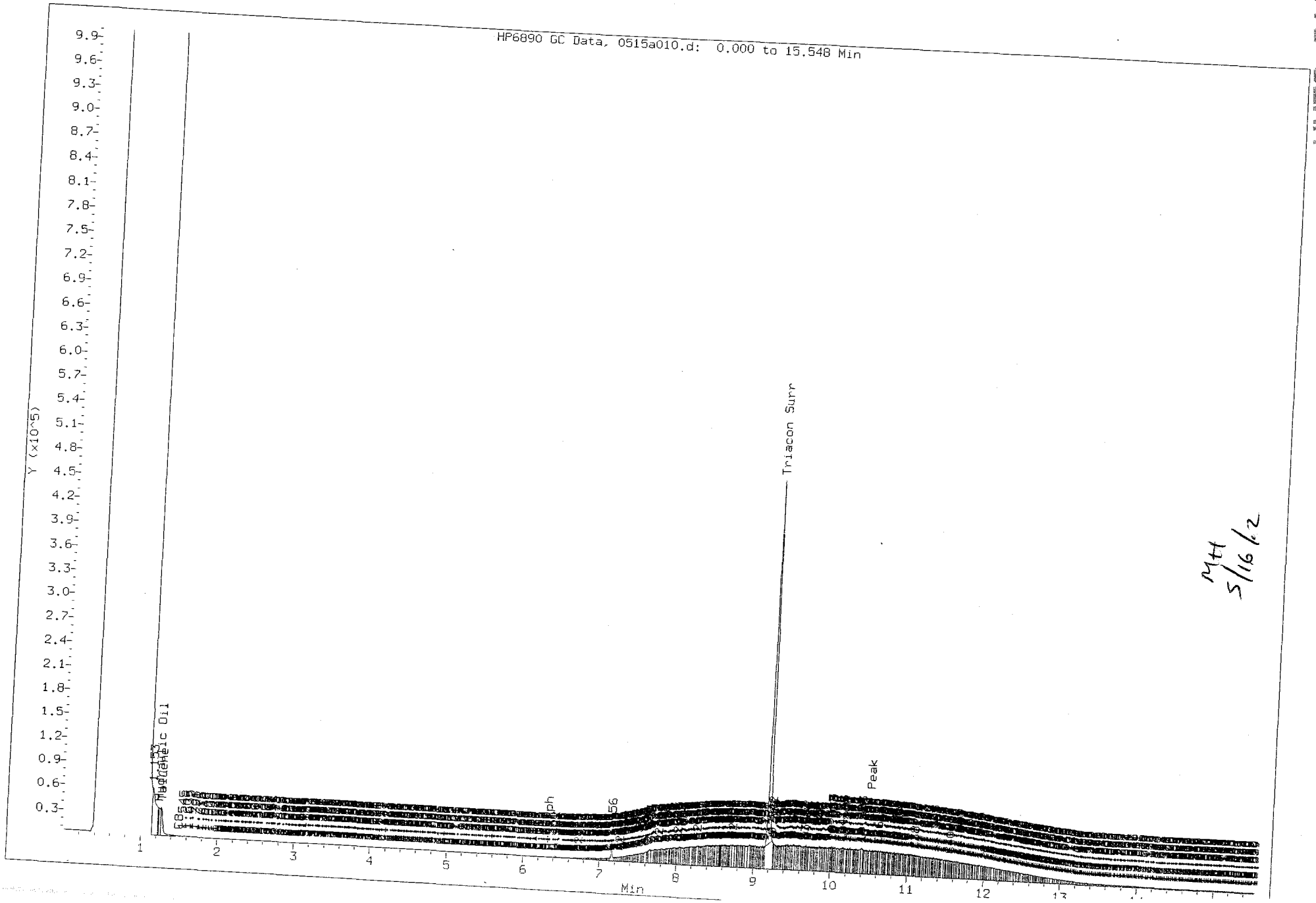
Column diameter: 0.25



5052-01892



Data File: /chem3/fid4a.i/20120515.b/0515a010.d
Injection Date: 15-MAY-2012 15:05
Instrument: fid4a.i
Client Sample ID:

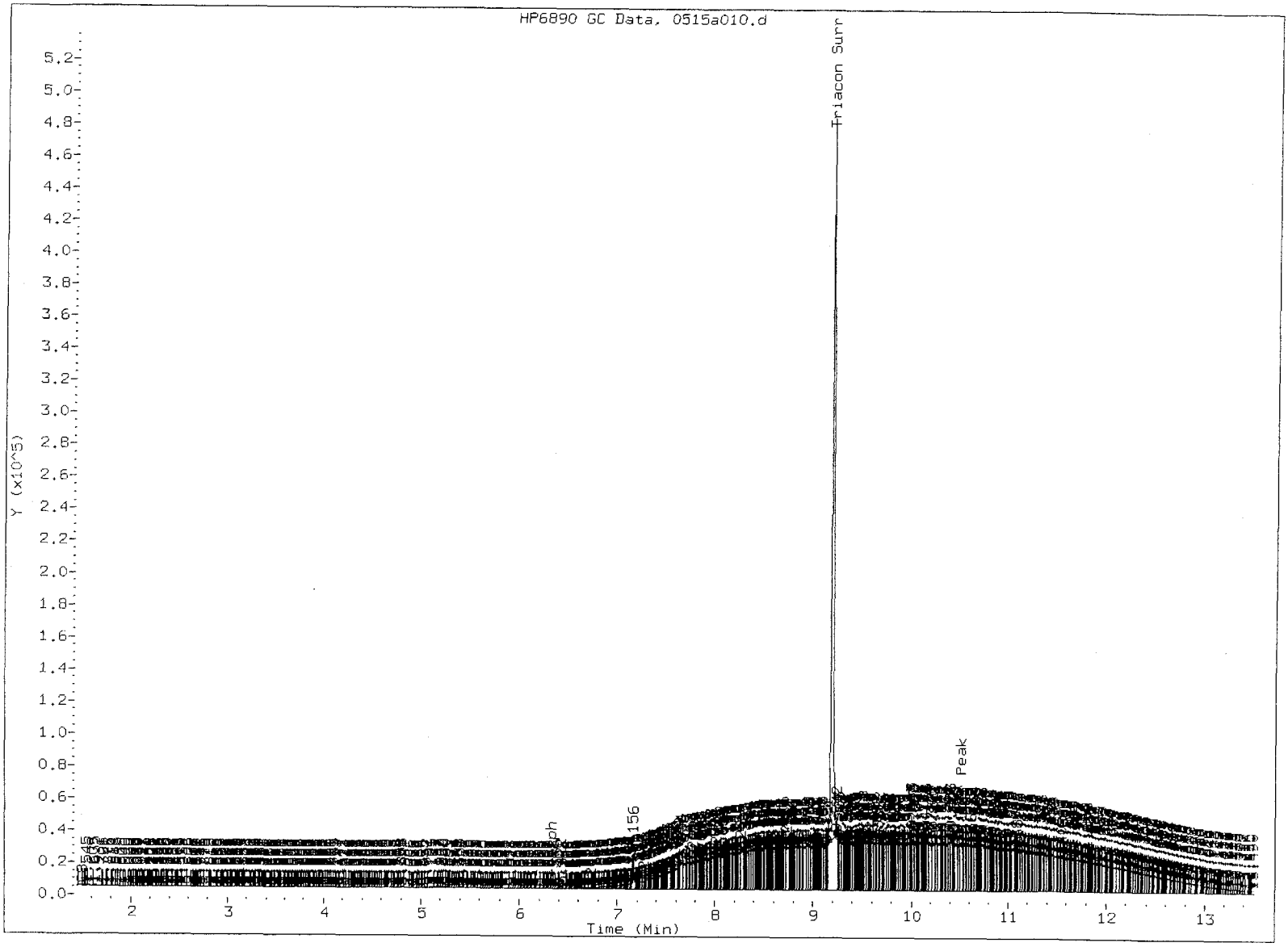



MH
5/16/12

UU52:01893

FID:4A-2C/RTX-1 MOIL ICV

FID:4A SIGNAL




MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/16/12

TPHD Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: UU52, UU62

**Analytical Resources, Incorporated**
Analytical Chemists and Consultants

# GC Analyst Notes / Corrective Action Log

ARI Project ID: UU52 Client ID: Anchor QEA, LLC

ARI SOP: **403S**(PCB) **405S**(Herb) (**407S**(TPH-D)) **409S**(HCID) **412S**(PCP) **423S**(Pest)
**427S**(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): A/S NWTPHD + MOI

Instrument: FID-3A FID-3B (FID-4A) FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7

Dates: Curve: 5/14/12 MOI, 5/15/12 Diesel Analysis Start: 5/22/12

Endrin/DDT Breakdown <15%? YES / NO / NA
Method Blank In Control? (YES) / N

ICal Meets RF & %RSD Criteria? (YES) / NO
LCS/LCSD Recovery In Control? (YES) / N

CCal Meets RF & %RSD Criteria? (YES) / NO
Surrogate Recovery In Control? (YES) / N

Manual Integrations for ICal? (YES) / NO
Manual Integrations for Samples? (YES) / N

Internal Standard Meets Criteria? YES / NO / (NA)
Special Analysis Criteria Met? YES / NO / (N)

**Detail problems, corrective actions and/or other pertinent information below (use reverse sid when necessary):**

**Additional Details on Reverse: Yes / No**

**Analyst:** [signature] **Date:** 5/22 5/23/12

**Reviewer:** [signature] **Date:** 5/23/12

# Analytical Resources Inc.: Organics Instrument Log

## FID-4A Serial No.: US00003247

Date: 5/22/12 Analysis: NWTPH-D Analyst: MH

Column 1 Serial No.: 977444 Column Type: RTX-1

Column 2 Serial No.: ~~—~~ Column Type: ~~—~~

GC Method: TPH ICal Date: 5/15/12 Diesel 5/14/12 MOil Injection Volume: 1ul

| IS | Ical/Ccal | ICV |
|---|---|---|
| | 1932-1 | |
| | 1960-1 | |
| | 1972-1 | |
| | 1971-3 | |

### Document All Maintenance Tasks In StarLIMS

| | Inject Date/Time | Filename | DF | LabID | ClientID | |
|---|---|---|---|---|---|---|
| 1 | 22-MAY-2012 06:03 | 0522a001.d | 1 | RINSE | | |
| 2 | 22-MAY-2012 06:26 | 0522a002.d | 1 | RT | | |
| 3 | 22-MAY-2012 06:50 | 0522a003.d | 1 | IB | | |
| 4 | 22-MAY-2012 07:13 | 0522a004.d | 1 | DIESEL #1 | | |
| 5 | 22-MAY-2012 07:37 | 0522a005.d | 1 | MOIL #1 | | |
| 6 | 22-MAY-2012 08:22 | 0522a006.d | 1 | UU52MBS1 | UU52MBS1 | |
| 7 | 22-MAY-2012 08:45 | 0522a007.d | 1 | UU52LCSS1 | UU52LCSS1 | |
| 8 | 22-MAY-2012 09:09 | 0522a008.d | 1 | UU52A | MS001-SS-120515 | |
| 9 | 22-MAY-2012 09:33 | 0522a009.d | 1 | UU52B | MS101-SS-120515 | |
| 10 | 22-MAY-2012 09:57 | 0522a010.d | 1 | UU52C | MS002-SS-120515 | |
| 11 | 22-MAY-2012 10:21 | 0522a011.d | 1 | UU52D | MS003-SS-120515 | |
| 12 | 22-MAY-2012 10:45 | 0522a012.d | 10 | UU74A | | |
| 13 | 22-MAY-2012 11:09 | 0522a013.d | 1 | UU74B | | |
| 14 | 22-MAY-2012 11:33 | 0522a014.d | 1 | DIESEL #2 | | |
| 15 | 22-MAY-2012 11:57 | 0522a015.d | 1 | MOIL #2 | | |
| 16 | 22-MAY-2012 12:21 | 0522a016.d | 1 | UU52E | MS004-SS-120515 | |
| 17 | 22-MAY-2012 12:45 | 0522a017.d | 1 | UU52F | MS005-SS-120515 | |
| 18 | 22-MAY-2012 13:10 | 0522a018.d | 1 | UU52G | MS006-SS-120515 | |
| 19 | 22-MAY-2012 13:34 | 0522a019.d | 1 | UU52H | MS007-SS-120515 | |
| 20 | 22-MAY-2012 13:59 | 0522a020.d | 1 | UU52I | MS008-SS-120515 | |
| 21 | 22-MAY-2012 14:23 | 0522a021.d | 1 | UU52IMS | MS008-SS-120515 | MS |
| 22 | 22-MAY-2012 14:48 | 0522a022.d | 1 | UU52IMSD | MS008-SS-120515 | MSD |
| 23 | 22-MAY-2012 15:13 | 0522a023.d | 1 | UU52J | MS009-SS-120515 | |
| 24 | 22-MAY-2012 15:37 | 0522a024.d | 1 | DIESEL #3 | | |
| 25 | 22-MAY-2012 16:01 | 0522a025.d | 1 | MOIL #3 | | |

MH 5/23/12

**Every line must contain information or be lined out. Make all entries legible.**
**Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS**

MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a002.d ARI ID: RT
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m Client ID:
Instrument: fid4a.i Injection: 22-MAY-2012 06:26
Operator: MH
Report Date: 05/23/2012 Dilution Factor: 1
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc | |
|---|---|---|---|---|---|---|---|---|
| Toluene | 1.269 | 0.000 | 303802 | 419974 | GAS (Tol-C12) | 1131951 | 75.24 | M |
| C8 | 1.469 | 0.000 | 169239 | 231814 | DIESEL (C12-C24) | 1613720 | 118.41 | |
| C10 | 3.125 | 0.000 | 115675 | 159756 | M.OIL (C24-C38) | 1596552 | 163.76 | |
| C12 | 4.217 | 0.000 | 35597 | 128229 | AK-102 (C10-C25) | 2041704 | 126.09 | M |
| C14 | 4.927 | 0.000 | 95701 | 190633 | AK-103 (C25-C36) | 1507359 | 194.26 | |
| C16 | 5.562 | 0.000 | 128335 | 216473 | OR.DIES (C10-C28) | 3007068 | 234.14 | M |
| C18 | 6.140 | 0.000 | 116373 | 233099 | OR.MOIL (C28-C40) | 672645 | 89.06 | |
| C20 | 6.725 | 0.000 | 154938 | 247685 | JET-A (C10-C18) | 1244235 | 83.83 | M |
| C22 | 7.270 | 0.000 | 227169 | 257077 | MIN.OIL (C24-C38) | 1596552 | 118.79 | |
| C24 | 7.779 | 0.000 | 304987 | 269884 | | | | |
| C25 | 8.026 | 0.000 | 364329 | 357715 | | | | |
| C26 | 8.267 | 0.000 | 255334 | 277145 | | | | |
| C28 | 8.719 | 0.000 | 313502 | 276848 | | | | |
| C32 | 9.656 | 0.000 | 147800 | 192995 | | | | |
| C34 | 10.144 | 0.000 | 104266 | 188032 | | | | |
| Filter Peak | 10.508 | 0.000 | 448 | 672 | CREOSOT (C12-C22) | 1340854 | 364.94 | |
| C36 | 10.629 | 0.000 | 50123 | 130950 | | | | |
| C38 | 11.113 | 0.000 | 22039 | 74006 | | | | |
| C40 | 11.593 | 0.000 | 7970 | 14879 | | | | |
| o-terph | 6.311 | 0.000 | 564292 | 883150 | CRUDE (Tol-C40) | 4384930 | 580.57 | M |
| Triacon Surr | 9.189 | 0.000 | 697945 | 823781 | | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 883150 | 51.4 | 114.2 |
| Triacontane | 823781 | 48.1 | 106.8 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| OR Moil | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120522.b/0522a002.d

Date : 22-MAY-2012 06:26

Client ID:

Sample Info: RT

Column phase: RTX-1

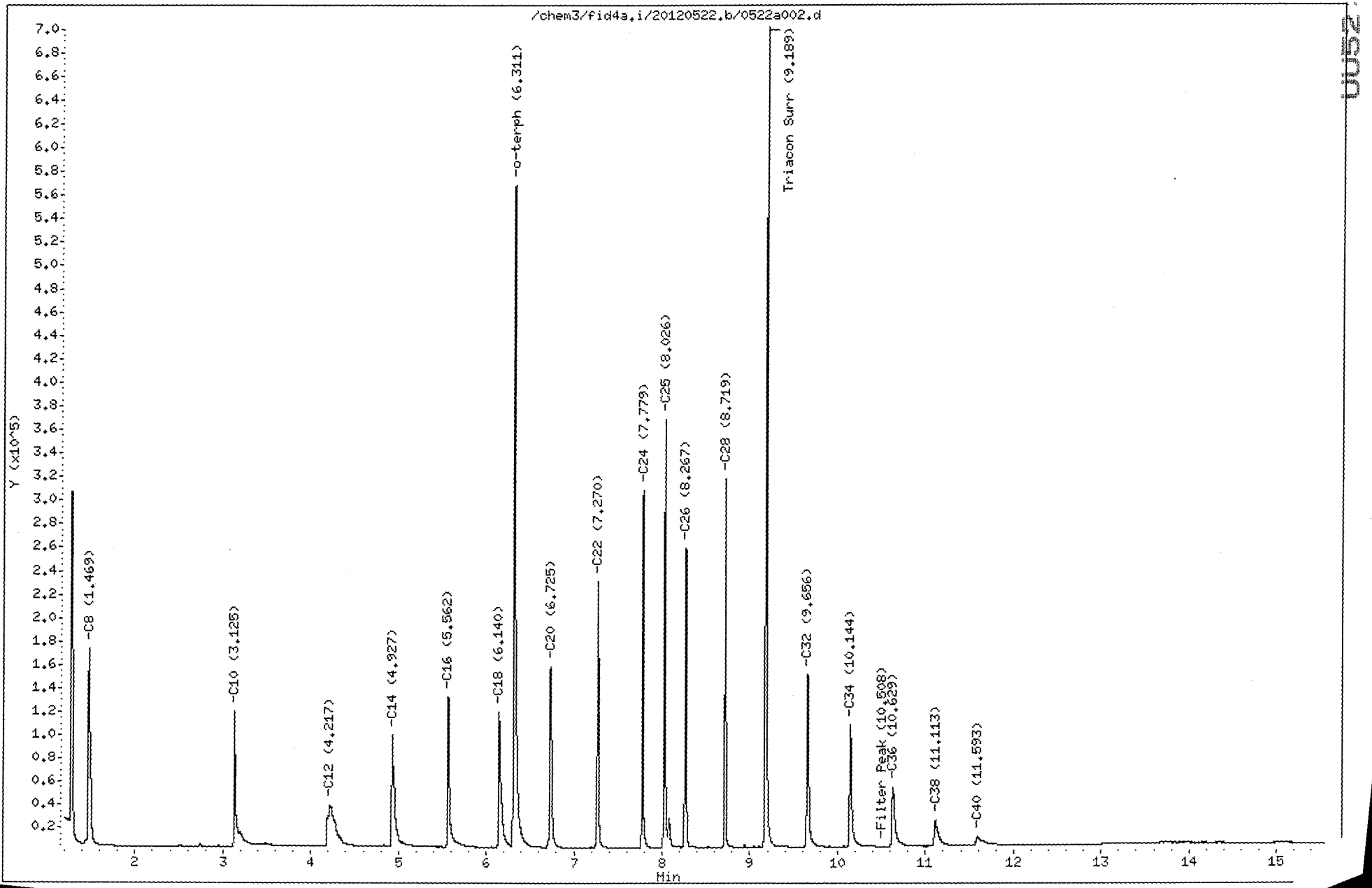
Instrument: fid4a.i

Operator: MH

Column diameter: 0.25



UU52 01899



MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a003.d ARI ID: IB
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m Client ID:
Instrument: fid4a.i Injection: 22-MAY-2012 06:50
Operator: MH
Report Date: 05/23/2012 Dilution Factor: 1
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.263 | -0.005 | 45144 | 99429 | GAS (Tol-C12) | 202343 | 13.45 |
| C8 | 1.566 | 0.097 | 765 | 1640 | DIESEL (C12-C24) | 189611 | 13.91 |
| C10 | 3.118 | -0.007 | 598 | 668 | M.OIL (C24-C38) | 119465 | 12.25 |
| C12 | 4.180 | -0.037 | 746 | 959 | AK-102 (C10-C25) | 241803 | 14.93 |
| C14 | 4.922 | -0.005 | 785 | 861 | AK-103 (C25-C36) | 104879 | 13.52 |
| C16 | 5.557 | -0.005 | 588 | 646 | OR.DIES (C10-C28) | 249554 | 19.43 |
| C18 | 6.142 | 0.002 | 412 | 349 | OR.MOIL (C28-C40) | 127209 | 16.84 |
| C20 | 6.710 | -0.015 | 2336 | 4795 | JET-A (C10-C18) | 119316 | 8.04 |
| C22 | 7.274 | 0.004 | 252 | 417 | MIN.OIL (C24-C38) | 119465 | 8.89 |
| C24 | 7.772 | -0.007 | 28 | 16 | | | |
| C25 | 8.028 | 0.002 | 394 | 350 | | | |
| C26 | 8.260 | -0.007 | 85 | 35 | | | |
| C28 | 8.709 | -0.011 | 665 | 1106 | | | |
| C32 | 9.653 | -0.003 | 1242 | 1300 | | | |
| C34 | 10.139 | -0.005 | 521 | 468 | | | |
| Filter Peak | 10.499 | -0.008 | 445 | 512 | CREOSOT (C12-C22) | 188167 | 51.21 |
| C36 | 10.628 | -0.001 | 453 | 443 | | | |
| C38 | 11.101 | -0.012 | 511 | 865 | | | |
| C40 | 11.542 | -0.051 | 578 | 660 | | | |
| o-terph | 6.310 | -0.001 | 462580 | 727581 | CRUDE (Tol-C40) | 527355 | 69.82 |
| Triacon Surr | 9.182 | -0.007 | 463399 | 755131 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 727581 | 42.3 | 94.1 |
| Triacontane | 755131 | 44.1 | 97.9 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| OR Moil | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120522.b/0522a003.d

Date : 22-MAY-2012 06:50

Client ID:

Sample Info: IB

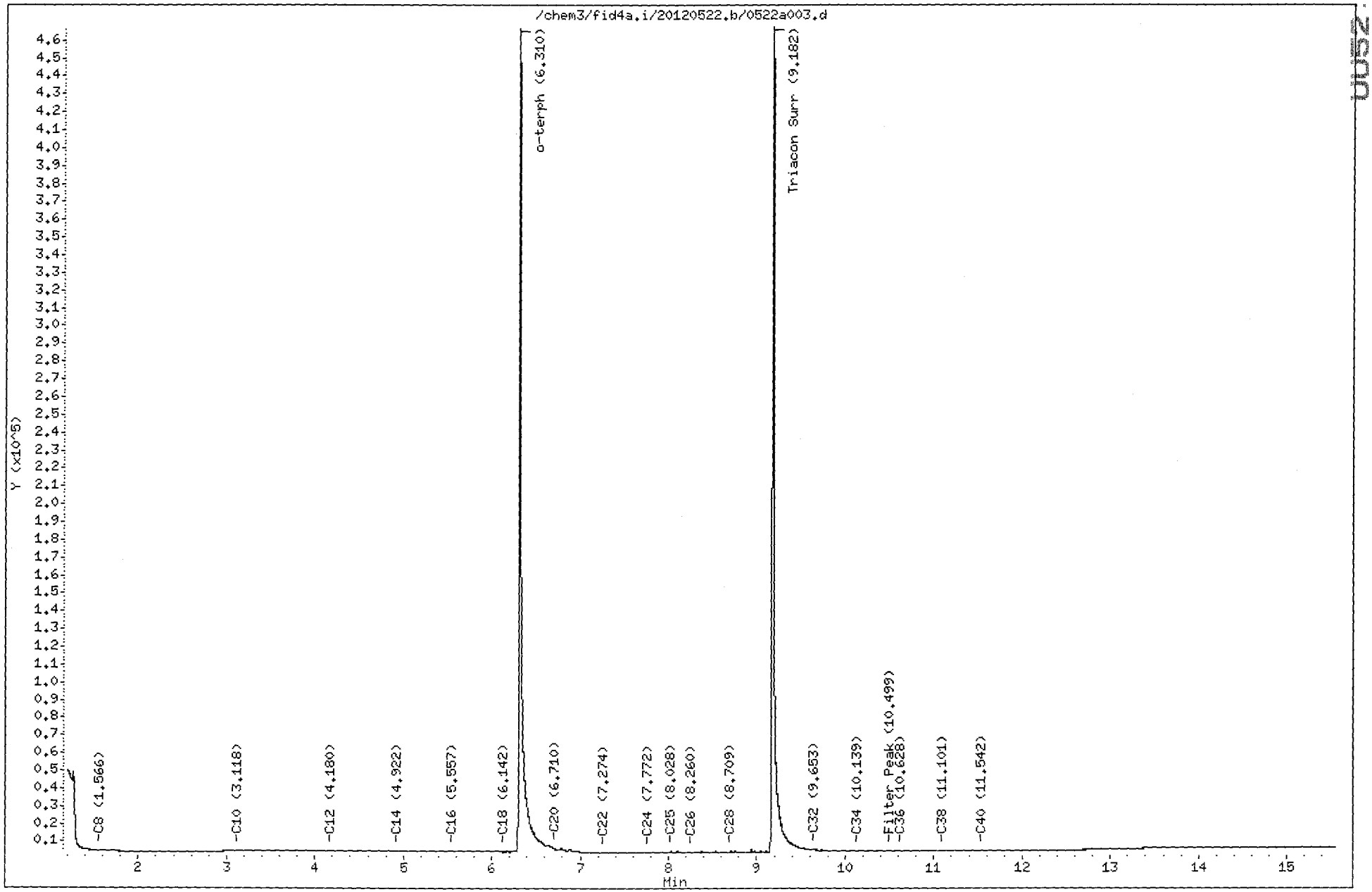
Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

Column diameter: 0.25






U052-01901

MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a004.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: DIESEL #1
Client ID:
Injection: 22-MAY-2012 07:13
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc | |
|---|---|---|---|---|---|---|---|---|
| Toluene | 1.297 | 0.028 | 2863 | 3700 | GAS (Tol-C12) | 953110 | 63.36 | |
| C8 | 1.459 | -0.010 | 1177 | 1819 | DIESEL (C12-C24) | 3701588 | 271.62 | |
| C10 | 3.121 | -0.003 | 4368 | 4391 | M.OIL (C24-C38) | 105414 | 10.81 | |
| C12 | 4.212 | -0.005 | 13720 | 19204 | AK-102 (C10-C25) | 4416510 | 272.74 | M |
| C14 | 4.938 | 0.011 | 25350 | 35989 | AK-103 (C25-C36) | 79995 | 10.31 | |
| C16 | 5.574 | 0.012 | 26997 | 45409 | OR.DIES (C10-C28) | 4480299 | 348.85 | M |
| C18 | 6.136 | -0.004 | 64059 | 81352 | OR.MOIL (C28-C40) | 24069 | 3.19 | |
| C20 | 6.729 | 0.004 | 28991 | 84490 | JET-A (C10-C18) | 3270989 | 220.39 | |
| C22 | 7.277 | 0.007 | 6995 | 3561 | MIN.OIL (C24-C38) | 105414 | 7.84 | |
| C24 | 7.786 | 0.007 | 3237 | 3433 | | | | |
| C25 | 8.022 | -0.005 | 2112 | 710 | | | | |
| C26 | 8.272 | 0.005 | 2181 | 1989 | | | | |
| C28 | 8.726 | 0.007 | 885 | 1877 | | | | |
| C32 | 9.641 | -0.016 | 118 | 135 | | | | |
| C34 | 10.140 | -0.004 | 41 | 29 | | | | |
| Filter Peak | 10.513 | 0.005 | 21 | 12 | CREOSOT (C12-C22) | 3566932 | 970.82 | M |
| C36 | 10.624 | -0.005 | 25 | 33 | | | | |
| C38 | 11.118 | 0.004 | 94 | 71 | | | | |
| C40 | 11.591 | -0.002 | 189 | 104 | | | | |
| o-terph | 6.312 | 0.001 | 702669 | 830385 | CRUDE (Tol-C40) | 4764672 | 630.85 | M |
| Triacon Surr | 9.190 | 0.001 | 220 | 249 | | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 830385 | 48.3 | 107.4 |
| Triacontane | 249 | 0.0 | 0.0 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| OR Moil | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120522.b/0522a004.d

Page 1

Date : 22-MAY-2012 07:13

Client ID:

Instrument: fid4a.i

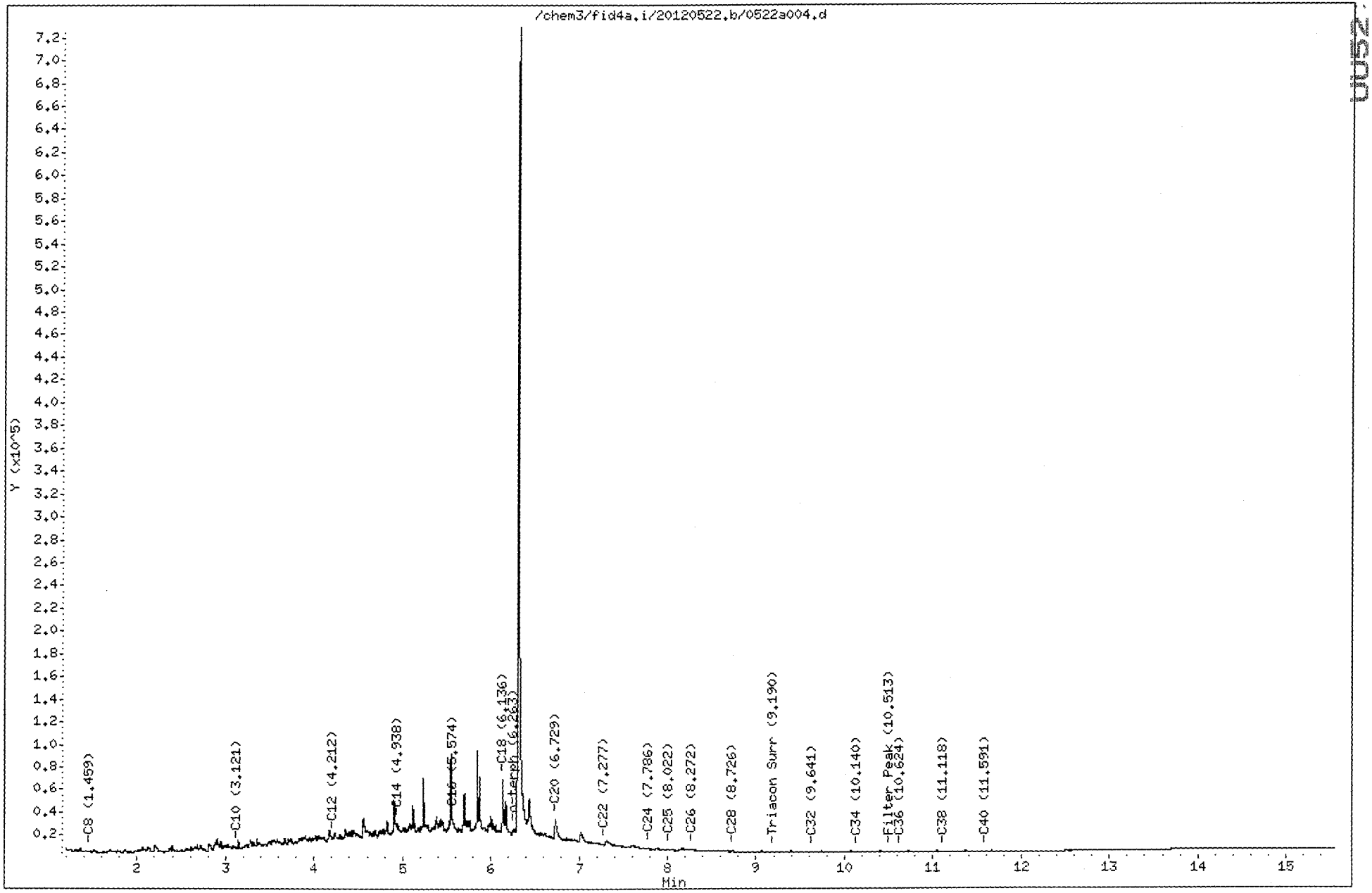
Sample Info: DIESEL #1

Operator: MH

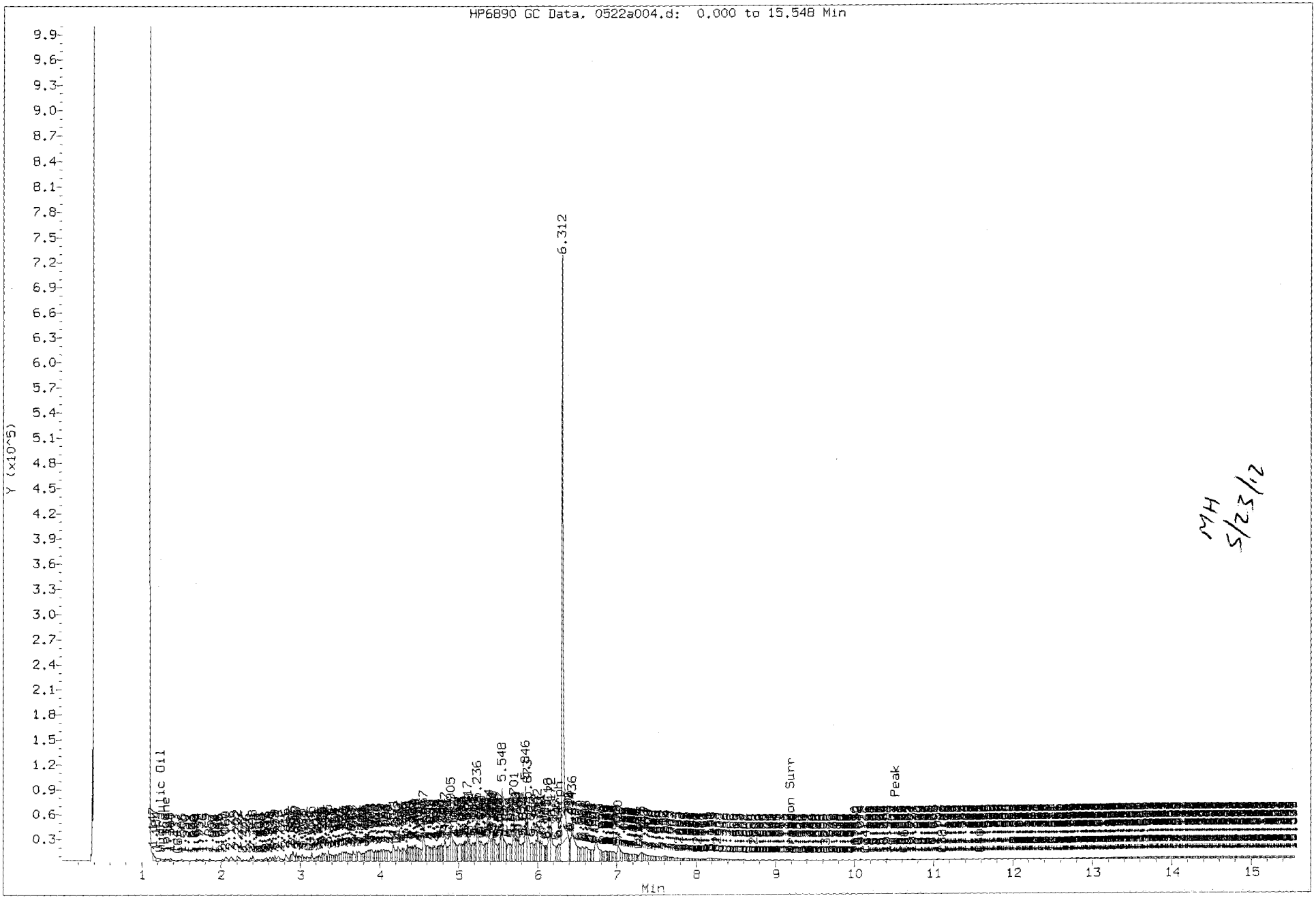
Column phase: RTX-1

Column diameter: 0.25

UU522 01903



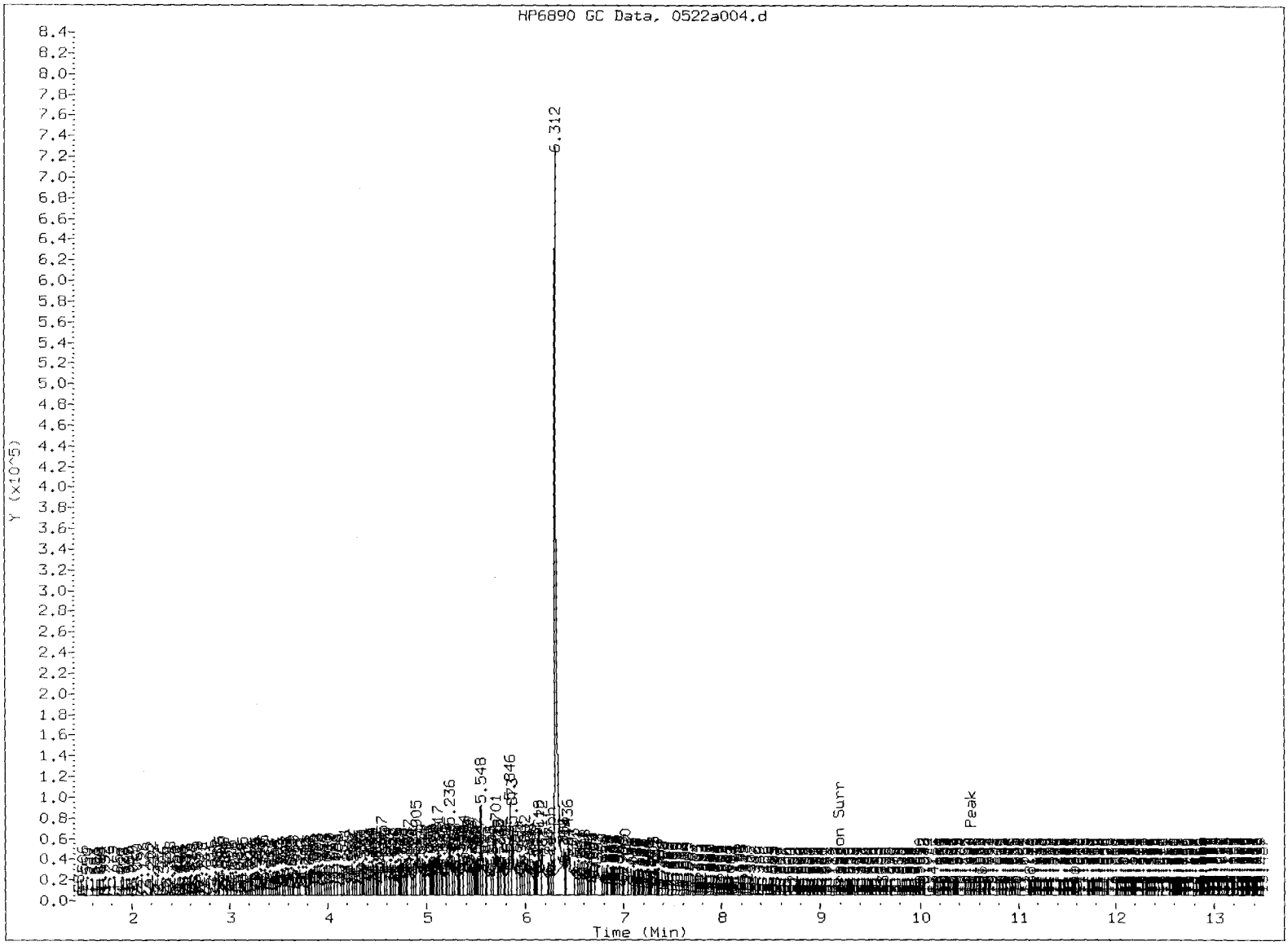
Data File: /chem3/fid4a.i/20120522.b/0522a004.d
Injection Date: 22-MAY-2012 07:13
Instrument: fid4a.i
Client Sample ID:




MH
5/23/12

UU52:01904

FID:4A-2C/RTX-1 DIESEL #1 FID:4A SIGNAL




MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/23/12

MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a005.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: MOIL #1
Client ID:
Injection: 22-MAY-2012 07:37
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc | |
|---|---|---|---|---|---|---|---|---|
| Toluene | 1.263 | -0.006 | 34698 | 76775 | GAS (Tol-C12) | 129878 | 8.63 | |
| C8 | 1.529 | 0.060 | 837 | 1287 | DIESEL (C12-C24) | 538105 | 39.49 | |
| C10 | 3.124 | -0.001 | 455 | 472 | M.OIL (C24-C38) | 4707921 | 482.88 | |
| C12 | 4.229 | 0.012 | 540 | 491 | AK-102 (C10-C25) | 782708 | 48.34 | |
| C14 | 4.930 | 0.003 | 507 | 728 | AK-103 (C25-C36) | 4237450 | 546.11 | M |
| C16 | 5.571 | 0.009 | 466 | 371 | OR.DIES (C10-C28) | 2200276 | 171.32 | |
| C18 | 6.110 | -0.030 | 803 | 2473 | OR.MOIL (C28-C40) | 3228096 | 427.41 | M |
| C20 | 6.728 | 0.003 | 959 | 685 | JET-A (C10-C18) | 85185 | 5.74 | |
| C22 | 7.272 | 0.002 | 4817 | 5506 | MIN.OIL (C24-C38) | 4707921 | 350.27 | M |
| C24 | 7.773 | -0.006 | 19758 | 13275 | | | | |
| C25 | 8.026 | 0.000 | 26672 | 25850 | | | | |
| C26 | 8.271 | 0.004 | 30867 | 7909 | | | | |
| C28 | 8.728 | 0.009 | 35222 | 39866 | | | | |
| C32 | 9.656 | 0.000 | 29353 | 55746 | | | | |
| C34 | 10.143 | 0.000 | 20597 | 8909 | | | | |
| Filter Peak | 10.512 | 0.004 | 14486 | 10864 | CREOSOT (C12-C22) | 156002 | 42.46 | |
| C36 | 10.638 | 0.009 | 12785 | 13476 | | | | |
| C38 | 11.119 | 0.006 | 7401 | 1887 | | | | |
| C40 | 11.585 | -0.008 | 4372 | 5989 | | | | |
| o-terph | 6.318 | 0.007 | 401 | 124 | CRUDE (Tol-C40) | 5522743 | 731.22 | M |
| Triacon Surr | 9.191 | 0.002 | 661094 | 756798 | | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 124 | 0.0 | 0.0 |
| Triacontane | 756798 | 44.1 | 98.1 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| OR Moil | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120522.b/0522a005.d

Date : 22-MAY-2012 07:37

Client ID:

Sample Info: MOIL #1

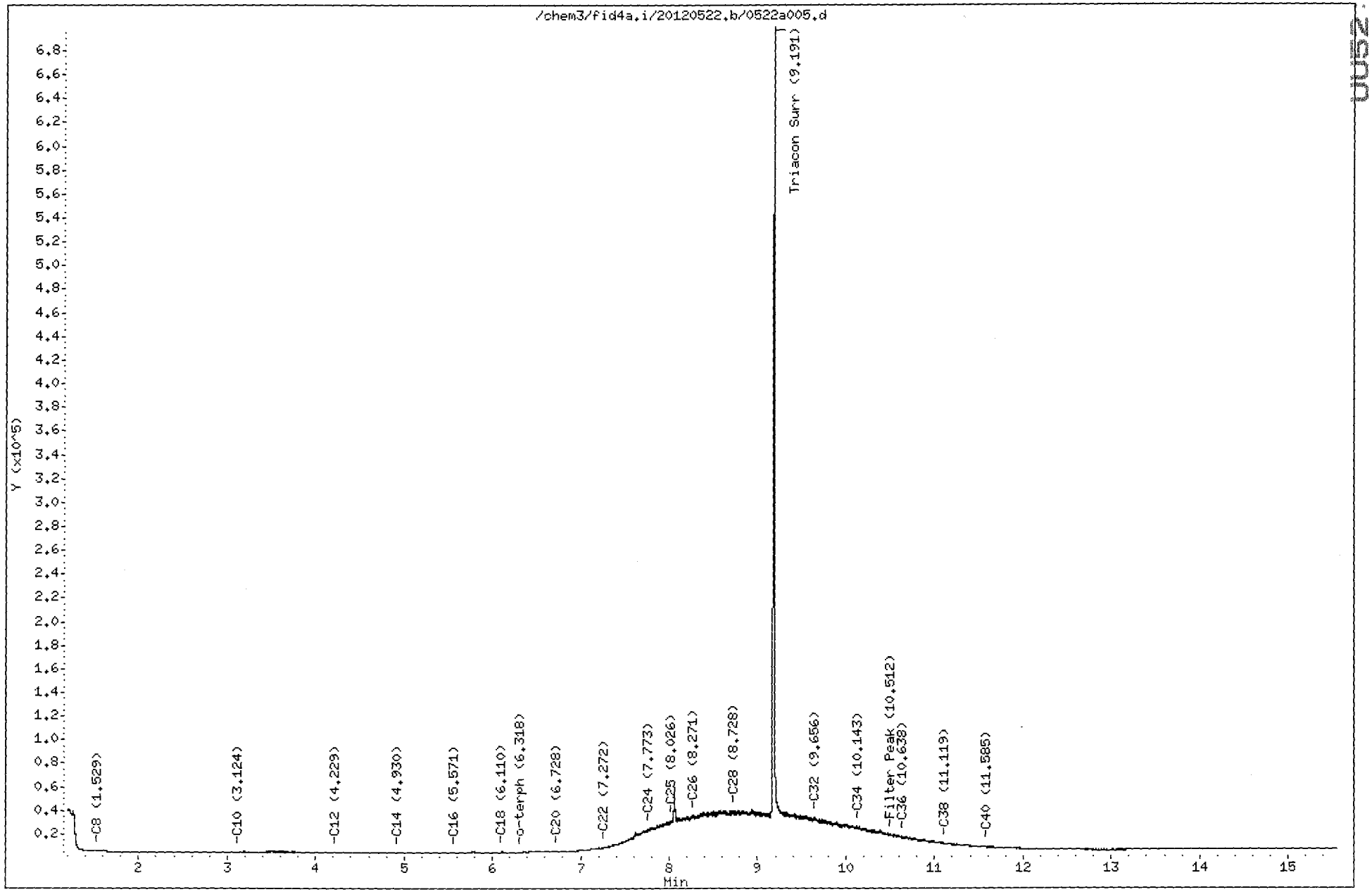
Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

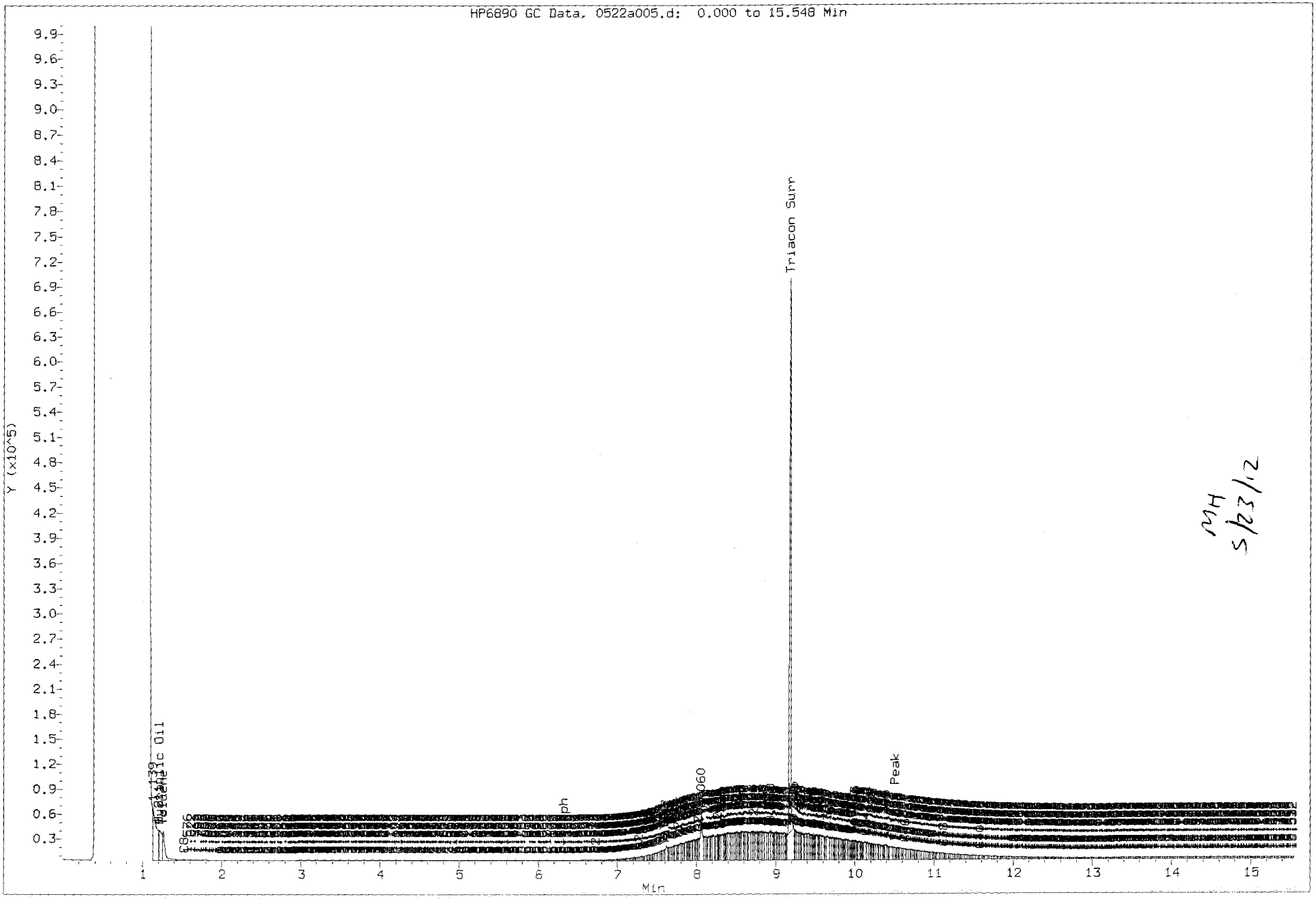
Column diameter: 0.25






0052 01907

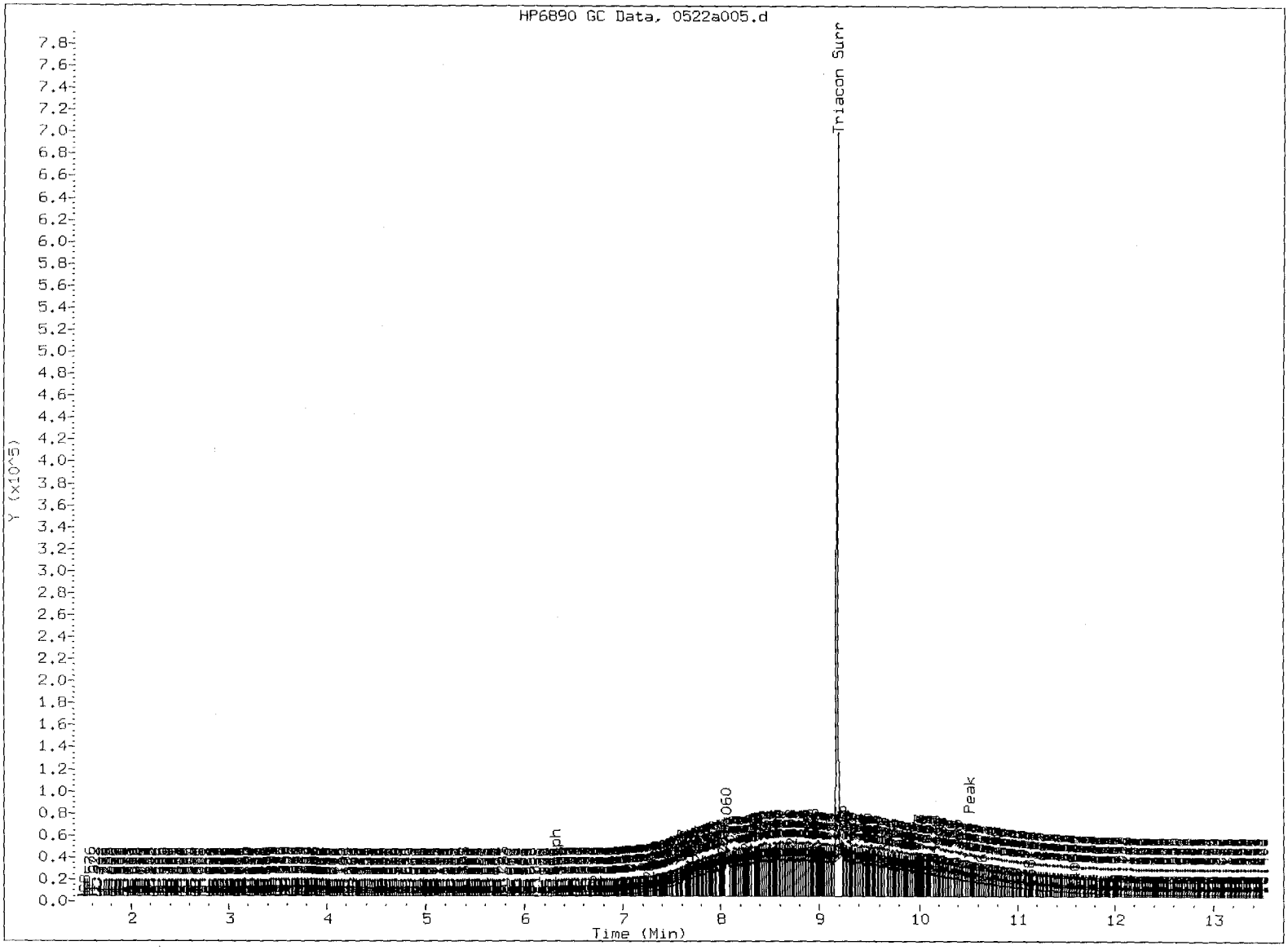
Data File: /chem3/fid4a.i/20120522.b/0522a005.d
Injection Date: 22-MAY-2012 07:37
Instrument: fid4a.i
Client Sample ID:




MH
5/23/12

UU52:01908

FID:4A-2C/RTX-1 MOIL #1 FID:4A SIGNAL




MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/23/12

MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a006.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52MBS1
Client ID: UU52MBS1
Injection: 22-MAY-2012 08:22
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.285 | 0.016 | 3882 | 8611 | GAS (Tol-C12) | 84490 | 5.62 |
| C8 | 1.467 | -0.002 | 1107 | 2530 | DIESEL (C12-C24) | 222123 | 16.30 |
| C10 | 3.130 | 0.006 | 211 | 270 | M.OIL (C24-C38) | 208894 | 21.43 |
| C12 | 4.204 | -0.013 | 502 | 1390 | AK-102 (C10-C25) | 252133 | 15.57 |
| C14 | 4.934 | 0.007 | 774 | 1008 | AK-103 (C25-C36) | 186602 | 24.05 |
| C16 | 5.572 | 0.011 | 1172 | 1165 | OR.DIES (C10-C28) | 288920 | 22.50 |
| C18 | 6.124 | -0.016 | 1660 | 1991 | OR.MOIL (C28-C40) | 177921 | 23.56 |
| C20 | 6.727 | 0.001 | 2148 | 2161 | JET-A (C10-C18) | 140734 | 9.48 |
| C22 | 7.265 | -0.005 | 1364 | 1872 | MIN.OIL (C24-C38) | 208894 | 15.54 |
| C24 | 7.783 | 0.004 | 556 | 162 | | | |
| C25 | 8.029 | 0.002 | 1633 | 2027 | | | |
| C26 | 8.276 | 0.009 | 856 | 863 | | | |
| C28 | 8.711 | -0.009 | 3202 | 4596 | | | |
| C32 | 9.649 | -0.008 | 1045 | 1442 | | | |
| C34 | 10.150 | 0.006 | 475 | 894 | | | |
| Filter Peak | 10.514 | 0.007 | 381 | 354 | CREOSOT (C12-C22) | 201380 | 54.81 |
| C36 | 10.616 | -0.013 | 363 | 377 | | | |
| C38 | 11.118 | 0.004 | 345 | 585 | | | |
| C40 | 11.601 | 0.008 | 336 | 147 | | | |
| o-terph | 6.313 | 0.001 | 452925 | 741407 | CRUDE (Tol-C40) | 526560 | 69.72 |
| Triacon Surr | 9.187 | -0.002 | 436131 | 691590 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 741407 | 43.1 | 95.9 |
| Triacontane | 691590 | 40.3 | 89.7 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| OR Moil | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120522.b/0522a006.d

Date : 22-MAY-2012 08:22

Client ID: UU52MBS1

Sample Info: UU52MBS1

Column phase: RTX-1

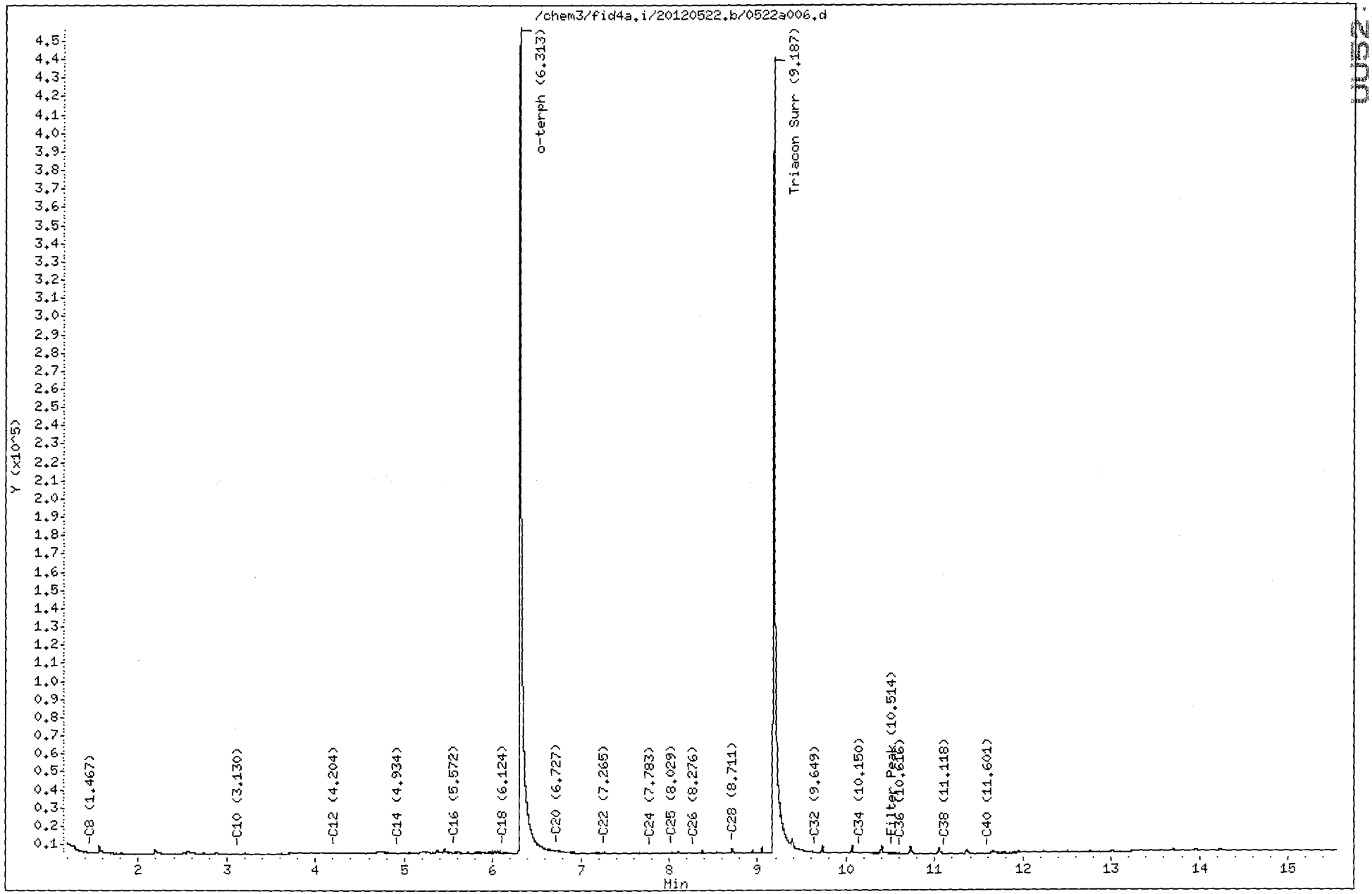


Instrument: fid4a.i

Operator: MH

Column diameter: 0.25

UU52 05511



MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a007.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52LCSS1
Client ID: UU52LCSS1
Injection: 22-MAY-2012 08:45
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc | |
|---|---|---|---|---|---|---|---|---|
| Toluene | 1.269 | 0.000 | 4707 | 4482 | GAS (Tol-C12) | 4377320 | 290.97 | |
| C8 | 1.458 | -0.011 | 2355 | 2740 | DIESEL (C12-C24) | 16417801 | 1204.71 | |
| C10 | 3.119 | -0.006 | 86935 | 73440 | M.OIL (C24-C38) | 290982 | 29.85 | |
| C12 | 4.217 | 0.000 | 54826 | 47932 | AK-102 (C10-C25) | 19585957 | 1209.53 | M |
| C14 | 4.924 | -0.003 | 100668 | 128856 | AK-103 (C25-C36) | 234529 | 30.23 | |
| C16 | 5.543 | -0.019 | 494967 | 530459 | OR.DIES (C10-C28) | 19714306 | 1535.02 | M |
| C18 | 6.139 | -0.001 | 428884 | 431969 | OR.MOIL (C28-C40) | 109669 | 14.52 | |
| C20 | 6.713 | -0.012 | 289664 | 378211 | JET-A (C10-C18) | 14335866 | 965.90 | |
| C22 | 7.263 | -0.007 | 106403 | 243378 | MIN.OIL (C24-C38) | 290982 | 21.65 | |
| C24 | 7.798 | 0.019 | 25350 | 83921 | | | | |
| C25 | 8.019 | -0.008 | 5551 | 1512 | | | | |
| C26 | 8.276 | 0.009 | 6384 | 14360 | | | | |
| C28 | 8.718 | -0.002 | 2263 | 4335 | | | | |
| C32 | 9.657 | 0.000 | 804 | 264 | | | | |
| C34 | 10.150 | 0.006 | 273 | 377 | | | | |
| Filter Peak | 10.526 | 0.018 | 135 | 53 | CREOSOT (C12-C22) | 15752594 | 4287.41 | M |
| C36 | 10.624 | -0.005 | 135 | 137 | | | | |
| C38 | 11.128 | 0.014 | 40 | 19 | | | | |
| C40 | 11.601 | 0.008 | 59 | 42 | | | | |
| o-terph | 6.315 | 0.003 | 878948 | 728183 | CRUDE (Tol-C40) | 21087333 | 2792.01 | M |
| Triacon Surr | 9.180 | -0.009 | 411427 | 697810 | | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 728183 | 42.4 | 94.2 |
| Triacontane | 697810 | 40.7 | 90.5 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| OR Moil | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120522.b/0522a007.d

Page 1

Date : 22-MAY-2012 08:45

Client ID: UU52LCSS1

Instrument: fid4a.i

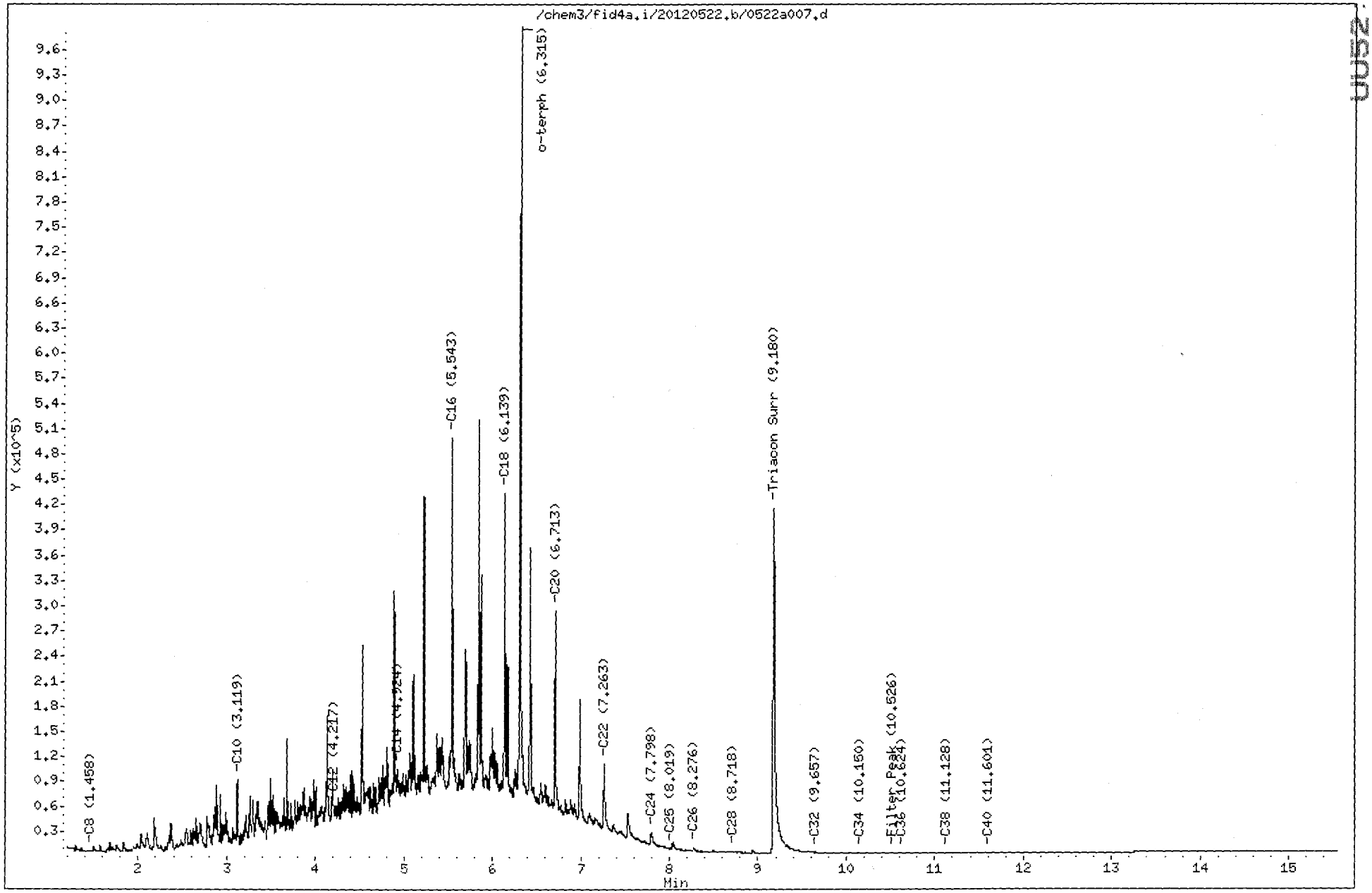
Sample Info: UU52LCSS1

Operator: MH

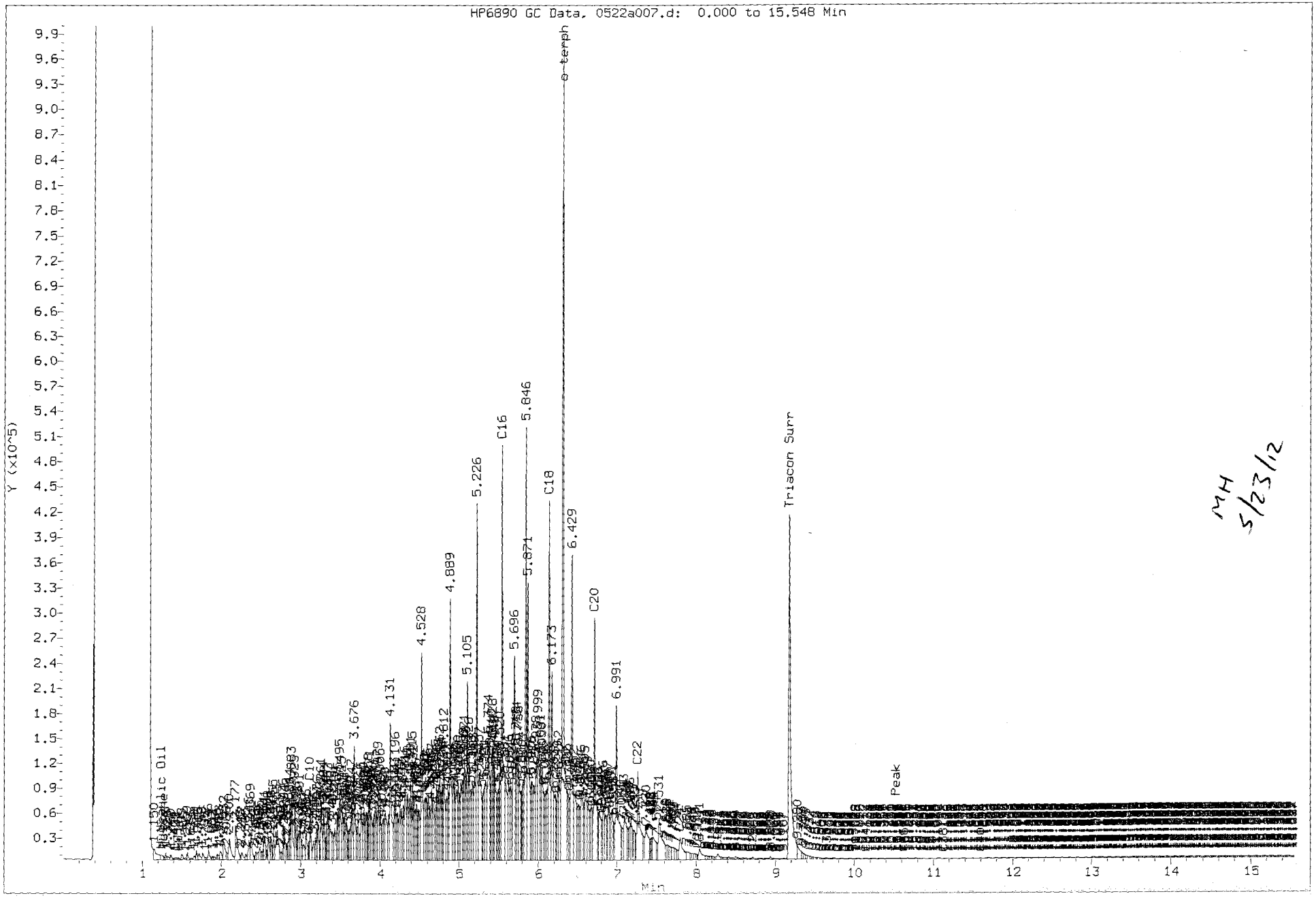
Column phase: RTX-1

Column diameter: 0.25

UU52 01513



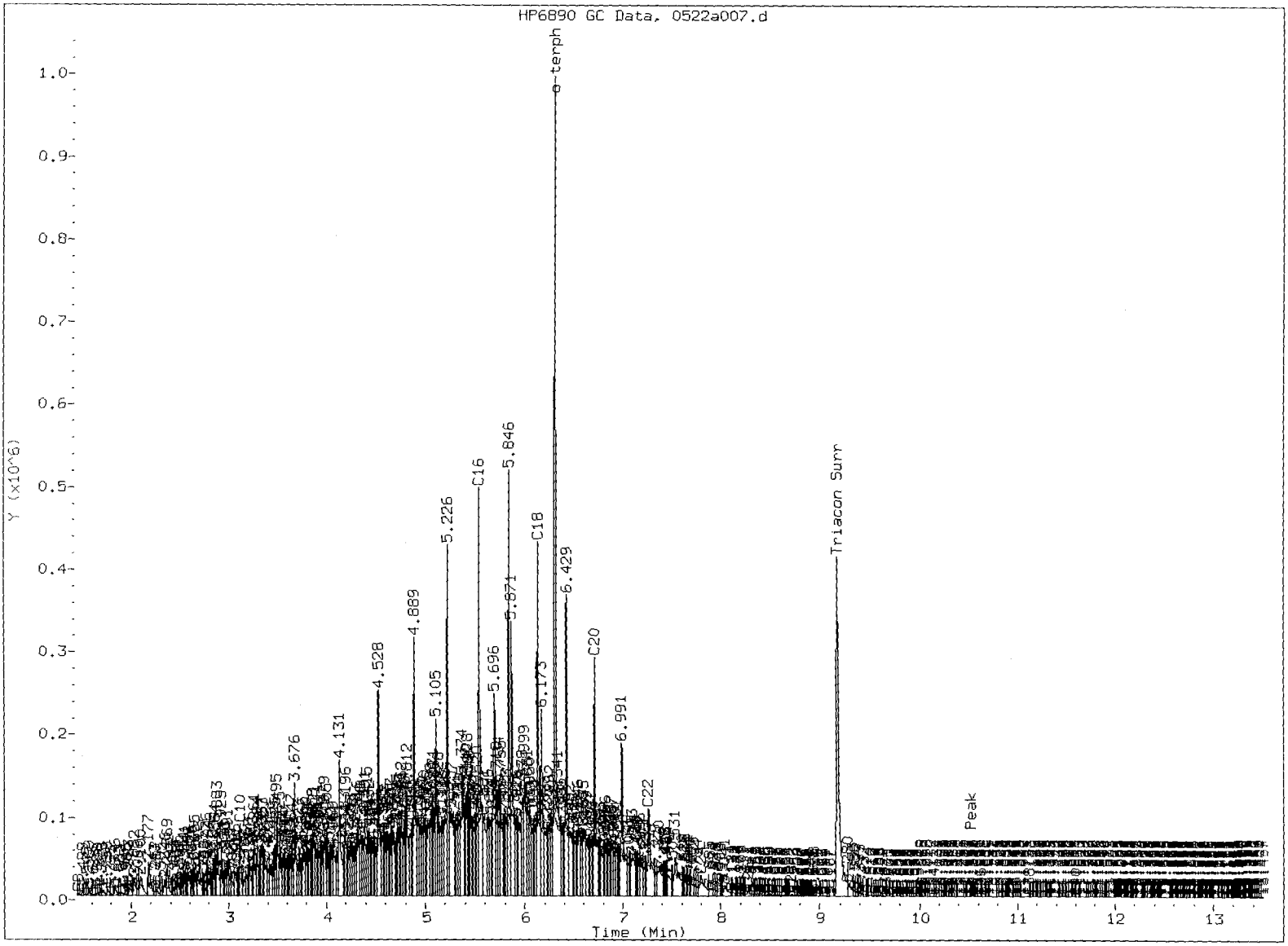
Data File: /chem3/fid4a.i/20120522.b/0522a007.d
Injection Date: 22-MAY-2012 08:45
Instrument: fid4a.i
Client Sample ID: UU52LCSS1




MH
5/23/12

UU52:01914

FID:4A-2C/RTX-1 UU52LCSS1 FID:4A SIGNAL




MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/23/12

MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a008.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52A
Client ID: MS001-SS-120515
Injection: 22-MAY-2012 09:09
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.270 | 0.001 | 4683 | 6304 | GAS (Tol-C12) | 145378 | 9.66 |
| C8 | 1.463 | -0.006 | 879 | 1315 | DIESEL (C12-C24) | 706711 | 51.86 |
| C10 | 3.123 | -0.002 | 457 | 584 | M.OIL (C24-C38) | 1398866 | 143.48 |
| C12 | 4.232 | 0.015 | 1177 | 2323 | AK-102 (C10-C25) | 827195 | 51.08 |
| C14 | 4.967 | 0.040 | 2536 | 8277 | AK-103 (C25-C36) | 1279395 | 164.88 |
| C16 | 5.567 | 0.005 | 3969 | 10941 | OR.DIES (C10-C28) | 1349847 | 105.10 |
| C18 | 6.140 | 0.000 | 3886 | 3687 | OR.MOIL (C28-C40) | 861152 | 114.02 |
| C20 | 6.715 | -0.010 | 5435 | 7087 | JET-A (C10-C18) | 365793 | 24.65 |
| C22 | 7.260 | -0.010 | 7910 | 18412 | MIN.OIL (C24-C38) | 1398866 | 104.08 |
| C24 | 7.782 | 0.003 | 12033 | 27606 | | | |
| C25 | 8.027 | 0.000 | 35498 | 73309 | | | |
| C26 | 8.261 | -0.006 | 17819 | 36646 | | | |
| C28 | 8.712 | -0.008 | 23042 | 40242 | | | |
| C32 | 9.656 | -0.001 | 7774 | 15890 | | | |
| C34 | 10.145 | 0.002 | 4958 | 5039 | | | |
| Filter Peak | 10.504 | -0.004 | 3461 | 4538 | CREOSOT (C12-C22) | 511548 | 139.23 |
| C36 | 10.625 | -0.004 | 2974 | 3338 | | | |
| C38 | 11.110 | -0.004 | 1833 | 1334 | | | |
| C40 | 11.591 | -0.002 | 1261 | 1280 | | | |
| o-terph | 6.311 | -0.001 | 611191 | 717599 | CRUDE (Tol-C40) | 2290093 | 303.21 |
| Triacon Surr | 9.185 | -0.004 | 547880 | 722081 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 717599 | 41.8 | 92.8 |
| Triacontane | 722081 | 42.1 | 93.6 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| OR Moil | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120522.b/0522a008.d

Date : 22-MAY-2012 09:09

Client ID: MS001-SS-120515

Sample Info: UU52A

Column phase: RTX-1

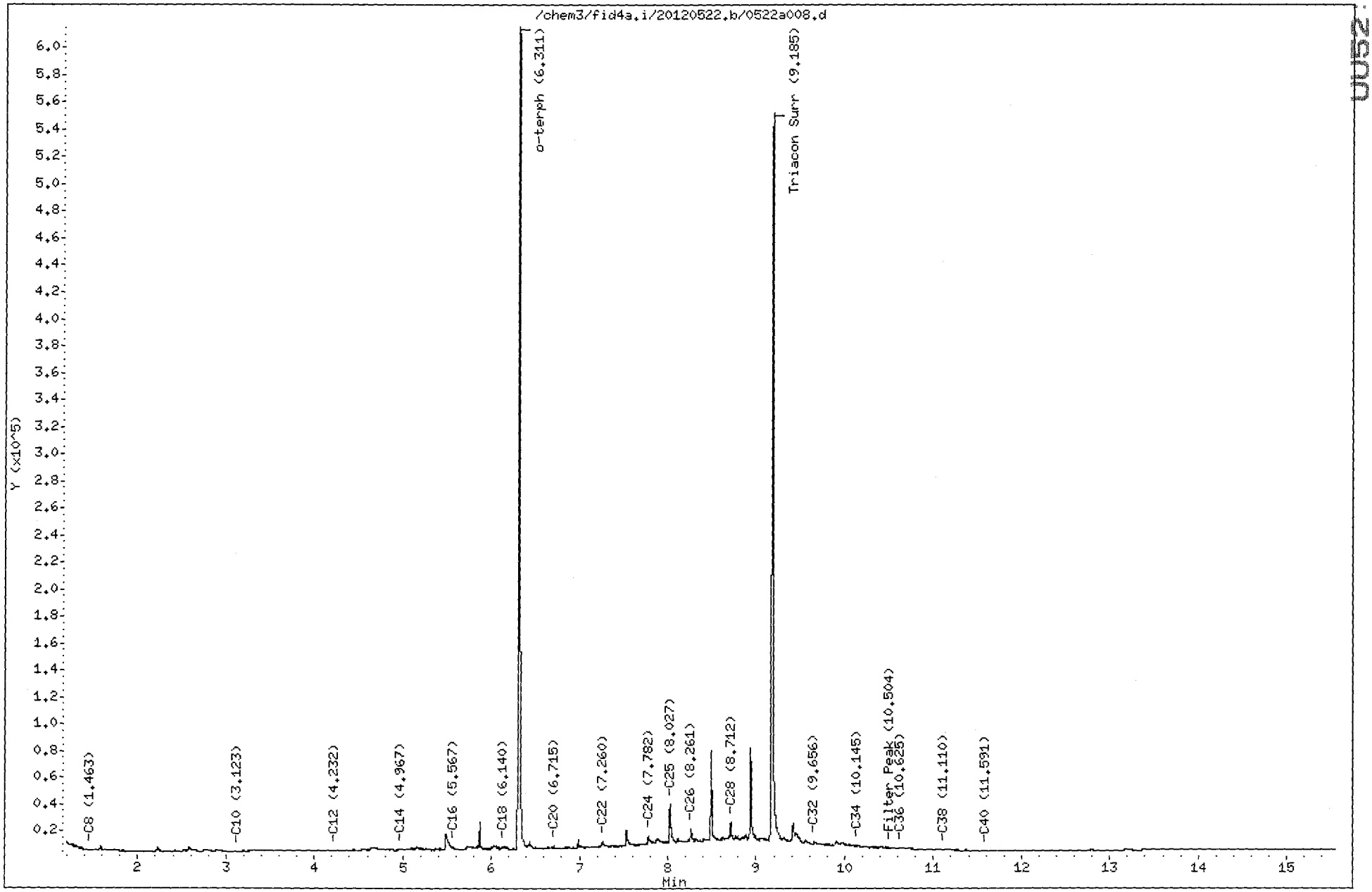
Instrument: fid4a.i

Operator: MH

Column diameter: 0.25



UU52.01517



Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a009.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52B
Client ID: MS101-SS-120515
Injection: 22-MAY-2012 09:33
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.309 | 0.040 | 4152 | 4242 | GAS (Tol-C12) | 136734 | 9.09 |
| C8 | 1.472 | 0.002 | 880 | 1388 | DIESEL (C12-C24) | 732549 | 53.75 |
| C10 | 3.130 | 0.006 | 407 | 616 | M.OIL (C24-C38) | 1372466 | 140.77 |
| C12 | 4.216 | -0.001 | 1014 | 970 | AK-102 (C10-C25) | 848511 | 52.40 |
| C14 | 4.966 | 0.039 | 2733 | 9688 | AK-103 (C25-C36) | 1257102 | 162.01 |
| C16 | 5.565 | 0.003 | 5015 | 9218 | OR.DIES (C10-C28) | 1371181 | 106.76 |
| C18 | 6.138 | -0.002 | 4536 | 3544 | OR.MOIL (C28-C40) | 831057 | 110.03 |
| C20 | 6.732 | 0.007 | 3741 | 5299 | JET-A (C10-C18) | 389505 | 26.24 |
| C22 | 7.278 | 0.009 | 5453 | 8013 | MIN.OIL (C24-C38) | 1372466 | 102.11 |
| C24 | 7.785 | 0.005 | 12040 | 27638 | | | |
| C25 | 8.027 | 0.000 | 34967 | 69223 | | | |
| C26 | 8.260 | -0.007 | 18323 | 35233 | | | |
| C28 | 8.712 | -0.007 | 24009 | 38987 | | | |
| C32 | 9.654 | -0.002 | 7204 | 5614 | | | |
| C34 | 10.143 | -0.001 | 4852 | 3257 | | | |
| Filter Peak | 10.509 | 0.001 | 3383 | 4990 | CREOSOT (C12-C22) | 563463 | 153.36 |
| C36 | 10.625 | -0.004 | 2833 | 1837 | | | |
| C38 | 11.108 | -0.005 | 1764 | 2160 | | | |
| C40 | 11.594 | 0.001 | 1161 | 1052 | | | |
| o-terph | 6.310 | -0.002 | 706449 | 799582 | CRUDE (Tol-C40) | 2278533 | 301.68 |
| Triacon Surr | 9.185 | -0.005 | 602887 | 765905 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 799582 | 46.5 | 103.4 |
| Triacontane | 765905 | 44.7 | 99.3 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| OR Moil | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120522.b/0522a009.d

Date : 22-MAY-2012 09:33

Client ID: MS101-SS-120515

Sample Info: UU52B

Column phase: RTX-1

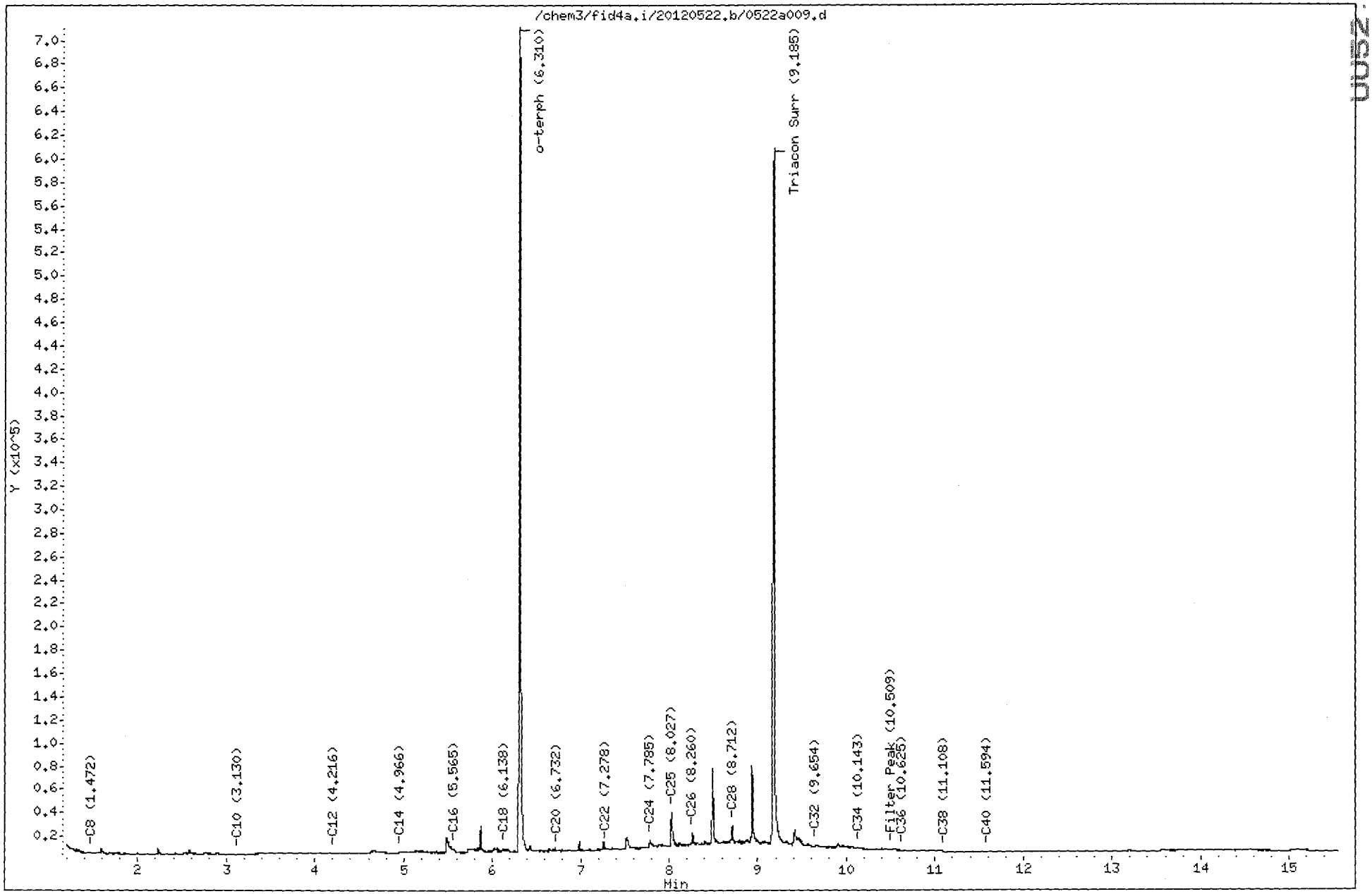
Instrument: fid4a.i

Operator: MH

Column diameter: 0.25



UU52 01919



MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a010.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52C
Client ID: MS002-SS-120515
Injection: 22-MAY-2012 09:57
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc | |
|---|---|---|---|---|---|---|---|---|
| Toluene | 1.307 | 0.038 | 4269 | 4041 | GAS (Tol-C12) | 175768 | 11.68 | |
| C8 | 1.472 | 0.003 | 909 | 1243 | DIESEL (C12-C24) | 969341 | 71.13 | |
| C10 | 3.122 | -0.003 | 498 | 1299 | M.OIL (C24-C38) | 1854475 | 190.21 | |
| C12 | 4.214 | -0.003 | 1318 | 2343 | AK-102 (C10-C25) | 1103531 | 68.15 | M |
| C14 | 4.958 | 0.030 | 3209 | 11675 | AK-103 (C25-C36) | 1712513 | 220.70 | M |
| C16 | 5.560 | -0.002 | 6899 | 17762 | OR.DIES (C10-C28) | 1826338 | 142.20 | M |
| C18 | 6.137 | -0.003 | 7403 | 7317 | OR.MOIL (C28-C40) | 1110499 | 147.03 | M |
| C20 | 6.715 | -0.010 | 6998 | 9201 | JET-A (C10-C18) | 513818 | 34.62 | |
| C22 | 7.283 | 0.013 | 5869 | 1724 | MIN.OIL (C24-C38) | 1854475 | 137.97 | M |
| C24 | 7.771 | -0.008 | 17516 | 34917 | | | | |
| C25 | 8.022 | -0.005 | 51141 | 89895 | | | | |
| C26 | 8.258 | -0.009 | 23415 | 44823 | | | | |
| C28 | 8.714 | -0.006 | 30956 | 54080 | | | | |
| C32 | 9.654 | -0.002 | 9653 | 19815 | | | | |
| C34 | 10.142 | -0.002 | 6202 | 5944 | | | | |
| Filter Peak | 10.510 | 0.002 | 4115 | 4373 | CREOSOT (C12-C22) | 742930 | 202.20 | M |
| C36 | 10.621 | -0.008 | 3628 | 4937 | | | | |
| C38 | 11.121 | 0.008 | 2179 | 2923 | | | | |
| C40 | 11.589 | -0.004 | 1413 | 716 | | | | |
| o-terph | 6.312 | 0.001 | 741347 | 781582 | CRUDE (Tol-C40) | 3042954 | 402.89 | M |
| Triacon Surr | 9.186 | -0.003 | 604211 | 706406 | | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 781582 | 45.5 | 101.1 |
| Triacontane | 706406 | 41.2 | 91.6 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| OR Moil | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120522.b/0522a010.d

Date : 22-MAY-2012 09:57

Client ID: MS002-SS-120515

Sample Info: UU52C

Instrument: fid4a.i

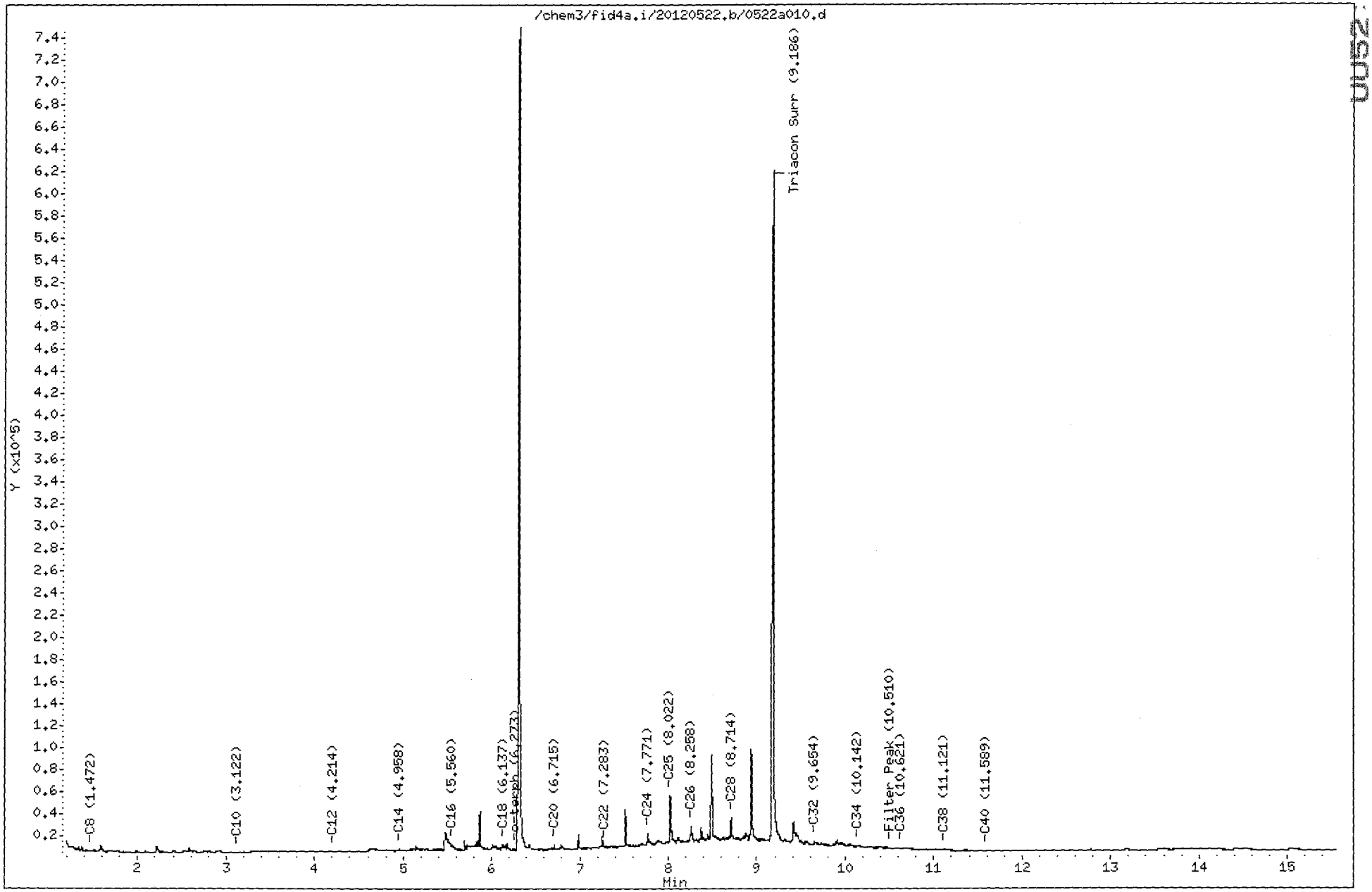
Operator: MH

Column phase: RTX-1

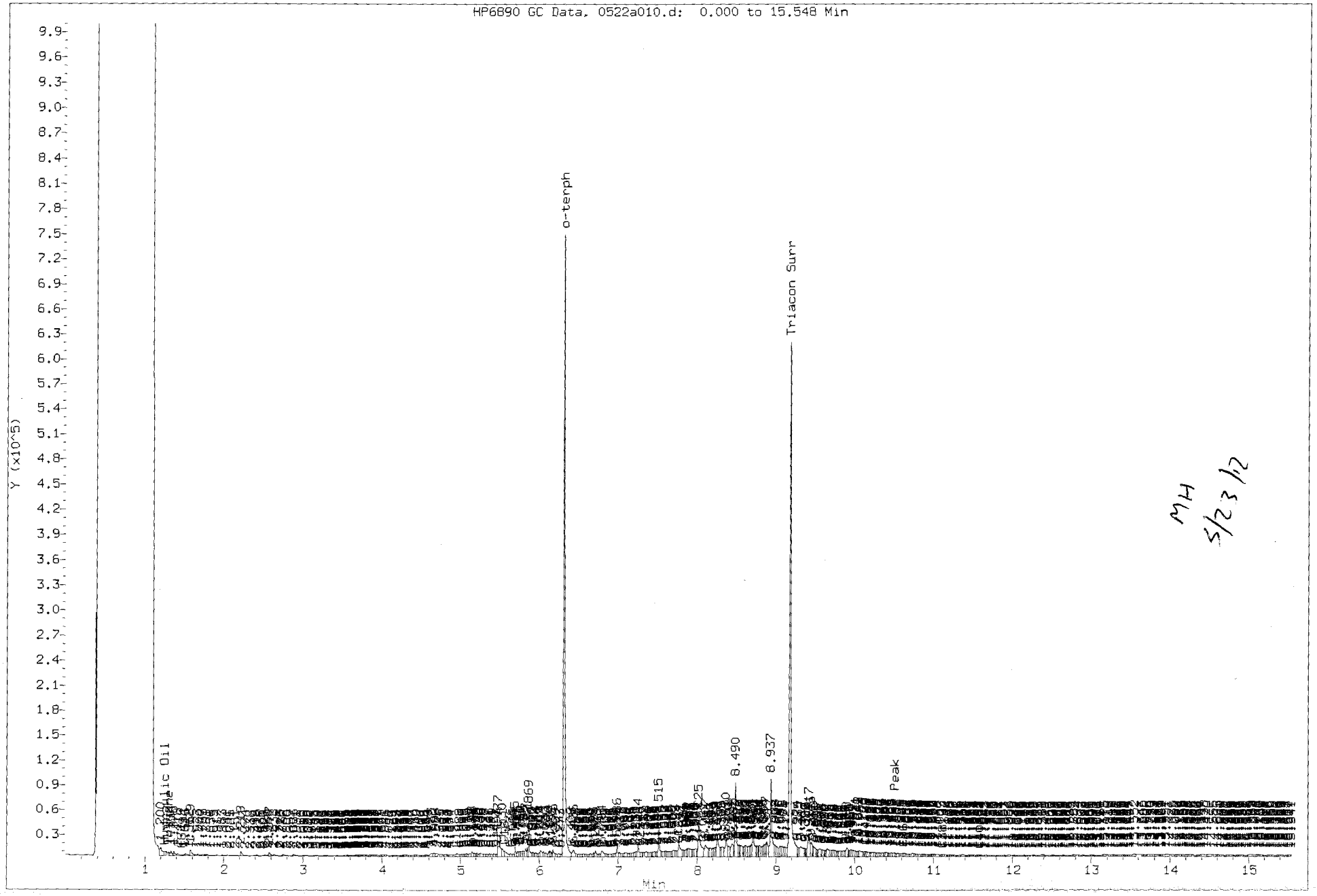
Column diameter: 0.25



UU52.01921



Data File: /chem3/fid4a.i/20120522.b/0522a010.d
Injection Date: 22-MAY-2012 09:57
Instrument: fid4a.i
Client Sample ID: MS002-SS-120515

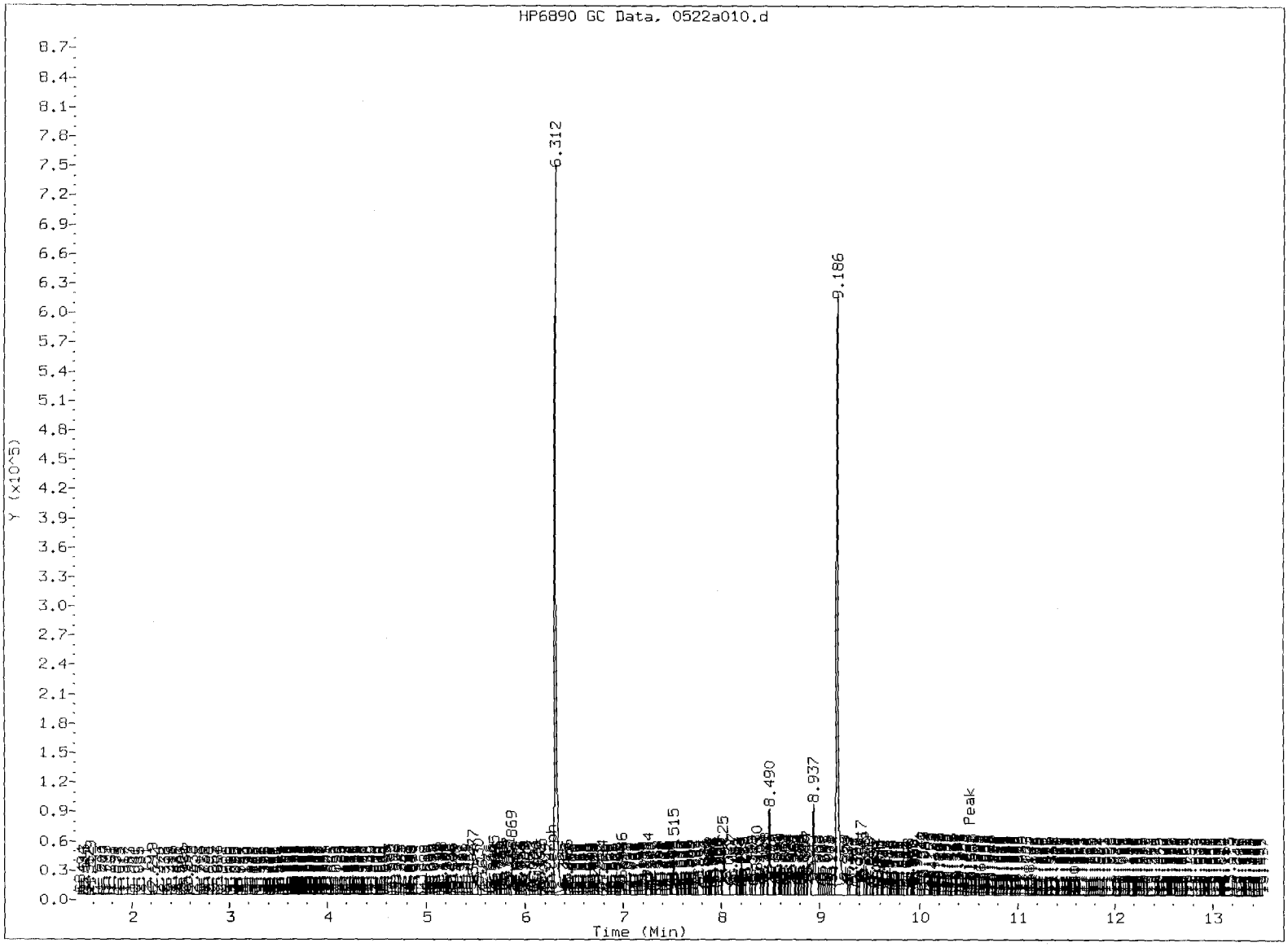



MH
5/23/12

UU52:01922

FID:4A-2C/RTX-1 UU52C

FID:4A SIGNAL




MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/23/12

MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a011.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52D
Client ID: MS003-SS-120515
Injection: 22-MAY-2012 10:21
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.273 | 0.005 | 4355 | 5114 | GAS (Tol-C12) | 169533 | 11.27 |
| C8 | 1.506 | 0.037 | 1990 | 4253 | DIESEL (C12-C24) | 915081 | 67.15 |
| C10 | 3.117 | -0.008 | 468 | 986 | M.OIL (C24-C38) | 1547439 | 158.72 |
| C12 | 4.214 | -0.003 | 1204 | 2046 | AK-102 (C10-C25) | 1041143 | 64.30 |
| C14 | 4.931 | 0.003 | 1869 | 2717 | AK-103 (C25-C36) | 1425847 | 183.76 |
| C16 | 5.558 | -0.003 | 8267 | 19112 | OR.DIES (C10-C28) | 1630801 | 126.98 |
| C18 | 6.136 | -0.004 | 8345 | 7716 | OR.MOIL (C28-C40) | 934523 | 123.73 |
| C20 | 6.715 | -0.010 | 6151 | 10437 | JET-A (C10-C18) | 569275 | 38.36 |
| C22 | 7.253 | -0.016 | 13683 | 16611 | MIN.OIL (C24-C38) | 1547439 | 115.13 |
| C24 | 7.769 | -0.010 | 18729 | 25872 | | | |
| C25 | 8.021 | -0.006 | 46382 | 89473 | | | |
| C26 | 8.258 | -0.009 | 24534 | 51256 | | | |
| C28 | 8.710 | -0.009 | 28811 | 40882 | | | |
| C32 | 9.653 | -0.004 | 8368 | 18407 | | | |
| C34 | 10.147 | 0.003 | 5677 | 8242 | | | |
| Filter Peak | 10.499 | -0.008 | 3552 | 3704 | CREOSOT (C12-C22) | 739763 | 201.34 |
| C36 | 10.634 | 0.005 | 3227 | 2115 | | | |
| C38 | 11.122 | 0.009 | 1867 | 1513 | | | |
| C40 | 11.598 | 0.005 | 1168 | 414 | | | |
| o-terph | 6.311 | -0.001 | 705983 | 797107 | CRUDE (Tol-C40) | 2667164 | 353.14 |
| Triacon Surr | 9.183 | -0.006 | 603138 | 793378 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 797107 | 46.4 | 103.1 |
| Triacontane | 793378 | 46.3 | 102.9 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| OR Moil | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120522.b/0522a011.d

Date : 22-MAY-2012 10:21

Client ID: MS003-SS-120515

Sample Info: UU52D

Column phase: RTX-1

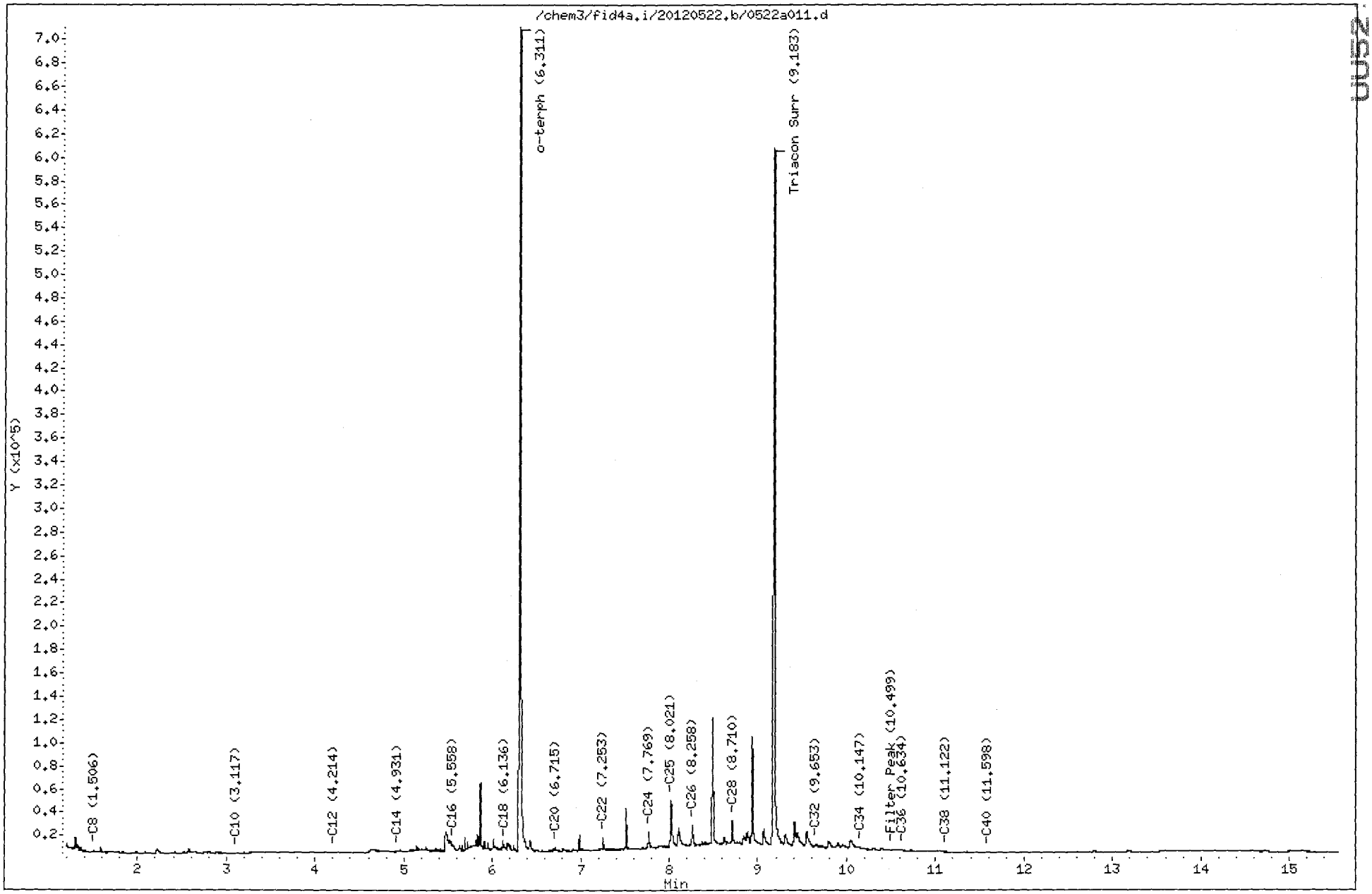
Instrument: fid4a.i

Operator: MH

Column diameter: 0.25



UU52 01525



MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a014.d ARI ID: DIESEL #2
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m Client ID:
Instrument: fid4a.i Injection: 22-MAY-2012 11:33
Operator: MH
Report Date: 05/23/2012 Dilution Factor: 1
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc | |
|---|---|---|---|---|---|---|---|---|
| Toluene | 1.300 | 0.032 | 3196 | 3865 | GAS (Tol-C12) | 911713 | 60.60 | |
| C8 | 1.463 | -0.006 | 1336 | 1962 | DIESEL (C12-C24) | 3484324 | 255.67 | |
| C10 | 3.125 | 0.000 | 3980 | 4398 | M.OIL (C24-C38) | 100353 | 10.29 | |
| C12 | 4.211 | -0.006 | 13171 | 18392 | AK-102 (C10-C25) | 4164714 | 257.19 | M |
| C14 | 4.937 | 0.010 | 24379 | 32202 | AK-103 (C25-C36) | 78509 | 10.12 | |
| C16 | 5.573 | 0.011 | 26083 | 51712 | OR.DIES (C10-C28) | 4224420 | 328.93 | M |
| C18 | 6.136 | -0.004 | 56720 | 78113 | OR.MOIL (C28-C40) | 23708 | 3.14 | |
| C20 | 6.733 | 0.008 | 24341 | 77237 | JET-A (C10-C18) | 3096696 | 208.64 | |
| C22 | 7.278 | 0.008 | 6718 | 3841 | MIN.OIL (C24-C38) | 100353 | 7.47 | |
| C24 | 7.763 | -0.016 | 3447 | 5843 | | | | |
| C25 | 8.023 | -0.003 | 2214 | 1462 | | | | |
| C26 | 8.273 | 0.006 | 2304 | 3270 | | | | |
| C28 | 8.734 | 0.015 | 902 | 2603 | | | | |
| C32 | 9.647 | -0.009 | 185 | 253 | | | | |
| C34 | 10.152 | 0.008 | 46 | 9 | | | | |
| Filter Peak | 10.508 | 0.000 | 29 | 9 | CREOSOT (C12-C22) | 3359886 | 914.47 | M |
| C36 | 10.618 | -0.011 | 24 | 23 | | | | |
| C38 | 11.121 | 0.008 | 55 | 32 | | | | |
| C40 | 11.593 | 0.000 | 125 | 108 | | | | |
| o-terph | 6.311 | -0.001 | 624205 | 773980 | CRUDE (Tol-C40) | 4499282 | 595.71 | M |
| Triacon Surr | 9.175 | -0.014 | 297 | 138 | | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 773980 | 45.0 | 100.1 |
| Triacontane | 138 | 0.0 | 0.0 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| OR Moil | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120522.b/0522a014.d

Date : 22-MAY-2012 11:33

Client ID:

Sample Info: DIESEL #2

Column phase: RTX-1

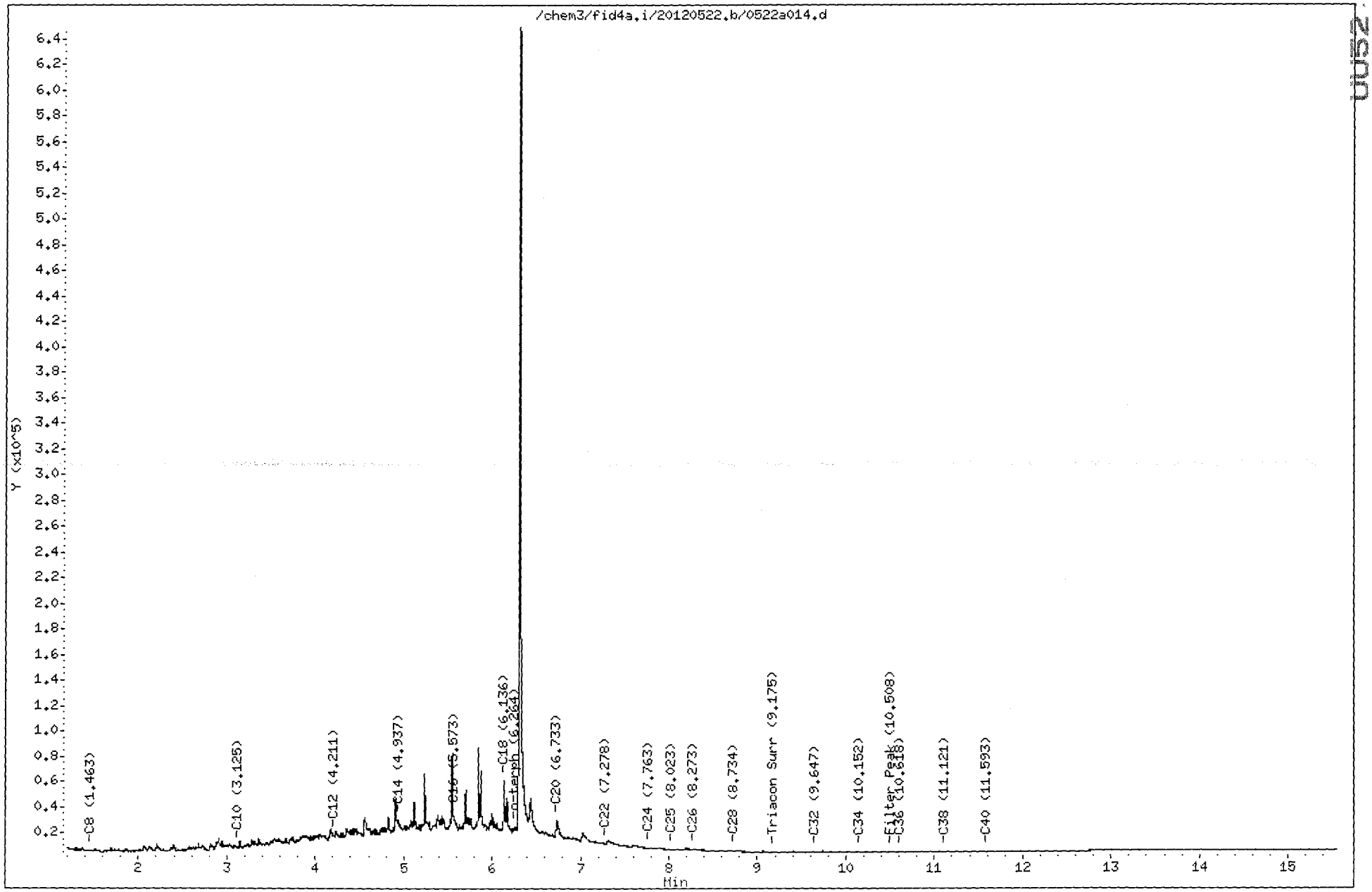
Instrument: fid4a.i

Operator: MH

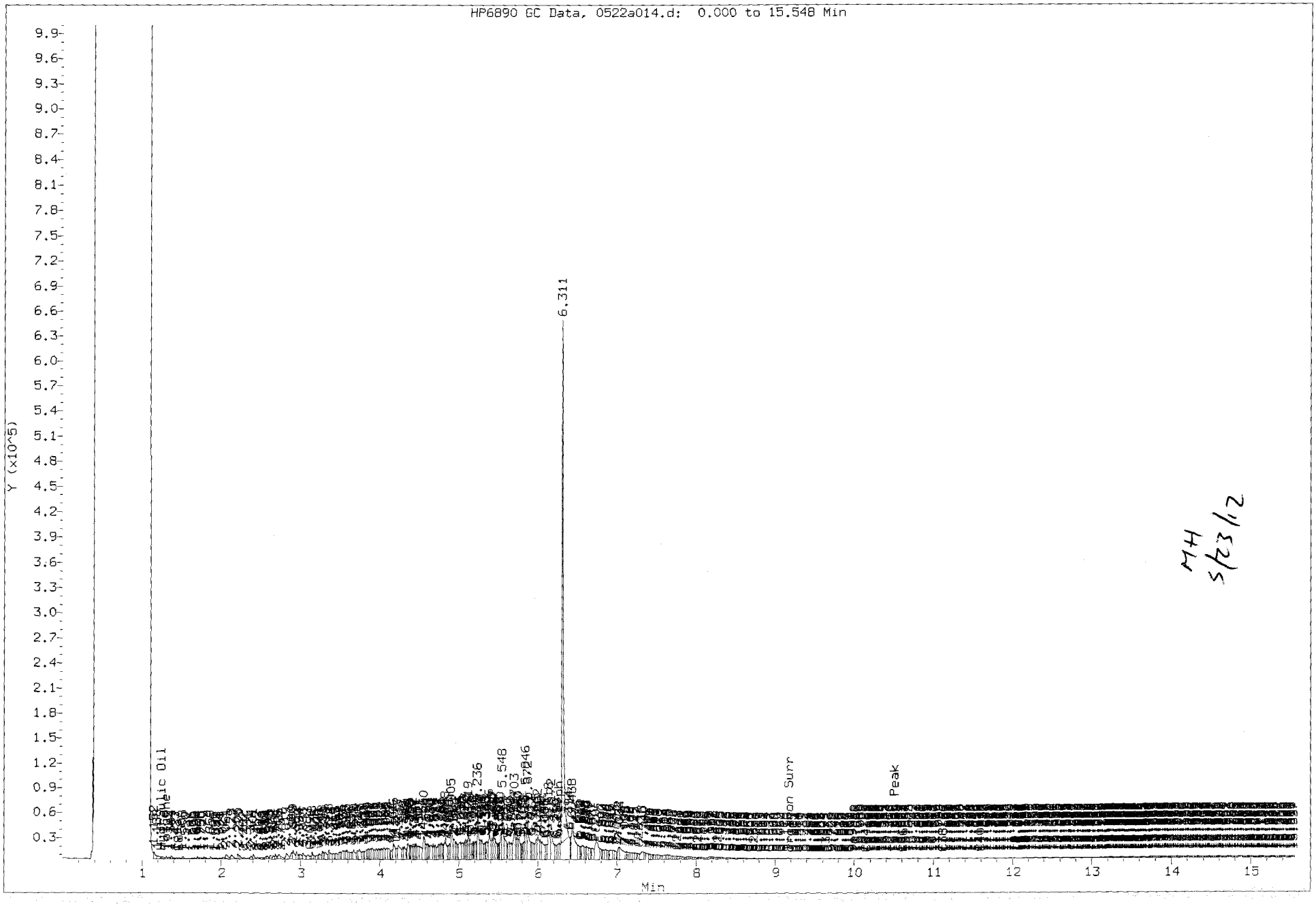
Column diameter: 0.25



UU52 01527



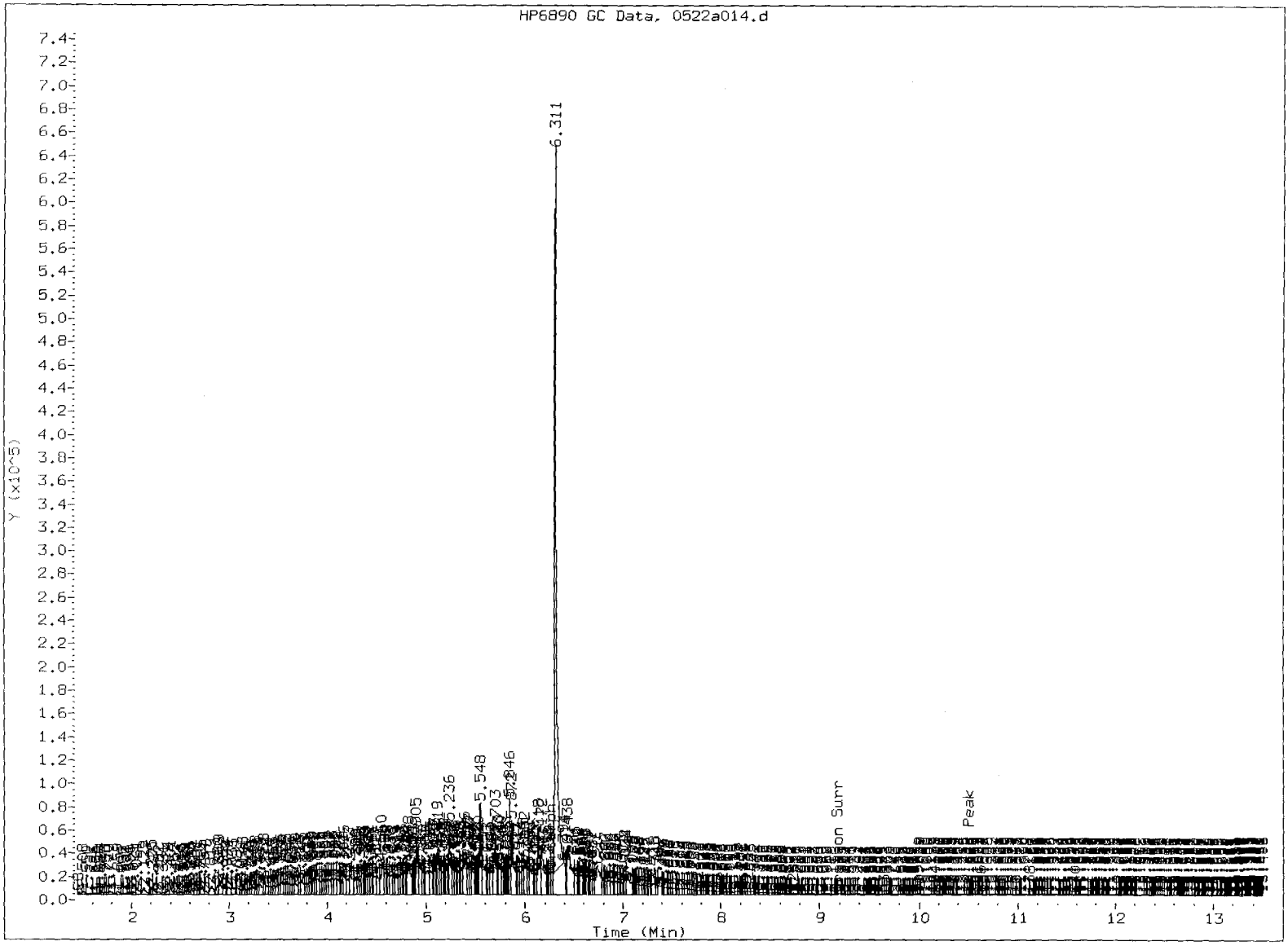
Data File: /chem3/fid4a.i/20120522.b/0522a014.d
Injection Date: 22-MAY-2012 11:33
Instrument: fid4a.i
Client Sample ID:




MH 5/23/12

UU52 : 01928

FID:4A-2C/RTX-1 DIESEL #2 FID:4A SIGNAL




MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/23/12

MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a015.d ARI ID: MOIL #2
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m Client ID:
Instrument: fid4a.i Injection: 22-MAY-2012 11:57
Operator: MH
Report Date: 05/23/2012 Dilution Factor: 1
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc | |
|---|---|---|---|---|---|---|---|---|
| Toluene | 1.265 | -0.004 | 34657 | 76051 | GAS (Tol-C12) | 161249 | 10.72 | |
| C8 | 1.431 | -0.038 | 1309 | 6534 | DIESEL (C12-C24) | 543644 | 39.89 | |
| C10 | 3.125 | 0.001 | 472 | 564 | M.OIL (C24-C38) | 4703644 | 482.44 | |
| C12 | 4.225 | 0.008 | 545 | 393 | AK-102 (C10-C25) | 804737 | 49.70 | |
| C14 | 4.935 | 0.007 | 514 | 526 | AK-103 (C25-C36) | 4221468 | 544.05 | M |
| C16 | 5.571 | 0.009 | 503 | 573 | OR.DIES (C10-C28) | 2259770 | 175.95 | |
| C18 | 6.164 | 0.024 | 474 | 632 | OR.MOIL (C28-C40) | 3160071 | 418.40 | M |
| C20 | 6.733 | 0.007 | 998 | 1307 | JET-A (C10-C18) | 88686 | 5.98 | |
| C22 | 7.270 | 0.001 | 4868 | 4362 | MIN.OIL (C24-C38) | 4703644 | 349.96 | M |
| C24 | 7.773 | -0.006 | 19507 | 20129 | | | | |
| C25 | 8.021 | -0.005 | 26946 | 17388 | | | | |
| C26 | 8.267 | 0.000 | 32192 | 51936 | | | | |
| C28 | 8.724 | 0.004 | 35624 | 22896 | | | | |
| C32 | 9.652 | -0.004 | 29744 | 22054 | | | | |
| C34 | 10.150 | 0.006 | 21283 | 6987 | | | | |
| Filter Peak | 10.516 | 0.008 | 14127 | 6902 | CREOSOT (C12-C22) | 167179 | 45.50 | |
| C36 | 10.628 | -0.001 | 13072 | 10731 | | | | |
| C38 | 11.102 | -0.012 | 7216 | 17154 | | | | |
| C40 | 11.592 | -0.001 | 3762 | 2804 | | | | |
| o-terph | 6.317 | 0.006 | 469 | 240 | CRUDE (Tol-C40) | 5544308 | 734.08 | M |
| Triacon Surr | 9.189 | 0.000 | 670391 | 774056 | | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 240 | 0.0 | 0.0 |
| Triacontane | 774056 | 45.2 | 100.3 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| OR Moil | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120522.b/0522a015.d

Page 1

Date : 22-MAY-2012 11:57

Client ID:

Instrument: fid4a.i

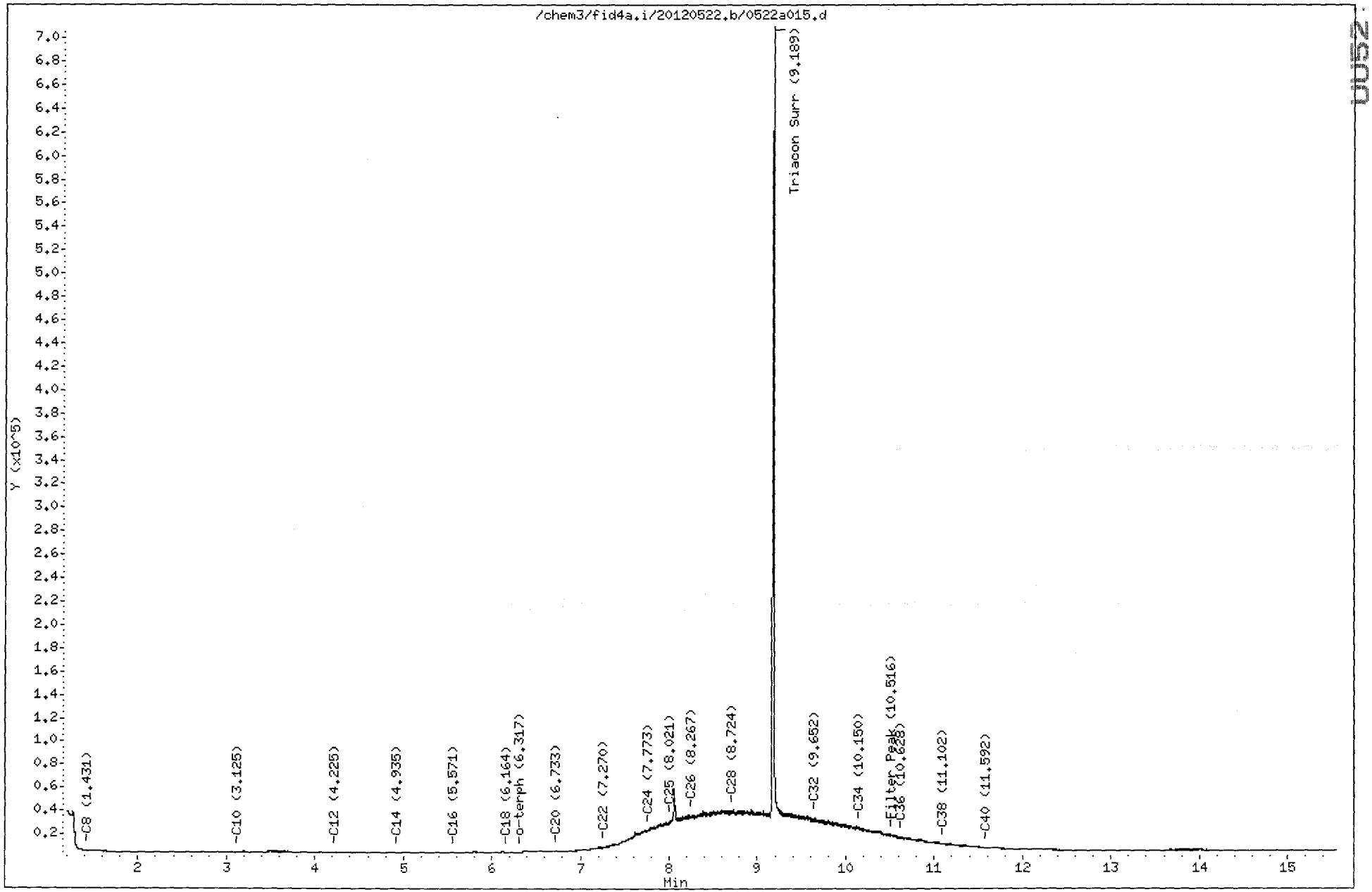
Sample Info: MOIL #2

Operator: MH

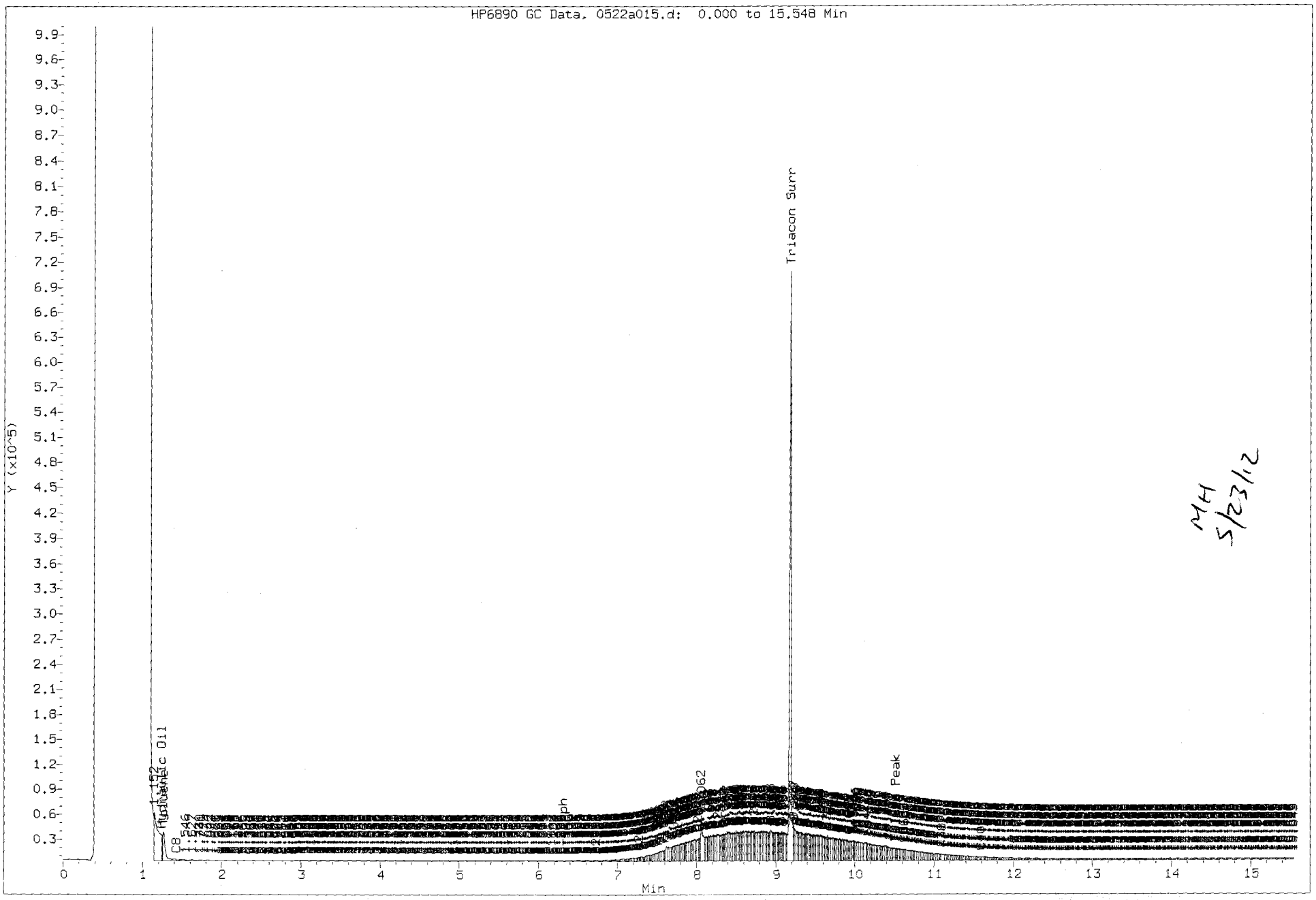
Column phase: RTX-1

Column diameter: 0.25

UU52-01531



Data File: /chem3/fid4a.i/20120522.b/0522a015.d
Injection Date: 22-MAY-2012 11:57
Instrument: fid4a.i
Client Sample ID:

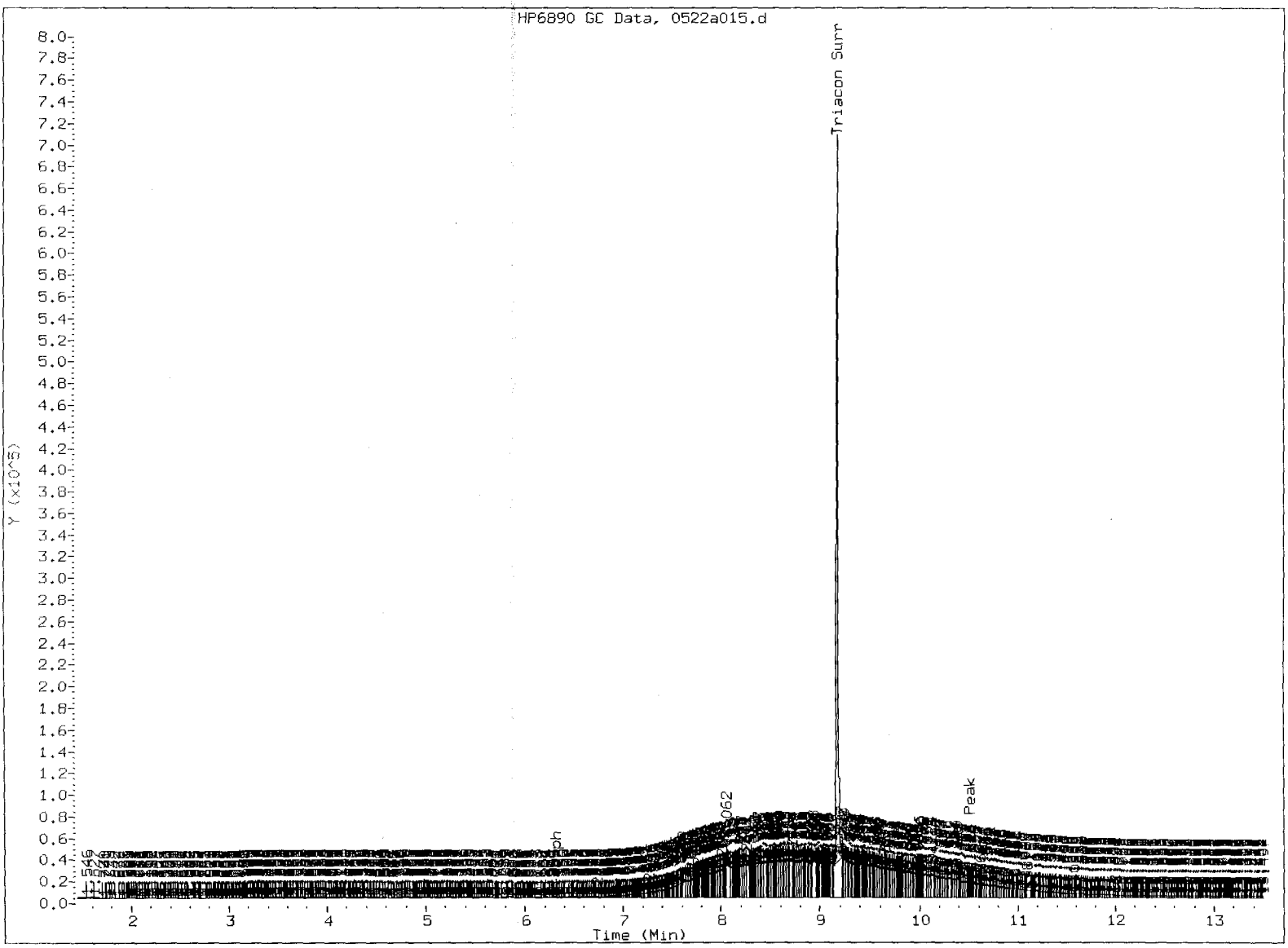



MH
5/23/12

US52 : 91932

FID:4A-2C/RTX-1 MOIL #2

FID:4A SIGNAL




MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/23/12

MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a016.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52E
Client ID: MS004-SS-120515
Injection: 22-MAY-2012 12:21
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.265 | -0.004 | 4237 | 6741 | GAS (Tol-C12) | 161342 | 10.72 |
| C8 | 1.480 | 0.011 | 865 | 908 | DIESEL (C12-C24) | 631655 | 46.35 |
| C10 | 3.143 | 0.018 | 479 | 1316 | M.OIL (C24-C38) | 1072182 | 109.97 |
| C12 | 4.218 | 0.001 | 1091 | 581 | AK-102 (C10-C25) | 725612 | 44.81 |
| C14 | 4.920 | -0.007 | 1631 | 742 | AK-103 (C25-C36) | 995355 | 128.28 |
| C16 | 5.565 | 0.003 | 5275 | 12580 | OR.DIES (C10-C28) | 1161030 | 90.40 |
| C18 | 6.140 | 0.000 | 4977 | 4370 | OR.MOIL (C28-C40) | 633828 | 83.92 |
| C20 | 6.716 | -0.010 | 5089 | 8064 | JET-A (C10-C18) | 415532 | 28.00 |
| C22 | 7.255 | -0.015 | 11288 | 15778 | MIN.OIL (C24-C38) | 1072182 | 79.77 |
| C24 | 7.778 | -0.001 | 9502 | 17900 | | | |
| C25 | 8.028 | 0.002 | 44913 | 76352 | | | |
| C26 | 8.262 | -0.005 | 19545 | 35417 | | | |
| C28 | 8.712 | -0.007 | 21917 | 36272 | | | |
| C32 | 9.665 | 0.008 | 5786 | 16107 | | | |
| C34 | 10.150 | 0.006 | 3750 | 2959 | | | |
| Filter Peak | 10.505 | -0.003 | 2865 | 2151 | CREOSOT (C12-C22) | 510045 | 138.82 |
| C36 | 10.615 | -0.014 | 2333 | 4349 | | | |
| C38 | 11.114 | 0.000 | 1354 | 1140 | | | |
| C40 | 11.598 | 0.005 | 907 | 1205 | | | |
| o-terph | 6.311 | 0.000 | 682544 | 799172 | CRUDE (Tol-C40) | 1892986 | 250.64 |
| Triacon Surr | 9.186 | -0.003 | 583078 | 777640 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 799172 | 46.5 | 103.3 |
| Triacontane | 777640 | 45.4 | 100.8 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| OR Moil | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120522.b/0522a016.d

Date : 22-MAY-2012 12:21

Client ID: MS004-SS-120515

Sample Info: UU52E

Column phase: RTX-1

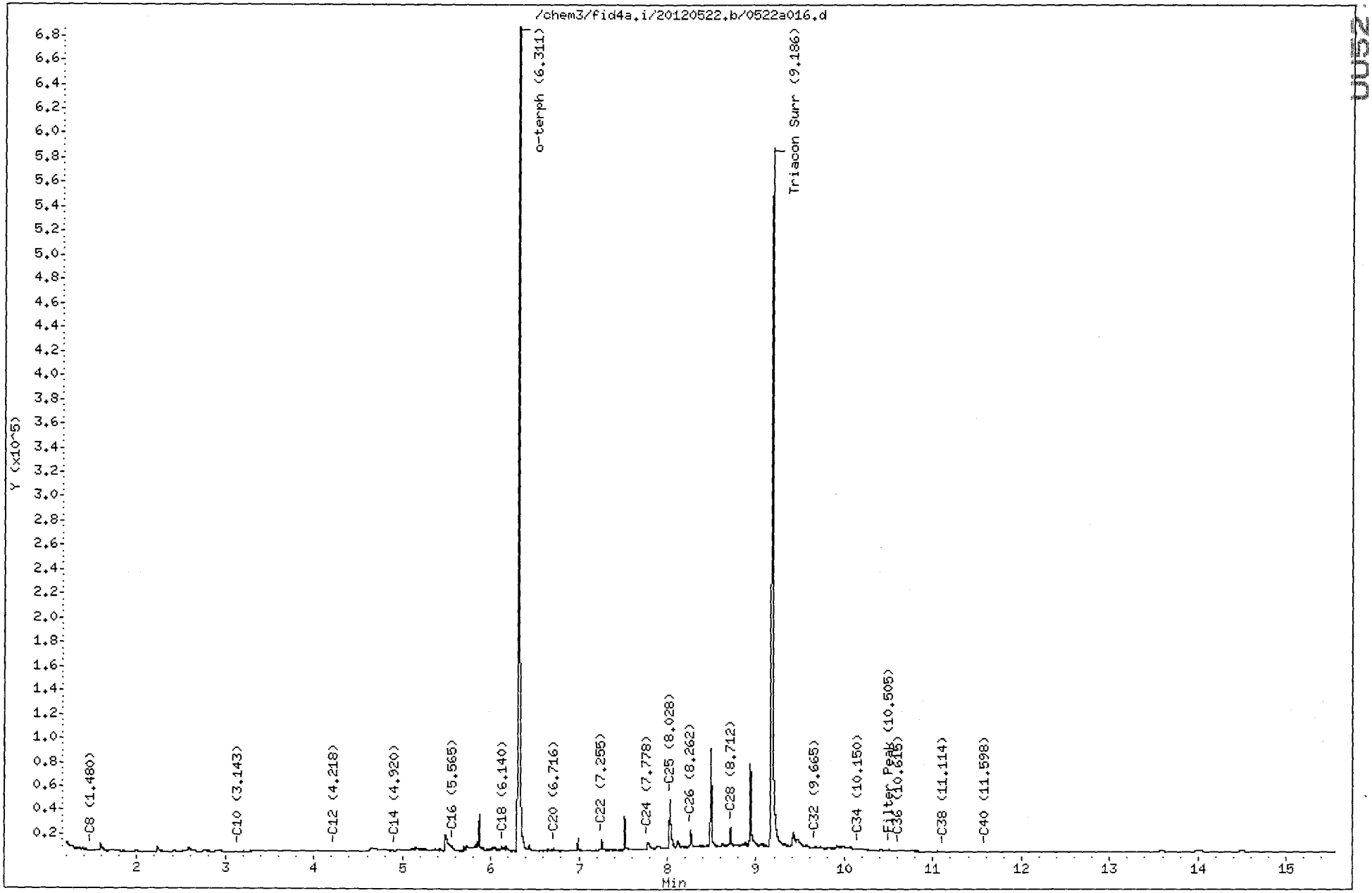
Instrument: fid4a.i

Operator: MH

Column diameter: 0.25



UU52 01535



MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a017.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52F
Client ID: MS005-SS-120515
Injection: 22-MAY-2012 12:45
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.310 | 0.041 | 3127 | 3304 | GAS (Tol-C12) | 139352 | 9.26 |
| C8 | 1.473 | 0.004 | 936 | 1688 | DIESEL (C12-C24) | 630178 | 46.24 |
| C10 | 3.133 | 0.008 | 367 | 595 | M.OIL (C24-C38) | 1445998 | 148.31 |
| C12 | 4.237 | 0.020 | 937 | 442 | AK-102 (C10-C25) | 731777 | 45.19 |
| C14 | 4.924 | -0.003 | 1454 | 1424 | AK-103 (C25-C36) | 1334720 | 172.01 |
| C16 | 5.570 | 0.008 | 2594 | 5365 | OR.DIES (C10-C28) | 1290589 | 100.49 |
| C18 | 6.153 | 0.013 | 4882 | 4900 | OR.MOIL (C28-C40) | 871814 | 115.43 |
| C20 | 6.714 | -0.011 | 5707 | 5809 | JET-A (C10-C18) | 297373 | 20.04 |
| C22 | 7.283 | 0.013 | 4589 | 1807 | MIN.OIL (C24-C38) | 1445998 | 107.58 |
| C24 | 7.787 | 0.008 | 9698 | 28815 | | | |
| C25 | 8.027 | 0.001 | 27907 | 59841 | | | |
| C26 | 8.262 | -0.005 | 18040 | 39272 | | | |
| C28 | 8.710 | -0.009 | 27395 | 42644 | | | |
| C32 | 9.652 | -0.004 | 7451 | 14548 | | | |
| C34 | 10.149 | 0.005 | 4858 | 8401 | | | |
| Filter Peak | 10.497 | -0.010 | 3682 | 4820 | CREOSOT (C12-C22) | 463856 | 126.25 |
| C36 | 10.636 | 0.007 | 2843 | 892 | | | |
| C38 | 11.114 | 0.001 | 1752 | 1205 | | | |
| C40 | 11.592 | -0.001 | 1165 | 984 | | | |
| o-terph | 6.310 | -0.001 | 655239 | 798526 | CRUDE (Tol-C40) | 2251838 | 298.15 |
| Triacon Surr | 9.183 | -0.006 | 592173 | 768142 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 798526 | 46.5 | 103.2 |
| Triacontane | 768142 | 44.8 | 99.6 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| OR Moil | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120522.b/0522a017.d

Date : 22-MAY-2012 12:45

Client ID: MS005-SS-120515

Sample Info: UU52F

Column phase: RTX-1

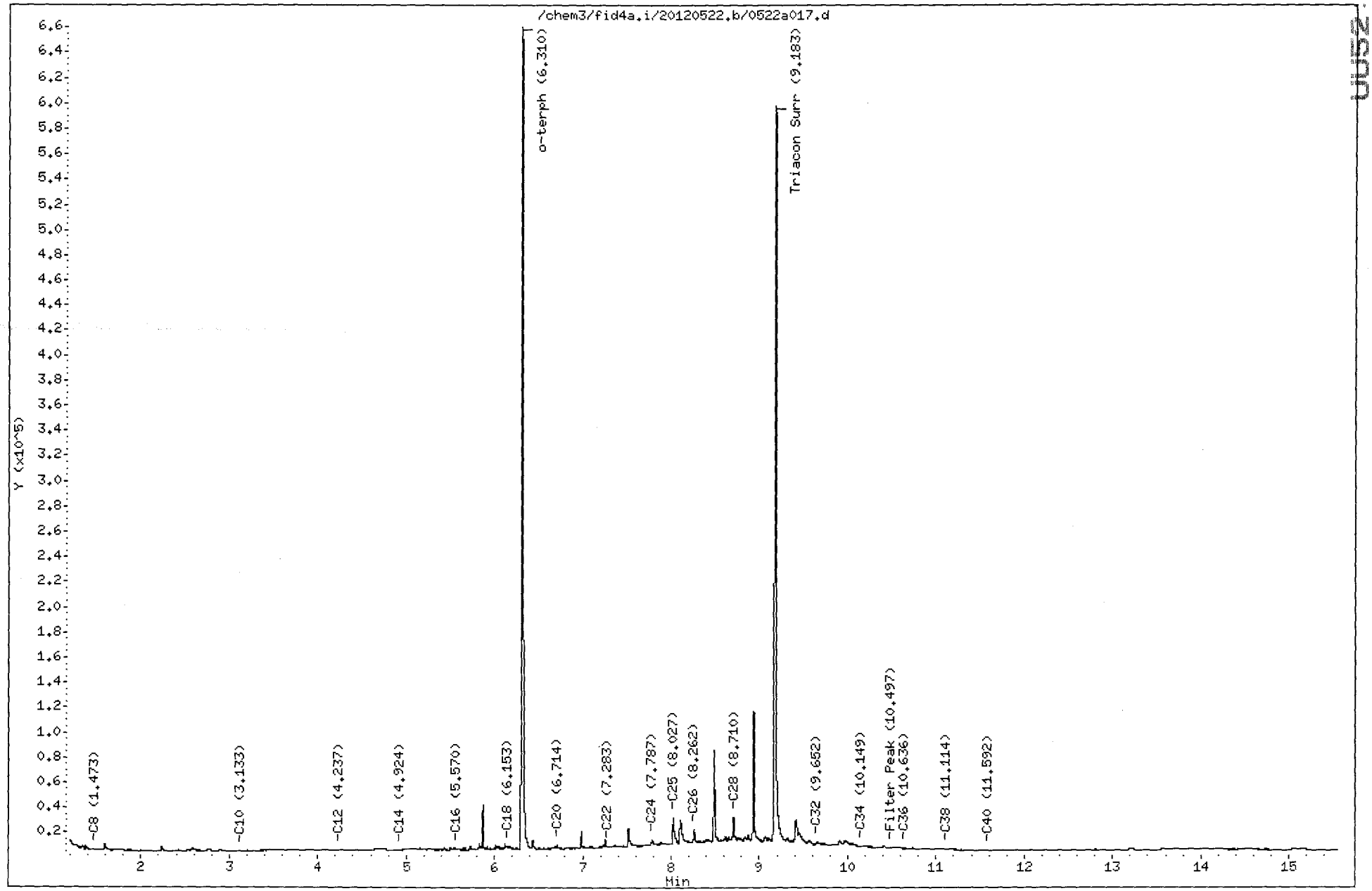
Instrument: fid4a.i

Operator: MH

Column diameter: 0.25



UU52 01937



MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a018.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52G
Client ID: MS006-SS-120515
Injection: 22-MAY-2012 13:10
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.269 | 0.000 | 4835 | 11467 | GAS (Tol-C12) | 156456 | 10.40 |
| C8 | 1.484 | 0.015 | 840 | 1520 | DIESEL (C12-C24) | 820892 | 60.24 |
| C10 | 3.123 | -0.001 | 428 | 641 | M.OIL (C24-C38) | 1727768 | 177.21 |
| C12 | 4.237 | 0.021 | 1617 | 4380 | AK-102 (C10-C25) | 931243 | 57.51 |
| C14 | 4.928 | 0.001 | 2036 | 1444 | AK-103 (C25-C36) | 1626414 | 209.61 |
| C16 | 5.567 | 0.006 | 3288 | 4255 | OR.DIES (C10-C28) | 1669111 | 129.96 |
| C18 | 6.139 | -0.001 | 4548 | 3873 | OR.MOIL (C28-C40) | 978987 | 129.62 |
| C20 | 6.733 | 0.007 | 4309 | 5687 | JET-A (C10-C18) | 397114 | 26.76 |
| C22 | 7.259 | -0.010 | 9494 | 24485 | MIN.OIL (C24-C38) | 1727768 | 128.55 |
| C24 | 7.780 | 0.001 | 14370 | 29617 | | | |
| C25 | 8.022 | -0.004 | 39975 | 67502 | | | |
| C26 | 8.256 | -0.011 | 21118 | 37599 | | | |
| C28 | 8.710 | -0.009 | 32219 | 50373 | | | |
| C32 | 9.659 | 0.003 | 8827 | 24166 | | | |
| C34 | 10.145 | 0.001 | 5028 | 3741 | | | |
| Filter Peak | 10.496 | -0.011 | 3537 | 5944 | CREOSOT (C12-C22) | 600118 | 163.34 |
| C36 | 10.625 | -0.004 | 2873 | 2091 | | | |
| C38 | 11.114 | 0.001 | 1691 | 2074 | | | |
| C40 | 11.582 | -0.011 | 1097 | 2148 | | | |
| o-terph | 6.310 | -0.001 | 649236 | 781303 | CRUDE (Tol-C40) | 2738533 | 362.59 |
| Triacon Surr | 9.185 | -0.004 | 604469 | 743228 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 781303 | 45.5 | 101.0 |
| Triacontane | 743228 | 43.4 | 96.4 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| OR Moil | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

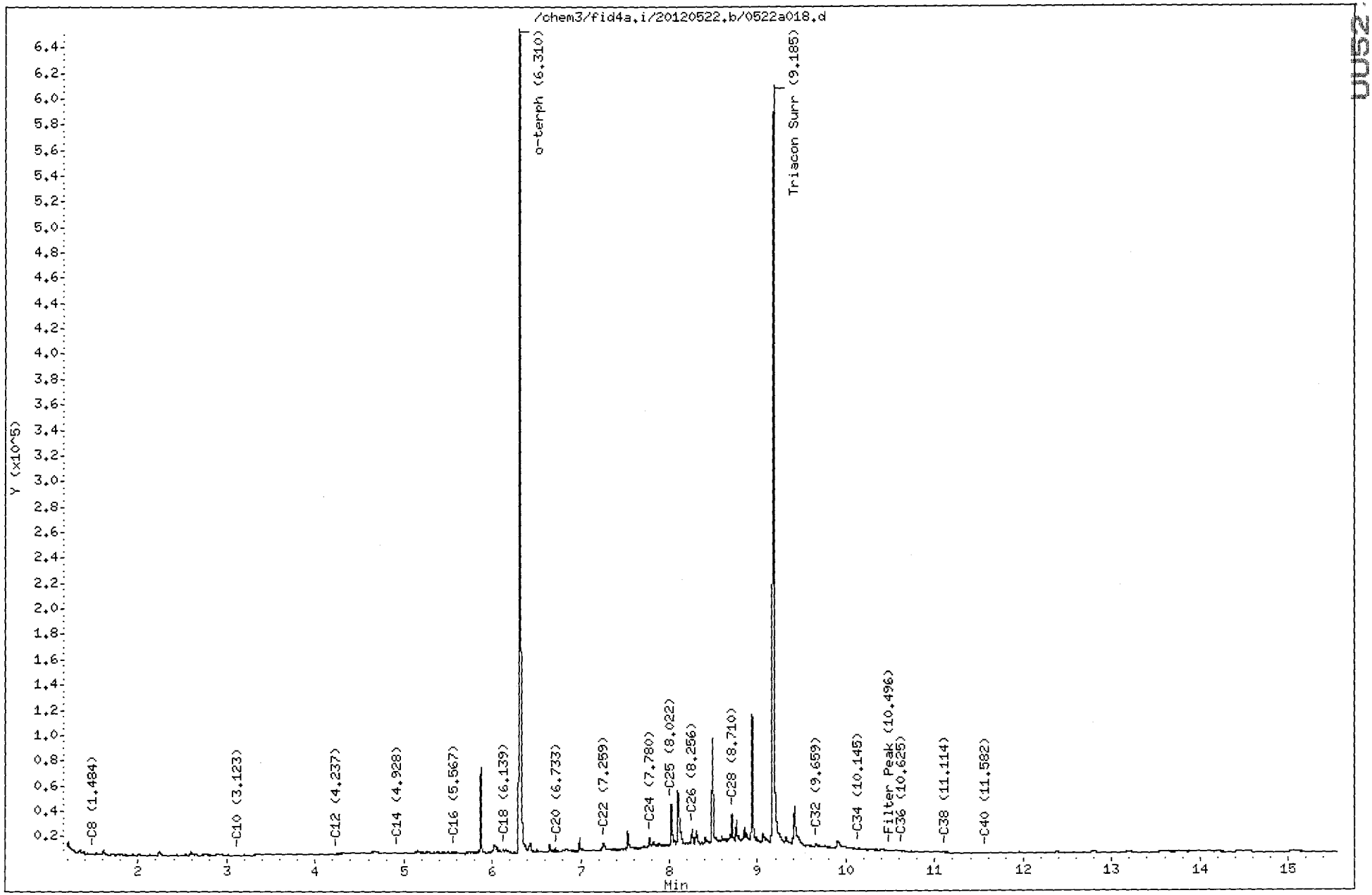
Data File: /chem3/fid4a.i/20120522.b/0522a018.d
Date : 22-MAY-2012 13:10
Client ID: MS006-SS-120515
Sample Info: UU52G

Instrument: fid4a.i

Operator: MH
Column diameter: 0.25

Column phase: RTX-1

UU52G 61939



MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a019.d ARI ID: UU52H
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m Client ID: MS007-SS-120515
Instrument: fid4a.i Injection: 22-MAY-2012 13:34
Operator: MH
Report Date: 05/23/2012 Dilution Factor: 1
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.271 | 0.002 | 4985 | 11072 | GAS (Tol-C12) | 159569 | 10.61 |
| C8 | 1.431 | -0.038 | 1415 | 4442 | DIESEL (C12-C24) | 827543 | 60.72 |
| C10 | 3.125 | 0.000 | 548 | 753 | M.OIL (C24-C38) | 1866002 | 191.39 |
| C12 | 4.219 | 0.002 | 1326 | 1230 | AK-102 (C10-C25) | 968139 | 59.79 |
| C14 | 4.926 | -0.002 | 1969 | 930 | AK-103 (C25-C36) | 1715781 | 221.12 |
| C16 | 5.566 | 0.004 | 4523 | 16193 | OR.DIES (C10-C28) | 1630103 | 126.93 |
| C18 | 6.139 | -0.002 | 4474 | 3785 | OR.MOIL (C28-C40) | 1185657 | 156.98 |
| C20 | 6.733 | 0.007 | 3887 | 4303 | JET-A (C10-C18) | 436422 | 29.40 |
| C22 | 7.256 | -0.014 | 10924 | 18958 | MIN.OIL (C24-C38) | 1866002 | 138.83 |
| C24 | 7.780 | 0.000 | 12788 | 32375 | | | |
| C25 | 8.024 | -0.003 | 35105 | 78661 | | | |
| C26 | 8.260 | -0.008 | 20000 | 41843 | | | |
| C28 | 8.710 | -0.010 | 28467 | 47990 | | | |
| C32 | 9.652 | -0.005 | 9937 | 20742 | | | |
| C34 | 10.140 | -0.004 | 6162 | 5179 | | | |
| Filter Peak | 10.519 | 0.011 | 4283 | 2904 | CREOSOT (C12-C22) | 615960 | 167.65 |
| C36 | 10.637 | 0.008 | 3789 | 1414 | | | |
| C38 | 11.108 | -0.006 | 2356 | 3285 | | | |
| C40 | 11.594 | 0.001 | 1512 | 2861 | | | |
| o-terph | 6.311 | -0.001 | 716460 | 802572 | CRUDE (Tol-C40) | 2901914 | 384.22 |
| Triacon Surr | 9.186 | -0.003 | 630387 | 798912 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 802572 | 46.7 | 103.8 |
| Triacontane | 798912 | 46.6 | 103.6 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| OR Moil | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120522.b/0522a019.d

Date : 22-MAY-2012 13:34

Client ID: MS007-SS-120515

Sample Info: UU52H

Column phase: RTX-1

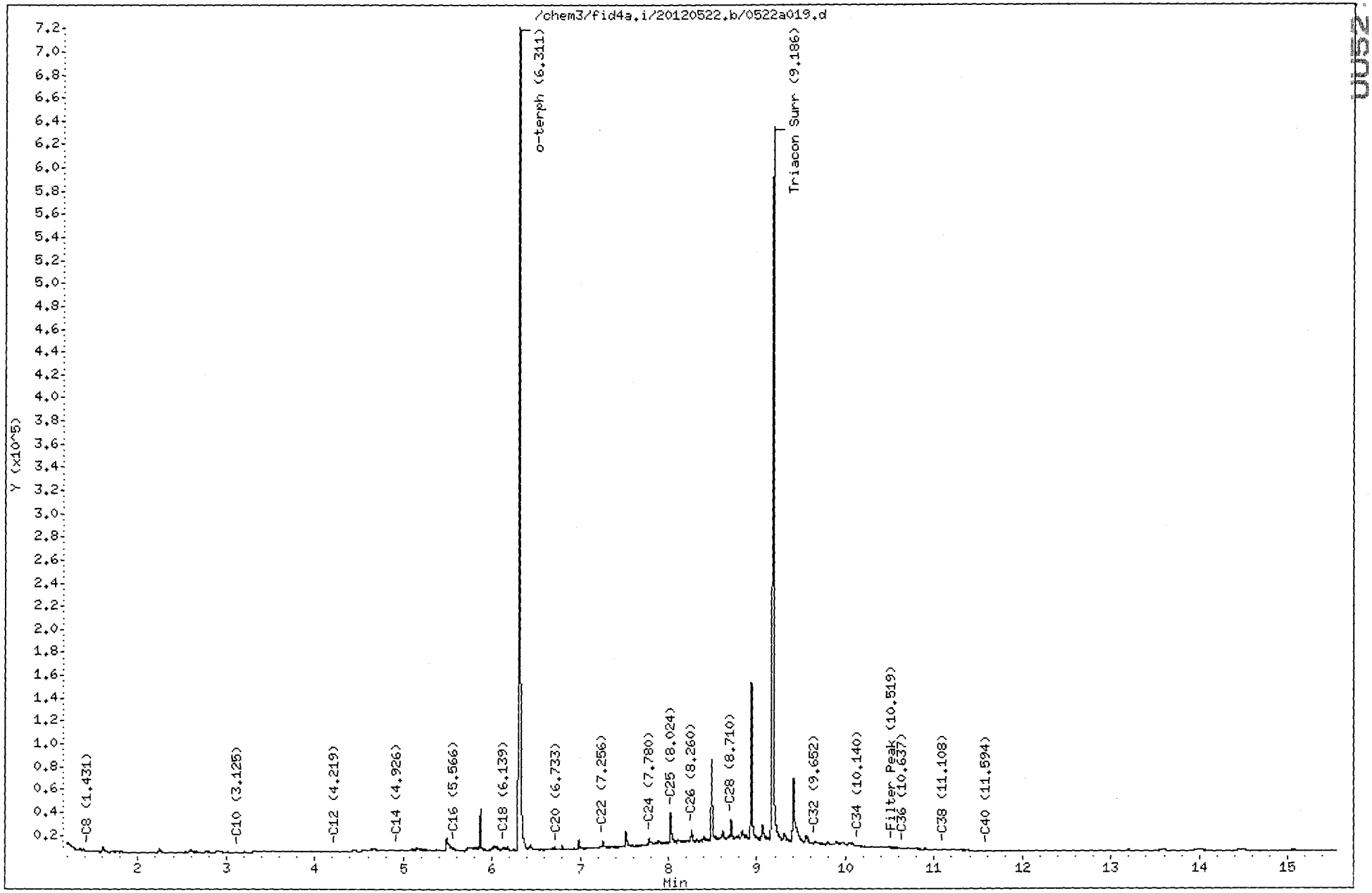
Instrument: fid4a.i

Operator: MH

Column diameter: 0.25



UU52 61911



MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a020.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52I
Client ID: MS008-SS-120515
Injection: 22-MAY-2012 13:59
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.270 | 0.002 | 4343 | 10267 | GAS (Tol-C12) | 154869 | 10.29 |
| C8 | 1.487 | 0.018 | 844 | 1442 | DIESEL (C12-C24) | 487878 | 35.80 |
| C10 | 3.117 | -0.007 | 372 | 393 | M.OIL (C24-C38) | 1297873 | 133.12 |
| C12 | 4.219 | 0.002 | 998 | 374 | AK-102 (C10-C25) | 591466 | 36.53 |
| C14 | 4.914 | -0.014 | 1135 | 1495 | AK-103 (C25-C36) | 1195496 | 154.07 |
| C16 | 5.574 | 0.012 | 1741 | 3388 | OR.DIES (C10-C28) | 1130423 | 88.02 |
| C18 | 6.140 | 0.000 | 2374 | 1908 | OR.MOIL (C28-C40) | 745236 | 98.67 |
| C20 | 6.716 | -0.010 | 4152 | 5622 | JET-A (C10-C18) | 247340 | 16.66 |
| C22 | 7.266 | -0.004 | 4173 | 1638 | MIN.OIL (C24-C38) | 1297873 | 96.56 |
| C24 | 7.785 | 0.006 | 8510 | 13237 | | | |
| C25 | 8.026 | -0.001 | 31014 | 55383 | | | |
| C26 | 8.261 | -0.006 | 15130 | 28424 | | | |
| C28 | 8.712 | -0.007 | 22522 | 47824 | | | |
| C32 | 9.654 | -0.002 | 6078 | 5141 | | | |
| C34 | 10.140 | -0.003 | 4124 | 3216 | | | |
| Filter Peak | 10.512 | 0.004 | 3028 | 1599 | CREOSOT (C12-C22) | 347253 | 94.51 |
| C36 | 10.636 | 0.007 | 2463 | 1946 | | | |
| C38 | 11.119 | 0.006 | 1610 | 906 | | | |
| C40 | 11.598 | 0.005 | 1050 | 556 | | | |
| o-terph | 6.310 | -0.001 | 621966 | 771443 | CRUDE (Tol-C40) | 1972723 | 261.19 |
| Triacon Surr | 9.185 | -0.004 | 570786 | 776108 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 771443 | 44.9 | 99.7 |
| Triacontane | 776108 | 45.3 | 100.6 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| OR Moil | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120522.b/0522a020.d

Date : 22-MAY-2012 13:59

Client ID: MS008-SS-120515

Sample Info: UU52I

Instrument: fid4a.i

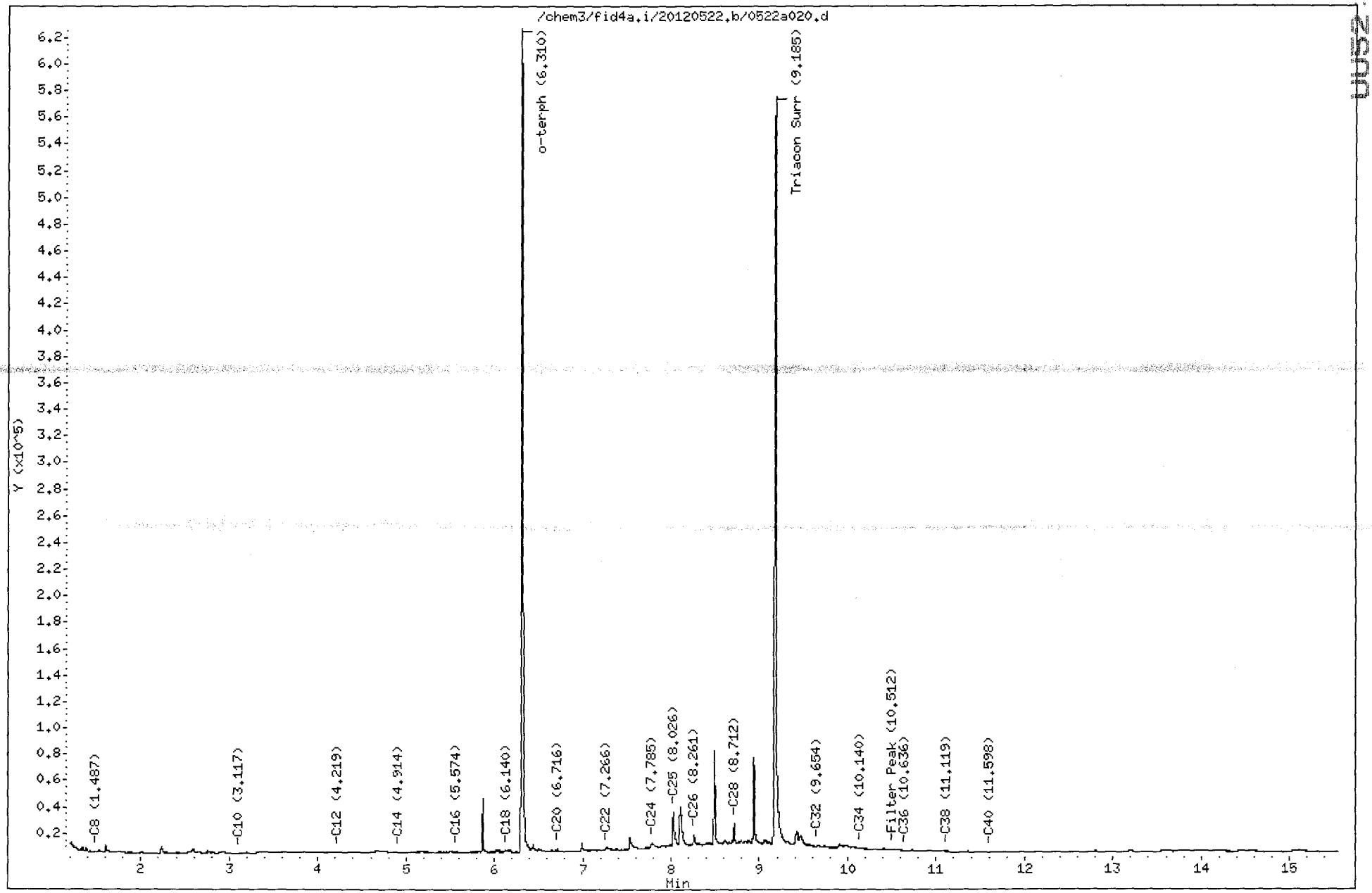
Operator: MH

Column phase: RTX-1

Column diameter: 0.25



UU52I 01313



MH
5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a021.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52IMS
Client ID: MS008-SS-120515 MS
Injection: 22-MAY-2012 14:23
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc | |
|---|---|---|---|---|---|---|---|---|
| Toluene | 1.266 | -0.002 | 3578 | 6441 | GAS (Tol-C12) | 3569270 | 237.26 | |
| C8 | 1.479 | 0.010 | 1670 | 1509 | DIESEL (C12-C24) | 14879601 | 1091.84 | |
| C10 | 3.126 | 0.002 | 73231 | 64245 | M.OIL (C24-C38) | 1340248 | 137.47 | |
| C12 | 4.217 | 0.000 | 50509 | 70755 | AK-102 (C10-C25) | 17607386 | 1087.35 | M |
| C14 | 4.925 | -0.003 | 91959 | 114494 | AK-103 (C25-C36) | 1210468 | 156.00 | |
| C16 | 5.566 | 0.005 | 103796 | 209339 | OR.DIES (C10-C28) | 18193235 | 1416.59 | M |
| C18 | 6.138 | -0.002 | 423031 | 427922 | OR.MOIL (C28-C40) | 671511 | 88.91 | |
| C20 | 6.732 | 0.007 | 65858 | 84232 | JET-A (C10-C18) | 12673336 | 853.88 | |
| C22 | 7.261 | -0.009 | 122681 | 212320 | MIN.OIL (C24-C38) | 1340248 | 99.72 | |
| C24 | 7.781 | 0.002 | 38291 | 73969 | | | | |
| C25 | 8.027 | 0.000 | 47691 | 97041 | | | | |
| C26 | 8.263 | -0.004 | 20818 | 39212 | | | | |
| C28 | 8.713 | -0.006 | 22559 | 37933 | | | | |
| C32 | 9.657 | 0.001 | 5699 | 10715 | | | | |
| C34 | 10.144 | 0.001 | 3676 | 1812 | | | | |
| Filter Peak | 10.518 | 0.011 | 2400 | 2629 | CREOSOT (C12-C22) | 14214426 | 3868.76 | M |
| C36 | 10.634 | 0.005 | 1865 | 1653 | | | | |
| C38 | 11.109 | -0.004 | 886 | 707 | | | | |
| C40 | 11.597 | 0.004 | 305 | 191 | | | | |
| o-terph | 6.314 | 0.003 | 841454 | 776827 | CRUDE (Tol-C40) | 19801553 | 2621.77 | M |
| Triacon Surr | 9.185 | -0.004 | 588089 | 789620 | | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 776827 | 45.2 | 100.4 |
| Triacontane | 789620 | 46.1 | 102.4 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| OR Moil | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120522.b/0522a021.d

Page 1

Date : 22-MAY-2012 14:23

Client ID: MS008-SS-120515 MS

Instrument: fid4a.i

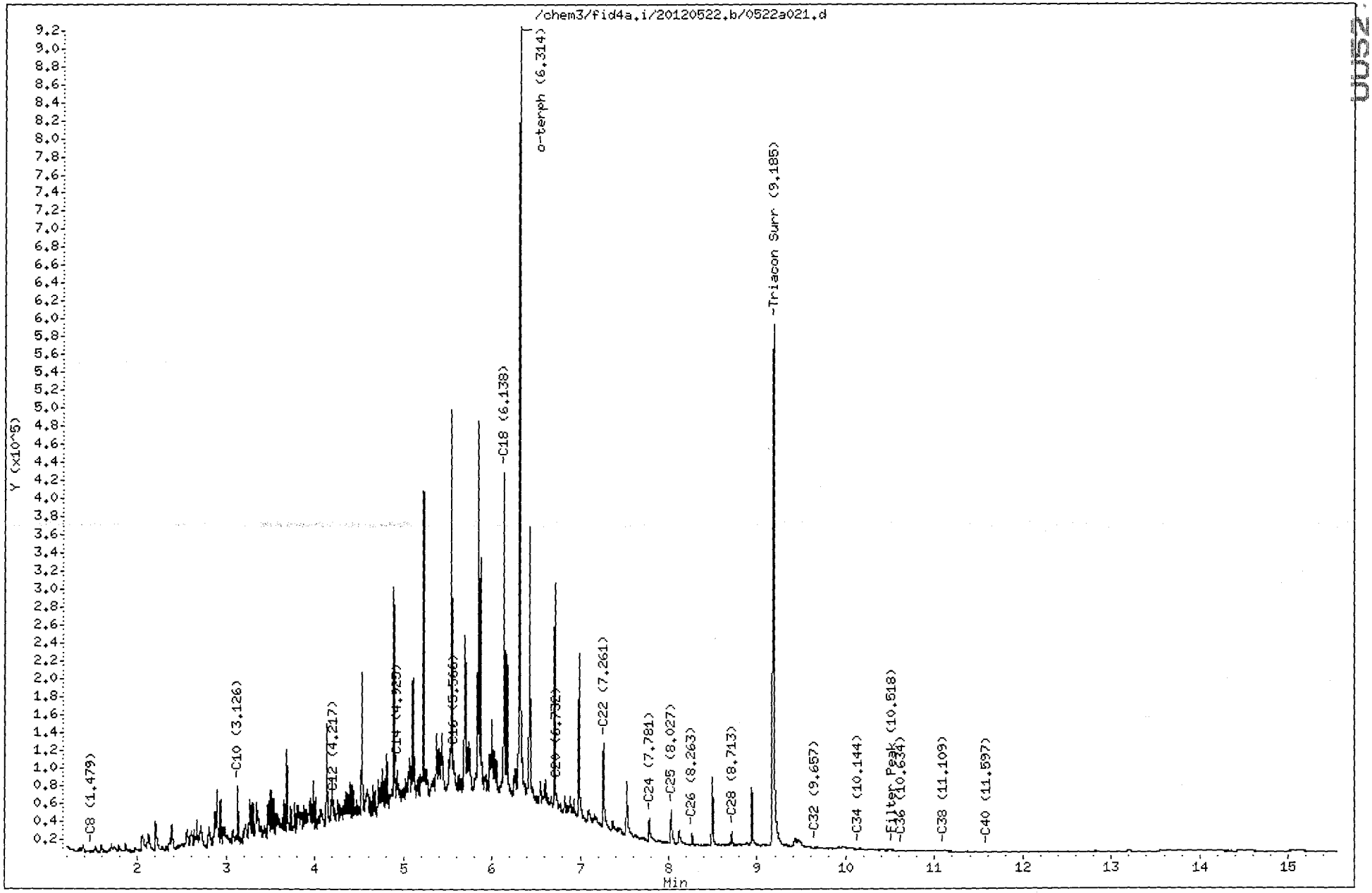
Sample Info: UU52IMS

Operator: MH

Column phase: RTX-1

Column diameter: 0.25

UU52 04915



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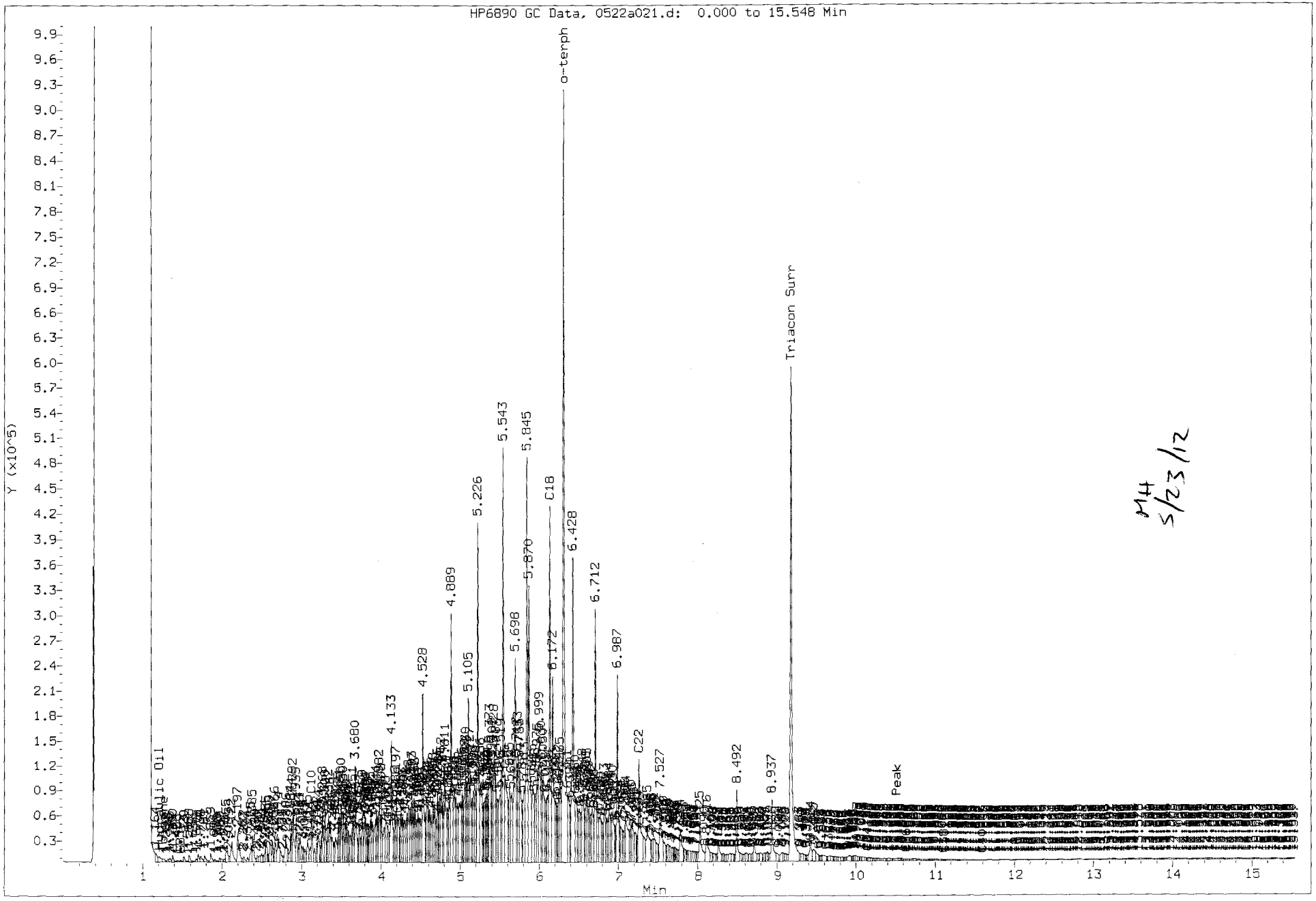
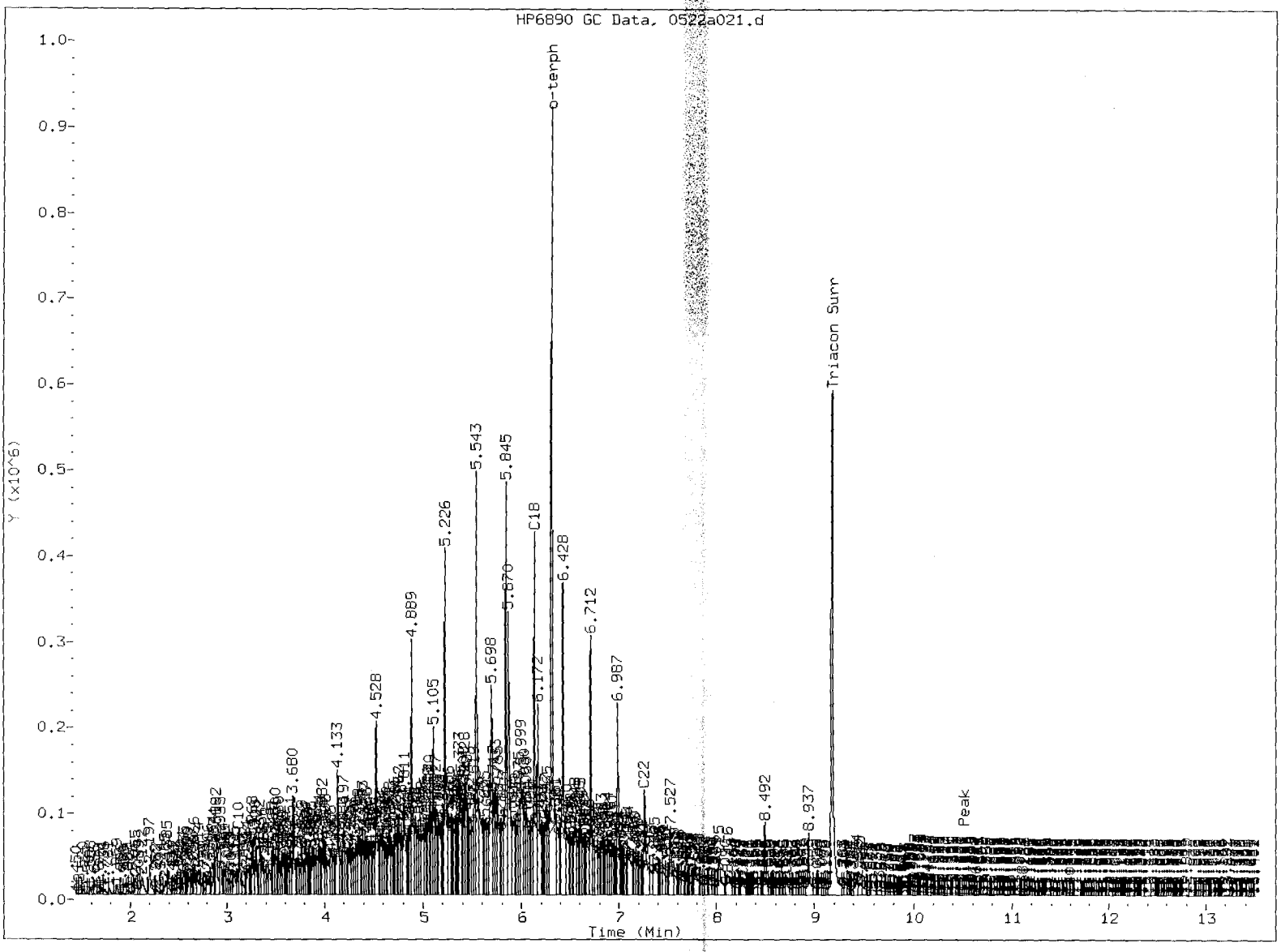
Injection Date: 22-MAY-2012 14:23
Instrument: fid4a.i
Client Sample ID: MS008-SS-120515 MS




MH
5/23/12

UU52:01945

FID:4A-2C/RTX-1 UU52IMS FID:4A SIGNAL




MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/23/12

MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a022.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU52IMSD
Client ID: MS008-SS-120515 MSD
Injection: 22-MAY-2012 14:48
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc | |
|---|---|---|---|---|---|---|---|---|
| Toluene | 1.261 | -0.008 | 3886 | 9082 | GAS (Tol-C12) | 3861810 | 256.70 | |
| C8 | 1.474 | 0.004 | 1795 | 1660 | DIESEL (C12-C24) | 15220156 | 1116.83 | |
| C10 | 3.125 | 0.000 | 81088 | 69034 | M.OIL (C24-C38) | 1149488 | 117.90 | |
| C12 | 4.215 | -0.002 | 52309 | 41037 | AK-102 (C10-C25) | 18077962 | 1116.41 | M |
| C14 | 4.925 | -0.003 | 94984 | 124899 | AK-103 (C25-C36) | 1031561 | 132.94 | |
| C16 | 5.567 | 0.005 | 109924 | 200718 | OR.DIES (C10-C28) | 18555733 | 1444.81 | M |
| C18 | 6.139 | -0.002 | 445686 | 458356 | OR.MOIL (C28-C40) | 600045 | 79.45 | |
| C20 | 6.736 | 0.010 | 66284 | 77183 | JET-A (C10-C18) | 13256897 | 893.20 | |
| C22 | 7.263 | -0.007 | 125024 | 215442 | MIN.OIL (C24-C38) | 1149488 | 85.52 | |
| C24 | 7.784 | 0.004 | 38472 | 74564 | | | | |
| C25 | 8.029 | 0.002 | 43372 | 79429 | | | | |
| C26 | 8.264 | -0.003 | 21117 | 35960 | | | | |
| C28 | 8.715 | -0.004 | 22812 | 33405 | | | | |
| C32 | 9.650 | -0.007 | 4673 | 2280 | | | | |
| C34 | 10.146 | 0.002 | 3324 | 782 | | | | |
| Filter Peak | 10.499 | -0.009 | 2279 | 3004 | CREOSOT (C12-C22) | 14537207 | 3956.61 | M |
| C36 | 10.636 | 0.007 | 1690 | 2057 | | | | |
| C38 | 11.113 | 0.000 | 862 | 844 | | | | |
| C40 | 11.598 | 0.005 | 284 | 199 | | | | |
| o-terph | 6.315 | 0.004 | 918709 | 815372 | CRUDE (Tol-C40) | 20243624 | 2680.30 | M |
| Triacon Surr | 9.187 | -0.003 | 562764 | 804282 | | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 815372 | 47.4 | 105.4 |
| Triacontane | 804282 | 46.9 | 104.3 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| OR Moil | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120522.b/0522a022.d

Date : 22-MAY-2012 14:48

Client ID: MS008-SS-120515 MSD

Sample Info: UU52IMSD

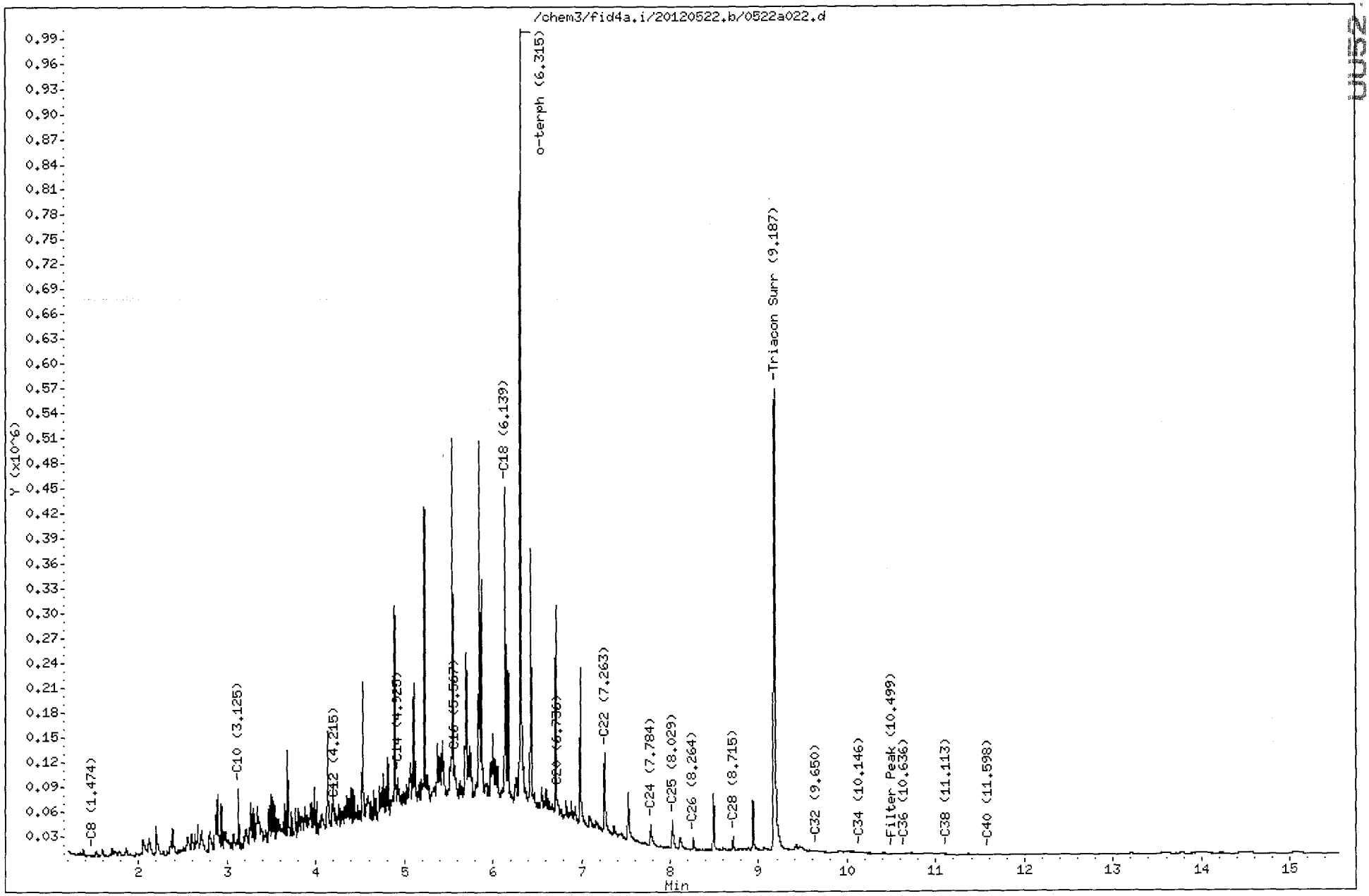
Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

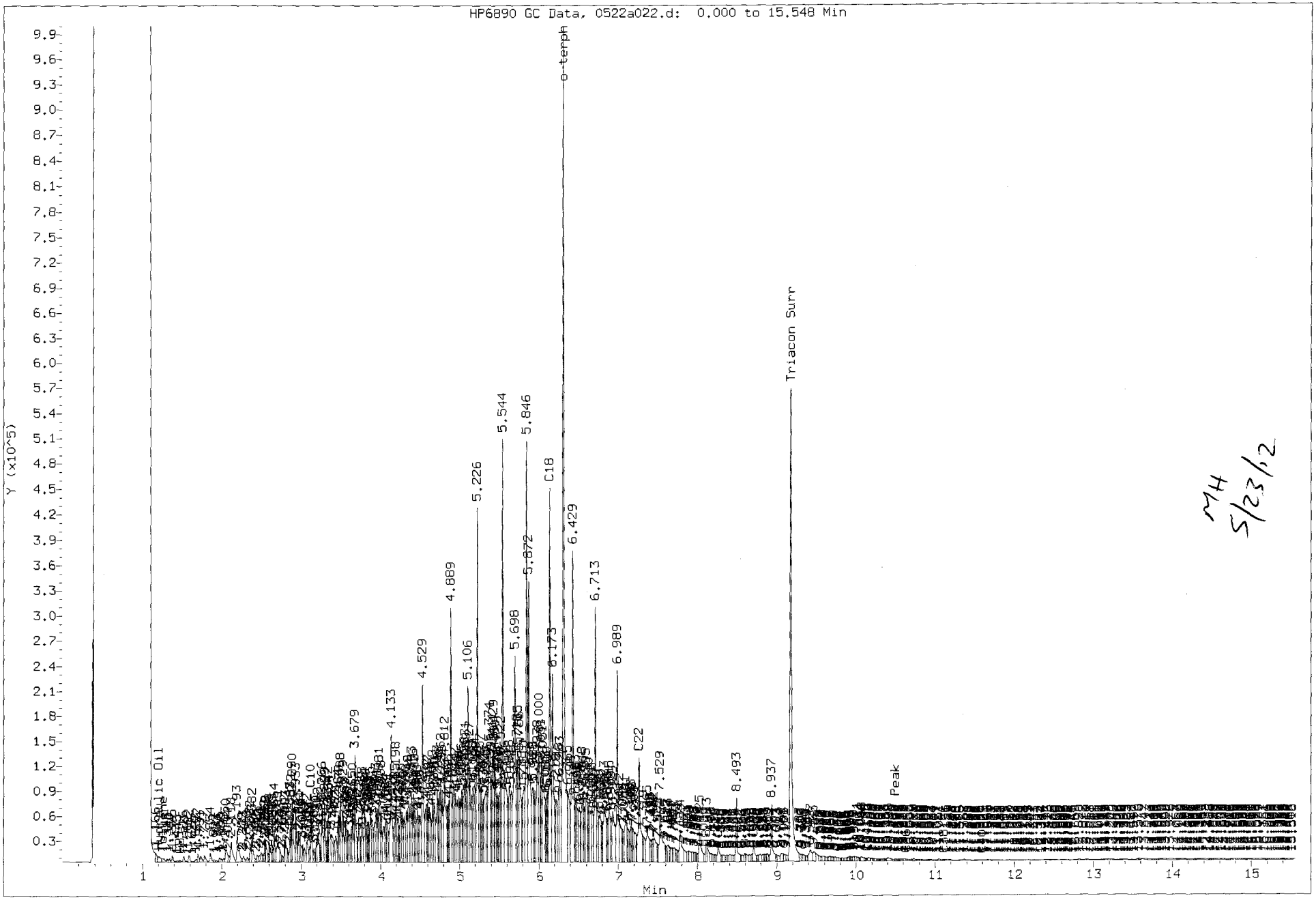
Column diameter: 0.25






UU52 01949

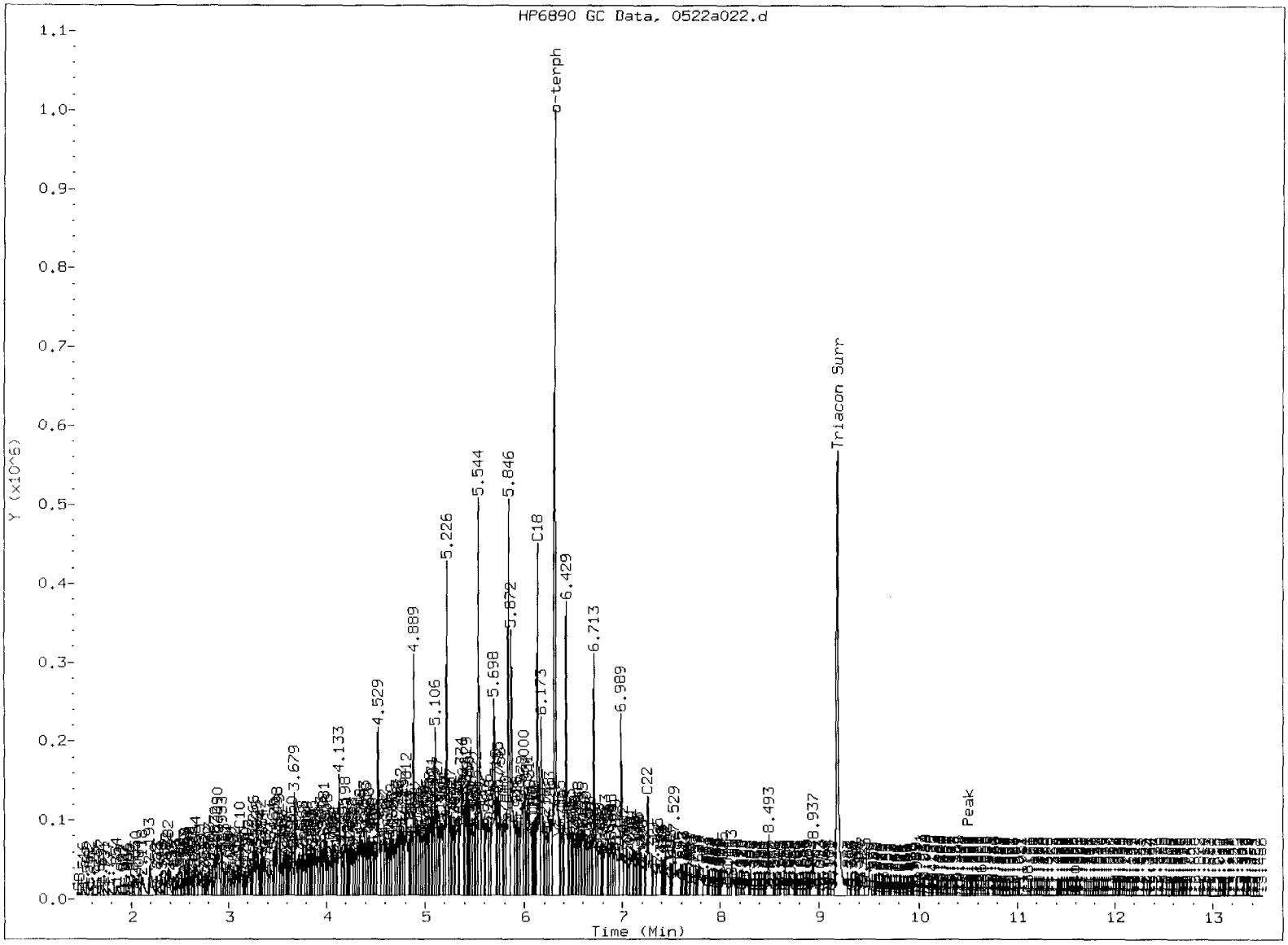
Data File: /chem3/fid4a.i/20120522.b/0522a022.d
Injection Date: 22-MAY-2012 14:48
Instrument: fid4a.i
Client Sample ID: MS008-SS-120515 MSD




MH 5/23/12

UU52 : 01950

FID:4A-2C/RTX-1 UU52IMSD FID:4A SIGNAL




MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a023.d ARI ID: UU52J
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m Client ID: MS009-SS-120515
Instrument: fid4a.i Injection: 22-MAY-2012 15:13
Operator: MH
Report Date: 05/23/2012 Dilution Factor: 1
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.315 | 0.047 | 2893 | 2854 | GAS (Tol-C12) | 145766 | 9.69 |
| C8 | 1.501 | 0.032 | 746 | 832 | DIESEL (C12-C24) | 620606 | 45.54 |
| C10 | 3.123 | -0.001 | 592 | 1396 | M.OIL (C24-C38) | 909853 | 93.32 |
| C12 | 4.215 | -0.002 | 1044 | 496 | AK-102 (C10-C25) | 725135 | 44.78 |
| C14 | 4.961 | 0.033 | 2559 | 7382 | AK-103 (C25-C36) | 838237 | 108.03 |
| C16 | 5.562 | 0.001 | 5099 | 11323 | OR.DIES (C10-C28) | 1095675 | 85.31 |
| C18 | 6.139 | -0.001 | 7155 | 11843 | OR.MOIL (C28-C40) | 531983 | 70.44 |
| C20 | 6.735 | 0.009 | 2002 | 663 | JET-A (C10-C18) | 437001 | 29.44 |
| C22 | 7.260 | -0.010 | 4995 | 8553 | MIN.OIL (C24-C38) | 909853 | 67.69 |
| C24 | 7.768 | -0.011 | 3330 | 1815 | | | |
| C25 | 8.035 | 0.008 | 24716 | 48759 | | | |
| C26 | 8.266 | -0.001 | 11820 | 22390 | | | |
| C28 | 8.715 | -0.005 | 18593 | 30922 | | | |
| C32 | 9.651 | -0.005 | 4109 | 2571 | | | |
| C34 | 10.139 | -0.005 | 3321 | 4977 | | | |
| Filter Peak | 10.508 | 0.000 | 2252 | 2657 | CREOSOT (C12-C22) | 515018 | 140.17 |
| C36 | 10.646 | 0.017 | 1875 | 1508 | | | |
| C38 | 11.115 | 0.001 | 1190 | 1172 | | | |
| C40 | 11.602 | 0.009 | 789 | 991 | | | |
| o-terph | 6.309 | -0.002 | 658975 | 783692 | CRUDE (Tol-C40) | 1699449 | 225.01 |
| Triacon Surr | 9.184 | -0.005 | 530320 | 760655 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 783692 | 45.6 | 101.3 |
| Triacontane | 760655 | 44.4 | 98.6 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| OR Moil | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120522.b/0522a023.d

Date : 22-MAY-2012 15:13

Client ID: MS009-SS-120515

Sample Info: UU52J

Column phase: RTX-1

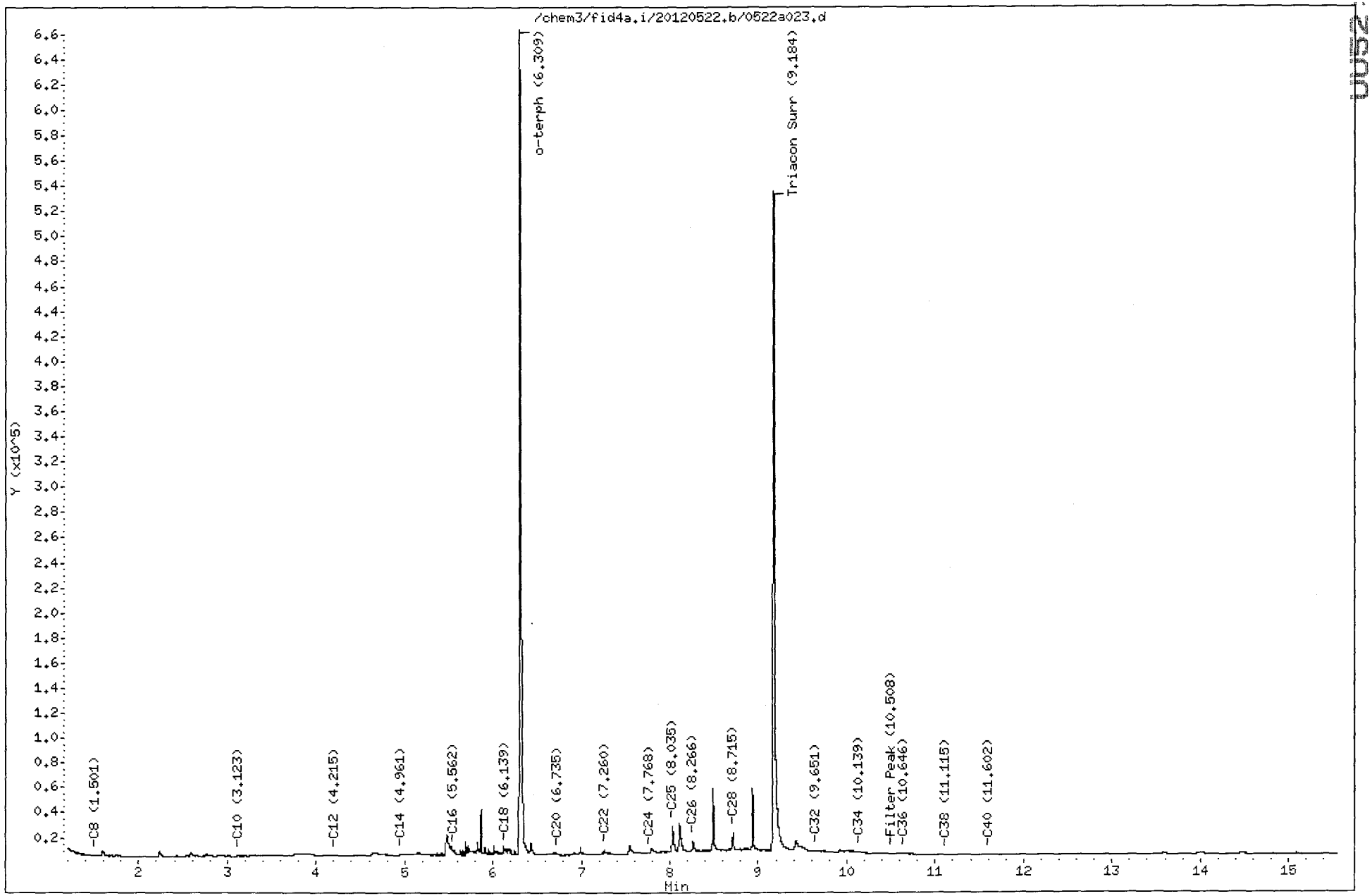
Instrument: fid4a.i

Operator: MH

Column diameter: 0.25



UU52 01953



MH
5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a024.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: DIESEL #3
Client ID:
Injection: 22-MAY-2012 15:37
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc | |
|---|---|---|---|---|---|---|---|---|
| Toluene | 1.313 | 0.044 | 2757 | 3760 | GAS (Tol-C12) | 941014 | 62.55 | |
| C8 | 1.476 | 0.007 | 1300 | 1968 | DIESEL (C12-C24) | 3577293 | 262.50 | |
| C10 | 3.127 | 0.002 | 4459 | 4165 | M.OIL (C24-C38) | 113882 | 11.68 | |
| C12 | 4.212 | -0.005 | 13393 | 18446 | AK-102 (C10-C25) | 4275348 | 264.02 | M |
| C14 | 4.940 | 0.012 | 24622 | 63173 | AK-103 (C25-C36) | 87003 | 11.21 | |
| C16 | 5.549 | -0.013 | 79280 | 108373 | OR.DIES (C10-C28) | 4343513 | 338.20 | M |
| C18 | 6.137 | -0.004 | 57359 | 79945 | OR.MOIL (C28-C40) | 23594 | 3.12 | |
| C20 | 6.738 | 0.012 | 24208 | 78380 | JET-A (C10-C18) | 3170726 | 213.63 | |
| C22 | 7.254 | -0.016 | 7595 | 9772 | MIN.OIL (C24-C38) | 113882 | 8.47 | |
| C24 | 7.786 | 0.007 | 3383 | 3012 | | | | |
| C25 | 8.028 | 0.002 | 2223 | 834 | | | | |
| C26 | 8.273 | 0.006 | 2366 | 3214 | | | | |
| C28 | 8.733 | 0.013 | 956 | 2426 | | | | |
| C32 | 9.659 | 0.003 | 167 | 147 | | | | |
| C34 | 10.151 | 0.007 | 56 | 54 | | | | |
| Filter Peak | 10.503 | -0.005 | 32 | 21 | CREOSOT (C12-C22) | 3440353 | 936.37 | M |
| C36 | 10.633 | 0.004 | 27 | 6 | | | | |
| C38 | 11.125 | 0.012 | 54 | 65 | | | | |
| C40 | 11.585 | -0.009 | 106 | 171 | | | | |
| o-terph | 6.312 | 0.000 | 686942 | 796052 | CRUDE (Tol-C40) | 4634836 | 613.66 | M |
| Triacon Surr | 9.196 | 0.007 | 286 | 402 | | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 796052 | 46.3 | 102.9 |
| Triacontane | 402 | 0.0 | 0.1 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| OR Moil | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120522.b/0522a024.d

Date : 22-MAY-2012 15:37

Client ID:

Sample Info: DIESEL #3

Column phase: RTX-1

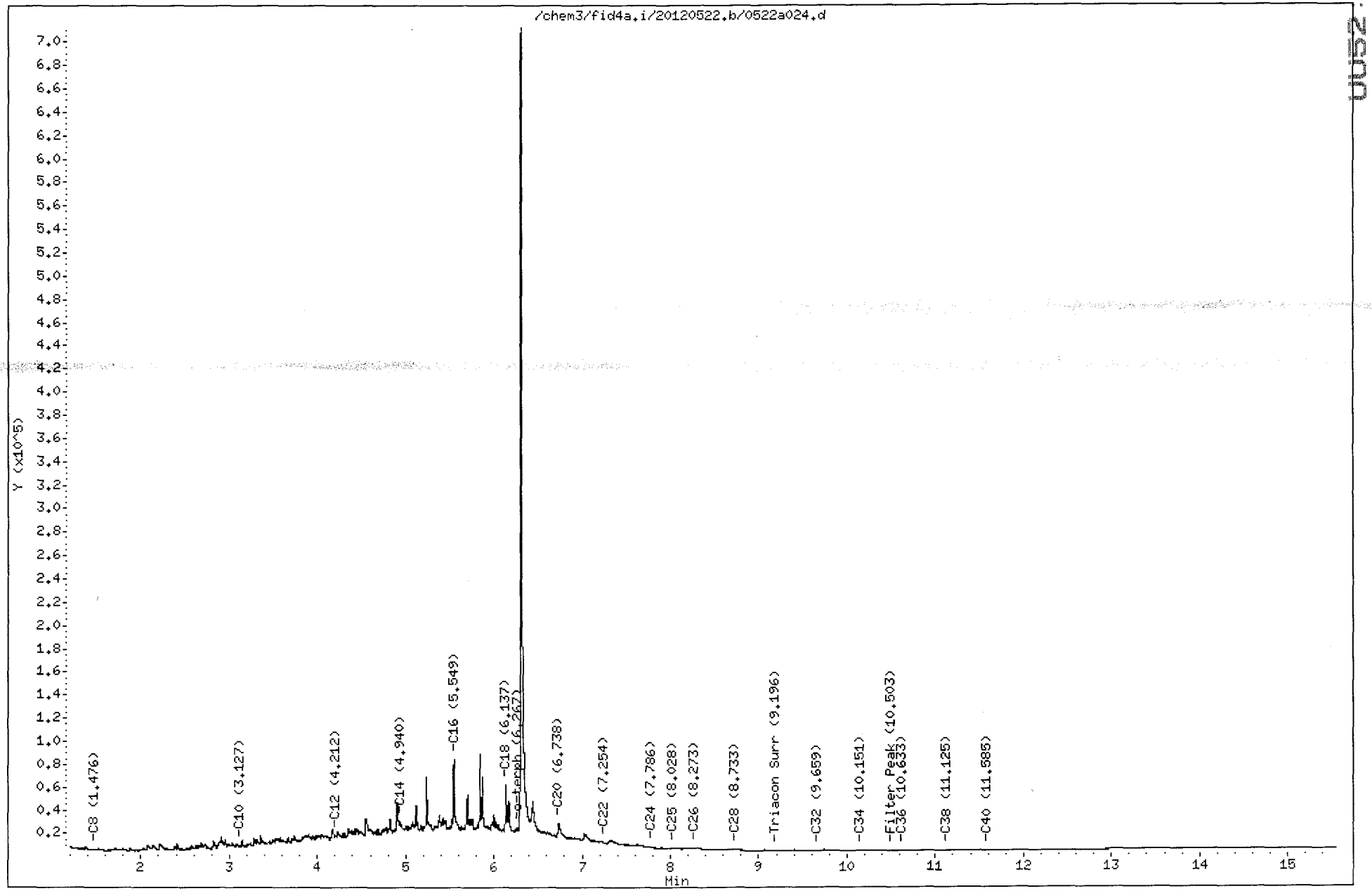
Instrument: fid4a.i

Operator: MH

Column diameter: 0.25



UU52 01955



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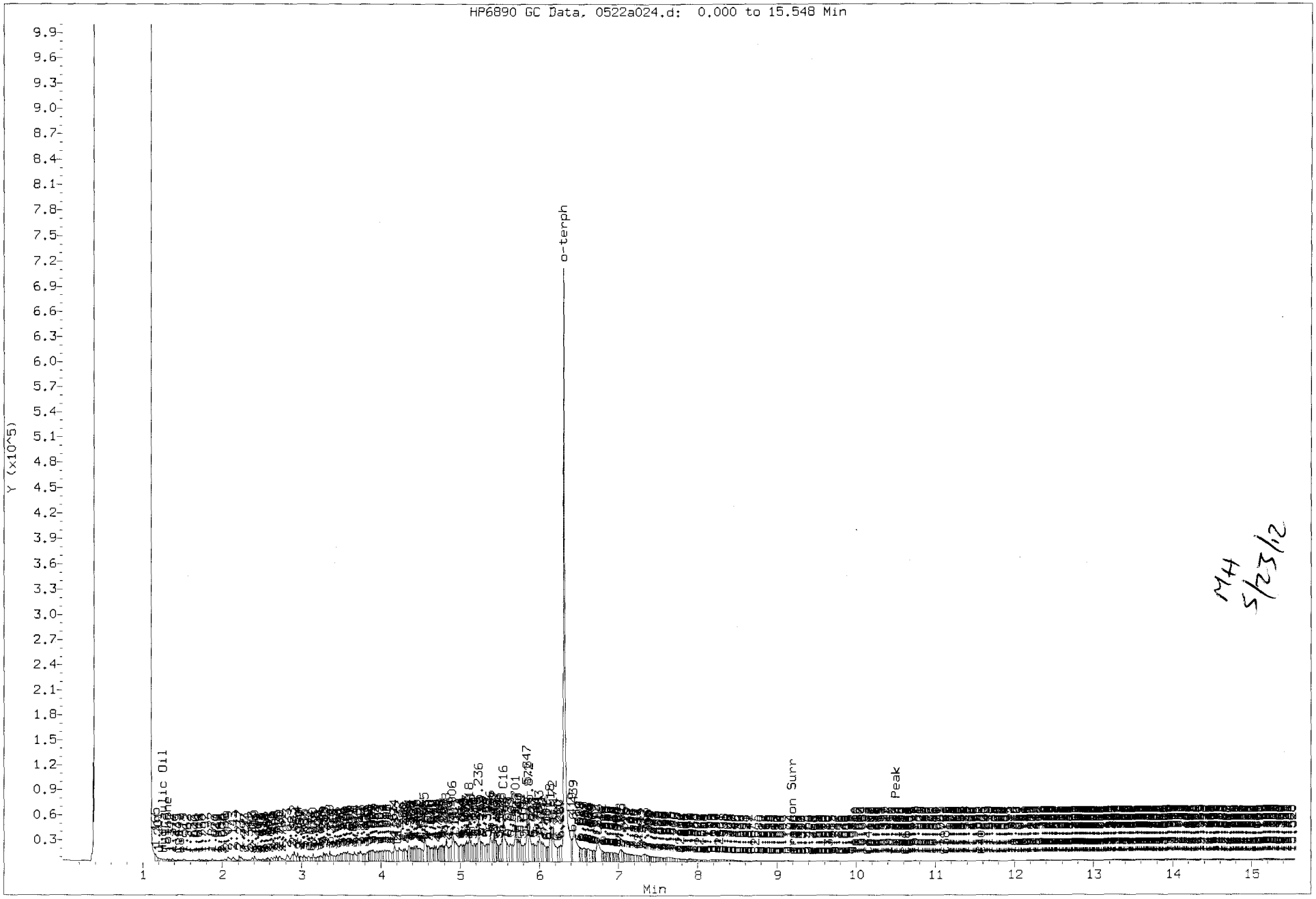
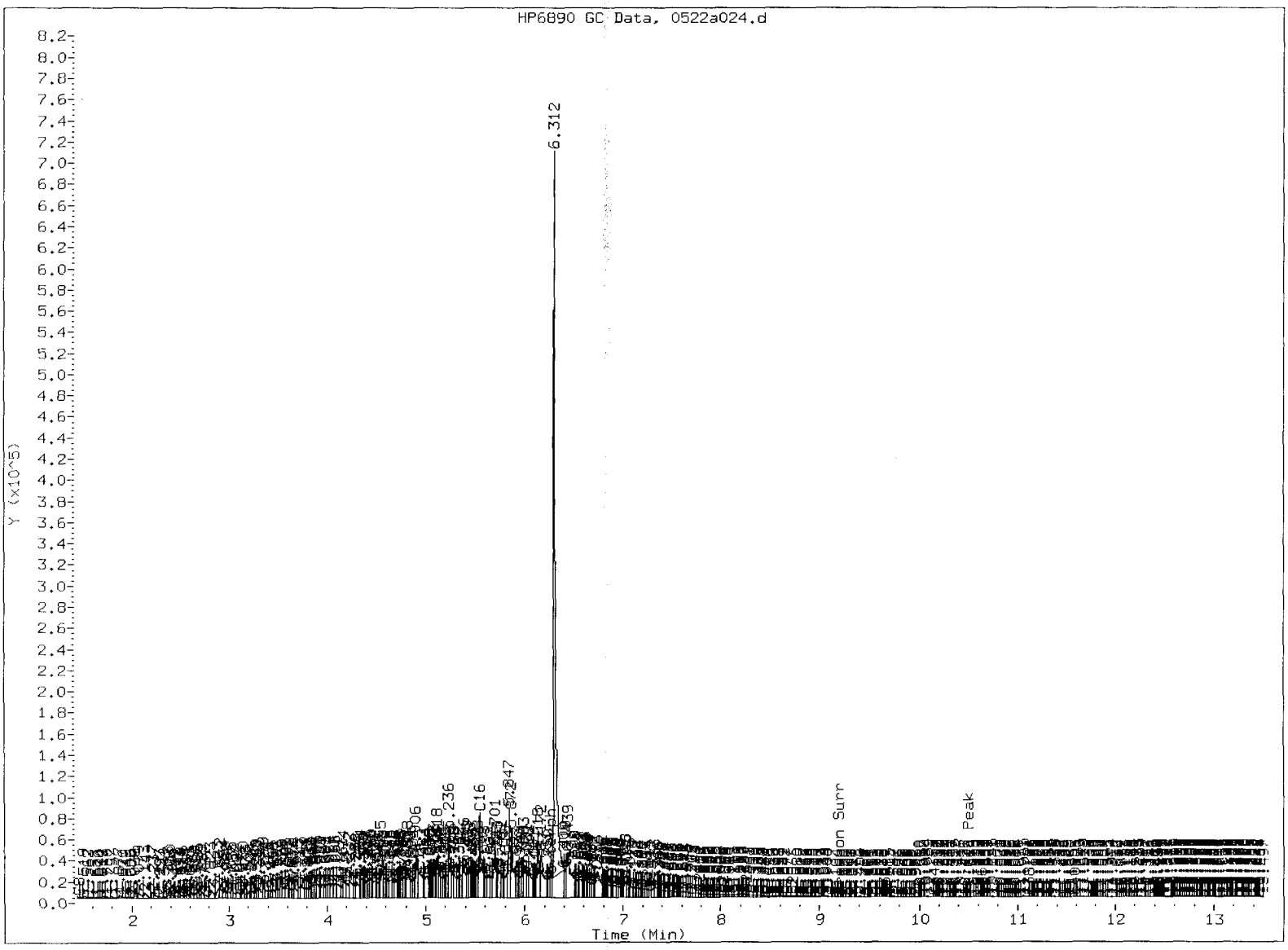
Injection Date: 22-MAY-2012 15:37
Instrument: fid4a.i
Client Sample ID:




MH
5/23/12

UU52:01956

FID:4A-2C/RTX-1 DIESEL #3 FID:4A SIGNAL




MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/23/12

MH 5/23/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120522.b/0522a025.d
Method: /chem3/fid4a.i/20120522.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/23/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: MOIL #3
Client ID:
Injection: 22-MAY-2012 16:01
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc | |
|---|---|---|---|---|---|---|---|---|
| Toluene | 1.266 | -0.003 | 32677 | 74168 | GAS (Tol-C12) | 153474 | 10.20 | |
| C8 | 1.519 | 0.050 | 841 | 783 | DIESEL (C12-C24) | 554082 | 40.66 | |
| C10 | 3.122 | -0.003 | 405 | 236 | M.OIL (C24-C38) | 4642811 | 476.20 | |
| C12 | 4.234 | 0.017 | 533 | 323 | AK-102 (C10-C25) | 785901 | 48.53 | |
| C14 | 4.934 | 0.006 | 470 | 687 | AK-103 (C25-C36) | 4213139 | 542.98 | M |
| C16 | 5.557 | -0.005 | 440 | 732 | OR.DIES (C10-C28) | 2231817 | 173.78 | |
| C18 | 6.115 | -0.025 | 748 | 2295 | OR.MOIL (C28-C40) | 3138606 | 415.56 | M |
| C20 | 6.731 | 0.005 | 973 | 1560 | JET-A (C10-C18) | 80518 | 5.43 | |
| C22 | 7.270 | 0.000 | 4758 | 4111 | MIN.OIL (C24-C38) | 4642811 | 345.43 | M |
| C24 | 7.784 | 0.005 | 20461 | 9254 | | | | |
| C25 | 8.030 | 0.003 | 26308 | 17186 | | | | |
| C26 | 8.267 | 0.000 | 31022 | 24685 | | | | |
| C28 | 8.715 | -0.005 | 34422 | 50645 | | | | |
| C32 | 9.656 | -0.001 | 29161 | 43232 | | | | |
| C34 | 10.142 | -0.002 | 21227 | 18977 | | | | |
| Filter Peak | 10.502 | -0.006 | 14674 | 16563 | CREOSOT (C12-C22) | 155029 | 42.19 | |
| C36 | 10.625 | -0.004 | 12763 | 17412 | | | | |
| C38 | 11.120 | 0.006 | 7186 | 3170 | | | | |
| C40 | 11.590 | -0.004 | 3912 | 3164 | | | | |
| o-terph | 6.315 | 0.004 | 494 | 326 | CRUDE (Tol-C40) | 5488979 | 726.75 | M |
| Triacon Surr | 9.190 | 0.001 | 666221 | 758370 | | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.217 - 7.779) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.11) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 326 | 0.0 | 0.0 |
| Triacontane | 758370 | 44.2 | 98.3 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| OR Moil | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120522.b/0522a025.d

Page 1

Date : 22-MAY-2012 16:01

Client ID:

Instrument: fid4a.i

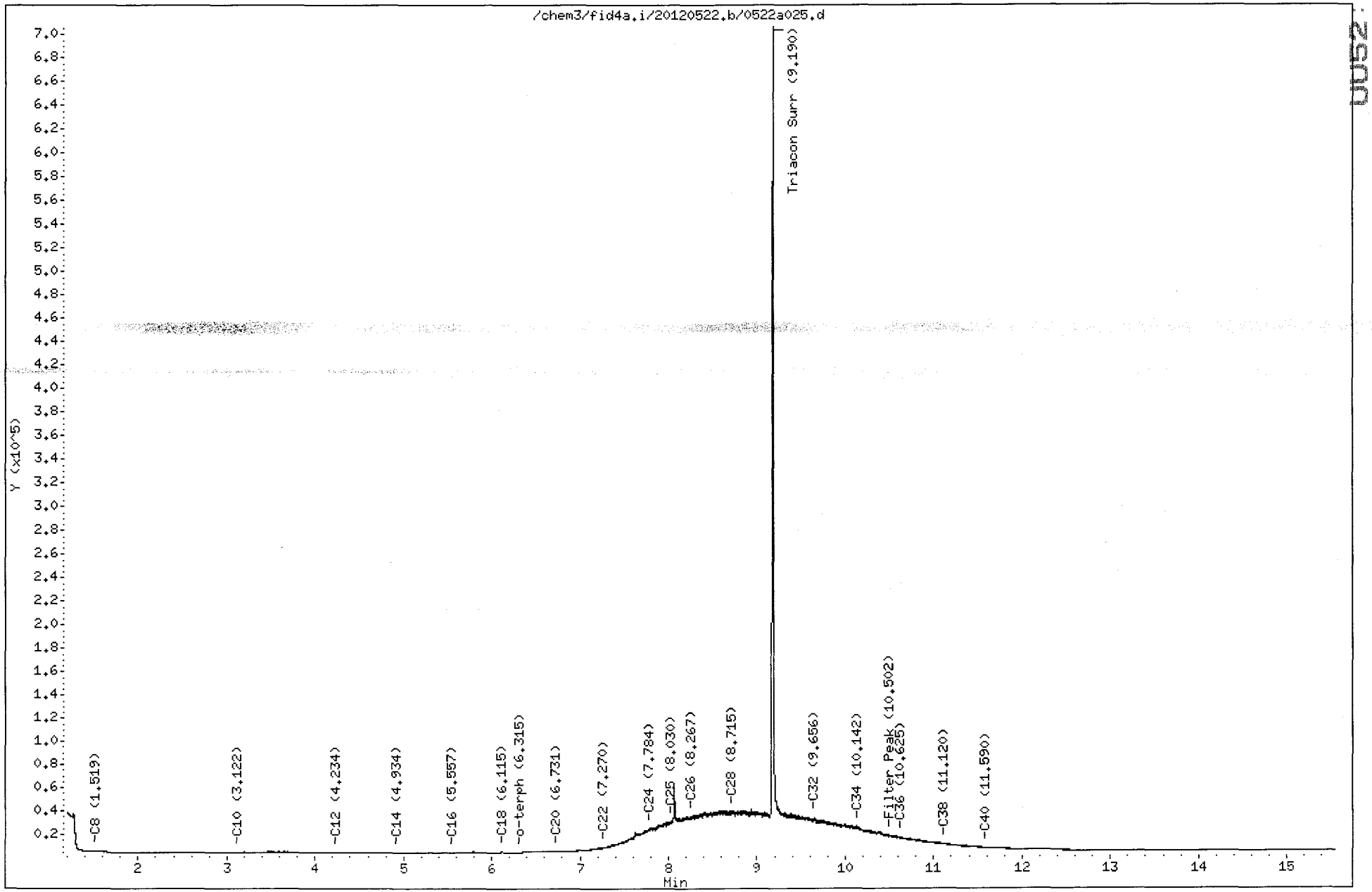
Sample Info: MOIL #3

Operator: MH

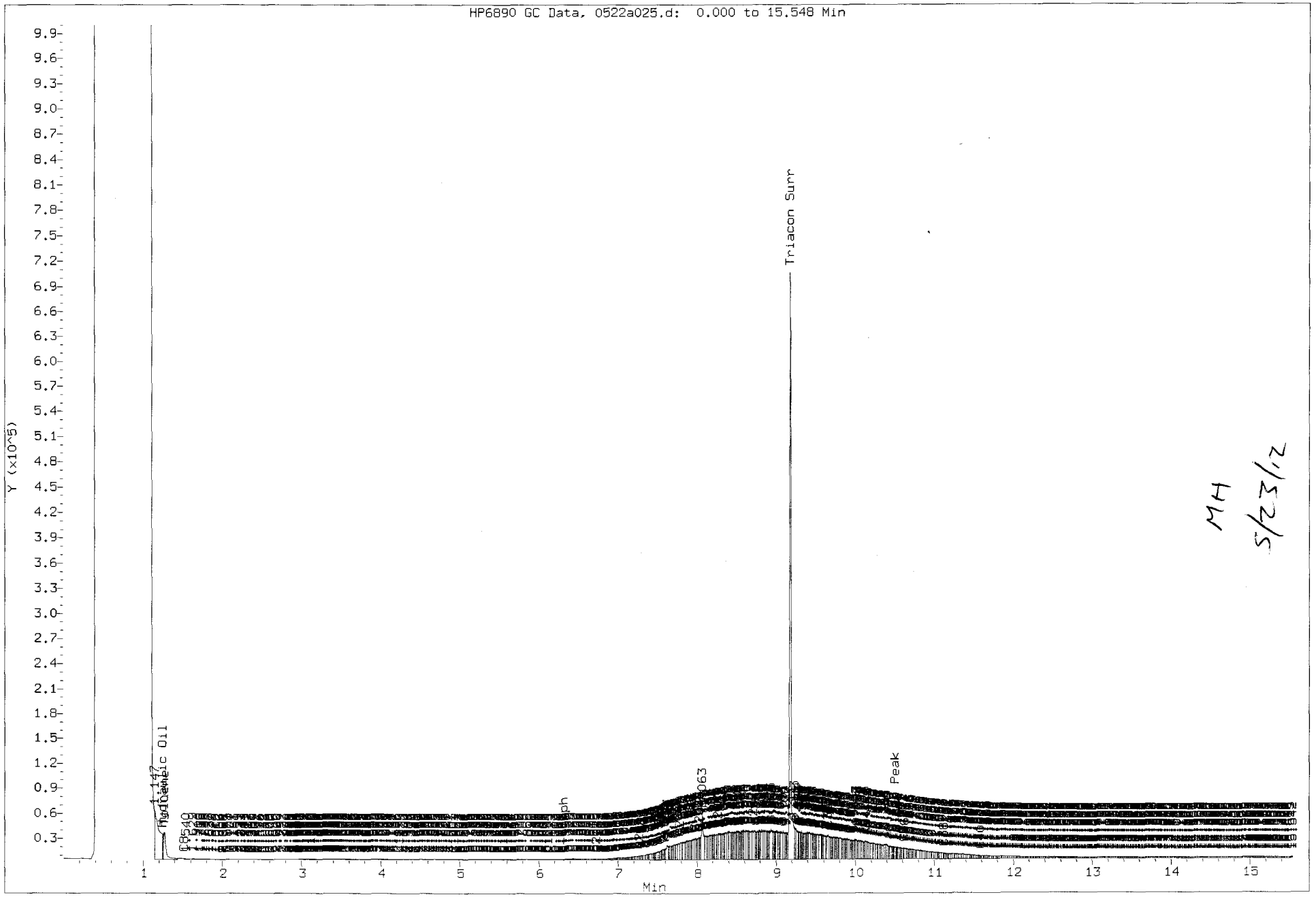
Column phase: RTX-1

Column diameter: 0.25

UU52.01953



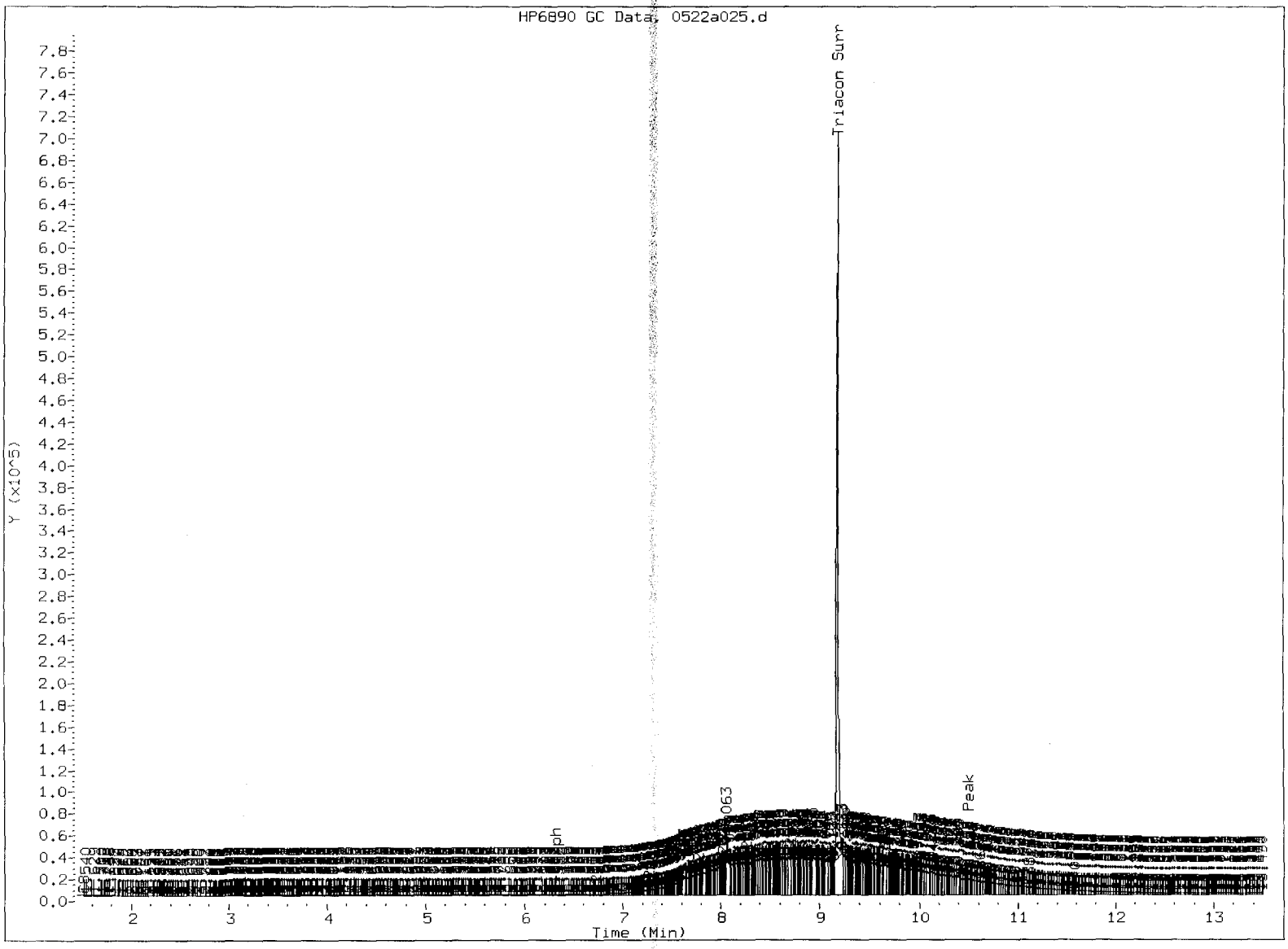
Data File: /chem3/fid4a.i/20120522.b/0522a025.d
Injection Date: 22-MAY-2012 16:01
Instrument: fid4a.i
Client Sample ID:




MH 5/23/12

US52 : 91959

FID:4A-2C/RTX-1 MOIL #3 FID:4A SIGNAL




MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/23/12

**Analytical Resources, Incorporated**
Analytical Chemists and Consultants

# GC Analyst Notes / Corrective Action Log

ARI Project ID: UU62 Client ID: Anchor QEA, LLC

ARI SOP: **403S**(PCB) **405S**(Herb) (**407S**(TPH-D)) **409S**(HCID) **412S**(PCP) **423S**(Pest) **427S**(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): A/S NWTPHD + M.011

Instrument: FID-3A FID-3B (FID-4A) FID-4B FID-5 FID-7 FID-8 FID-9 ECD-1 ECD-5 ECD-6 ECD-7

Dates: Curve: 5/14/12 MO:1 5/15/12 Diesel Analysis Start: 5/21/12

Endrin/DDT Breakdown <15%? YES / NO / NA

Method Blank In Control? (YES) / N

ICal Meets RF & %RSD Criteria? (YES) / NO

LCS/LCSD Recovery In Control? (YES) / N

CCal Meets RF & %RSD Criteria? (YES) / NO

Surrogate Recovery In Control? (YES) / N

Manual Integrations for ICal? (YES) / NO

Manual Integrations for Samples? YES / (N)

Internal Standard Meets Criteria? YES / NO / (NA)

Special Analysis Criteria Met? YES / NO / (N)

**Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):**

**Additional Details on Reverse: Yes / No**

**Analyst:** [signature] **Date:** 5/22/12

**Reviewer:** [signature] **Date:** 5/22

# Analytical Resources Inc.: Organics Instrument Log

## FID-4A Serial No.: US00003247

Date: 5/21/12 Analysis: NWTPHD Analyst: MH

Column 1 Serial No.: 977444 Column Type: RTX-1

Column 2 Serial No.: ——— Column Type: ———

GC Method: TPH ICal Date: 5/15/12 Diesel 5/14/12 MOil Injection Volume: 1µl

| IS | Ical/Ccal | ICV |
|---|---|---|
| | 1932-1 | |
| | 1960-1 | |
| | 1972-1 | |
| | 1971-3 | |

## Document All Maintenance Tasks In StarLIMS

| | Inject Date/Time | Filename | DF | LabID |
|---|---|---|---|---|
| 1 | 21-MAY-2012 09:13 | 0521a001.d | 1 | RINSE |
| 2 | 21-MAY-2012 09:36 | 0521a002.d | 1 | RT |
| 3 | 21-MAY-2012 10:01 | 0521a003.d | 1 | IB |
| 4 | 21-MAY-2012 10:25 | 0521a004.d | 1 | DIESEL #1 |
| 5 | 21-MAY-2012 10:49 | 0521a005.d | 1 | MOIL #1 |
| 6 | 21-MAY-2012 11:44 | 0521a006.d | 1 | UU62MBW1 |
| 7 | 21-MAY-2012 12:08 | 0521a007.d | 1 | UU62LCSW1 |
| 8 | 21-MAY-2012 12:33 | 0521a008.d | 1 | UU62LCSDW1 |
| 9 | 21-MAY-2012 12:57 | 0521a009.d | 1 | UU62QLS |
| 10 | 21-MAY-2012 13:22 | 0521a010.d | 1 | UU62J |
| 11 | 21-MAY-2012 13:46 | 0521a011.d | 1 | UU62K |
| 12 | 21-MAY-2012 14:11 | 0521a012.d | 1 | UU74A |
| 13 | 21-MAY-2012 14:35 | 0521a013.d | 1 | UU74B |
| 14 | 21-MAY-2012 15:00 | 0521a014.d | 1 | UU74C |
| 15 | 21-MAY-2012 15:24 | 0521a015.d | 1 | UU74D |
| 16 | 21-MAY-2012 15:49 | 0521a016.d | 1 | UU74E |
| 17 | 21-MAY-2012 16:13 | 0521a017.d | 1 | DIESEL #2 |
| 18 | 21-MAY-2012 16:37 | 0521a018.d | 1 | MOIL #2 |
| 19 | 21-MAY-2012 17:02 | 0521a019.d | 1 | UU68MBW1 |
| 20 | 21-MAY-2012 17:26 | 0521a020.d | 1 | UU68LCSW1 |
| 21 | 21-MAY-2012 17:50 | 0521a021.d | 1 | UU68LCSDW1 |
| 22 | 21-MAY-2012 18:14 | 0521a022.d | 1 | UU68A |
| 23 | 21-MAY-2012 18:39 | 0521a023.d | 1 | UU66A |
| 24 | 21-MAY-2012 19:03 | 0521a024.d | 1 | UU66B |
| 25 | 21-MAY-2012 19:27 | 0521a025.d | 1 | DIESEL #3 |
| 26 | 21-MAY-2012 19:51 | 0521a026.d | 1 | MOIL #3 |
| 27 | 21-MAY-2012 20:15 | 0521a027.d | 1 | UU96MBS1 |
| 28 | 21-MAY-2012 20:39 | 0521a028.d | 1 | UU96LCSS1 |
| 29 | 21-MAY-2012 21:03 | 0521a029.d | 1 | UU96LCSDS1 |
| 30 | 21-MAY-2012 21:28 | 0521a030.d | 1 | UU96A |
| 31 | 21-MAY-2012 21:52 | 0521a031.d | 1 | DIESEL #4 |
| 32 | 21-MAY-2012 22:16 | 0521a032.d | 1 | MOIL #4 |

MH 5/22/12

**Every line must contain information or be lined out. Make all entries legible.**
**Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS**

MH 5/22/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120521.b/0521a002.d ARI ID: RT
Method: /chem3/fid4a.i/20120521.b/ftphfid4a.m Client ID:
Instrument: fid4a.i Injection: 21-MAY-2012 09:36
Operator: MH
Report Date: 05/22/2012 Dilution Factor: 1
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.261 | 0.000 | 533873 | 430402 | GAS (Tol-C12) | 1209908 | 80.43 |
| C8 | 1.469 | 0.000 | 269194 | 259383 | DIESEL (C12-C24) | 1553423 | 113.99 |
| C10 | 3.123 | 0.000 | 114234 | 176363 | M.OIL (C24-C38) | 1694634 | 173.82 |
| C12 | 4.202 | 0.000 | 41963 | 135228 | AK-102 (C10-C25) | 2000812 | 123.56 |
| C14 | 4.924 | 0.000 | 88966 | 221541 | AK-103 (C25-C36) | 1551244 | 199.92 |
| C16 | 5.563 | 0.000 | 128044 | 213983 | OR.DIES (C10-C28) | 2912728 | 226.79 |
| C18 | 6.142 | 0.000 | 125589 | 223833 | CRUDE (Tol-C40) | 4534490 | 600.38 |
| C20 | 6.724 | 0.000 | 141594 | 234160 | MIN.OIL (C24-C38) | 1694634 | 126.08 |
| C22 | 7.268 | 0.000 | 209040 | 239054 | | | |
| C24 | 7.778 | 0.000 | 282468 | 252084 | | | |
| C25 | 8.027 | 0.000 | 366999 | 331942 | | | |
| C26 | 8.264 | 0.000 | 221619 | 261403 | | | |
| C28 | 8.720 | 0.000 | 273011 | 264368 | | | |
| C32 | 9.665 | 0.000 | 168191 | 234518 | | | |
| C34 | 10.146 | 0.000 | 131490 | 208635 | CREOSOT (C12-C22) | 1299905 | 353.80 |
| Filter Peak | 10.516 | 0.000 | 532 | 362 | | | |
| C36 | 10.627 | 0.000 | 98676 | 159596 | | | |
| C38 | 11.098 | 0.000 | 56055 | 112028 | | | |
| C40 | 11.560 | 0.000 | 19587 | 45321 | | | |
| o-terph | 6.313 | 0.000 | 598321 | 820750 | JET-A (C10-C18) | 1262101 | 85.04 |
| Triacon Surr | 9.193 | 0.000 | 638664 | 804533 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.202 - 7.778) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 820750 | 47.8 | 106.1 |
| Triacontane | 804533 | 46.9 | 104.3 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120521.b/0521a002.d

Date : 21-MAY-2012 09:36

Client ID:

Sample Info: RT

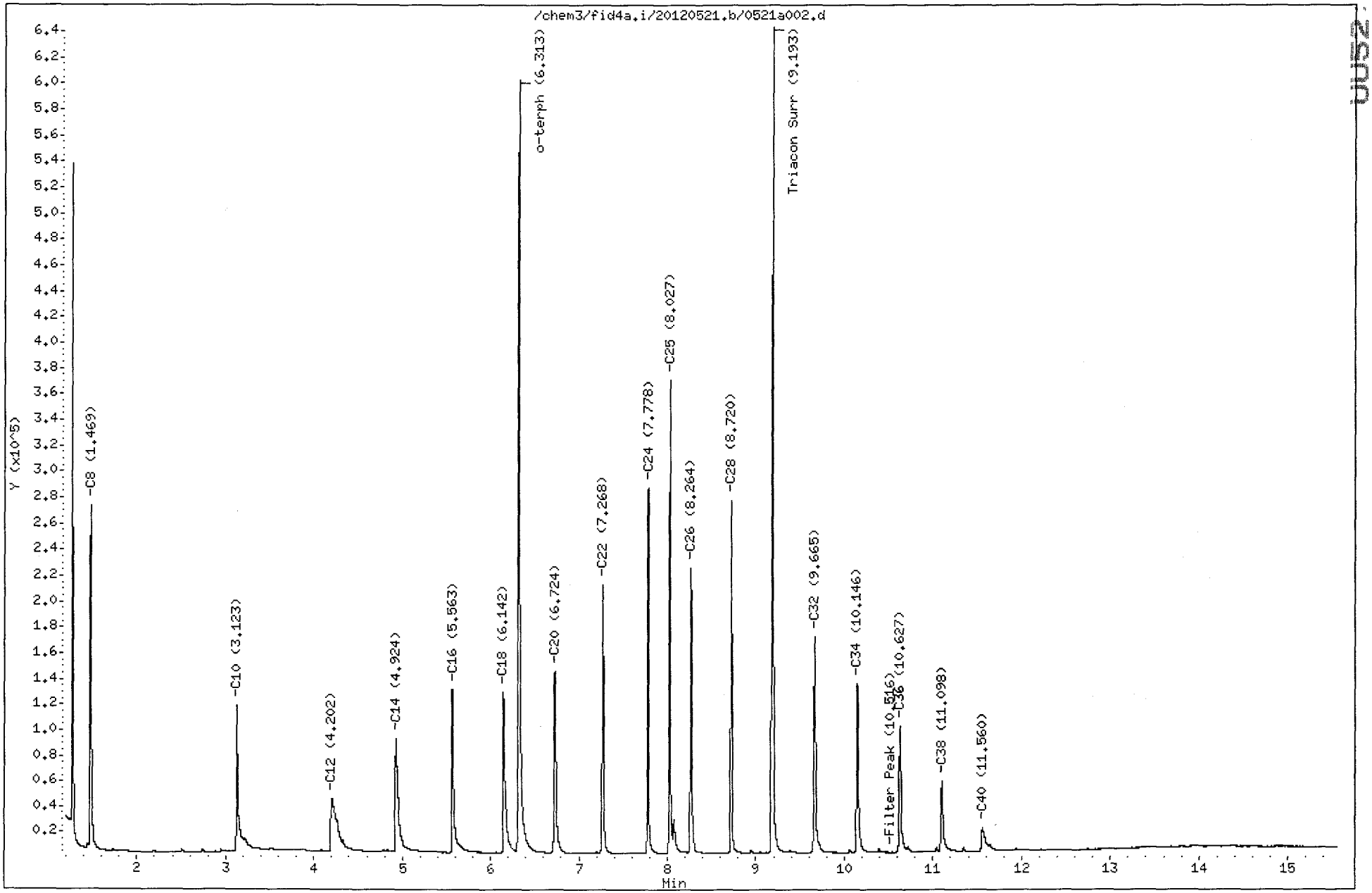
Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

Column diameter: 0.25





MH 5/22/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120521.b/0521a003.d
Method: /chem3/fid4a.i/20120521.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/22/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: IB
Client ID:
Injection: 21-MAY-2012 10:01
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.262 | 0.001 | 64899 | 143076 | GAS (Tol-C12) | 309031 | 20.54 |
| C8 | ---- | | | | DIESEL (C12-C24) | 160175 | 11.75 |
| C10 | 3.130 | 0.006 | 1102 | 3292 | M.OIL (C24-C38) | 306314 | 31.42 |
| C12 | 4.150 | -0.052 | 1495 | 4143 | AK-102 (C10-C25) | 257847 | 15.92 |
| C14 | 4.934 | 0.011 | 1293 | 1560 | AK-103 (C25-C36) | 271802 | 35.03 |
| C16 | 5.564 | 0.001 | 724 | 381 | OR.DIES (C10-C28) | 411260 | 32.02 |
| C18 | 6.133 | -0.009 | 442 | 416 | CRUDE (Tol-C40) | 804322 | 106.49 |
| C20 | 6.735 | 0.010 | 1315 | 1226 | MIN.OIL (C24-C38) | 306314 | 22.79 |
| C22 | 7.254 | -0.014 | 485 | 546 | | | |
| C24 | 7.782 | 0.004 | 57 | 25 | | | |
| C25 | 8.021 | -0.007 | 1079 | 918 | | | |
| C26 | 8.281 | 0.017 | 391 | 814 | | | |
| C28 | 8.704 | -0.017 | 2496 | 2949 | | | |
| C32 | 9.660 | -0.005 | 879 | 1554 | | | |
| C34 | 10.146 | 0.000 | 530 | 271 | CREOSOT (C12-C22) | 158367 | 43.10 |
| Filter Peak | 10.514 | -0.002 | 550 | 448 | | | |
| C36 | 10.640 | 0.013 | 532 | 615 | | | |
| C38 | 11.125 | 0.028 | 748 | 384 | | | |
| C40 | 11.565 | 0.005 | 869 | 548 | | | |
| o-terph | 6.312 | -0.002 | 539358 | 839049 | JET-A (C10-C18) | 201862 | 13.60 |
| Triacon Surr | 9.189 | -0.004 | 591520 | 768387 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.202 - 7.778) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 839049 | 48.8 | 108.5 |
| Triacontane | 768387 | 44.8 | 99.6 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120521.b/0521a003.d

Date : 21-MAY-2012 10:01

Client ID:

Sample Info: IB

Column phase: RTX-1

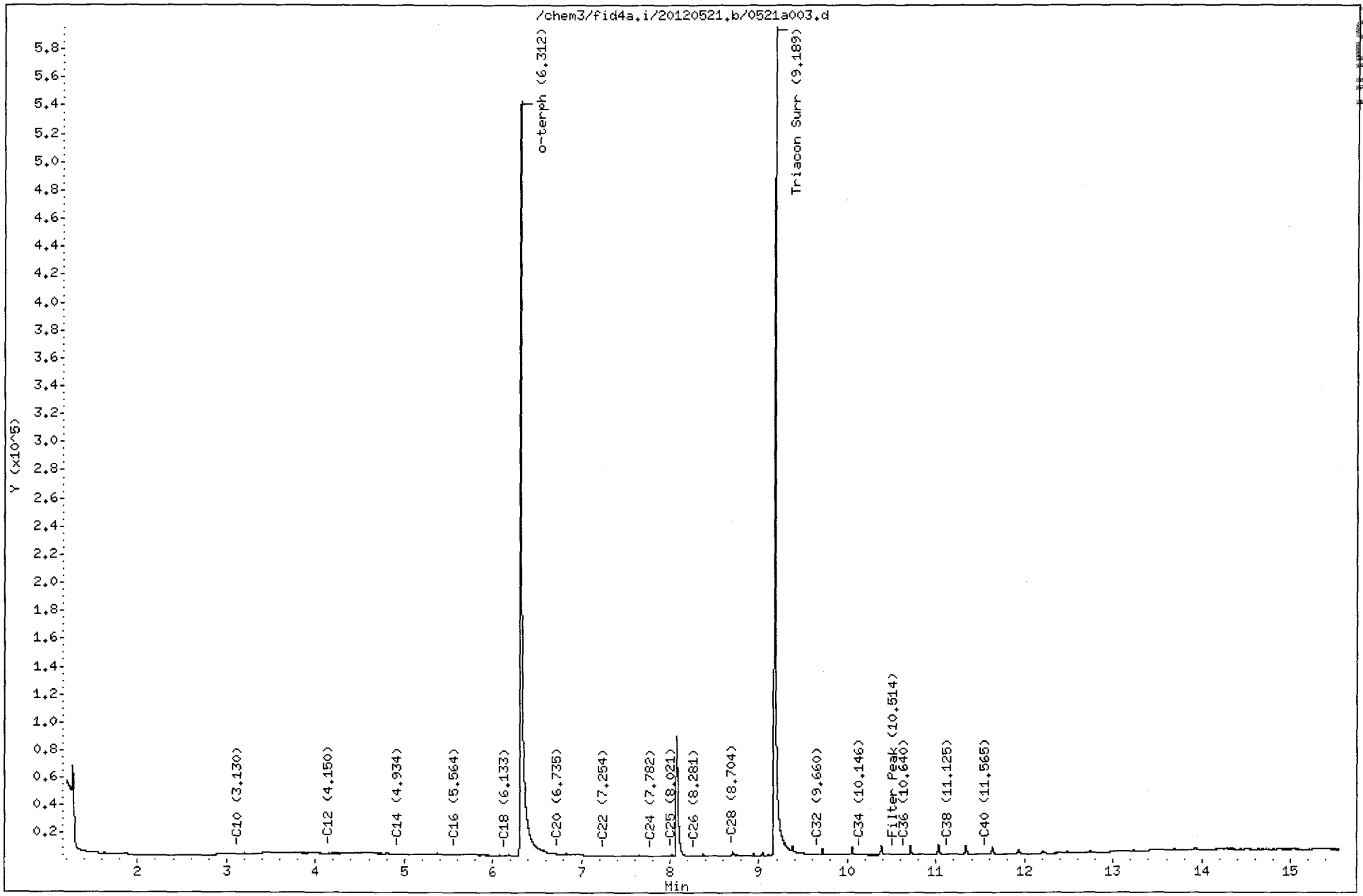
Instrument: fid4a.i

Operator: MH

Column diameter: 0.25



0052 01567



MH 5/21/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120521.b/0521a004.d
Method: /chem3/fid4a.i/20120521.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/22/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: DIESEL #1
Client ID:
Injection: 21-MAY-2012 10:25

Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc | |
|---|---|---|---|---|---|---|---|---|
| Toluene | 1.308 | 0.046 | 2622 | 3182 | GAS (Tol-C12) | 881109 | 58.57 | |
| C8 | 1.468 | -0.001 | 1047 | 1417 | DIESEL (C12-C24) | 3581267 | 262.79 | |
| C10 | 3.121 | -0.002 | 4028 | 4388 | M.OIL (C24-C38) | 113068 | 11.60 | |
| C12 | 4.209 | 0.007 | 13218 | 16391 | AK-102 (C10-C25) | 4244941 | 262.15 | M |
| C14 | 4.940 | 0.016 | 23788 | 31993 | AK-103 (C25-C36) | 79154 | 10.20 | |
| C16 | 5.574 | 0.011 | 26264 | 69940 | OR.DIES (C10-C28) | 4300316 | 334.84 | M |
| C18 | 6.137 | -0.005 | 67686 | 79926 | CRUDE (Tol-C40) | 4588580 | 607.54 | M |
| C20 | 6.728 | 0.003 | 32023 | 84287 | MIN.OIL (C24-C38) | 113068 | 8.41 | |
| C22 | 7.249 | -0.019 | 7400 | 9296 | | | | |
| C24 | 7.785 | 0.007 | 2781 | 3506 | | | | |
| C25 | 8.025 | -0.003 | 2269 | 5292 | | | | |
| C26 | 8.276 | 0.011 | 1533 | 1579 | | | | |
| C28 | 8.713 | -0.007 | 1624 | 2573 | | | | |
| C32 | 9.658 | -0.008 | 58 | 73 | | | | |
| C34 | 10.145 | -0.001 | 46 | 43 | CREOSOT (C12-C22) | 3450926 | 939.24 | M |
| Filter Peak | 10.524 | 0.008 | 86 | 59 | | | | |
| C36 | 10.624 | -0.003 | 86 | 99 | | | | |
| C38 | 11.103 | 0.005 | 244 | 299 | | | | |
| C40 | 11.552 | -0.008 | 422 | 462 | | | | |
| o-terph | 6.315 | 0.002 | 752711 | 835976 | JET-A (C10-C18) | 3138186 | 211.44 | |
| Triacon Surr | 9.195 | 0.002 | 103 | 62 | | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.202 - 7.778) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 835976 | 48.6 | 108.1 |
| Triacontane | 62 | 0.0 | 0.0 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120521.b/0521a004.d

Date : 21-MAY-2012 10:25

Client ID:

Sample Info: DIESEL #1

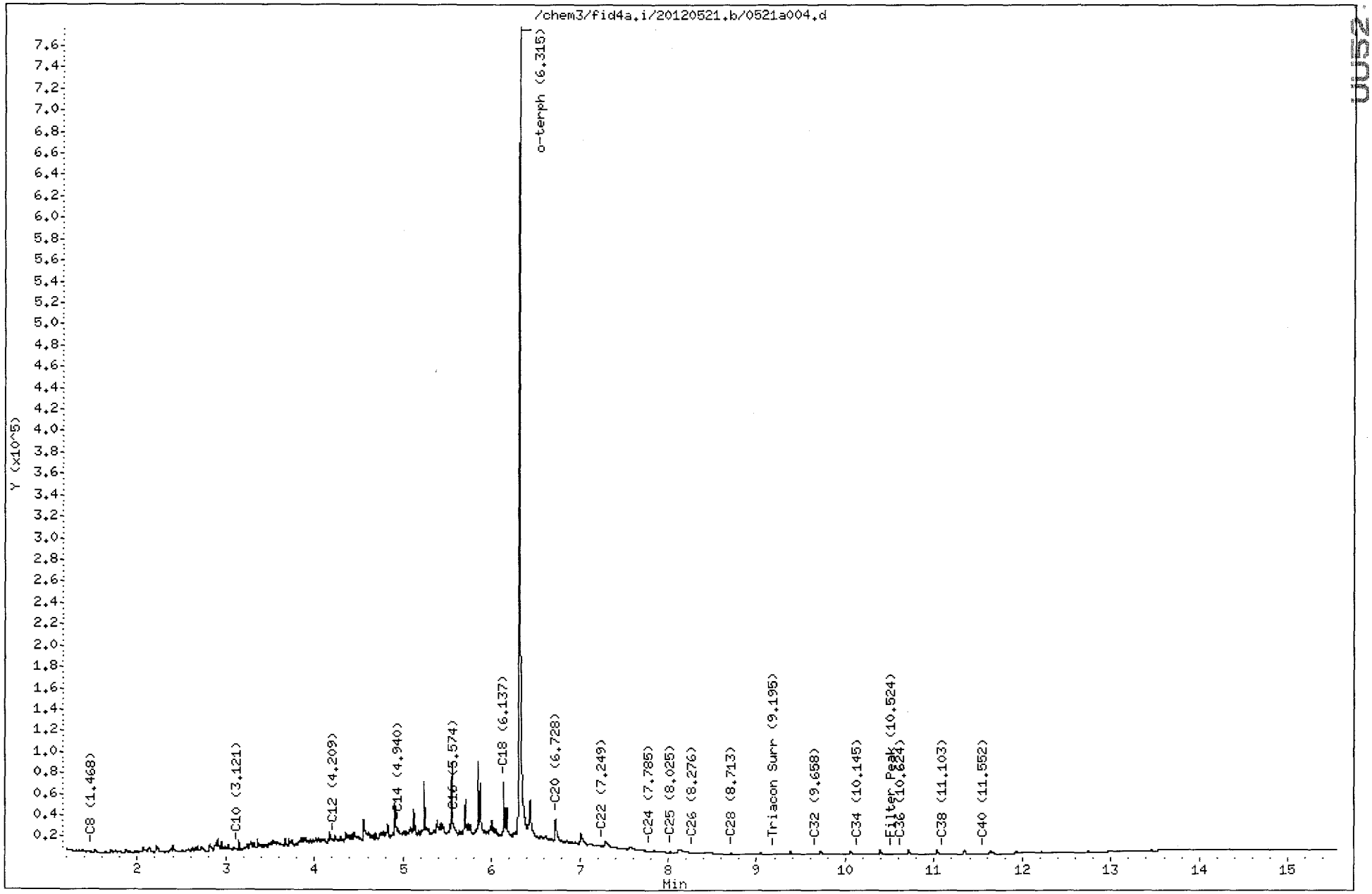
Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

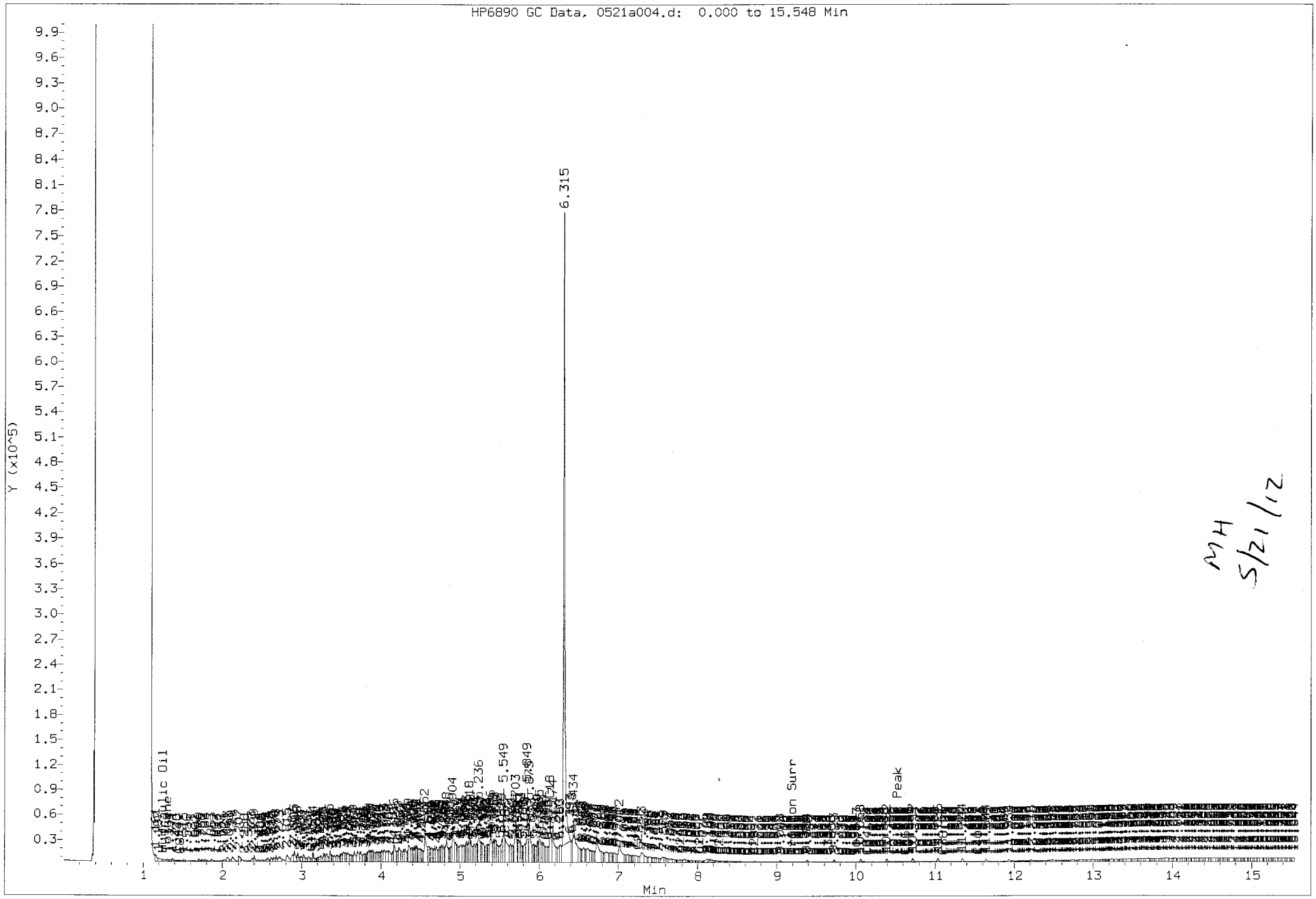
Column diameter: 0.25






UU52 01969

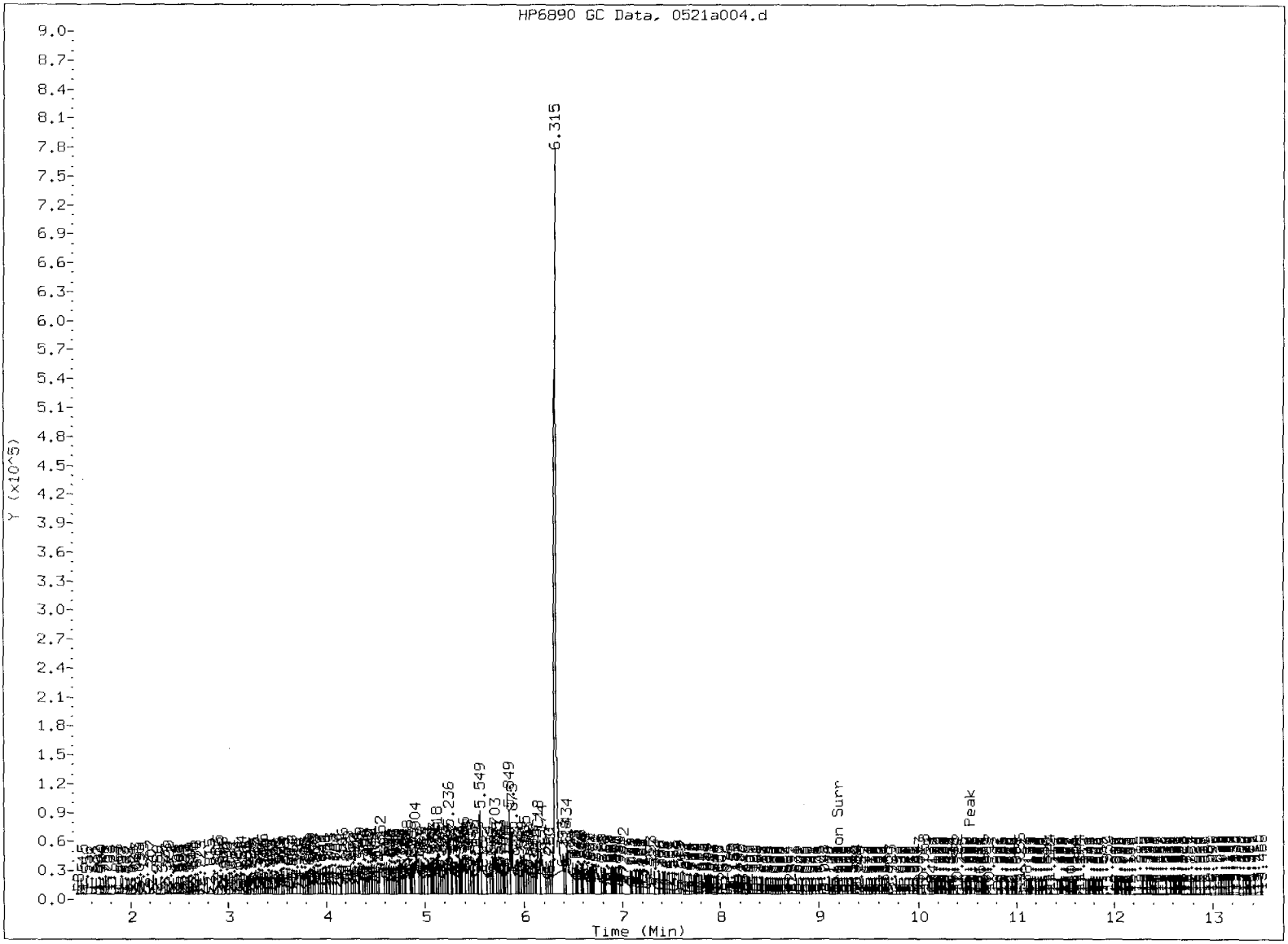
Data File: /chem3/fid4a.i/20120521.b/0521a004.d
Injection Date: 21-MAY-2012 10:25
Instrument: fid4a.i
Client Sample ID:




MH 5/21/12

UU52 : 91579

FID:4A-2C/RTX-1 DIESEL #1 FID:4A SIGNAL




MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/21/12

MH 5/22/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120521.b/0521a005.d
Method: /chem3/fid4a.i/20120521.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/22/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: MOIL #1
Client ID:
Injection: 21-MAY-2012 10:49
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc | |
|---|---|---|---|---|---|---|---|---|
| Toluene | 1.265 | 0.004 | 45229 | 93639 | GAS (Tol-C12) | 201539 | 13.40 | |
| C8 | 1.498 | 0.029 | 1232 | 3806 | DIESEL (C12-C24) | 577999 | 42.41 | |
| C10 | 3.119 | -0.004 | 642 | 291 | M.OIL (C24-C38) | 4834117 | 495.83 | |
| C12 | 4.203 | 0.000 | 990 | 2095 | AK-102 (C10-C25) | 829968 | 51.25 | |
| C14 | 4.926 | 0.002 | 895 | 1239 | AK-103 (C25-C36) | 4334601 | 558.63 | M |
| C16 | 5.558 | -0.005 | 790 | 1656 | OR.DIES (C10-C28) | 2266370 | 176.47 | |
| C18 | 6.175 | 0.032 | 446 | 830 | CRUDE (Tol-C40) | 5798539 | 767.74 | M |
| C20 | 6.732 | 0.007 | 1010 | 1700 | MIN.OIL (C24-C38) | 4834117 | 359.66 | M |
| C22 | 7.265 | -0.003 | 4657 | 3078 | | | | |
| C24 | 7.772 | -0.006 | 19384 | 19491 | | | | |
| C25 | 8.025 | -0.003 | 26341 | 18418 | | | | |
| C26 | 8.259 | -0.005 | 30838 | 17047 | | | | |
| C28 | 8.719 | -0.002 | 34826 | 21485 | | | | |
| C32 | 9.661 | -0.005 | 29756 | 47213 | | | | |
| C34 | 10.146 | 0.000 | 23425 | 18936 | CREOSOT (C12-C22) | 190195 | 51.77 | |
| Filter Peak | 10.519 | 0.003 | 16258 | 5078 | | | | |
| C36 | 10.622 | -0.005 | 14942 | 8422 | | | | |
| C38 | 11.107 | 0.009 | 9131 | 4130 | | | | |
| C40 | 11.564 | 0.004 | 5612 | 2805 | | | | |
| o-terph | 6.320 | 0.006 | 392 | 158 | JET-A (C10-C18) | 140845 | 9.49 | |
| Triacon Surr | 9.196 | 0.003 | 593724 | 764223 | | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.202 - 7.778) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 158 | 0.0 | 0.0 |
| Triacontane | 764223 | 44.6 | 99.1 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120521.b/0521a005.d

Date : 21-MAY-2012 10:49

Client ID:

Sample Info: MOIL #1

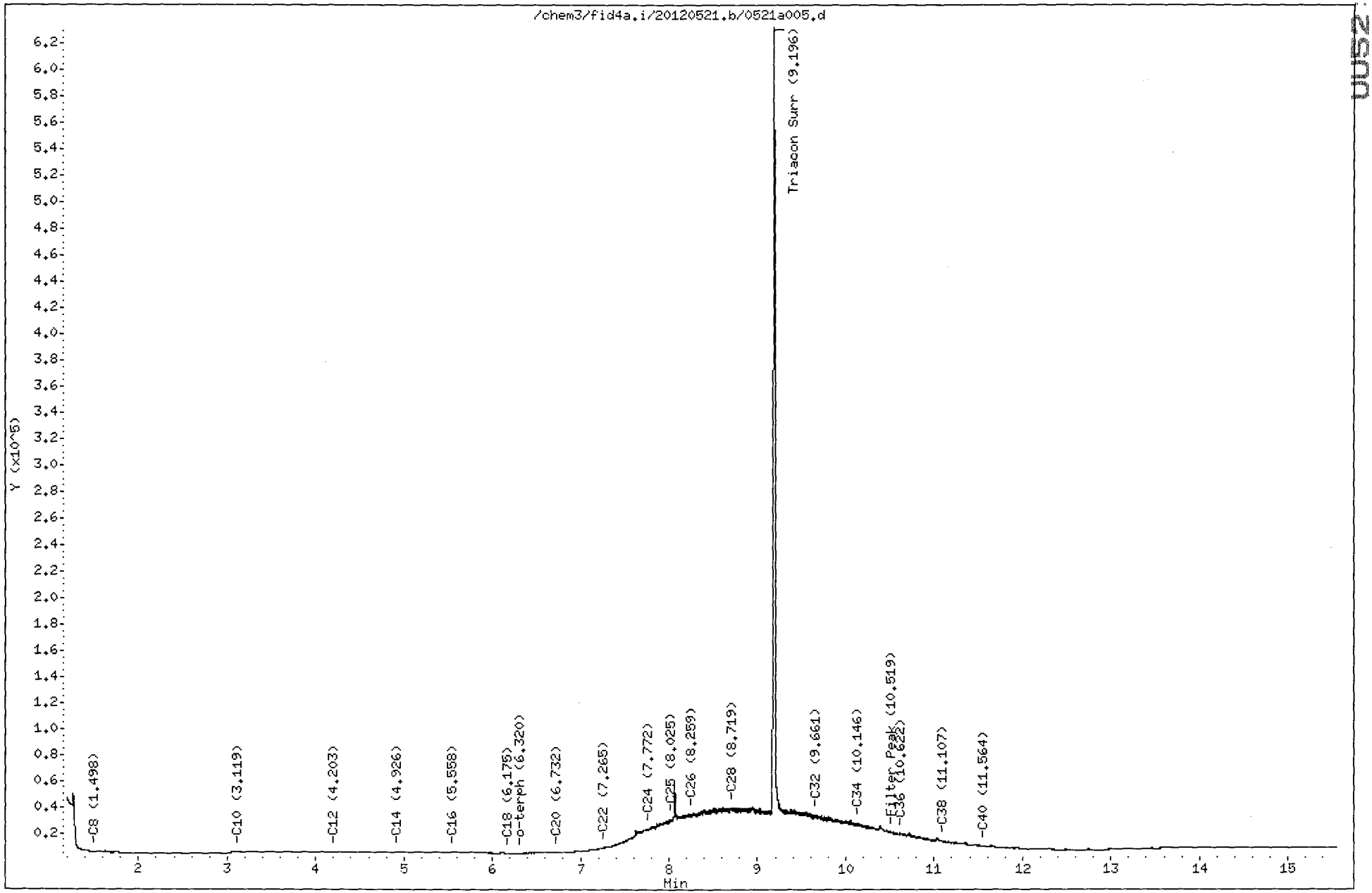
Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

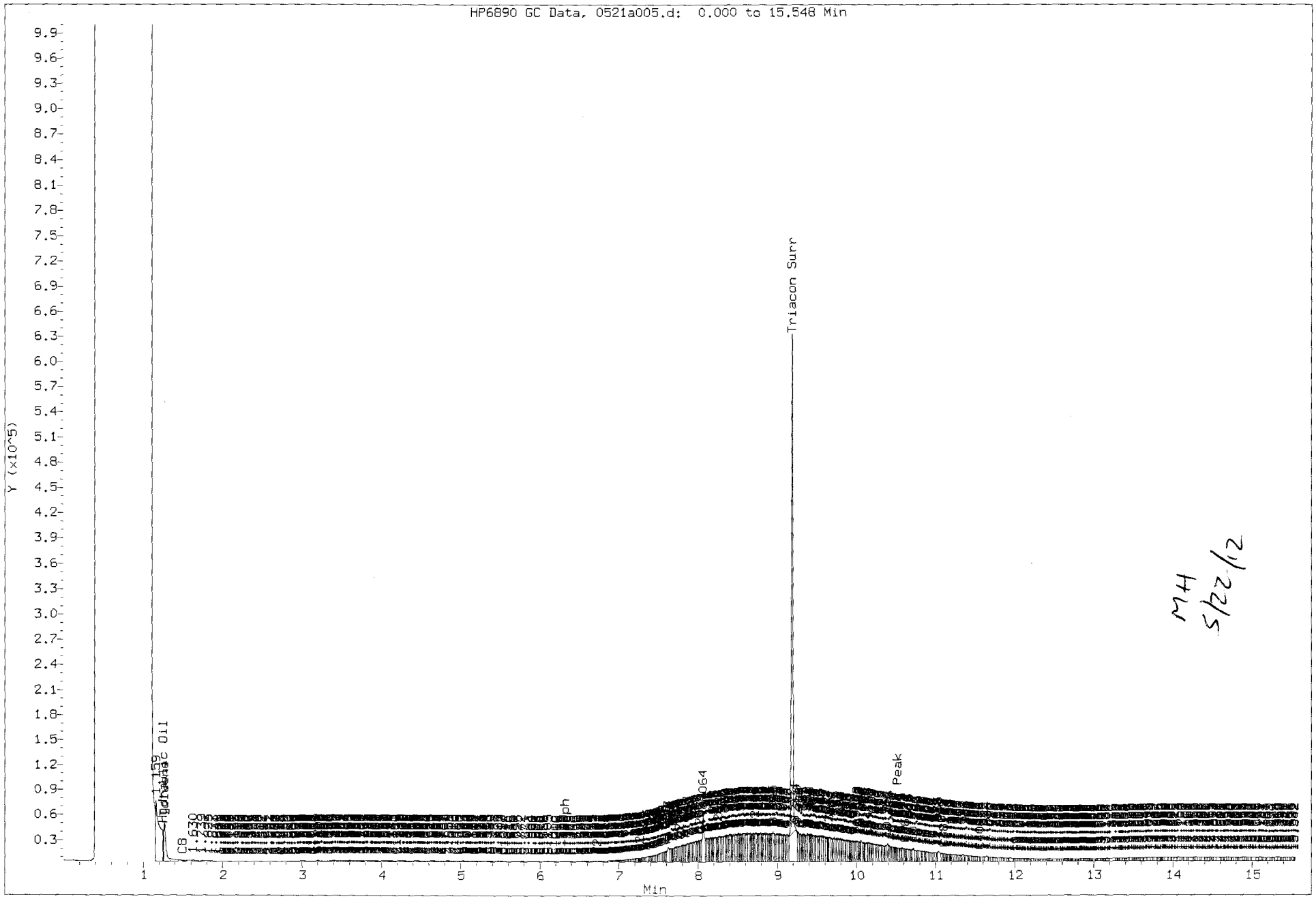
Column diameter: 0.25






UU52 01973

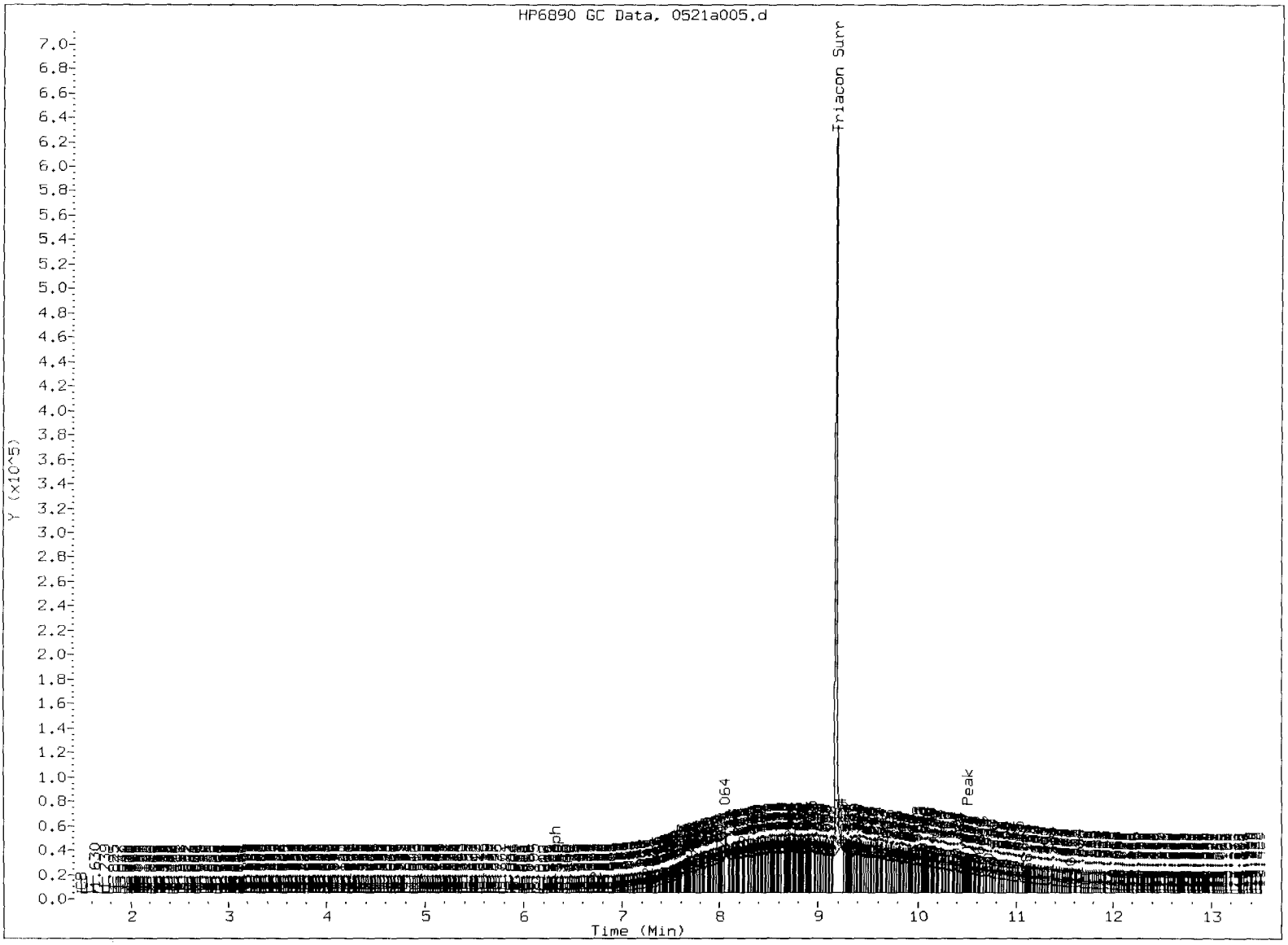
Data File: /chem3/fid4a.i/20120521.b/0521a005.d
Injection Date: 21-MAY-2012 10:49
Instrument: fid4a.i
Client Sample ID:




MH
5/22/12

UU52:01974

FID:4A-2C/RTX-1 MOIL #1 FID:4A SIGNAL




MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/22/12

MH 5/22/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120521.b/0521a006.d
Method: /chem3/fid4a.i/20120521.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/22/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU62MBW1
Client ID: UU62MBW1
Injection: 21-MAY-2012 11:44
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.269 | 0.008 | 6000 | 14024 | GAS (Tol-C12) | 48037 | 3.19 |
| C8 | 1.384 | -0.085 | 992 | 4934 | DIESEL (C12-C24) | 129572 | 9.51 |
| C10 | 3.128 | 0.005 | 192 | 146 | M.OIL (C24-C38) | 175246 | 17.97 |
| C12 | 4.225 | 0.023 | 262 | 317 | AK-102 (C10-C25) | 146434 | 9.04 |
| C14 | 4.927 | 0.004 | 192 | 201 | AK-103 (C25-C36) | 148613 | 19.15 |
| C16 | 5.549 | -0.014 | 279 | 252 | OR.DIES (C10-C28) | 163318 | 12.72 |
| C18 | 6.136 | -0.006 | 177 | 377 | CRUDE (Tol-C40) | 377270 | 49.95 |
| C20 | 6.736 | 0.011 | 1515 | 2458 | MIN.OIL (C24-C38) | 175246 | 13.04 |
| C22 | 7.255 | -0.013 | 582 | 1069 | | | |
| C24 | 7.779 | 0.001 | 178 | 91 | | | |
| C25 | 8.027 | 0.000 | 873 | 1288 | | | |
| C26 | 8.261 | -0.004 | 237 | 231 | | | |
| C28 | 8.711 | -0.009 | 1970 | 1990 | | | |
| C32 | 9.667 | 0.001 | 1021 | 1747 | | | |
| C34 | 10.149 | 0.003 | 652 | 626 | CREOSOT (C12-C22) | 124465 | 33.88 |
| Filter Peak | 10.523 | 0.007 | 598 | 341 | | | |
| C36 | 10.623 | -0.004 | 593 | 461 | | | |
| C38 | 11.112 | 0.014 | 709 | 195 | | | |
| C40 | 11.564 | 0.004 | 805 | 589 | | | |
| o-terph | 6.314 | 0.001 | 514226 | 782889 | JET-A (C10-C18) | 40880 | 2.75 |
| Triacon Surr | 9.200 | 0.006 | 565876 | 781669 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.202 - 7.778) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 782889 | 45.6 | 101.2 |
| Triacontane | 781669 | 45.6 | 101.3 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120521.b/0521a006.d
Date : 21-MAY-2012 11:44
Client ID: UU62MBW1
Sample Info: UU62MBW1

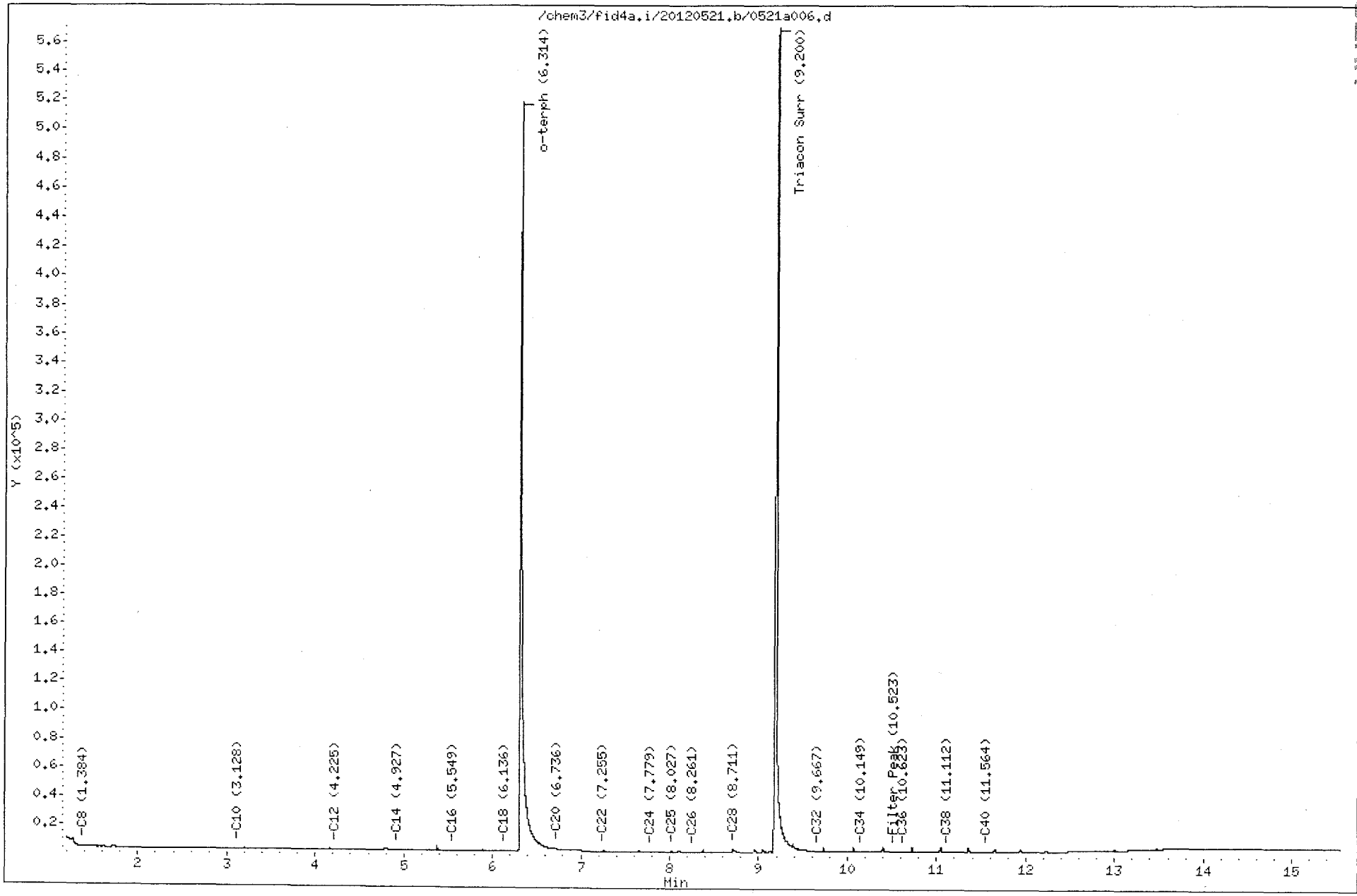
Instrument: fid4a.i

Operator: MH
Column diameter: 0.25

Column phase: RTX-1



UU62 : 04577



MH 5/22/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120521.b/0521a007.d
Method: /chem3/fid4a.i/20120521.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/22/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU62LCSW1
Client ID: UU62LCSW1
Injection: 21-MAY-2012 12:08
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc | |
|---|---|---|---|---|---|---|---|---|
| Toluene | 1.262 | 0.001 | 6174 | 8778 | GAS (Tol-C12) | 4034928 | 268.21 | |
| C8 | 1.455 | -0.014 | 2333 | 2486 | DIESEL (C12-C24) | 18066162 | 1325.66 | |
| C10 | 3.122 | -0.002 | 80277 | 66033 | M.OIL (C24-C38) | 260241 | 26.69 | |
| C12 | 4.196 | -0.007 | 107101 | 82519 | AK-102 (C10-C25) | 21058735 | 1300.48 | M |
| C14 | 4.924 | 0.000 | 113884 | 140884 | AK-103 (C25-C36) | 188151 | 24.25 | |
| C16 | 5.545 | -0.018 | 572077 | 617410 | OR.DIES (C10-C28) | 21175807 | 1648.82 | M |
| C18 | 6.142 | -0.001 | 488061 | 480460 | CRUDE (Tol-C40) | 22367875 | 2961.55 | M |
| C20 | 6.715 | -0.010 | 316224 | 368719 | MIN.OIL (C24-C38) | 260241 | 19.36 | |
| C22 | 7.263 | -0.005 | 129179 | 196362 | | | | |
| C24 | 7.793 | 0.014 | 26080 | 68064 | | | | |
| C25 | 8.015 | -0.012 | 5703 | 3387 | | | | |
| C26 | 8.277 | 0.012 | 5868 | 12669 | | | | |
| C28 | 8.721 | 0.000 | 1609 | 1677 | | | | |
| C32 | 9.657 | -0.009 | 500 | 625 | | | | |
| C34 | 10.137 | -0.009 | 108 | 128 | CREOSOT (C12-C22) | 17462539 | 4752.81 | M |
| Filter Peak | 10.499 | -0.017 | 53 | 62 | | | | |
| C36 | 10.629 | 0.001 | 32 | 17 | | | | |
| C38 | 11.115 | 0.017 | 98 | 83 | | | | |
| C40 | 11.553 | -0.008 | 233 | 148 | | | | |
| o-terph | 6.320 | 0.006 | 1032808 | 829112 | JET-A (C10-C18) | 15522839 | 1045.87 | |
| Triacon Surr | 9.190 | -0.004 | 583747 | 813135 | | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.202 - 7.778) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 829112 | 48.2 | 107.2 |
| Triacontane | 813135 | 47.4 | 105.4 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

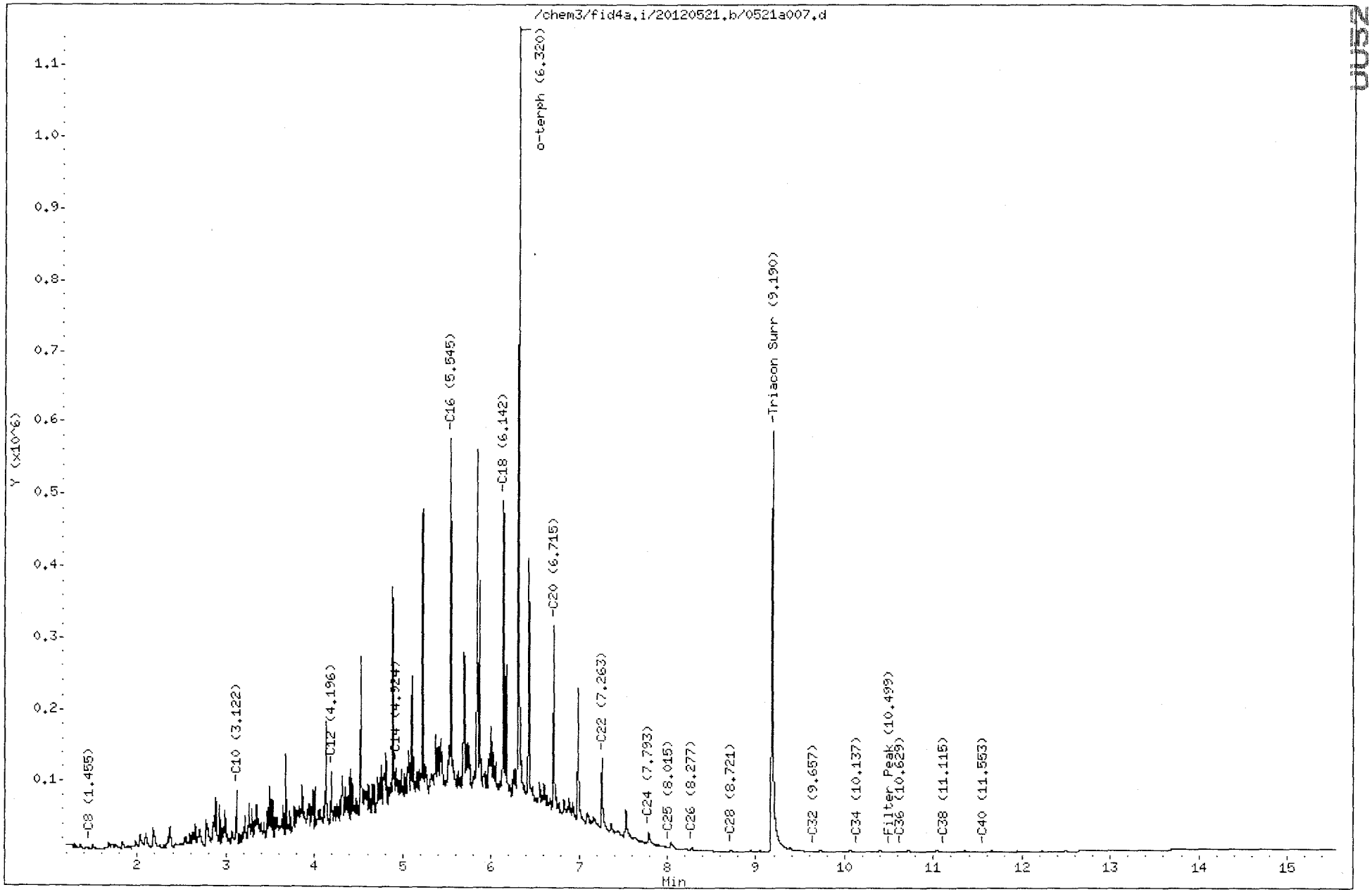
Data File: /chem3/fid4a.i/20120521.b/0521a007.d
Date : 21-MAY-2012 12:08
Client ID: UU62LCSW1
Sample Info: UU62LCSW1

Column phase: RTX-1

Instrument: fid4a.i

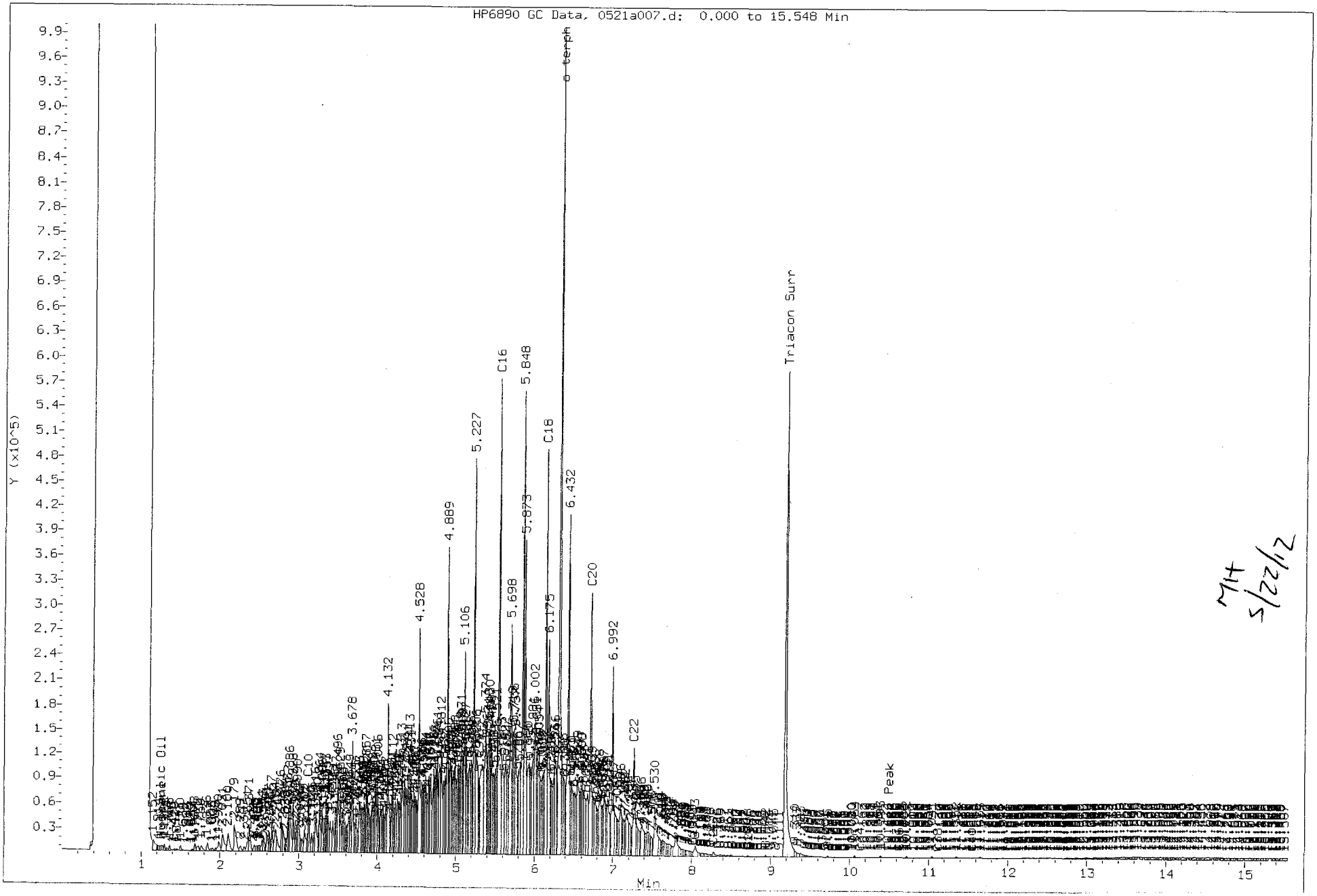
Operator: MH
Column diameter: 0.25






UU52:01979

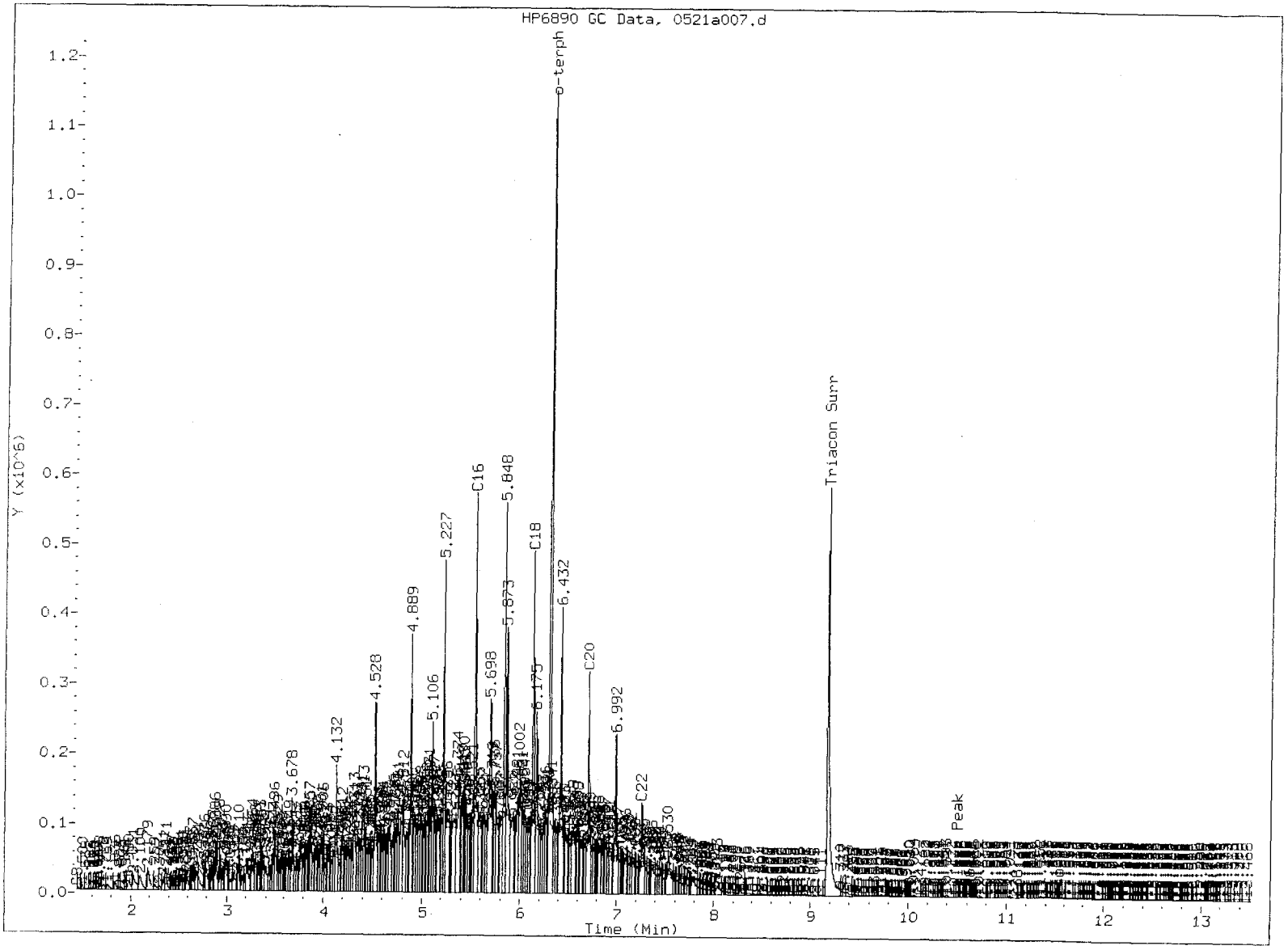
Data File: /chem3/fid4a.i/20120521.b/0521a007.d
Injection Date: 21-MAY-2012 12:08
Instrument: fid4a.i
Client Sample ID: UU62LCSW1




UU62 : 91585

MH
5/22/12

FID:4A-2C/RTX-1 UU62LCSW1 FID:4A SIGNAL




MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/22/12

MH
5/22/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120521.b/0521a008.d
Method: /chem3/fid4a.i/20120521.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/22/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU62LCSDW1
Client ID: UU62LCSDW1
Injection: 21-MAY-2012 12:33
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc | |
|---|---|---|---|---|---|---|---|---|
| Toluene | 1.262 | 0.000 | 7027 | 10017 | GAS (Tol-C12) | 4196722 | 278.97 | |
| C8 | 1.454 | -0.015 | 2233 | 2733 | DIESEL (C12-C24) | 18279787 | 1341.34 | |
| C10 | 3.122 | -0.001 | 81300 | 68151 | M.OIL (C24-C38) | 270596 | 27.75 | |
| C12 | 4.195 | -0.007 | 108654 | 84512 | AK-102 (C10-C25) | 21414601 | 1322.46 | M |
| C14 | 4.925 | 0.001 | 116735 | 153350 | AK-103 (C25-C36) | 194281 | 25.04 | |
| C16 | 5.567 | 0.004 | 129621 | 112988 | OR.DIES (C10-C28) | 21531580 | 1676.52 | M |
| C18 | 6.141 | -0.002 | 494473 | 496882 | CRUDE (Tol-C40) | 22751819 | 3012.39 | M |
| C20 | 6.714 | -0.011 | 337460 | 454133 | MIN.OIL (C24-C38) | 270596 | 20.13 | |
| C22 | 7.262 | -0.006 | 126133 | 233161 | | | | |
| C24 | 7.773 | -0.006 | 12265 | 8868 | | | | |
| C25 | 8.019 | -0.009 | 5844 | 1917 | | | | |
| C26 | 8.252 | -0.013 | 2643 | 811 | | | | |
| C28 | 8.719 | -0.001 | 1689 | 1632 | | | | |
| C32 | 9.663 | -0.003 | 484 | 121 | | | | |
| C34 | 10.148 | 0.002 | 94 | 94 | CREOSOT (C12-C22) | 17673206 | 4810.14 | M |
| Filter Peak | 10.523 | 0.006 | 52 | 17 | | | | |
| C36 | 10.615 | -0.012 | 47 | 37 | | | | |
| C38 | 11.107 | 0.009 | 83 | 73 | | | | |
| C40 | 11.562 | 0.001 | 196 | 55 | | | | |
| o-terph | 6.319 | 0.005 | 1029607 | 836669 | JET-A (C10-C18) | 15880696 | 1069.98 | |
| Triacon Surr | 9.190 | -0.004 | 587212 | 810923 | | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.202 - 7.778) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 836669 | 48.7 | 108.2 |
| Triacontane | 810923 | 47.3 | 105.1 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120521.b/0521a008.d

Date : 21-MAY-2012 12:33

Client ID: UU62LCSDW1

Sample Info: UU62LCSDW1

Instrument: fid4a.i

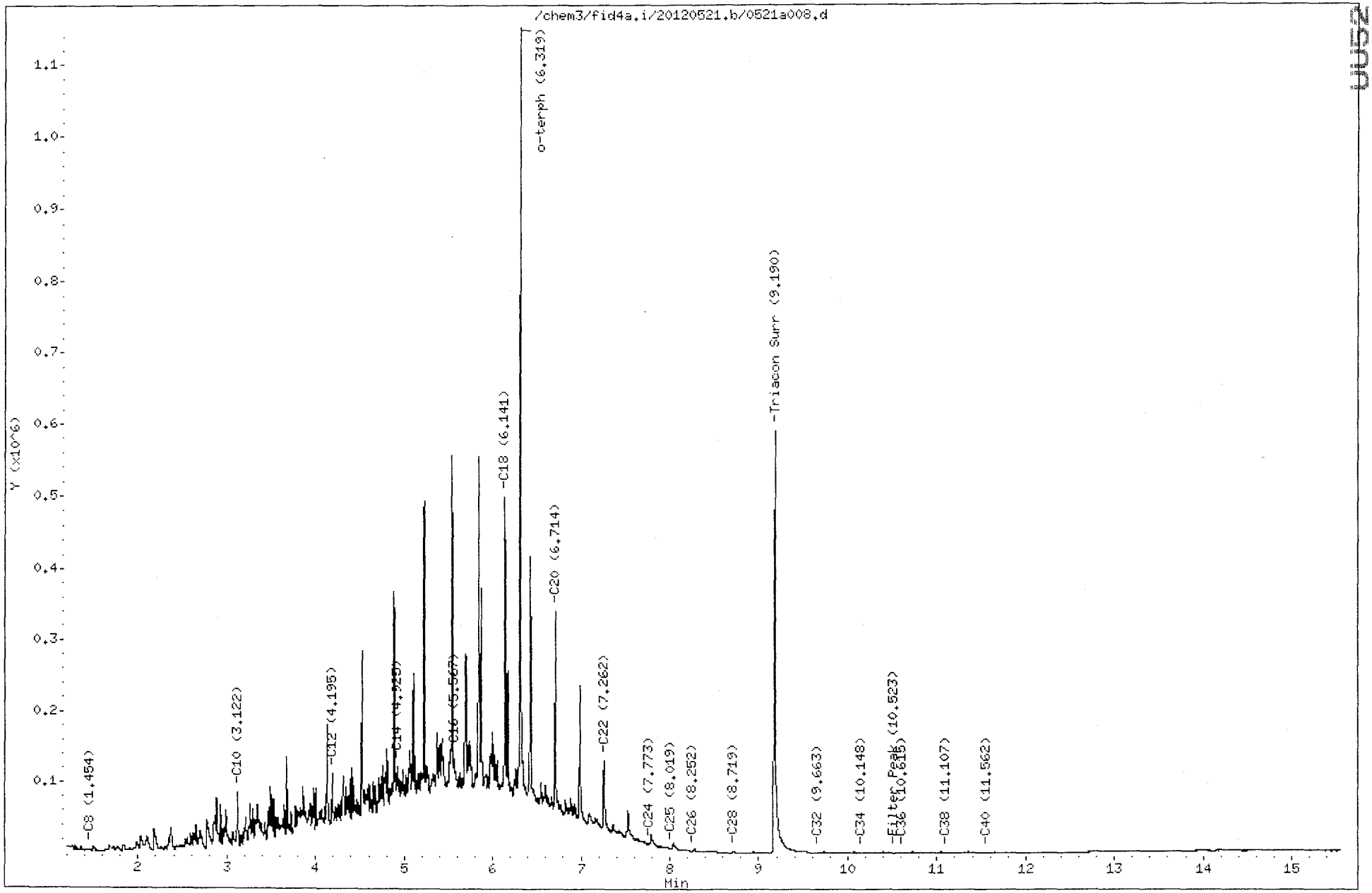
Operator: MH

Column phase: RTX-1

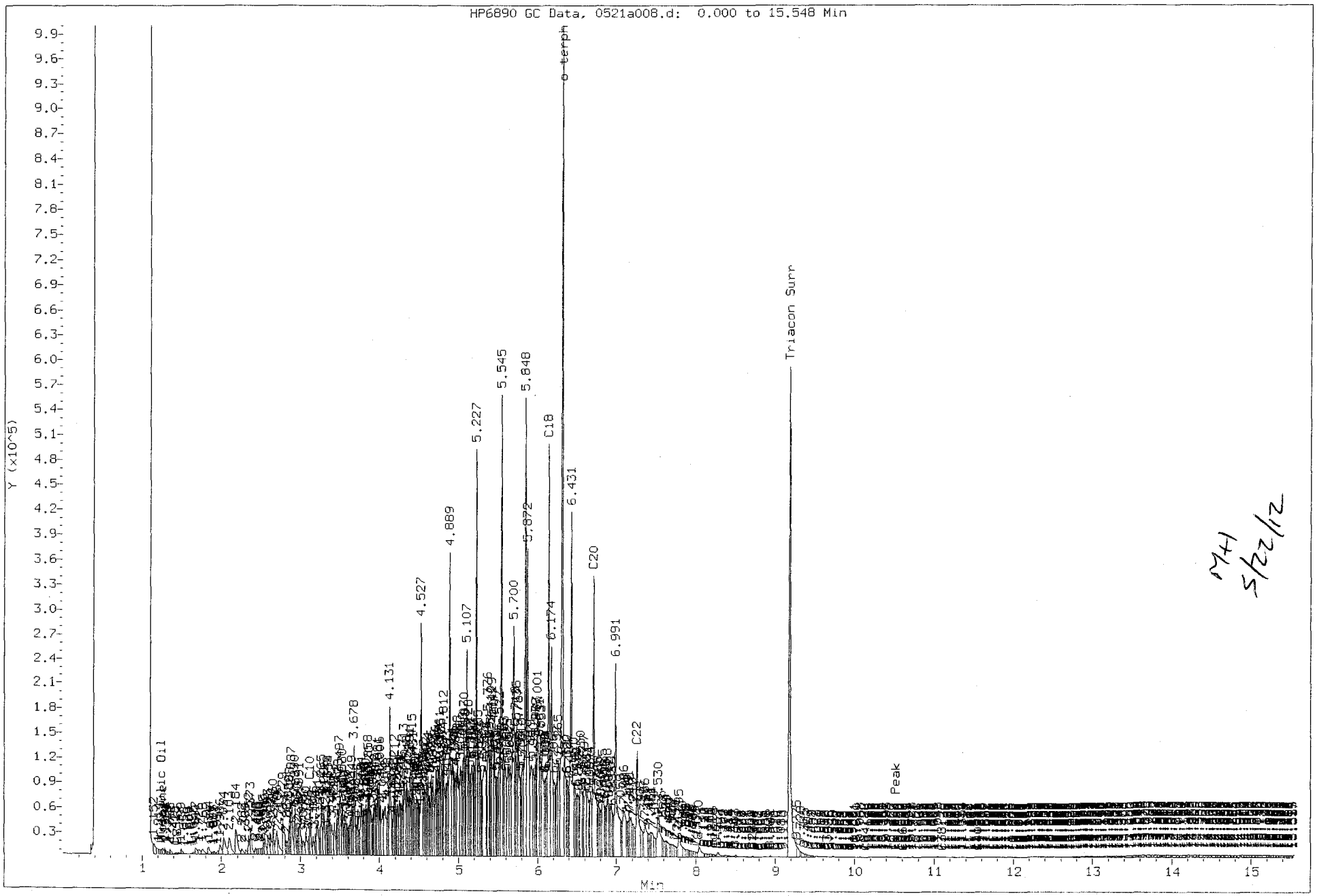
Column diameter: 0.25



UU62:91583



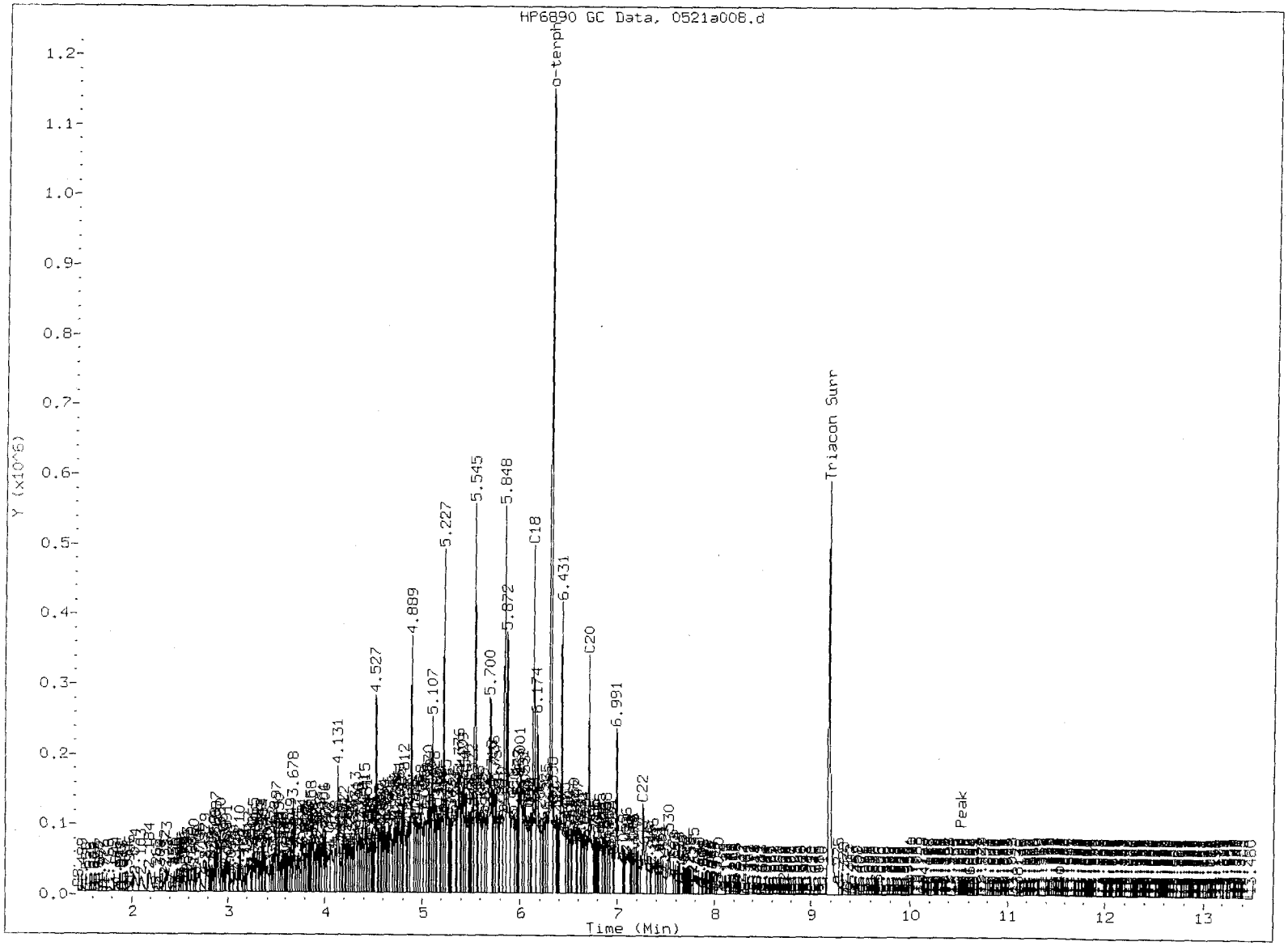
Data File: /chem3/fid4a.i/20120521.b/0521a008.d
Injection Date: 21-MAY-2012 12:33
Instrument: fid4a.i
Client Sample ID: UU62LCSDW1




M+1
5/22/12

UU52:01984

FID:4A-2C/RTX-1 UU62LCSDW1 FID:4A SIGNAL




MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/22/12

MH 5/22/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120521.b/0521a010.d ARI ID: UU62J
Method: /chem3/fid4a.i/20120521.b/ftphfid4a.m Client ID: MS-SSRB-120515
Instrument: fid4a.i Injection: 21-MAY-2012 13:22
Operator: MH
Report Date: 05/22/2012 Dilution Factor: 1
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.267 | 0.006 | 6137 | 7220 | GAS (Tol-C12) | 62450 | 4.15 |
| C8 | 1.485 | 0.016 | 694 | 1111 | DIESEL (C12-C24) | 105853 | 7.77 |
| C10 | 3.126 | 0.003 | 260 | 120 | M.OIL (C24-C38) | 163967 | 16.82 |
| C12 | 4.202 | 0.000 | 492 | 576 | AK-102 (C10-C25) | 129838 | 8.02 |
| C14 | 4.908 | -0.015 | 334 | 644 | AK-103 (C25-C36) | 147269 | 18.98 |
| C16 | 5.576 | 0.013 | 296 | 119 | OR.DIES (C10-C28) | 144743 | 11.27 |
| C18 | 6.134 | -0.008 | 205 | 293 | CRUDE (Tol-C40) | 346813 | 45.92 |
| C20 | 6.731 | 0.007 | 1363 | 1360 | MIN.OIL (C24-C38) | 163967 | 12.20 |
| C22 | 7.269 | 0.001 | 265 | 357 | | | |
| C24 | 7.773 | -0.005 | 207 | 189 | | | |
| C25 | 8.030 | 0.002 | 447 | 702 | | | |
| C26 | 8.257 | -0.007 | 267 | 268 | | | |
| C28 | 8.709 | -0.011 | 893 | 1457 | | | |
| C32 | 9.674 | 0.009 | 942 | 433 | | | |
| C34 | 10.145 | -0.001 | 515 | 292 | CREOSOT (C12-C22) | 100733 | 27.42 |
| Filter Peak | 10.510 | -0.006 | 461 | 697 | | | |
| C36 | 10.590 | -0.037 | 1674 | 6354 | | | |
| C38 | 11.097 | -0.001 | 538 | 680 | | | |
| C40 | 11.565 | 0.005 | 617 | 326 | | | |
| o-terph | 6.312 | -0.001 | 488359 | 809242 | JET-A (C10-C18) | 53547 | 3.61 |
| Triacon Surr | 9.186 | -0.008 | 518116 | 747010 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.202 - 7.778) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 809242 | 47.1 | 104.6 |
| Triacontane | 747010 | 43.6 | 96.8 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120521.b/0521a010.d

Date : 21-MAY-2012 13:22

Client ID: MS-SSRB-120515

Sample Info: UU62J

Instrument: fid4a.i

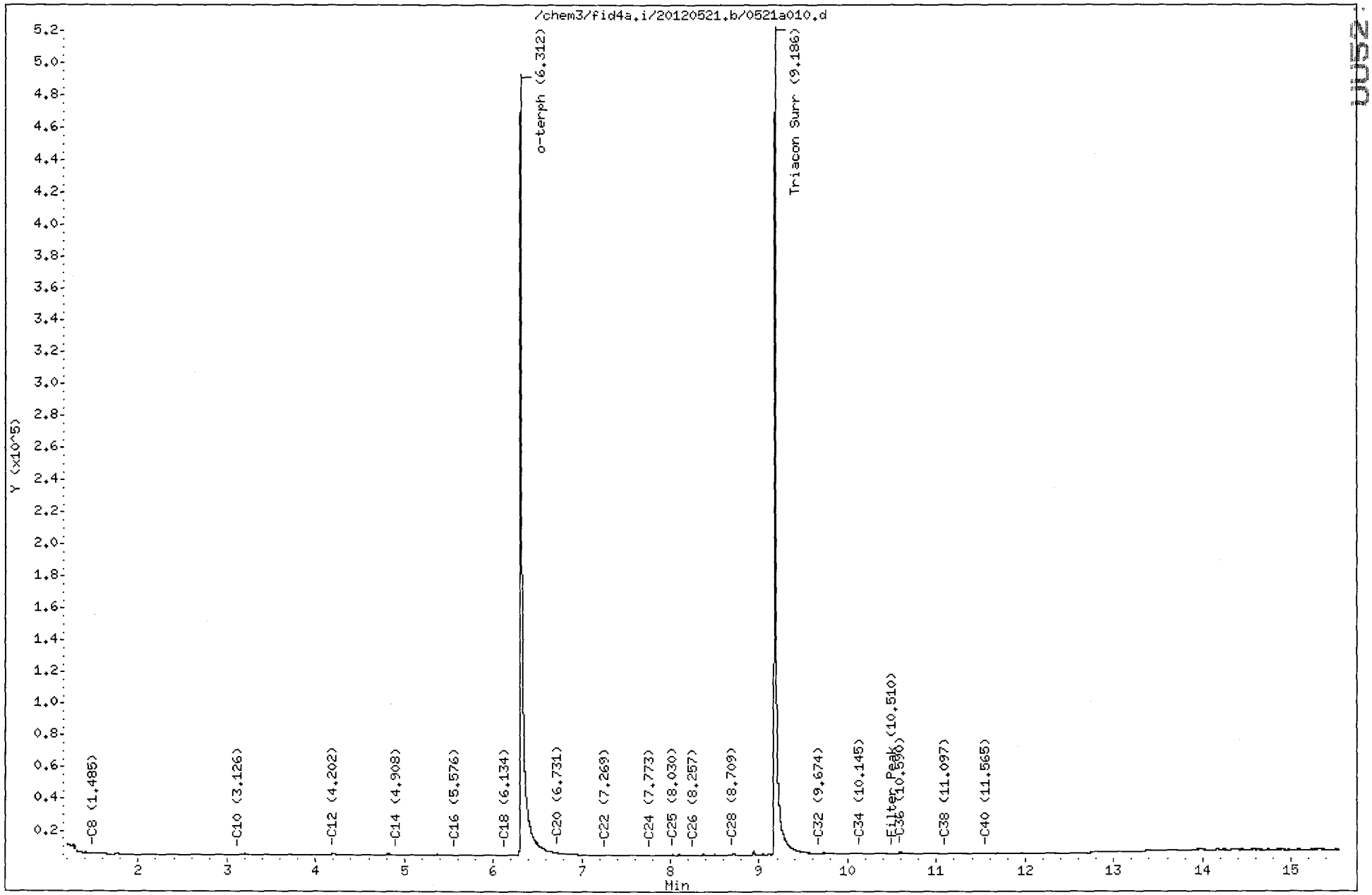
Operator: MH

Column phase: RTX-1

Column diameter: 0.25



UU52 01587



MH 5/22/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120521.b/0521a011.d
Method: /chem3/fid4a.i/20120521.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/22/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: UU62K
Client ID: MS-SSFB-120515
Injection: 21-MAY-2012 13:46
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc |
|---|---|---|---|---|---|---|---|
| Toluene | 1.269 | 0.008 | 7244 | 8410 | GAS (Tol-C12) | 66914 | 4.45 |
| C8 | 1.455 | -0.014 | 1137 | 3395 | DIESEL (C12-C24) | 85250 | 6.26 |
| C10 | 3.117 | -0.006 | 230 | 328 | M.OIL (C24-C38) | 83951 | 8.61 |
| C12 | 4.209 | 0.007 | 349 | 1009 | AK-102 (C10-C25) | 101274 | 6.25 |
| C14 | 4.925 | 0.001 | 192 | 195 | AK-103 (C25-C36) | 72932 | 9.40 |
| C16 | 5.566 | 0.003 | 213 | 290 | OR.DIES (C10-C28) | 107027 | 8.33 |
| C18 | 6.153 | 0.011 | 109 | 78 | CRUDE (Tol-C40) | 246897 | 32.69 |
| C20 | 6.725 | 0.001 | 1418 | 1629 | MIN.OIL (C24-C38) | 83951 | 6.25 |
| C22 | 7.272 | 0.004 | 126 | 160 | | | |
| C24 | 7.787 | 0.009 | 87 | 49 | | | |
| C25 | 8.029 | 0.002 | 247 | 271 | | | |
| C26 | 8.262 | -0.002 | 62 | 14 | | | |
| C28 | 8.721 | 0.000 | 549 | 446 | | | |
| C32 | 9.674 | 0.009 | 850 | 933 | | | |
| C34 | 10.142 | -0.004 | 384 | 330 | CREOSOT (C12-C22) | 83900 | 22.84 |
| Filter Peak | 10.507 | -0.009 | 322 | 343 | | | |
| C36 | 10.638 | 0.011 | 443 | 470 | | | |
| C38 | 11.113 | 0.015 | 373 | 388 | | | |
| C40 | 11.564 | 0.003 | 441 | 758 | | | |
| o-terph | 6.313 | -0.001 | 485576 | 770594 | JET-A (C10-C18) | 34836 | 2.35 |
| Triacon Surr | 9.186 | -0.007 | 562186 | 768542 | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.202 - 7.778) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 770594 | 44.8 | 99.6 |
| Triacontane | 768542 | 44.8 | 99.6 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120521.b/0521a011.d

Date : 21-MAY-2012 13:46

Client ID: MS-SSFB-120515

Sample Info: UU62K

Column phase: RTX-1

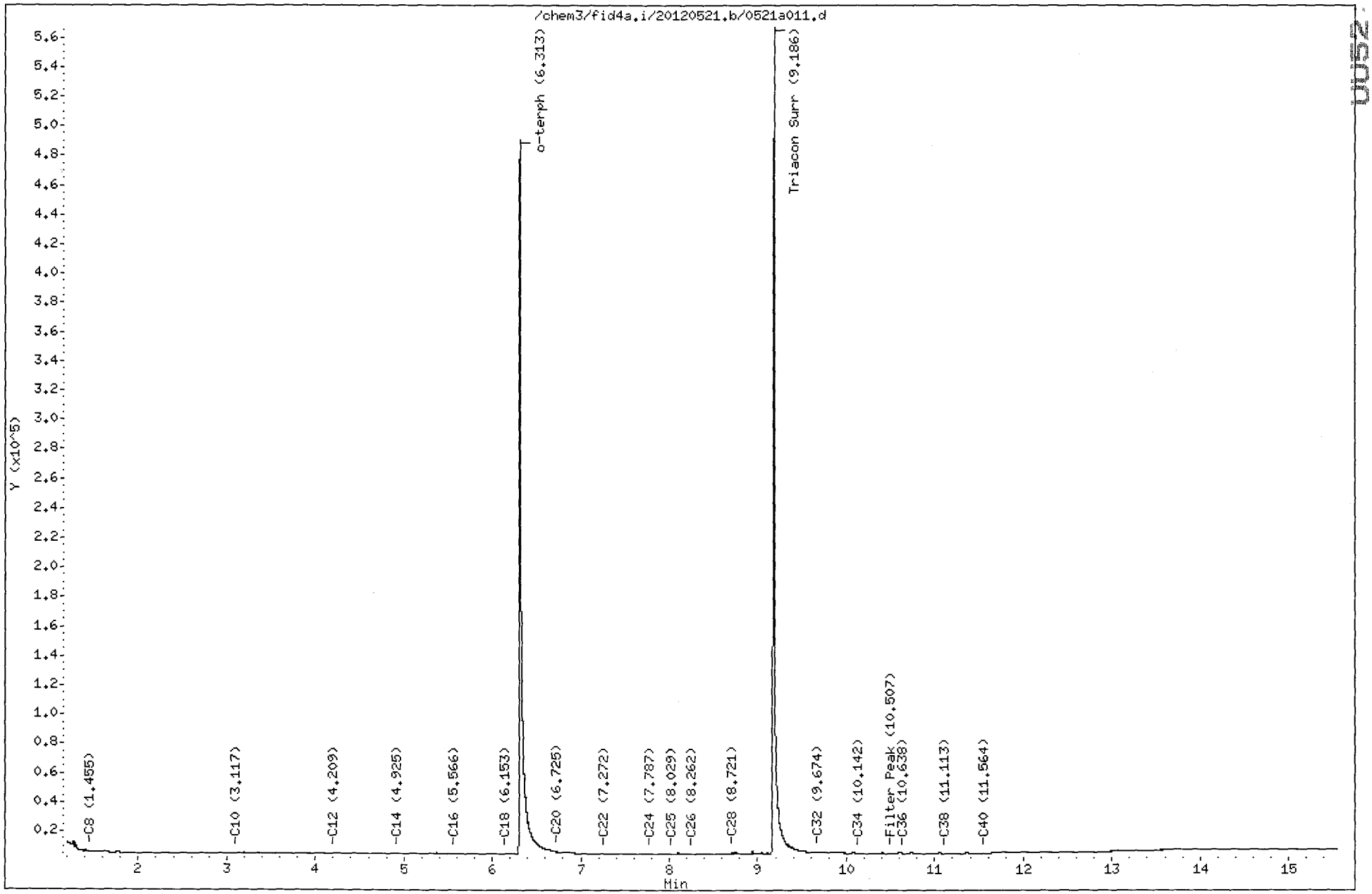
Instrument: fid4a.i

Operator: MH

Column diameter: 0.25



UU52 61583



MH 5/22/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120521.b/0521a017.d
Method: /chem3/fid4a.i/20120521.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/22/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: DIESEL #2
Client ID:
Injection: 21-MAY-2012 16:13
Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc | |
|---|---|---|---|---|---|---|---|---|
| Toluene | 1.301 | 0.040 | 3169 | 3900 | GAS (Tol-C12) | 941430 | 62.58 | |
| C8 | 1.463 | -0.005 | 1384 | 2045 | DIESEL (C12-C24) | 3640149 | 267.11 | |
| C10 | 3.124 | 0.001 | 4225 | 4320 | M.OIL (C24-C38) | 99415 | 10.20 | |
| C12 | 4.214 | 0.012 | 13779 | 19684 | AK-102 (C10-C25) | 4335684 | 267.75 | M |
| C14 | 4.938 | 0.015 | 24925 | 30802 | AK-103 (C25-C36) | 76046 | 9.80 | |
| C16 | 5.576 | 0.013 | 26850 | 50114 | OR.DIES (C10-C28) | 4394428 | 342.17 | M |
| C18 | 6.137 | -0.005 | 65248 | 79825 | OR.MOIL (C28-C40) | 24658 | 3.26 | |
| C20 | 6.729 | 0.004 | 29663 | 70727 | JET-A (C10-C18) | 3234893 | 217.96 | |
| C22 | 7.256 | -0.012 | 7597 | 8048 | MIN.OIL (C24-C38) | 99415 | 7.40 | |
| C24 | 7.765 | -0.014 | 3431 | 5515 | | | | |
| C25 | 8.032 | 0.005 | 2214 | 5536 | | | | |
| C26 | 8.275 | 0.011 | 2019 | 4377 | | | | |
| C28 | 8.724 | 0.004 | 1023 | 2823 | | | | |
| C32 | 9.663 | -0.003 | 110 | 171 | | | | |
| C34 | 10.136 | -0.010 | 32 | 30 | | | | |
| Filter Peak | 10.505 | -0.011 | 36 | 41 | CREOSOT (C12-C22) | 3507106 | 954.53 | M |
| C36 | 10.635 | 0.008 | 36 | 24 | | | | |
| C38 | 11.094 | -0.004 | 89 | 84 | | | | |
| C40 | 11.565 | 0.005 | 156 | 55 | | | | |
| o-terph | 6.313 | 0.000 | 733601 | 821721 | CRUDE (Tol-C40) | 4684648 | 620.26 | M |
| Triacon Surr | 9.190 | -0.003 | 225 | 111 | | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.202 - 7.778) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 821721 | 47.8 | 106.2 |
| Triacontane | 111 | 0.0 | 0.0 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| OR Moil | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120521.b/0521a017.d

Date : 21-MAY-2012 16:13

Client ID:

Sample Info: DIESEL #2

Column phase: RTX-1

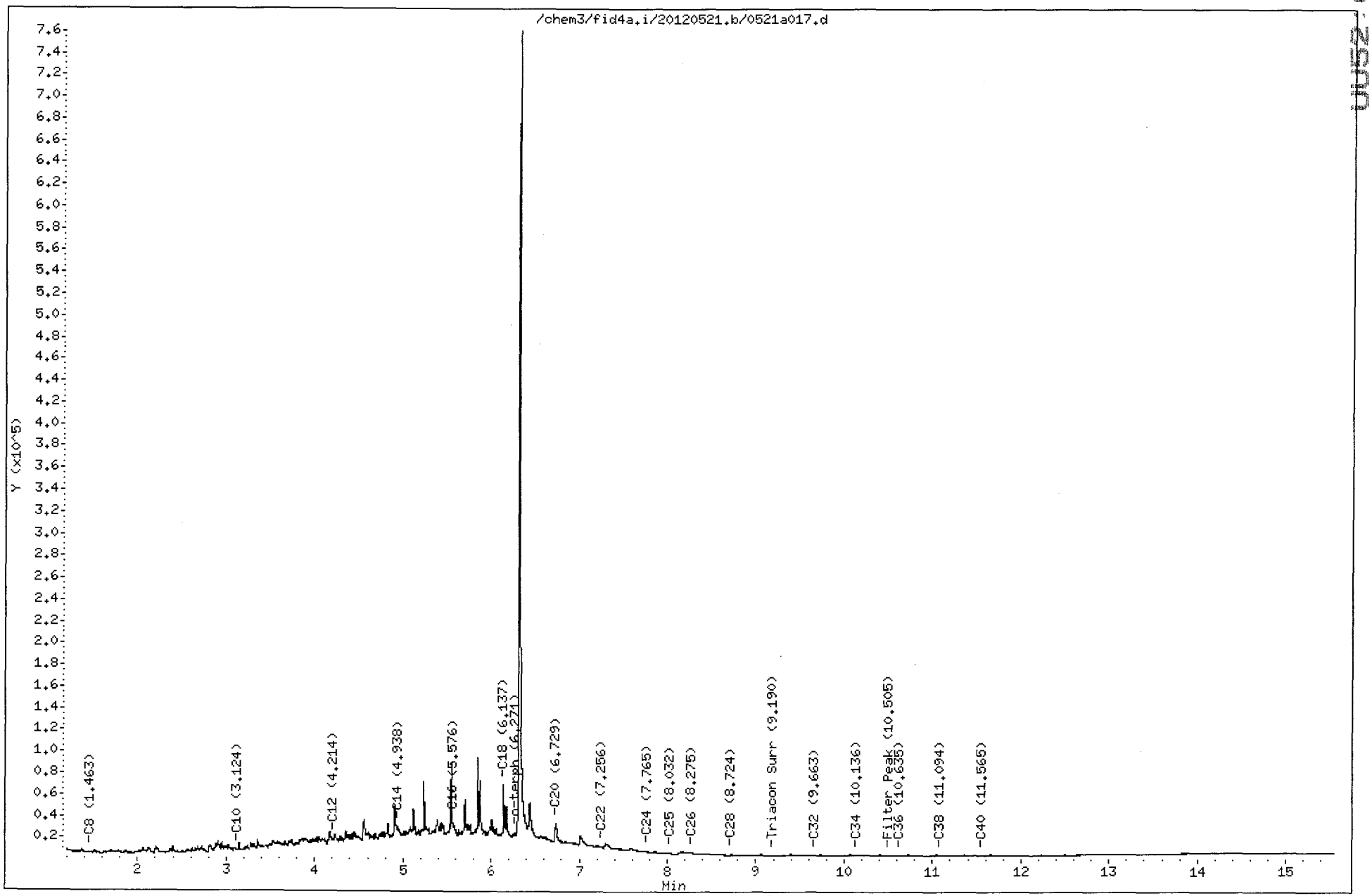
Instrument: fid4a.i

Operator: MH

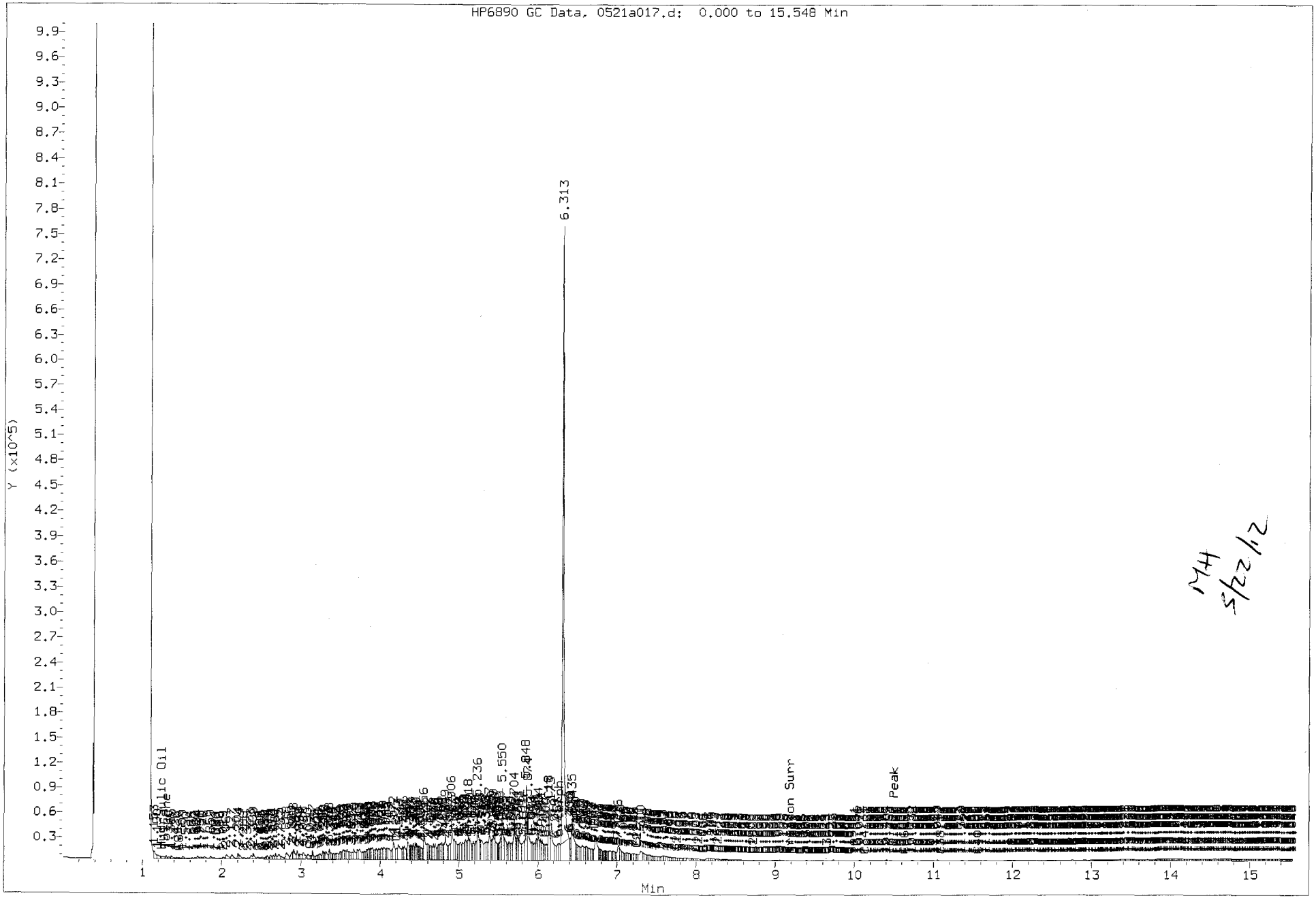
Column diameter: 0.25



UU52-0191



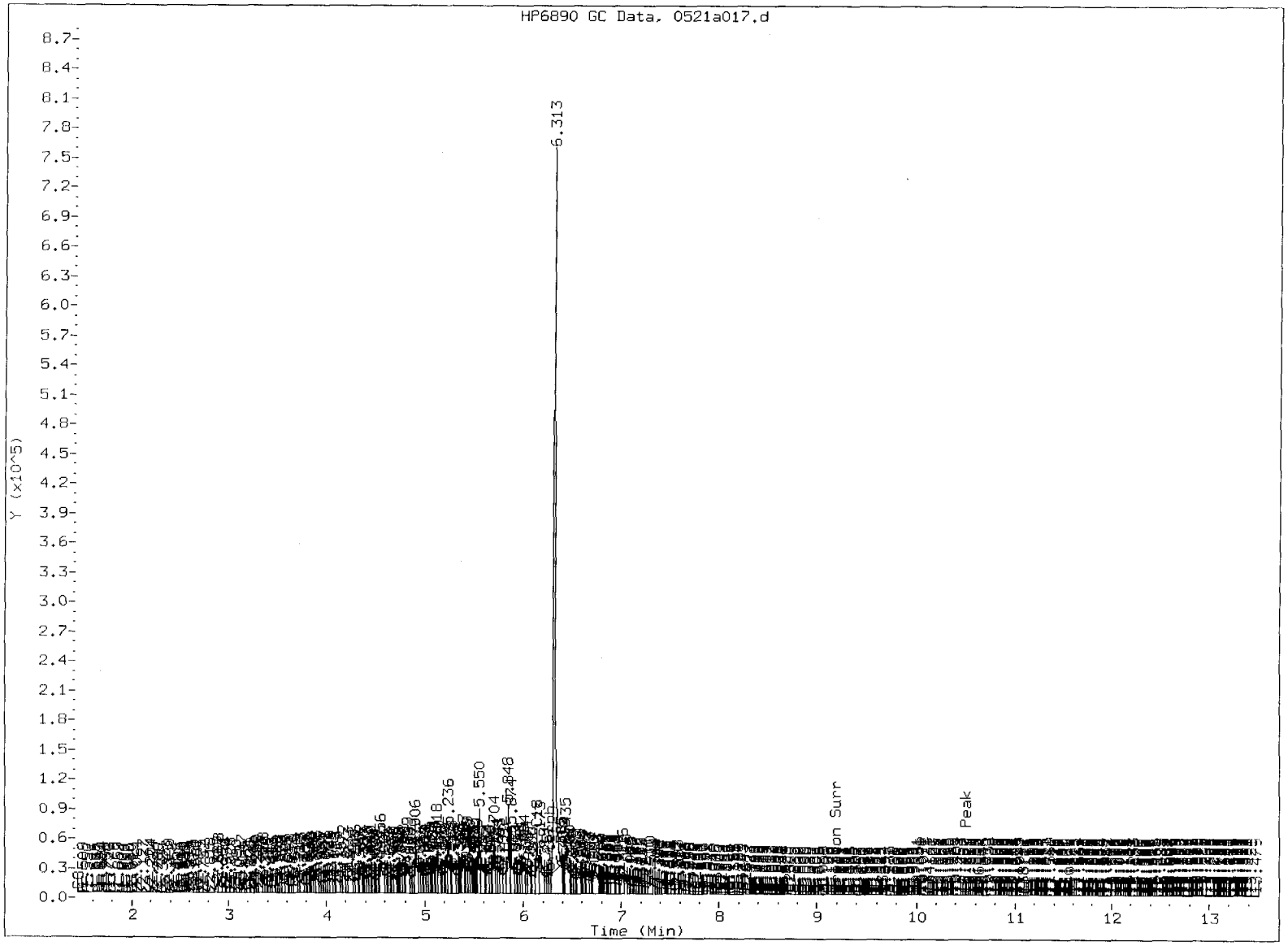
Data File: /chem3/fid4a.i/20120521.b/0521a017.d
Injection Date: 21-MAY-2012 16:13
Instrument: fid4a.i
Client Sample ID:




MH
5/22/12

UU52:01992

FID:4A-2C/RTX-1 DIESEL #2 FID:4A SIGNAL




MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/22/12

MH 5/22/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120521.b/0521a018.d
Method: /chem3/fid4a.i/20120521.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 05/22/2012
Macro: 15-MAY-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:15-MAY-2012 M.Oil:14-MAY-2012

ARI ID: MOIL #2
Client ID:
Injection: 21-MAY-2012 16:37

Dilution Factor: 1

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Range | Total Area | Conc | |
|---|---|---|---|---|---|---|---|---|
| Toluene | 1.264 | 0.003 | 45255 | 100477 | GAS (Tol-C12) | 203520 | 13.53 | |
| C8 | 1.541 | 0.073 | 1274 | 4920 | DIESEL (C12-C24) | 521148 | 38.24 | |
| C10 | 3.122 | -0.001 | 613 | 374 | M.OIL (C24-C38) | 4694165 | 481.47 | |
| C12 | 4.194 | -0.008 | 862 | 886 | AK-102 (C10-C25) | 773031 | 47.74 | |
| C14 | 4.924 | 0.001 | 749 | 1168 | AK-103 (C25-C36) | 4238035 | 546.19 | M |
| C16 | 5.557 | -0.006 | 658 | 808 | OR.DIES (C10-C28) | 2193852 | 170.82 | |
| C18 | 6.171 | 0.029 | 341 | 360 | CRUDE (Tol-C40) | 5558563 | 735.97 | M |
| C20 | 6.720 | -0.004 | 768 | 293 | MIN.OIL (C24-C38) | 4694165 | 349.25 | M |
| C22 | 7.268 | 0.000 | 4474 | 3621 | | | | |
| C24 | 7.777 | -0.001 | 19135 | 6749 | | | | |
| C25 | 8.024 | -0.004 | 25480 | 20413 | | | | |
| C26 | 8.272 | 0.007 | 31000 | 45080 | | | | |
| C28 | 8.722 | 0.001 | 34908 | 21913 | | | | |
| C32 | 9.665 | 0.000 | 27999 | 20086 | | | | |
| C34 | 10.147 | 0.001 | 22025 | 12983 | CREOSOT (C12-C22) | 160673 | 43.73 | |
| Filter Peak | 10.517 | 0.001 | 14670 | 17445 | | | | |
| C36 | 10.634 | 0.007 | 13177 | 7207 | | | | |
| C38 | 11.109 | 0.011 | 7528 | 4370 | | | | |
| C40 | 11.556 | -0.004 | 4209 | 2673 | | | | |
| o-terph | 6.326 | 0.013 | 286 | 147 | JET-A (C10-C18) | 124671 | 8.40 | |
| Triacon Surr | 9.194 | 0.001 | 665258 | 744597 | | | | |

M Indicates manual integration within range.
Range Times: NW Diesel(4.202 - 7.778) AK102(3.12 - 8.03) Jet A(3.12 - 6.14)
NW M.Oil(7.78 - 11.10) AK103(8.03 - 10.63) OR Diesel(3.12 - 8.72)

| Surrogate | Area | Amount | %Rec |
|---|---|---|---|
| o-Terphenyl | 147 | 0.0 | 0.0 |
| Triacontane | 744597 | 43.4 | 96.5 |

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 17187.2 | 15-MAY-2012 |
| Triacon Surr | 17141.7 | 14-MAY-2012 |
| Gas | 15043.9 | 10-MAY-2012 |
| Diesel | 13628.0 | 15-MAY-2012 |
| Motor Oil | 9749.6 | 14-MAY-2012 |
| AK102 | 16193.0 | 15-MAY-2012 |
| AK103 | 7759.3 | 29-DEC-2011 |
| JetA | 14842.0 | 13-APR-2011 |
| Min Oil | 13440.7 | 09-MAY-2012 |
| OR Diesel | 12843.0 | 22-JAN-2010 |
| CRUDE | 7552.8 | 22-MAY-2010 |
| Bunker C | 7100.0 | 16-DEC-2011 |
| Creosote | 3674.2 | 15-AUG-2011 |

Data File: /chem3/fid4a.i/20120521.b/0521a018.d

Date : 21-MAY-2012 16:37

Client ID:

Sample Info: MOIL #2

Column phase: RTX-1

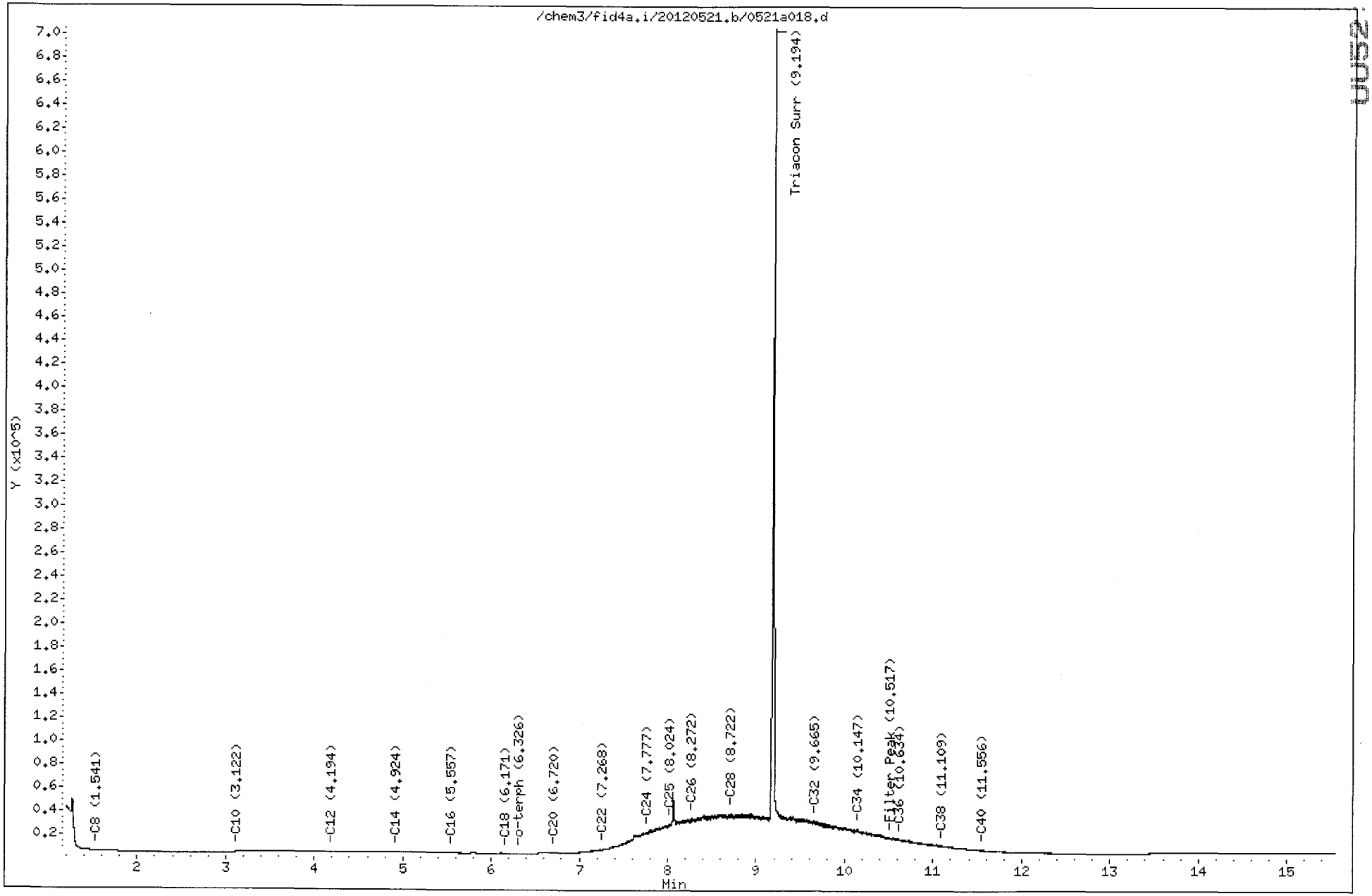
Instrument: fid4a.i

Operator: MH

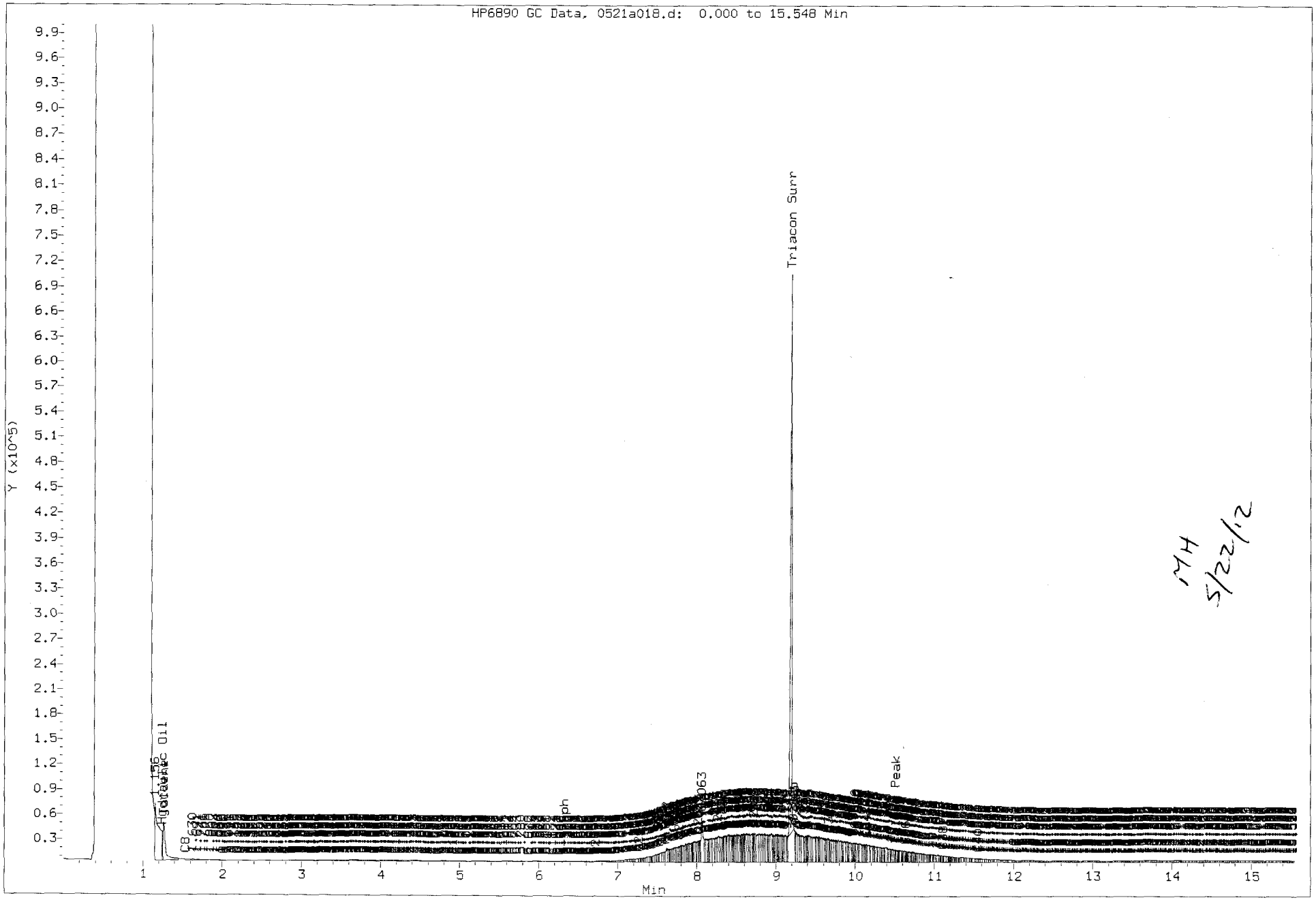
Column diameter: 0.25



UU52 91995



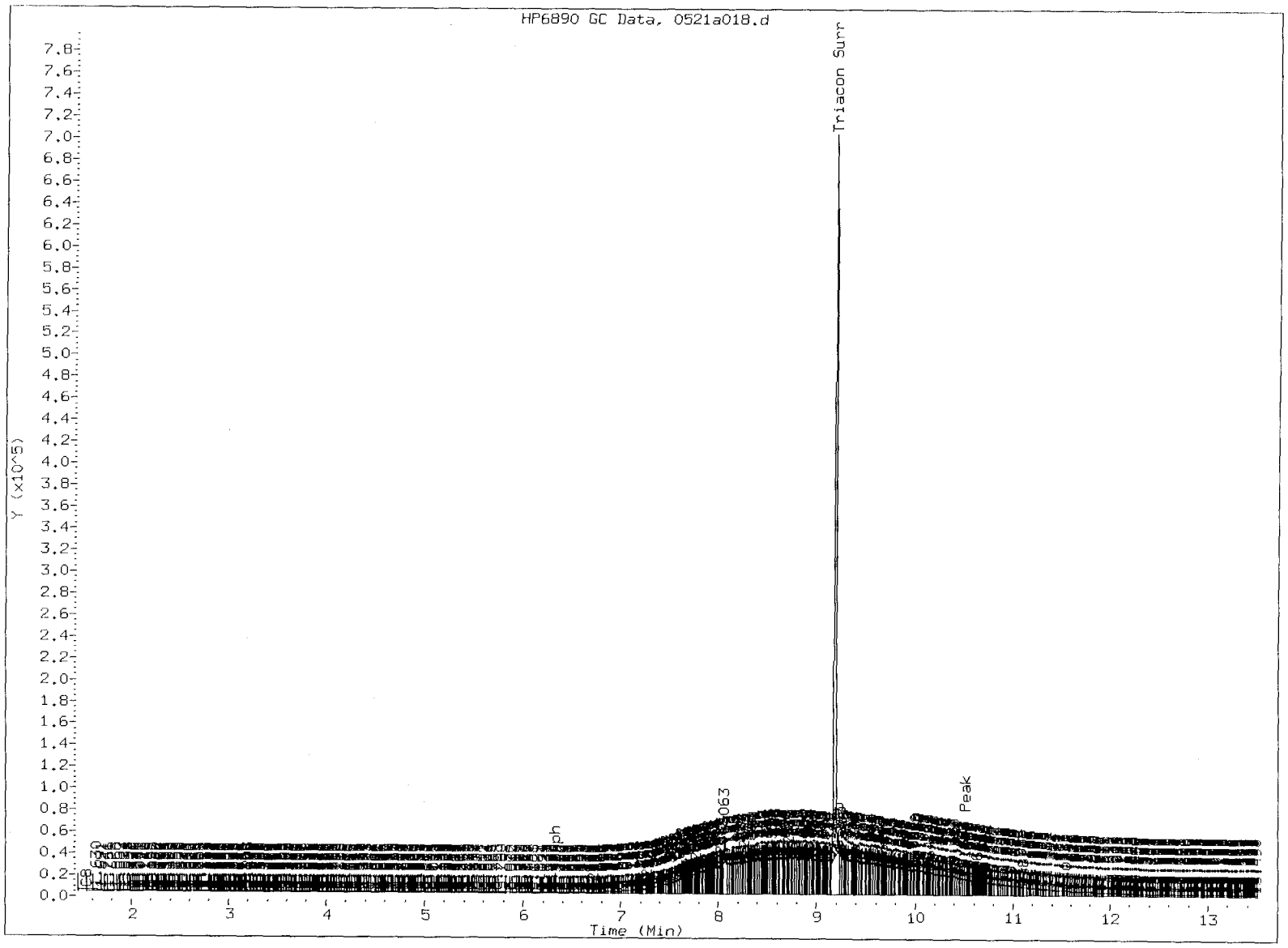
Data File: /chem3/fid4a.i/20120521.b/0521a018.d
Injection Date: 21-MAY-2012 16:37
Instrument: fid4a.i
Client Sample ID:




MH
5/22/12

UU52:01995

FID:4A-2C/RTX-1 MOIL #2 FID:4A SIGNAL




MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 5/22/12

Metals Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: UU52, UU62

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Corrective Actions
## Inorganic Analyses

| | | | |
|---|---|---|---|
| Criteria Flagged: | | ARI Job No.: | UU52 |
| Unacceptable Blank: | ☐ | Date of Event: | 5.23.12 |
| Unacceptable Duplicate: | ☐ | Client ID: | Anchor |
| Unacceptable Spike: | ☑ | Method/Element: | ICPMS |
| Unacceptable Reference: | ☐ | Prep Code: | SON |

**Details of Problem/Recommended Corrective Action:**

UU52 CSph Sb 10% R

CPost OK

**Samples Affected:**

**Corrective Action Taken:** CPost Sb

**Analyst Initials:** RC

**Date:** 5.24.12

**Supervisor:**

**Date:** 6.21.12

5049F

Revision 007
6/11/10

UU52:01999

Analytical Resources,Incorporated
Analytical Chemists and Consultants

# SPIKING LOG

**Analyst:** KM

**Date:** 5/18/12

**Final Volume** 50

**Final Volume (Hg):** 50

**Sample ID** UU52 CSPK, MBISPK

| | | Prepcode: | SWC | | |
|---|---|---|---|---|---|
| | | Spike Solution: | ICP Routine | ICP No GFA | GFA |
| | | Standard No.: | 2902-1 | | |
| | | Vol Added (mL): | 1.0 | | |
| STOCK CONCENTRATION | Ag | | 50 | | 2.0 |
| | Al | | 200 | 200 | |
| | As | | 200 | | 10 |
| | Ba | | 200 | 200 | |
| | Be | | 50 | 50 | |
| | Ca | | 1000 | 1000 | |
| | Cd | | 50 | | 2.0 |
| | Co | | 50 | 50 | |
| | Cr | | 50 ✓ | 50 | |
| | Cu | | 50 ✓ | 50 | |
| | Fe | | 200 | 200 | |
| | K | | 1000 | 1000 | |
| | Mg | | 1000 | 1000 | |
| | Mn | | 50 | 50 | |
| | Na | | 1000 | 1000 | |
| | Ni | | 50 ✓ | 50 | |
| | Pb | | 200 ✓ | | 10 |
| | Se | | 200 | | 10 |
| | Sr | | 50 | 50 | |
| | Tl | | 200 | | 10 |
| | V | | 50 | 50 | |
| | Zn | | 50 ✓ | 50 | |

| | SWN | SWN | |
|---|---|---|---|
| | ICP-MS #1 | ICP-MS #2 | ICP-MS Minerals |
| | 2927-9 | 2893-16 | |
| | 1.0 | 1.0 | |
| Ag | 25 ✓ | | |
| Al | | | 500 |
| As | 25 ✓ | | |
| Ba | 25 | | |
| Be | 25 | | |
| Ca | | | 500 |
| Cd | 25 ✓ | | |
| Co | 25 | | |
| Cr | 25 | | |
| Cu | 25 | | |
| Fe | | | 500 |
| K | | | 500 |
| Mg | | | 500 |
| Mn | 25 | | |
| Mo | | 25 | |
| Na | | | 500 |
| Ni | 25 | | |
| Pb | 25 | | |
| Sb | | 25 ✓ | |
| Se | 80 | | |
| Tl | 25 | | |
| U | 25 | | |
| V | 25 | | |
| Zn | 80 | | |

| Element | Prepcode | Analysis | Stock Conc. | Stock Added | Std No. |
|---|---|---|---|---|---|
| Hg | SMM | CVA | 1.0 | 0.05 | 2908-7 |
| Hg MBSPK | SMM | CVA | 1.0 | 0.1 | 2908-7 |
| | | | | | |
| Sb | | ICP | 2000 | | |
| Sb | | GFA | 100 | | |
| | | | | | |
| B | | ICP | 500 | | |
| Mo | | ICP | 500 | | |
| Si | | ICP | 10000 | | |
| Sn | | ICP | 500 | | |
| Ti | | ICP | 2000 | | |

Additional Elements:

| Element | Prepcode | Analysis | Stock Conc. | Stock Added | Std. No. |
|---|---|---|---|---|---|
| | | | | | |
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5033F

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Mercury Digestion Log

Prep Code: SMM
Analyst: KM
Bath Temp: 95°C
Start Time: 1445
Matrix: Soil
Date: 5/18/12
End Time: 1515

| ARI Sample ID | Sample Bottle # | pH<2 | Initial Weight (g) Volume (mL) | Final Volume (mL) | # $KMnO_4$ Aliquots | CLP | Comments |
|---|---|---|---|---|---|---|---|
| UU52 A | 3 | — | 0.225 | 50.0 | 5/26 1 | Y | |
| UU52 B | 3 | — | 0.269 | 50.0 | 1 | Y | |
| UU52 C | 3 | — | 0.267 | 50.0 | 1 | Y | |
| UU52 D | 3 | — | 0.247 | 50.0 | 1 | Y | |
| UU52 E | 3 | — | 0.270 | 50.0 | 1 | Y | |
| UU52 CDUP | 3 | — | 0.268 | 50.0 | 1 | Y | |
| UU52 CSPK | 3 | — | 0.267 | 50.0 | 1 | Y | |
| UU52 F | 3 | — | 0.216 | 50.0 | 1 | Y | |
| UU52 G | 3 | — | 0.223 | 50.0 | 1 | Y | |
| UU52 H | 3 | — | 0.253 | 50.0 | 1 | Y | |
| UU52 I | 3 | — | 0.234 | 50.0 | 1 | Y | |
| UU52 J | 3 | — | 0.286 | 50.0 | 1 | Y | |
| UU52 MB1 | — | — | — | 50.0 | 1 | Y | |
| UU52 MB1SPK | — | — | — | 50.0 | 1 | Y | |

KM 5/18/12

Chemical/Reagent ID:

$HNO_3$: I7466
$H_2SO_4$: I7184
HCl: —
5% $K_2S_2O_8$: MP2272
5% $KMnO_4$: MP2273
Digest Tube Lot: 1108215



UU52:02001

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Digestion Log

Start time: 1420

Analyst: KM

Date: 5/18/12

Matrix: Soil Block ID: #1/#2 Block Temp: 90°C/88°C Thermometer: MP30/MP12

| ARI Sample ID | Btl # | pH<2 | Prep Code: SWC Initial Wt (g) Vol (mL) | Prep Code: SWC Final Vol (mL) | Prep Code: SWN Initial Wt (g) Vol (mL) | Prep Code: SWN Final Vol (mL) | Comments |
|---|---|---|---|---|---|---|---|
| UU52 A | 3 | — | 1.033 | 50.0 | 1.052 | 50.0 | |
| UU52 B | 3 | — | 1.024 | 50.0 | 1.039 | 50.0 | |
| UU52 C | 3 | — | 1.050 | 50.0 | 1.013 | 50.0 | |
| UU52 CDUP | 3 | — | 1.051 | 50.0 | 1.012 | 50.0 | |
| UU52 CSPK | 3 | — | 1.054 | 50.0 | 1.011 | 50.0 | |
| UU52 D | 3 | — | 1.017 | 50.0 | 1.063 | 50.0 | |
| UU52 E | 3 | — | 1.034 | 50.0 | 1.036 | 50.0 | |
| UU52 F | 3 | — | 1.049 | 50.0 | 1.070 | 50.0 | |
| UU52 G | 3 | — | 1.086 | 50.0 | 1.041 | 50.0 | |
| UU52 H | 3 | — | 1.057 | 50.0 | 1.014 | 50.0 | |
| UU52 I | 3 | — | 1.038 | 50.0 | 1.065 | 50.0 | |
| UU52 J | 3 | — | 1.082 | 50.0 | 1.019 | 50.0 | |
| UU52 MB1 | — | — | — | 50.0 | — | 50.0 | |
| UU52 MB1SPK | — | — | — | 50.0 | — | 50.0 | |

KM 5/18/12

Chemical/Reagent ID:

$HNO_3$: MP2280 I7466 HCl: I7305 $H_2O_2$: I7403 Tube Lot #: 111173

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Total Solids Bench Sheet

**Laboratory Section** MetaB

**Oven Identification:** 67 **Balance ID:** 068755

**Samples in Oven:** Date: 5-21-12 Time: 0835 Temp: 102°C Analyst: DM

**Removed from Oven:** Date: 5-22-12 Time: 0700 Temp: 103°C Analyst: DM

| ARI Sample ID | Tare Weight (g) | Tare + Sample Wet (g) | Tare + Sample Dry (g) | Date & Time Last Weight | Final Weighting >12 hrs[1] |
|---|---|---|---|---|---|
| UU69 A | 0.952 | 10.549 | 10.072 | – | ✓ |
| UU77 A | 1.004 | 10.448 | 8.064 | – | ✓ |
| UU77 B | 0.981 | 10.456 | 6.251 | – | ✓ |
| UU77 C | 1.032 | 10.541 | 4.178 | – | ✓ |
| DM 5-21-12 UU77 ~~UU99~~ D | 0.967 | 10.348 | 6.191 | – | ✓ |
| UU77 E | 0.990 | 10.262 | 5.721 | – | ✓ |
| UU52 A | 1.020 | 10.570 | 1.982 | – | ✓ |
| UU52 B | 1.011 | 10.051 | 1.947 | – | ✓ |
| UU52 C | 1.007 | 10.634 | 2.026 | – | ✓ |
| UU52 D | 0.999 | 10.912 | 1.995 | – | ✓ |
| UU52 E | 0.966 | 10.745 | 1.941 | – | ✓ |
| UU52 F | 0.953 | 10.608 | 1.711 | – | ✓ |
| UU52 G | 1.002 | 10.263 | 1.903 | – | ✓ |
| UU52 H | 0.933 | 10.903 | 2.599 | – | ✓ |
| UU52 I | 1.018 | 10.608 | 2.058 | – | ✓ |
| UU52 J | 1.005 | 10.326 | 1.963 | – | ✓ |
| | | | | | |
| | | | | | |
| | | 5-21-12 DM | | | |
| | | | | | |
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| | | | | | |
| | | | | | |

1) Place a check mark in this column if samples have dried > 12 but < 24 hours. When samples have been at 104°C < 12 hours, constant weight must be verified as described in SOP 10023S. Use a 2nd bench sheet for additional weightings.



UU52 : 02003

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# SPIKING LOG

**Analyst:** KM

**Date:** 5/21/12

**Final Volume** 25

**Final Volume (Hg):**

**Sample ID** 11462 JSPK, MBISPK

| | Prepcode: | | | |
|---|---|---|---|---|
| | Spike Solution: | ICP Routine | ICP No GFA | GFA |
| | Standard No.: | | | |
| | Vol Added (mL): | | | |
| STOCK CONCENTRATION | Ag | 50 | | 2.0 |
| | Al | 200 | 200 | |
| | As | 200 | | 10 |
| | Ba | 200 | 200 | |
| | Be | 50 | 50 | |
| | Ca | 1000 | 1000 | |
| | Cd | 50 | | 2.0 |
| | Co | 50 | 50 | |
| | Cr | 50 | 50 | |
| | Cu | 50 | 50 | |
| | Fe | 200 | 200 | |
| | K | 1000 | 1000 | |
| | Mg | 1000 | 1000 | |
| | Mn | 50 | 50 | |
| | Na | 1000 | 1000 | |
| | Ni | 50 | 50 | |
| | Pb | 200 | | 10 |
| | Se | 200 | | 10 |
| | Sr | 50 | 50 | |
| | Tl | 200 | | 10 |
| | V | 50 | 50 | |
| | Zn | 50 | 50 | |

| | REN | REN | |
|---|---|---|---|
| | ICP-MS #1 | ICP-MS #2 | ICP-MS Minerals |
| | 2927-9 | 2893-16 | |
| | 0.05 | 0.05 | |
| Ag | 25 ✓ | | |
| Al | | | 500 |
| As | 25 ✓ | | |
| Ba | 25 | | |
| Be | 25 | | |
| Ca | | | 500 |
| Cd | 25 ✓ | | |
| Co | 25 | | |
| Cr | 25 | | |
| Cu | 25 | | |
| Fe | | | 500 |
| K | | | 500 |
| Mg | | | 500 |
| Mn | 25 | | |
| Mo | | 25 | |
| Na | | | 500 |
| Ni | 25 | | |
| Pb | 25 | | |
| Sb | | 25 ✓ | |
| Se | 80 | | |
| Tl | 25 | | |
| U | 25 | | |
| V | 25 | | |
| Zn | 80 | | |

| Element | Prepcode | Analysis | Stock Conc. | Stock Added | Std No. |
|---|---|---|---|---|---|
| Hg | | CVA | 1.0 | | |
| Hg MBSPK | | CVA | 1.0 | | |
| | | | | | |
| Sb | | ICP | 2000 | | |
| Sb | | GFA | 100 | | |
| | | | | | |
| B | | ICP | 500 | | |
| Mo | | ICP | 500 | | |
| Si | | ICP | 10000 | | |
| Sn | | ICP | 500 | | |
| Ti | | ICP | 2000 | | |

Additional Elements:

| Element | Prepcode | Analysis | Stock Conc. | Stock Added | Std. No. |
|---|---|---|---|---|---|
| | | | | | |
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USGS : 29291

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Analytical Chemists and Consultants

# SPIKING LOG

**Analyst:** MJ

**Date:** 05.18.12

**Final Volume** 50

**Final Volume (Hg):** 20

**Sample ID** UU62 JSPK, MBISPK

| | | | | |
|---|---|---|---|---|
| | Prepcode: | TWC | | |
| | Spike Solution: | ICP Routine | ICP No GFA | GFA |
| | Standard No.: | 2902-1 | | |
| | Vol Added (mL): | 0.5 | | |
| STOCK CONCENTRATION | Ag | 50 | | 2.0 |
| | Al | 200 | 200 | |
| | As | 200 | | 10 |
| | Ba | 200 | 200 | |
| | Be | 50 | 50 | |
| | Ca | 1000 | 1000 | |
| | Cd | 50 | | 2.0 |
| | Co | 50 | 50 | |
| | Cr | 50 ✓ | 50 | |
| | Cu | 50 ✓ | 50 | |
| | Fe | 200 | 200 | |
| | K | 1000 | 1000 | |
| | Mg | 1000 | 1000 | |
| | Mn | 50 | 50 | |
| | Na | 1000 | 1000 | |
| | Ni | 50 ✓ | 50 | |
| | Pb | 200 ✓ | | 10 |
| | Se | 200 | | 10 |
| | Sr | 50 | 50 | |
| | Tl | 200 | | 10 |
| | V | 50 | 50 | |
| | Zn | 50 ✓ | 50 | |

| | ICP-MS #1 | ICP-MS #2 | ICP-MS Minerals |
|---|---|---|---|
| | | | |
| | | | |
| Ag | 25 | | |
| Al | | | 500 |
| As | 25 | | |
| Ba | 25 | | |
| Be | 25 | | |
| Ca | | | 500 |
| Cd | 25 | | |
| Co | 25 | | |
| Cr | 25 | | |
| Cu | 25 | | |
| Fe | | | 500 |
| K | | | 500 |
| Mg | | | 500 |
| Mn | 25 | | |
| Mo | | 25 | |
| Na | | | 500 |
| Ni | 25 | | |
| Pb | 25 | | |
| Sb | | 25 | |
| Se | 80 | | |
| Tl | 25 | | |
| U | 25 | | |
| V | 25 | | |
| Zn | 80 | | |

| Element | Prepcode | Analysis | Stock Conc. | Stock Added | Std No. |
|---|---|---|---|---|---|
| Hg | TWM | CVA | 1.0 | 0.02 | 2908-7 |
| Hg MBSPK | TWM | CVA | 1.0 | 0.04 | 2908-7 |
| | | | | | |
| Sb | | ICP | 2000 | | |
| Sb | | GFA | 100 | | |
| | | | | | |
| B | | ICP | 500 | | |
| Mo | | ICP | 500 | | |
| Si | | ICP | 10000 | | |
| Sn | | ICP | 500 | | |
| Ti | | ICP | 2000 | | |

Additional Elements:

| Element | Prepcode | Analysis | Stock Conc. | Stock Added | Std. No. |
|---|---|---|---|---|---|
| | | | | | |
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UU52 : 02005

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Mercury Digestion Log

Prep Code: TWM1 Matrix: Water

Analyst: MJ Date: 05.18.12

Bath Temp: 90°C Start Time: 1035 End Time: 1235

| ARI Sample ID | Sample Bottle # | pH<2 | Initial ~~Weight (g)~~ Volume (mL) | Final Volume (mL) | # $KMnO_4$ Aliquots | CLP | Comments |
|---|---|---|---|---|---|---|---|
| UU662 J | 1 | ✓ | 20.0 | 20.0 | 05.26 1 | Y | |
| UU662 JDUP | 1 | ✓ | 20.0 | 20.0 | 1 | Y | |
| UU662 JSPK | 1 | ✓ | 20.0 | 20.0 | 1 | Y | |
| UU662 K | 1 | ✓ | 20.0 | 20.0 | 1 | Y | |
| UU662 MB1 | — | ✓ | 20.0 | 20.0 | 1 | Y | |
| UU662 MB1SPK | — | ✓ | 20.0 | 20.0 | 1 | Y | |
| UU666 A | 6 | ✓ | 20.0 | 20.0 | 05.27 1 | N | |
| UU666 B | 6 | ✓ | 20.0 | 20.0 | 1 | N | |
| UU666 MB | — | ✓ | 20.0 | 20.0 | 1 | N | BATCH |
| UU666 MBSPK | — | ✓ | 20.0 | 20.0 | 1 | N | |
| UU668 A | 6 | ✓ | 20.0 | 20.0 | 05.27 1 | N | |

05.18.12 MJ

Chemical/Reagent ID:

$HNO_3$: I7466 $H_2SO_4$: I7184 HCl: —

5% $K_2S_2O_8$: MP2272 5% $KMnO_4$: MP2273 Digest Tube Lot: UU673



UU52:02006

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# Digestion Log

Analyst: MJ Date: 05.18.12 Time: 0955

Matrix: Water Block ID: #7 Block Temp: 90°C Thermometer: MP28

| ARI Sample ID | Btl # | pH<2 | Prep Code: TWC Initial ~~Wt (g)~~ Vol (mL) | Prep Code: TWC Final Vol (mL) | Prep Code: Initial Wt (g) Vol (mL) | Prep Code: Final Vol (mL) | Comments |
|---|---|---|---|---|---|---|---|
| UU57 A | 7 | — | 50.0 | 50.0 | | | |
| UU57 ADUP | 7 | — | 50.0 | 50.0 | | | preserved in lab |
| UU57 ASPK | 7 | — | 50.0 | 50.0 | | | |
| UU57 B | 7 | — | 50.0 | 50.0 | | | |
| UU57 C | 6 | ✓ | 50.0 | 50.0 | | | |
| UU57 D | 6 | — | 50.0 | 50.0 | | | preserved in lab |
| UU57 E | 6 | ✓ | 50.0 | 50.0 | | | |
| UU57 F | 10 | ✓ | 50.0 | 50.0 | | | |
| UU57 H | 10 | ✓ | 50.0 | 50.0 | | | |
| UU57 MB | — | ✓ | 50.0 | 50.0 | | | |
| UU57 MBSPK | — | ✓ | 50.0 | 50.0 | | | |
| UU62 J | 1 | ✓ | 50.0 | 50.0 | | | |
| UU62 JDUP | 1 | ✓ | 50.0 | 50.0 | | | |
| UU62 JSPK | 1 | ✓ | 50.0 | 50.0 | | | |
| UU62 K | 1 | ✓ | 50.0 | 50.0 | | | |
| UU62 MB1 | — | ✓ | 50.0 | 50.0 | | | |
| UU62 MB1SPK | — | ✓ | 50.0 | 50.0 | | | |
| UU72 A | 1 | ✓ | 50.0 | 50.0 | | | |
| UU72 MB | — | ✓ | 50.0 | 50.0 | | | |
| UU72 MBSPK | — | ✓ | 50.0 | 50.0 | | | |
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05.15.12 MJ

Chemical/Reagent ID:

$HNO_3$: I7466 HCl: MP2295 $H_2O_2$: —— Tube Lot #: 111173



UU52 : 02007

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Digestion Log

Analyst: KM Date: 5/21/12 Time: 1040

Matrix: Water Block ID: #12 Block Temp: 90°C Thermometer: MP39

| ARI Sample ID | Btl # | pH<2 | Prep Code: REN Initial Wt (g) Vol (mL) | Prep Code: REN Final Vol (mL) | Prep Code: Initial Wt (g) Vol (mL) | Prep Code: Final Vol (mL) | Comments |
|---|---|---|---|---|---|---|---|
| UU66 A | 6 | ✓ | 50.0 | 25.0 | | | - Batched |
| UU66 B | 6 | ✓ | 50.0 | 25.0 | | | |
| UU66 C | 6 | ✓ | 50.0 | 25.0 | | | |
| UU66 MB | — | ✓ | 50.0 | 25.0 | | | |
| UU66 MBSPK | — | ✓ | 50.0 | 25.0 | | | |
| UU68 A | 6 | ✓ | 50.0 | 25.0 | | | |
| UU57 A | 7 | — | 50.0 | 25.0 | | | - preserved in lab |
| UU57 ADUP | 7 | — | 50.0 | 25.0 | | | |
| UU57 ASPK | 7 | — | 50.0 | 25.0 | | | |
| UU57 B | 7 | — | 50.0 | 25.0 | | | |
| UU57 C | 6 | ✓ | 50.0 | 25.0 | | | |
| UU57 D | 6 | — | 50.0 | 25.0 | | | preserved in lab |
| UU57 E | 6 | ✓ | 50.0 | 25.0 | | | |
| UU57 F | 10 | ✓ | 50.0 | 25.0 | | | |
| UU57 G | 2 | ✓ | 50.0 | 25.0 | | | |
| UU57 H | 10 | ✓ | 50.0 | 25.0 | | | |
| UU57 MB | — | ✓ | 50.0 | 25.0 | | | |
| UU57 MBSPK | — | ✓ | 50.0 | 25.0 | | | |
| UU62 J | 1 | ✓ | 50.0 | 25.0 | | | |
| UU62 JDUP | 1 | ✓ | 50.0 | 25.0 | | | |
| UU62 JSPK | 1 | ✓ | 50.0 | 25.0 | | | |
| UU62 K | 1 | ✓ | 50.0 | 25.0 | | | |
| UU62 MB1 | — | ✓ | 50.0 | 25.0 | | | |
| UU62 MB1SPK | — | ✓ | 50.0 | 25.0 | | | |
| | | | | KM | 5/21/12 | | |

Chemical/Reagent ID:

$HNO_3$: MP2293 HCl: — $H_2O_2$: I7403 Tube Lot #: 111173



UU52:02008

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: UU52, UU62

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# SAMPLE RUN LOG ICP-OES-01
## Perkin Elmer OPTIMA 4300
## Serial No. - 077N0060101

IEC Date: 5.29.12 Analysis Date: 5.29.12 Analyst: BW

LR Date: 1.12.12 Page: 1 of 5

*All corrections made by analyst unless otherwise noted.*

| Edit Label | Delete Data | ARI Sample ID | Prep. Code | Dilution | Comments |
|---|---|---|---|---|---|
| | | std 0 | | | 2941-1 |
| | | 2 | | | 2954-3 |
| | | 3 | | | -4 |
| | | 4 | | | -5 |
| | | 5 | | | -6 |
| | | ICV | | | Sb Si high 2925-3 |
| | | ICB | | | |
| V | | 222222 | | | Ni low |
| | | std 0 | | | |
| | | CCV1 | | | Sb Si high |
| | | CCB1 | | | |
| | | CRI | | | |
| | | ICSA | | | Sn -0.027 |
| | | ICSAB | | | |
| | | CCV2 | | | Sb Si high |
| | | CCB2 | | | |
| | | DI check | | | |
| | | UU52 MB1 | SWC | 2 | |
| | | QC21 | | | Sb high |
| | | QC7M | | | Si high |
| | | UU52 A | SWC | 2 | |
| | | B | | | |
| | | cdup | | | ✓ |
| | | C | | | |



UU52:02010

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# SAMPLE RUN LOG ICP-OES-01
## Perkin Elmer OPTIMA 4300
## Serial No. - 077N0060101

IEC Date: —  Analysis Date: 5.29.12  Analyst: BW

LR Date: —  Page: 2 of 5

*All corrections made by analyst unless otherwise noted.*

| Edit Label | Delete Data | ARI Sample ID | Prep. Code | Dilution | Comments |
|---|---|---|---|---|---|
| | | UU52Csph | SWC | 2 ✓ | |
| | | ↓ MB1sph | ↓ | ↓ ✓ | |
| | | CCV3 | | | Sb Si high |
| | | CCB3 | | | |
| | | UU62 MB1 | TWC | | |
| | | K | | | |
| | | Jdup | | ✓ | |
| | | J | | | |
| | | ↓ Jsph | ↓ | ✓ | |
| | | UU52 D | SWC | 2 | |
| | | E | | | |
| | | F | | | |
| | | ↓ G | ↓ | ↓ | |
| | | UU62 MB1sph | TWC | ✓ | |
| | | CCV4 | | | Sb Si high |
| | | CCB4 | | | |
| | | UU94 MB | WMN | | |
| | ✓ | B | | | noisy - rerun |
| | | C | | | |
| | | Adup | | ✓ | |
| | | A | | | |
| | ✓ | ↓ Asph | ↓ | | 0.08 ml ICPsph Fe 70.6% rerun |
| | | UU52 H | SWC | 2 | |
| | | ↓ I | ↓ | ↓ | |

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# SAMPLE RUN LOG ICP-OES-01
## Perkin Elmer OPTIMA 4300
## Serial No. - 077N0060101

IEC Date: — Analysis Date: 5.29.12 Analyst: BLW

LR Date: — Page: 3 of 5

*All corrections made by analyst unless otherwise noted.*

| Edit Label | Delete Data | ARI Sample ID | Prep. Code | Dilution | Comments |
|---|---|---|---|---|---|
| | | UU52 S | SWC | 2 | |
| | | UU94 MBSph | WMW | ✓ | 0.08 ml ICPsph |
| | | CCV 5 | | | Sb Si high end package |
| | | CCB 5 | | | |
| | | UU72 MB | TWC | | |
| | | UU69 MB | SWC | 2 | Al Ca cont. - NR |
| | | UU19 MB | LEW | 5 | |
| | | Adup | | ✓ | |
| A | | A | | | |
| ↓ | | ASph | ↓ | ↓ | |
| | | UU94 D | WMW | | |
| | | ↓ E | ↓ | | |
| | | UU69 A | SWC | 2 | |
| | | ↓ MBSph | ↓ | ↓ | |
| | | CCV | | | Sb Si high |
| | | CCB | | | |
| | ✓ | UU57 MB | TWC | | CB out |
| | | B | | | |
| | | C | | | As high - rerun 1/2 |
| | | D | | | As Mg Na high rerun 1/5 |
| | | E | | | |
| | | F | | | |
| | | Adup | | | 6/3/12 Ba high - rr 1/2 |
| | | A | ↓ | ↓ | |



UU52 : 02012

ANALYTICAL RESOURCES INCORPORATED

# Metals Data Review Checklist

**Method:** (ICP) ICP-MS GFA CVA **Analysis Date:** 5.29.12

| ICP 1 | Analyst BW 5.30 | Peer HST | Comment |
|---|---|---|---|
| **Logbook:** | | | |
| Analyst, Date, Method info | ✓ | ✓ | |
| Sample ID's | ✓ | ✓ | |
| Standard/QC solution ID's recorded | ✓ | ✓ | |
| Prep codes | ✓ | ✓ | |
| Dilution factors | ✓ | ✓ | |
| Crossouts/Corrections/Deletions | ✓ | ✓ | |
| **Calibration:** | | | |
| Blank & Standard intensities | ✓ | ✓ | |
| Standard deviations | ✓ | ✓ | |
| Curve fit | ✓ | ✓ | |
| **Calibration Verification:** | | | |
| ICV/CCV | ✓ | ✓ | see log |
| ICB/CCB | ✓ | ✓ | ↓ |
| **Samples:** | | | |
| RSD's & SD's | ✓ | ✓ | see log |
| Internal Standards | ✓ | ✓ | ↓ |
| Carry-over | ✓ | ✓ | ↓ |
| **Method QC:** | | | |
| CRI/CRA | ✓ | ✓ | |
| ICSA/ICSAB | ✓ | ✓ | |
| Post Spikes/Serial Dilutions | — | — | |
| Analytic Spikes | — | — | |
| **Matrix QC:** | | | |
| SRM/LCS | ✓ | ✓ | |
| Matrix Spikes | ✓ | ✓ | |
| Matrix Duplicates | ✓ | ✓ | |
| Method Blanks | ✓ | ✓ | |
| **Data Distribution:** | | | |
| Requested elements/isotope identified | ✓ | ✓ | |
| Correct samples identified for distribution | ✓ | ✓ | |
| Raw data match distributed data | ✓ | ✓ | |
| Data filename correct | ✓ | ✓ | |
| **Necessary Analysts Notes and CAF's** | — | — | |

**Nebulizer Parameters: Hg_ReAlign**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 179.0 kPa | 0.55 L/min |

5/29/2012 1:01:56 PM Hg ReAlign... Actual peak offset (nm): -0.000
Drift (nm): 0.000 Slit adjustment: 0

Align View XY Axial for analyte Mn 257.610

| X-position | Y-position | Intensity |
|---|---|---|
| -2.0 | 15.0 | 215197.7 |
| -1.6 | 15.0 | 311095.7 |
| -1.2 | 15.0 | 423298.4 |
| -0.8 | 15.0 | 545017.7 |
| -0.4 | 15.0 | 650944.2 |
| 0.0 | 15.0 | 703656.1 |
| 0.4 | 15.0 | 700694.3 |
| 0.8 | 15.0 | 642065.8 |
| 1.2 | 15.0 | 550643.7 |
| 1.6 | 15.0 | 443431.8 |
| 2.0 | 15.0 | 346523.3 |
| 0.0 | 10.0 | 8563.9 |
| 0.0 | 10.5 | 25529.1 |
| 0.0 | 11.0 | 45220.2 |
| 0.0 | 11.5 | 76429.5 |
| 0.0 | 12.0 | 114433.9 |
| 0.0 | 12.5 | 240980.2 |
| 0.0 | 13.0 | 352181.9 |
| 0.0 | 13.5 | 454166.7 |
| 0.0 | 14.0 | 582531.5 |
| 0.0 | 14.5 | 704752.6 |
| 0.0 | 15.0 | 726172.1 |
| 0.0 | 15.5 | 668801.3 |
| 0.0 | 16.0 | 567404.2 |
| 0.0 | 16.5 | 360661.0 |
| 0.0 | 17.0 | 263155.9 |
| 0.0 | 17.5 | 190530.0 |
| 0.0 | 18.0 | 132151.4 |
| 0.0 | 18.5 | 87719.1 |
| 0.0 | 19.0 | 27272.8 |
| 0.0 | 19.5 | 11013.0 |
| 0.0 | 20.0 | 4902.7 |
| -0.8 | 15.0 | 562067.5 |
| -0.4 | 15.0 | 652647.7 |
| 0.0 | 15.0 | 710829.6 |
| 0.4 | 15.0 | 691983.4 |
| 0.8 | 15.0 | 637412.4 |
| 0.0 | 13.0 | 378791.5 |
| 0.0 | 13.5 | 463068.6 |
| 0.0 | 14.0 | 587410.1 |
| 0.0 | 14.5 | 716379.4 |
| 0.0 | 15.0 | 709146.1 |
| 0.0 | 15.5 | 637767.2 |
| 0.0 | 16.0 | 555588.7 |
| 0.0 | 16.5 | 355263.3 |
| 0.0 | 17.0 | 256250.8 |

5/29/2012 1:07:19 PM aligned for analyte Mn 257.610
X viewing position set to 0.0 mm having Peak intensity 716379.4 for Axial viewing
Y viewing position set to 14.5 mm having Peak intensity 716379.4 for Axial viewing

Align View X Radial for analyte Mn 257.610

| X-position | Y-position | Intensity |
|---|---|---|
| -7.0 | 15.0 | 3714.4 |
| -6.5 | 15.0 | 6007.7 |
| -6.0 | 15.0 | 9372.0 |
| -5.5 | 15.0 | 13704.1 |
| -5.0 | 15.0 | 18742.7 |
| -4.5 | 15.0 | 26057.7 |

| | | |
|---|---|---|
| -4.0 | 15.0 | 32691.2 |
| -3.5 | 15.0 | 45736.7 |
| -3.0 | 15.0 | 54155.2 |
| -2.5 | 15.0 | 82443.8 |
| -2.0 | 15.0 | 128472.2 |
| -1.5 | 15.0 | 208168.0 |
| -1.0 | 15.0 | 346064.9 |
| -0.5 | 15.0 | 399115.1 |
| 0.0 | 15.0 | 393200.7 |
| 0.5 | 15.0 | 361595.5 |
| 1.0 | 15.0 | 309583.9 |
| 1.5 | 15.0 | 241939.2 |
| 2.0 | 15.0 | 160555.6 |
| 2.5 | 15.0 | 84058.5 |
| 3.0 | 15.0 | 31477.8 |
| 3.5 | 15.0 | 27480.0 |
| 4.0 | 15.0 | 29508.4 |
| 4.5 | 15.0 | 25781.5 |
| 5.0 | 15.0 | 19660.8 |
| 5.5 | 15.0 | 13363.9 |
| 6.0 | 15.0 | 10263.5 |
| 6.5 | 15.0 | 6797.6 |
| 7.0 | 15.0 | 4171.5 |

5/29/2012 1:10:56 PM aligned for analyte Mn 257.610
X viewing position set to -0.5 mm having Peak intensity 399115.1 for Radial viewing

**Analysis Begun**

**Start Time: 5/29/2012 1:22:53 PM** **Plasma On Time: 5/29/2012 12:14:35 PM**
**Logged In Analyst: metals** **Technique: ICP Continuous**
**Spectrometer Model: Optima 4300 DV, S/N 077N0060101Autosampler Model: S10**

**Sample Information File: C:\pe\Administrator\Sample Information\CRISET.sif**
**Batch ID:**
**Results Data Set: PE120529**
**Results Library: C:\pe\metals\Results\Results.mdb**

**Method Loaded**
**Method Name: ARIIEC6AN.552AS** **Method Last Saved: 5/25/2012 2:47:26 PM**
**IEC File: IEC47A.iec** **MSF File:**
**Method Description: 12Axial Elements**

| Analyte | Calibration Equation | Processing | View | Internal Standard | IEC |
|---|---|---|---|---|---|
| Ag 328.068 | Lin Thru 0 | Peak Area | Axial | ScA 357.253 | Yes |
| Al 308.215 | Lin Thru 0 | Peak Area | Radial | ScR 361.383 | Yes |
| As 188.979 | Lin Thru 0 | Peak Area | Axial | ScA 357.253 | Yes |
| B 249.677 | Lin Thru 0 | Peak Area | Radial | ScR 361.383 | Yes |
| Ba 233.527 | Lin Thru 0 | Peak Area | Radial | ScR 361.383 | Yes |
| Be 313.042 | Lin Thru 0 | Peak Area | Radial | ScR 361.383 | Yes |
| Ca 317.933 | Lin Thru 0 | Peak Area | Radial | ScR 361.383 | No |
| Cd 228.802 | Lin Thru 0 | Peak Area | Axial | ScA 357.253 | Yes |
| Co 228.616 | Lin Thru 0 | Peak Area | Axial | ScA 357.253 | Yes |
| Cr 267.716 | Lin Thru 0 | Peak Area | Radial | ScR 361.383 | Yes |
| Cu 324.752 | Lin Thru 0 | Peak Area | Axial | ScA 357.253 | Yes |
| Fe 273.955 | Lin Thru 0 | Peak Area | Radial | ScR 361.383 | Yes |
| K 766.490 | Lin Thru 0 | Peak Area | Radial | ScR 361.383 | No |
| Mg 279.077 | Lin Thru 0 | Peak Area | Radial | ScR 361.383 | Yes |
| Mn 257.610 | Lin Thru 0 | Peak Area | Radial | ScR 361.383 | Yes |
| Mo 202.031 | Lin Thru 0 | Peak Area | Axial | ScA 357.253 | Yes |
| Na 589.592 | Lin Thru 0 | Peak Area | Radial | ScR 361.383 | No |
| Na 330.237 | Lin Thru 0 | Peak Area | Radial | ScR 361.383 | Yes |
| Ni 231.604 | Lin Thru 0 | Peak Area | Radial | ScR 361.383 | Yes |
| Pb 220.353 | Lin Thru 0 | Peak Area | Axial | ScA 357.253 | Yes |
| Sb 206.836 | Lin Thru 0 | Peak Area | Axial | ScA 357.253 | Yes |
| Se 196.026 | Lin Thru 0 | Peak Area | Axial | ScA 357.253 | Yes |
| Si 288.158 | Lin Thru 0 | Peak Area | Radial | ScR 361.383 | Yes |
| Sn 189.927 | Lin Thru 0 | Peak Area | Axial | ScA 357.253 | Yes |
| Sr 421.552 | Lin Thru 0 | Peak Area | Radial | ScR 361.383 | No |

UU52:02015

| | | | | | |
|---|---|---|---|---|---|
| Ti 334.903 | Lin Thru 0 | Peak Area | Radial | ScR 361.383 | Yes |
| Tl 190.801 | Lin Thru 0 | Peak Area | Axial | ScA 357.253 | Yes |
| V 292.402 | Lin Thru 0 | Peak Area | Axial | ScA 357.253 | Yes |
| Zn 206.200 | Lin Thru 0 | Peak Area | Radial | ScR 361.383 | Yes |
| ScA 357.253 | Lin, Calc Int | Peak Area | Axial | n/a | n/a |
| ScR 361.383 | Lin, Calc Int | Peak Area | Radial | n/a | n/a |

**Sequence No.: 1**
**Sample ID: Calib Blank 1**

**Autosampler Location: 1**
**Date Collected: 5/29/2012 1:22:53 PM**
**Data Type: Original**

**Nebulizer Parameters: Calib Blank 1**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 181.0 kPa | 0.55 L/min |

**Mean Data: Calib Blank 1**

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| ScA 357.253 | 1913709.3 | 12092.53 | 0.63% | 100.0 | % |
| ScR 361.383 | 196436.4 | 245.94 | 0.13% | 100.00 | % |
| Ag 328.068† | -30.8 | 20.47 | 66.50% | [0.00] | mg/L |
| Al 308.215† | -166.9 | 9.79 | 5.87% | [0.00] | mg/L |
| As 188.979† | 45.1 | 2.91 | 6.45% | [0.00] | mg/L |
| B 249.677† | -161.3 | 0.87 | 0.54% | [0.00] | mg/L |
| Ba 233.527† | -60.6 | 1.23 | 2.03% | [0.00] | mg/L |
| Be 313.042† | 766.6 | 12.11 | 1.58% | [0.00] | mg/L |
| Ca 317.933† | -15.4 | 10.18 | 66.22% | [0.00] | mg/L |
| Cd 228.802† | 204.5 | 3.30 | 1.61% | [0.00] | mg/L |
| Co 228.616† | -322.1 | 3.35 | 1.04% | [0.00] | mg/L |
| Cr 267.716† | 106.4 | 6.16 | 5.79% | [0.00] | mg/L |
| Cu 324.752† | 1003.1 | 24.09 | 2.40% | [0.00] | mg/L |
| Fe 273.955† | -43.4 | 2.73 | 6.30% | [0.00] | mg/L |
| K 766.490† | 1795.8 | 19.09 | 1.06% | [0.00] | mg/L |
| Mg 279.077† | -90.3 | 4.46 | 4.94% | [0.00] | mg/L |
| Mn 257.610† | 228.4 | 2.80 | 1.23% | [0.00] | mg/L |
| Mo 202.031† | 76.6 | 3.00 | 3.92% | [0.00] | mg/L |
| Na 589.592† | 2064.1 | 37.73 | 1.83% | [0.00] | mg/L |
| Na 330.237† | -170.8 | 9.12 | 5.34% | [0.00] | mg/L |
| Ni 231.604† | -167.7 | 3.29 | 1.96% | [0.00] | mg/L |
| Pb 220.353† | 100.3 | 3.64 | 3.63% | [0.00] | mg/L |
| Sb 206.836† | -79.7 | 6.54 | 8.20% | [0.00] | mg/L |
| Se 196.026† | 61.0 | 5.20 | 8.52% | [0.00] | mg/L |
| Si 288.158† | 82.6 | 5.07 | 6.14% | [0.00] | mg/L |
| Sn 189.927† | -44.4 | 2.02 | 4.55% | [0.00] | mg/L |
| Sr 421.552† | 362.8 | 30.82 | 8.49% | [0.00] | mg/L |
| Ti 334.903† | 42.2 | 14.76 | 34.96% | [0.00] | mg/L |
| Tl 190.801† | -12.0 | 2.74 | 22.92% | [0.00] | mg/L |
| V 292.402† | 745.5 | 21.19 | 2.84% | [0.00] | mg/L |
| Zn 206.200† | -35.2 | 3.90 | 11.08% | [0.00] | mg/L |

UU52:02016

Sequence No.: 2
Sample ID: STD2

Autosampler Location: 2
Date Collected: 5/29/2012 1:28:51 PM
Data Type: Original

Nebulizer Parameters: STD2

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 180.0 kPa | 0.55 L/min |

Mean Data: STD2

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| ScA 357.253 | 1924415.4 | 6687.06 | 0.35% | 100.6 | % |
| ScR 361.383 | 201360.4 | 865.25 | 0.43% | 102.5 | % |
| Ba 233.527† | 71972.9 | 50.17 | 0.07% | [10] | mg/L |
| Cd 228.802† | 487821.5 | 821.75 | 0.17% | [10] | mg/L |
| Co 228.616† | 469944.7 | 766.32 | 0.16% | [10] | mg/L |
| Cr 267.716† | 44134.4 | 25.80 | 0.06% | [10] | mg/L |
| Cu 324.752† | 2438762.4 | 1628.48 | 0.07% | [10] | mg/L |
| Mn 257.610† | 395548.2 | 493.66 | 0.12% | [10] | mg/L |
| V 292.402† | 1346437.1 | 3472.78 | 0.26% | [10] | mg/L |

Sequence No.: 3
Sample ID: STD3

Autosampler Location: 3
Date Collected: 5/29/2012 1:32:40 PM
Data Type: Original

Nebulizer Parameters: STD3

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 180.0 kPa | 0.55 L/min |

Mean Data: STD3

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| ScA 357.253 | 1881016.5 | 8856.32 | 0.47% | 98.29 | % |
| ScR 361.383 | 197541.0 | 529.95 | 0.27% | 100.6 | % |
| Ag 328.068† | 205403.1 | 808.55 | 0.39% | [1.0] | mg/L |
| As 188.979† | 12735.6 | 208.91 | 1.64% | [10] | mg/L |
| B 249.677† | 16730.9 | 85.28 | 0.51% | [10] | mg/L |
| Be 313.042† | 1400358.3 | 11767.05 | 0.84% | [5.0] | mg/L |
| Na 589.592† | 336916.1 | 3375.18 | 1.00% | [50] | mg/L |
| Ni 231.604† | 18685.7 | 69.85 | 0.37% | [10] | mg/L |
| Pb 220.353† | 70159.9 | 381.82 | 0.54% | [10] | mg/L |
| Se 196.026† | 8317.8 | 136.12 | 1.64% | [10] | mg/L |
| Sr 421.552† | 2276274.0 | 12113.90 | 0.53% | [5] | mg/L |
| Tl 190.801† | 16092.1 | 180.65 | 1.12% | [10] | mg/L |
| Zn 206.200† | 25508.6 | 72.91 | 0.29% | [10] | mg/L |

UU52:02018

Sequence No.: 4
Sample ID: STD4

Autosampler Location: 4
Date Collected: 5/29/2012 1:37:00 PM
Data Type: Original

**Nebulizer Parameters: STD4**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 180.0 kPa | 0.55 L/min |

**Mean Data: STD4**

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| ScA 357.253 | 1916900.5 | 11776.11 | 0.61% | 100.2 | % |
| ScR 361.383 | 200820.8 | 2830.87 | 1.41% | 102.2 | % |
| Mo 202.031† | 101188.9 | 421.46 | 0.42% | [10] | mg/L |
| Sb 206.836† | 12351.1 | 97.52 | 0.79% | [10] | mg/L |
| Si 288.158† | 12374.2 | 254.02 | 2.05% | [10] | mg/L |
| Sn 189.927† | 31802.4 | 197.56 | 0.62% | [10] | mg/L |
| Ti 334.903† | 190841.8 | 2852.55 | 1.49% | [10] | mg/L |

Sequence No.: 5
Sample ID: STD5

Autosampler Location: 5
Date Collected: 5/29/2012 1:41:13 PM
Data Type: Original

**Nebulizer Parameters: STD5**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 180.0 kPa | 0.55 L/min |

**Mean Data: STD5**

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| ScA 357.253 | 1811583.9 | 3381.48 | 0.19% | 94.66 | % |
| ScR 361.383 | 195868.3 | 987.81 | 0.50% | 99.71 | % |
| Al 308.215† | 39253.9 | 239.62 | 0.61% | [30] | mg/L |
| Ca 317.933† | 317324.1 | 456.07 | 0.14% | [30] | mg/L |
| Fe 273.955† | 118490.9 | 401.02 | 0.34% | [100] | mg/L |
| K 766.490† | 260584.0 | 690.78 | 0.27% | [100] | mg/L |
| Mg 279.077† | 31574.7 | 171.46 | 0.54% | [30] | mg/L |
| Na 330.237† | 2018.1 | 10.53 | 0.52% | [100] | mg/L |

**Calibration Summary**

| Analyte | Stds. | Equation | Intercept | Slope | Curvature | Corr. Coef. | Reslope |
|---|---|---|---|---|---|---|---|
| Ag 328.068 | 1 | Lin Thru 0 | 0.0 | 205400 | 0.00000 | 1.000000 | |
| Al 308.215 | 1 | Lin Thru 0 | 0.0 | 1308 | 0.00000 | 1.000000 | |
| As 188.979 | 1 | Lin Thru 0 | 0.0 | 1274 | 0.00000 | 1.000000 | |
| B 249.677 | 1 | Lin Thru 0 | 0.0 | 1673 | 0.00000 | 1.000000 | |
| Ba 233.527 | 1 | Lin Thru 0 | 0.0 | 7197 | 0.00000 | 1.000000 | |
| Be 313.042 | 1 | Lin Thru 0 | 0.0 | 280100 | 0.00000 | 1.000000 | |
| Ca 317.933 | 1 | Lin Thru 0 | 0.0 | 10580 | 0.00000 | 1.000000 | |
| Cd 228.802 | 1 | Lin Thru 0 | 0.0 | 48780 | 0.00000 | 1.000000 | |
| Co 228.616 | 1 | Lin Thru 0 | 0.0 | 46990 | 0.00000 | 1.000000 | |
| Cr 267.716 | 1 | Lin Thru 0 | 0.0 | 4413 | 0.00000 | 1.000000 | |
| Cu 324.752 | 1 | Lin Thru 0 | 0.0 | 243900 | 0.00000 | 1.000000 | |
| Fe 273.955 | 1 | Lin Thru 0 | 0.0 | 1185 | 0.00000 | 1.000000 | |
| K 766.490 | 1 | Lin Thru 0 | 0.0 | 2606 | 0.00000 | 1.000000 | |
| Mg 279.077 | 1 | Lin Thru 0 | 0.0 | 1052 | 0.00000 | 1.000000 | |
| Mn 257.610 | 1 | Lin Thru 0 | 0.0 | 39550 | 0.00000 | 1.000000 | |
| Mo 202.031 | 1 | Lin Thru 0 | 0.0 | 10120 | 0.00000 | 1.000000 | |
| Na 589.592 | 1 | Lin Thru 0 | 0.0 | 6738 | 0.00000 | 1.000000 | |
| Na 330.237 | 1 | Lin Thru 0 | 0.0 | 20.18 | 0.00000 | 1.000000 | |
| Ni 231.604 | 1 | Lin Thru 0 | 0.0 | 1869 | 0.00000 | 1.000000 | |
| Pb 220.353 | 1 | Lin Thru 0 | 0.0 | 7016 | 0.00000 | 1.000000 | |
| Sb 206.836 | 1 | Lin Thru 0 | 0.0 | 1235 | 0.00000 | 1.000000 | |
| Se 196.026 | 1 | Lin Thru 0 | 0.0 | 831.8 | 0.00000 | 1.000000 | |
| Si 288.158 | 1 | Lin Thru 0 | 0.0 | 1237 | 0.00000 | 1.000000 | |
| Sn 189.927 | 1 | Lin Thru 0 | 0.0 | 3180 | 0.00000 | 1.000000 | |
| Sr 421.552 | 1 | Lin Thru 0 | 0.0 | 455300 | 0.00000 | 1.000000 | |
| Ti 334.903 | 1 | Lin Thru 0 | 0.0 | 19080 | 0.00000 | 1.000000 | |
| Tl 190.801 | 1 | Lin Thru 0 | 0.0 | 1609 | 0.00000 | 1.000000 | |
| V 292.402 | 1 | Lin Thru 0 | 0.0 | 134600 | 0.00000 | 1.000000 | |
| Zn 206.200 | 1 | Lin Thru 0 | 0.0 | 2551 | 0.00000 | 1.000000 | |

UU52:020220

Analysis Begun

Start Time: 5/29/2012 1:55:22 PM
Logged In Analyst: metals
Spectrometer Model: Optima 4300 DV, S/N 077N0060101
Plasma On Time: 5/29/2012 12:14:35 PM
Technique: ICP Continuous
Autosampler Model: S10

Sample Information File: C:\pe\metals\Sample Information\0529.sif
Batch ID:
Results Data Set: PE120529
Results Library: C:\pe\metals\Results\Results.mdb

Sequence No.: 1
Sample ID: ICV
Autosampler Location: 7
Date Collected: 5/29/2012 1:55:24 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CV

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 180.0 kPa | 0.55 L/min |

Mean Data: CV

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1863523.8 | 97.38 | % | 0.168 | | | | 0.17% |
| ScR 361.383 | 197733.8 | 100.7 | % | 0.80 | | | | 0.79% |
| Ag 328.068† | 199692.9 | 0.9723 | mg/L | 0.00375 | 0.9723 | mg/L | 0.00375 | 0.39% |
| Al 308.215† | 2693.8 | 2.019 | mg/L | 0.0217 | 2.019 | mg/L | 0.0217 | 1.08% |
| As 188.979† | 2592.9 | 2.035 | mg/L | 0.0080 | 2.035 | mg/L | 0.0080 | 0.39% |
| B 249.677† | 1610.1 | 0.9607 | mg/L | 0.00610 | 0.9607 | mg/L | 0.00610 | 0.64% |
| Ba 233.527† | 6823.8 | 0.9477 | mg/L | 0.00774 | 0.9477 | mg/L | 0.00774 | 0.82% |
| Be 313.042† | 273218.6 | 0.9730 | mg/L | 0.00260 | 0.9730 | mg/L | 0.00260 | 0.27% |
| Ca 317.933† | 21511.7 | 2.034 | mg/L | 0.0125 | 2.034 | mg/L | 0.0125 | 0.61% |
| Cd 228.802† | 49070.9 | 1.003 | mg/L | 0.0033 | 1.003 | mg/L | 0.0033 | 0.33% |
| Co 228.616† | 45184.9 | 0.9596 | mg/L | 0.00352 | 0.9596 | mg/L | 0.00352 | 0.37% |
| Cr 267.716† | 4204.5 | 0.9522 | mg/L | 0.00678 | 0.9522 | mg/L | 0.00678 | 0.71% |
| Cu 324.752† | 248473.1 | 1.019 | mg/L | 0.0036 | 1.019 | mg/L | 0.0036 | 0.35% |
| Fe 273.955† | 2432.4 | 2.052 | mg/L | 0.0175 | 2.052 | mg/L | 0.0175 | 0.85% |
| K 766.490† | 53843.2 | 20.66 | mg/L | 0.073 | 20.66 | mg/L | 0.073 | 0.35% |
| Mg 279.077† | 2192.4 | 2.086 | mg/L | 0.0130 | 2.086 | mg/L | 0.0130 | 0.63% |
| Mn 257.610† | 37865.1 | 0.9577 | mg/L | 0.00183 | 0.9577 | mg/L | 0.00183 | 0.19% |
| Mo 202.031† | 10303.6 | 1.018 | mg/L | 0.0022 | 1.018 | mg/L | 0.0022 | 0.21% |
| Na 589.592† | 330743.6 | 49.08 | mg/L | 0.204 | 49.08 | mg/L | 0.204 | 0.42% |
| Na 330.237† | 1051.5 | 51.98 | mg/L | 0.376 | 51.98 | mg/L | 0.376 | 0.72% |
| Ni 231.604† | 1791.2 | 0.9594 | mg/L | 0.00427 | 0.9594 | mg/L | 0.00427 | 0.45% |
| Pb 220.353† | 13918.2 | 1.986 | mg/L | 0.0083 | 1.986 | mg/L | 0.0083 | 0.42% |
| Sb 206.836† | 2781.2 | 2.251 | mg/L | 0.0088 | 2.251 | mg/L | 0.0088 | 0.39% |
| Se 196.026† | 1639.3 | 1.968 | mg/L | 0.0151 | 1.968 | mg/L | 0.0151 | 0.77% |
| Si 288.158† | 2781.6 | 2.255 | mg/L | 0.0183 | 2.255 | mg/L | 0.0183 | 0.81% |
| Sn 189.927† | 3022.7 | 0.9519 | mg/L | 0.00248 | 0.9519 | mg/L | 0.00248 | 0.26% |
| Sr 421.552† | 449426.8 | 0.9872 | mg/L | 0.00505 | 0.9872 | mg/L | 0.00505 | 0.51% |
| Ti 334.903† | 19611.5 | 1.026 | mg/L | 0.0022 | 1.026 | mg/L | 0.0022 | 0.21% |
| Tl 190.801† | 3173.1 | 1.956 | mg/L | 0.0135 | 1.956 | mg/L | 0.0135 | 0.69% |
| V 292.402† | 133242.6 | 1.002 | mg/L | 0.0062 | 1.002 | mg/L | 0.0062 | 0.62% |
| Zn 206.200† | 2558.7 | 1.002 | mg/L | 0.0099 | 1.002 | mg/L | 0.0099 | 0.99% |

Sequence No.: 2
Sample ID: CB

Autosampler Location: 1
Date Collected: 5/29/2012 2:01:26 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CB

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 180.0 kPa | 0.55 L/min |

Mean Data: CB

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1916343.7 | 100.1 | % | 0.63 | | | | 0.63% |
| ScR 361.383 | 198705.3 | 101.2 | % | 0.75 | | | | 0.74% |
| Ag 328.068† | 91.2 | 0.00044 | mg/L | 0.000053 | 0.00044 | mg/L | 0.000053 | 11.87% |
| Al 308.215† | -3.1 | -0.00237 | mg/L | 0.005001 | -0.00237 | mg/L | 0.005001 | 211.08% |
| As 188.979† | -1.2 | -0.00094 | mg/L | 0.001495 | -0.00094 | mg/L | 0.001495 | 159.37% |
| B 249.677† | 21.8 | 0.01304 | mg/L | 0.001239 | 0.01304 | mg/L | 0.001239 | 9.51% |
| Ba 233.527† | -2.5 | -0.00035 | mg/L | 0.000738 | -0.00035 | mg/L | 0.000738 | 208.70% |
| Be 313.042† | 33.3 | 0.00012 | mg/L | 0.000012 | 0.00012 | mg/L | 0.000012 | 10.25% |
| Ca 317.933† | -2.1 | -0.00020 | mg/L | 0.000744 | -0.00020 | mg/L | 0.000744 | 367.89% |
| Cd 228.802† | 9.0 | 0.00019 | mg/L | 0.000177 | 0.00019 | mg/L | 0.000177 | 95.20% |
| Co 228.616† | -2.0 | -0.00004 | mg/L | 0.000237 | -0.00004 | mg/L | 0.000237 | 561.79% |
| Cr 267.716† | -1.1 | -0.00024 | mg/L | 0.001506 | -0.00024 | mg/L | 0.001506 | 630.20% |
| Cu 324.752† | 153.8 | 0.00063 | mg/L | 0.000208 | 0.00063 | mg/L | 0.000208 | 33.05% |
| Fe 273.955† | 0.9 | 0.00074 | mg/L | 0.001398 | 0.00074 | mg/L | 0.001398 | 189.35% |
| K 766.490† | 101.7 | 0.03902 | mg/L | 0.025602 | 0.03902 | mg/L | 0.025602 | 65.61% |
| Mg 279.077† | -7.2 | -0.00680 | mg/L | 0.003695 | -0.00680 | mg/L | 0.003695 | 54.31% |
| Mn 257.610† | 9.1 | 0.00023 | mg/L | 0.000136 | 0.00023 | mg/L | 0.000136 | 58.70% |
| Mo 202.031† | 5.8 | 0.00057 | mg/L | 0.000289 | 0.00057 | mg/L | 0.000289 | 50.45% |
| Na 589.592† | 110.7 | 0.01643 | mg/L | 0.004825 | 0.01643 | mg/L | 0.004825 | 29.36% |
| Na 330.237† | 3.2 | 0.1594 | mg/L | 1.04490 | 0.1594 | mg/L | 1.04490 | 655.38% |
| Ni 231.604† | -7.1 | -0.00380 | mg/L | 0.002609 | -0.00380 | mg/L | 0.002609 | 68.72% |
| Pb 220.353† | 19.9 | 0.00284 | mg/L | 0.000987 | 0.00284 | mg/L | 0.000987 | 34.73% |
| Sb 206.836† | -1.1 | -0.00088 | mg/L | 0.006235 | -0.00088 | mg/L | 0.006235 | 711.30% |
| Se 196.026† | 6.5 | 0.00787 | mg/L | 0.003990 | 0.00787 | mg/L | 0.003990 | 50.68% |
| Si 288.158† | -0.9 | -0.00072 | mg/L | 0.002215 | -0.00072 | mg/L | 0.002215 | 306.85% |
| Sn 189.927† | 6.6 | 0.00206 | mg/L | 0.000297 | 0.00206 | mg/L | 0.000297 | 14.42% |
| Sr 421.552† | 55.5 | 0.00012 | mg/L | 0.000081 | 0.00012 | mg/L | 0.000081 | 66.08% |
| Ti 334.903† | -3.2 | -0.00017 | mg/L | 0.001040 | -0.00017 | mg/L | 0.001040 | 616.00% |
| Tl 190.801† | 0.5 | 0.00030 | mg/L | 0.003456 | 0.00030 | mg/L | 0.003456 | >999.9% |
| V 292.402† | 37.8 | 0.00028 | mg/L | 0.000105 | 0.00028 | mg/L | 0.000105 | 37.25% |
| Zn 206.200† | 0.7 | 0.00026 | mg/L | 0.000462 | 0.00026 | mg/L | 0.000462 | 177.41% |

UU52 : 02022

Sequence No.: 3
Sample ID: ~~CRI~~ 222222
Dilution: 1X

Autosampler Location: 21
Date Collected: 5/29/2012 2:07:24 PM
Data Type: Original

Nebulizer Parameters: CRI

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 180.0 kPa | 0.55 L/min |

Mean Data: CRI

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1886886.9 | 98.60 | % | 2.321 | | | | 2.35% |
| ScR 361.383 | 197662.9 | 100.6 | % | 0.78 | | | | 0.77% |
| Ag 328.068† | 627.7 | 0.00306 | mg/L | 0.000282 | 0.00306 | mg/L | 0.000282 | 9.22% |
| Al 308.215† | 61.5 | 0.04680 | mg/L | 0.003978 | 0.04680 | mg/L | 0.003978 | 8.50% |
| As 188.979† | 67.1 | 0.05269 | mg/L | 0.001593 | 0.05269 | mg/L | 0.001593 | 3.02% |
| B 249.677† | 48.5 | 0.02899 | mg/L | 0.002432 | 0.02899 | mg/L | 0.002432 | 8.39% |
| Ba 233.527† | 16.9 | 0.00235 | mg/L | 0.000043 | 0.00235 | mg/L | 0.000043 | 1.83% |
| Be 313.042† | 317.8 | 0.00113 | mg/L | 0.000022 | 0.00113 | mg/L | 0.000022 | 1.94% |
| Ca 317.933† | 594.3 | 0.05619 | mg/L | 0.001055 | 0.05619 | mg/L | 0.001055 | 1.88% |
| Cd 228.802† | 110.9 | 0.00218 | mg/L | 0.000255 | 0.00218 | mg/L | 0.000255 | 11.69% |
| Co 228.616† | 133.2 | 0.00283 | mg/L | 0.000144 | 0.00283 | mg/L | 0.000144 | 5.11% |
| Cr 267.716† | 14.9 | 0.00337 | mg/L | 0.001345 | 0.00337 | mg/L | 0.001345 | 39.93% |
| Cu 324.752† | 644.1 | 0.00264 | mg/L | 0.000029 | 0.00264 | mg/L | 0.000029 | 1.08% |
| Fe 273.955† | 64.4 | 0.05435 | mg/L | 0.003242 | 0.05435 | mg/L | 0.003242 | 5.97% |
| K 766.490† | 1514.7 | 0.5813 | mg/L | 0.04459 | 0.5813 | mg/L | 0.04459 | 7.67% |
| Mg 279.077† | 55.4 | 0.05262 | mg/L | 0.012425 | 0.05262 | mg/L | 0.012425 | 23.61% |
| Mn 257.610† | 50.6 | 0.00128 | mg/L | 0.000099 | 0.00128 | mg/L | 0.000099 | 7.73% |
| Mo 202.031† | 54.5 | 0.00538 | mg/L | 0.000618 | 0.00538 | mg/L | 0.000618 | 11.50% |
| Na 589.592† | 3516.2 | 0.5218 | mg/L | 0.00549 | 0.5218 | mg/L | 0.00549 | 1.05% |
| Na 330.237† | 15.3 | 0.7560 | mg/L | 0.55543 | 0.7560 | mg/L | 0.55543 | 73.46% |
| Ni 231.604† | 7.0 | 0.00376 | mg/L | 0.001343 | 0.00376 | mg/L | 0.001343 | 35.69% |
| Pb 220.353† | 159.2 | 0.02272 | mg/L | 0.002235 | 0.02272 | mg/L | 0.002235 | 9.84% |
| Sb 206.836† | 71.1 | 0.05768 | mg/L | 0.001820 | 0.05768 | mg/L | 0.001820 | 3.15% |
| Se 196.026† | 44.5 | 0.05343 | mg/L | 0.008944 | 0.05343 | mg/L | 0.008944 | 16.74% |
| Si 288.158† | 81.4 | 0.06580 | mg/L | 0.001397 | 0.06580 | mg/L | 0.001397 | 2.12% |
| Sn 189.927† | 34.1 | 0.01076 | mg/L | 0.000821 | 0.01076 | mg/L | 0.000821 | 7.63% |
| Sr 421.552† | 503.8 | 0.00111 | mg/L | 0.000034 | 0.00111 | mg/L | 0.000034 | 3.06% |
| Ti 334.903† | 72.3 | 0.00378 | mg/L | 0.000577 | 0.00378 | mg/L | 0.000577 | 15.25% |
| Tl 190.801† | 83.4 | 0.05177 | mg/L | 0.002267 | 0.05177 | mg/L | 0.002267 | 4.38% |
| V 292.402† | 388.0 | 0.00293 | mg/L | 0.000422 | 0.00293 | mg/L | 0.000422 | 14.40% |
| Zn 206.200† | 24.2 | 0.00949 | mg/L | 0.000008 | 0.00949 | mg/L | 0.000008 | 0.09% |

UU52 : 02023

Analysis Begun

Start Time: 5/29/2012 2:13:56 PM
Plasma On Time: 5/29/2012 12:14:35 PM
Logged In Analyst: metals
Technique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N0060101Autosampler Model: S10

Sample Information File: C:\pe\metals\Sample Information\0529.sif
Batch ID:
Results Data Set: PE120529
Results Library: C:\pe\metals\Results\Results.mdb

Sequence No.: 1
Sample ID: Calib Blank 1
Date Collected: 5/29/2012 2:13:58 PM
Data Type: Original

Nebulizer Parameters: Calib Blank 1

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 180.0 kPa | 0.55 L/min |

Mean Data: Calib Blank 1

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| ScA 357.253 | 1902099.9 | 8576.99 | 0.45% | 99.39 | % |
| ScR 361.383 | 198718.8 | 366.35 | 0.18% | 101.2 | % |
| Ag 328.068† | -39.6 | 38.15 | 96.46% | [0.00] | mg/L |
| Al 308.215† | -175.3 | 11.27 | 6.43% | [0.00] | mg/L |
| As 188.979† | 45.8 | 0.82 | 1.80% | [0.00] | mg/L |
| B 249.677† | -156.3 | 5.77 | 3.69% | [0.00] | mg/L |
| Ba 233.527† | -66.1 | 0.69 | 1.04% | [0.00] | mg/L |
| Be 313.042† | 784.3 | 2.81 | 0.36% | [0.00] | mg/L |
| Ca 317.933† | -13.9 | 2.51 | 18.00% | [0.00] | mg/L |
| Cd 228.802† | 209.9 | 1.98 | 0.94% | [0.00] | mg/L |
| Co 228.616† | -327.8 | 7.77 | 2.37% | [0.00] | mg/L |
| Cr 267.716† | 110.3 | 1.87 | 1.70% | [0.00] | mg/L |
| Cu 324.752† | 1124.9 | 59.63 | 5.30% | [0.00] | mg/L |
| Fe 273.955† | -42.8 | 1.36 | 3.16% | [0.00] | mg/L |
| K 766.490† | 1861.0 | 22.53 | 1.21% | [0.00] | mg/L |
| Mg 279.077† | -93.1 | 8.02 | 8.61% | [0.00] | mg/L |
| Mn 257.610† | 234.7 | 6.53 | 2.78% | [0.00] | mg/L |
| Mo 202.031† | 76.8 | 4.38 | 5.70% | [0.00] | mg/L |
| Na 589.592† | 2072.9 | 30.25 | 1.46% | [0.00] | mg/L |
| Na 330.237† | -180.1 | 12.23 | 6.79% | [0.00] | mg/L |
| Ni 231.604† | -177.9 | 2.96 | 1.66% | [0.00] | mg/L |
| Pb 220.353† | 119.4 | 7.29 | 6.10% | [0.00] | mg/L |
| Sb 206.836† | -76.6 | 3.16 | 4.12% | [0.00] | mg/L |
| Se 196.026† | 62.4 | 4.75 | 7.61% | [0.00] | mg/L |
| Si 288.158† | 80.6 | 5.69 | 7.07% | [0.00] | mg/L |
| Sn 189.927† | -40.7 | 4.05 | 9.94% | [0.00] | mg/L |
| Sr 421.552† | 425.2 | 35.91 | 8.45% | [0.00] | mg/L |
| Ti 334.903† | 21.6 | 13.22 | 61.35% | [0.00] | mg/L |
| Tl 190.801† | -9.2 | 2.14 | 23.33% | [0.00] | mg/L |
| V 292.402† | 774.4 | 27.04 | 3.49% | [0.00] | mg/L |
| Zn 206.200† | -35.9 | 3.25 | 9.05% | [0.00] | mg/L |

UU52:02024

Analysis Begun

Start Time: 5/29/2012 2:18:15 PM
Logged In Analyst: metals
Spectrometer Model: Optima 4300 DV, S/N 077N0060101
Plasma On Time: 5/29/2012 12:14:35 PM
Technique: ICP Continuous
Autosampler Model: S10

Sample Information File: C:\pe\metals\Sample Information\0529.sif
Batch ID:
Results Data Set: PE120529
Results Library: C:\pe\metals\Results\Results.mdb

Sequence No.: 1
Sample ID: CV
Autosampler Location: 7
Date Collected: 5/29/2012 2:18:17 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CV

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 181.0 kPa | 0.55 L/min |

Mean Data: CV

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1851422.5 | 96.75 | % | 0.316 | | | | 0.33% |
| ScR 361.383 | 197782.3 | 100.7 | % | 1.15 | | | | 1.15% |
| Ag 328.068† | 199918.5 | 0.9734 | mg/L | 0.00750 | 0.9734 | mg/L | 0.00750 | 0.77% |
| Al 308.215† | 2713.8 | 2.035 | mg/L | 0.0083 | 2.035 | mg/L | 0.0083 | 0.41% |
| As 188.979† | 2604.0 | 2.044 | mg/L | 0.0075 | 2.044 | mg/L | 0.0075 | 0.37% |
| B 249.677† | 1610.8 | 0.9610 | mg/L | 0.01852 | 0.9610 | mg/L | 0.01852 | 1.93% |
| Ba 233.527† | 6849.3 | 0.9512 | mg/L | 0.01302 | 0.9512 | mg/L | 0.01302 | 1.37% |
| Be 313.042† | 273954.3 | 0.9757 | mg/L | 0.00208 | 0.9757 | mg/L | 0.00208 | 0.21% |
| Ca 317.933† | 21572.5 | 2.039 | mg/L | 0.0229 | 2.039 | mg/L | 0.0229 | 1.12% |
| Cd 228.802† | 49118.9 | 1.003 | mg/L | 0.0065 | 1.003 | mg/L | 0.0065 | 0.65% |
| Co 228.616† | 45405.9 | 0.9643 | mg/L | 0.00545 | 0.9643 | mg/L | 0.00545 | 0.57% |
| Cr 267.716† | 4219.9 | 0.9557 | mg/L | 0.00973 | 0.9557 | mg/L | 0.00973 | 1.02% |
| Cu 324.752† | 249431.4 | 1.023 | mg/L | 0.0080 | 1.023 | mg/L | 0.0080 | 0.78% |
| Fe 273.955† | 2449.4 | 2.066 | mg/L | 0.0250 | 2.066 | mg/L | 0.0250 | 1.21% |
| K 766.490† | 53696.4 | 20.61 | mg/L | 0.096 | 20.61 | mg/L | 0.096 | 0.46% |
| Mg 279.077† | 2209.6 | 2.102 | mg/L | 0.0281 | 2.102 | mg/L | 0.0281 | 1.33% |
| Mn 257.610† | 37606.2 | 0.9512 | mg/L | 0.01142 | 0.9512 | mg/L | 0.01142 | 1.20% |
| Mo 202.031† | 10348.7 | 1.022 | mg/L | 0.0023 | 1.022 | mg/L | 0.0023 | 0.23% |
| Na 589.592† | 331287.6 | 49.16 | mg/L | 0.102 | 49.16 | mg/L | 0.102 | 0.21% |
| Na 330.237† | 1066.7 | 52.73 | mg/L | 0.659 | 52.73 | mg/L | 0.659 | 1.25% |
| Ni 231.604† | 1809.9 | 0.9694 | mg/L | 0.00923 | 0.9694 | mg/L | 0.00923 | 0.95% |
| Pb 220.353† | 13965.5 | 1.993 | mg/L | 0.0188 | 1.993 | mg/L | 0.0188 | 0.95% |
| Sb 206.836† | 2781.1 | 2.250 | mg/L | 0.0049 | 2.250 | mg/L | 0.0049 | 0.22% |
| Se 196.026† | 1653.1 | 1.985 | mg/L | 0.0072 | 1.985 | mg/L | 0.0072 | 0.36% |
| Si 288.158† | 2806.7 | 2.275 | mg/L | 0.0267 | 2.275 | mg/L | 0.0267 | 1.17% |
| Sn 189.927† | 3024.0 | 0.9523 | mg/L | 0.00206 | 0.9523 | mg/L | 0.00206 | 0.22% |
| Sr 421.552† | 448872.6 | 0.9860 | mg/L | 0.00543 | 0.9860 | mg/L | 0.00543 | 0.55% |
| Ti 334.903† | 19728.7 | 1.032 | mg/L | 0.0035 | 1.032 | mg/L | 0.0035 | 0.34% |
| Tl 190.801† | 3194.7 | 1.969 | mg/L | 0.0091 | 1.969 | mg/L | 0.0091 | 0.46% |
| V 292.402† | 133481.6 | 1.004 | mg/L | 0.0112 | 1.004 | mg/L | 0.0112 | 1.11% |
| Zn 206.200† | 2582.6 | 1.012 | mg/L | 0.0120 | 1.012 | mg/L | 0.0120 | 1.18% |

Sequence No.: 2
Sample ID: CB

Autosampler Location: 1
Date Collected: 5/29/2012 2:24:18 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CB

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 180.0 kPa | 0.55 L/min |

Mean Data: CB

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1878056.2 | 98.14 | % | 0.479 | | | | 0.49% |
| ScR 361.383 | 194571.7 | 99.05 | % | 0.242 | | | | 0.24% |
| Ag 328.068† | 23.9 | 0.00012 | mg/L | 0.000249 | 0.00012 | mg/L | 0.000249 | 214.24% |
| Al 308.215† | -4.3 | -0.00327 | mg/L | 0.002234 | -0.00327 | mg/L | 0.002234 | 68.23% |
| As 188.979† | 1.2 | 0.00091 | mg/L | 0.001002 | 0.00091 | mg/L | 0.001002 | 110.17% |
| B 249.677† | 11.8 | 0.00706 | mg/L | 0.002338 | 0.00706 | mg/L | 0.002338 | 33.13% |
| Ba 233.527† | 0.9 | 0.00013 | mg/L | 0.000167 | 0.00013 | mg/L | 0.000167 | 133.56% |
| Be 313.042† | 15.8 | 0.00006 | mg/L | 0.000014 | 0.00006 | mg/L | 0.000014 | 24.08% |
| Ca 317.933† | -0.1 | -0.00001 | mg/L | 0.001196 | -0.00001 | mg/L | 0.001196 | >999.9% |
| Cd 228.802† | -0.5 | -0.00001 | mg/L | 0.000087 | -0.00001 | mg/L | 0.000087 | 682.23% |
| Co 228.616† | 2.1 | 0.00005 | mg/L | 0.000302 | 0.00005 | mg/L | 0.000302 | 669.11% |
| Cr 267.716† | -3.6 | -0.00080 | mg/L | 0.001348 | -0.00080 | mg/L | 0.001348 | 167.53% |
| Cu 324.752† | 31.0 | 0.00013 | mg/L | 0.000025 | 0.00013 | mg/L | 0.000025 | 19.95% |
| Fe 273.955† | 0.1 | 0.00007 | mg/L | 0.001289 | 0.00007 | mg/L | 0.001289 | >999.9% |
| K 766.490† | 33.0 | 0.01268 | mg/L | 0.038074 | 0.01268 | mg/L | 0.038074 | 300.29% |
| Mg 279.077† | -2.5 | -0.00239 | mg/L | 0.003110 | -0.00239 | mg/L | 0.003110 | 130.25% |
| Mn 257.610† | 4.5 | 0.00011 | mg/L | 0.000040 | 0.00011 | mg/L | 0.000040 | 34.86% |
| Mo 202.031† | 4.2 | 0.00041 | mg/L | 0.000617 | 0.00041 | mg/L | 0.000617 | 150.10% |
| Na 589.592† | 151.1 | 0.02243 | mg/L | 0.006591 | 0.02243 | mg/L | 0.006591 | 29.39% |
| Na 330.237† | 2.1 | 0.1065 | mg/L | 0.35065 | 0.1065 | mg/L | 0.35065 | 329.24% |
| Ni 231.604† | -1.8 | -0.00099 | mg/L | 0.002636 | -0.00099 | mg/L | 0.002636 | 267.21% |
| Pb 220.353† | 0.3 | 0.00005 | mg/L | 0.000559 | 0.00005 | mg/L | 0.000559 | >999.9% |
| Sb 206.836† | -4.3 | -0.00346 | mg/L | 0.002859 | -0.00346 | mg/L | 0.002859 | 82.69% |
| Se 196.026† | -0.7 | -0.00088 | mg/L | 0.002642 | -0.00088 | mg/L | 0.002642 | 300.57% |
| Si 288.158† | 4.0 | 0.00324 | mg/L | 0.004432 | 0.00324 | mg/L | 0.004432 | 136.63% |
| Sn 189.927† | 5.8 | 0.00182 | mg/L | 0.000757 | 0.00182 | mg/L | 0.000757 | 41.56% |
| Sr 421.552† | 12.1 | 0.00003 | mg/L | 0.000058 | 0.00003 | mg/L | 0.000058 | 215.96% |
| Ti 334.903† | 3.3 | 0.00017 | mg/L | 0.001037 | 0.00017 | mg/L | 0.001037 | 602.38% |
| Tl 190.801† | 1.7 | 0.00103 | mg/L | 0.001477 | 0.00103 | mg/L | 0.001477 | 143.98% |
| V 292.402† | -2.4 | -0.00002 | mg/L | 0.000082 | -0.00002 | mg/L | 0.000082 | 387.04% |
| Zn 206.200† | -0.3 | -0.00010 | mg/L | 0.000992 | -0.00010 | mg/L | 0.000992 | 948.26% |

Sequence No.: 3
Sample ID: CRI

Autosampler Location: 21
Date Collected: 5/29/2012 2:30:16 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CRI

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 180.0 kPa | 0.55 L/min |

Mean Data: CRI

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1882997.7 | 98.40 | % | 0.873 | | | | 0.89% |
| ScR 361.383 | 196910.7 | 100.2 | % | 2.22 | | | | 2.21% |
| Ag 328.068† | 624.1 | 0.00304 | mg/L | 0.000153 | 0.00304 | mg/L | 0.000153 | 5.03% |
| Al 308.215† | 72.2 | 0.05501 | mg/L | 0.009230 | 0.05501 | mg/L | 0.009230 | 16.78% |
| As 188.979† | 68.3 | 0.05359 | mg/L | 0.001829 | 0.05359 | mg/L | 0.001829 | 3.41% |
| B 249.677† | 38.2 | 0.02282 | mg/L | 0.002446 | 0.02282 | mg/L | 0.002446 | 10.72% |
| Ba 233.527† | 22.3 | 0.00310 | mg/L | 0.000683 | 0.00310 | mg/L | 0.000683 | 22.04% |
| Be 313.042† | 284.3 | 0.00101 | mg/L | 0.000115 | 0.00101 | mg/L | 0.000115 | 11.42% |
| Ca 317.933† | 578.4 | 0.05468 | mg/L | 0.003969 | 0.05468 | mg/L | 0.003969 | 7.26% |
| Cd 228.802† | 99.2 | 0.00194 | mg/L | 0.000163 | 0.00194 | mg/L | 0.000163 | 8.40% |
| Co 228.616† | 144.0 | 0.00305 | mg/L | 0.000049 | 0.00305 | mg/L | 0.000049 | 1.62% |
| Cr 267.716† | 20.8 | 0.00472 | mg/L | 0.001610 | 0.00472 | mg/L | 0.001610 | 34.12% |
| Cu 324.752† | 513.7 | 0.00211 | mg/L | 0.000197 | 0.00211 | mg/L | 0.000197 | 9.34% |
| Fe 273.955† | 58.5 | 0.04936 | mg/L | 0.000641 | 0.04936 | mg/L | 0.000641 | 1.30% |
| K 766.490† | 1427.1 | 0.5477 | mg/L | 0.01242 | 0.5477 | mg/L | 0.01242 | 2.27% |
| Mg 279.077† | 54.2 | 0.05147 | mg/L | 0.003225 | 0.05147 | mg/L | 0.003225 | 6.26% |
| Mn 257.610† | 50.7 | 0.00129 | mg/L | 0.000264 | 0.00129 | mg/L | 0.000264 | 20.49% |
| Mo 202.031† | 55.8 | 0.00551 | mg/L | 0.000337 | 0.00551 | mg/L | 0.000337 | 6.12% |
| Na 589.592† | 3554.9 | 0.5276 | mg/L | 0.02097 | 0.5276 | mg/L | 0.02097 | 3.98% |
| Na 330.237† | 25.8 | 1.278 | mg/L | 0.7909 | 1.278 | mg/L | 0.7909 | 61.87% |
| Ni 231.604† | 20.3 | 0.01085 | mg/L | 0.001186 | 0.01085 | mg/L | 0.001186 | 10.93% |
| Pb 220.353† | 140.9 | 0.02011 | mg/L | 0.000256 | 0.02011 | mg/L | 0.000256 | 1.27% |
| Sb 206.836† | 64.5 | 0.05228 | mg/L | 0.003177 | 0.05228 | mg/L | 0.003177 | 6.08% |
| Se 196.026† | 44.1 | 0.05292 | mg/L | 0.002370 | 0.05292 | mg/L | 0.002370 | 4.48% |
| Si 288.158† | 82.7 | 0.06682 | mg/L | 0.006109 | 0.06682 | mg/L | 0.006109 | 9.14% |
| Sn 189.927† | 30.0 | 0.00947 | mg/L | 0.000702 | 0.00947 | mg/L | 0.000702 | 7.41% |
| Sr 421.552† | 494.8 | 0.00109 | mg/L | 0.000114 | 0.00109 | mg/L | 0.000114 | 10.53% |
| Ti 334.903† | 100.5 | 0.00526 | mg/L | 0.000733 | 0.00526 | mg/L | 0.000733 | 13.95% |
| Tl 190.801† | 83.5 | 0.05185 | mg/L | 0.000655 | 0.05185 | mg/L | 0.000655 | 1.26% |
| V 292.402† | 422.5 | 0.00320 | mg/L | 0.000265 | 0.00320 | mg/L | 0.000265 | 8.29% |
| Zn 206.200† | 24.4 | 0.00955 | mg/L | 0.001163 | 0.00955 | mg/L | 0.001163 | 12.18% |

Sequence No.: 4
Sample ID: ICSA

Autosampler Location: 22
Date Collected: 5/29/2012 2:36:16 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: ICSA

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 180.0 kPa | 0.55 L/min |

Mean Data: ICSA

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1778406.4 | 92.93 | % | 0.371 | | | | 0.40% |
| ScR 361.383 | 191271.3 | 97.37 | % | 0.922 | | | | 0.95% |
| Ag 328.068† | -1282.2 | 0.00206 | mg/L | 0.000420 | 0.00206 | mg/L | 0.000420 | 20.38% |
| Al 308.215† | 276439.6 | 211.3 | mg/L | 0.58 | 211.3 | mg/L | 0.58 | 0.27% |
| As 188.979† | 45.8 | -0.00282 | mg/L | 0.004446 | -0.00282 | mg/L | 0.004446 | 157.89% |
| B 249.677† | -22.7 | -0.01357 | mg/L | 0.001808 | -0.01357 | mg/L | 0.001808 | 13.33% |
| Ba 233.527† | 65.7 | 0.00181 | mg/L | 0.000891 | 0.00181 | mg/L | 0.000891 | 49.11% |
| Be 313.042† | 22.5 | 0.00003 | mg/L | 0.000016 | 0.00003 | mg/L | 0.000016 | 56.16% |
| Ca 317.933† | 1068592.4 | 101.0 | mg/L | 0.19 | 101.0 | mg/L | 0.19 | 0.19% |
| Cd 228.802† | 54.4 | 0.00105 | mg/L | 0.000100 | 0.00105 | mg/L | 0.000100 | 9.57% |
| Co 228.616† | 41.4 | 0.00088 | mg/L | 0.000177 | 0.00088 | mg/L | 0.000177 | 20.24% |
| Cr 267.716† | 13.4 | 0.00210 | mg/L | 0.001596 | 0.00210 | mg/L | 0.001596 | 76.09% |
| Cu 324.752† | -3770.7 | 0.00259 | mg/L | 0.000066 | 0.00259 | mg/L | 0.000066 | 2.53% |
| Fe 273.955† | 243581.5 | 205.6 | mg/L | 1.11 | 205.6 | mg/L | 1.11 | 0.54% |
| K 766.490† | 2.5 | 0.00095 | mg/L | 0.002861 | 0.00095 | mg/L | 0.002861 | 302.17% |
| Mg 279.077† | 108882.9 | 103.3 | mg/L | 1.43 | 103.3 | mg/L | 1.43 | 1.39% |
| Mn 257.610† | 74.3 | 0.00007 | mg/L | 0.000543 | 0.00007 | mg/L | 0.000543 | 752.33% |
| Mo 202.031† | 172.5 | 0.00733 | mg/L | 0.000772 | 0.00733 | mg/L | 0.000772 | 10.54% |
| Na 589.592† | 338.7 | 0.05027 | mg/L | 0.004716 | 0.05027 | mg/L | 0.004716 | 9.38% |
| Na 330.237† | 16.0 | 0.3438 | mg/L | 0.13836 | 0.3438 | mg/L | 0.13836 | 40.25% |
| Ni 231.604† | -21.5 | 0.00076 | mg/L | 0.004381 | 0.00076 | mg/L | 0.004381 | 577.36% |
| Pb 220.353† | -437.7 | 0.00478 | mg/L | 0.001175 | 0.00478 | mg/L | 0.001175 | 24.57% |
| Sb 206.836† | -122.3 | -0.03214 | mg/L | 0.000679 | -0.03214 | mg/L | 0.000679 | 2.11% |
| Se 196.026† | 69.4 | -0.00398 | mg/L | 0.004802 | -0.00398 | mg/L | 0.004802 | 120.74% |
| Si 288.158† | -38.1 | -0.01194 | mg/L | 0.003419 | -0.01194 | mg/L | 0.003419 | 28.63% |
| Sn 189.927† | -104.2 | -0.02725 | mg/L | 0.001419 | -0.02725 | mg/L | 0.001419 | 5.21% |
| Sr 421.552† | 4698.3 | 0.01032 | mg/L | 0.000120 | 0.01032 | mg/L | 0.000120 | 1.17% |
| Ti 334.903† | 76.3 | 0.00068 | mg/L | 0.002072 | 0.00068 | mg/L | 0.002072 | 306.86% |
| Tl 190.801† | -49.9 | -0.00877 | mg/L | 0.002725 | -0.00877 | mg/L | 0.002725 | 31.08% |
| V 292.402† | 2835.6 | -0.00559 | mg/L | 0.000483 | -0.00559 | mg/L | 0.000483 | 8.65% |
| Zn 206.200† | -14.2 | -0.00183 | mg/L | 0.001063 | -0.00183 | mg/L | 0.001063 | 58.05% |

cont.

Sequence No.: 5
Sample ID: ICSAB

Autosampler Location: 23
Date Collected: 5/29/2012 2:42:18 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: ICSAB

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 180.0 kPa | 0.55 L/min |

Mean Data: ICSAB

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1782383.7 | 93.14 | % | 0.411 | | | | 0.44% |
| ScR 361.383 | 195693.8 | 99.62 | % | 1.030 | | | | 1.03% |
| Ag 328.068† | 211075.6 | 1.036 | mg/L | 0.0043 | 1.036 | mg/L | 0.0043 | 0.41% |
| Al 308.215† | 270845.9 | 207.0 | mg/L | 1.20 | 207.0 | mg/L | 1.20 | 0.58% |
| As 188.979† | 1380.8 | 1.046 | mg/L | 0.0148 | 1.046 | mg/L | 0.0148 | 1.42% |
| B 249.677† | -26.5 | -0.01896 | mg/L | 0.001263 | -0.01896 | mg/L | 0.001263 | 6.66% |
| Ba 233.527† | 6939.1 | 0.9565 | mg/L | 0.01345 | 0.9565 | mg/L | 0.01345 | 1.41% |
| Be 313.042† | 283700.9 | 1.010 | mg/L | 0.0047 | 1.010 | mg/L | 0.0047 | 0.46% |
| Ca 317.933† | 1080936.3 | 102.2 | mg/L | 0.47 | 102.2 | mg/L | 0.47 | 0.46% |
| Cd 228.802† | 49030.7 | 1.003 | mg/L | 0.0021 | 1.003 | mg/L | 0.0021 | 0.21% |
| Co 228.616† | 43517.3 | 0.9256 | mg/L | 0.00086 | 0.9256 | mg/L | 0.00086 | 0.09% |
| Cr 267.716† | 4256.1 | 0.9631 | mg/L | 0.01216 | 0.9631 | mg/L | 0.01216 | 1.26% |
| Cu 324.752† | 249157.3 | 1.040 | mg/L | 0.0026 | 1.040 | mg/L | 0.0026 | 0.25% |
| Fe 273.955† | 241595.3 | 203.9 | mg/L | 1.31 | 203.9 | mg/L | 1.31 | 0.64% |
| K 766.490† | 19.2 | 0.00736 | mg/L | 0.012161 | 0.00736 | mg/L | 0.012161 | 165.33% |
| Mg 279.077† | 110256.9 | 104.6 | mg/L | 0.48 | 104.6 | mg/L | 0.48 | 0.46% |
| Mn 257.610† | 38101.0 | 0.9617 | mg/L | 0.00494 | 0.9617 | mg/L | 0.00494 | 0.51% |
| Mo 202.031† | 182.3 | 0.00816 | mg/L | 0.001111 | 0.00816 | mg/L | 0.001111 | 13.62% |
| Na 589.592† | 400.4 | 0.05942 | mg/L | 0.003853 | 0.05942 | mg/L | 0.003853 | 6.48% |
| Na 330.237† | 21.7 | 0.3034 | mg/L | 0.13333 | 0.3034 | mg/L | 0.13333 | 43.95% |
| Ni 231.604† | 1724.0 | 0.9353 | mg/L | 0.00926 | 0.9353 | mg/L | 0.00926 | 0.99% |
| Pb 220.353† | 6299.7 | 0.9650 | mg/L | 0.00848 | 0.9650 | mg/L | 0.00848 | 0.88% |
| Sb 206.836† | 1207.3 | 1.032 | mg/L | 0.0027 | 1.032 | mg/L | 0.0027 | 0.26% |
| Se 196.026† | 912.9 | 1.010 | mg/L | 0.0098 | 1.010 | mg/L | 0.0098 | 0.97% |
| Si 288.158† | -41.1 | -0.00959 | mg/L | 0.010016 | -0.00959 | mg/L | 0.010016 | 104.47% |
| Sn 189.927† | -112.5 | -0.02934 | mg/L | 0.000657 | -0.02934 | mg/L | 0.000657 | 2.24% |
| Sr 421.552† | 5079.4 | 0.01116 | mg/L | 0.000063 | 0.01116 | mg/L | 0.000063 | 0.56% |
| Ti 334.903† | 67.0 | -0.00009 | mg/L | 0.000732 | -0.00009 | mg/L | 0.000732 | 847.54% |
| Tl 190.801† | 1506.5 | 0.9419 | mg/L | 0.00928 | 0.9419 | mg/L | 0.00928 | 0.98% |
| V 292.402† | 138039.7 | 1.006 | mg/L | 0.0057 | 1.006 | mg/L | 0.0057 | 0.57% |
| Zn 206.200† | 2352.6 | 0.9254 | mg/L | 0.01410 | 0.9254 | mg/L | 0.01410 | 1.52% |

Sequence No.: 6
Sample ID: CV 7

Dilution: 1X

Autosampler Location: 7
Date Collected: 5/29/2012 2:49:18 PM
Data Type: Original

Nebulizer Parameters: CV

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 181.0 kPa | 0.55 L/min |

Mean Data: CV

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1848302.0 | 96.58 | % | 1.077 | | | | 1.12% |
| ScR 361.383 | 195384.7 | 99.46 | % | 0.458 | | | | 0.46% |
| Ag 328.068† | 199818.1 | 0.9729 | mg/L | 0.01165 | 0.9729 | mg/L | 0.01165 | 1.20% |
| Al 308.215† | 2763.3 | 2.072 | mg/L | 0.0175 | 2.072 | mg/L | 0.0175 | 0.85% |
| As 188.979† | 2600.6 | 2.041 | mg/L | 0.0235 | 2.041 | mg/L | 0.0235 | 1.15% |
| B 249.677† | 1624.6 | 0.9693 | mg/L | 0.01610 | 0.9693 | mg/L | 0.01610 | 1.66% |
| Ba 233.527† | 6977.6 | 0.9690 | mg/L | 0.00912 | 0.9690 | mg/L | 0.00912 | 0.94% |
| Be 313.042† | 272207.2 | 0.9694 | mg/L | 0.00268 | 0.9694 | mg/L | 0.00268 | 0.28% |
| Ca 317.933† | 21770.7 | 2.058 | mg/L | 0.0175 | 2.058 | mg/L | 0.0175 | 0.85% |
| Cd 228.802† | 49222.4 | 1.006 | mg/L | 0.0090 | 1.006 | mg/L | 0.0090 | 0.90% |
| Co 228.616† | 45788.4 | 0.9724 | mg/L | 0.00818 | 0.9724 | mg/L | 0.00818 | 0.84% |
| Cr 267.716† | 4280.5 | 0.9694 | mg/L | 0.00705 | 0.9694 | mg/L | 0.00705 | 0.73% |
| Cu 324.752† | 250319.5 | 1.026 | mg/L | 0.0084 | 1.026 | mg/L | 0.0084 | 0.82% |
| Fe 273.955† | 2500.0 | 2.109 | mg/L | 0.0217 | 2.109 | mg/L | 0.0217 | 1.03% |
| K 766.490† | 54069.9 | 20.75 | mg/L | 0.082 | 20.75 | mg/L | 0.082 | 0.39% |
| Mg 279.077† | 2243.6 | 2.135 | mg/L | 0.0136 | 2.135 | mg/L | 0.0136 | 0.64% |
| Mn 257.610† | 38316.3 | 0.9692 | mg/L | 0.00221 | 0.9692 | mg/L | 0.00221 | 0.23% |
| Mo 202.031† | 10350.7 | 1.023 | mg/L | 0.0109 | 1.023 | mg/L | 0.0109 | 1.06% |
| Na 589.592† | 333682.0 | 49.52 | mg/L | 0.156 | 49.52 | mg/L | 0.156 | 0.32% |
| Na 330.237† | 1067.7 | 52.78 | mg/L | 0.474 | 52.78 | mg/L | 0.474 | 0.90% |
| Ni 231.604† | 1844.4 | 0.9879 | mg/L | 0.01071 | 0.9879 | mg/L | 0.01071 | 1.08% |
| Pb 220.353† | 14053.8 | 2.005 | mg/L | 0.0217 | 2.005 | mg/L | 0.0217 | 1.08% |
| Sb 206.836† | 2787.0 | 2.255 | mg/L | 0.0208 | 2.255 | mg/L | 0.0208 | 0.92% |
| Se 196.026† | 1656.7 | 1.989 | mg/L | 0.0258 | 1.989 | mg/L | 0.0258 | 1.30% |
| Si 288.158† | 2870.7 | 2.327 | mg/L | 0.0339 | 2.327 | mg/L | 0.0339 | 1.46% |
| Sn 189.927† | 3012.0 | 0.9486 | mg/L | 0.01095 | 0.9486 | mg/L | 0.01095 | 1.15% |
| Sr 421.552† | 452747.8 | 0.9945 | mg/L | 0.00210 | 0.9945 | mg/L | 0.00210 | 0.21% |
| Ti 334.903† | 19817.9 | 1.037 | mg/L | 0.0023 | 1.037 | mg/L | 0.0023 | 0.23% |
| Tl 190.801† | 3201.9 | 1.974 | mg/L | 0.0183 | 1.974 | mg/L | 0.0183 | 0.93% |
| V 292.402† | 133637.4 | 1.005 | mg/L | 0.0079 | 1.005 | mg/L | 0.0079 | 0.79% |
| Zn 206.200† | 2635.2 | 1.032 | mg/L | 0.0109 | 1.032 | mg/L | 0.0109 | 1.06% |

Sequence No.: 7
Sample ID: CB

Autosampler Location: 1
Date Collected: 5/29/2012 2:55:19 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CB

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 181.0 kPa | 0.55 L/min |

Mean Data: CB

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1881790.9 | 98.33 | % | 0.365 | | | | 0.37% |
| ScR 361.383 | 195003.1 | 99.27 | % | 0.582 | | | | 0.59% |
| Ag 328.068† | 78.6 | 0.00038 | mg/L | 0.000110 | 0.00038 | mg/L | 0.000110 | 28.70% |
| Al 308.215† | 6.1 | 0.00468 | mg/L | 0.005982 | 0.00468 | mg/L | 0.005982 | 127.93% |
| As 188.979† | -0.2 | -0.00013 | mg/L | 0.001251 | -0.00013 | mg/L | 0.001251 | 949.99% |
| B 249.677† | 11.1 | 0.00666 | mg/L | 0.000705 | 0.00666 | mg/L | 0.000705 | 10.59% |
| Ba 233.527† | 6.6 | 0.00091 | mg/L | 0.000726 | 0.00091 | mg/L | 0.000726 | 79.50% |
| Be 313.042† | 29.4 | 0.00011 | mg/L | 0.000030 | 0.00011 | mg/L | 0.000030 | 28.87% |
| Ca 317.933† | 10.8 | 0.00102 | mg/L | 0.001831 | 0.00102 | mg/L | 0.001831 | 179.47% |
| Cd 228.802† | -4.1 | -0.00008 | mg/L | 0.000038 | -0.00008 | mg/L | 0.000038 | 45.51% |
| Co 228.616† | 3.6 | 0.00008 | mg/L | 0.000147 | 0.00008 | mg/L | 0.000147 | 195.42% |
| Cr 267.716† | 2.7 | 0.00062 | mg/L | 0.001359 | 0.00062 | mg/L | 0.001359 | 220.16% |
| Cu 324.752† | 97.3 | 0.00040 | mg/L | 0.000037 | 0.00040 | mg/L | 0.000037 | 9.16% |
| Fe 273.955† | 0.2 | 0.00019 | mg/L | 0.004278 | 0.00019 | mg/L | 0.004278 | >999.9% |
| K 766.490† | 82.2 | 0.03156 | mg/L | 0.016320 | 0.03156 | mg/L | 0.016320 | 51.71% |
| Mg 279.077† | -4.4 | -0.00422 | mg/L | 0.003991 | -0.00422 | mg/L | 0.003991 | 94.67% |
| Mn 257.610† | 4.6 | 0.00012 | mg/L | 0.000199 | 0.00012 | mg/L | 0.000199 | 171.58% |
| Mo 202.031† | 4.2 | 0.00042 | mg/L | 0.000153 | 0.00042 | mg/L | 0.000153 | 36.37% |
| Na 589.592† | 189.2 | 0.02808 | mg/L | 0.010504 | 0.02808 | mg/L | 0.010504 | 37.41% |
| Na 330.237† | 10.4 | 0.5152 | mg/L | 0.42580 | 0.5152 | mg/L | 0.42580 | 82.64% |
| Ni 231.604† | -2.4 | -0.00127 | mg/L | 0.001887 | -0.00127 | mg/L | 0.001887 | 148.51% |
| Pb 220.353† | 3.3 | 0.00048 | mg/L | 0.000353 | 0.00048 | mg/L | 0.000353 | 73.99% |
| Sb 206.836† | -5.0 | -0.00406 | mg/L | 0.002422 | -0.00406 | mg/L | 0.002422 | 59.67% |
| Se 196.026† | 0.5 | 0.00061 | mg/L | 0.004342 | 0.00061 | mg/L | 0.004342 | 711.43% |
| Si 288.158† | -1.7 | -0.00136 | mg/L | 0.001759 | -0.00136 | mg/L | 0.001759 | 129.27% |
| Sn 189.927† | 8.3 | 0.00261 | mg/L | 0.001226 | 0.00261 | mg/L | 0.001226 | 47.05% |
| Sr 421.552† | 36.2 | 0.00008 | mg/L | 0.000112 | 0.00008 | mg/L | 0.000112 | 141.48% |
| Ti 334.903† | 12.0 | 0.00063 | mg/L | 0.001070 | 0.00063 | mg/L | 0.001070 | 170.38% |
| Tl 190.801† | -0.4 | -0.00027 | mg/L | 0.002961 | -0.00027 | mg/L | 0.002961 | >999.9% |
| V 292.402† | -8.7 | -0.00006 | mg/L | 0.000213 | -0.00006 | mg/L | 0.000213 | 365.53% |
| Zn 206.200† | -0.1 | -0.00003 | mg/L | 0.000624 | -0.00003 | mg/L | 0.000624 | >999.9% |

Sequence No.: 8
Sample ID: DI CHECK

Autosampler Location: 24
Date Collected: 5/29/2012 3:01:17 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: DI CHECK

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 181.0 kPa | 0.55 L/min |

Mean Data: DI CHECK

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1952861.9 | 102.0 | % | 0.36 | | | | 0.35% |
| ScR 361.383 | 202225.4 | 102.9 | % | 0.90 | | | | 0.87% |
| Ag 328.068† | 22.7 | 0.00011 | mg/L | 0.000098 | 0.00011 | mg/L | 0.000098 | 89.02% |
| Al 308.215† | 9.1 | 0.00694 | mg/L | 0.006899 | 0.00694 | mg/L | 0.006899 | 99.45% |
| As 188.979† | -2.5 | -0.00193 | mg/L | 0.001939 | -0.00193 | mg/L | 0.001939 | 100.50% |
| B 249.677† | 6.3 | 0.00376 | mg/L | 0.002496 | 0.00376 | mg/L | 0.002496 | 66.35% |
| Ba 233.527† | 5.6 | 0.00077 | mg/L | 0.000393 | 0.00077 | mg/L | 0.000393 | 50.87% |
| Be 313.042† | -17.5 | -0.00006 | mg/L | 0.000077 | -0.00006 | mg/L | 0.000077 | 124.19% |
| Ca 317.933† | -7.1 | -0.00067 | mg/L | 0.001675 | -0.00067 | mg/L | 0.001675 | 248.92% |
| Cd 228.802† | -1.6 | -0.00003 | mg/L | 0.000080 | -0.00003 | mg/L | 0.000080 | 299.16% |
| Co 228.616† | 18.6 | 0.00039 | mg/L | 0.000098 | 0.00039 | mg/L | 0.000098 | 24.97% |
| Cr 267.716† | -8.6 | -0.00194 | mg/L | 0.002417 | -0.00194 | mg/L | 0.002417 | 124.73% |
| Cu 324.752† | 32.1 | 0.00013 | mg/L | 0.000034 | 0.00013 | mg/L | 0.000034 | 25.83% |
| Fe 273.955† | 0.9 | 0.00076 | mg/L | 0.002787 | 0.00076 | mg/L | 0.002787 | 368.90% |
| K 766.490† | -23.6 | -0.00907 | mg/L | 0.032726 | -0.00907 | mg/L | 0.032726 | 360.95% |
| Mg 279.077† | 0.3 | 0.00029 | mg/L | 0.003585 | 0.00029 | mg/L | 0.003585 | >999.9% |
| Mn 257.610† | -13.0 | -0.00033 | mg/L | 0.000050 | -0.00033 | mg/L | 0.000050 | 15.27% |
| Mo 202.031† | -4.0 | -0.00040 | mg/L | 0.000585 | -0.00040 | mg/L | 0.000585 | 147.89% |
| Na 589.592† | 396.3 | 0.05881 | mg/L | 0.020697 | 0.05881 | mg/L | 0.020697 | 35.19% |
| Na 330.237† | 1.6 | 0.07981 | mg/L | 0.227852 | 0.07981 | mg/L | 0.227852 | 285.48% |
| Ni 231.604† | 13.2 | 0.00708 | mg/L | 0.003188 | 0.00708 | mg/L | 0.003188 | 45.00% |
| Pb 220.353† | -10.5 | -0.00150 | mg/L | 0.000020 | -0.00150 | mg/L | 0.000020 | 1.37% |
| Sb 206.836† | 0.6 | 0.00050 | mg/L | 0.000775 | 0.00050 | mg/L | 0.000775 | 154.96% |
| Se 196.026† | -0.8 | -0.00100 | mg/L | 0.006536 | -0.00100 | mg/L | 0.006536 | 651.89% |
| Si 288.158† | -10.9 | -0.00884 | mg/L | 0.001802 | -0.00884 | mg/L | 0.001802 | 20.38% |
| Sn 189.927† | 0.8 | 0.00024 | mg/L | 0.001117 | 0.00024 | mg/L | 0.001117 | 460.38% |
| Sr 421.552† | -4.5 | -0.00001 | mg/L | 0.000086 | -0.00001 | mg/L | 0.000086 | 880.73% |
| Ti 334.903† | 26.4 | 0.00139 | mg/L | 0.001582 | 0.00139 | mg/L | 0.001582 | 114.15% |
| Tl 190.801† | -2.2 | -0.00137 | mg/L | 0.004004 | -0.00137 | mg/L | 0.004004 | 291.26% |
| V 292.402† | -35.6 | -0.00028 | mg/L | 0.000249 | -0.00028 | mg/L | 0.000249 | 88.32% |
| Zn 206.200† | 2.0 | 0.00077 | mg/L | 0.000842 | 0.00077 | mg/L | 0.000842 | 109.00% |

Sequence No.: 9
Sample ID: UU52 MB1 SWC

Autosampler Location: 25
Date Collected: 5/29/2012 3:07:17 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 MB1 SWC

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 181.0 kPa | 0.55 L/min |

Mean Data: UU52 MB1 SWC

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1896431.5 | 99.10 | % | 0.274 | | | | 0.28% |
| ScR 361.383 | 197778.3 | 100.7 | % | 0.95 | | | | 0.95% |
| Ag 328.068† | 34.1 | 0.00017 | mg/L | 0.000060 | 0.00033 | mg/L | 0.000119 | 35.88% |
| Al 308.215† | 16.4 | 0.01255 | mg/L | 0.003679 | 0.02510 | mg/L | 0.007358 | 29.32% |
| As 188.979† | 4.1 | 0.00318 | mg/L | 0.001539 | 0.00636 | mg/L | 0.003077 | 48.40% |
| B 249.677† | -0.7 | -0.00042 | mg/L | 0.001316 | -0.00083 | mg/L | 0.002632 | 316.08% |
| Ba 233.527† | 220.2 | 0.03060 | mg/L | 0.000855 | 0.06120 | mg/L | 0.001710 | 2.79% |
| Be 313.042† | 16.9 | 0.00006 | mg/L | 0.000032 | 0.00012 | mg/L | 0.000064 | 53.19% |
| Ca 317.933† | 197.7 | 0.01869 | mg/L | 0.001466 | 0.03738 | mg/L | 0.002932 | 7.84% |
| Cd 228.802† | 4.2 | 0.00008 | mg/L | 0.000076 | 0.00016 | mg/L | 0.000152 | 95.57% |
| Co 228.616† | 5.7 | 0.00011 | mg/L | 0.000077 | 0.00022 | mg/L | 0.000154 | 70.23% |
| Cr 267.716† | -4.9 | -0.00111 | mg/L | 0.000613 | -0.00221 | mg/L | 0.001226 | 55.42% |
| Cu 324.752† | 102.4 | 0.00042 | mg/L | 0.000165 | 0.00084 | mg/L | 0.000330 | 39.24% |
| Fe 273.955† | 12.5 | 0.01054 | mg/L | 0.001550 | 0.02109 | mg/L | 0.003099 | 14.70% |
| K 766.490† | 40.2 | 0.01543 | mg/L | 0.003913 | 0.03086 | mg/L | 0.007826 | 25.36% |
| Mg 279.077† | 7.2 | 0.00685 | mg/L | 0.001976 | 0.01369 | mg/L | 0.003952 | 28.87% |
| Mn 257.610† | 5.8 | 0.00015 | mg/L | 0.000013 | 0.00029 | mg/L | 0.000027 | 9.23% |
| Mo 202.031† | 7.0 | 0.00069 | mg/L | 0.000236 | 0.00137 | mg/L | 0.000471 | 34.30% |
| Na 589.592† | 190.3 | 0.02824 | mg/L | 0.007441 | 0.05649 | mg/L | 0.014881 | 26.34% |
| Na 330.237† | 0.0 | -0.00007 | mg/L | 0.532435 | -0.00014 | mg/L | 1.064869 | >999.9% |
| Ni 231.604† | 0.0 | 0.00002 | mg/L | 0.002553 | 0.00005 | mg/L | 0.005106 | >999.9% |
| Pb 220.353† | -3.2 | -0.00045 | mg/L | 0.000515 | -0.00091 | mg/L | 0.001030 | 113.78% |
| Sb 206.836† | -3.7 | -0.00301 | mg/L | 0.002998 | -0.00601 | mg/L | 0.005996 | 99.74% |
| Se 196.026† | 2.5 | 0.00298 | mg/L | 0.004892 | 0.00596 | mg/L | 0.009783 | 164.28% |
| Si 288.158† | 9.1 | 0.00733 | mg/L | 0.001742 | 0.01465 | mg/L | 0.003485 | 23.78% |
| Sn 189.927† | -1.8 | -0.00056 | mg/L | 0.000494 | -0.00113 | mg/L | 0.000989 | 87.68% |
| Sr 421.552† | 224.4 | 0.00049 | mg/L | 0.000045 | 0.00099 | mg/L | 0.000090 | 9.15% |
| Ti 334.903† | 1.3 | 0.00007 | mg/L | 0.000843 | 0.00013 | mg/L | 0.001686 | >999.9% |
| Tl 190.801† | -1.9 | -0.00116 | mg/L | 0.002268 | -0.00232 | mg/L | 0.004536 | 195.82% |
| V 292.402† | -8.9 | -0.00007 | mg/L | 0.000286 | -0.00014 | mg/L | 0.000572 | 401.73% |
| Zn 206.200† | 6.0 | 0.00236 | mg/L | 0.001201 | 0.00472 | mg/L | 0.002402 | 50.87% |

Sequence No.: 10
Sample ID: QC21

Autosampler Location: 26
Date Collected: 5/29/2012 3:13:16 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: QC21

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 181.0 kPa | 0.55 L/min |

Mean Data: QC21

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1855793.7 | 96.97 | % | 0.422 | | | | 0.43% |
| ScR 361.383 | 195030.5 | 99.28 | % | 0.342 | | | | 0.34% |
| Ag 328.068† | 25.7 | 0.00014 | mg/L | 0.000102 | 0.00014 | mg/L | 0.000102 | 75.25% |
| Al 308.215† | 107.1 | 0.00330 | mg/L | 0.004743 | 0.00330 | mg/L | 0.004743 | 143.63% |
| As 188.979† | 2624.7 | 2.060 | mg/L | 0.0184 | 2.060 | mg/L | 0.0184 | 0.90% |
| B 249.677† | 2.3 | -0.00235 | mg/L | 0.002397 | -0.00235 | mg/L | 0.002397 | 101.97% |
| Ba 233.527† | 4.4 | -0.00016 | mg/L | 0.000801 | -0.00016 | mg/L | 0.000801 | 508.57% |
| Be 313.042† | 563011.9 | 2.005 | mg/L | 0.0048 | 2.005 | mg/L | 0.0048 | 0.24% |
| Ca 317.933† | 23128.8 | 2.187 | mg/L | 0.0009 | 2.187 | mg/L | 0.0009 | 0.04% |
| Cd 228.802† | 96408.1 | 1.973 | mg/L | 0.0080 | 1.973 | mg/L | 0.0080 | 0.40% |
| Co 228.616† | 94095.5 | 1.999 | mg/L | 0.0153 | 1.999 | mg/L | 0.0153 | 0.77% |
| Cr 267.716† | 8791.7 | 1.991 | mg/L | 0.0101 | 1.991 | mg/L | 0.0101 | 0.51% |
| Cu 324.752† | 489804.1 | 2.008 | mg/L | 0.0058 | 2.008 | mg/L | 0.0058 | 0.29% |
| Fe 273.955† | 2463.9 | 2.078 | mg/L | 0.0152 | 2.078 | mg/L | 0.0152 | 0.73% |
| K 766.490† | 23.4 | 0.00899 | mg/L | 0.016731 | 0.00899 | mg/L | 0.016731 | 186.01% |
| Mg 279.077† | 2288.4 | 2.181 | mg/L | 0.0067 | 2.181 | mg/L | 0.0067 | 0.31% |
| Mn 257.610† | 79690.2 | 2.015 | mg/L | 0.0020 | 2.015 | mg/L | 0.0020 | 0.10% |
| Mo 202.031† | 20437.4 | 2.019 | mg/L | 0.0090 | 2.019 | mg/L | 0.0090 | 0.45% |
| Na 589.592† | 262.9 | 0.03902 | mg/L | 0.007299 | 0.03902 | mg/L | 0.007299 | 18.71% |
| Na 330.237† | 17.2 | 0.6438 | mg/L | 0.34100 | 0.6438 | mg/L | 0.34100 | 52.97% |
| Ni 231.604† | 3728.2 | 1.996 | mg/L | 0.0071 | 1.996 | mg/L | 0.0071 | 0.35% |
| Pb 220.353† | 14353.1 | 2.049 | mg/L | 0.0100 | 2.049 | mg/L | 0.0100 | 0.49% |
| Sb 206.836† | 2773.2 | 2.222 | mg/L | 0.0137 | 2.222 | mg/L | 0.0137 | 0.62% |
| Se 196.026† | 1687.3 | 2.025 | mg/L | 0.0193 | 2.025 | mg/L | 0.0193 | 0.95% |
| Si 288.158† | 15.5 | 0.02542 | mg/L | 0.001900 | 0.02542 | mg/L | 0.001900 | 7.48% |
| Sn 189.927† | -13.9 | -0.00246 | mg/L | 0.000675 | -0.00246 | mg/L | 0.000675 | 27.38% |
| Sr 421.552† | 942622.8 | 2.071 | mg/L | 0.0042 | 2.071 | mg/L | 0.0042 | 0.20% |
| Ti 334.903† | 39818.1 | 2.084 | mg/L | 0.0011 | 2.084 | mg/L | 0.0011 | 0.05% |
| Tl 190.801† | 3476.8 | 2.128 | mg/L | 0.0135 | 2.128 | mg/L | 0.0135 | 0.64% |
| V 292.402† | 266683.1 | 2.006 | mg/L | 0.0059 | 2.006 | mg/L | 0.0059 | 0.29% |
| Zn 206.200† | 5006.7 | 1.961 | mg/L | 0.0134 | 1.961 | mg/L | 0.0134 | 0.68% |

Sequence No.: 11
Sample ID: QC7M

Autosampler Location: 27
Date Collected: 5/29/2012 3:19:36 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: QC7M

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

Mean Data: QC7M

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1861861.7 | 97.29 | % | 0.660 | | | | 0.68% |
| ScR 361.383 | 193272.9 | 98.39 | % | 0.439 | | | | 0.45% |
| Ag 328.068† | 202490.0 | 0.9858 | mg/L | 0.00816 | 0.9858 | mg/L | 0.00816 | 0.83% |
| Al 308.215† | 2790.1 | 2.132 | mg/L | 0.0072 | 2.132 | mg/L | 0.0072 | 0.34% |
| As 188.979† | 0.2 | -0.00003 | mg/L | 0.001026 | -0.00003 | mg/L | 0.001026 | >999.9% |
| B 249.677† | 3341.2 | 1.997 | mg/L | 0.0214 | 1.997 | mg/L | 0.0214 | 1.07% |
| Ba 233.527† | 14268.6 | 1.982 | mg/L | 0.0032 | 1.982 | mg/L | 0.0032 | 0.16% |
| Be 313.042† | 35.6 | 0.00013 | mg/L | 0.000019 | 0.00013 | mg/L | 0.000019 | 14.56% |
| Ca 317.933† | 37.0 | 0.00350 | mg/L | 0.001839 | 0.00350 | mg/L | 0.001839 | 52.54% |
| Cd 228.802† | -0.3 | -0.00001 | mg/L | 0.000033 | -0.00001 | mg/L | 0.000033 | 507.32% |
| Co 228.616† | 24.2 | -0.00020 | mg/L | 0.000162 | -0.00020 | mg/L | 0.000162 | 81.13% |
| Cr 267.716† | 0.8 | 0.00018 | mg/L | 0.001108 | 0.00018 | mg/L | 0.001108 | 606.05% |
| Cu 324.752† | 120.9 | 0.00050 | mg/L | 0.000142 | 0.00050 | mg/L | 0.000142 | 28.64% |
| Fe 273.955† | -0.4 | -0.00035 | mg/L | 0.001464 | -0.00035 | mg/L | 0.001464 | 419.93% |
| K 766.490† | 56660.7 | 21.74 | mg/L | 0.070 | 21.74 | mg/L | 0.070 | 0.32% |
| Mg 279.077† | -1.8 | -0.00169 | mg/L | 0.003223 | -0.00169 | mg/L | 0.003223 | 190.34% |
| Mn 257.610† | 13.2 | 0.00032 | mg/L | 0.000072 | 0.00032 | mg/L | 0.000072 | 22.84% |
| Mo 202.031† | 10.0 | 0.00095 | mg/L | 0.000231 | 0.00095 | mg/L | 0.000231 | 24.43% |
| Na 589.592† | 13935.9 | 2.068 | mg/L | 0.0077 | 2.068 | mg/L | 0.0077 | 0.37% |
| Na 330.237† | 36.7 | 1.819 | mg/L | 0.7057 | 1.819 | mg/L | 0.7057 | 38.80% |
| Ni 231.604† | -4.4 | -0.00235 | mg/L | 0.001179 | -0.00235 | mg/L | 0.001179 | 50.22% |
| Pb 220.353† | -1.8 | 0.00043 | mg/L | 0.000916 | 0.00043 | mg/L | 0.000916 | 214.59% |
| Sb 206.836† | -9.6 | -0.00721 | mg/L | 0.001432 | -0.00721 | mg/L | 0.001432 | 19.87% |
| Se 196.026† | 2.4 | 0.00235 | mg/L | 0.004496 | 0.00235 | mg/L | 0.004496 | 191.49% |
| Si 288.158† | 2836.8 | 2.292 | mg/L | 0.0080 | 2.292 | mg/L | 0.0080 | 0.35% |
| Sn 189.927† | -1.2 | -0.00037 | mg/L | 0.000847 | -0.00037 | mg/L | 0.000847 | 226.43% |
| Sr 421.552† | 51.0 | 0.00011 | mg/L | 0.000070 | 0.00011 | mg/L | 0.000070 | 62.51% |
| Ti 334.903† | 26.0 | 0.00136 | mg/L | 0.000460 | 0.00136 | mg/L | 0.000460 | 33.80% |
| Tl 190.801† | -0.8 | -0.00051 | mg/L | 0.003357 | -0.00051 | mg/L | 0.003357 | 656.48% |
| V 292.402† | -32.1 | -0.00023 | mg/L | 0.000293 | -0.00023 | mg/L | 0.000293 | 126.43% |
| Zn 206.200† | 0.0 | 0.00001 | mg/L | 0.000630 | 0.00001 | mg/L | 0.000630 | >999.9% |

Sequence No.: 12
Sample ID: UU52 A SWC

Autosampler Location: 28
Date Collected: 5/29/2012 3:25:36 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 A SWC

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 181.0 kPa | 0.55 L/min |

Mean Data: UU52 A SWC

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1866561.8 | 97.54 | % | 1.382 | | | | 1.42% |
| ScR 361.383 | 198778.1 | 101.2 | % | 0.60 | | | | 0.59% |
| Ag 328.068† | -62.0 | 0.00132 | mg/L | 0.000266 | 0.00264 | mg/L | 0.000531 | 20.14% |
| Al 308.215† | 21274.0 | 16.26 | mg/L | 0.112 | 32.51 | mg/L | 0.224 | 0.69% |
| As 188.979† | 56.1 | 0.04035 | mg/L | 0.000784 | 0.08070 | mg/L | 0.001567 | 1.94% |
| B 249.677† | 161.9 | 0.09675 | mg/L | 0.001341 | 0.1935 | mg/L | 0.00268 | 1.39% |
| Ba 233.527† | 387.6 | 0.05238 | mg/L | 0.001044 | 0.1048 | mg/L | 0.00209 | 1.99% |
| Be 313.042† | 100.2 | 0.00021 | mg/L | 0.000063 | 0.00041 | mg/L | 0.000126 | 30.42% |
| Ca 317.933† | 91096.3 | 8.612 | mg/L | 0.0579 | 17.22 | mg/L | 0.116 | 0.67% |
| Cd 228.802† | 154.2 | 0.00310 | mg/L | 0.000063 | 0.00619 | mg/L | 0.000126 | 2.04% |
| Co 228.616† | 559.1 | 0.01050 | mg/L | 0.000236 | 0.02100 | mg/L | 0.000472 | 2.25% |
| Cr 267.716† | 171.7 | 0.03895 | mg/L | 0.000289 | 0.07791 | mg/L | 0.000579 | 0.74% |
| Cu 324.752† | 31874.0 | 0.1341 | mg/L | 0.00204 | 0.2682 | mg/L | 0.00408 | 1.52% |
| Fe 273.955† | 48172.6 | 40.66 | mg/L | 0.461 | 81.31 | mg/L | 0.922 | 1.13% |
| K 766.490† | 8312.5 | 3.190 | mg/L | 0.0440 | 6.380 | mg/L | 0.0879 | 1.38% |
| Mg 279.077† | 14838.5 | 14.07 | mg/L | 0.112 | 28.15 | mg/L | 0.224 | 0.79% |
| Mn 257.610† | 13144.7 | 0.3322 | mg/L | 0.00333 | 0.6644 | mg/L | 0.00666 | 1.00% |
| Mo 202.031† | 186.8 | 0.01729 | mg/L | 0.000680 | 0.03459 | mg/L | 0.001359 | 3.93% |
| Na 589.592† | 210308.6 | 31.21 | mg/L | 0.198 | 62.42 | mg/L | 0.397 | 0.64% |
| Na 330.237† | 675.2 | 33.46 | mg/L | 0.340 | 66.93 | mg/L | 0.681 | 1.02% |
| Ni 231.604† | 84.4 | 0.04761 | mg/L | 0.004067 | 0.09522 | mg/L | 0.008133 | 8.54% |
| Pb 220.353† | 1237.2 | 0.1815 | mg/L | 0.00272 | 0.3630 | mg/L | 0.00543 | 1.50% |
| Sb 206.836† | -23.8 | -0.01305 | mg/L | 0.003747 | -0.02609 | mg/L | 0.007494 | 28.72% |
| Se 196.026† | 15.4 | 0.00869 | mg/L | 0.004945 | 0.01737 | mg/L | 0.009889 | 56.92% |
| Si 288.158† | 4551.3 | 3.681 | mg/L | 0.0234 | 7.361 | mg/L | 0.0468 | 0.64% |
| Sn 189.927† | -10.6 | -0.00224 | mg/L | 0.001344 | -0.00449 | mg/L | 0.002688 | 59.90% |
| Sr 421.552† | 52492.8 | 0.1153 | mg/L | 0.00116 | 0.2306 | mg/L | 0.00232 | 1.01% |
| Ti 334.903† | 15755.8 | 0.8253 | mg/L | 0.00641 | 1.651 | mg/L | 0.0128 | 0.78% |
| Tl 190.801† | -7.7 | -0.00266 | mg/L | 0.001670 | -0.00532 | mg/L | 0.003339 | 62.74% |
| V 292.402† | 7422.1 | 0.04960 | mg/L | 0.001065 | 0.09921 | mg/L | 0.002130 | 2.15% |
| Zn 206.200† | 1059.7 | 0.4158 | mg/L | 0.00174 | 0.8317 | mg/L | 0.00347 | 0.42% |

Sequence No.: 13
Sample ID: UU52 B SWC

Autosampler Location: 29
Date Collected: 5/29/2012 3:31:37 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 B SWC

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 181.0 kPa | 0.55 L/min |

Mean Data: UU52 B SWC

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1856729.2 | 97.02 | % | 0.398 | | | | 0.41% |
| ScR 361.383 | 197032.0 | 100.3 | % | 1.25 | | | | 1.24% |
| Ag 328.068† | 1.7 | 0.00159 | mg/L | 0.000255 | 0.00317 | mg/L | 0.000510 | 16.07% |
| Al 308.215† | 20965.1 | 16.02 | mg/L | 0.041 | 32.04 | mg/L | 0.083 | 0.26% |
| As 188.979† | 48.3 | 0.03431 | mg/L | 0.001197 | 0.06862 | mg/L | 0.002394 | 3.49% |
| B 249.677† | 137.7 | 0.08225 | mg/L | 0.000948 | 0.1645 | mg/L | 0.00190 | 1.15% |
| Ba 233.527† | 442.5 | 0.06006 | mg/L | 0.001067 | 0.1201 | mg/L | 0.00213 | 1.78% |
| Be 313.042† | 107.9 | 0.00024 | mg/L | 0.000011 | 0.00048 | mg/L | 0.000021 | 4.42% |
| Ca 317.933† | 89730.5 | 8.483 | mg/L | 0.0049 | 16.97 | mg/L | 0.010 | 0.06% |
| Cd 228.802† | 152.1 | 0.00306 | mg/L | 0.000199 | 0.00613 | mg/L | 0.000397 | 6.49% |
| Co 228.616† | 545.6 | 0.01025 | mg/L | 0.000068 | 0.02049 | mg/L | 0.000137 | 0.67% |
| Cr 267.716† | 176.4 | 0.04001 | mg/L | 0.001681 | 0.08003 | mg/L | 0.003361 | 4.20% |
| Cu 324.752† | 31389.5 | 0.1320 | mg/L | 0.00033 | 0.2640 | mg/L | 0.00066 | 0.25% |
| Fe 273.955† | 46864.2 | 39.55 | mg/L | 0.183 | 79.10 | mg/L | 0.366 | 0.46% |
| K 766.490† | 8219.9 | 3.154 | mg/L | 0.0580 | 6.309 | mg/L | 0.1160 | 1.84% |
| Mg 279.077† | 14576.4 | 13.83 | mg/L | 0.014 | 27.65 | mg/L | 0.029 | 0.10% |
| Mn 257.610† | 12651.1 | 0.3197 | mg/L | 0.00306 | 0.6395 | mg/L | 0.00612 | 0.96% |
| Mo 202.031† | 186.0 | 0.01724 | mg/L | 0.000616 | 0.03447 | mg/L | 0.001231 | 3.57% |
| Na 589.592† | 208674.8 | 30.97 | mg/L | 0.128 | 61.94 | mg/L | 0.257 | 0.41% |
| Na 330.237† | 676.8 | 33.55 | mg/L | 0.587 | 67.10 | mg/L | 1.174 | 1.75% |
| Ni 231.604† | 79.4 | 0.04483 | mg/L | 0.000257 | 0.08966 | mg/L | 0.000514 | 0.57% |
| Pb 220.353† | 1197.9 | 0.1758 | mg/L | 0.00206 | 0.3516 | mg/L | 0.00413 | 1.17% |
| Sb 206.836† | -24.1 | -0.01337 | mg/L | 0.004182 | -0.02674 | mg/L | 0.008364 | 31.28% |
| Se 196.026† | 16.4 | 0.01013 | mg/L | 0.006960 | 0.02025 | mg/L | 0.013919 | 68.73% |
| Si 288.158† | 4447.4 | 3.597 | mg/L | 0.0423 | 7.193 | mg/L | 0.0845 | 1.18% |
| Sn 189.927† | -9.6 | -0.00195 | mg/L | 0.001602 | -0.00390 | mg/L | 0.003205 | 82.15% |
| Sr 421.552† | 51153.0 | 0.1124 | mg/L | 0.00046 | 0.2247 | mg/L | 0.00092 | 0.41% |
| Ti 334.903† | 15348.3 | 0.8039 | mg/L | 0.00082 | 1.608 | mg/L | 0.0016 | 0.10% |
| Tl 190.801† | -6.4 | -0.00188 | mg/L | 0.000918 | -0.00377 | mg/L | 0.001836 | 48.71% |
| V 292.402† | 7107.7 | 0.04744 | mg/L | 0.000236 | 0.09487 | mg/L | 0.000472 | 0.50% |
| Zn 206.200† | 1011.1 | 0.3968 | mg/L | 0.00567 | 0.7935 | mg/L | 0.01133 | 1.43% |

Sequence No.: 14
Sample ID: UU52 CDUP SWC

Autosampler Location: 30
Date Collected: 5/29/2012 3:37:39 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 CDUP SWC

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 181.0 kPa | 0.55 L/min |

Mean Data: UU52 CDUP SWC

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1854798.4 | 96.92 | % | 0.965 | | | | 1.00% |
| ScR 361.383 | 197075.4 | 100.3 | % | 0.91 | | | | 0.91% |
| Ag 328.068† | -150.9 | 0.00095 | mg/L | 0.000246 | 0.00190 | mg/L | 0.000492 | 25.86% |
| Al 308.215† | 24863.9 | 19.00 | mg/L | 0.019 | 38.00 | mg/L | 0.037 | 0.10% |
| As 188.979† | 44.2 | 0.03087 | mg/L | 0.000855 | 0.06173 | mg/L | 0.001709 | 2.77% |
| B 249.677† | 111.7 | 0.06673 | mg/L | 0.001349 | 0.1335 | mg/L | 0.00270 | 2.02% |
| Ba 233.527† | 381.6 | 0.05149 | mg/L | 0.000837 | 0.1030 | mg/L | 0.00167 | 1.63% |
| Be 313.042† | 114.9 | 0.00026 | mg/L | 0.000020 | 0.00052 | mg/L | 0.000039 | 7.60% |
| Ca 317.933† | 89647.2 | 8.475 | mg/L | 0.0186 | 16.95 | mg/L | 0.037 | 0.22% |
| Cd 228.802† | 154.1 | 0.00311 | mg/L | 0.000102 | 0.00622 | mg/L | 0.000204 | 3.28% |
| Co 228.616† | 596.5 | 0.01106 | mg/L | 0.000199 | 0.02212 | mg/L | 0.000397 | 1.80% |
| Cr 267.716† | 198.3 | 0.04500 | mg/L | 0.001218 | 0.09000 | mg/L | 0.002437 | 2.71% |
| Cu 324.752† | 36539.7 | 0.1533 | mg/L | 0.00244 | 0.3067 | mg/L | 0.00489 | 1.59% |
| Fe 273.955† | 50090.6 | 42.27 | mg/L | 0.127 | 84.55 | mg/L | 0.253 | 0.30% |
| K 766.490† | 9528.9 | 3.657 | mg/L | 0.0115 | 7.313 | mg/L | 0.0229 | 0.31% |
| Mg 279.077† | 15338.7 | 14.55 | mg/L | 0.040 | 29.10 | mg/L | 0.080 | 0.27% |
| Mn 257.610† | 14466.5 | 0.3656 | mg/L | 0.00041 | 0.7312 | mg/L | 0.00083 | 0.11% |
| Mo 202.031† | 149.4 | 0.01353 | mg/L | 0.000561 | 0.02706 | mg/L | 0.001122 | 4.14% |
| Na 589.592† | 194900.7 | 28.92 | mg/L | 0.075 | 57.85 | mg/L | 0.151 | 0.26% |
| Na 330.237† | 630.3 | 31.29 | mg/L | 0.402 | 62.57 | mg/L | 0.803 | 1.28% |
| Ni 231.604† | 90.2 | 0.05078 | mg/L | 0.002012 | 0.1016 | mg/L | 0.00402 | 3.96% |
| Pb 220.353† | 1144.8 | 0.1692 | mg/L | 0.00092 | 0.3384 | mg/L | 0.00184 | 0.54% |
| Sb 206.836† | -22.2 | -0.01082 | mg/L | 0.003200 | -0.02163 | mg/L | 0.006399 | 29.58% |
| Se 196.026† | 17.4 | 0.01017 | mg/L | 0.004183 | 0.02035 | mg/L | 0.008367 | 41.12% |
| Si 288.158† | 5103.6 | 4.127 | mg/L | 0.0477 | 8.254 | mg/L | 0.0955 | 1.16% |
| Sn 189.927† | -9.1 | -0.00168 | mg/L | 0.000991 | -0.00336 | mg/L | 0.001982 | 58.95% |
| Sr 421.552† | 48900.8 | 0.1074 | mg/L | 0.00055 | 0.2148 | mg/L | 0.00110 | 0.51% |
| Ti 334.903† | 18445.0 | 0.9662 | mg/L | 0.00160 | 1.932 | mg/L | 0.0032 | 0.17% |
| Tl 190.801† | -5.6 | -0.00149 | mg/L | 0.002509 | -0.00298 | mg/L | 0.005017 | 168.55% |
| V 292.402† | 7281.0 | 0.04826 | mg/L | 0.000750 | 0.09651 | mg/L | 0.001500 | 1.55% |
| Zn 206.200† | 945.7 | 0.3711 | mg/L | 0.00503 | 0.7423 | mg/L | 0.01006 | 1.36% |

Sequence No.: 15
Sample ID: UU52 C SWC

Autosampler Location: 31
Date Collected: 5/29/2012 3:43:41 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 C SWC

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 181.0 kPa | 0.55 L/min |

Mean Data: UU52 C SWC

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1848755.9 | 96.61 | % | 0.325 | | | | 0.34% |
| ScR 361.383 | 197476.4 | 100.5 | % | 0.65 | | | | 0.65% |
| Ag 328.068† | -198.7 | 0.00069 | mg/L | 0.000047 | 0.00139 | mg/L | 0.000093 | 6.71% |
| Al 308.215† | 24920.0 | 19.04 | mg/L | 0.009 | 38.08 | mg/L | 0.017 | 0.04% |
| As 188.979† | 42.6 | 0.02967 | mg/L | 0.001580 | 0.05935 | mg/L | 0.003161 | 5.33% |
| B 249.677† | 116.9 | 0.06985 | mg/L | 0.001287 | 0.1397 | mg/L | 0.00257 | 1.84% |
| Ba 233.527† | 604.7 | 0.08251 | mg/L | 0.001303 | 0.1650 | mg/L | 0.00261 | 1.58% |
| Be 313.042† | 117.0 | 0.00027 | mg/L | 0.000016 | 0.00053 | mg/L | 0.000033 | 6.10% |
| Ca 317.933† | 89483.0 | 8.460 | mg/L | 0.0185 | 16.92 | mg/L | 0.037 | 0.22% |
| Cd 228.802† | 156.7 | 0.00317 | mg/L | 0.000079 | 0.00633 | mg/L | 0.000158 | 2.49% |
| Co 228.616† | 590.9 | 0.01093 | mg/L | 0.000170 | 0.02186 | mg/L | 0.000339 | 1.55% |
| Cr 267.716† | 201.5 | 0.04572 | mg/L | 0.000817 | 0.09143 | mg/L | 0.001633 | 1.79% |
| Cu 324.752† | 36914.7 | 0.1548 | mg/L | 0.00090 | 0.3096 | mg/L | 0.00180 | 0.58% |
| Fe 273.955† | 49346.9 | 41.65 | mg/L | 0.183 | 83.29 | mg/L | 0.366 | 0.44% |
| K 766.490† | 9634.5 | 3.697 | mg/L | 0.0253 | 7.395 | mg/L | 0.0505 | 0.68% |
| Mg 279.077† | 15287.9 | 14.50 | mg/L | 0.044 | 29.00 | mg/L | 0.089 | 0.31% |
| Mn 257.610† | 14273.5 | 0.3607 | mg/L | 0.00040 | 0.7215 | mg/L | 0.00080 | 0.11% |
| Mo 202.031† | 150.2 | 0.01361 | mg/L | 0.000228 | 0.02723 | mg/L | 0.000456 | 1.67% |
| Na 589.592† | 192163.0 | 28.52 | mg/L | 0.024 | 57.04 | mg/L | 0.048 | 0.08% |
| Na 330.237† | 622.2 | 30.89 | mg/L | 0.450 | 61.77 | mg/L | 0.899 | 1.46% |
| Ni 231.604† | 91.2 | 0.05132 | mg/L | 0.003718 | 0.1026 | mg/L | 0.00744 | 7.24% |
| Pb 220.353† | 1114.3 | 0.1649 | mg/L | 0.00103 | 0.3297 | mg/L | 0.00205 | 0.62% |
| Sb 206.836† | -26.6 | -0.01439 | mg/L | 0.004149 | -0.02877 | mg/L | 0.008298 | 28.84% |
| Se 196.026† | 17.3 | 0.01012 | mg/L | 0.002860 | 0.02024 | mg/L | 0.005719 | 28.26% |
| Si 288.158† | 5469.6 | 4.423 | mg/L | 0.0058 | 8.846 | mg/L | 0.0116 | 0.13% |
| Sn 189.927† | -11.8 | -0.00252 | mg/L | 0.000973 | -0.00504 | mg/L | 0.001945 | 38.63% |
| Sr 421.552† | 48667.6 | 0.1069 | mg/L | 0.00102 | 0.2138 | mg/L | 0.00203 | 0.95% |
| Ti 334.903† | 18440.7 | 0.9660 | mg/L | 0.00169 | 1.932 | mg/L | 0.0034 | 0.18% |
| Tl 190.801† | -7.1 | -0.00247 | mg/L | 0.002787 | -0.00494 | mg/L | 0.005575 | 112.96% |
| V 292.402† | 7302.7 | 0.04850 | mg/L | 0.000229 | 0.09701 | mg/L | 0.000458 | 0.47% |
| Zn 206.200† | 934.6 | 0.3668 | mg/L | 0.00082 | 0.7336 | mg/L | 0.00164 | 0.22% |

Sequence No.: 16
Sample ID: UU52 CSPK SWC

Dilution: 2X

Autosampler Location: 32
Date Collected: 5/29/2012 3:49:43 PM
Data Type: Original

**Nebulizer Parameters: UU52 CSPK SWC**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 181.0 kPa | 0.55 L/min |

**Mean Data: UU52 CSPK SWC**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1835145.1 | 95.89 | % | 0.522 | | | | 0.54% |
| ScR 361.383 | 200520.5 | 102.1 | % | 0.34 | | | | 0.34% |
| Ag 328.068† | 100225.9 | 0.4897 | mg/L | 0.00029 | 0.9794 | mg/L | 0.00057 | 0.06% |
| Al 308.215† | 26507.8 | 20.25 | mg/L | 0.094 | 40.50 | mg/L | 0.188 | 0.46% |
| As 188.979† | 2654.4 | 2.080 | mg/L | 0.0160 | 4.160 | mg/L | 0.0319 | 0.77% |
| B 249.677† | 115.6 | 0.06736 | mg/L | 0.003414 | 0.1347 | mg/L | 0.00683 | 5.07% |
| Ba 233.527† | 14066.8 | 1.953 | mg/L | 0.0113 | 3.905 | mg/L | 0.0225 | 0.58% |
| Be 313.042† | 142818.2 | 0.5085 | mg/L | 0.00230 | 1.017 | mg/L | 0.0046 | 0.45% |
| Ca 317.933† | 199179.1 | 18.83 | mg/L | 0.107 | 37.66 | mg/L | 0.213 | 0.57% |
| Cd 228.802† | 24899.6 | 0.5069 | mg/L | 0.00127 | 1.014 | mg/L | 0.0025 | 0.25% |
| Co 228.616† | 24023.3 | 0.5089 | mg/L | 0.00137 | 1.018 | mg/L | 0.0027 | 0.27% |
| Cr 267.716† | 2329.0 | 0.5272 | mg/L | 0.00252 | 1.054 | mg/L | 0.0050 | 0.48% |
| Cu 324.752† | 159102.3 | 0.6562 | mg/L | 0.00053 | 1.312 | mg/L | 0.0011 | 0.08% |
| Fe 273.955† | 51344.6 | 43.33 | mg/L | 0.134 | 86.66 | mg/L | 0.267 | 0.31% |
| K 766.490† | 36713.7 | 14.09 | mg/L | 0.019 | 28.18 | mg/L | 0.038 | 0.14% |
| Mg 279.077† | 25713.3 | 24.41 | mg/L | 0.147 | 48.81 | mg/L | 0.294 | 0.60% |
| Mn 257.610† | 32783.5 | 0.8291 | mg/L | 0.00420 | 1.658 | mg/L | 0.0084 | 0.51% |
| Mo 202.031† | 173.3 | 0.01542 | mg/L | 0.000361 | 0.03084 | mg/L | 0.000722 | 2.34% |
| Na 589.592† | 259066.9 | 38.45 | mg/L | 0.033 | 76.89 | mg/L | 0.066 | 0.09% |
| Na 330.237† | 826.8 | 40.81 | mg/L | 0.407 | 81.63 | mg/L | 0.815 | 1.00% |
| Ni 231.604† | 991.2 | 0.5321 | mg/L | 0.00158 | 1.064 | mg/L | 0.0032 | 0.30% |
| Pb 220.353† | 15015.1 | 2.147 | mg/L | 0.0057 | 4.294 | mg/L | 0.0114 | 0.26% |
| Sb 206.836† | -28.5 | -0.02030 | mg/L | 0.002427 | -0.04060 | mg/L | 0.004853 | 11.95% |
| Se 196.026† | 1702.4 | 2.034 | mg/L | 0.0177 | 4.068 | mg/L | 0.0353 | 0.87% |
| Si 288.158† | 5091.8 | 4.122 | mg/L | 0.0210 | 8.243 | mg/L | 0.0421 | 0.51% |
| Sn 189.927† | -23.7 | -0.00576 | mg/L | 0.000466 | -0.01151 | mg/L | 0.000932 | 8.10% |
| Sr 421.552† | 279134.5 | 0.6131 | mg/L | 0.00193 | 1.226 | mg/L | 0.0039 | 0.31% |
| Ti 334.903† | 18183.5 | 0.9520 | mg/L | 0.00517 | 1.904 | mg/L | 0.0103 | 0.54% |
| Tl 190.801† | 3114.5 | 1.929 | mg/L | 0.0086 | 3.858 | mg/L | 0.0171 | 0.44% |
| V 292.402† | 74471.5 | 0.5506 | mg/L | 0.00199 | 1.101 | mg/L | 0.0040 | 0.36% |
| Zn 206.200† | 2135.8 | 0.8379 | mg/L | 0.00479 | 1.676 | mg/L | 0.0096 | 0.57% |

Sequence No.: 17
Sample ID: UU52 MB1SPK SWC

Autosampler Location: 33
Date Collected: 5/29/2012 3:55:48 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 MB1SPK SWC

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

Mean Data: UU52 MB1SPK SWC

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1851882.3 | 96.77 | % | 0.628 | | | | 0.65% |
| ScR 361.383 | 196920.6 | 100.2 | % | 1.36 | | | | 1.35% |
| Ag 328.068† | 105550.4 | 0.5140 | mg/L | 0.00672 | 1.028 | mg/L | 0.0134 | 1.31% |
| Al 308.215† | 2837.7 | 2.161 | mg/L | 0.0279 | 4.321 | mg/L | 0.0558 | 1.29% |
| As 188.979† | 2689.7 | 2.111 | mg/L | 0.0136 | 4.223 | mg/L | 0.0273 | 0.65% |
| B 249.677† | 4.9 | 0.00124 | mg/L | 0.001953 | 0.00248 | mg/L | 0.003905 | 157.72% |
| Ba 233.527† | 14093.2 | 1.958 | mg/L | 0.0226 | 3.916 | mg/L | 0.0451 | 1.15% |
| Be 313.042† | 143917.3 | 0.5126 | mg/L | 0.00514 | 1.025 | mg/L | 0.0103 | 1.00% |
| Ca 317.933† | 112942.2 | 10.68 | mg/L | 0.105 | 21.36 | mg/L | 0.211 | 0.99% |
| Cd 228.802† | 25642.3 | 0.5220 | mg/L | 0.00673 | 1.044 | mg/L | 0.0135 | 1.29% |
| Co 228.616† | 23748.4 | 0.5046 | mg/L | 0.00696 | 1.009 | mg/L | 0.0139 | 1.38% |
| Cr 267.716† | 2230.3 | 0.5048 | mg/L | 0.00569 | 1.010 | mg/L | 0.0114 | 1.13% |
| Cu 324.752† | 125989.5 | 0.5170 | mg/L | 0.00628 | 1.034 | mg/L | 0.0126 | 1.22% |
| Fe 273.955† | 2557.8 | 2.158 | mg/L | 0.0262 | 4.317 | mg/L | 0.0524 | 1.21% |
| K 766.490† | 28698.3 | 11.01 | mg/L | 0.204 | 22.03 | mg/L | 0.407 | 1.85% |
| Mg 279.077† | 11530.9 | 10.96 | mg/L | 0.136 | 21.91 | mg/L | 0.273 | 1.25% |
| Mn 257.610† | 19556.0 | 0.4949 | mg/L | 0.00600 | 0.9897 | mg/L | 0.01200 | 1.21% |
| Mo 202.031† | 33.0 | 0.00274 | mg/L | 0.000588 | 0.00548 | mg/L | 0.001176 | 21.44% |
| Na 589.592† | 69901.4 | 10.37 | mg/L | 0.165 | 20.75 | mg/L | 0.329 | 1.59% |
| Na 330.237† | 235.2 | 11.44 | mg/L | 0.347 | 22.87 | mg/L | 0.694 | 3.04% |
| Ni 231.604† | 919.6 | 0.4913 | mg/L | 0.00227 | 0.9826 | mg/L | 0.00454 | 0.46% |
| Pb 220.353† | 14573.0 | 2.078 | mg/L | 0.0300 | 4.157 | mg/L | 0.0600 | 1.44% |
| Sb 206.836† | -11.2 | -0.01344 | mg/L | 0.001490 | -0.02688 | mg/L | 0.002980 | 11.09% |
| Se 196.026† | 1732.7 | 2.081 | mg/L | 0.0166 | 4.162 | mg/L | 0.0332 | 0.80% |
| Si 288.158† | 1.4 | 0.00548 | mg/L | 0.004902 | 0.01096 | mg/L | 0.009804 | 89.45% |
| Sn 189.927† | -18.9 | -0.00535 | mg/L | 0.000965 | -0.01071 | mg/L | 0.001929 | 18.02% |
| Sr 421.552† | 232956.7 | 0.5117 | mg/L | 0.00807 | 1.023 | mg/L | 0.0161 | 1.58% |
| Ti 334.903† | 22.3 | 0.00069 | mg/L | 0.000674 | 0.00138 | mg/L | 0.001348 | 97.72% |
| Tl 190.801† | 3296.6 | 2.040 | mg/L | 0.0111 | 4.080 | mg/L | 0.0223 | 0.55% |
| V 292.402† | 70527.6 | 0.5272 | mg/L | 0.00700 | 1.054 | mg/L | 0.0140 | 1.33% |
| Zn 206.200† | 1276.6 | 0.5007 | mg/L | 0.00471 | 1.001 | mg/L | 0.0094 | 0.94% |

Sequence No.: 18
Sample ID: CV 3
Dilution: 1X

Autosampler Location: 7
Date Collected: 5/29/2012 4:01:50 PM
Data Type: Original

Nebulizer Parameters: CV

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

Mean Data: CV

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1822413.0 | 95.23 | % | 0.490 | | | | 0.51% |
| ScR 361.383 | 194830.3 | 99.18 | % | 0.212 | | | | 0.21% |
| Ag 328.068† | 201272.2 | 0.9799 | mg/L | 0.00302 | 0.9799 | mg/L | 0.00302 | 0.31% |
| Al 308.215† | 2740.4 | 2.055 | mg/L | 0.0050 | 2.055 | mg/L | 0.0050 | 0.24% |
| As 188.979† | 2599.7 | 2.041 | mg/L | 0.0028 | 2.041 | mg/L | 0.0028 | 0.14% |
| B 249.677† | 1614.1 | 0.9630 | mg/L | 0.00381 | 0.9630 | mg/L | 0.00381 | 0.40% |
| Ba 233.527† | 6908.9 | 0.9595 | mg/L | 0.00220 | 0.9595 | mg/L | 0.00220 | 0.23% |
| Be 313.042† | 273681.7 | 0.9747 | mg/L | 0.00280 | 0.9747 | mg/L | 0.00280 | 0.29% |
| Ca 317.933† | 21555.9 | 2.038 | mg/L | 0.0053 | 2.038 | mg/L | 0.0053 | 0.26% |
| Cd 228.802† | 49443.2 | 1.010 | mg/L | 0.0067 | 1.010 | mg/L | 0.0067 | 0.66% |
| Co 228.616† | 45774.7 | 0.9721 | mg/L | 0.00863 | 0.9721 | mg/L | 0.00863 | 0.89% |
| Cr 267.716† | 4231.9 | 0.9584 | mg/L | 0.00392 | 0.9584 | mg/L | 0.00392 | 0.41% |
| Cu 324.752† | 250745.8 | 1.028 | mg/L | 0.0083 | 1.028 | mg/L | 0.0083 | 0.81% |
| Fe 273.955† | 2468.1 | 2.082 | mg/L | 0.0040 | 2.082 | mg/L | 0.0040 | 0.19% |
| K 766.490† | 54212.4 | 20.80 | mg/L | 0.042 | 20.80 | mg/L | 0.042 | 0.20% |
| Mg 279.077† | 2221.5 | 2.114 | mg/L | 0.0136 | 2.114 | mg/L | 0.0136 | 0.64% |
| Mn 257.610† | 38464.6 | 0.9729 | mg/L | 0.00487 | 0.9729 | mg/L | 0.00487 | 0.50% |
| Mo 202.031† | 10334.8 | 1.021 | mg/L | 0.0027 | 1.021 | mg/L | 0.0027 | 0.27% |
| Na 589.592† | 334407.2 | 49.63 | mg/L | 0.245 | 49.63 | mg/L | 0.245 | 0.49% |
| Na 330.237† | 1065.6 | 52.68 | mg/L | 0.196 | 52.68 | mg/L | 0.196 | 0.37% |
| Ni 231.604† | 1826.8 | 0.9784 | mg/L | 0.00292 | 0.9784 | mg/L | 0.00292 | 0.30% |
| Pb 220.353† | 13945.1 | 1.990 | mg/L | 0.0209 | 1.990 | mg/L | 0.0209 | 1.05% |
| Sb 206.836† | 2773.8 | 2.245 | mg/L | 0.0041 | 2.245 | mg/L | 0.0041 | 0.18% |
| Se 196.026† | 1653.3 | 1.985 | mg/L | 0.0111 | 1.985 | mg/L | 0.0111 | 0.56% |
| Si 288.158† | 2851.5 | 2.311 | mg/L | 0.0030 | 2.311 | mg/L | 0.0030 | 0.13% |
| Sn 189.927† | 3036.1 | 0.9561 | mg/L | 0.00407 | 0.9561 | mg/L | 0.00407 | 0.43% |
| Sr 421.552† | 455367.3 | 1.000 | mg/L | 0.0033 | 1.000 | mg/L | 0.0033 | 0.33% |
| Ti 334.903† | 19912.3 | 1.042 | mg/L | 0.0056 | 1.042 | mg/L | 0.0056 | 0.54% |
| Tl 190.801† | 3203.2 | 1.975 | mg/L | 0.0074 | 1.975 | mg/L | 0.0074 | 0.38% |
| V 292.402† | 133128.3 | 1.001 | mg/L | 0.0085 | 1.001 | mg/L | 0.0085 | 0.85% |
| Zn 206.200† | 2605.3 | 1.021 | mg/L | 0.0032 | 1.021 | mg/L | 0.0032 | 0.32% |

Sequence No.: 19
Sample ID: CB 3
Dilution: 1X

Autosampler Location: 1
Date Collected: 5/29/2012 4:07:51 PM
Data Type: Original

Nebulizer Parameters: CB

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

Mean Data: CB

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1857959.8 | 97.09 | % | 0.578 | | | | 0.59% |
| ScR 361.383 | 195914.0 | 99.73 | % | 1.517 | | | | 1.52% |
| Ag 328.068† | 102.2 | 0.00050 | mg/L | 0.000172 | 0.00050 | mg/L | 0.000172 | 34.57% |
| Al 308.215† | 12.9 | 0.00985 | mg/L | 0.009940 | 0.00985 | mg/L | 0.009940 | 100.87% |
| As 188.979† | -2.2 | -0.00177 | mg/L | 0.001060 | -0.00177 | mg/L | 0.001060 | 59.96% |
| B 249.677† | 15.3 | 0.00912 | mg/L | 0.004898 | 0.00912 | mg/L | 0.004898 | 53.67% |
| Ba 233.527† | 3.7 | 0.00052 | mg/L | 0.000393 | 0.00052 | mg/L | 0.000393 | 76.15% |
| Be 313.042† | 20.7 | 0.00007 | mg/L | 0.000040 | 0.00007 | mg/L | 0.000040 | 54.46% |
| Ca 317.933† | 4.3 | 0.00041 | mg/L | 0.001048 | 0.00041 | mg/L | 0.001048 | 256.63% |
| Cd 228.802† | 1.1 | 0.00003 | mg/L | 0.000059 | 0.00003 | mg/L | 0.000059 | 229.02% |
| Co 228.616† | 0.5 | 0.00001 | mg/L | 0.000126 | 0.00001 | mg/L | 0.000126 | >999.9% |
| Cr 267.716† | -3.0 | -0.00068 | mg/L | 0.001151 | -0.00068 | mg/L | 0.001151 | 168.13% |
| Cu 324.752† | -4.1 | -0.00002 | mg/L | 0.000086 | -0.00002 | mg/L | 0.000086 | 519.83% |
| Fe 273.955† | 0.3 | 0.00026 | mg/L | 0.001574 | 0.00026 | mg/L | 0.001574 | 610.22% |
| K 766.490† | 28.4 | 0.01088 | mg/L | 0.011339 | 0.01088 | mg/L | 0.011339 | 104.21% |
| Mg 279.077† | 3.1 | 0.00299 | mg/L | 0.006621 | 0.00299 | mg/L | 0.006621 | 221.56% |
| Mn 257.610† | 2.4 | 0.00006 | mg/L | 0.000196 | 0.00006 | mg/L | 0.000196 | 318.40% |
| Mo 202.031† | 5.5 | 0.00054 | mg/L | 0.000444 | 0.00054 | mg/L | 0.000444 | 82.28% |
| Na 589.592† | 201.6 | 0.02993 | mg/L | 0.007835 | 0.02993 | mg/L | 0.007835 | 26.18% |
| Na 330.237† | -13.4 | -0.6640 | mg/L | 0.72120 | -0.6640 | mg/L | 0.72120 | 108.62% |
| Ni 231.604† | -2.0 | -0.00108 | mg/L | 0.001641 | -0.00108 | mg/L | 0.001641 | 152.08% |
| Pb 220.353† | 4.8 | 0.00068 | mg/L | 0.002274 | 0.00068 | mg/L | 0.002274 | 334.34% |
| Sb 206.836† | -3.9 | -0.00311 | mg/L | 0.003352 | -0.00311 | mg/L | 0.003352 | 107.86% |
| Se 196.026† | 2.9 | 0.00351 | mg/L | 0.004073 | 0.00351 | mg/L | 0.004073 | 116.19% |
| Si 288.158† | -1.5 | -0.00124 | mg/L | 0.005061 | -0.00124 | mg/L | 0.005061 | 407.26% |
| Sn 189.927† | 6.2 | 0.00194 | mg/L | 0.000296 | 0.00194 | mg/L | 0.000296 | 15.28% |
| Sr 421.552† | 39.3 | 0.00009 | mg/L | 0.000018 | 0.00009 | mg/L | 0.000018 | 21.25% |
| Ti 334.903† | -14.8 | -0.00077 | mg/L | 0.000594 | -0.00077 | mg/L | 0.000594 | 76.74% |
| Tl 190.801† | 5.2 | 0.00325 | mg/L | 0.002174 | 0.00325 | mg/L | 0.002174 | 66.88% |
| V 292.402† | -11.6 | -0.00009 | mg/L | 0.000137 | -0.00009 | mg/L | 0.000137 | 157.55% |
| Zn 206.200† | 1.9 | 0.00075 | mg/L | 0.000624 | 0.00075 | mg/L | 0.000624 | 82.80% |

Sequence No.: 20
Sample ID: UU62 MB1 TWC

Autosampler Location: 34
Date Collected: 5/29/2012 4:13:53 PM
Data Type: Original

Dilution: 1X

**Nebulizer Parameters: UU62 MB1 TWC**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 181.0 kPa | 0.55 L/min |

**Mean Data: UU62 MB1 TWC**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1885895.3 | 98.55 | % | 0.647 | | | | 0.66% |
| ScR 361.383 | 194931.1 | 99.23 | % | 0.670 | | | | 0.68% |
| Ag 328.068† | 61.8 | 0.00030 | mg/L | 0.000297 | 0.00030 | mg/L | 0.000297 | 98.85% |
| Al 308.215† | 4.7 | 0.00358 | mg/L | 0.005230 | 0.00358 | mg/L | 0.005230 | 146.13% |
| As 188.979† | 0.8 | 0.00061 | mg/L | 0.002277 | 0.00061 | mg/L | 0.002277 | 373.28% |
| B 249.677† | 2.8 | 0.00165 | mg/L | 0.003372 | 0.00165 | mg/L | 0.003372 | 204.81% |
| Ba 233.527† | 6.2 | 0.00086 | mg/L | 0.001091 | 0.00086 | mg/L | 0.001091 | 126.19% |
| Be 313.042† | 6.6 | 0.00002 | mg/L | 0.000019 | 0.00002 | mg/L | 0.000019 | 78.07% |
| Ca 317.933† | 135.0 | 0.01276 | mg/L | 0.000718 | 0.01276 | mg/L | 0.000718 | 5.62% |
| Cd 228.802† | -4.9 | -0.00010 | mg/L | 0.000069 | -0.00010 | mg/L | 0.000069 | 68.31% |
| Co 228.616† | -2.7 | -0.00006 | mg/L | 0.000295 | -0.00006 | mg/L | 0.000295 | 523.24% |
| Cr 267.716† | -2.6 | -0.00058 | mg/L | 0.000313 | -0.00058 | mg/L | 0.000313 | 53.75% |
| Cu 324.752† | 11.9 | 0.00005 | mg/L | 0.000134 | 0.00005 | mg/L | 0.000134 | 273.65% |
| Fe 273.955† | 0.2 | 0.00019 | mg/L | 0.002801 | 0.00019 | mg/L | 0.002801 | >999.9% |
| K 766.490† | 86.7 | 0.03326 | mg/L | 0.017976 | 0.03326 | mg/L | 0.017976 | 54.04% |
| Mg 279.077† | 1.4 | 0.00136 | mg/L | 0.003192 | 0.00136 | mg/L | 0.003192 | 235.51% |
| Mn 257.610† | 10.0 | 0.00025 | mg/L | 0.000072 | 0.00025 | mg/L | 0.000072 | 28.35% |
| Mo 202.031† | 6.4 | 0.00063 | mg/L | 0.000316 | 0.00063 | mg/L | 0.000316 | 49.81% |
| Na 589.592† | 144.7 | 0.02147 | mg/L | 0.005676 | 0.02147 | mg/L | 0.005676 | 26.44% |
| Na 330.237† | 16.2 | 0.8014 | mg/L | 0.51967 | 0.8014 | mg/L | 0.51967 | 64.85% |
| Ni 231.604† | 0.8 | 0.00043 | mg/L | 0.001860 | 0.00043 | mg/L | 0.001860 | 431.13% |
| Pb 220.353† | -5.9 | -0.00084 | mg/L | 0.000582 | -0.00084 | mg/L | 0.000582 | 69.49% |
| Sb 206.836† | -3.8 | -0.00308 | mg/L | 0.000502 | -0.00308 | mg/L | 0.000502 | 16.27% |
| Se 196.026† | 2.4 | 0.00283 | mg/L | 0.003766 | 0.00283 | mg/L | 0.003766 | 133.16% |
| Si 288.158† | 2.7 | 0.00220 | mg/L | 0.005790 | 0.00220 | mg/L | 0.005790 | 263.74% |
| Sn 189.927† | 1.5 | 0.00047 | mg/L | 0.001449 | 0.00047 | mg/L | 0.001449 | 306.75% |
| Sr 421.552† | 51.1 | 0.00011 | mg/L | 0.000016 | 0.00011 | mg/L | 0.000016 | 13.90% |
| Ti 334.903† | -13.5 | -0.00071 | mg/L | 0.000188 | -0.00071 | mg/L | 0.000188 | 26.55% |
| Tl 190.801† | -4.5 | -0.00278 | mg/L | 0.002265 | -0.00278 | mg/L | 0.002265 | 81.58% |
| V 292.402† | -32.0 | -0.00024 | mg/L | 0.000461 | -0.00024 | mg/L | 0.000461 | 194.09% |
| Zn 206.200† | 1.5 | 0.00058 | mg/L | 0.001273 | 0.00058 | mg/L | 0.001273 | 219.61% |

Sequence No.: 21
Sample ID: UU62 K TWC

Autosampler Location: 35
Date Collected: 5/29/2012 4:19:55 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: UU62 K TWC

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

Mean Data: UU62 K TWC

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1893403.0 | 98.94 | % | 0.989 | | | | 1.00% |
| ScR 361.383 | 194853.3 | 99.19 | % | 1.390 | | | | 1.40% |
| Ag 328.068† | 14.0 | 0.00007 | mg/L | 0.000364 | 0.00007 | mg/L | 0.000364 | 538.18% |
| Al 308.215† | 9.6 | 0.00734 | mg/L | 0.004454 | 0.00734 | mg/L | 0.004454 | 60.67% |
| As 188.979† | 3.0 | 0.00234 | mg/L | 0.001799 | 0.00234 | mg/L | 0.001799 | 76.90% |
| B 249.677† | -3.3 | -0.00200 | mg/L | 0.004200 | -0.00200 | mg/L | 0.004200 | 209.96% |
| Ba 233.527† | 1.0 | 0.00013 | mg/L | 0.000417 | 0.00013 | mg/L | 0.000417 | 313.52% |
| Be 313.042† | 25.4 | 0.00009 | mg/L | 0.000020 | 0.00009 | mg/L | 0.000020 | 22.19% |
| Ca 317.933† | 304.1 | 0.02875 | mg/L | 0.001124 | 0.02875 | mg/L | 0.001124 | 3.91% |
| Cd 228.802† | 0.0 | -0.00001 | mg/L | 0.000081 | -0.00001 | mg/L | 0.000081 | >999.9% |
| Co 228.616† | -0.4 | -0.00001 | mg/L | 0.000170 | -0.00001 | mg/L | 0.000170 | >999.9% |
| Cr 267.716† | -3.3 | -0.00074 | mg/L | 0.001440 | -0.00074 | mg/L | 0.001440 | 195.24% |
| Cu 324.752† | 1591.3 | 0.00653 | mg/L | 0.000289 | 0.00653 | mg/L | 0.000289 | 4.42% |
| Fe 273.955† | 4.9 | 0.00416 | mg/L | 0.001364 | 0.00416 | mg/L | 0.001364 | 32.75% |
| K 766.490† | 105.8 | 0.04059 | mg/L | 0.017526 | 0.04059 | mg/L | 0.017526 | 43.17% |
| Mg 279.077† | 1.9 | 0.00182 | mg/L | 0.001699 | 0.00182 | mg/L | 0.001699 | 93.26% |
| Mn 257.610† | 104.6 | 0.00264 | mg/L | 0.000101 | 0.00264 | mg/L | 0.000101 | 3.83% |
| Mo 202.031† | 2.3 | 0.00022 | mg/L | 0.000065 | 0.00022 | mg/L | 0.000065 | 28.78% |
| Na 589.592† | 331.7 | 0.04923 | mg/L | 0.002319 | 0.04923 | mg/L | 0.002319 | 4.71% |
| Na 330.237† | 17.3 | 0.8561 | mg/L | 0.24908 | 0.8561 | mg/L | 0.24908 | 29.09% |
| Ni 231.604† | -7.5 | -0.00404 | mg/L | 0.002299 | -0.00404 | mg/L | 0.002299 | 56.97% |
| Pb 220.353† | -7.0 | -0.00100 | mg/L | 0.000794 | -0.00100 | mg/L | 0.000794 | 79.25% |
| Sb 206.836† | -2.6 | -0.00208 | mg/L | 0.001661 | -0.00208 | mg/L | 0.001661 | 79.83% |
| Se 196.026† | 1.0 | 0.00119 | mg/L | 0.003574 | 0.00119 | mg/L | 0.003574 | 300.92% |
| Si 288.158† | 15.1 | 0.01222 | mg/L | 0.003527 | 0.01222 | mg/L | 0.003527 | 28.85% |
| Sn 189.927† | 0.7 | 0.00021 | mg/L | 0.000585 | 0.00021 | mg/L | 0.000585 | 278.15% |
| Sr 421.552† | 50.9 | 0.00011 | mg/L | 0.000075 | 0.00011 | mg/L | 0.000075 | 67.46% |
| Ti 334.903† | 5.5 | 0.00029 | mg/L | 0.001392 | 0.00029 | mg/L | 0.001392 | 487.43% |
| Tl 190.801† | 1.4 | 0.00090 | mg/L | 0.001552 | 0.00090 | mg/L | 0.001552 | 172.68% |
| V 292.402† | -57.8 | -0.00043 | mg/L | 0.000330 | -0.00043 | mg/L | 0.000330 | 76.08% |
| Zn 206.200† | 11.7 | 0.00458 | mg/L | 0.000723 | 0.00458 | mg/L | 0.000723 | 15.78% |

Sequence No.: 22
Sample ID: UU62 JDUP TWC

Autosampler Location: 36
Date Collected: 5/29/2012 4:25:56 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: UU62 JDUP TWC

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

Mean Data: UU62 JDUP TWC

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1870685.4 | 97.75 | % | 0.572 | | | | 0.58% |
| ScR 361.383 | 195531.6 | 99.54 | % | 0.467 | | | | 0.47% |
| Ag 328.068† | -18.5 | -0.00009 | mg/L | 0.000339 | -0.00009 | mg/L | 0.000339 | 376.86% |
| Al 308.215† | 14.2 | 0.01082 | mg/L | 0.004349 | 0.01082 | mg/L | 0.004349 | 40.19% |
| As 188.979† | -1.8 | -0.00143 | mg/L | 0.003103 | -0.00143 | mg/L | 0.003103 | 216.65% |
| B 249.677† | -3.3 | -0.00196 | mg/L | 0.001109 | -0.00196 | mg/L | 0.001109 | 56.58% |
| Ba 233.527† | 0.0 | 0.00000 | mg/L | 0.000272 | 0.00000 | mg/L | 0.000272 | >999.9% |
| Be 313.042† | 28.9 | 0.00010 | mg/L | 0.000018 | 0.00010 | mg/L | 0.000018 | 17.27% |
| Ca 317.933† | 292.5 | 0.02765 | mg/L | 0.002486 | 0.02765 | mg/L | 0.002486 | 8.99% |
| Cd 228.802† | -1.0 | -0.00002 | mg/L | 0.000065 | -0.00002 | mg/L | 0.000065 | 341.58% |
| Co 228.616† | 2.1 | 0.00004 | mg/L | 0.000105 | 0.00004 | mg/L | 0.000105 | 238.73% |
| Cr 267.716† | -8.9 | -0.00203 | mg/L | 0.001395 | -0.00203 | mg/L | 0.001395 | 68.83% |
| Cu 324.752† | 16.4 | 0.00007 | mg/L | 0.000077 | 0.00007 | mg/L | 0.000077 | 114.14% |
| Fe 273.955† | 8.2 | 0.00691 | mg/L | 0.001741 | 0.00691 | mg/L | 0.001741 | 25.18% |
| K 766.490† | 152.5 | 0.05853 | mg/L | 0.023029 | 0.05853 | mg/L | 0.023029 | 39.34% |
| Mg 279.077† | -2.0 | -0.00188 | mg/L | 0.005938 | -0.00188 | mg/L | 0.005938 | 316.57% |
| Mn 257.610† | 47.3 | 0.00119 | mg/L | 0.000142 | 0.00119 | mg/L | 0.000142 | 11.91% |
| Mo 202.031† | 8.0 | 0.00079 | mg/L | 0.000439 | 0.00079 | mg/L | 0.000439 | 55.60% |
| Na 589.592† | 643.5 | 0.09550 | mg/L | 0.007666 | 0.09550 | mg/L | 0.007666 | 8.03% |
| Na 330.237† | 1.0 | 0.04762 | mg/L | 0.474559 | 0.04762 | mg/L | 0.474559 | 996.63% |
| Ni 231.604† | -5.8 | -0.00311 | mg/L | 0.003361 | -0.00311 | mg/L | 0.003361 | 108.19% |
| Pb 220.353† | -3.4 | -0.00048 | mg/L | 0.000353 | -0.00048 | mg/L | 0.000353 | 72.99% |
| Sb 206.836† | -4.7 | -0.00374 | mg/L | 0.001929 | -0.00374 | mg/L | 0.001929 | 51.58% |
| Se 196.026† | 4.6 | 0.00549 | mg/L | 0.003913 | 0.00549 | mg/L | 0.003913 | 71.35% |
| Si 288.158† | 1.7 | 0.00138 | mg/L | 0.001735 | 0.00138 | mg/L | 0.001735 | 125.68% |
| Sn 189.927† | 0.1 | 0.00002 | mg/L | 0.000519 | 0.00002 | mg/L | 0.000519 | >999.9% |
| Sr 421.552† | 101.0 | 0.00022 | mg/L | 0.000121 | 0.00022 | mg/L | 0.000121 | 54.68% |
| Ti 334.903† | 5.3 | 0.00028 | mg/L | 0.001025 | 0.00028 | mg/L | 0.001025 | 371.64% |
| Tl 190.801† | -2.2 | -0.00140 | mg/L | 0.003310 | -0.00140 | mg/L | 0.003310 | 236.94% |
| V 292.402† | -31.2 | -0.00024 | mg/L | 0.000076 | -0.00024 | mg/L | 0.000076 | 31.35% |
| Zn 206.200† | 8.2 | 0.00322 | mg/L | 0.000873 | 0.00322 | mg/L | 0.000873 | 27.14% |

Sequence No.: 23
Sample ID: UU62 J TWC

Autosampler Location: 37
Date Collected: 5/29/2012 4:31:56 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: UU62 J TWC

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

Mean Data: UU62 J TWC

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1877381.1 | 98.10 | % | 0.259 | | | | 0.26% |
| ScR 361.383 | 194799.6 | 99.17 | % | 0.901 | | | | 0.91% |
| Ag 328.068† | 3.3 | 0.00002 | mg/L | 0.000277 | 0.00002 | mg/L | 0.000277 | >999.9% |
| Al 308.215† | 8.8 | 0.00670 | mg/L | 0.002090 | 0.00670 | mg/L | 0.002090 | 31.18% |
| As 188.979† | 1.3 | 0.00099 | mg/L | 0.002211 | 0.00099 | mg/L | 0.002211 | 223.48% |
| B 249.677† | -2.1 | -0.00127 | mg/L | 0.000989 | -0.00127 | mg/L | 0.000989 | 77.67% |
| Ba 233.527† | -0.4 | -0.00005 | mg/L | 0.000722 | -0.00005 | mg/L | 0.000722 | >999.9% |
| Be 313.042† | 29.4 | 0.00011 | mg/L | 0.000019 | 0.00011 | mg/L | 0.000019 | 18.38% |
| Ca 317.933† | 370.1 | 0.03499 | mg/L | 0.001102 | 0.03499 | mg/L | 0.001102 | 3.15% |
| Cd 228.802† | -0.8 | -0.00002 | mg/L | 0.000133 | -0.00002 | mg/L | 0.000133 | 747.63% |
| Co 228.616† | 0.0 | 0.00000 | mg/L | 0.000078 | 0.00000 | mg/L | 0.000078 | >999.9% |
| Cr 267.716† | -2.5 | -0.00057 | mg/L | 0.000928 | -0.00057 | mg/L | 0.000928 | 163.12% |
| Cu 324.752† | 28.4 | 0.00012 | mg/L | 0.000289 | 0.00012 | mg/L | 0.000289 | 246.78% |
| Fe 273.955† | 11.9 | 0.01008 | mg/L | 0.002757 | 0.01008 | mg/L | 0.002757 | 27.34% |
| K 766.490† | 166.3 | 0.06381 | mg/L | 0.015287 | 0.06381 | mg/L | 0.015287 | 23.96% |
| Mg 279.077† | 3.2 | 0.00303 | mg/L | 0.008011 | 0.00303 | mg/L | 0.008011 | 264.79% |
| Mn 257.610† | 43.1 | 0.00109 | mg/L | 0.000137 | 0.00109 | mg/L | 0.000137 | 12.55% |
| Mo 202.031† | 3.4 | 0.00033 | mg/L | 0.000468 | 0.00033 | mg/L | 0.000468 | 141.79% |
| Na 589.592† | 958.0 | 0.1422 | mg/L | 0.00335 | 0.1422 | mg/L | 0.00335 | 2.36% |
| Na 330.237† | 0.7 | 0.03196 | mg/L | 0.638743 | 0.03196 | mg/L | 0.638743 | >999.9% |
| Ni 231.604† | 1.2 | 0.00066 | mg/L | 0.002904 | 0.00066 | mg/L | 0.002904 | 439.08% |
| Pb 220.353† | -2.4 | -0.00034 | mg/L | 0.000508 | -0.00034 | mg/L | 0.000508 | 147.80% |
| Sb 206.836† | -3.7 | -0.00301 | mg/L | 0.002334 | -0.00301 | mg/L | 0.002334 | 77.52% |
| Se 196.026† | 8.1 | 0.00978 | mg/L | 0.003088 | 0.00978 | mg/L | 0.003088 | 31.57% |
| Si 288.158† | 4.1 | 0.00334 | mg/L | 0.004022 | 0.00334 | mg/L | 0.004022 | 120.27% |
| Sn 189.927† | -2.5 | -0.00078 | mg/L | 0.001079 | -0.00078 | mg/L | 0.001079 | 138.13% |
| Sr 421.552† | 109.3 | 0.00024 | mg/L | 0.000054 | 0.00024 | mg/L | 0.000054 | 22.56% |
| Ti 334.903† | 2.2 | 0.00011 | mg/L | 0.001411 | 0.00011 | mg/L | 0.001411 | >999.9% |
| Tl 190.801† | 1.6 | 0.00097 | mg/L | 0.001965 | 0.00097 | mg/L | 0.001965 | 202.86% |
| V 292.402† | -2.1 | -0.00002 | mg/L | 0.000049 | -0.00002 | mg/L | 0.000049 | 262.36% |
| Zn 206.200† | 8.7 | 0.00342 | mg/L | 0.001003 | 0.00342 | mg/L | 0.001003 | 29.30% |

Sequence No.: 24
Sample ID: UU62 JSPK TWC

Autosampler Location: 38
Date Collected: 5/29/2012 4:37:56 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: UU62 JSPK TWC

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

Mean Data: UU62 JSPK TWC

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1856368.1 | 97.00 | % | 0.245 | | | | 0.25% |
| ScR 361.383 | 196802.3 | 100.2 | % | 0.11 | | | | 0.11% |
| Ag 328.068† | 104168.6 | 0.5073 | mg/L | 0.00133 | 0.5073 | mg/L | 0.00133 | 0.26% |
| Al 308.215† | 2819.0 | 2.146 | mg/L | 0.0030 | 2.146 | mg/L | 0.0030 | 0.14% |
| As 188.979† | 2683.3 | 2.106 | mg/L | 0.0092 | 2.106 | mg/L | 0.0092 | 0.44% |
| B 249.677† | -4.1 | -0.00416 | mg/L | 0.001610 | -0.00416 | mg/L | 0.001610 | 38.73% |
| Ba 233.527† | 13966.4 | 1.940 | mg/L | 0.0027 | 1.940 | mg/L | 0.0027 | 0.14% |
| Be 313.042† | 146892.9 | 0.5232 | mg/L | 0.00176 | 0.5232 | mg/L | 0.00176 | 0.34% |
| Ca 317.933† | 114859.1 | 10.86 | mg/L | 0.036 | 10.86 | mg/L | 0.036 | 0.33% |
| Cd 228.802† | 25156.5 | 0.5121 | mg/L | 0.00071 | 0.5121 | mg/L | 0.00071 | 0.14% |
| Co 228.616† | 23427.0 | 0.4978 | mg/L | 0.00201 | 0.4978 | mg/L | 0.00201 | 0.40% |
| Cr 267.716† | 2254.3 | 0.5102 | mg/L | 0.00059 | 0.5102 | mg/L | 0.00059 | 0.12% |
| Cu 324.752† | 123905.8 | 0.5085 | mg/L | 0.00179 | 0.5085 | mg/L | 0.00179 | 0.35% |
| Fe 273.955† | 2553.3 | 2.154 | mg/L | 0.0065 | 2.154 | mg/L | 0.0065 | 0.30% |
| K 766.490† | 28624.5 | 10.98 | mg/L | 0.041 | 10.98 | mg/L | 0.041 | 0.38% |
| Mg 279.077† | 11568.2 | 10.99 | mg/L | 0.021 | 10.99 | mg/L | 0.021 | 0.20% |
| Mn 257.610† | 19572.1 | 0.4953 | mg/L | 0.00115 | 0.4953 | mg/L | 0.00115 | 0.23% |
| Mo 202.031† | 37.8 | 0.00321 | mg/L | 0.000435 | 0.00321 | mg/L | 0.000435 | 13.52% |
| Na 589.592† | 69724.2 | 10.35 | mg/L | 0.024 | 10.35 | mg/L | 0.024 | 0.23% |
| Na 330.237† | 230.7 | 11.21 | mg/L | 0.156 | 11.21 | mg/L | 0.156 | 1.39% |
| Ni 231.604† | 908.2 | 0.4852 | mg/L | 0.00168 | 0.4852 | mg/L | 0.00168 | 0.35% |
| Pb 220.353† | 14307.2 | 2.041 | mg/L | 0.0058 | 2.041 | mg/L | 0.0058 | 0.29% |
| Sb 206.836† | -6.3 | -0.00960 | mg/L | 0.002869 | -0.00960 | mg/L | 0.002869 | 29.89% |
| Se 196.026† | 1707.6 | 2.051 | mg/L | 0.0063 | 2.051 | mg/L | 0.0063 | 0.31% |
| Si 288.158† | 6.1 | 0.00932 | mg/L | 0.004855 | 0.00932 | mg/L | 0.004855 | 52.06% |
| Sn 189.927† | -14.5 | -0.00398 | mg/L | 0.000028 | -0.00398 | mg/L | 0.000028 | 0.69% |
| Sr 421.552† | 234153.1 | 0.5143 | mg/L | 0.00558 | 0.5143 | mg/L | 0.00558 | 1.08% |
| Ti 334.903† | 22.9 | 0.00072 | mg/L | 0.000437 | 0.00072 | mg/L | 0.000437 | 61.09% |
| Tl 190.801† | 3272.5 | 2.025 | mg/L | 0.0127 | 2.025 | mg/L | 0.0127 | 0.63% |
| V 292.402† | 69456.9 | 0.5193 | mg/L | 0.00232 | 0.5193 | mg/L | 0.00232 | 0.45% |
| Zn 206.200† | 1273.5 | 0.4994 | mg/L | 0.00237 | 0.4994 | mg/L | 0.00237 | 0.47% |

Sequence No.: 25
Sample ID: UU52 D SWC

Autosampler Location: 39
Date Collected: 5/29/2012 4:43:58 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 D SWC

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

Mean Data: UU52 D SWC

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1845543.1 | 96.44 | % | 0.108 | | | | 0.11% |
| ScR 361.383 | 197523.3 | 100.6 | % | 0.48 | | | | 0.48% |
| Ag 328.068† | -58.9 | 0.00087 | mg/L | 0.000144 | 0.00174 | mg/L | 0.000287 | 16.55% |
| Al 308.215† | 18167.8 | 13.88 | mg/L | 0.110 | 27.77 | mg/L | 0.219 | 0.79% |
| As 188.979† | 30.9 | 0.02147 | mg/L | 0.000755 | 0.04294 | mg/L | 0.001509 | 3.52% |
| B 249.677† | 130.9 | 0.07824 | mg/L | 0.000320 | 0.1565 | mg/L | 0.00064 | 0.41% |
| Ba 233.527† | 256.0 | 0.03452 | mg/L | 0.000229 | 0.06904 | mg/L | 0.000457 | 0.66% |
| Be 313.042† | 101.8 | 0.00024 | mg/L | 0.000013 | 0.00049 | mg/L | 0.000027 | 5.56% |
| Ca 317.933† | 98846.8 | 9.345 | mg/L | 0.0986 | 18.69 | mg/L | 0.197 | 1.05% |
| Cd 228.802† | 97.3 | 0.00196 | mg/L | 0.000114 | 0.00392 | mg/L | 0.000228 | 5.82% |
| Co 228.616† | 425.9 | 0.00792 | mg/L | 0.000107 | 0.01584 | mg/L | 0.000214 | 1.35% |
| Cr 267.716† | 144.8 | 0.03274 | mg/L | 0.000279 | 0.06547 | mg/L | 0.000557 | 0.85% |
| Cu 324.752† | 18968.3 | 0.08017 | mg/L | 0.000361 | 0.1603 | mg/L | 0.00072 | 0.45% |
| Fe 273.955† | 34184.6 | 28.85 | mg/L | 0.226 | 57.70 | mg/L | 0.452 | 0.78% |
| K 766.490† | 8527.2 | 3.272 | mg/L | 0.0226 | 6.545 | mg/L | 0.0452 | 0.69% |
| Mg 279.077† | 13046.0 | 12.38 | mg/L | 0.051 | 24.76 | mg/L | 0.101 | 0.41% |
| Mn 257.610† | 9324.0 | 0.2356 | mg/L | 0.00077 | 0.4713 | mg/L | 0.00154 | 0.33% |
| Mo 202.031† | 122.5 | 0.01114 | mg/L | 0.000592 | 0.02229 | mg/L | 0.001185 | 5.31% |
| Na 589.592† | 204021.7 | 30.28 | mg/L | 0.233 | 60.56 | mg/L | 0.466 | 0.77% |
| Na 330.237† | 663.6 | 32.92 | mg/L | 0.198 | 65.84 | mg/L | 0.397 | 0.60% |
| Ni 231.604† | 62.7 | 0.03526 | mg/L | 0.002876 | 0.07051 | mg/L | 0.005753 | 8.16% |
| Pb 220.353† | 678.3 | 0.1011 | mg/L | 0.00126 | 0.2022 | mg/L | 0.00252 | 1.24% |
| Sb 206.836† | -20.9 | -0.01144 | mg/L | 0.005919 | -0.02287 | mg/L | 0.011839 | 51.76% |
| Se 196.026† | 14.5 | 0.00963 | mg/L | 0.001198 | 0.01926 | mg/L | 0.002395 | 12.44% |
| Si 288.158† | 4635.8 | 3.749 | mg/L | 0.0130 | 7.497 | mg/L | 0.0261 | 0.35% |
| Sn 189.927† | -10.2 | -0.00225 | mg/L | 0.001401 | -0.00450 | mg/L | 0.002803 | 62.22% |
| Sr 421.552† | 56052.5 | 0.1231 | mg/L | 0.00041 | 0.2462 | mg/L | 0.00082 | 0.33% |
| Ti 334.903† | 12915.6 | 0.6764 | mg/L | 0.00396 | 1.353 | mg/L | 0.0079 | 0.59% |
| Tl 190.801† | -7.3 | -0.00320 | mg/L | 0.002427 | -0.00639 | mg/L | 0.004855 | 75.95% |
| V 292.402† | 5925.3 | 0.04005 | mg/L | 0.000215 | 0.08010 | mg/L | 0.000431 | 0.54% |
| Zn 206.200† | 549.7 | 0.2159 | mg/L | 0.00020 | 0.4318 | mg/L | 0.00040 | 0.09% |

Sequence No.: 26
Sample ID: UU52 E SWC

Autosampler Location: 40
Date Collected: 5/29/2012 4:50:00 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 E SWC

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

Mean Data: UU52 E SWC

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1830505.8 | 95.65 | % | 0.497 | | | | 0.52% |
| ScR 361.383 | 195851.9 | 99.70 | % | 1.067 | | | | 1.07% |
| Ag 328.068† | -119.3 | 0.00086 | mg/L | 0.000198 | 0.00172 | mg/L | 0.000397 | 23.10% |
| Al 308.215† | 21434.9 | 16.38 | mg/L | 0.027 | 32.76 | mg/L | 0.053 | 0.16% |
| As 188.979† | 36.3 | 0.02520 | mg/L | 0.000414 | 0.05040 | mg/L | 0.000827 | 1.64% |
| B 249.677† | 113.2 | 0.06762 | mg/L | 0.002965 | 0.1352 | mg/L | 0.00593 | 4.38% |
| Ba 233.527† | 382.9 | 0.05189 | mg/L | 0.001407 | 0.1038 | mg/L | 0.00281 | 2.71% |
| Be 313.042† | 84.9 | 0.00017 | mg/L | 0.000041 | 0.00034 | mg/L | 0.000082 | 23.99% |
| Ca 317.933† | 86690.9 | 8.196 | mg/L | 0.0361 | 16.39 | mg/L | 0.072 | 0.44% |
| Cd 228.802† | 113.4 | 0.00228 | mg/L | 0.000026 | 0.00457 | mg/L | 0.000052 | 1.15% |
| Co 228.616† | 527.4 | 0.00981 | mg/L | 0.000091 | 0.01962 | mg/L | 0.000183 | 0.93% |
| Cr 267.716† | 156.4 | 0.03547 | mg/L | 0.002148 | 0.07094 | mg/L | 0.004296 | 6.06% |
| Cu 324.752† | 24113.0 | 0.1019 | mg/L | 0.00028 | 0.2037 | mg/L | 0.00056 | 0.27% |
| Fe 273.955† | 42741.7 | 36.07 | mg/L | 0.199 | 72.14 | mg/L | 0.399 | 0.55% |
| K 766.490† | 8576.9 | 3.291 | mg/L | 0.0321 | 6.583 | mg/L | 0.0642 | 0.98% |
| Mg 279.077† | 13638.6 | 12.94 | mg/L | 0.138 | 25.87 | mg/L | 0.277 | 1.07% |
| Mn 257.610† | 12177.7 | 0.3078 | mg/L | 0.00328 | 0.6155 | mg/L | 0.00655 | 1.06% |
| Mo 202.031† | 123.8 | 0.01115 | mg/L | 0.000556 | 0.02230 | mg/L | 0.001112 | 4.99% |
| Na 589.592† | 181549.2 | 26.94 | mg/L | 0.044 | 53.89 | mg/L | 0.087 | 0.16% |
| Na 330.237† | 587.9 | 29.19 | mg/L | 0.213 | 58.38 | mg/L | 0.426 | 0.73% |
| Ni 231.604† | 71.4 | 0.04039 | mg/L | 0.002510 | 0.08078 | mg/L | 0.005020 | 6.21% |
| Pb 220.353† | 747.0 | 0.1117 | mg/L | 0.00117 | 0.2233 | mg/L | 0.00233 | 1.04% |
| Sb 206.836† | -19.5 | -0.00947 | mg/L | 0.001314 | -0.01894 | mg/L | 0.002627 | 13.87% |
| Se 196.026† | 13.9 | 0.00743 | mg/L | 0.009403 | 0.01487 | mg/L | 0.018806 | 126.49% |
| Si 288.158† | 4876.5 | 3.943 | mg/L | 0.0342 | 7.887 | mg/L | 0.0683 | 0.87% |
| Sn 189.927† | -14.6 | -0.00356 | mg/L | 0.001992 | -0.00712 | mg/L | 0.003983 | 55.95% |
| Sr 421.552† | 49482.7 | 0.1087 | mg/L | 0.00086 | 0.2174 | mg/L | 0.00172 | 0.79% |
| Ti 334.903† | 15937.4 | 0.8348 | mg/L | 0.00150 | 1.670 | mg/L | 0.0030 | 0.18% |
| Tl 190.801† | -6.9 | -0.00259 | mg/L | 0.004294 | -0.00519 | mg/L | 0.008587 | 165.58% |
| V 292.402† | 6428.2 | 0.04274 | mg/L | 0.000420 | 0.08549 | mg/L | 0.000840 | 0.98% |
| Zn 206.200† | 677.6 | 0.2660 | mg/L | 0.00253 | 0.5320 | mg/L | 0.00506 | 0.95% |

Sequence No.: 27
Sample ID: UU52 F SWC

Autosampler Location: 41
Date Collected: 5/29/2012 4:56:02 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 F SWC

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

Mean Data: UU52 F SWC

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1846034.5 | 96.46 | % | 0.545 | | | | 0.57% |
| ScR 361.383 | 194812.3 | 99.17 | % | 0.842 | | | | 0.85% |
| Ag 328.068† | -87.9 | 0.00096 | mg/L | 0.000588 | 0.00192 | mg/L | 0.001177 | 61.17% |
| Al 308.215† | 7326.6 | 5.598 | mg/L | 0.0488 | 11.20 | mg/L | 0.098 | 0.87% |
| As 188.979† | 65.4 | 0.04853 | mg/L | 0.000961 | 0.09706 | mg/L | 0.001921 | 1.98% |
| B 249.677† | 133.9 | 0.08000 | mg/L | 0.001413 | 0.1600 | mg/L | 0.00283 | 1.77% |
| Ba 233.527† | 342.3 | 0.04631 | mg/L | 0.000536 | 0.09261 | mg/L | 0.001071 | 1.16% |
| Be 313.042† | 48.6 | 0.00008 | mg/L | 0.000040 | 0.00017 | mg/L | 0.000080 | 48.13% |
| Ca 317.933† | 70764.6 | 6.690 | mg/L | 0.0355 | 13.38 | mg/L | 0.071 | 0.53% |
| Cd 228.802† | 112.9 | 0.00223 | mg/L | 0.000036 | 0.00447 | mg/L | 0.000071 | 1.60% |
| Co 228.616† | 356.1 | 0.00695 | mg/L | 0.000127 | 0.01389 | mg/L | 0.000254 | 1.83% |
| Cr 267.716† | 88.7 | 0.02038 | mg/L | 0.000838 | 0.04077 | mg/L | 0.001676 | 4.11% |
| Cu 324.752† | 49735.7 | 0.2069 | mg/L | 0.00231 | 0.4139 | mg/L | 0.00462 | 1.12% |
| Fe 273.955† | 41395.1 | 34.94 | mg/L | 0.255 | 69.87 | mg/L | 0.510 | 0.73% |
| K 766.490† | 3225.3 | 1.238 | mg/L | 0.0349 | 2.475 | mg/L | 0.0699 | 2.82% |
| Mg 279.077† | 6997.1 | 6.627 | mg/L | 0.0625 | 13.25 | mg/L | 0.125 | 0.94% |
| Mn 257.610† | 8684.1 | 0.2197 | mg/L | 0.00256 | 0.4395 | mg/L | 0.00511 | 1.16% |
| Mo 202.031† | 171.5 | 0.01615 | mg/L | 0.000195 | 0.03231 | mg/L | 0.000390 | 1.21% |
| Na 589.592† | 83956.2 | 12.46 | mg/L | 0.094 | 24.92 | mg/L | 0.188 | 0.76% |
| Na 330.237† | 276.5 | 13.62 | mg/L | 0.163 | 27.23 | mg/L | 0.326 | 1.20% |
| Ni 231.604† | 54.2 | 0.03112 | mg/L | 0.001878 | 0.06225 | mg/L | 0.003757 | 6.03% |
| Pb 220.353† | 6834.7 | 0.9758 | mg/L | 0.00351 | 1.952 | mg/L | 0.0070 | 0.36% |
| Sb 206.836† | 20.8 | 0.02042 | mg/L | 0.007088 | 0.04083 | mg/L | 0.014176 | 34.72% |
| Se 196.026† | 11.6 | 0.00781 | mg/L | 0.006191 | 0.01563 | mg/L | 0.012382 | 79.23% |
| Si 288.158† | 1728.4 | 1.398 | mg/L | 0.0173 | 2.796 | mg/L | 0.0346 | 1.24% |
| Sn 189.927† | 477.5 | 0.1507 | mg/L | 0.00077 | 0.3013 | mg/L | 0.00154 | 0.51% |
| Sr 421.552† | 42965.7 | 0.09438 | mg/L | 0.000502 | 0.1888 | mg/L | 0.00100 | 0.53% |
| Ti 334.903† | 7029.7 | 0.3681 | mg/L | 0.00166 | 0.7362 | mg/L | 0.00331 | 0.45% |
| Tl 190.801† | -5.8 | -0.00100 | mg/L | 0.000966 | -0.00200 | mg/L | 0.001933 | 96.61% |
| V 292.402† | 4555.3 | 0.02927 | mg/L | 0.000301 | 0.05854 | mg/L | 0.000602 | 1.03% |
| Zn 206.200† | 1046.0 | 0.4104 | mg/L | 0.00483 | 0.8207 | mg/L | 0.00966 | 1.18% |

Sequence No.: 28
Sample ID: UU52 G SWC

Autosampler Location: 42
Date Collected: 5/29/2012 5:02:02 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 G SWC

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

Mean Data: UU52 G SWC

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1859189.8 | 97.15 | % | 0.327 | | | | 0.34% |
| ScR 361.383 | 196423.5 | 99.99 | % | 0.635 | | | | 0.64% |
| Ag 328.068† | 53.7 | 0.00116 | mg/L | 0.000171 | 0.00232 | mg/L | 0.000341 | 14.72% |
| Al 308.215† | 9772.2 | 7.466 | mg/L | 0.0560 | 14.93 | mg/L | 0.112 | 0.75% |
| As 188.979† | 102.2 | 0.07827 | mg/L | 0.004980 | 0.1565 | mg/L | 0.00996 | 6.36% |
| B 249.677† | 69.1 | 0.04133 | mg/L | 0.001584 | 0.08266 | mg/L | 0.003167 | 3.83% |
| Ba 233.527† | 365.7 | 0.05000 | mg/L | 0.000713 | 0.10000 | mg/L | 0.001427 | 1.43% |
| Be 313.042† | 69.3 | 0.00010 | mg/L | 0.000028 | 0.00020 | mg/L | 0.000055 | 27.92% |
| Ca 317.933† | 69881.1 | 6.607 | mg/L | 0.0121 | 13.21 | mg/L | 0.024 | 0.18% |
| Cd 228.802† | 116.4 | 0.00225 | mg/L | 0.000053 | 0.00451 | mg/L | 0.000106 | 2.34% |
| Co 228.616† | 229.2 | 0.00412 | mg/L | 0.000034 | 0.00825 | mg/L | 0.000068 | 0.82% |
| Cr 267.716† | 76.9 | 0.01751 | mg/L | 0.001320 | 0.03502 | mg/L | 0.002640 | 7.54% |
| Cu 324.752† | 22875.6 | 0.09564 | mg/L | 0.000234 | 0.1913 | mg/L | 0.00047 | 0.24% |
| Fe 273.955† | 26116.7 | 22.04 | mg/L | 0.046 | 44.08 | mg/L | 0.092 | 0.21% |
| K 766.490† | 3353.4 | 1.287 | mg/L | 0.0412 | 2.574 | mg/L | 0.0824 | 3.20% |
| Mg 279.077† | 6493.0 | 6.156 | mg/L | 0.0467 | 12.31 | mg/L | 0.093 | 0.76% |
| Mn 257.610† | 3763.6 | 0.09518 | mg/L | 0.000760 | 0.1904 | mg/L | 0.00152 | 0.80% |
| Mo 202.031† | 295.3 | 0.02853 | mg/L | 0.000239 | 0.05706 | mg/L | 0.000478 | 0.84% |
| Na 589.592† | 78083.2 | 11.59 | mg/L | 0.026 | 23.18 | mg/L | 0.053 | 0.23% |
| Na 330.237† | 257.9 | 12.77 | mg/L | 0.349 | 25.54 | mg/L | 0.697 | 2.73% |
| Ni 231.604† | 63.1 | 0.03511 | mg/L | 0.002510 | 0.07022 | mg/L | 0.005019 | 7.15% |
| Pb 220.353† | 2687.0 | 0.3853 | mg/L | 0.00140 | 0.7706 | mg/L | 0.00281 | 0.36% |
| Sb 206.836† | -8.8 | -0.00409 | mg/L | 0.005131 | -0.00819 | mg/L | 0.010262 | 125.31% |
| Se 196.026† | 14.2 | 0.01200 | mg/L | 0.001714 | 0.02400 | mg/L | 0.003428 | 14.29% |
| Si 288.158† | 1313.7 | 1.063 | mg/L | 0.0140 | 2.126 | mg/L | 0.0279 | 1.31% |
| Sn 189.927† | 2.0 | 0.00113 | mg/L | 0.000538 | 0.00227 | mg/L | 0.001077 | 47.50% |
| Sr 421.552† | 53863.2 | 0.1183 | mg/L | 0.00026 | 0.2366 | mg/L | 0.00052 | 0.22% |
| Ti 334.903† | 8447.5 | 0.4424 | mg/L | 0.00222 | 0.8848 | mg/L | 0.00444 | 0.50% |
| Tl 190.801† | -3.2 | -0.00075 | mg/L | 0.002595 | -0.00150 | mg/L | 0.005190 | 345.77% |
| V 292.402† | 7610.7 | 0.05362 | mg/L | 0.000484 | 0.1072 | mg/L | 0.00097 | 0.90% |
| Zn 206.200† | 583.0 | 0.2288 | mg/L | 0.00255 | 0.4576 | mg/L | 0.00509 | 1.11% |

Sequence No.: 29
Sample ID: UU62 MB1SPK TWC

Autosampler Location: 43
Date Collected: 5/29/2012 5:08:03 PM
Data Type: Original

Dilution: 1X

**Nebulizer Parameters: UU62 MB1SPK TWC**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

**Mean Data: UU62 MB1SPK TWC**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1838001.3 | 96.04 | % | 0.765 | | | | 0.80% |
| ScR 361.383 | 196955.8 | 100.3 | % | 0.71 | | | | 0.71% |
| Ag 328.068† | 105655.8 | 0.5145 | mg/L | 0.00336 | 0.5145 | mg/L | 0.00336 | 0.65% |
| Al 308.215† | 2804.9 | 2.135 | mg/L | 0.0108 | 2.135 | mg/L | 0.0108 | 0.51% |
| As 188.979† | 2720.8 | 2.136 | mg/L | 0.0170 | 2.136 | mg/L | 0.0170 | 0.79% |
| B 249.677† | -4.2 | -0.00424 | mg/L | 0.002051 | -0.00424 | mg/L | 0.002051 | 48.41% |
| Ba 233.527† | 13936.5 | 1.936 | mg/L | 0.0075 | 1.936 | mg/L | 0.0075 | 0.39% |
| Be 313.042† | 147647.1 | 0.5259 | mg/L | 0.00204 | 0.5259 | mg/L | 0.00204 | 0.39% |
| Ca 317.933† | 115435.7 | 10.91 | mg/L | 0.032 | 10.91 | mg/L | 0.032 | 0.29% |
| Cd 228.802† | 25715.7 | 0.5235 | mg/L | 0.00432 | 0.5235 | mg/L | 0.00432 | 0.83% |
| Co 228.616† | 23914.4 | 0.5082 | mg/L | 0.00386 | 0.5082 | mg/L | 0.00386 | 0.76% |
| Cr 267.716† | 2242.4 | 0.5075 | mg/L | 0.00518 | 0.5075 | mg/L | 0.00518 | 1.02% |
| Cu 324.752† | 125855.3 | 0.5164 | mg/L | 0.00328 | 0.5164 | mg/L | 0.00328 | 0.64% |
| Fe 273.955† | 2541.8 | 2.145 | mg/L | 0.0109 | 2.145 | mg/L | 0.0109 | 0.51% |
| K 766.490† | 28722.9 | 11.02 | mg/L | 0.036 | 11.02 | mg/L | 0.036 | 0.32% |
| Mg 279.077† | 11544.8 | 10.97 | mg/L | 0.038 | 10.97 | mg/L | 0.038 | 0.35% |
| Mn 257.610† | 19484.4 | 0.4931 | mg/L | 0.00205 | 0.4931 | mg/L | 0.00205 | 0.42% |
| Mo 202.031† | 37.0 | 0.00314 | mg/L | 0.000177 | 0.00314 | mg/L | 0.000177 | 5.65% |
| Na 589.592† | 69554.0 | 10.32 | mg/L | 0.019 | 10.32 | mg/L | 0.019 | 0.18% |
| Na 330.237† | 233.5 | 11.35 | mg/L | 0.423 | 11.35 | mg/L | 0.423 | 3.72% |
| Ni 231.604† | 911.8 | 0.4871 | mg/L | 0.00537 | 0.4871 | mg/L | 0.00537 | 1.10% |
| Pb 220.353† | 14607.4 | 2.083 | mg/L | 0.0169 | 2.083 | mg/L | 0.0169 | 0.81% |
| Sb 206.836† | -16.2 | -0.01748 | mg/L | 0.000641 | -0.01748 | mg/L | 0.000641 | 3.67% |
| Se 196.026† | 1732.2 | 2.080 | mg/L | 0.0219 | 2.080 | mg/L | 0.0219 | 1.05% |
| Si 288.158† | -1.8 | 0.00293 | mg/L | 0.006685 | 0.00293 | mg/L | 0.006685 | 227.76% |
| Sn 189.927† | -14.6 | -0.00402 | mg/L | 0.001067 | -0.00402 | mg/L | 0.001067 | 26.52% |
| Sr 421.552† | 234835.1 | 0.5158 | mg/L | 0.00107 | 0.5158 | mg/L | 0.00107 | 0.21% |
| Ti 334.903† | 6.4 | -0.00015 | mg/L | 0.000413 | -0.00015 | mg/L | 0.000413 | 273.44% |
| Tl 190.801† | 3290.4 | 2.036 | mg/L | 0.0104 | 2.036 | mg/L | 0.0104 | 0.51% |
| V 292.402† | 70857.8 | 0.5297 | mg/L | 0.00372 | 0.5297 | mg/L | 0.00372 | 0.70% |
| Zn 206.200† | 1266.2 | 0.4966 | mg/L | 0.00316 | 0.4966 | mg/L | 0.00316 | 0.64% |

Sequence No.: 30
Sample ID: CV 4
Dilution: 1X

Autosampler Location: 7
Date Collected: 5/29/2012 5:14:06 PM
Data Type: Original

Nebulizer Parameters: CV

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

Mean Data: CV

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1819935.2 | 95.10 | % | 0.537 | | | | 0.56% |
| ScR 361.383 | 192731.1 | 98.11 | % | 3.367 | | | | 3.43% |
| Ag 328.068† | 202766.5 | 0.9872 | mg/L | 0.00282 | 0.9872 | mg/L | 0.00282 | 0.29% |
| Al 308.215† | 2776.7 | 2.082 | mg/L | 0.0671 | 2.082 | mg/L | 0.0671 | 3.22% |
| As 188.979† | 2620.4 | 2.057 | mg/L | 0.0116 | 2.057 | mg/L | 0.0116 | 0.56% |
| B 249.677† | 1632.3 | 0.9739 | mg/L | 0.02071 | 0.9739 | mg/L | 0.02071 | 2.13% |
| Ba 233.527† | 7013.7 | 0.9741 | mg/L | 0.03103 | 0.9741 | mg/L | 0.03103 | 3.19% |
| Be 313.042† | 276140.7 | 0.9835 | mg/L | 0.02945 | 0.9835 | mg/L | 0.02945 | 2.99% |
| Ca 317.933† | 21728.0 | 2.054 | mg/L | 0.0661 | 2.054 | mg/L | 0.0661 | 3.22% |
| Cd 228.802† | 49491.6 | 1.011 | mg/L | 0.0043 | 1.011 | mg/L | 0.0043 | 0.42% |
| Co 228.616† | 45713.8 | 0.9708 | mg/L | 0.00194 | 0.9708 | mg/L | 0.00194 | 0.20% |
| Cr 267.716† | 4273.5 | 0.9678 | mg/L | 0.03185 | 0.9678 | mg/L | 0.03185 | 3.29% |
| Cu 324.752† | 251802.7 | 1.033 | mg/L | 0.0012 | 1.033 | mg/L | 0.0012 | 0.12% |
| Fe 273.955† | 2498.4 | 2.108 | mg/L | 0.0698 | 2.108 | mg/L | 0.0698 | 3.31% |
| K 766.490† | 54853.7 | 21.05 | mg/L | 0.646 | 21.05 | mg/L | 0.646 | 3.07% |
| Mg 279.077† | 2240.5 | 2.132 | mg/L | 0.0609 | 2.132 | mg/L | 0.0609 | 2.86% |
| Mn 257.610† | 38981.0 | 0.9860 | mg/L | 0.03030 | 0.9860 | mg/L | 0.03030 | 3.07% |
| Mo 202.031† | 10377.1 | 1.025 | mg/L | 0.0071 | 1.025 | mg/L | 0.0071 | 0.69% |
| Na 589.592† | 340382.5 | 50.51 | mg/L | 1.470 | 50.51 | mg/L | 1.470 | 2.91% |
| Na 330.237† | 1081.0 | 53.44 | mg/L | 1.599 | 53.44 | mg/L | 1.599 | 2.99% |
| Ni 231.604† | 1854.4 | 0.9932 | mg/L | 0.03223 | 0.9932 | mg/L | 0.03223 | 3.24% |
| Pb 220.353† | 13771.2 | 1.965 | mg/L | 0.0119 | 1.965 | mg/L | 0.0119 | 0.61% |
| Sb 206.836† | 2791.6 | 2.259 | mg/L | 0.0132 | 2.259 | mg/L | 0.0132 | 0.58% |
| Se 196.026† | 1662.7 | 1.996 | mg/L | 0.0099 | 1.996 | mg/L | 0.0099 | 0.50% |
| Si 288.158† | 2893.2 | 2.345 | mg/L | 0.0838 | 2.345 | mg/L | 0.0838 | 3.57% |
| Sn 189.927† | 3076.1 | 0.9687 | mg/L | 0.00546 | 0.9687 | mg/L | 0.00546 | 0.56% |
| Sr 421.552† | 456366.3 | 1.002 | mg/L | 0.0259 | 1.002 | mg/L | 0.0259 | 2.59% |
| Ti 334.903† | 20222.2 | 1.058 | mg/L | 0.0310 | 1.058 | mg/L | 0.0310 | 2.93% |
| Tl 190.801† | 3222.5 | 1.987 | mg/L | 0.0145 | 1.987 | mg/L | 0.0145 | 0.73% |
| V 292.402† | 134063.9 | 1.008 | mg/L | 0.0033 | 1.008 | mg/L | 0.0033 | 0.32% |
| Zn 206.200† | 2647.0 | 1.037 | mg/L | 0.0331 | 1.037 | mg/L | 0.0331 | 3.19% |

Sequence No.: 31
Sample ID: CB
Dilution: 1X

Autosampler Location: 1
Date Collected: 5/29/2012 5:19:54 PM
Data Type: Original

Nebulizer Parameters: CB

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

Mean Data: CB

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1859153.4 | 97.15 | % | 0.560 | | | | 0.58% |
| ScR 361.383 | 191092.7 | 97.28 | % | 1.341 | | | | 1.38% |
| Ag 328.068† | 43.7 | 0.00021 | mg/L | 0.000090 | 0.00021 | mg/L | 0.000090 | 42.26% |
| Al 308.215† | -0.4 | -0.00033 | mg/L | 0.007737 | -0.00033 | mg/L | 0.007737 | >999.9% |
| As 188.979† | -0.5 | -0.00042 | mg/L | 0.000378 | -0.00042 | mg/L | 0.000378 | 89.59% |
| B 249.677† | 1.5 | 0.00087 | mg/L | 0.001362 | 0.00087 | mg/L | 0.001362 | 155.93% |
| Ba 233.527† | 2.3 | 0.00032 | mg/L | 0.000327 | 0.00032 | mg/L | 0.000327 | 101.95% |
| Be 313.042† | 49.3 | 0.00018 | mg/L | 0.000075 | 0.00018 | mg/L | 0.000075 | 42.74% |
| Ca 317.933† | 14.0 | 0.00132 | mg/L | 0.000908 | 0.00132 | mg/L | 0.000908 | 68.80% |
| Cd 228.802† | -3.0 | -0.00006 | mg/L | 0.000133 | -0.00006 | mg/L | 0.000133 | 213.36% |
| Co 228.616† | 0.9 | 0.00002 | mg/L | 0.000134 | 0.00002 | mg/L | 0.000134 | 779.66% |
| Cr 267.716† | -3.3 | -0.00074 | mg/L | 0.000575 | -0.00074 | mg/L | 0.000575 | 77.80% |
| Cu 324.752† | -29.4 | -0.00012 | mg/L | 0.000263 | -0.00012 | mg/L | 0.000263 | 217.79% |
| Fe 273.955† | 1.1 | 0.00097 | mg/L | 0.001733 | 0.00097 | mg/L | 0.001733 | 178.84% |
| K 766.490† | 98.4 | 0.03777 | mg/L | 0.012731 | 0.03777 | mg/L | 0.012731 | 33.71% |
| Mg 279.077† | -2.6 | -0.00243 | mg/L | 0.001327 | -0.00243 | mg/L | 0.001327 | 54.66% |
| Mn 257.610† | 9.1 | 0.00023 | mg/L | 0.000062 | 0.00023 | mg/L | 0.000062 | 26.93% |
| Mo 202.031† | 4.8 | 0.00048 | mg/L | 0.000441 | 0.00048 | mg/L | 0.000441 | 92.67% |
| Na 589.592† | 192.7 | 0.02860 | mg/L | 0.007451 | 0.02860 | mg/L | 0.007451 | 26.06% |
| Na 330.237† | 3.4 | 0.1693 | mg/L | 0.17848 | 0.1693 | mg/L | 0.17848 | 105.42% |
| Ni 231.604† | -6.2 | -0.00331 | mg/L | 0.001906 | -0.00331 | mg/L | 0.001906 | 57.57% |
| Pb 220.353† | 7.0 | 0.00099 | mg/L | 0.000662 | 0.00099 | mg/L | 0.000662 | 66.59% |
| Sb 206.836† | -2.7 | -0.00213 | mg/L | 0.002808 | -0.00213 | mg/L | 0.002808 | 132.05% |
| Se 196.026† | -0.0 | -0.00001 | mg/L | 0.005595 | -0.00001 | mg/L | 0.005595 | >999.9% |
| Si 288.158† | 1.9 | 0.00153 | mg/L | 0.004323 | 0.00153 | mg/L | 0.004323 | 282.93% |
| Sn 189.927† | 3.6 | 0.00114 | mg/L | 0.000278 | 0.00114 | mg/L | 0.000278 | 24.37% |
| Sr 421.552† | 88.2 | 0.00019 | mg/L | 0.000143 | 0.00019 | mg/L | 0.000143 | 73.85% |
| Ti 334.903† | 18.9 | 0.00099 | mg/L | 0.000687 | 0.00099 | mg/L | 0.000687 | 69.39% |
| Tl 190.801† | 4.9 | 0.00308 | mg/L | 0.000442 | 0.00308 | mg/L | 0.000442 | 14.37% |
| V 292.402† | -4.8 | -0.00004 | mg/L | 0.000183 | -0.00004 | mg/L | 0.000183 | 473.71% |
| Zn 206.200† | -3.2 | -0.00123 | mg/L | 0.000676 | -0.00123 | mg/L | 0.000676 | 54.79% |

Sequence No.: 32
Sample ID: UU94 MB WMN

Autosampler Location: 44
Date Collected: 5/29/2012 5:25:52 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: UU94 MB WMN

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

Mean Data: UU94 MB WMN

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1899128.2 | 99.24 | % | 0.142 | | | | 0.14% |
| ScR 361.383 | 202409.1 | 103.0 | % | 0.97 | | | | 0.94% |
| Ag 328.068† | -12.8 | -0.00006 | mg/L | 0.000234 | -0.00006 | mg/L | 0.000234 | 376.79% |
| Al 308.215† | 2.1 | 0.00161 | mg/L | 0.007662 | 0.00161 | mg/L | 0.007662 | 475.89% |
| As 188.979† | -1.2 | -0.00092 | mg/L | 0.002390 | -0.00092 | mg/L | 0.002390 | 258.42% |
| B 249.677† | 6.6 | 0.00393 | mg/L | 0.002847 | 0.00393 | mg/L | 0.002847 | 72.35% |
| Ba 233.527† | 4.5 | 0.00063 | mg/L | 0.000224 | 0.00063 | mg/L | 0.000224 | 35.65% |
| Be 313.042† | 10.6 | 0.00004 | mg/L | 0.000032 | 0.00004 | mg/L | 0.000032 | 84.66% |
| Ca 317.933† | 61.7 | 0.00584 | mg/L | 0.000893 | 0.00584 | mg/L | 0.000893 | 15.30% |
| Cd 228.802† | -4.2 | -0.00008 | mg/L | 0.000102 | -0.00008 | mg/L | 0.000102 | 122.69% |
| Co 228.616† | 14.3 | 0.00030 | mg/L | 0.000197 | 0.00030 | mg/L | 0.000197 | 65.14% |
| Cr 267.716† | -8.6 | -0.00195 | mg/L | 0.001276 | -0.00195 | mg/L | 0.001276 | 65.57% |
| Cu 324.752† | 7.7 | 0.00003 | mg/L | 0.000105 | 0.00003 | mg/L | 0.000105 | 328.49% |
| Fe 273.955† | 3.3 | 0.00277 | mg/L | 0.001305 | 0.00277 | mg/L | 0.001305 | 47.09% |
| K 766.490† | 32.4 | 0.01244 | mg/L | 0.016086 | 0.01244 | mg/L | 0.016086 | 129.35% |
| Mg 279.077† | 1.0 | 0.00091 | mg/L | 0.003664 | 0.00091 | mg/L | 0.003664 | 402.25% |
| Mn 257.610† | -8.3 | -0.00021 | mg/L | 0.000126 | -0.00021 | mg/L | 0.000126 | 60.41% |
| Mo 202.031† | 2.2 | 0.00022 | mg/L | 0.000440 | 0.00022 | mg/L | 0.000440 | 200.56% |
| Na 589.592† | 536.5 | 0.07963 | mg/L | 0.013499 | 0.07963 | mg/L | 0.013499 | 16.95% |
| Na 330.237† | 12.9 | 0.6376 | mg/L | 0.51257 | 0.6376 | mg/L | 0.51257 | 80.38% |
| Ni 231.604† | 7.4 | 0.00396 | mg/L | 0.002285 | 0.00396 | mg/L | 0.002285 | 57.67% |
| Pb 220.353† | -6.5 | -0.00094 | mg/L | 0.001340 | -0.00094 | mg/L | 0.001340 | 142.98% |
| Sb 206.836† | -3.2 | -0.00255 | mg/L | 0.003603 | -0.00255 | mg/L | 0.003603 | 141.17% |
| Se 196.026† | 1.6 | 0.00195 | mg/L | 0.000692 | 0.00195 | mg/L | 0.000692 | 35.41% |
| Si 288.158† | -3.3 | -0.00264 | mg/L | 0.006587 | -0.00264 | mg/L | 0.006587 | 249.60% |
| Sn 189.927† | -2.8 | -0.00088 | mg/L | 0.000722 | -0.00088 | mg/L | 0.000722 | 82.37% |
| Sr 421.552† | -19.0 | -0.00004 | mg/L | 0.000149 | -0.00004 | mg/L | 0.000149 | 356.34% |
| Ti 334.903† | 10.6 | 0.00056 | mg/L | 0.000700 | 0.00056 | mg/L | 0.000700 | 125.87% |
| Tl 190.801† | -2.2 | -0.00140 | mg/L | 0.001887 | -0.00140 | mg/L | 0.001887 | 135.09% |
| V 292.402† | -14.4 | -0.00012 | mg/L | 0.000232 | -0.00012 | mg/L | 0.000232 | 193.34% |
| Zn 206.200† | 9.7 | 0.00380 | mg/L | 0.001224 | 0.00380 | mg/L | 0.001224 | 32.23% |

Sequence No.: 33
Sample ID: UU94 B WMN

Autosampler Location: 45
Date Collected: 5/29/2012 5:31:52 PM
Data Type: Original

Dilution: 1X

rerun

Nebulizer Parameters: UU94 B WMN

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

Mean Data: UU94 B WMN

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1887108.2 | 98.61 | % | 0.623 | | | | 0.63% |
| ScR 361.383 | 207644.6 | 105.7 | % | 2.08 | | | | 1.97% |
| Ag 328.068† | -61.9 | 0.00005 | mg/L | 0.000104 | 0.00005 | mg/L | 0.000104 | 223.04% |
| Al 308.215† | 9103.0 | 6.955 | mg/L | 0.2050 | 6.955 | mg/L | 0.2050 | 2.95% |
| As 188.979† | 30.8 | 0.02257 | mg/L | 0.002069 | 0.02257 | mg/L | 0.002069 | 9.17% |
| B 249.677† | 161.1 | 0.09628 | mg/L | 0.001999 | 0.09628 | mg/L | 0.001999 | 2.08% |
| Ba 233.527† | 369.5 | 0.05098 | mg/L | 0.001431 | 0.05098 | mg/L | 0.001431 | 2.81% |
| Be 313.042† | 129.1 | 0.00030 | mg/L | 0.000069 | 0.00030 | mg/L | 0.000069 | 22.75% |
| Ca 317.933† | 126197.1 | 11.93 | mg/L | 0.408 | 11.93 | mg/L | 0.408 | 3.42% |
| Cd 228.802† | 7.5 | 0.00012 | mg/L | 0.000019 | 0.00012 | mg/L | 0.000019 | 15.87% |
| Co 228.616† | 541.9 | 0.01140 | mg/L | 0.000099 | 0.01140 | mg/L | 0.000099 | 0.87% |
| Cr 267.716† | 44.4 | 0.00985 | mg/L | 0.001034 | 0.00985 | mg/L | 0.001034 | 10.50% |
| Cu 324.752† | 15720.4 | 0.06526 | mg/L | 0.000532 | 0.06526 | mg/L | 0.000532 | 0.82% |
| Fe 273.955† | 10953.9 | 9.244 | mg/L | 0.3441 | 9.244 | mg/L | 0.3441 | 3.72% |
| K 766.490† | 9445.4 | 3.625 | mg/L | 0.1549 | 3.625 | mg/L | 0.1549 | 4.27% |
| Mg 279.077† | 5663.8 | 5.376 | mg/L | 0.1763 | 5.376 | mg/L | 0.1763 | 3.28% |
| Mn 257.610† | 8907.1 | 0.2251 | mg/L | 0.00712 | 0.2251 | mg/L | 0.00712 | 3.16% |
| Mo 202.031† | 248.9 | 0.02400 | mg/L | 0.000522 | 0.02400 | mg/L | 0.000522 | 2.17% |
| Na 589.592† | 419965.0 | 62.32 | mg/L | 1.355 | 62.32 | mg/L | 1.355 | 2.17% |
| Na 330.237† | 1352.0 | 66.93 | mg/L | 2.653 | 66.93 | mg/L | 2.653 | 3.96% |
| Ni 231.604† | 47.3 | 0.02586 | mg/L | 0.001417 | 0.02586 | mg/L | 0.001417 | 5.48% |
| Pb 220.353† | 50.8 | 0.00942 | mg/L | 0.000812 | 0.00942 | mg/L | 0.000812 | 8.62% |
| Sb 206.836† | -10.9 | -0.00636 | mg/L | 0.003234 | -0.00636 | mg/L | 0.003234 | 50.84% |
| Se 196.026† | 7.9 | 0.00579 | mg/L | 0.001213 | 0.00579 | mg/L | 0.001213 | 20.96% |
| Si 288.158† | 36722.6 | 29.68 | mg/L | 0.932 | 29.68 | mg/L | 0.932 | 3.14% |
| Sn 189.927† | -15.8 | -0.00466 | mg/L | 0.000752 | -0.00466 | mg/L | 0.000752 | 16.14% |
| Sr 421.552† | 52431.5 | 0.1152 | mg/L | 0.00267 | 0.1152 | mg/L | 0.00267 | 2.32% |
| Ti 334.903† | 1340.8 | 0.06984 | mg/L | 0.001578 | 0.06984 | mg/L | 0.001578 | 2.26% |
| Tl 190.801† | -3.7 | -0.00228 | mg/L | 0.002652 | -0.00228 | mg/L | 0.002652 | 116.54% |
| V 292.402† | 8571.7 | 0.06266 | mg/L | 0.000546 | 0.06266 | mg/L | 0.000546 | 0.87% |
| Zn 206.200† | 164.2 | 0.06466 | mg/L | 0.001080 | 0.06466 | mg/L | 0.001080 | 1.67% |

Sequence No.: 34
Sample ID: UU94 C WMN

Autosampler Location: 46
Date Collected: 5/29/2012 5:38:10 PM
Data Type: Original

Dilution: 1X

**Nebulizer Parameters: UU94 C WMN**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

**Mean Data: UU94 C WMN**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1890300.8 | 98.78 | % | 0.652 | | | | 0.66% |
| ScR 361.383 | 201610.5 | 102.6 | % | 1.41 | | | | 1.37% |
| Ag 328.068† | -25.9 | -0.00002 | mg/L | 0.000087 | -0.00002 | mg/L | 0.000087 | 477.16% |
| Al 308.215† | 4339.9 | 3.314 | mg/L | 0.0344 | 3.314 | mg/L | 0.0344 | 1.04% |
| As 188.979† | 23.6 | 0.01806 | mg/L | 0.001918 | 0.01806 | mg/L | 0.001918 | 10.62% |
| B 249.677† | 82.6 | 0.04937 | mg/L | 0.002092 | 0.04937 | mg/L | 0.002092 | 4.24% |
| Ba 233.527† | 48.3 | 0.00659 | mg/L | 0.000262 | 0.00659 | mg/L | 0.000262 | 3.98% |
| Be 313.042† | 129.8 | 0.00013 | mg/L | 0.000054 | 0.00013 | mg/L | 0.000054 | 40.51% |
| Ca 317.933† | 30065.5 | 2.842 | mg/L | 0.0011 | 2.842 | mg/L | 0.0011 | 0.04% |
| Cd 228.802† | -14.1 | -0.00032 | mg/L | 0.000055 | -0.00032 | mg/L | 0.000055 | 17.31% |
| Co 228.616† | 37.1 | 0.00071 | mg/L | 0.000162 | 0.00071 | mg/L | 0.000162 | 22.93% |
| Cr 267.716† | 34.0 | 0.00766 | mg/L | 0.000653 | 0.00766 | mg/L | 0.000653 | 8.53% |
| Cu 324.752† | 3238.0 | 0.01343 | mg/L | 0.000537 | 0.01343 | mg/L | 0.000537 | 4.00% |
| Fe 273.955† | 2252.2 | 1.901 | mg/L | 0.0314 | 1.901 | mg/L | 0.0314 | 1.65% |
| K 766.490† | 6601.3 | 2.533 | mg/L | 0.0304 | 2.533 | mg/L | 0.0304 | 1.20% |
| Mg 279.077† | 778.7 | 0.7387 | mg/L | 0.01409 | 0.7387 | mg/L | 0.01409 | 1.91% |
| Mn 257.610† | 481.5 | 0.01215 | mg/L | 0.000235 | 0.01215 | mg/L | 0.000235 | 1.93% |
| Mo 202.031† | 154.3 | 0.01509 | mg/L | 0.000180 | 0.01509 | mg/L | 0.000180 | 1.19% |
| Na 589.592† | 877458.8 | 130.2 | mg/L | 1.77 | 130.2 | mg/L | 1.77 | 1.36% |
| Na 330.237† | 2821.0 | 139.8 | mg/L | 1.42 | 139.8 | mg/L | 1.42 | 1.01% |
| Ni 231.604† | 16.9 | 0.00918 | mg/L | 0.000609 | 0.00918 | mg/L | 0.000609 | 6.63% |
| Pb 220.353† | -2.6 | 0.00070 | mg/L | 0.000965 | 0.00070 | mg/L | 0.000965 | 138.15% |
| Sb 206.836† | -8.3 | -0.00537 | mg/L | 0.004067 | -0.00537 | mg/L | 0.004067 | 75.73% |
| Se 196.026† | 12.5 | 0.01375 | mg/L | 0.008770 | 0.01375 | mg/L | 0.008770 | 63.79% |
| Si 288.158† | 78668.4 | 63.57 | mg/L | 0.547 | 63.57 | mg/L | 0.547 | 0.86% |
| Sn 189.927† | -12.2 | -0.00377 | mg/L | 0.001044 | -0.00377 | mg/L | 0.001044 | 27.72% |
| Sr 421.552† | 8547.8 | 0.01878 | mg/L | 0.000026 | 0.01878 | mg/L | 0.000026 | 0.14% |
| Ti 334.903† | 953.2 | 0.04984 | mg/L | 0.001000 | 0.04984 | mg/L | 0.001000 | 2.01% |
| Tl 190.801† | -2.2 | -0.00199 | mg/L | 0.001143 | -0.00199 | mg/L | 0.001143 | 57.52% |
| V 292.402† | 17806.2 | 0.1321 | mg/L | 0.00182 | 0.1321 | mg/L | 0.00182 | 1.38% |
| Zn 206.200† | -1.3 | -0.00044 | mg/L | 0.000587 | -0.00044 | mg/L | 0.000587 | 132.88% |

Sequence No.: 35
Sample ID: UU94 ADUP WMN

Autosampler Location: 47
Date Collected: 5/29/2012 5:44:29 PM
Data Type: Original

Dilution: 1X

**Nebulizer Parameters: UU94 ADUP WMN**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

**Mean Data: UU94 ADUP WMN**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1906596.5 | 99.63 | % | 0.708 | | | | 0.71% |
| ScR 361.383 | 206043.0 | 104.9 | % | 0.81 | | | | 0.77% |
| Ag 328.068† | -104.3 | -0.00016 | mg/L | 0.000314 | -0.00016 | mg/L | 0.000314 | 194.67% |
| Al 308.215† | 9675.5 | 7.391 | mg/L | 0.0912 | 7.391 | mg/L | 0.0912 | 1.23% |
| As 188.979† | 11.1 | 0.00733 | mg/L | 0.002349 | 0.00733 | mg/L | 0.002349 | 32.04% |
| B 249.677† | 83.6 | 0.04999 | mg/L | 0.003571 | 0.04999 | mg/L | 0.003571 | 7.14% |
| Ba 233.527† | 367.0 | 0.05064 | mg/L | 0.000695 | 0.05064 | mg/L | 0.000695 | 1.37% |
| Be 313.042† | 399.4 | 0.00091 | mg/L | 0.000058 | 0.00091 | mg/L | 0.000058 | 6.38% |
| Ca 317.933† | 91750.7 | 8.674 | mg/L | 0.1388 | 8.674 | mg/L | 0.1388 | 1.60% |
| Cd 228.802† | -7.8 | -0.00017 | mg/L | 0.000069 | -0.00017 | mg/L | 0.000069 | 40.20% |
| Co 228.616† | 230.4 | 0.00474 | mg/L | 0.000077 | 0.00474 | mg/L | 0.000077 | 1.64% |
| Cr 267.716† | 66.1 | 0.01487 | mg/L | 0.001007 | 0.01487 | mg/L | 0.001007 | 6.77% |
| Cu 324.752† | 6866.0 | 0.02879 | mg/L | 0.000185 | 0.02879 | mg/L | 0.000185 | 0.64% |
| Fe 273.955† | 8858.7 | 7.476 | mg/L | 0.0903 | 7.476 | mg/L | 0.0903 | 1.21% |
| K 766.490† | 8547.8 | 3.280 | mg/L | 0.0456 | 3.280 | mg/L | 0.0456 | 1.39% |
| Mg 279.077† | 3675.0 | 3.487 | mg/L | 0.0240 | 3.487 | mg/L | 0.0240 | 0.69% |
| Mn 257.610† | 1964.7 | 0.04961 | mg/L | 0.000387 | 0.04961 | mg/L | 0.000387 | 0.78% |
| Mo 202.031† | 129.8 | 0.01235 | mg/L | 0.000254 | 0.01235 | mg/L | 0.000254 | 2.06% |
| Na 589.592† | 720101.7 | 106.9 | mg/L | 0.63 | 106.9 | mg/L | 0.63 | 0.59% |
| Na 330.237† | 2333.0 | 115.6 | mg/L | 2.23 | 115.6 | mg/L | 2.23 | 1.93% |
| Ni 231.604† | 29.9 | 0.01645 | mg/L | 0.000217 | 0.01645 | mg/L | 0.000217 | 1.32% |
| Pb 220.353† | 7.3 | 0.00340 | mg/L | 0.000776 | 0.00340 | mg/L | 0.000776 | 22.80% |
| Sb 206.836† | -14.5 | -0.00876 | mg/L | 0.002359 | -0.00876 | mg/L | 0.002359 | 26.93% |
| Se 196.026† | 8.4 | 0.00673 | mg/L | 0.008614 | 0.00673 | mg/L | 0.008614 | 127.99% |
| Si 288.158† | 47585.8 | 38.46 | mg/L | 0.477 | 38.46 | mg/L | 0.477 | 1.24% |
| Sn 189.927† | -13.9 | -0.00415 | mg/L | 0.001151 | -0.00415 | mg/L | 0.001151 | 27.72% |
| Sr 421.552† | 36654.7 | 0.08051 | mg/L | 0.000725 | 0.08051 | mg/L | 0.000725 | 0.90% |
| Ti 334.903† | 1698.5 | 0.08870 | mg/L | 0.000422 | 0.08870 | mg/L | 0.000422 | 0.48% |
| Tl 190.801† | -0.7 | -0.00106 | mg/L | 0.002722 | -0.00106 | mg/L | 0.002722 | 257.75% |
| V 292.402† | 27645.2 | 0.2045 | mg/L | 0.00228 | 0.2045 | mg/L | 0.00228 | 1.11% |
| Zn 206.200† | 63.4 | 0.02506 | mg/L | 0.000290 | 0.02506 | mg/L | 0.000290 | 1.16% |

Sequence No.: 36
Sample ID: UU94 A WMN

Dilution: 1X

Autosampler Location: 48
Date Collected: 5/29/2012 5:50:49 PM
Data Type: Original

Nebulizer Parameters: UU94 A WMN

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

Mean Data: UU94 A WMN

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1892723.9 | 98.90 | % | 1.066 | | | | 1.08% |
| ScR 361.383 | 203049.1 | 103.4 | % | 0.64 | | | | 0.62% |
| Ag 328.068† | -107.2 | -0.00017 | mg/L | 0.000151 | -0.00017 | mg/L | 0.000151 | 89.59% |
| Al 308.215† | 9950.4 | 7.601 | mg/L | 0.0608 | 7.601 | mg/L | 0.0608 | 0.80% |
| As 188.979† | 4.8 | 0.00229 | mg/L | 0.001627 | 0.00229 | mg/L | 0.001627 | 71.12% |
| B 249.677† | 88.0 | 0.05262 | mg/L | 0.004834 | 0.05262 | mg/L | 0.004834 | 9.19% |
| Ba 233.527† | 368.0 | 0.05077 | mg/L | 0.000707 | 0.05077 | mg/L | 0.000707 | 1.39% |
| Be 313.042† | 422.4 | 0.00100 | mg/L | 0.000032 | 0.00100 | mg/L | 0.000032 | 3.17% |
| Ca 317.933† | 92804.0 | 8.774 | mg/L | 0.0558 | 8.774 | mg/L | 0.0558 | 0.64% |
| Cd 228.802† | -8.5 | -0.00018 | mg/L | 0.000055 | -0.00018 | mg/L | 0.000055 | 31.18% |
| Co 228.616† | 234.3 | 0.00482 | mg/L | 0.000051 | 0.00482 | mg/L | 0.000051 | 1.06% |
| Cr 267.716† | 64.3 | 0.01447 | mg/L | 0.000452 | 0.01447 | mg/L | 0.000452 | 3.13% |
| Cu 324.752† | 6981.1 | 0.02928 | mg/L | 0.000432 | 0.02928 | mg/L | 0.000432 | 1.47% |
| Fe 273.955† | 9064.0 | 7.650 | mg/L | 0.0189 | 7.650 | mg/L | 0.0189 | 0.25% |
| K 766.490† | 8636.6 | 3.314 | mg/L | 0.0216 | 3.314 | mg/L | 0.0216 | 0.65% |
| Mg 279.077† | 3719.2 | 3.529 | mg/L | 0.0096 | 3.529 | mg/L | 0.0096 | 0.27% |
| Mn 257.610† | 1995.4 | 0.05039 | mg/L | 0.000315 | 0.05039 | mg/L | 0.000315 | 0.63% |
| Mo 202.031† | 133.5 | 0.01270 | mg/L | 0.000237 | 0.01270 | mg/L | 0.000237 | 1.87% |
| Na 589.592† | 718597.2 | 106.6 | mg/L | 0.24 | 106.6 | mg/L | 0.24 | 0.23% |
| Na 330.237† | 2336.5 | 115.7 | mg/L | 1.59 | 115.7 | mg/L | 1.59 | 1.37% |
| Ni 231.604† | 29.8 | 0.01640 | mg/L | 0.002780 | 0.01640 | mg/L | 0.002780 | 16.96% |
| Pb 220.353† | 2.4 | 0.00277 | mg/L | 0.000462 | 0.00277 | mg/L | 0.000462 | 16.66% |
| Sb 206.836† | -17.6 | -0.01122 | mg/L | 0.002843 | -0.01122 | mg/L | 0.002843 | 25.34% |
| Se 196.026† | 10.0 | 0.00852 | mg/L | 0.005691 | 0.00852 | mg/L | 0.005691 | 66.83% |
| Si 288.158† | 47836.1 | 38.66 | mg/L | 0.173 | 38.66 | mg/L | 0.173 | 0.45% |
| Sn 189.927† | -12.4 | -0.00368 | mg/L | 0.000208 | -0.00368 | mg/L | 0.000208 | 5.64% |
| Sr 421.552† | 36973.7 | 0.08122 | mg/L | 0.000310 | 0.08122 | mg/L | 0.000310 | 0.38% |
| Ti 334.903† | 1707.4 | 0.08916 | mg/L | 0.001611 | 0.08916 | mg/L | 0.001611 | 1.81% |
| Tl 190.801† | -3.8 | -0.00297 | mg/L | 0.000531 | -0.00297 | mg/L | 0.000531 | 17.90% |
| V 292.402† | 27517.1 | 0.2035 | mg/L | 0.00294 | 0.2035 | mg/L | 0.00294 | 1.44% |
| Zn 206.200† | 64.2 | 0.02535 | mg/L | 0.001590 | 0.02535 | mg/L | 0.001590 | 6.27% |

Sequence No.: 37
Sample ID: UU94 ASPK WMN

Autosampler Location: 49
Date Collected: 5/29/2012 5:57:10 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: UU94 ASPK WMN

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

Mean Data: UU94 ASPK WMN

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1893351.2 | 98.94 | % | 0.518 | | | | 0.52% |
| ScR 361.383 | 206476.4 | 105.1 | % | 0.76 | | | | 0.72% |
| Ag 328.068† | 84407.1 | 0.4114 | mg/L | 0.00390 | 0.4114 | mg/L | 0.00390 | 0.95% |
| Al 308.215† | 11866.8 | 9.058 | mg/L | 0.0680 | 9.058 | mg/L | 0.0680 | 0.75% |
| As 188.979† | 2832.3 | 2.222 | mg/L | 0.0082 | 2.222 | mg/L | 0.0082 | 0.37% |
| B 249.677† | 85.7 | 0.04953 | mg/L | 0.000877 | 0.04953 | mg/L | 0.000877 | 1.77% |
| Ba 233.527† | 14240.7 | 1.978 | mg/L | 0.0154 | 1.978 | mg/L | 0.0154 | 0.78% |
| Be 313.042† | 147535.7 | 0.5250 | mg/L | 0.00179 | 0.5250 | mg/L | 0.00179 | 0.34% |
| Ca 317.933† | 207748.2 | 19.64 | mg/L | 0.064 | 19.64 | mg/L | 0.064 | 0.33% |
| Cd 228.802† | 26361.4 | 0.5366 | mg/L | 0.00578 | 0.5366 | mg/L | 0.00578 | 1.08% |
| Co 228.616† | 24083.0 | 0.5116 | mg/L | 0.00645 | 0.5116 | mg/L | 0.00645 | 1.26% |
| Cr 267.716† | 2206.7 | 0.4993 | mg/L | 0.00494 | 0.4993 | mg/L | 0.00494 | 0.99% |
| Cu 324.752† | 135738.0 | 0.5576 | mg/L | 0.00582 | 0.5576 | mg/L | 0.00582 | 1.04% |
| Fe 273.955† | 10737.8 | 9.062 | mg/L | 0.0750 | 9.062 | mg/L | 0.0750 | 0.83% |
| K 766.490† | 36805.5 | 14.12 | mg/L | 0.051 | 14.12 | mg/L | 0.051 | 0.36% |
| Mg 279.077† | 14749.3 | 14.01 | mg/L | 0.112 | 14.01 | mg/L | 0.112 | 0.80% |
| Mn 257.610† | 21309.6 | 0.5392 | mg/L | 0.00422 | 0.5392 | mg/L | 0.00422 | 0.78% |
| Mo 202.031† | 153.6 | 0.01419 | mg/L | 0.000317 | 0.01419 | mg/L | 0.000317 | 2.23% |
| Na 589.592† | 763075.5 | 113.2 | mg/L | 0.13 | 113.2 | mg/L | 0.13 | 0.11% |
| Na 330.237† | 2416.0 | 119.5 | mg/L | 0.69 | 119.5 | mg/L | 0.69 | 0.58% |
| Ni 231.604† | 923.6 | 0.4938 | mg/L | 0.00345 | 0.4938 | mg/L | 0.00345 | 0.70% |
| Pb 220.353† | 14718.0 | 2.101 | mg/L | 0.0252 | 2.101 | mg/L | 0.0252 | 1.20% |
| Sb 206.836† | -21.7 | -0.01893 | mg/L | 0.002391 | -0.01893 | mg/L | 0.002391 | 12.63% |
| Se 196.026† | 1942.3 | 2.330 | mg/L | 0.0103 | 2.330 | mg/L | 0.0103 | 0.44% |
| Si 288.158† | 47055.5 | 38.03 | mg/L | 0.123 | 38.03 | mg/L | 0.123 | 0.32% |
| Sn 189.927† | -30.5 | -0.00880 | mg/L | 0.000834 | -0.00880 | mg/L | 0.000834 | 9.48% |
| Sr 421.552† | 270894.6 | 0.5950 | mg/L | 0.00267 | 0.5950 | mg/L | 0.00267 | 0.45% |
| Ti 334.903† | 1617.4 | 0.08397 | mg/L | 0.000911 | 0.08397 | mg/L | 0.000911 | 1.09% |
| Tl 190.801† | 3280.5 | 2.030 | mg/L | 0.0043 | 2.030 | mg/L | 0.0043 | 0.21% |
| V 292.402† | 96129.4 | 0.7164 | mg/L | 0.00892 | 0.7164 | mg/L | 0.00892 | 1.24% |
| Zn 206.200† | 1370.6 | 0.5377 | mg/L | 0.00632 | 0.5377 | mg/L | 0.00632 | 1.18% |

Sequence No.: 38
Sample ID: UU52 H SWC

Autosampler Location: 50
Date Collected: 5/29/2012 6:03:18 PM
Data Type: Original

Dilution: 2X

**Nebulizer Parameters: UU52 H SWC**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

**Mean Data: UU52 H SWC**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1871682.6 | 97.80 | % | 0.218 | | | | 0.22% |
| ScR 361.383 | 198815.3 | 101.2 | % | 0.69 | | | | 0.68% |
| Ag 328.068† | -252.4 | 0.00146 | mg/L | 0.000195 | 0.00292 | mg/L | 0.000390 | 13.32% |
| Al 308.215† | 34904.2 | 26.67 | mg/L | 0.095 | 53.34 | mg/L | 0.190 | 0.36% |
| As 188.979† | 76.5 | 0.05465 | mg/L | 0.001976 | 0.1093 | mg/L | 0.00395 | 3.62% |
| B 249.677† | 151.1 | 0.09028 | mg/L | 0.002876 | 0.1806 | mg/L | 0.00575 | 3.19% |
| Ba 233.527† | 495.6 | 0.06643 | mg/L | 0.000769 | 0.1329 | mg/L | 0.00154 | 1.16% |
| Be 313.042† | 158.9 | 0.00032 | mg/L | 0.000036 | 0.00064 | mg/L | 0.000072 | 11.20% |
| Ca 317.933† | 131322.8 | 12.42 | mg/L | 0.007 | 24.83 | mg/L | 0.015 | 0.06% |
| Cd 228.802† | 329.2 | 0.00666 | mg/L | 0.000038 | 0.01332 | mg/L | 0.000076 | 0.57% |
| Co 228.616† | 862.2 | 0.01543 | mg/L | 0.000113 | 0.03086 | mg/L | 0.000226 | 0.73% |
| Cr 267.716† | 308.1 | 0.07010 | mg/L | 0.001755 | 0.1402 | mg/L | 0.00351 | 2.50% |
| Cu 324.752† | 46627.1 | 0.1967 | mg/L | 0.00149 | 0.3935 | mg/L | 0.00297 | 0.76% |
| Fe 273.955† | 79704.6 | 67.27 | mg/L | 0.442 | 134.5 | mg/L | 0.88 | 0.66% |
| K 766.490† | 10438.8 | 4.006 | mg/L | 0.0194 | 8.012 | mg/L | 0.0388 | 0.48% |
| Mg 279.077† | 19214.2 | 18.21 | mg/L | 0.045 | 36.43 | mg/L | 0.090 | 0.25% |
| Mn 257.610† | 22478.2 | 0.5682 | mg/L | 0.00146 | 1.136 | mg/L | 0.0029 | 0.26% |
| Mo 202.031† | 217.5 | 0.01961 | mg/L | 0.000337 | 0.03922 | mg/L | 0.000674 | 1.72% |
| Na 589.592† | 146337.6 | 21.72 | mg/L | 0.080 | 43.43 | mg/L | 0.160 | 0.37% |
| Na 330.237† | 475.2 | 23.53 | mg/L | 0.462 | 47.05 | mg/L | 0.924 | 1.96% |
| Ni 231.604† | 137.0 | 0.07735 | mg/L | 0.001586 | 0.1547 | mg/L | 0.00317 | 2.05% |
| Pb 220.353† | 4231.1 | 0.6115 | mg/L | 0.00318 | 1.223 | mg/L | 0.0064 | 0.52% |
| Sb 206.836† | -33.0 | -0.01635 | mg/L | 0.000958 | -0.03269 | mg/L | 0.001917 | 5.86% |
| Se 196.026† | 20.7 | 0.00878 | mg/L | 0.005257 | 0.01755 | mg/L | 0.010514 | 59.90% |
| Si 288.158† | 4575.9 | 3.701 | mg/L | 0.0355 | 7.403 | mg/L | 0.0710 | 0.96% |
| Sn 189.927† | 155.0 | 0.05044 | mg/L | 0.001979 | 0.1009 | mg/L | 0.00396 | 3.92% |
| Sr 421.552† | 61525.5 | 0.1351 | mg/L | 0.00063 | 0.2703 | mg/L | 0.00125 | 0.46% |
| Ti 334.903† | 33070.2 | 1.732 | mg/L | 0.0026 | 3.465 | mg/L | 0.0051 | 0.15% |
| Tl 190.801† | -5.4 | -0.00043 | mg/L | 0.004097 | -0.00086 | mg/L | 0.008195 | 952.53% |
| V 292.402† | 11736.6 | 0.07772 | mg/L | 0.000925 | 0.1554 | mg/L | 0.00185 | 1.19% |
| Zn 206.200† | 2674.1 | 1.049 | mg/L | 0.0103 | 2.098 | mg/L | 0.0206 | 0.98% |

Sequence No.: 39
Sample ID: UU52 I SWC

Autosampler Location: 51
Date Collected: 5/29/2012 6:09:20 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 I SWC

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

Mean Data: UU52 I SWC

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1839881.3 | 96.14 | % | 0.570 | | | | 0.59% |
| ScR 361.383 | 196247.5 | 99.90 | % | 0.936 | | | | 0.94% |
| Ag 328.068† | -93.3 | 0.00072 | mg/L | 0.000162 | 0.00144 | mg/L | 0.000324 | 22.51% |
| Al 308.215† | 22414.4 | 17.13 | mg/L | 0.052 | 34.25 | mg/L | 0.104 | 0.30% |
| As 188.979† | 36.3 | 0.02563 | mg/L | 0.001872 | 0.05125 | mg/L | 0.003743 | 7.30% |
| B 249.677† | 127.9 | 0.07644 | mg/L | 0.001495 | 0.1529 | mg/L | 0.00299 | 1.96% |
| Ba 233.527† | 364.2 | 0.04953 | mg/L | 0.000093 | 0.09906 | mg/L | 0.000186 | 0.19% |
| Be 313.042† | 116.5 | 0.00025 | mg/L | 0.000073 | 0.00050 | mg/L | 0.000147 | 29.56% |
| Ca 317.933† | 112108.3 | 10.60 | mg/L | 0.013 | 21.20 | mg/L | 0.026 | 0.12% |
| Cd 228.802† | 108.8 | 0.00219 | mg/L | 0.000107 | 0.00438 | mg/L | 0.000213 | 4.87% |
| Co 228.616† | 465.8 | 0.00839 | mg/L | 0.000153 | 0.01678 | mg/L | 0.000305 | 1.82% |
| Cr 267.716† | 186.0 | 0.04209 | mg/L | 0.000568 | 0.08419 | mg/L | 0.001136 | 1.35% |
| Cu 324.752† | 25145.3 | 0.1055 | mg/L | 0.00041 | 0.2110 | mg/L | 0.00082 | 0.39% |
| Fe 273.955† | 34750.4 | 29.33 | mg/L | 0.131 | 58.65 | mg/L | 0.261 | 0.45% |
| K 766.490† | 6724.4 | 2.581 | mg/L | 0.0306 | 5.161 | mg/L | 0.0611 | 1.18% |
| Mg 279.077† | 11559.6 | 10.97 | mg/L | 0.136 | 21.93 | mg/L | 0.273 | 1.24% |
| Mn 257.610† | 11952.4 | 0.3021 | mg/L | 0.00343 | 0.6041 | mg/L | 0.00685 | 1.13% |
| Mo 202.031† | 196.8 | 0.01839 | mg/L | 0.000429 | 0.03678 | mg/L | 0.000858 | 2.33% |
| Na 589.592† | 52876.3 | 7.847 | mg/L | 0.0141 | 15.69 | mg/L | 0.028 | 0.18% |
| Na 330.237† | 178.0 | 8.880 | mg/L | 0.2544 | 17.76 | mg/L | 0.509 | 2.86% |
| Ni 231.604† | 73.9 | 0.04132 | mg/L | 0.001078 | 0.08264 | mg/L | 0.002155 | 2.61% |
| Pb 220.353† | 1224.8 | 0.1800 | mg/L | 0.00111 | 0.3600 | mg/L | 0.00222 | 0.62% |
| Sb 206.836† | -21.5 | -0.01105 | mg/L | 0.004363 | -0.02211 | mg/L | 0.008726 | 39.47% |
| Se 196.026† | 17.3 | 0.01202 | mg/L | 0.001941 | 0.02405 | mg/L | 0.003883 | 16.14% |
| Si 288.158† | 3820.5 | 3.090 | mg/L | 0.0325 | 6.179 | mg/L | 0.0650 | 1.05% |
| Sn 189.927† | -6.6 | -0.00111 | mg/L | 0.001716 | -0.00223 | mg/L | 0.003431 | 154.05% |
| Sr 421.552† | 52282.6 | 0.1148 | mg/L | 0.00071 | 0.2297 | mg/L | 0.00142 | 0.62% |
| Ti 334.903† | 17196.3 | 0.9007 | mg/L | 0.00251 | 1.801 | mg/L | 0.0050 | 0.28% |
| Tl 190.801† | -9.7 | -0.00522 | mg/L | 0.000708 | -0.01044 | mg/L | 0.001416 | 13.56% |
| V 292.402† | 8272.4 | 0.05736 | mg/L | 0.000297 | 0.1147 | mg/L | 0.00059 | 0.52% |
| Zn 206.200† | 719.2 | 0.2823 | mg/L | 0.00368 | 0.5646 | mg/L | 0.00737 | 1.30% |

Sequence No.: 40
Sample ID: UU52 J SWC

Autosampler Location: 52
Date Collected: 5/29/2012 6:15:25 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: UU52 J SWC

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

Mean Data: UU52 J SWC

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1847263.5 | 96.53 | % | 0.557 | | | | 0.58% |
| ScR 361.383 | 197859.8 | 100.7 | % | 1.31 | | | | 1.30% |
| Ag 328.068† | -141.7 | 0.00050 | mg/L | 0.000460 | 0.00101 | mg/L | 0.000920 | 91.21% |
| Al 308.215† | 28630.3 | 21.88 | mg/L | 0.082 | 43.76 | mg/L | 0.165 | 0.38% |
| As 188.979† | 19.0 | 0.01185 | mg/L | 0.003169 | 0.02371 | mg/L | 0.006339 | 26.74% |
| B 249.677† | 129.6 | 0.07743 | mg/L | 0.001531 | 0.1549 | mg/L | 0.00306 | 1.98% |
| Ba 233.527† | 386.6 | 0.05263 | mg/L | 0.000927 | 0.1053 | mg/L | 0.00185 | 1.76% |
| Be 313.042† | 112.8 | 0.00025 | mg/L | 0.000053 | 0.00049 | mg/L | 0.000107 | 21.77% |
| Ca 317.933† | 82833.3 | 7.831 | mg/L | 0.0281 | 15.66 | mg/L | 0.056 | 0.36% |
| Cd 228.802† | 105.0 | 0.00214 | mg/L | 0.000026 | 0.00427 | mg/L | 0.000053 | 1.23% |
| Co 228.616† | 571.6 | 0.01043 | mg/L | 0.000087 | 0.02085 | mg/L | 0.000173 | 0.83% |
| Cr 267.716† | 213.2 | 0.04811 | mg/L | 0.000896 | 0.09622 | mg/L | 0.001792 | 1.86% |
| Cu 324.752† | 17285.0 | 0.07327 | mg/L | 0.000502 | 0.1465 | mg/L | 0.00100 | 0.69% |
| Fe 273.955† | 35317.7 | 29.81 | mg/L | 0.234 | 59.61 | mg/L | 0.468 | 0.79% |
| K 766.490† | 10327.9 | 3.963 | mg/L | 0.0178 | 7.927 | mg/L | 0.0356 | 0.45% |
| Mg 279.077† | 16305.7 | 15.47 | mg/L | 0.041 | 30.95 | mg/L | 0.081 | 0.26% |
| Mn 257.610† | 12342.1 | 0.3119 | mg/L | 0.00332 | 0.6237 | mg/L | 0.00663 | 1.06% |
| Mo 202.031† | 159.5 | 0.01466 | mg/L | 0.000031 | 0.02932 | mg/L | 0.000061 | 0.21% |
| Na 589.592† | 176185.9 | 26.15 | mg/L | 0.114 | 52.29 | mg/L | 0.229 | 0.44% |
| Na 330.237† | 565.3 | 28.15 | mg/L | 0.384 | 56.30 | mg/L | 0.768 | 1.36% |
| Ni 231.604† | 76.5 | 0.04273 | mg/L | 0.003221 | 0.08547 | mg/L | 0.006443 | 7.54% |
| Pb 220.353† | 426.6 | 0.06781 | mg/L | 0.001927 | 0.1356 | mg/L | 0.00385 | 2.84% |
| Sb 206.836† | -25.7 | -0.01259 | mg/L | 0.001554 | -0.02517 | mg/L | 0.003109 | 12.35% |
| Se 196.026† | 17.4 | 0.01091 | mg/L | 0.004001 | 0.02182 | mg/L | 0.008002 | 36.67% |
| Si 288.158† | 4803.2 | 3.885 | mg/L | 0.0395 | 7.769 | mg/L | 0.0790 | 1.02% |
| Sn 189.927† | -22.5 | -0.00582 | mg/L | 0.001931 | -0.01163 | mg/L | 0.003863 | 33.21% |
| Sr 421.552† | 42489.8 | 0.09333 | mg/L | 0.000436 | 0.1867 | mg/L | 0.00087 | 0.47% |
| Ti 334.903† | 19656.5 | 1.030 | mg/L | 0.0033 | 2.059 | mg/L | 0.0066 | 0.32% |
| Tl 190.801† | -1.8 | -0.00045 | mg/L | 0.003840 | -0.00091 | mg/L | 0.007679 | 848.52% |
| V 292.402† | 7602.3 | 0.05224 | mg/L | 0.000561 | 0.1045 | mg/L | 0.00112 | 1.07% |
| Zn 206.200† | 458.2 | 0.1800 | mg/L | 0.00121 | 0.3601 | mg/L | 0.00243 | 0.67% |

Sequence No.: 41
Sample ID: UU94 MBSPK WMN

Autosampler Location: 53
Date Collected: 5/29/2012 6:21:26 PM
Data Type: Original

Dilution: 1X

**Nebulizer Parameters: UU94 MBSPK WMN**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

**Mean Data: UU94 MBSPK WMN**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1896780.0 | 99.12 | % | 0.460 | | | | 0.46% |
| ScR 361.383 | 202929.3 | 103.3 | % | 0.56 | | | | 0.54% |
| Ag 328.068† | 100057.4 | 0.4873 | mg/L | 0.00486 | 0.4873 | mg/L | 0.00486 | 1.00% |
| Al 308.215† | 2840.5 | 2.163 | mg/L | 0.0106 | 2.163 | mg/L | 0.0106 | 0.49% |
| As 188.979† | 2732.3 | 2.145 | mg/L | 0.0087 | 2.145 | mg/L | 0.0087 | 0.41% |
| B 249.677† | -0.2 | -0.00185 | mg/L | 0.005413 | -0.00185 | mg/L | 0.005413 | 292.93% |
| Ba 233.527† | 14015.5 | 1.947 | mg/L | 0.0103 | 1.947 | mg/L | 0.0103 | 0.53% |
| Be 313.042† | 146441.2 | 0.5216 | mg/L | 0.00397 | 0.5216 | mg/L | 0.00397 | 0.76% |
| Ca 317.933† | 114167.2 | 10.79 | mg/L | 0.085 | 10.79 | mg/L | 0.085 | 0.78% |
| Cd 228.802† | 26790.5 | 0.5455 | mg/L | 0.00389 | 0.5455 | mg/L | 0.00389 | 0.71% |
| Co 228.616† | 23870.8 | 0.5072 | mg/L | 0.00322 | 0.5072 | mg/L | 0.00322 | 0.63% |
| Cr 267.716† | 2189.9 | 0.4956 | mg/L | 0.00501 | 0.4956 | mg/L | 0.00501 | 1.01% |
| Cu 324.752† | 123108.4 | 0.5052 | mg/L | 0.00305 | 0.5052 | mg/L | 0.00305 | 0.60% |
| Fe 273.955† | 2538.6 | 2.142 | mg/L | 0.0073 | 2.142 | mg/L | 0.0073 | 0.34% |
| K 766.490† | 28958.8 | 11.11 | mg/L | 0.062 | 11.11 | mg/L | 0.062 | 0.55% |
| Mg 279.077† | 11356.0 | 10.79 | mg/L | 0.066 | 10.79 | mg/L | 0.066 | 0.61% |
| Mn 257.610† | 19545.7 | 0.4946 | mg/L | 0.00308 | 0.4946 | mg/L | 0.00308 | 0.62% |
| Mo 202.031† | 29.4 | 0.00238 | mg/L | 0.000445 | 0.00238 | mg/L | 0.000445 | 18.66% |
| Na 589.592† | 70658.4 | 10.49 | mg/L | 0.064 | 10.49 | mg/L | 0.064 | 0.61% |
| Na 330.237† | 242.7 | 11.81 | mg/L | 0.228 | 11.81 | mg/L | 0.228 | 1.93% |
| Ni 231.604† | 934.9 | 0.4994 | mg/L | 0.00397 | 0.4994 | mg/L | 0.00397 | 0.79% |
| Pb 220.353† | 14920.6 | 2.128 | mg/L | 0.0079 | 2.128 | mg/L | 0.0079 | 0.37% |
| Sb 206.836† | -9.7 | -0.01211 | mg/L | 0.000661 | -0.01211 | mg/L | 0.000661 | 5.46% |
| Se 196.026† | 1896.4 | 2.278 | mg/L | 0.0060 | 2.278 | mg/L | 0.0060 | 0.26% |
| Si 288.158† | 0.0 | 0.00443 | mg/L | 0.006046 | 0.00443 | mg/L | 0.006046 | 136.42% |
| Sn 189.927† | -14.1 | -0.00386 | mg/L | 0.001333 | -0.00386 | mg/L | 0.001333 | 34.55% |
| Sr 421.552† | 234370.4 | 0.5148 | mg/L | 0.00271 | 0.5148 | mg/L | 0.00271 | 0.53% |
| Ti 334.903† | 9.2 | 0.00000 | mg/L | 0.000474 | 0.00000 | mg/L | 0.000474 | >999.9% |
| Tl 190.801† | 3457.3 | 2.140 | mg/L | 0.0053 | 2.140 | mg/L | 0.0053 | 0.25% |
| V 292.402† | 70493.0 | 0.5269 | mg/L | 0.00139 | 0.5269 | mg/L | 0.00139 | 0.26% |
| Zn 206.200† | 1293.1 | 0.5071 | mg/L | 0.00300 | 0.5071 | mg/L | 0.00300 | 0.59% |

Sequence No.: 42
Sample ID: CV 5

Dilution: 1X

Autosampler Location: 7
Date Collected: 5/29/2012 6:27:29 PM
Data Type: Original

Nebulizer Parameters: CV

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

Mean Data: CV

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1826694.1 | 95.45 | % | 0.328 | | | | 0.34% |
| ScR 361.383 | 195414.9 | 99.48 | % | 0.355 | | | | 0.36% |
| Ag 328.068† | 201598.4 | 0.9815 | mg/L | 0.00825 | 0.9815 | mg/L | 0.00825 | 0.84% |
| Al 308.215† | 2745.2 | 2.059 | mg/L | 0.0017 | 2.059 | mg/L | 0.0017 | 0.08% |
| As 188.979† | 2600.8 | 2.041 | mg/L | 0.0114 | 2.041 | mg/L | 0.0114 | 0.56% |
| B 249.677† | 1634.2 | 0.9750 | mg/L | 0.00636 | 0.9750 | mg/L | 0.00636 | 0.65% |
| Ba 233.527† | 6943.7 | 0.9643 | mg/L | 0.00317 | 0.9643 | mg/L | 0.00317 | 0.33% |
| Be 313.042† | 275940.7 | 0.9828 | mg/L | 0.00268 | 0.9828 | mg/L | 0.00268 | 0.27% |
| Ca 317.933† | 21828.6 | 2.064 | mg/L | 0.0033 | 2.064 | mg/L | 0.0033 | 0.16% |
| Cd 228.802† | 49705.4 | 1.016 | mg/L | 0.0059 | 1.016 | mg/L | 0.0059 | 0.58% |
| Co 228.616† | 46013.5 | 0.9772 | mg/L | 0.00782 | 0.9772 | mg/L | 0.00782 | 0.80% |
| Cr 267.716† | 4265.3 | 0.9660 | mg/L | 0.00262 | 0.9660 | mg/L | 0.00262 | 0.27% |
| Cu 324.752† | 251470.9 | 1.031 | mg/L | 0.0091 | 1.031 | mg/L | 0.0091 | 0.89% |
| Fe 273.955† | 2488.5 | 2.099 | mg/L | 0.0089 | 2.099 | mg/L | 0.0089 | 0.42% |
| K 766.490† | 54087.2 | 20.76 | mg/L | 0.106 | 20.76 | mg/L | 0.106 | 0.51% |
| Mg 279.077† | 2229.1 | 2.121 | mg/L | 0.0109 | 2.121 | mg/L | 0.0109 | 0.51% |
| Mn 257.610† | 38261.4 | 0.9678 | mg/L | 0.00280 | 0.9678 | mg/L | 0.00280 | 0.29% |
| Mo 202.031† | 10278.9 | 1.015 | mg/L | 0.0039 | 1.015 | mg/L | 0.0039 | 0.38% |
| Na 589.592† | 333896.7 | 49.55 | mg/L | 0.083 | 49.55 | mg/L | 0.083 | 0.17% |
| Na 330.237† | 1072.0 | 52.99 | mg/L | 0.289 | 52.99 | mg/L | 0.289 | 0.54% |
| Ni 231.604† | 1835.7 | 0.9832 | mg/L | 0.00129 | 0.9832 | mg/L | 0.00129 | 0.13% |
| Pb 220.353† | 14031.9 | 2.002 | mg/L | 0.0190 | 2.002 | mg/L | 0.0190 | 0.95% |
| Sb 206.836† | 2775.8 | 2.246 | mg/L | 0.0077 | 2.246 | mg/L | 0.0077 | 0.34% |
| Se 196.026† | 1655.6 | 1.988 | mg/L | 0.0146 | 1.988 | mg/L | 0.0146 | 0.73% |
| Si 288.158† | 2879.0 | 2.333 | mg/L | 0.0066 | 2.333 | mg/L | 0.0066 | 0.28% |
| Sn 189.927† | 3134.9 | 0.9872 | mg/L | 0.00416 | 0.9872 | mg/L | 0.00416 | 0.42% |
| Sr 421.552† | 451123.7 | 0.9909 | mg/L | 0.00688 | 0.9909 | mg/L | 0.00688 | 0.69% |
| Ti 334.903† | 19930.5 | 1.043 | mg/L | 0.0011 | 1.043 | mg/L | 0.0011 | 0.11% |
| Tl 190.801† | 3192.1 | 1.968 | mg/L | 0.0049 | 1.968 | mg/L | 0.0049 | 0.25% |
| V 292.402† | 133660.9 | 1.005 | mg/L | 0.0125 | 1.005 | mg/L | 0.0125 | 1.24% |
| Zn 206.200† | 2624.5 | 1.028 | mg/L | 0.0022 | 1.028 | mg/L | 0.0022 | 0.21% |

Sequence No.: 43
Sample ID: CB 6

Autosampler Location: 1
Date Collected: 5/29/2012 6:33:31 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CB

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 182.0 kPa | 0.55 L/min |

Mean Data: CB

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| ScA 357.253 | 1863841.4 | 97.39 | % | 0.676 | | | | 0.69% |
| ScR 361.383 | 194624.0 | 99.08 | % | 0.815 | | | | 0.82% |
| Ag 328.068† | 115.9 | 0.00056 | mg/L | 0.000173 | 0.00056 | mg/L | 0.000173 | 30.66% |
| Al 308.215† | -5.4 | -0.00415 | mg/L | 0.001709 | -0.00415 | mg/L | 0.001709 | 41.22% |
| As 188.979† | -0.3 | -0.00025 | mg/L | 0.001274 | -0.00025 | mg/L | 0.001274 | 508.68% |
| B 249.677† | 8.0 | 0.00477 | mg/L | 0.002471 | 0.00477 | mg/L | 0.002471 | 51.81% |
| Ba 233.527† | 6.3 | 0.00088 | mg/L | 0.000372 | 0.00088 | mg/L | 0.000372 | 42.51% |
| Be 313.042† | 36.6 | 0.00013 | mg/L | 0.000038 | 0.00013 | mg/L | 0.000038 | 29.53% |
| Ca 317.933† | 25.0 | 0.00237 | mg/L | 0.000254 | 0.00237 | mg/L | 0.000254 | 10.74% |
| Cd 228.802† | 0.6 | 0.00001 | mg/L | 0.000066 | 0.00001 | mg/L | 0.000066 | 521.18% |
| Co 228.616† | 2.7 | 0.00006 | mg/L | 0.000152 | 0.00006 | mg/L | 0.000152 | 269.30% |
| Cr 267.716† | -3.9 | -0.00088 | mg/L | 0.001844 | -0.00088 | mg/L | 0.001844 | 209.06% |
| Cu 324.752† | -32.6 | -0.00013 | mg/L | 0.000086 | -0.00013 | mg/L | 0.000086 | 64.41% |
| Fe 273.955† | 1.3 | 0.00107 | mg/L | 0.000661 | 0.00107 | mg/L | 0.000661 | 61.68% |
| K 766.490† | 97.5 | 0.03743 | mg/L | 0.007964 | 0.03743 | mg/L | 0.007964 | 21.28% |
| Mg 279.077† | -0.6 | -0.00055 | mg/L | 0.001633 | -0.00055 | mg/L | 0.001633 | 297.15% |
| Mn 257.610† | 11.6 | 0.00029 | mg/L | 0.000106 | 0.00029 | mg/L | 0.000106 | 35.92% |
| Mo 202.031† | 6.8 | 0.00067 | mg/L | 0.000194 | 0.00067 | mg/L | 0.000194 | 28.88% |
| Na 589.592† | 332.8 | 0.04938 | mg/L | 0.002080 | 0.04938 | mg/L | 0.002080 | 4.21% |
| Na 330.237† | 0.4 | 0.02000 | mg/L | 0.262009 | 0.02000 | mg/L | 0.262009 | >999.9% |
| Ni 231.604† | -3.6 | -0.00195 | mg/L | 0.002490 | -0.00195 | mg/L | 0.002490 | 127.46% |
| Pb 220.353† | 5.0 | 0.00071 | mg/L | 0.000237 | 0.00071 | mg/L | 0.000237 | 33.55% |
| Sb 206.836† | -4.5 | -0.00360 | mg/L | 0.003765 | -0.00360 | mg/L | 0.003765 | 104.68% |
| Se 196.026† | 0.9 | 0.00111 | mg/L | 0.010577 | 0.00111 | mg/L | 0.010577 | 948.74% |
| Si 288.158† | 7.4 | 0.00602 | mg/L | 0.005886 | 0.00602 | mg/L | 0.005886 | 97.77% |
| Sn 189.927† | 2.6 | 0.00083 | mg/L | 0.000555 | 0.00083 | mg/L | 0.000555 | 67.17% |
| Sr 421.552† | 20.9 | 0.00005 | mg/L | 0.000131 | 0.00005 | mg/L | 0.000131 | 285.04% |
| Ti 334.903† | 11.6 | 0.00061 | mg/L | 0.000714 | 0.00061 | mg/L | 0.000714 | 117.43% |
| Tl 190.801† | 3.1 | 0.00193 | mg/L | 0.001791 | 0.00193 | mg/L | 0.001791 | 92.60% |
| V 292.402† | 14.8 | 0.00011 | mg/L | 0.000044 | 0.00011 | mg/L | 0.000044 | 40.68% |
| Zn 206.200† | -1.3 | -0.00049 | mg/L | 0.000505 | -0.00049 | mg/L | 0.000505 | 102.77% |

end package

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# ICP/MS SAMPLE RUN LOG

**PE Sciex ELAN 6000 Serial No. Z13960660**

**Analysis Date:** 5.23.12 **Analyst:** BLW **Page:** 1 of 3

*All corrections made by analyst unless otherwise noted.*

| Edit Label | Delete Data | ARI Sample ID | Prep Code | Dilution | Comments |
|---|---|---|---|---|---|
| | | std 0 | | | 2936-2 |
| | | 1 | | | 2935-1 |
| | | 2 | | | 1 -2 |
| | | 3 | | | 2936-11 |
| | | 4 | | | 2935-4 |
| | | rinse sample | | | |
| | | std 0 | | | |
| | | ICV | | | 2925-2 |
| | | ICB | | | |
| | | CCV1 | | | |
| | | CCB1 | | | |
| | | low check | | | |
| | | ICSA | | | |
| | | ICSAB | | | |
| | | LR200 | | | |
| | | LR300 | | | |
| | | CCV2 | | | |
| | | CCB2 | | | |
| | | new I.S. | | ✓ | 2939-1 |
| | | UV05 MB1 | REW | 2 | Zn 8 |
| | | MB2 | | | |
| | | UV06 MB1 | | | |
| | | MB2 | | | |
| | | MB2sph | | ✓ | |



UU52 : 02068

Analytical Resources, Incorporated
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# ICP/MS SAMPLE RUN LOG

**PE Sciex ELAN 6000 Serial No. Z13960660**

**Analysis Date:** 5.23.12 **Analyst:** BW **Page:** 2 of 5

*All corrections made by analyst unless otherwise noted.*

| Edit Label | Delete Data | ARI Sample ID | Prep Code | Dilution | Comments |
|---|---|---|---|---|---|
| | | UV06 MB1sph | REW | 2 | |
| | | UV05 MB2sph | | | |
| | | MB1sph | | | |
| | ✓ | A | | | Zn high - rerun 1/10 |
| | | CCV3 | | | |
| | | CCB3 | | | Pb high |
| | | UV14 MB1 | REW | 2 | |
| | | MB2 | | | |
| | | MB2sph | | | Cu 122% |
| | | MB1sph | | ✓ | |
| | | A | | | |
| | | B | | | |
| | | C | | | |
| | | UV05 B | | | |
| | ✓ | UV06 A | | | Zn high - rerun 1/10 |
| | ✓ | B | | | ↓ |
| | | CCV4 | | | |
| | | CCB4 | | | Pb high |
| | | UV16 MB1 | REW | 2 | rerun Pb |
| | | MB2 | | | |
| | | MB2sph | | ✓ | |
| | | MB1sph | | | |
| | | A | | | |
| | | UV14 D | | | |



UU52 : 02069

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# ICP/MS SAMPLE RUN LOG

**PE Sciex ELAN 6000 Serial No. Z13960660**

**Analysis Date:** 5.23.12 **Analyst:** RW **Page:** 3 of 5

*All corrections made by analyst unless otherwise noted.*

| Edit Label | Delete Data | ARI Sample ID | Prep Code | Dilution | Comments |
|---|---|---|---|---|---|
| | | UV14 E | RW | 2 | |
| | | F | | | |
| | | G | | | |
| | | H | | 1 | |
| | | CCV5 | | | |
| | | CCB5 | | | |
| | | UU62 MB1 | RW | 2 | |
| | | MB1sph | | ✓ | |
| | | Jdup | | ✓ | |
| | | J | | | |
| | | Jsph | | ✓ | |
| | | K | | | |
| | | UU27 G | | | |
| | | UV16 B | | | |
| | | C | | | |
| | | D | | | |
| | | CCV6 | | | 53Cr high |
| | | CCB6 | | | V2 53Cr high |
| | | UU52 MB1 | SW | 20 | |
| | | MB1sph | | ✓ | |
| | | Cdup | | ✓ | |
| | | C | | | |
| | | Csph | | | Sb 10% CAF |
| | | Cpost | | ✓ | 0.06 ml spk #1, spk #2 |



UU52 : 02070

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# ICP/MS SAMPLE RUN LOG

**PE Sciex ELAN 6000 Serial No. Z13960660**

**Analysis Date:** 5.23.12 **Analyst:** BW **Page:** 4 of 5

*All corrections made by analyst unless otherwise noted.*

| Edit Label | Delete Data | ARI Sample ID | Prep Code | Dilution | Comments |
|---|---|---|---|---|---|
| | | UU52 A | SWN | 20 | |
| | | B | | | |
| | | D | | | |
| | | E | | | |
| | | CCV7 | | | |
| | | CCB7 | | | V2 $^{53}Cr$ high |
| | | UU31 MB | REN | 2 | |
| | | MBspk | | | |
| | | Adup | | | |
| | | A | | | |
| | | Aspk | | | |
| | | UU52 F | SWN | 20 | |
| | | G | | | |
| | | H | | | |
| | | I | | | |
| | | J | | | |
| | | CCV8 | | | |
| | | CCB8 | | | end package |
| | | UT84 Adup | REN | 20 | Cr |
| | | A | | | |
| | | Aspk | | | |
| | | B | | | |
| | | C | | | |
| | | D | | 50 | |

5/24/12



UU52 : 020771

ANALYTICAL RESOURCES INCORPORATED

# Metals Data Review Checklist

**Method:** ICP ~~ICP-MS~~ GFA CVA **Analysis Date:** 5.23.12

| M1 | Analyst BWO 5.24 | Peer JWB 5.24.12 | Comment |
|---|---|---|---|
| **Logbook:** | | | |
| Analyst, Date, Method info | ✓ | ✓ | |
| Sample ID's | ✓ | ✓ | |
| Standard/QC solution ID's recorded | ✓ | ✓ | |
| Prep codes | ✓ | ✓ | |
| Dilution factors | ✓ | ✓ | |
| Crossouts/Corrections/Deletions | ✓ | ✓ | |
| **Calibration:** | | | |
| Blank & Standard intensities | ✓ | ✓ | |
| Standard deviations | ✓ | ✓ | |
| Curve fit | ✓ | ✓ | |
| **Calibration Verification:** | | | |
| ICV/CCV | ✓ | ✓ | see log |
| ICB/CCB | ✓ | ✓ | ↓ |
| **Samples:** | | | |
| RSD's & SD's | ✓ | ✓ | |
| Internal Standards | ✓ | ✓ | |
| Carry-over | ✓ | ✓ | |
| **Method QC:** | | | |
| CRI/CRA | ✓ | ✓ | |
| ICSA/ICSAB | ✓ | ✓ | |
| Post Spikes/Serial Dilutions | ✓ | ✓ | |
| Analytic Spikes | — | — | |
| **Matrix QC:** | | | |
| SRM/LCS | ✓ | ✓ | see log |
| Matrix Spikes | ✓ | ✓ | UU52 |
| Matrix Duplicates | ✓ | ✓ | |
| Method Blanks | ✓ | ✓ | see log UV14 |
| **Data Distribution:** | | | |
| Requested elements/isotope identified | ✓ | ✓ | |
| Correct samples identified for distribution | ✓ | ✓ | |
| Raw data match distributed data | ✓ | ✓ | |
| Data filename correct | ✓ | ✓ | |
| **Necessary Analysts Notes and CAF's** | ✓ | ✓ | UU52, UV14 |



UU52:02072

1st

# Instrument Tuning Report

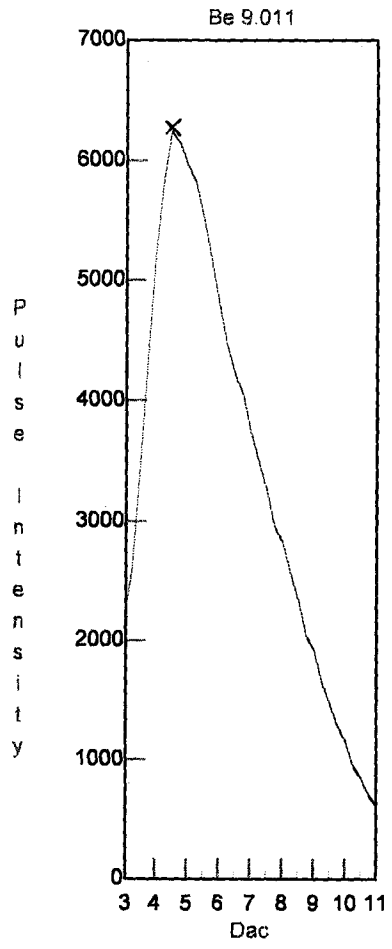
File Name: Default.tun
File Path: C:\Elandata\Tuning\Default.tun

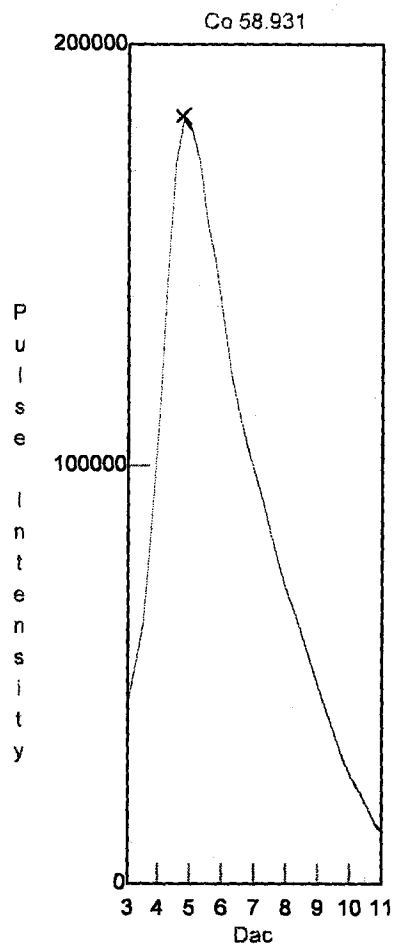
| Analyte | Exact Mass | Meas. Mass | Mass DAC | Res. DAC | Meas. Pk. Width | Custom Res. |
|---|---|---|---|---|---|---|
| Be | 9.012 | 8.974 | 2019 | 2156 | 0.707 | |
| Mg | 23.985 | 23.979 | 5662 | 2274 | 0.711 | |
| Co | 58.933 | 58.929 | 14156 | 2539 | 0.705 | ✓ |
| In | 114.904 | 114.928 | 27789 | 2983 | 0.685 | |
| Pb | 207.977 | 207.976 | 50433 | 3738 | 0.706 | |

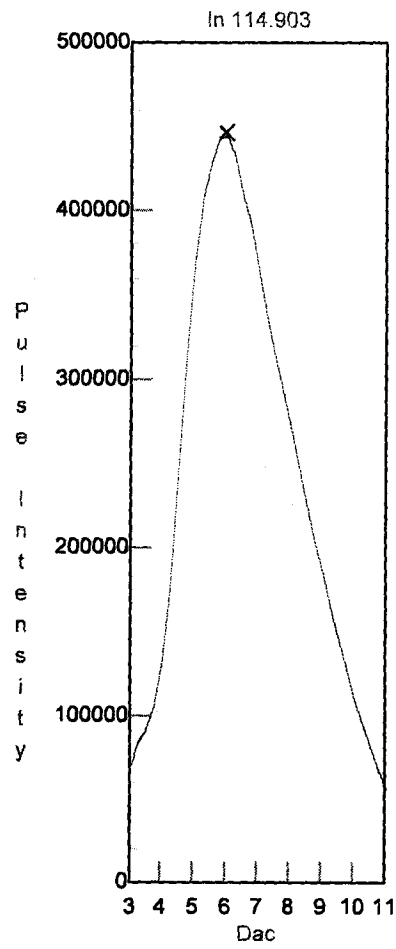


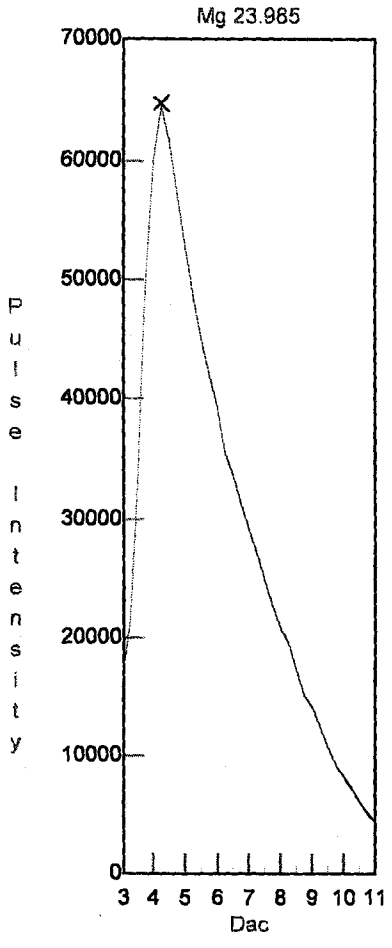
UU52 : 02073

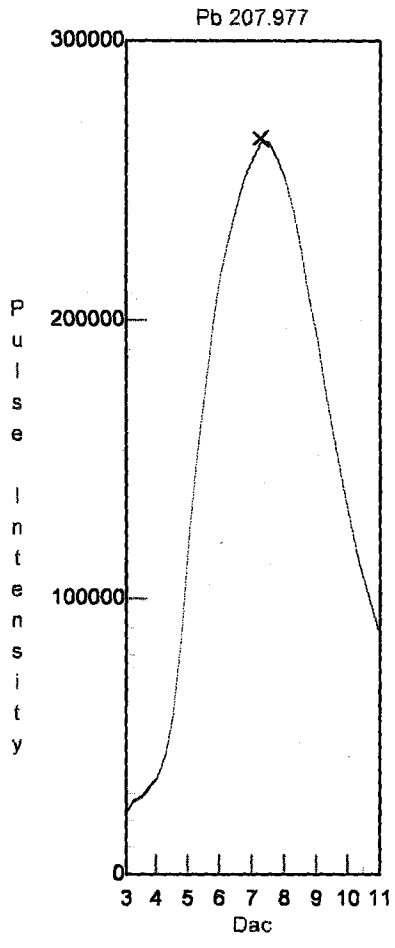
05.23.12

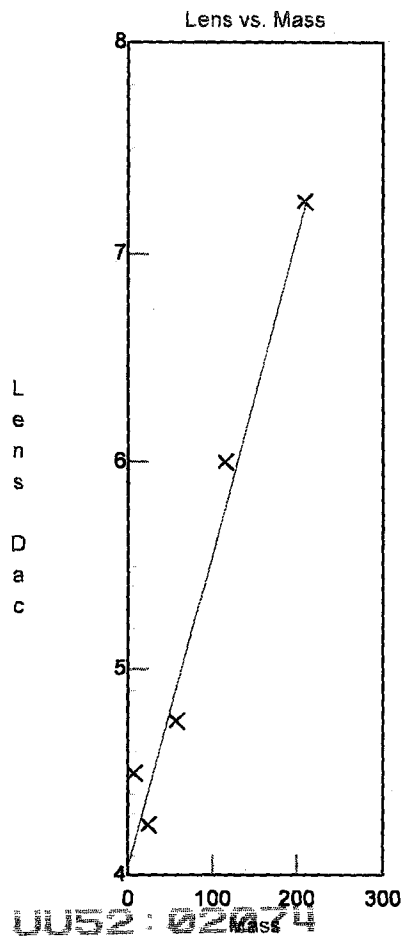



UUS2 : 02674

# Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, May 23, 2012 15:40:29
Sample Description:
Sample File: 1120.sam
Method File: C:\Elandata\Method\aridailyperf.mth
Dataset File: C:\Elandata\Dataset\daily performance\Sample.746
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\Default.dac
Number of Replicates: 5
Dual Detector Mode: Dual

neb 0.97

## Summary

| | Analyte | Mass | Net Intens. Mean | Net Intens. SD | Net Intens. RSD |
|---|---|---|---|---|---|
| | Mg | 24 | 47069.033 | 656.817 | 1.395 |
| | In | 115 | 336669.059 | 1679.553 | 0.499 |
| | Pb | 208 | 213023.952 | 1239.249 | 0.582 |
| ⌈> | Ba | 138 | 266659.234 | 3030.305 | 1.136 |
| ⌊ | Ba++ | 69 | 0.013 | 0.000 | 2.029 |
| ⌈> | Ce | 140 | 327444.236 | 4819.690 | 1.472 |
| ⌊ | CeO | 156 | 0.027 | 0.001 | 2.662 |
| | Bkgd | 220 | 3.500 | 1.046 | 29.881 |

UU52 : 02675

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: Blank**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 16:00:45**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052112A.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | | 473160 | 1 |
| [ | Be | 9 | | ug/L | | | | 2 | 65 |
| | C | 13 | | mg/L | | | | 5976 | 1 |
| | Cl | 37 | | mg/L | | | | 2184345 | 0 |
| [> | Sc | 45 | | ug/L | | | | 249769 | 0 |
| [ | V | 51 | | ug/L | | | | 1708 | 10 |
| [ | V-1 | 51 | | ug/L | | | | 10262 | 3 |
| [ | Cr | 52 | | ug/L | | | | 6499 | 0 |
| [ | Cr | 53 | | ug/L | | | | 3469 | 4 |
| [ | Mn | 55 | | ug/L | | | | 733 | 6 |
| [ | Co | 59 | | ug/L | | | | 106 | 3 |
| [> | Ge | 72 | | ug/L | | | | 317543 | 1 |
| [ | Ni | 60 | | ug/L | | | | 99 | 10 |
| [ | Ni | 62 | | ug/L | | | | 62 | 13 |
| [ | Cu | 63 | | ug/L | | | | 229 | 3 |
| [ | Cu | 65 | | ug/L | | | | 116 | 23 |
| [ | Zn | 66 | | ug/L | | | | 545 | 6 |
| [ | Zn | 67 | | ug/L | | | | 251 | 7 |
| [ | Zn | 68 | | ug/L | | | | 7815 | 2 |
| [ | As | 75 | | ug/L | | | | 730 | 2 |
| [ | As-1 | 75 | | ug/L | | | | 10537 | 0 |
| [ | Se | 82 | | ug/L | | | | -5 | 223 |
| [ | Se | 78 | | ug/L | | | | 10699 | 0 |
| [ | Mo | 98 | | ug/L | | | | 2478 | 27 |
| | Y | 89 | | ug/L | | | | 288507 | 0 |
| | Kr | 83 | | ug/L | | | | 371 | 2 |
| [> | In | 115 | | ug/L | | | | 339261 | 0 |
| [ | Ag | 107 | | ug/L | | | | 72 | 20 |
| [ | Cd | 111 | | ug/L | | | | 158 | 7 |
| [ | Cd | 114 | | ug/L | | | | 25 | 15 |
| [ | Sb | 121 | | ug/L | | | | 64 | 14 |
| [ | Sb | 123 | | ug/L | | | | 44 | 12 |
| [ | Ba | 135 | | ug/L | | | | 25 | 19 |
| [ | Ba | 137 | | ug/L | | | | 41 | 30 |
| [> | Tb | 159 | | ug/L | | | | 406804 | 1 |
| [ | Tl | 205 | | ug/L | | | | 57 | 12 |
| [ | Pb | 208 | | ug/L | | | | 1094 | 5 |
| [ | Bi | 209 | | ug/L | | | | 323780 | 1 |
| [ | Th | 232 | | ug/L | | | | 267 | 23 |
| [ | U | 238 | | ug/L | | | | 42 | 16 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: Standard 1**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 16:06:53**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052112A.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 473160 | 472524 | 1 |
| [ | Be | 9 | 10.000 | ug/L | 0.139 | 1 | 2 | 4520 | 1 |
| | C | 13 | | mg/L | | | 5976 | 6309 | 2 |
| | Cl | 37 | | mg/L | | | 2184345 | 2235079 | 0 |
| [> | Sc | 45 | | ug/L | | | 249769 | 251726 | 1 |
| [ | V | 51 | 10.000 | ug/L | 0.158 | 1 | 1708 | 109311 | 1 |
| [ | V-1 | 51 | 10.000 | ug/L | 0.227 | 2 | 10262 | 119464 | 1 |
| [ | Cr | 52 | 10.000 | ug/L | 0.153 | 1 | 6499 | 102744 | 0 |
| [ | Cr | 53 | 10.000 | ug/L | 0.326 | 3 | 3469 | 14857 | 1 |
| [ | Mn | 55 | 10.000 | ug/L | 0.149 | 1 | 733 | 158924 | 0 |
| [ | Co | 59 | 10.000 | ug/L | 0.139 | 1 | 106 | 122109 | 0 |
| [> | Ge | 72 | | ug/L | | | 317543 | 322173 | 0 |
| [ | Ni | 60 | 10.000 | ug/L | 0.126 | 1 | 99 | 26202 | 0 |
| [ | Ni | 62 | 10.000 | ug/L | 0.307 | 3 | 62 | 4022 | 3 |
| [ | Cu | 63 | 10.000 | ug/L | 0.095 | 0 | 229 | 59308 | 0 |
| [ | Cu | 65 | 10.000 | ug/L | 0.152 | 1 | 116 | 28412 | 1 |
| [ | Zn | 66 | 10.000 | ug/L | 0.067 | 0 | 545 | 18243 | 0 |
| [ | Zn | 67 | 10.000 | ug/L | 0.335 | 3 | 251 | 3205 | 2 |
| [ | Zn | 68 | 10.000 | ug/L | 0.171 | 1 | 7815 | 20312 | 1 |
| [ | As | 75 | 10.000 | ug/L | 0.260 | 2 | 730 | 18613 | 2 |
| [ | As-1 | 75 | 10.000 | ug/L | 0.285 | 2 | 10537 | 28227 | 1 |
| [ | Se | 82 | 10.000 | ug/L | 0.227 | 2 | -5 | 1967 | 2 |
| [ | Se | 78 | 10.000 | ug/L | 0.448 | 4 | 10699 | 15510 | 0 |
| [ | Mo | 98 | 10.000 | ug/L | 0.131 | 1 | 2478 | 65320 | 0 |
| | Y | 89 | | ug/L | | | 288507 | 294426 | 1 |
| | Kr | 83 | | ug/L | | | 371 | 368 | 2 |
| [> | In | 115 | | ug/L | | | 339261 | 340798 | 0 |
| [ | Ag | 107 | 10.000 | ug/L | 0.100 | 1 | 72 | 113324 | 1 |
| [ | Cd | 111 | 10.000 | ug/L | 0.044 | 0 | 158 | 27558 | 0 |
| [ | Cd | 114 | 10.000 | ug/L | 0.069 | 0 | 25 | 64368 | 0 |
| [ | Sb | 121 | 10.000 | ug/L | 0.087 | 0 | 64 | 92077 | 1 |
| [ | Sb | 123 | 10.000 | ug/L | 0.100 | 1 | 44 | 69677 | 1 |
| [ | Ba | 135 | 10.000 | ug/L | 0.109 | 1 | 25 | 23011 | 0 |
| [ | Ba | 137 | 10.000 | ug/L | 0.049 | 0 | 41 | 40179 | 0 |
| [> | Tb | 159 | | ug/L | | | 406804 | 411545 | 0 |
| [ | Tl | 205 | 10.000 | ug/L | 0.118 | 1 | 57 | 279431 | 1 |
| [ | Pb | 208 | 10.000 | ug/L | 0.022 | 0 | 1094 | 385993 | 0 |
| [ | Bi | 209 | | ug/L | | | 323780 | 325486 | 0 |
| [ | Th | 232 | 10.000 | ug/L | 0.024 | 0 | 267 | 430666 | 0 |
| [ | U | 238 | 10.000 | ug/L | 0.123 | 1 | 42 | 463283 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: Standard 2**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 16:13:01**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052112A.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 473160 | 480741 | 0 |
| [ | Be | 9 | 19.937 | ug/L | 0.075 | 0 | 2 | 9054 | 1 |
| | C | 13 | | mg/L | | | 5976 | 6012 | 0 |
| | Cl | 37 | | mg/L | | | 2184345 | 2246774 | 0 |
| [> | Sc | 45 | | ug/L | | | 249769 | 258255 | 1 |
| [ | V | 51 | 20.034 | ug/L | 0.094 | 0 | 1708 | 224441 | 1 |
| [ | V-1 | 51 | 20.031 | ug/L | 0.157 | 0 | 10262 | 236256 | 1 |
| [ | Cr | 52 | 19.964 | ug/L | 0.187 | 0 | 6499 | 202376 | 2 |
| [ | Cr | 53 | 19.956 | ug/L | 0.267 | 1 | 3469 | 26647 | 1 |
| [ | Mn | 55 | 20.046 | ug/L | 0.357 | 1 | 733 | 329090 | 2 |
| [ | Co | 59 | 20.017 | ug/L | 0.375 | 1 | 106 | 251460 | 0 |
| [> | Ge | 72 | | ug/L | | | 317543 | 327331 | 1 |
| [ | Ni | 60 | 20.049 | ug/L | 0.215 | 1 | 99 | 53799 | 0 |
| [ | Ni | 62 | 19.908 | ug/L | 0.090 | 0 | 62 | 7927 | 0 |
| [ | Cu | 63 | 20.010 | ug/L | 0.072 | 0 | 229 | 120581 | 0 |
| [ | Cu | 65 | 19.994 | ug/L | 0.424 | 2 | 116 | 57528 | 1 |
| [ | Zn | 66 | 20.002 | ug/L | 0.226 | 1 | 545 | 36521 | 0 |
| [ | Zn | 67 | 20.163 | ug/L | 0.432 | 2 | 251 | 6506 | 1 |
| [ | Zn | 68 | 20.019 | ug/L | 0.140 | 0 | 7815 | 33337 | 0 |
| [ | As | 75 | 19.985 | ug/L | 0.135 | 0 | 730 | 36934 | 1 |
| [ | As-1 | 75 | 20.009 | ug/L | 0.166 | 0 | 10537 | 46577 | 1 |
| [ | Se | 82 | 20.027 | ug/L | 0.241 | 1 | -5 | 4030 | 2 |
| [ | Se | 78 | 20.121 | ug/L | 0.383 | 1 | 10699 | 20782 | 1 |
| [ | Mo | 98 | 20.074 | ug/L | 0.041 | 0 | 2478 | 132587 | 1 |
| | Y | 89 | | ug/L | | | 288507 | 304824 | 1 |
| | Kr | 83 | | ug/L | | | 371 | 370 | 2 |
| [> | In | 115 | | ug/L | | | 339261 | 351452 | 2 |
| [ | Ag | 107 | 19.977 | ug/L | 0.456 | 2 | 72 | 232240 | 1 |
| [ | Cd | 111 | 20.037 | ug/L | 0.430 | 2 | 158 | 57187 | 2 |
| [ | Cd | 114 | 19.968 | ug/L | 0.457 | 2 | 25 | 131667 | 2 |
| [ | Sb | 121 | 20.021 | ug/L | 0.154 | 0 | 64 | 190828 | 1 |
| [ | Sb | 123 | 19.965 | ug/L | 0.159 | 0 | 44 | 142398 | 1 |
| [ | Ba | 135 | 20.003 | ug/L | 0.171 | 0 | 25 | 47469 | 2 |
| [ | Ba | 137 | 19.978 | ug/L | 0.233 | 1 | 41 | 82375 | 2 |
| [> | Tb | 159 | | ug/L | | | 406804 | 420426 | 1 |
| [ | Tl | 205 | 20.039 | ug/L | 0.250 | 1 | 57 | 576479 | 2 |
| [ | Pb | 208 | 20.022 | ug/L | 0.136 | 0 | 1094 | 791919 | 1 |
| [ | Bi | 209 | | ug/L | | | 323780 | 334715 | 0 |
| [ | Th | 232 | 20.102 | ug/L | 0.188 | 0 | 267 | 902415 | 1 |
| [ | U | 238 | 20.066 | ug/L | 0.275 | 1 | 42 | 962442 | 2 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: Standard 3**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 16:19:09**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052112A.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 473160 | 494273 | 1 |
| [ | Be | 9 | 49.916 | ug/L | 1.441 | 2 | 2 | 23098 | 0 |
| | C | 13 | | mg/L | | | 5976 | 5559 | 1 |
| | Cl | 37 | | mg/L | | | 2184345 | 2264545 | 0 |
| [> | Sc | 45 | | ug/L | | | 249769 | 264324 | 1 |
| [ | V | 51 | 50.191 | ug/L | 0.734 | 1 | 1708 | 583796 | 0 |
| [ | V-1 | 51 | 50.203 | ug/L | 0.912 | 1 | 10262 | 601631 | 0 |
| [ | Cr | 52 | 50.060 | ug/L | 0.538 | 1 | 6499 | 511963 | 0 |
| [ | Cr | 53 | 50.106 | ug/L | 1.163 | 2 | 3469 | 63555 | 0 |
| [ | Mn | 55 | 50.173 | ug/L | 1.508 | 3 | 733 | 856388 | 1 |
| [ | Co | 59 | 50.177 | ug/L | 1.185 | 2 | 106 | 656608 | 0 |
| [> | Ge | 72 | | ug/L | | | 317543 | 337182 | 0 |
| [ | Ni | 60 | 49.948 | ug/L | 0.934 | 1 | 99 | 137191 | 1 |
| [ | Ni | 62 | 50.110 | ug/L | 0.680 | 1 | 62 | 20678 | 0 |
| [ | Cu | 63 | 49.966 | ug/L | 0.421 | 0 | 229 | 308742 | 0 |
| [ | Cu | 65 | 49.886 | ug/L | 1.011 | 2 | 116 | 146003 | 1 |
| [ | Zn | 66 | 50.079 | ug/L | 0.812 | 1 | 545 | 94062 | 1 |
| [ | Zn | 67 | 49.819 | ug/L | 0.889 | 1 | 251 | 15885 | 1 |
| [ | Zn | 68 | 50.079 | ug/L | 0.578 | 1 | 7815 | 73962 | 0 |
| [ | As | 75 | 49.934 | ug/L | 0.305 | 0 | 730 | 93292 | 0 |
| [ | As-1 | 75 | 49.983 | ug/L | 0.450 | 0 | 10537 | 102931 | 0 |
| [ | Se | 82 | 50.110 | ug/L | 0.741 | 1 | -5 | 10511 | 0 |
| [ | Se | 78 | 50.307 | ug/L | 1.078 | 2 | 10699 | 37268 | 0 |
| [ | Mo | 98 | 50.272 | ug/L | 0.207 | 0 | 2478 | 347448 | 0 |
| | Y | 89 | | ug/L | | | 288507 | 312562 | 2 |
| | Kr | 83 | | ug/L | | | 371 | 381 | 6 |
| [> | In | 115 | | ug/L | | | 339261 | 366069 | 0 |
| [ | Ag | 107 | 49.940 | ug/L | 0.716 | 1 | 72 | 601158 | 1 |
| [ | Cd | 111 | 49.866 | ug/L | 0.509 | 1 | 158 | 146048 | 0 |
| [ | Cd | 114 | 50.129 | ug/L | 0.195 | 0 | 25 | 348792 | 0 |
| [ | Sb | 121 | 49.939 | ug/L | 0.063 | 0 | 64 | 492724 | 0 |
| [ | Sb | 123 | 49.910 | ug/L | 0.343 | 0 | 44 | 367437 | 0 |
| [ | Ba | 135 | 50.126 | ug/L | 0.713 | 1 | 25 | 125442 | 0 |
| [ | Ba | 137 | 50.068 | ug/L | 0.847 | 1 | 41 | 216416 | 1 |
| [> | Tb | 159 | | ug/L | | | 406804 | 436529 | 0 |
| [ | Tl | 205 | 50.205 | ug/L | 0.430 | 0 | 57 | 1530843 | 1 |
| [ | Pb | 208 | 50.112 | ug/L | 0.284 | 0 | 1094 | 2079392 | 0 |
| [ | Bi | 209 | | ug/L | | | 323780 | 346682 | 1 |
| [ | Th | 232 | 49.925 | ug/L | 0.455 | 0 | 267 | 2309310 | 0 |
| [ | U | 238 | 49.875 | ug/L | 0.208 | 0 | 42 | 2452672 | 0 |

UU52 : 02079

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: Standard 4**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 16:25:18**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052112A.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 473160 | 473998 | 0 |
| [ | Be | 9 | 99.684 | ug/L | 0.500 | 0 | 2 | 43789 | 1 |
| | C | 13 | | mg/L | | | 5976 | 6261 | 1 |
| | Cl | 37 | | mg/L | | | 2184345 | 2265913 | 0 |
| [> | Sc | 45 | | ug/L | | | 249769 | 251508 | 1 |
| [ | V | 51 | 100.422 | ug/L | 0.968 | 0 | 1708 | 1125632 | 0 |
| [ | V-1 | 51 | 100.385 | ug/L | 0.817 | 0 | 10262 | 1149145 | 0 |
| [ | Cr | 52 | 100.344 | ug/L | 1.440 | 1 | 6499 | 981048 | 0 |
| [ | Cr | 53 | 100.231 | ug/L | 1.244 | 1 | 3469 | 118377 | 0 |
| [ | Mn | 55 | 100.300 | ug/L | 1.180 | 1 | 733 | 1645215 | 1 |
| [ | Co | 59 | 100.027 | ug/L | 0.619 | 0 | 106 | 1246825 | 1 |
| [> | Ge | 72 | | ug/L | | | 317543 | 323388 | 0 |
| [ | Ni | 60 | 99.740 | ug/L | 0.840 | 0 | 99 | 260419 | 1 |
| [ | Ni | 62 | 99.683 | ug/L | 1.164 | 1 | 62 | 38979 | 0 |
| [ | Cu | 63 | 99.584 | ug/L | 1.575 | 1 | 229 | 581915 | 2 |
| [ | Cu | 65 | 99.906 | ug/L | 1.008 | 1 | 116 | 279461 | 1 |
| [ | Zn | 66 | 99.632 | ug/L | 1.266 | 1 | 545 | 176767 | 0 |
| [ | Zn | 67 | 99.397 | ug/L | 1.976 | 1 | 251 | 29554 | 1 |
| [ | Zn | 68 | 99.676 | ug/L | 0.507 | 0 | 7815 | 131976 | 0 |
| [ | As | 75 | 100.217 | ug/L | 0.733 | 0 | 730 | 180123 | 0 |
| [ | As-1 | 75 | 100.069 | ug/L | 1.141 | 1 | 10537 | 187301 | 0 |
| [ | Se | 82 | 99.746 | ug/L | 0.781 | 0 | -5 | 19905 | 1 |
| [ | Se | 78 | 99.231 | ug/L | 1.410 | 1 | 10699 | 58687 | 0 |
| [ | Mo | 98 | 100.076 | ug/L | 0.863 | 0 | 2478 | 662553 | 1 |
| | Y | 89 | | ug/L | | | 288507 | 297583 | 0 |
| | Kr | 83 | | ug/L | | | 371 | 386 | 0 |
| [> | In | 115 | | ug/L | | | 339261 | 342029 | 0 |
| [ | Ag | 107 | 100.171 | ug/L | 0.591 | 0 | 72 | 1133044 | 0 |
| [ | Cd | 111 | 100.509 | ug/L | 0.884 | 0 | 158 | 279627 | 0 |
| [ | Cd | 114 | 100.196 | ug/L | 0.927 | 0 | 25 | 655653 | 1 |
| [ | Sb | 121 | 100.777 | ug/L | 0.879 | 0 | 64 | 953647 | 1 |
| [ | Sb | 123 | 100.959 | ug/L | 0.083 | 0 | 44 | 717342 | 0 |
| [ | Ba | 135 | 100.432 | ug/L | 2.310 | 2 | 25 | 238229 | 1 |
| [ | Ba | 137 | 100.434 | ug/L | 0.787 | 0 | 41 | 411545 | 0 |
| [> | Tb | 159 | | ug/L | | | 406804 | 416855 | 1 |
| [ | Tl | 205 | 99.044 | ug/L | 0.744 | 0 | 57 | 2794693 | 1 |
| [ | Pb | 208 | 99.300 | ug/L | 1.184 | 1 | 1094 | 3843613 | 0 |
| [ | Bi | 209 | | ug/L | | | 323780 | 322000 | 0 |
| [ | Th | 232 | 100.037 | ug/L | 2.042 | 2 | 267 | 4423303 | 1 |
| [ | U | 238 | 100.187 | ug/L | 0.659 | 0 | 42 | 4734148 | 0 |

UU52 : 02080

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: Rinse Sample**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 16:31:56**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052112A.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 473160 | 487276 | 2 |
| [ | Be | 9 | 0.011 | ug/L | 0.013 | 123 | 2 | 7 | 77 |
| | C | 13 | | mg/L | | | 5976 | 5761 | 1 |
| | Cl | 37 | | mg/L | | | 2184345 | 2316310 | 0 |
| [> | Sc | 45 | | ug/L | | | 249769 | 264187 | 0 |
| [ | V | 51 | 0.047 | ug/L | 0.024 | 50 | 1708 | 2361 | 12 |
| [ | V-1 | 51 | -0.196 | ug/L | 0.007 | 3 | 10262 | 8516 | 0 |
| [ | Cr | 52 | 0.061 | ug/L | 0.016 | 26 | 6499 | 7499 | 2 |
| [ | Cr | 53 | -0.709 | ug/L | 0.071 | 10 | 3469 | 2815 | 2 |
| [ | Mn | 55 | 0.039 | ug/L | 0.003 | 7 | 733 | 1439 | 3 |
| [ | Co | 59 | 0.010 | ug/L | 0.007 | 70 | 106 | 246 | 38 |
| [> | Ge | 72 | | ug/L | | | 317543 | 337343 | 0 |
| [ | Ni | 60 | 0.014 | ug/L | 0.009 | 65 | 99 | 142 | 17 |
| [ | Ni | 62 | 0.012 | ug/L | 0.014 | 118 | 62 | 71 | 8 |
| [ | Cu | 63 | 0.014 | ug/L | 0.010 | 74 | 229 | 327 | 19 |
| [ | Cu | 65 | 0.012 | ug/L | 0.008 | 68 | 116 | 157 | 15 |
| [ | Zn | 66 | 0.050 | ug/L | 0.014 | 27 | 545 | 671 | 3 |
| [ | Zn | 67 | -0.073 | ug/L | 0.024 | 33 | 251 | 244 | 2 |
| [ | Zn | 68 | 0.192 | ug/L | 0.041 | 21 | 7815 | 8551 | 0 |
| [ | As | 75 | -0.033 | ug/L | 0.007 | 22 | 730 | 714 | 1 |
| [ | As-1 | 75 | 0.265 | ug/L | 0.092 | 34 | 10537 | 11680 | 0 |
| [ | Se | 82 | -0.052 | ug/L | 0.027 | 52 | -5 | -16 | 34 |
| [ | Se | 78 | 0.971 | ug/L | 0.321 | 33 | 10699 | 11854 | 0 |
| [ | Mo | 98 | -0.310 | ug/L | 0.015 | 4 | 2478 | 500 | 21 |
| | Y | 89 | | ug/L | | | 288507 | 312421 | 0 |
| | Kr | 83 | | ug/L | | | 371 | 382 | 1 |
| [> | In | 115 | | ug/L | | | 339261 | 364930 | 1 |
| [ | Ag | 107 | 0.031 | ug/L | 0.010 | 32 | 72 | 452 | 25 |
| [ | Cd | 111 | 0.015 | ug/L | 0.008 | 55 | 158 | 214 | 10 |
| [ | Cd | 114 | 0.011 | ug/L | 0.006 | 50 | 25 | 104 | 36 |
| [ | Sb | 121 | 0.128 | ug/L | 0.034 | 26 | 64 | 1357 | 23 |
| [ | Sb | 123 | 0.122 | ug/L | 0.029 | 23 | 44 | 974 | 21 |
| [ | Ba | 135 | 0.018 | ug/L | 0.009 | 52 | 25 | 71 | 31 |
| [ | Ba | 137 | 0.017 | ug/L | 0.009 | 51 | 41 | 117 | 30 |
| [> | Tb | 159 | | ug/L | | | 406804 | 433391 | 0 |
| [ | Tl | 205 | 0.031 | ug/L | 0.014 | 44 | 57 | 969 | 41 |
| [ | Pb | 208 | 0.024 | ug/L | 0.011 | 45 | 1094 | 2114 | 20 |
| [ | Bi | 209 | | ug/L | | | 323780 | 345574 | 0 |
| [ | Th | 232 | 0.064 | ug/L | 0.014 | 22 | 267 | 3221 | 19 |
| [ | U | 238 | 0.015 | ug/L | 0.007 | 47 | 42 | 802 | 44 |

UU52:02081

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: Blank**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 16:44:40**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052112A.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | | 477870 | 0 |
| [ | Be | 9 | | ug/L | | | | 3 | 78 |
| | C | 13 | | mg/L | | | | 5654 | 1 |
| | Cl | 37 | | mg/L | | | | 2331174 | 0 |
| [> | Sc | 45 | | ug/L | | | | 262568 | 0 |
| [ | V | 51 | | ug/L | | | | 2402 | 4 |
| [ | V-1 | 51 | | ug/L | | | | 8286 | 2 |
| [ | Cr | 52 | | ug/L | | | | 7360 | 2 |
| [ | Cr | 53 | | ug/L | | | | 2713 | 2 |
| [ | Mn | 55 | | ug/L | | | | 1178 | 4 |
| [ | Co | 59 | | ug/L | | | | 123 | 9 |
| [> | Ge | 72 | | ug/L | | | | 333920 | 1 |
| [ | Ni | 60 | | ug/L | | | | 109 | 6 |
| [ | Ni | 62 | | ug/L | | | | 54 | 12 |
| [ | Cu | 63 | | ug/L | | | | 248 | 15 |
| [ | Cu | 65 | | ug/L | | | | 118 | 4 |
| [ | Zn | 66 | | ug/L | | | | 695 | 8 |
| [ | Zn | 67 | | ug/L | | | | 255 | 3 |
| [ | Zn | 68 | | ug/L | | | | 8462 | 0 |
| [ | As | 75 | | ug/L | | | | 693 | 3 |
| [ | As-1 | 75 | | ug/L | | | | 11505 | 0 |
| [ | Se | 82 | | ug/L | | | | -5 | 426 |
| [ | Se | 78 | | ug/L | | | | 11713 | 0 |
| [ | Mo | 98 | | ug/L | | | | 207 | 5 |
| | Y | 89 | | ug/L | | | | 309412 | 0 |
| | Kr | 83 | | ug/L | | | | 376 | 5 |
| [> | In | 115 | | ug/L | | | | 365357 | 0 |
| [ | Ag | 107 | | ug/L | | | | 101 | 3 |
| [ | Cd | 111 | | ug/L | | | | 166 | 12 |
| [ | Cd | 114 | | ug/L | | | | 27 | 9 |
| [ | Sb | 121 | | ug/L | | | | 240 | 11 |
| [ | Sb | 123 | | ug/L | | | | 169 | 3 |
| [ | Ba | 135 | | ug/L | | | | 32 | 13 |
| [ | Ba | 137 | | ug/L | | | | 65 | 11 |
| [> | Tb | 159 | | ug/L | | | | 430587 | 0 |
| [ | Tl | 205 | | ug/L | | | | 147 | 12 |
| [ | Pb | 208 | | ug/L | | | | 1493 | 2 |
| [ | Bi | 209 | | ug/L | | | | 345109 | 0 |
| [ | Th | 232 | | ug/L | | | | 719 | 5 |
| [ | U | 238 | | ug/L | | | | 97 | 5 |

# Quantitative Analysis - Calibration Report

**Sample Date/Time: Wednesday, May 23, 2012 16:44:40**
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| Analyte | Mass | r Corr Coeff | Slope | Std 1 Conc | Std 2 Conc | Std 3 Conc | Std 4 Conc | Std 5 Conc |
|---|---|---|---|---|---|---|---|---|
| Li | 6 | | | | | | | |
| Be | 9 | 1.0000 | 0.0009 | 10 | 20 | 50 | 100 | |
| C | 13 | | | | | | | |
| Cl | 37 | | | | | | | |
| Sc | 45 | | | | | | | |
| V | 51 | 1.0000 | 0.0445 | 10 | 20 | 50 | 100 | |
| V-1 | 51 | 1.0000 | 0.0451 | 10 | 20 | 50 | 100 | |
| Cr | 52 | 1.0000 | 0.0386 | 10 | 20 | 50 | 100 | |
| Cr | 53 | 1.0000 | 0.0046 | 10 | 20 | 50 | 100 | |
| Mn | 55 | 1.0000 | 0.0652 | 10 | 20 | 50 | 100 | |
| Co | 59 | 1.0000 | 0.0496 | 10 | 20 | 50 | 100 | |
| Ge | 72 | | | | | | | |
| Ni | 60 | 1.0000 | 0.0081 | 10 | 20 | 50 | 100 | |
| Ni | 62 | 1.0000 | 0.0012 | 10 | 20 | 50 | 100 | |
| Cu | 63 | 1.0000 | 0.0181 | 10 | 20 | 50 | 100 | |
| Cu | 65 | 1.0000 | 0.0086 | 10 | 20 | 50 | 100 | |
| Zn | 66 | 1.0000 | 0.0055 | 10 | 20 | 50 | 100 | |
| Zn | 67 | 0.9999 | 0.0009 | 10 | 20 | 50 | 100 | |
| Zn | 68 | 1.0000 | 0.0038 | 10 | 20 | 50 | 100 | |
| As | 75 | 1.0000 | 0.0055 | 10 | 20 | 50 | 100 | |
| As-1 | 75 | 1.0000 | 0.0055 | 10 | 20 | 50 | 100 | |
| Se | 82 | 1.0000 | 0.0006 | 10 | 20 | 50 | 100 | |
| Se | 78 | 0.9999 | 0.0015 | 10 | 20 | 50 | 100 | |
| Mo | 98 | 1.0000 | 0.0204 | 10 | 20 | 50 | 100 | |
| Y | 89 | | | | | | | |
| Kr | 83 | | | | | | | |
| In | 115 | | | | | | | |
| Ag | 107 | 1.0000 | 0.0331 | 10 | 20 | 50 | 100 | |
| Cd | 111 | 1.0000 | 0.0081 | 10 | 20 | 50 | 100 | |
| Cd | 114 | 1.0000 | 0.0191 | 10 | 20 | 50 | 100 | |
| Sb | 121 | 0.9999 | 0.0277 | 10 | 20 | 50 | 100 | |
| Sb | 123 | 0.9998 | 0.0208 | 10 | 20 | 50 | 100 | |
| Ba | 135 | 1.0000 | 0.0069 | 10 | 20 | 50 | 100 | |
| Ba | 137 | 1.0000 | 0.0120 | 10 | 20 | 50 | 100 | |
| Tb | 159 | | | | | | | |
| Tl | 205 | 0.9998 | 0.0677 | 10 | 20 | 50 | 100 | |
| Pb | 208 | 0.9999 | 0.0928 | 10 | 20 | 50 | 100 | |
| Bi | 209 | | | | | | | |
| Th | 232 | 1.0000 | 0.1061 | 10 | 20 | 50 | 100 | |
| U | 238 | 1.0000 | 0.1134 | 10 | 20 | 50 | 100 | |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: ICV**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 16:51:46**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| ⌈> | Li | 6 | | ug/L | | | 477870 | 490658 | 1 |
| ⌊ | Be | 9 | 50.329 | ug/L | 0.667 | 1 | 3 | 22884 | 1 |
| | C | 13 | | mg/L | | | 5654 | 7550 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2345847 | 0 |
| ⌈> | Sc | 45 | | ug/L | | | 262568 | 267637 | 1 |
| \| | V | 51 | 48.598 | ug/L | 0.200 | 0 | 2402 | 581238 | 1 |
| \| | V-1 | 51 | 48.631 | ug/L | 0.105 | 0 | 8286 | 595547 | 1 |
| \| | Cr | 52 | 49.119 | ug/L | 0.567 | 1 | 7360 | 515132 | 1 |
| \| | Cr | 53 | 49.203 | ug/L | 0.361 | 0 | 2713 | 62785 | 2 |
| \| | Mn | 55 | 48.501 | ug/L | 0.409 | 0 | 1178 | 847437 | 2 |
| ⌊ | Co | 59 | 48.981 | ug/L | 0.841 | 1 | 123 | 649648 | 0 |
| ⌈> | Ge | 72 | | ug/L | | | 333920 | 341258 | 0 |
| \| | Ni | 60 | 49.563 | ug/L | 0.460 | 0 | 109 | 136610 | 0 |
| \| | Ni | 62 | 49.332 | ug/L | 0.171 | 0 | 54 | 20378 | 0 |
| \| | Cu | 63 | 49.056 | ug/L | 0.537 | 1 | 248 | 302605 | 0 |
| \| | Cu | 65 | 48.999 | ug/L | 0.362 | 0 | 118 | 144692 | 0 |
| \| | Zn | 66 | 48.273 | ug/L | 0.483 | 1 | 695 | 90807 | 0 |
| \| | Zn | 67 | 49.539 | ug/L | 0.660 | 1 | 255 | 15670 | 1 |
| \| | Zn | 68 | 48.143 | ug/L | 0.594 | 1 | 8462 | 71858 | 1 |
| \| | As | 75 | 49.584 | ug/L | 0.224 | 0 | 693 | 94363 | 0 |
| \| | As-1 | 75 | 48.738 | ug/L | 0.216 | 0 | 11505 | 102511 | 0 |
| \| | Se | 82 | 77.878 | ug/L | 0.453 | 0 | -5 | 16398 | 0 |
| \| | Se | 78 | 76.298 | ug/L | 1.121 | 1 | 11713 | 50749 | 1 |
| ⌊ | Mo | 98 | 49.643 | ug/L | 0.953 | 1 | 207 | 345716 | 2 |
| | Y | 89 | | ug/L | | | 309412 | 313650 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 387 | 1 |
| ⌈> | In | 115 | | ug/L | | | 365357 | 362326 | 1 |
| \| | Ag | 107 | 49.851 | ug/L | 0.400 | 0 | 101 | 597386 | 1 |
| \| | Cd | 111 | 49.256 | ug/L | 0.545 | 1 | 166 | 145259 | 2 |
| \| | Cd | 114 | 48.851 | ug/L | 0.251 | 0 | 27 | 338655 | 1 |
| \| | Sb | 121 | 48.941 | ug/L | 0.752 | 1 | 240 | 490800 | 1 |
| \| | Sb | 123 | 49.006 | ug/L | 0.329 | 0 | 169 | 368995 | 0 |
| \| | Ba | 135 | 49.185 | ug/L | 1.163 | 2 | 32 | 123600 | 1 |
| ⌊ | Ba | 137 | 49.321 | ug/L | 0.412 | 0 | 65 | 214139 | 1 |
| ⌈> | Tb | 159 | | ug/L | | | 430587 | 435941 | 0 |
| \| | Tl | 205 | 50.663 | ug/L | 0.458 | 0 | 147 | 1495146 | 1 |
| \| | Pb | 208 | 50.491 | ug/L | 0.289 | 0 | 1493 | 2044953 | 0 |
| \| | Bi | 209 | | ug/L | | | 345109 | 346330 | 0 |
| \| | Th | 232 | 49.542 | ug/L | 0.446 | 0 | 719 | 2291656 | 0 |
| ⌊ | U | 238 | 49.858 | ug/L | 0.616 | 1 | 97 | 2463790 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: ICB**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 16:58:24**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 476869 | 0 |
| [ | Be | 9 | 0.002 | ug/L | 0.004 | 227 | 3 | 4 | 45 |
| | C | 13 | | mg/L | | | 5654 | 5906 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2362729 | 1 |
| [> | Sc | 45 | | ug/L | | | 262568 | 259437 | 0 |
| [ | V | 51 | -0.013 | ug/L | 0.016 | 125 | 2402 | 2220 | 7 |
| [ | V-1 | 51 | -0.010 | ug/L | 0.016 | 164 | 8286 | 8071 | 2 |
| [ | Cr | 52 | -0.015 | ug/L | 0.005 | 34 | 7360 | 7126 | 1 |
| [ | Cr | 53 | -0.005 | ug/L | 0.075 | 1654 | 2713 | 2676 | 3 |
| [ | Mn | 55 | -0.018 | ug/L | 0.004 | 22 | 1178 | 864 | 8 |
| [ | Co | 59 | 0.002 | ug/L | 0.002 | 100 | 123 | 150 | 20 |
| [> | Ge | 72 | | ug/L | | | 333920 | 332412 | 0 |
| [ | Ni | 60 | -0.003 | ug/L | 0.001 | 44 | 109 | 101 | 3 |
| [ | Ni | 62 | 0.030 | ug/L | 0.006 | 20 | 54 | 65 | 3 |
| [ | Cu | 63 | -0.001 | ug/L | 0.004 | 442 | 248 | 242 | 10 |
| [ | Cu | 65 | 0.000 | ug/L | 0.003 | 786 | 118 | 119 | 6 |
| [ | Zn | 66 | -0.121 | ug/L | 0.013 | 10 | 695 | 472 | 5 |
| [ | Zn | 67 | -0.128 | ug/L | 0.027 | 21 | 255 | 215 | 3 |
| [ | Zn | 68 | -0.161 | ug/L | 0.022 | 13 | 8462 | 8218 | 0 |
| [ | As | 75 | 0.020 | ug/L | 0.017 | 86 | 693 | 726 | 4 |
| [ | As-1 | 75 | -0.035 | ug/L | 0.100 | 287 | 11505 | 11391 | 1 |
| [ | Se | 82 | -0.006 | ug/L | 0.076 | 1204 | -5 | -6 | 232 |
| [ | Se | 78 | -0.191 | ug/L | 0.301 | 157 | 11713 | 11566 | 1 |
| [ | Mo | 98 | 0.005 | ug/L | 0.007 | 146 | 207 | 240 | 20 |
| | Y | 89 | | ug/L | | | 309412 | 303762 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 377 | 4 |
| [> | In | 115 | | ug/L | | | 365357 | 356275 | 1 |
| [ | Ag | 107 | 0.012 | ug/L | 0.007 | 56 | 101 | 240 | 32 |
| [ | Cd | 111 | 0.008 | ug/L | 0.003 | 38 | 166 | 185 | 4 |
| [ | Cd | 114 | 0.004 | ug/L | 0.002 | 59 | 27 | 54 | 29 |
| [ | Sb | 121 | 0.022 | ug/L | 0.011 | 51 | 240 | 446 | 24 |
| [ | Sb | 123 | 0.021 | ug/L | 0.013 | 60 | 169 | 317 | 28 |
| [ | Ba | 135 | 0.004 | ug/L | 0.003 | 81 | 32 | 41 | 18 |
| [ | Ba | 137 | -0.003 | ug/L | 0.003 | 114 | 65 | 52 | 23 |
| [> | Tb | 159 | | ug/L | | | 430587 | 420529 | 1 |
| [ | Tl | 205 | 0.011 | ug/L | 0.005 | 49 | 147 | 449 | 33 |
| [ | Pb | 208 | 0.005 | ug/L | 0.005 | 90 | 1493 | 1673 | 11 |
| [ | Bi | 209 | | ug/L | | | 345109 | 340783 | 0 |
| [ | Th | 232 | 0.022 | ug/L | 0.008 | 34 | 719 | 1680 | 20 |
| [ | U | 238 | 0.006 | ug/L | 0.003 | 60 | 97 | 359 | 44 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: CCV1**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 17:04:12**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 469254 | 1 |
| [ | Be | 9 | 51.262 | ug/L | 0.316 | 0 | 3 | 22294 | 1 |
| | C | 13 | | mg/L | | | 5654 | 5295 | 0 |
| | Cl | 37 | | mg/L | | | 2331174 | 2354500 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 255460 | 1 |
| [ | V | 51 | 49.087 | ug/L | 1.561 | 3 | 2402 | 560238 | 1 |
| [ | V-1 | 51 | 49.229 | ug/L | 1.315 | 2 | 8286 | 575223 | 1 |
| [ | Cr | 52 | 49.713 | ug/L | 0.940 | 1 | 7360 | 497521 | 0 |
| [ | Cr | 53 | 50.136 | ug/L | 0.346 | 0 | 2713 | 61012 | 1 |
| [ | Mn | 55 | 48.433 | ug/L | 0.785 | 1 | 1178 | 807635 | 0 |
| [ | Co | 59 | 49.292 | ug/L | 0.926 | 1 | 123 | 624040 | 0 |
| [> | Ge | 72 | | ug/L | | | 333920 | 327011 | 0 |
| [ | Ni | 60 | 49.661 | ug/L | 0.981 | 1 | 109 | 131158 | 1 |
| [ | Ni | 62 | 49.977 | ug/L | 0.511 | 1 | 54 | 19781 | 0 |
| [ | Cu | 63 | 50.116 | ug/L | 0.801 | 1 | 248 | 296217 | 0 |
| [ | Cu | 65 | 49.766 | ug/L | 0.535 | 1 | 118 | 140817 | 0 |
| [ | Zn | 66 | 50.319 | ug/L | 0.675 | 1 | 695 | 90671 | 0 |
| [ | Zn | 67 | 50.598 | ug/L | 0.281 | 0 | 255 | 15332 | 1 |
| [ | Zn | 68 | 50.727 | ug/L | 0.776 | 1 | 8462 | 72105 | 0 |
| [ | As | 75 | 50.389 | ug/L | 0.610 | 1 | 693 | 91878 | 0 |
| [ | As-1 | 75 | 50.259 | ug/L | 0.528 | 1 | 11505 | 100942 | 0 |
| [ | Se | 82 | 49.944 | ug/L | 0.737 | 1 | -5 | 10075 | 0 |
| [ | Se | 78 | 49.542 | ug/L | 0.550 | 1 | 11713 | 35598 | 0 |
| [ | Mo | 98 | 49.828 | ug/L | 0.533 | 1 | 207 | 332501 | 0 |
| | Y | 89 | | ug/L | | | 309412 | 302099 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 386 | 2 |
| [> | In | 115 | | ug/L | | | 365357 | 348408 | 0 |
| [ | Ag | 107 | 50.316 | ug/L | 0.788 | 1 | 101 | 579792 | 1 |
| [ | Cd | 111 | 49.933 | ug/L | 0.400 | 0 | 166 | 141585 | 0 |
| [ | Cd | 114 | 49.793 | ug/L | 0.310 | 0 | 27 | 331917 | 1 |
| [ | Sb | 121 | 49.547 | ug/L | 0.616 | 1 | 240 | 477772 | 0 |
| [ | Sb | 123 | 50.183 | ug/L | 0.433 | 0 | 169 | 363347 | 0 |
| [ | Ba | 135 | 49.533 | ug/L | 0.270 | 0 | 32 | 119711 | 0 |
| [ | Ba | 137 | 49.505 | ug/L | 0.391 | 0 | 65 | 206677 | 0 |
| [> | Tb | 159 | | ug/L | | | 430587 | 421335 | 1 |
| [ | Tl | 205 | 51.086 | ug/L | 0.895 | 1 | 147 | 1456924 | 0 |
| [ | Pb | 208 | 50.629 | ug/L | 0.666 | 1 | 1493 | 1981624 | 0 |
| [ | Bi | 209 | | ug/L | | | 345109 | 331041 | 0 |
| [ | Th | 232 | 49.579 | ug/L | 0.963 | 1 | 719 | 2216279 | 0 |
| [ | U | 238 | 50.221 | ug/L | 0.818 | 1 | 97 | 2398467 | 0 |

UU52 : 02086

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: CCB1**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 17:10:50**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 466536 | 1 |
| [ | Be | 9 | 0.003 | ug/L | 0.007 | 238 | 3 | 4 | 68 |
| | C | 13 | | mg/L | | | 5654 | 5708 | 2 |
| | Cl | 37 | | mg/L | | | 2331174 | 2368194 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 254681 | 1 |
| [ | V | 51 | -0.033 | ug/L | 0.013 | 39 | 2402 | 1950 | 6 |
| [ | V-1 | 51 | 0.010 | ug/L | 0.021 | 210 | 8286 | 8147 | 1 |
| [ | Cr | 52 | -0.029 | ug/L | 0.003 | 11 | 7360 | 6852 | 1 |
| [ | Cr | 53 | 0.107 | ug/L | 0.047 | 44 | 2713 | 2756 | 2 |
| [ | Mn | 55 | -0.020 | ug/L | 0.003 | 12 | 1178 | 803 | 7 |
| [ | Co | 59 | 0.002 | ug/L | 0.004 | 206 | 123 | 145 | 37 |
| [> | Ge | 72 | | ug/L | | | 333920 | 324380 | 1 |
| [ | Ni | 60 | -0.003 | ug/L | 0.006 | 210 | 109 | 98 | 16 |
| [ | Ni | 62 | 0.004 | ug/L | 0.026 | 670 | 54 | 54 | 19 |
| [ | Cu | 63 | -0.002 | ug/L | 0.003 | 126 | 248 | 229 | 7 |
| [ | Cu | 65 | 0.000 | ug/L | 0.008 | 3244 | 118 | 116 | 20 |
| [ | Zn | 66 | -0.094 | ug/L | 0.013 | 13 | 695 | 509 | 3 |
| [ | Zn | 67 | -0.139 | ug/L | 0.031 | 22 | 255 | 207 | 3 |
| [ | Zn | 68 | -0.227 | ug/L | 0.047 | 20 | 8462 | 7938 | 2 |
| [ | As | 75 | 0.042 | ug/L | 0.009 | 21 | 693 | 749 | 0 |
| [ | As-1 | 75 | -0.090 | ug/L | 0.070 | 77 | 11505 | 11019 | 2 |
| [ | Se | 82 | -0.077 | ug/L | 0.011 | 14 | -5 | -20 | 9 |
| [ | Se | 78 | -0.393 | ug/L | 0.259 | 65 | 11713 | 11190 | 2 |
| [ | Mo | 98 | 0.001 | ug/L | 0.009 | 786 | 207 | 209 | 27 |
| | Y | 89 | | ug/L | | | 309412 | 296782 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 398 | 0 |
| [> | In | 115 | | ug/L | | | 365357 | 342170 | 3 |
| [ | Ag | 107 | 0.013 | ug/L | 0.006 | 49 | 101 | 241 | 31 |
| [ | Cd | 111 | 0.003 | ug/L | 0.006 | 180 | 166 | 165 | 8 |
| [ | Cd | 114 | 0.005 | ug/L | 0.004 | 76 | 27 | 60 | 45 |
| [ | Sb | 121 | 0.042 | ug/L | 0.014 | 33 | 240 | 620 | 22 |
| [ | Sb | 123 | 0.043 | ug/L | 0.012 | 28 | 169 | 462 | 20 |
| [ | Ba | 135 | 0.005 | ug/L | 0.005 | 105 | 32 | 42 | 30 |
| [ | Ba | 137 | 0.001 | ug/L | 0.002 | 223 | 65 | 64 | 12 |
| [> | Tb | 159 | | ug/L | | | 430587 | 410680 | 2 |
| [ | Tl | 205 | 0.011 | ug/L | 0.005 | 42 | 147 | 453 | 30 |
| [ | Pb | 208 | 0.011 | ug/L | 0.005 | 42 | 1493 | 1845 | 10 |
| [ | Bi | 209 | | ug/L | | | 345109 | 332046 | 1 |
| [ | Th | 232 | 0.032 | ug/L | 0.010 | 32 | 719 | 2070 | 22 |
| [ | U | 238 | 0.006 | ug/L | 0.003 | 48 | 97 | 391 | 38 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: LOW CHECK**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 17:16:39**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 454399 | 0 |
| [ | Be | 9 | 0.240 | ug/L | 0.051 | 21 | 3 | 104 | 20 |
| | C | 13 | | mg/L | | | 5654 | 5522 | 0 |
| | Cl | 37 | | mg/L | | | 2331174 | 2375579 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 250205 | 1 |
| [ | V | 51 | 0.173 | ug/L | 0.012 | 7 | 2402 | 4209 | 1 |
| [ | V-1 | 51 | 0.249 | ug/L | 0.020 | 7 | 8286 | 10709 | 2 |
| [ | Cr | 52 | 0.446 | ug/L | 0.018 | 4 | 7360 | 11317 | 0 |
| [ | Cr | 53 | 0.677 | ug/L | 0.034 | 5 | 2713 | 3357 | 1 |
| [ | Mn | 55 | 0.453 | ug/L | 0.014 | 3 | 1178 | 8514 | 1 |
| [ | Co | 59 | 0.200 | ug/L | 0.004 | 2 | 123 | 2593 | 2 |
| [> | Ge | 72 | | ug/L | | | 333920 | 317664 | 1 |
| [ | Ni | 60 | 0.516 | ug/L | 0.025 | 4 | 109 | 1427 | 4 |
| [ | Ni | 62 | 0.527 | ug/L | 0.047 | 8 | 54 | 253 | 5 |
| [ | Cu | 63 | 0.555 | ug/L | 0.010 | 1 | 248 | 3420 | 1 |
| [ | Cu | 65 | 0.548 | ug/L | 0.017 | 3 | 118 | 1617 | 1 |
| [ | Zn | 66 | 4.241 | ug/L | 0.074 | 1 | 695 | 8029 | 0 |
| [ | Zn | 67 | 3.763 | ug/L | 0.039 | 1 | 255 | 1332 | 2 |
| [ | Zn | 68 | 4.018 | ug/L | 0.136 | 3 | 8462 | 12959 | 0 |
| [ | As | 75 | 0.278 | ug/L | 0.022 | 8 | 693 | 1148 | 3 |
| [ | As-1 | 75 | -0.019 | ug/L | 0.088 | 462 | 11505 | 10911 | 0 |
| [ | Se | 82 | 0.463 | ug/L | 0.035 | 7 | -5 | 85 | 9 |
| [ | Se | 78 | -0.466 | ug/L | 0.265 | 56 | 11713 | 10922 | 0 |
| [ | Mo | 98 | 0.180 | ug/L | 0.008 | 4 | 207 | 1362 | 3 |
| | Y | 89 | | ug/L | | | 309412 | 287442 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 385 | 1 |
| [> | In | 115 | | ug/L | | | 365357 | 335790 | 2 |
| [ | Ag | 107 | 0.192 | ug/L | 0.003 | 1 | 101 | 2228 | 0 |
| [ | Cd | 111 | 0.103 | ug/L | 0.008 | 8 | 166 | 435 | 5 |
| [ | Cd | 114 | 0.106 | ug/L | 0.004 | 4 | 27 | 705 | 2 |
| [ | Sb | 121 | 0.204 | ug/L | 0.012 | 5 | 240 | 2114 | 3 |
| [ | Sb | 123 | 0.208 | ug/L | 0.004 | 2 | 169 | 1606 | 1 |
| [ | Ba | 135 | 0.538 | ug/L | 0.017 | 3 | 32 | 1281 | 1 |
| [ | Ba | 137 | 0.520 | ug/L | 0.000 | 0 | 65 | 2150 | 2 |
| [> | Tb | 159 | | ug/L | | | 430587 | 402179 | 0 |
| [ | Tl | 205 | 0.214 | ug/L | 0.003 | 1 | 147 | 5969 | 1 |
| [ | Pb | 208 | 0.114 | ug/L | 0.003 | 2 | 1493 | 5660 | 1 |
| [ | Bi | 209 | | ug/L | | | 345109 | 320387 | 1 |
| [ | Th | 232 | 0.216 | ug/L | 0.002 | 1 | 719 | 9873 | 0 |
| [ | U | 238 | 0.207 | ug/L | 0.007 | 3 | 97 | 9549 | 2 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: ICSA**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 17:22:26**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 470316 | 1 |
| [ | Be | 9 | -0.003 | ug/L | 0.003 | 119 | 3 | 2 | 69 |
| | C | 13 | | mg/L | | | 5654 | 19819 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 3741035 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 252171 | 0 |
| [ | V | 51 | -0.036 | ug/L | 0.068 | 187 | 2402 | 1897 | 40 |
| [ | V-1 | 51 | 0.529 | ug/L | 0.043 | 8 | 8286 | 13978 | 3 |
| [ | Cr | 52 | 0.701 | ug/L | 0.027 | 3 | 7360 | 13897 | 1 |
| [ | Cr | 53 | 2.460 | ug/L | 0.118 | 4 | 2713 | 5433 | 3 |
| [ | Mn | 55 | 0.040 | ug/L | 0.005 | 13 | 1178 | 1795 | 5 |
| [ | Co | 59 | 0.012 | ug/L | 0.001 | 9 | 123 | 274 | 5 |
| [> | Ge | 72 | | ug/L | | | 333920 | 325562 | 1 |
| [ | Ni | 60 | 0.559 | ug/L | 0.008 | 1 | 109 | 1574 | 1 |
| [ | Ni | 62 | 3.622 | ug/L | 0.126 | 3 | 54 | 1476 | 3 |
| [ | Cu | 63 | 0.493 | ug/L | 0.021 | 4 | 248 | 3143 | 5 |
| [ | Cu | 65 | 0.545 | ug/L | 0.015 | 2 | 118 | 1649 | 3 |
| [ | Zn | 66 | 1.115 | ug/L | 0.053 | 4 | 695 | 2663 | 3 |
| [ | Zn | 67 | 1.810 | ug/L | 0.058 | 3 | 255 | 785 | 0 |
| [ | Zn | 68 | 0.351 | ug/L | 0.093 | 26 | 8462 | 8691 | 2 |
| [ | As | 75 | 0.026 | ug/L | 0.044 | 168 | 693 | 721 | 9 |
| [ | As-1 | 75 | -0.073 | ug/L | 0.044 | 60 | 11505 | 11088 | 1 |
| [ | Se | 82 | -0.077 | ug/L | 0.034 | 43 | -5 | -20 | 33 |
| [ | Se | 78 | -0.232 | ug/L | 0.275 | 118 | 11713 | 11308 | 2 |
| [ | Mo | 98 | 401.580 | ug/L | 8.145 | 2 | 207 | 2666752 | 3 |
| | Y | 89 | | ug/L | | | 309412 | 300936 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 406 | 3 |
| [> | In | 115 | | ug/L | | | 365357 | 345777 | 1 |
| [ | Ag | 107 | 0.032 | ug/L | 0.005 | 17 | 101 | 457 | 12 |
| [ | Cd | 111 | 0.015 | ug/L | 0.013 | 86 | 166 | 200 | 17 |
| [ | Cd | 114 | 0.592 | ug/L | 0.017 | 2 | 27 | 3940 | 3 |
| [ | Sb | 121 | 0.046 | ug/L | 0.004 | 9 | 240 | 666 | 5 |
| [ | Sb | 123 | 0.047 | ug/L | 0.001 | 1 | 169 | 501 | 0 |
| [ | Ba | 135 | 0.041 | ug/L | 0.004 | 9 | 32 | 130 | 5 |
| [ | Ba | 137 | 0.028 | ug/L | 0.001 | 4 | 65 | 177 | 3 |
| [> | Tb | 159 | | ug/L | | | 430587 | 415988 | 1 |
| [ | Tl | 205 | 0.002 | ug/L | 0.001 | 60 | 147 | 210 | 18 |
| [ | Pb | 208 | 0.064 | ug/L | 0.005 | 8 | 1493 | 3921 | 4 |
| [ | Bi | 209 | | ug/L | | | 345109 | 324605 | 2 |
| [ | Th | 232 | 0.094 | ug/L | 0.002 | 1 | 719 | 4864 | 0 |
| [ | U | 238 | 0.001 | ug/L | 0.000 | 14 | 97 | 131 | 2 |

UU52 : 02089

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: ICSAB**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 17:28:44**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 474105 | 0 |
| [ | Be | 9 | -0.001 | ug/L | 0.004 | 499 | 3 | 2 | 65 |
| | C | 13 | | mg/L | | | 5654 | 20023 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 3727900 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 252874 | 0 |
| [ | V | 51 | -0.422 | ug/L | 0.081 | 19 | 2402 | -2431 | 36 |
| [ | V-1 | 51 | 0.633 | ug/L | 0.040 | 6 | 8286 | 15204 | 2 |
| [ | Cr | 52 | 20.117 | ug/L | 0.071 | 0 | 7360 | 203536 | 0 |
| [ | Cr | 53 | 22.583 | ug/L | 0.304 | 1 | 2713 | 28639 | 0 |
| [ | Mn | 55 | 19.611 | ug/L | 0.068 | 0 | 1178 | 324416 | 0 |
| [ | Co | 59 | 19.251 | ug/L | 0.058 | 0 | 123 | 241358 | 0 |
| [> | Ge | 72 | | ug/L | | | 333920 | 325764 | 0 |
| [ | Ni | 60 | 19.228 | ug/L | 0.265 | 1 | 109 | 50658 | 1 |
| [ | Ni | 62 | 22.485 | ug/L | 0.123 | 0 | 54 | 8895 | 0 |
| [ | Cu | 63 | 20.010 | ug/L | 0.211 | 1 | 248 | 117973 | 1 |
| [ | Cu | 65 | 20.336 | ug/L | 0.378 | 1 | 118 | 57394 | 1 |
| [ | Zn | 66 | 20.091 | ug/L | 0.159 | 0 | 695 | 36474 | 0 |
| [ | Zn | 67 | 19.264 | ug/L | 0.142 | 0 | 255 | 5969 | 0 |
| [ | Zn | 68 | 18.989 | ug/L | 0.291 | 1 | 8462 | 32055 | 1 |
| [ | As | 75 | 19.592 | ug/L | 0.069 | 0 | 693 | 36002 | 0 |
| [ | As-1 | 75 | 19.801 | ug/L | 0.065 | 0 | 11505 | 46421 | 0 |
| [ | Se | 82 | -0.110 | ug/L | 0.066 | 60 | -5 | -27 | 48 |
| [ | Se | 78 | -0.133 | ug/L | 0.130 | 97 | 11713 | 11363 | 0 |
| [ | Mo | 98 | 403.264 | ug/L | 4.194 | 1 | 207 | 2679376 | 1 |
| | Y | 89 | | ug/L | | | 309412 | 302450 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 414 | 2 |
| [> | In | 115 | | ug/L | | | 365357 | 350106 | 0 |
| [ | Ag | 107 | 18.887 | ug/L | 0.120 | 0 | 101 | 218764 | 1 |
| [ | Cd | 111 | 19.424 | ug/L | 0.169 | 0 | 166 | 55447 | 1 |
| [ | Cd | 114 | 19.934 | ug/L | 0.221 | 1 | 27 | 133545 | 1 |
| [ | Sb | 121 | 0.051 | ug/L | 0.001 | 2 | 240 | 723 | 1 |
| [ | Sb | 123 | 0.054 | ug/L | 0.003 | 6 | 169 | 553 | 4 |
| [ | Ba | 135 | 0.037 | ug/L | 0.001 | 3 | 32 | 120 | 2 |
| [ | Ba | 137 | 0.043 | ug/L | 0.011 | 25 | 65 | 243 | 19 |
| [> | Tb | 159 | | ug/L | | | 430587 | 421707 | 1 |
| [ | Tl | 205 | -0.000 | ug/L | 0.000 | 718 | 147 | 142 | 10 |
| [ | Pb | 208 | 0.057 | ug/L | 0.003 | 5 | 1493 | 3696 | 3 |
| [ | Bi | 209 | | ug/L | | | 345109 | 323958 | 0 |
| [ | Th | 232 | 0.051 | ug/L | 0.002 | 2 | 719 | 2979 | 1 |
| [ | U | 238 | 0.001 | ug/L | 0.000 | 66 | 97 | 121 | 14 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: LR200**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 17:35:01**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 463400 | 1 |
| [ | Be | 9 | 205.147 | ug/L | 3.477 | 1 | 3 | 88095 | 1 |
| | C | 13 | | mg/L | | | 5654 | 5910 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2308965 | 1 |
| [> | Sc | 45 | | ug/L | | | 262568 | 256335 | 0 |
| [ | V | 51 | 192.853 | ug/L | 0.854 | 0 | 2402 | 2202290 | 0 |
| [ | V-1 | 51 | 193.585 | ug/L | 0.648 | 0 | 8286 | 2246457 | 0 |
| [ | Cr | 52 | 197.678 | ug/L | 2.817 | 1 | 7360 | 1964012 | 1 |
| [ | Cr | 53 | 199.787 | ug/L | 2.008 | 1 | 2713 | 236057 | 0 |
| [ | Mn | 55 | 190.327 | ug/L | 0.620 | 0 | 1178 | 3181645 | 0 |
| [ | Co | 59 | 189.183 | ug/L | 0.974 | 0 | 123 | 2403292 | 0 |
| [> | Ge | 72 | | ug/L | | | 333920 | 330664 | 0 |
| [ | Ni | 60 | 193.944 | ug/L | 1.741 | 0 | 109 | 517670 | 0 |
| [ | Ni | 62 | 192.108 | ug/L | 0.963 | 0 | 54 | 76738 | 0 |
| [ | Cu | 63 | 194.808 | ug/L | 2.399 | 1 | 248 | 1163623 | 0 |
| [ | Cu | 65 | 192.066 | ug/L | 0.804 | 0 | 118 | 549240 | 1 |
| [ | Zn | 66 | 190.922 | ug/L | 2.185 | 1 | 695 | 345969 | 1 |
| [ | Zn | 67 | 193.029 | ug/L | 2.109 | 1 | 255 | 58430 | 0 |
| [ | Zn | 68 | 191.440 | ug/L | 1.586 | 0 | 8462 | 251926 | 0 |
| [ | As | 75 | 198.413 | ug/L | 1.170 | 0 | 693 | 363822 | 0 |
| [ | As-1 | 75 | 198.170 | ug/L | 1.141 | 0 | 11505 | 368934 | 0 |
| [ | Se | 82 | 194.565 | ug/L | 0.199 | 0 | -5 | 39706 | 0 |
| [ | Se | 78 | 193.745 | ug/L | 1.725 | 0 | 11713 | 107008 | 0 |
| [ | Mo | 98 | 203.625 | ug/L | 2.016 | 0 | 207 | 1373350 | 0 |
| | Y | 89 | | ug/L | | | 309412 | 303605 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 422 | 2 |
| [> | In | 115 | | ug/L | | | 365357 | 349771 | 0 |
| [ | Ag | 107 | 190.844 | ug/L | 2.807 | 1 | 101 | 2207474 | 1 |
| [ | Cd | 111 | 196.856 | ug/L | 1.914 | 0 | 166 | 559902 | 0 |
| [ | Cd | 114 | 198.789 | ug/L | 1.426 | 0 | 27 | 1330153 | 0 |
| [ | Sb | 121 | 202.624 | ug/L | 1.252 | 0 | 240 | 1960856 | 0 |
| [ | Sb | 123 | 201.464 | ug/L | 0.548 | 0 | 169 | 1463918 | 0 |
| [ | Ba | 135 | 201.654 | ug/L | 0.550 | 0 | 32 | 489170 | 0 |
| [ | Ba | 137 | 200.866 | ug/L | 3.108 | 1 | 65 | 841758 | 2 |
| [> | Tb | 159 | | ug/L | | | 430587 | 426006 | 1. |
| [ | Tl | 205 | 196.419 | ug/L | 1.576 | 0 | 147 | 5664018 | 1 |
| [ | Pb | 208 | 197.757 | ug/L | 1.080 | 0 | 1493 | 7822357 | 1 |
| [ | Bi | 209 | | ug/L | | | 345109 | 331961 | 0 |
| [ | Th | 232 | 203.455 | ug/L | 0.324 | 0 | 719 | 9195010 | 1 |
| [ | U | 238 | 203.804 | ug/L | 1.885 | 0 | 97 | 9841383 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: LR300**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 17:41:36**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 448573 | 1 |
| [ | Be | 9 | 300.500 | ug/L | 4.629 | 1 | 3 | 124906 | 1 |
| | C | 13 | | mg/L | | | 5654 | 5278 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2341588 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 254296 | 0 |
| [ | V | 51 | 291.382 | ug/L | 3.216 | 1 | 2402 | 3299738 | 1 |
| [ | V-1 | 51 | 294.508 | ug/L | 3.423 | 1 | 8286 | 3386227 | 1 |
| [ | Cr | 52 | 288.530 | ug/L | 3.929 | 1 | 7360 | 2840417 | 0 |
| [ | Cr | 53 | 298.544 | ug/L | 3.902 | 1 | 2713 | 348626 | 1 |
| [ | Mn | 55 | 288.024 | ug/L | 5.757 | 1 | 1178 | 4775787 | 1 |
| [ | Co | 59 | 284.056 | ug/L | 5.008 | 1 | 123 | 3579487 | 1 |
| [> | Ge | 72 | | ug/L | | | 333920 | 331517 | 1 |
| [ | Ni | 60 | 286.843 | ug/L | 5.690 | 1 | 109 | 767454 | 0 |
| [ | Ni | 62 | 284.179 | ug/L | 4.032 | 1 | 54 | 113778 | 1 |
| [ | Cu | 63 | 285.585 | ug/L | 4.047 | 1 | 248 | 1710047 | 0 |
| [ | Cu | 65 | 283.631 | ug/L | 4.546 | 1 | 118 | 813034 | 1 |
| [ | Zn | 66 | 277.391 | ug/L | 5.658 | 2 | 695 | 503587 | 1 |
| [ | Zn | 67 | 281.162 | ug/L | 4.182 | 1 | 255 | 85208 | 0 |
| [ | Zn | 68 | 278.520 | ug/L | 4.125 | 1 | 8462 | 363638 | 1 |
| [ | As | 75 | 293.932 | ug/L | 2.381 | 0 | 693 | 540005 | 0 |
| [ | As-1 | 75 | 294.094 | ug/L | 2.210 | 0 | 11505 | 543381 | 0 |
| [ | Se | 82 | 279.634 | ug/L | 4.711 | 1 | -5 | 57209 | 0 |
| [ | Se | 78 | 279.825 | ug/L | 4.584 | 1 | 11713 | 149771 | 0 |
| [ | Mo | 98 | 298.035 | ug/L | 2.017 | 0 | 207 | 2015184 | 1 |
| | Y | 89 | | ug/L | | | 309412 | 304443 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 438 | 3 |
| [> | In | 115 | | ug/L | | | 365357 | 348492 | 0 |
| [ | Ag | 107 | 283.867 | ug/L | 3.424 | 1 | 101 | 3271290 | 0 |
| [ | Cd | 111 | 289.611 | ug/L | 3.199 | 1 | 166 | 820608 | 0 |
| [ | Cd | 114 | 291.460 | ug/L | 6.109 | 2 | 27 | 1942952 | 1 |
| [ | Sb | 121 | 294.442 | ug/L | 3.838 | 1 | 240 | 2838775 | 0 |
| [ | Sb | 123 | 294.478 | ug/L | 6.277 | 2 | 169 | 2131768 | 1 |
| [ | Ba | 135 | 298.787 | ug/L | 4.596 | 1 | 32 | 722075 | 0 |
| [ | Ba | 137 | 300.503 | ug/L | 4.453 | 1 | 65 | 1254496 | 0 |
| [> | Tb | 159 | | ug/L | | | 430587 | 418356 | 0 |
| [ | Tl | 205 | 298.639 | ug/L | 3.682 | 1 | 147 | 8457482 | 1 |
| [ | Pb | 208 | 294.553 | ug/L | 1.270 | 0 | 1493 | 11441671 | 0 |
| [ | Bi | 209 | | ug/L | | | 345109 | 322341 | 1 |
| [ | Th | 232 | 309.549 | ug/L | 2.879 | 0 | 719 | 13738819 | 1 |
| [ | U | 238 | 308.674 | ug/L | 0.820 | 0 | 97 | 14638930 | 0 |

UU52 : 02092

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: CCV2**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 17:48:13**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 462814 | 0 |
| [ | Be | 9 | 50.934 | ug/L | 0.245 | 0 | 3 | 21848 | 1 |
| | C | 13 | | mg/L | | | 5654 | 5368 | 0 |
| | Cl | 37 | | mg/L | | | 2331174 | 2425456 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 263088 | 1 |
| [ | V | 51 | 48.781 | ug/L | 0.207 | 0 | 2402 | 573543 | 1 |
| [ | V-1 | 51 | 49.031 | ug/L | 0.159 | 0 | 8286 | 590170 | 1 |
| [ | Cr | 52 | 49.242 | ug/L | 0.252 | 0 | 7360 | 507641 | 1 |
| [ | Cr | 53 | 50.011 | ug/L | 0.485 | 0 | 2713 | 62680 | 0 |
| [ | Mn | 55 | 48.342 | ug/L | 0.738 | 1 | 1178 | 830201 | 0 |
| [ | Co | 59 | 49.576 | ug/L | 1.509 | 3 | 123 | 646291 | 1 |
| [> | Ge | 72 | | ug/L | | | 333920 | 336205 | 0 |
| [ | Ni | 60 | 49.741 | ug/L | 0.475 | 0 | 109 | 135074 | 0 |
| [ | Ni | 62 | 50.403 | ug/L | 0.248 | 0 | 54 | 20511 | 0 |
| [ | Cu | 63 | 50.258 | ug/L | 1.078 | 2 | 248 | 305423 | 1 |
| [ | Cu | 65 | 50.624 | ug/L | 0.295 | 0 | 118 | 147275 | 0 |
| [ | Zn | 66 | 50.740 | ug/L | 0.471 | 0 | 695 | 93999 | 0 |
| [ | Zn | 67 | 51.124 | ug/L | 0.471 | 0 | 255 | 15924 | 0 |
| [ | Zn | 68 | 51.097 | ug/L | 0.606 | 1 | 8462 | 74614 | 0 |
| [ | As | 75 | 50.540 | ug/L | 0.484 | 0 | 693 | 94744 | 0 |
| [ | As-1 | 75 | 50.376 | ug/L | 0.390 | 0 | 11505 | 103997 | 0 |
| [ | Se | 82 | 49.864 | ug/L | 0.605 | 1 | -5 | 10342 | 0 |
| [ | Se | 78 | 49.315 | ug/L | 0.282 | 0 | 11713 | 36486 | 0 |
| [ | Mo | 98 | 50.020 | ug/L | 0.985 | 1 | 207 | 343167 | 1 |
| | Y | 89 | | ug/L | | | 309412 | 307744 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 394 | 2 |
| [> | In | 115 | | ug/L | | | 365357 | 356357 | 0 |
| [ | Ag | 107 | 50.651 | ug/L | 1.440 | 2 | 101 | 596957 | 2 |
| [ | Cd | 111 | 51.045 | ug/L | 0.381 | 0 | 166 | 148037 | 0 |
| [ | Cd | 114 | 49.910 | ug/L | 0.279 | 0 | 27 | 340276 | 0 |
| [ | Sb | 121 | 49.917 | ug/L | 0.257 | 0 | 240 | 492349 | 0 |
| [ | Sb | 123 | 50.457 | ug/L | 0.495 | 0 | 169 | 373691 | 1 |
| [ | Ba | 135 | 49.956 | ug/L | 0.456 | 0 | 32 | 123484 | 0 |
| [ | Ba | 137 | 49.737 | ug/L | 0.493 | 0 | 65 | 212387 | 1 |
| [> | Tb | 159 | | ug/L | | | 430587 | 430772 | 1 |
| [ | Tl | 205 | 51.189 | ug/L | 0.464 | 0 | 147 | 1492718 | 0 |
| [ | Pb | 208 | 50.879 | ug/L | 0.239 | 0 | 1493 | 2036200 | 0 |
| [ | Bi | 209 | | ug/L | | | 345109 | 336462 | 0 |
| [ | Th | 232 | 51.137 | ug/L | 0.959 | 1 | 719 | 2337251 | 1 |
| [ | U | 238 | 50.853 | ug/L | 0.595 | 1 | 97 | 2483254 | 1 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: CCB2**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 17:54:51**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 456010 | 1 |
| [ | Be | 9 | 0.005 | ug/L | 0.002 | 34 | 3 | 5 | 13 |
| | C | 13 | | mg/L | | | 5654 | 5521 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2429105 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 254612 | 1 |
| [ | V | 51 | -0.026 | ug/L | 0.018 | 68 | 2402 | 2037 | 10 |
| [ | V-1 | 51 | 0.061 | ug/L | 0.028 | 45 | 8286 | 8736 | 1 |
| [ | Cr | 52 | -0.027 | ug/L | 0.009 | 34 | 7360 | 6876 | 3 |
| [ | Cr | 53 | 0.249 | ug/L | 0.117 | 47 | 2713 | 2919 | 3 |
| [ | Mn | 55 | -0.010 | ug/L | 0.005 | 46 | 1178 | 974 | 9 |
| [ | Co | 59 | 0.007 | ug/L | 0.005 | 62 | 123 | 213 | 29 |
| [> | Ge | 72 | | ug/L | | | 333920 | 331255 | 1 |
| [ | Ni | 60 | 0.002 | ug/L | 0.006 | 284 | 109 | 114 | 14 |
| [ | Ni | 62 | 0.069 | ug/L | 0.028 | 40 | 54 | 81 | 15 |
| [ | Cu | 63 | 0.011 | ug/L | 0.004 | 38 | 248 | 313 | 9 |
| [ | Cu | 65 | 0.003 | ug/L | 0.003 | 84 | 118 | 127 | 6 |
| [ | Zn | 66 | -0.050 | ug/L | 0.018 | 35 | 695 | 599 | 4 |
| [ | Zn | 67 | -0.007 | ug/L | 0.020 | 287 | 255 | 251 | 0 |
| [ | Zn | 68 | -0.109 | ug/L | 0.172 | 157 | 8462 | 8256 | 3 |
| [ | As | 75 | 0.040 | ug/L | 0.006 | 15 | 693 | 761 | 1 |
| [ | As-1 | 75 | -0.170 | ug/L | 0.090 | 52 | 11505 | 11107 | 2 |
| [ | Se | 82 | 0.006 | ug/L | 0.017 | 272 | -5 | -4 | 85 |
| [ | Se | 78 | -0.699 | ug/L | 0.289 | 41 | 11713 | 11276 | 2 |
| [ | Mo | 98 | 0.024 | ug/L | 0.014 | 57 | 207 | 368 | 26 |
| | Y | 89 | | ug/L | | | 309412 | 296816 | 2 |
| | Kr | 83 | | ug/L | | | 376 | 385 | 1 |
| [> | In | 115 | | ug/L | | | 365357 | 347308 | 3 |
| [ | Ag | 107 | 0.035 | ug/L | 0.009 | 25 | 101 | 497 | 23 |
| [ | Cd | 111 | 0.014 | ug/L | 0.002 | 11 | 166 | 197 | 4 |
| [ | Cd | 114 | 0.009 | ug/L | 0.005 | 52 | 27 | 89 | 40 |
| [ | Sb | 121 | 0.176 | ug/L | 0.025 | 14 | 240 | 1920 | 15 |
| [ | Sb | 123 | 0.186 | ug/L | 0.031 | 16 | 169 | 1509 | 18 |
| [ | Ba | 135 | 0.011 | ug/L | 0.002 | 19 | 32 | 57 | 9 |
| [ | Ba | 137 | 0.008 | ug/L | 0.005 | 61 | 65 | 97 | 25 |
| [> | Tb | 159 | | ug/L | | | 430587 | 408423 | 2 |
| [ | Tl | 205 | 0.027 | ug/L | 0.009 | 31 | 147 | 903 | 29 |
| [ | Pb | 208 | 0.031 | ug/L | 0.009 | 30 | 1493 | 2579 | 15 |
| [ | Bi | 209 | | ug/L | | | 345109 | 327203 | 2 |
| [ | Th | 232 | 0.065 | ug/L | 0.016 | 24 | 719 | 3504 | 21 |
| [ | U | 238 | 0.013 | ug/L | 0.005 | 40 | 97 | 675 | 37 |

# ICP-MS Quantitative Analysis - Summary Report

2939-1

**Sample ID: NEW IS**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 18:01:50**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 442000 | 0 |
| [ | Be | 9 | 0.007 | ug/L | 0.012 | 172 | 3 | 5 | 81 |
| | C | 13 | | mg/L | | | 5654 | 5167 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2442592 | 1 |
| [> | Sc | 45 | | ug/L | | | 262568 | 253589 | 0 |
| \| | V | 51 | -0.030 | ug/L | 0.003 | 10 | 2402 | 1980 | 2 |
| \| | V-1 | 51 | 0.072 | ug/L | 0.020 | 27 | 8286 | 8831 | 1 |
| \| | Cr | 52 | -0.063 | ug/L | 0.004 | 6 | 7360 | 6492 | 0 |
| \| | Cr | 53 | 0.263 | ug/L | 0.071 | 26 | 2713 | 2924 | 1 |
| \| | Mn | 55 | -0.043 | ug/L | 0.002 | 3 | 1178 | 419 | 5 |
| [ | Co | 59 | -0.003 | ug/L | 0.001 | 29 | 123 | 78 | 14 |
| [> | Ge | 72 | | ug/L | | | 333920 | 331289 | 0 |
| \| | Ni | 60 | -0.014 | ug/L | 0.002 | 15 | 109 | 70 | 8 |
| \| | Ni | 62 | 0.016 | ug/L | 0.027 | 171 | 54 | 60 | 17 |
| \| | Cu | 63 | 0.003 | ug/L | 0.003 | 88 | 248 | 266 | 6 |
| \| | Cu | 65 | 0.001 | ug/L | 0.006 | 730 | 118 | 120 | 13 |
| \| | Zn | 66 | -0.140 | ug/L | 0.022 | 15 | 695 | 436 | 8 |
| \| | Zn | 67 | -0.112 | ug/L | 0.110 | 98 | 255 | 219 | 14 |
| \| | Zn | 68 | -0.299 | ug/L | 0.114 | 38 | 8462 | 8014 | 1 |
| \| | As | 75 | 0.060 | ug/L | 0.012 | 19 | 693 | 797 | 2 |
| \| | As-1 | 75 | -0.383 | ug/L | 0.051 | 13 | 11505 | 10722 | 0 |
| \| | Se | 82 | -0.039 | ug/L | 0.102 | 258 | -5 | -13 | 154 |
| \| | Se | 78 | -1.566 | ug/L | 0.171 | 10 | 11713 | 10848 | 0 |
| [ | Mo | 98 | -0.002 | ug/L | 0.000 | 28 | 207 | 196 | 1 |
| | Y | 89 | | ug/L | | | 309412 | 291502 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 391 | 2 |
| [> | In | 115 | | ug/L | | | 365357 | 342532 | 0 |
| \| | Ag | 107 | 0.015 | ug/L | 0.003 | 20 | 101 | 266 | 13 |
| \| | Cd | 111 | 0.003 | ug/L | 0.002 | 70 | 166 | 163 | 3 |
| \| | Cd | 114 | 0.004 | ug/L | 0.002 | 59 | 27 | 48 | 28 |
| \| | Sb | 121 | 0.073 | ug/L | 0.006 | 7 | 240 | 915 | 5 |
| \| | Sb | 123 | 0.080 | ug/L | 0.011 | 14 | 169 | 726 | 11 |
| \| | Ba | 135 | 0.009 | ug/L | 0.003 | 36 | 32 | 52 | 14 |
| [ | Ba | 137 | 0.006 | ug/L | 0.000 | 8 | 65 | 85 | 2 |
| [> | Tb | 159 | | ug/L | | | 430587 | 407105 | 0 |
| \| | Tl | 205 | 0.008 | ug/L | 0.001 | 17 | 147 | 369 | 10 |
| \| | Pb | 208 | 0.023 | ug/L | 0.003 | 13 | 1493 | 2291 | 4 |
| \| | Bi | 209 | | ug/L | | | 345109 | 330518 | 0 |
| \| | Th | 232 | 0.033 | ug/L | 0.004 | 12 | 719 | 2090 | 7 |
| [ | U | 238 | 0.003 | ug/L | 0.000 | 17 | 97 | 210 | 8 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV05 MB1 REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 18:07:38**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 459563 | 1 |
| [ | Be | 9 | 0.001 | ug/L | 0.008 | 587 | 3 | 3 | 88 |
| | C | 13 | | mg/L | | | 5654 | 6467 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2418575 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 254552 | 0 |
| [ | V | 51 | -0.034 | ug/L | 0.020 | 56 | 2402 | 1937 | 10 |
| [ | V-1 | 51 | 0.049 | ug/L | 0.024 | 48 | 8286 | 8595 | 2 |
| [ | Cr | 52 | -0.041 | ug/L | 0.011 | 26 | 7360 | 6728 | 2 |
| [ | Cr | 53 | 0.223 | ug/L | 0.071 | 31 | 2713 | 2889 | 2 |
| [ | Mn | 55 | -0.026 | ug/L | 0.002 | 7 | 1178 | 704 | 4 |
| [ | Co | 59 | 0.002 | ug/L | 0.001 | 56 | 123 | 145 | 9 |
| [> | Ge | 72 | | ug/L | | | 333920 | 330152 | 0 |
| [ | Ni | 60 | -0.012 | ug/L | 0.008 | 71 | 109 | 77 | 27 |
| [ | Ni | 62 | 0.011 | ug/L | 0.019 | 171 | 54 | 57 | 12 |
| [ | Cu | 63 | 0.239 | ug/L | 0.011 | 4 | 248 | 1671 | 4 |
| [ | Cu | 65 | 0.232 | ug/L | 0.013 | 5 | 118 | 778 | 4 |
| [ | Zn | 66 | 8.523 | ug/L | 0.196 | 2 | 695 | 16079 | 2 |
| [ | Zn | 67 | 7.624 | ug/L | 0.293 | 3 | 255 | 2546 | 2 |
| [ | Zn | 68 | 8.196 | ug/L | 0.133 | 1 | 8462 | 18777 | 0 |
| [ | As | 75 | 0.076 | ug/L | 0.005 | 6 | 693 | 823 | 1 |
| [ | As-1 | 75 | -0.289 | ug/L | 0.069 | 23 | 11505 | 10854 | 0 |
| [ | Se | 82 | 0.011 | ug/L | 0.049 | 434 | -5 | -3 | 321 |
| [ | Se | 78 | -1.173 | ug/L | 0.224 | 19 | 11713 | 11004 | 0 |
| [ | Mo | 98 | 0.022 | ug/L | 0.007 | 31 | 207 | 355 | 12 |
| | Y | 89 | | ug/L | | | 309412 | 297183 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 401 | 1 |
| [> | In | 115 | | ug/L | | | 365357 | 343225 | 0 |
| [ | Ag | 107 | 0.006 | ug/L | 0.001 | 22 | 101 | 158 | 8 |
| [ | Cd | 111 | 0.000 | ug/L | 0.006 | 2318 | 166 | 157 | 10 |
| [ | Cd | 114 | 0.002 | ug/L | 0.001 | 38 | 27 | 39 | 13 |
| [ | Sb | 121 | 0.051 | ug/L | 0.008 | 15 | 240 | 709 | 11 |
| [ | Sb | 123 | 0.052 | ug/L | 0.006 | 12 | 169 | 531 | 9 |
| [ | Ba | 135 | 0.012 | ug/L | 0.005 | 38 | 32 | 59 | 19 |
| [ | Ba | 137 | 0.011 | ug/L | 0.005 | 42 | 65 | 106 | 17 |
| [> | Tb | 159 | | ug/L | | | 430587 | 413966 | 1 |
| [ | Tl | 205 | 0.005 | ug/L | 0.001 | 25 | 147 | 272 | 13 |
| [ | Pb | 208 | 0.024 | ug/L | 0.001 | 3 | 1493 | 2350 | 1 |
| [ | Bi | 209 | | ug/L | | | 345109 | 328499 | 0 |
| [ | Th | 232 | 0.035 | ug/L | 0.003 | 7 | 719 | 2227 | 6 |
| [ | U | 238 | 0.002 | ug/L | 0.000 | 15 | 97 | 178 | 8 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV05 MB2 REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 18:13:25**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| > | Li | 6 | | ug/L | | | 477870 | 459129 | 1 |
| | Be | 9 | 0.002 | ug/L | 0.005 | 200 | 3 | 4 | 45 |
| | C | 13 | | mg/L | | | 5654 | 6941 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2411683 | 0 |
| > | Sc | 45 | | ug/L | | | 262568 | 255955 | 0 |
| | V | 51 | -0.038 | ug/L | 0.019 | 49 | 2402 | 1909 | 11 |
| | V-1 | 51 | 0.026 | ug/L | 0.011 | 43 | 8286 | 8376 | 2 |
| | Cr | 52 | 0.021 | ug/L | 0.005 | 25 | 7360 | 7378 | 1 |
| | Cr | 53 | 0.220 | ug/L | 0.087 | 39 | 2713 | 2901 | 3 |
| | Mn | 55 | -0.013 | ug/L | 0.002 | 15 | 1178 | 936 | 3 |
| | Co | 59 | -0.001 | ug/L | 0.001 | 194 | 123 | 112 | 13 |
| > | Ge | 72 | | ug/L | | | 333920 | 333578 | 0 |
| | Ni | 60 | 0.012 | ug/L | 0.004 | 29 | 109 | 141 | 6 |
| | Ni | 62 | 0.008 | ug/L | 0.013 | 156 | 54 | 57 | 9 |
| | Cu | 63 | 0.217 | ug/L | 0.013 | 5 | 248 | 1555 | 5 |
| | Cu | 65 | 0.220 | ug/L | 0.012 | 5 | 118 | 753 | 4 |
| | Zn | 66 | 0.117 | ug/L | 0.014 | 11 | 695 | 908 | 2 |
| | Zn | 67 | 0.128 | ug/L | 0.043 | 33 | 255 | 294 | 4 |
| | Zn | 68 | -0.005 | ug/L | 0.072 | 1377 | 8462 | 8447 | 1 |
| | As | 75 | 0.052 | ug/L | 0.019 | 36 | 693 | 787 | 4 |
| | As-1 | 75 | -0.229 | ug/L | 0.049 | 21 | 11505 | 11077 | 0 |
| | Se | 82 | -0.045 | ug/L | 0.094 | 209 | -5 | -14 | 131 |
| | Se | 78 | -0.951 | ug/L | 0.161 | 16 | 11713 | 11228 | 0 |
| | Mo | 98 | 0.000 | ug/L | 0.004 | 948 | 207 | 210 | 13 |
| | Y | 89 | | ug/L | | | 309412 | 302413 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 399 | 2 |
| > | In | 115 | | ug/L | | | 365357 | 344638 | 0 |
| | Ag | 107 | 0.003 | ug/L | 0.001 | 19 | 101 | 131 | 5 |
| | Cd | 111 | 0.005 | ug/L | 0.003 | 69 | 166 | 170 | 4 |
| | Cd | 114 | 0.002 | ug/L | 0.001 | 31 | 27 | 38 | 10 |
| | Sb | 121 | 0.027 | ug/L | 0.004 | 15 | 240 | 487 | 7 |
| | Sb | 123 | 0.033 | ug/L | 0.002 | 6 | 169 | 399 | 3 |
| | Ba | 135 | 0.028 | ug/L | 0.003 | 10 | 32 | 97 | 7 |
| | Ba | 137 | 0.027 | ug/L | 0.004 | 14 | 65 | 173 | 9 |
| > | Tb | 159 | | ug/L | | | 430587 | 411722 | 0 |
| | Tl | 205 | 0.003 | ug/L | 0.000 | 16 | 147 | 211 | 6 |
| | Pb | 208 | 0.040 | ug/L | 0.001 | 2 | 1493 | 2943 | 0 |
| | Bi | 209 | | ug/L | | | 345109 | 325676 | 0 |
| | Th | 232 | 0.032 | ug/L | 0.001 | 2 | 719 | 2092 | 2 |
| | U | 238 | 0.001 | ug/L | 0.000 | 52 | 97 | 133 | 16 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV06 MB1 REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 18:19:12**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 452707 | 1 |
| [ | Be | 9 | 0.002 | ug/L | 0.006 | 257 | 3 | 4 | 62 |
| | C | 13 | | mg/L | | | 5654 | 6667 | 0 |
| | Cl | 37 | | mg/L | | | 2331174 | 2403724 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 251971 | 1 |
| [ | V | 51 | -0.036 | ug/L | 0.013 | 35 | 2402 | 1905 | 8 |
| [ | V-1 | 51 | 0.023 | ug/L | 0.019 | 83 | 8286 | 8211 | 1 |
| [ | Cr | 52 | -0.011 | ug/L | 0.018 | 173 | 7360 | 6958 | 1 |
| [ | Cr | 53 | 0.174 | ug/L | 0.106 | 60 | 2713 | 2802 | 3 |
| [ | Mn | 55 | -0.035 | ug/L | 0.001 | 2 | 1178 | 548 | 1 |
| [ | Co | 59 | -0.003 | ug/L | 0.000 | 11 | 123 | 76 | 5 |
| [> | Ge | 72 | | ug/L | | | 333920 | 328032 | 1 |
| [ | Ni | 60 | -0.008 | ug/L | 0.002 | 28 | 109 | 87 | 7 |
| [ | Ni | 62 | -0.009 | ug/L | 0.023 | 246 | 54 | 49 | 19 |
| [ | Cu | 63 | 0.137 | ug/L | 0.003 | 2 | 248 | 1058 | 3 |
| [ | Cu | 65 | 0.139 | ug/L | 0.010 | 7 | 118 | 510 | 5 |
| [ | Zn | 66 | 0.122 | ug/L | 0.013 | 10 | 695 | 902 | 1 |
| [ | Zn | 67 | 0.038 | ug/L | 0.074 | 195 | 255 | 262 | 7 |
| [ | Zn | 68 | 0.003 | ug/L | 0.052 | 1842 | 8462 | 8316 | 1 |
| [ | As | 75 | 0.056 | ug/L | 0.008 | 13 | 693 | 782 | 0 |
| [ | As-1 | 75 | -0.196 | ug/L | 0.099 | 50 | 11505 | 10950 | 0 |
| [ | Se | 82 | 0.002 | ug/L | 0.123 | 7046 | -5 | -5 | 483 |
| [ | Se | 78 | -0.819 | ug/L | 0.370 | 45 | 11713 | 11105 | 0 |
| [ | Mo | 98 | -0.011 | ug/L | 0.001 | 8 | 207 | 128 | 6 |
| | Y | 89 | | ug/L | | | 309412 | 292265 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 389 | 3 |
| [> | In | 115 | | ug/L | | | 365357 | 340051 | 0 |
| [ | Ag | 107 | 0.001 | ug/L | 0.001 | 57 | 101 | 106 | 6 |
| [ | Cd | 111 | 0.003 | ug/L | 0.006 | 169 | 166 | 164 | 10 |
| [ | Cd | 114 | 0.001 | ug/L | 0.001 | 196 | 27 | 28 | 23 |
| [ | Sb | 121 | 0.017 | ug/L | 0.003 | 19 | 240 | 385 | 7 |
| [ | Sb | 123 | 0.019 | ug/L | 0.002 | 12 | 169 | 292 | 5 |
| [ | Ba | 135 | 0.009 | ug/L | 0.004 | 38 | 32 | 52 | 15 |
| [ | Ba | 137 | 0.005 | ug/L | 0.002 | 34 | 65 | 81 | 9 |
| [> | Tb | 159 | | ug/L | | | 430587 | 401103 | 1 |
| [ | Tl | 205 | 0.001 | ug/L | 0.000 | 40 | 147 | 157 | 4 |
| [ | Pb | 208 | 0.035 | ug/L | 0.001 | 3 | 1493 | 2686 | 3 |
| [ | Bi | 209 | | ug/L | | | 345109 | 320021 | 0 |
| [ | Th | 232 | 0.013 | ug/L | 0.001 | 6 | 719 | 1220 | 3 |
| [ | U | 238 | 0.001 | ug/L | 0.000 | 15 | 97 | 119 | 5 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV06 MB2 REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 18:25:00**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 424049 | 1 |
| [ | Be | 9 | -0.002 | ug/L | 0.002 | 84 | 3 | 2 | 34 |
| | C | 13 | | mg/L | | | 5654 | 6782 | 3 |
| | Cl | 37 | | mg/L | | | 2331174 | 2402411 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 237404 | 1 |
| [ | V | 51 | -0.007 | ug/L | 0.008 | 123 | 2402 | 2101 | 5 |
| [ | V-1 | 51 | 0.065 | ug/L | 0.008 | 12 | 8286 | 8184 | 0 |
| [ | Cr | 52 | 0.047 | ug/L | 0.004 | 7 | 7360 | 7083 | 1 |
| [ | Cr | 53 | 0.270 | ug/L | 0.045 | 16 | 2713 | 2745 | 0 |
| [ | Mn | 55 | -0.027 | ug/L | 0.002 | 8 | 1178 | 655 | 4 |
| [ | Co | 59 | 0.003 | ug/L | 0.001 | 42 | 123 | 152 | 12 |
| [> | Ge | 72 | | ug/L | | | 333920 | 308058 | 0 |
| [ | Ni | 60 | -0.003 | ug/L | 0.004 | 116 | 109 | 92 | 10 |
| [ | Ni | 62 | 0.011 | ug/L | 0.027 | 237 | 54 | 54 | 18 |
| [ | Cu | 63 | 0.145 | ug/L | 0.007 | 4 | 248 | 1038 | 3 |
| [ | Cu | 65 | 0.147 | ug/L | 0.003 | 1 | 118 | 500 | 1 |
| [ | Zn | 66 | 0.163 | ug/L | 0.002 | 1 | 695 | 916 | 0 |
| [ | Zn | 67 | 0.163 | ug/L | 0.044 | 27 | 255 | 281 | 4 |
| [ | Zn | 68 | 0.490 | ug/L | 0.155 | 31 | 8462 | 8387 | 1 |
| [ | As | 75 | 0.092 | ug/L | 0.013 | 13 | 693 | 796 | 2 |
| [ | As-1 | 75 | 0.254 | ug/L | 0.035 | 13 | 11505 | 11040 | 0 |
| [ | Se | 82 | -0.091 | ug/L | 0.118 | 129 | -5 | -22 | 100 |
| [ | Se | 78 | 0.820 | ug/L | 0.160 | 19 | 11713 | 11182 | 0 |
| [ | Mo | 98 | -0.011 | ug/L | 0.004 | 30 | 207 | 119 | 18 |
| | Y | 89 | | ug/L | | | 309412 | 276271 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 406 | 3 |
| [> | In | 115 | | ug/L | | | 365357 | 320018 | 0 |
| [ | Ag | 107 | 0.001 | ug/L | 0.000 | 44 | 101 | 99 | 4 |
| [ | Cd | 111 | 0.001 | ug/L | 0.010 | 1296 | 166 | 148 | 17 |
| [ | Cd | 114 | 0.002 | ug/L | 0.000 | 21 | 27 | 35 | 7 |
| [ | Sb | 121 | 0.014 | ug/L | 0.001 | 8 | 240 | 332 | 3 |
| [ | Sb | 123 | 0.015 | ug/L | 0.005 | 32 | 169 | 250 | 13 |
| [ | Ba | 135 | 0.051 | ug/L | 0.006 | 10 | 32 | 141 | 8 |
| [ | Ba | 137 | 0.048 | ug/L | 0.008 | 17 | 65 | 240 | 13 |
| [> | Tb | 159 | | ug/L | | | 430587 | 382461 | 0 |
| [ | Tl | 205 | 0.000 | ug/L | 0.001 | 232 | 147 | 143 | 19 |
| [ | Pb | 208 | 0.053 | ug/L | 0.002 | 3 | 1493 | 3224 | 1 |
| [ | Bi | 209 | | ug/L | | | 345109 | 305114 | 1 |
| [ | Th | 232 | 0.016 | ug/L | 0.002 | 11 | 719 | 1296 | 6 |
| [ | U | 238 | 0.001 | ug/L | 0.000 | 27 | 97 | 111 | 6 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV06 MB2SPK REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 18:30:49**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 451717 | 1 |
| [ | Be | 9 | 26.701 | ug/L | 0.351 | 1 | 3 | 11178 | 0 |
| | C | 13 | | mg/L | | | 5654 | 7439 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2401907 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 254117 | 1 |
| [ | V | 51 | 25.862 | ug/L | 0.108 | 0 | 2402 | 294795 | 1 |
| [ | V-1 | 51 | 25.942 | ug/L | 0.128 | 0 | 8286 | 305380 | 0 |
| [ | Cr | 52 | 26.091 | ug/L | 0.359 | 1 | 7360 | 263164 | 1 |
| [ | Cr | 53 | 26.334 | ug/L | 0.563 | 2 | 2713 | 33122 | 1 |
| [ | Mn | 55 | 25.830 | ug/L | 0.125 | 0 | 1178 | 429023 | 0 |
| [ | Co | 59 | 26.415 | ug/L | 0.424 | 1 | 123 | 332738 | 1 |
| [> | Ge | 72 | | ug/L | | | 333920 | 327073 | 1 |
| [ | Ni | 60 | 27.061 | ug/L | 0.556 | 2 | 109 | 71528 | 1 |
| [ | Ni | 62 | 27.399 | ug/L | 0.105 | 0 | 54 | 10871 | 0 |
| [ | Cu | 63 | 28.408 | ug/L | 0.314 | 1 | 248 | 168051 | 1 |
| [ | Cu | 65 | 28.534 | ug/L | 0.529 | 1 | 118 | 80799 | 0 |
| [ | Zn | 66 | 83.151 | ug/L | 0.521 | 0 | 695 | 149421 | 0 |
| [ | Zn | 67 | 76.869 | ug/L | 1.745 | 2 | 255 | 23164 | 1 |
| [ | Zn | 68 | 82.550 | ug/L | 0.540 | 0 | 8462 | 112164 | 0 |
| [ | As | 75 | 27.579 | ug/L | 0.789 | 2 | 693 | 50597 | 1 |
| [ | As-1 | 75 | 26.646 | ug/L | 0.388 | 1 | 11505 | 58819 | 0 |
| [ | Se | 82 | 78.295 | ug/L | 1.980 | 2 | -5 | 15798 | 1 |
| [ | Se | 78 | 77.741 | ug/L | 0.815 | 1 | 11713 | 49341 | 1 |
| [ | Mo | 98 | -0.005 | ug/L | 0.002 | 51 | 207 | 173 | 8 |
| | Y | 89 | | ug/L | | | 309412 | 293808 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 403 | 3 |
| [> | In | 115 | | ug/L | | | 365357 | 340906 | 1 |
| [ | Ag | 107 | 26.942 | ug/L | 0.364 | 1 | 101 | 303808 | 1 |
| [ | Cd | 111 | 25.958 | ug/L | 0.198 | 0 | 166 | 72096 | 1 |
| [ | Cd | 114 | 25.827 | ug/L | 0.227 | 0 | 27 | 168452 | 1 |
| [ | Sb | 121 | 0.012 | ug/L | 0.001 | 12 | 240 | 334 | 3 |
| [ | Sb | 123 | 0.008 | ug/L | 0.002 | 23 | 169 | 218 | 6 |
| [ | Ba | 135 | 26.425 | ug/L | 0.249 | 0 | 32 | 62498 | 0 |
| [ | Ba | 137 | 26.346 | ug/L | 0.424 | 1 | 65 | 107636 | 0 |
| [> | Tb | 159 | | ug/L | | | 430587 | 406605 | 1 |
| [ | Tl | 205 | 27.510 | ug/L | 0.324 | 1 | 147 | 757193 | 0 |
| [ | Pb | 208 | 27.529 | ug/L | 0.334 | 1 | 1493 | 1040430 | 0 |
| [ | Bi | 209 | | ug/L | | | 345109 | 322698 | 0 |
| [ | Th | 232 | 27.505 | ug/L | 0.738 | 2 | 719 | 1186696 | 1 |
| [ | U | 238 | 27.314 | ug/L | 0.410 | 1 | 97 | 1258897 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV06 MB1SPK REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 18:37:07**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 435587 | 0 |
| [ | Be | 9 | 27.313 | ug/L | 0.310 | 1 | 3 | 11028 | 1 |
| | C | 13 | | mg/L | | | 5654 | 7013 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2435906 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 242881 | 1 |
| [ | V | 51 | 26.216 | ug/L | 0.274 | 1 | 2402 | 285550 | 0 |
| [ | V-1 | 51 | 26.430 | ug/L | 0.243 | 0 | 8286 | 297206 | 0 |
| [ | Cr | 52 | 26.729 | ug/L | 0.743 | 2 | 7360 | 257446 | 1 |
| [ | Cr | 53 | 27.386 | ug/L | 0.631 | 2 | 2713 | 32818 | 0 |
| [ | Mn | 55 | 26.572 | ug/L | 0.484 | 1 | 1178 | 421757 | 0 |
| [ | Co | 59 | 27.083 | ug/L | 0.435 | 1 | 123 | 326046 | 0 |
| [> | Ge | 72 | | ug/L | | | 333920 | 314248 | 0 |
| [ | Ni | 60 | 27.334 | ug/L | 0.533 | 1 | 109 | 69423 | 1 |
| [ | Ni | 62 | 27.587 | ug/L | 0.813 | 2 | 54 | 10515 | 2 |
| [ | Cu | 63 | 28.641 | ug/L | 0.322 | 1 | 248 | 162783 | 0 |
| [ | Cu | 65 | 28.703 | ug/L | 0.121 | 0 | 118 | 78101 | 1 |
| [ | Zn | 66 | 85.804 | ug/L | 0.247 | 0 | 695 | 148125 | 0 |
| [ | Zn | 67 | 80.122 | ug/L | 0.239 | 0 | 255 | 23190 | 0 |
| [ | Zn | 68 | 85.821 | ug/L | 0.362 | 0 | 8462 | 111725 | 0 |
| [ | As | 75 | 28.481 | ug/L | 0.043 | 0 | 693 | 50191 | 0 |
| [ | As-1 | 75 | 27.692 | ug/L | 0.159 | 0 | 11505 | 58310 | 0 |
| [ | Se | 82 | 81.050 | ug/L | 1.013 | 1 | -5 | 15715 | 0 |
| [ | Se | 78 | 81.118 | ug/L | 1.389 | 1 | 11713 | 48984 | 0 |
| [ | Mo | 98 | -0.011 | ug/L | 0.001 | 9 | 207 | 126 | 5 |
| | Y | 89 | | ug/L | | | 309412 | 282155 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 387 | 5 |
| [> | In | 115 | | ug/L | | | 365357 | 323980 | 0 |
| [ | Ag | 107 | 28.002 | ug/L | 0.435 | 1 | 101 | 300098 | 1 |
| [ | Cd | 111 | 27.141 | ug/L | 0.391 | 1 | 166 | 71631 | 1 |
| [ | Cd | 114 | 26.789 | ug/L | 0.324 | 1 | 27 | 166056 | 1 |
| [ | Sb | 121 | 0.006 | ug/L | 0.001 | 10 | 240 | 266 | 2 |
| [ | Sb | 123 | 0.006 | ug/L | 0.002 | 39 | 169 | 192 | 8 |
| [ | Ba | 135 | 27.117 | ug/L | 0.297 | 1 | 32 | 60956 | 1 |
| [ | Ba | 137 | 27.295 | ug/L | 0.290 | 1 | 65 | 105989 | 0 |
| [> | Tb | 159 | | ug/L | | | 430587 | 389533 | 2 |
| [ | Tl | 205 | 28.019 | ug/L | 0.979 | 3 | 147 | 738586 | 1 |
| [ | Pb | 208 | 28.213 | ug/L | 0.565 | 2 | 1493 | 1021340 | 0 |
| [ | Bi | 209 | | ug/L | | | 345109 | 315383 | 0 |
| [ | Th | 232 | 27.900 | ug/L | 0.478 | 1 | 719 | 1153275 | 0 |
| [ | U | 238 | 27.900 | ug/L | 0.806 | 2 | 97 | 1231609 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV05 MB2SPK REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 18:43:25**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 421197 | 0 |
| [ | Be | 9 | 28.588 | ug/L | 0.187 | 0 | 3 | 11161 | 0 |
| | C | 13 | | mg/L | | | 5654 | 7162 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2470099 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 236244 | 1 |
| [ | V | 51 | 27.050 | ug/L | 0.102 | 0 | 2402 | 286548 | 1 |
| [ | V-1 | 51 | 27.217 | ug/L | 0.166 | 0 | 8286 | 297491 | 1 |
| [ | Cr | 52 | 27.761 | ug/L | 0.077 | 0 | 7360 | 259896 | 1 |
| [ | Cr | 53 | 28.261 | ug/L | 0.453 | 1 | 2713 | 32867 | 1 |
| [ | Mn | 55 | 27.364 | ug/L | 0.273 | 0 | 1178 | 422480 | 1 |
| [ | Co | 59 | 28.161 | ug/L | 0.285 | 1 | 123 | 329787 | 1 |
| [> | Ge | 72 | | ug/L | | | 333920 | 305895 | 0 |
| [ | Ni | 60 | 28.286 | ug/L | 0.450 | 1 | 109 | 69930 | 1 |
| [ | Ni | 62 | 28.382 | ug/L | 0.535 | 1 | 54 | 10530 | 1 |
| [ | Cu | 63 | 30.168 | ug/L | 0.489 | 1 | 248 | 166896 | 1 |
| [ | Cu | 65 | 30.147 | ug/L | 0.549 | 1 | 118 | 79841 | 1 |
| [ | Zn | 66 | 87.696 | ug/L | 0.848 | 0 | 695 | 147352 | 0 |
| [ | Zn | 67 | 81.081 | ug/L | 1.405 | 1 | 255 | 22841 | 1 |
| [ | Zn | 68 | 86.667 | ug/L | 0.739 | 0 | 8462 | 109750 | 0 |
| [ | As | 75 | 28.878 | ug/L | 0.084 | 0 | 693 | 49528 | 0 |
| [ | As-1 | 75 | 28.383 | ug/L | 0.153 | 0 | 11505 | 57914 | 0 |
| [ | Se | 82 | 81.719 | ug/L | 0.812 | 0 | -5 | 15424 | 0 |
| [ | Se | 78 | 82.946 | ug/L | 0.442 | 0 | 11713 | 48518 | 0 |
| [ | Mo | 98 | -0.011 | ug/L | 0.001 | 10 | 207 | 120 | 5 |
| | Y | 89 | | ug/L | | | 309412 | 273738 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 389 | 1 |
| [> | In | 115 | | ug/L | | | 365357 | 316975 | 1 |
| [ | Ag | 107 | 28.693 | ug/L | 0.421 | 1 | 101 | 300836 | 1 |
| [ | Cd | 111 | 27.916 | ug/L | 0.382 | 1 | 166 | 72082 | 2 |
| [ | Cd | 114 | 27.410 | ug/L | 0.344 | 1 | 27 | 166218 | 1 |
| [ | Sb | 121 | 0.005 | ug/L | 0.001 | 16 | 240 | 250 | 1 |
| [ | Sb | 123 | 0.005 | ug/L | 0.001 | 13 | 169 | 181 | 4 |
| [ | Ba | 135 | 28.069 | ug/L | 0.565 | 2 | 32 | 61717 | 1 |
| [ | Ba | 137 | 28.194 | ug/L | 0.700 | 2 | 65 | 107097 | 1 |
| [> | Tb | 159 | | ug/L | | | 430587 | 381587 | 0 |
| [ | Tl | 205 | 29.108 | ug/L | 0.365 | 1 | 147 | 752020 | 1 |
| [ | Pb | 208 | 29.155 | ug/L | 0.101 | 0 | 1493 | 1034147 | 0 |
| [ | Bi | 209 | | ug/L | | | 345109 | 305371 | 0 |
| [ | Th | 232 | 28.977 | ug/L | 0.232 | 0 | 719 | 1173575 | 0 |
| [ | U | 238 | 29.106 | ug/L | 0.254 | 0 | 97 | 1259093 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV05 MB1SPK REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 18:49:43**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 435422 | 1 |
| [ | Be | 9 | 27.593 | ug/L | 0.475 | 1 | 3 | 11135 | 0 |
| | C | 13 | | mg/L | | | 5654 | 7482 | 3 |
| | Cl | 37 | | mg/L | | | 2331174 | 2468691 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 240811 | 0 |
| [ | V | 51 | 26.640 | ug/L | 0.318 | 1 | 2402 | 287691 | 1 |
| [ | V-1 | 51 | 26.801 | ug/L | 0.182 | 0 | 8286 | 298722 | 0 |
| [ | Cr | 52 | 27.056 | ug/L | 0.371 | 1 | 7360 | 258369 | 1 |
| [ | Cr | 53 | 27.548 | ug/L | 0.172 | 0 | 2713 | 32723 | 0 |
| [ | Mn | 55 | 26.876 | ug/L | 0.335 | 1 | 1178 | 422989 | 1 |
| [ | Co | 59 | 27.464 | ug/L | 0.477 | 1 | 123 | 327859 | 1 |
| [> | Ge | 72 | | ug/L | | | 333920 | 316652 | 0 |
| [ | Ni | 60 | 27.504 | ug/L | 0.440 | 1 | 109 | 70386 | 0 |
| [ | Ni | 62 | 27.453 | ug/L | 0.352 | 1 | 54 | 10545 | 1 |
| [ | Cu | 63 | 28.689 | ug/L | 0.372 | 1 | 248 | 164307 | 0 |
| [ | Cu | 65 | 28.832 | ug/L | 0.447 | 1 | 118 | 79044 | 0 |
| [ | Zn | 66 | 85.968 | ug/L | 0.219 | 0 | 695 | 149541 | 0 |
| [ | Zn | 67 | 79.389 | ug/L | 0.418 | 0 | 255 | 23156 | 0 |
| [ | Zn | 68 | 85.877 | ug/L | 0.642 | 0 | 8462 | 112644 | 0 |
| [ | As | 75 | 28.530 | ug/L | 0.253 | 0 | 693 | 50659 | 0 |
| [ | As-1 | 75 | 27.314 | ug/L | 0.440 | 1 | 11505 | 58099 | 0 |
| [ | Se | 82 | 82.038 | ug/L | 1.709 | 2 | -5 | 16028 | 1 |
| [ | Se | 78 | 80.594 | ug/L | 2.354 | 2 | 11713 | 49109 | 1 |
| [ | Mo | 98 | -0.013 | ug/L | 0.002 | 17 | 207 | 114 | 13 |
| | Y | 89 | | ug/L | | | 309412 | 283854 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 390 | 5 |
| [> | In | 115 | | ug/L | | | 365357 | 325207 | 0 |
| [ | Ag | 107 | 27.840 | ug/L | 0.462 | 1 | 101 | 299468 | 0 |
| [ | Cd | 111 | 27.381 | ug/L | 0.370 | 1 | 166 | 72533 | 0 |
| [ | Cd | 114 | 27.388 | ug/L | 0.185 | 0 | 27 | 170409 | 0 |
| [ | Sb | 121 | -0.000 | ug/L | 0.002 | 2472 | 240 | 213 | 7 |
| [ | Sb | 123 | 0.002 | ug/L | 0.002 | 94 | 169 | 166 | 8 |
| [ | Ba | 135 | 27.543 | ug/L | 0.477 | 1 | 32 | 62141 | 1 |
| [ | Ba | 137 | 27.438 | ug/L | 0.438 | 1 | 65 | 106943 | 0 |
| [> | Tb | 159 | | ug/L | | | 430587 | 392786 | 1 |
| [ | Tl | 205 | 28.486 | ug/L | 0.483 | 1 | 147 | 757501 | 2 |
| [ | Pb | 208 | 28.384 | ug/L | 0.329 | 1 | 1493 | 1036306 | 0 |
| [ | Bi | 209 | | ug/L | | | 345109 | 317516 | 2 |
| [ | Th | 232 | 28.380 | ug/L | 0.363 | 1 | 719 | 1183047 | 0 |
| [ | U | 238 | 27.940 | ug/L | 0.353 | 1 | 97 | 1244037 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV05 A REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 18:56:01**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 441755 | 0 |
| [ | Be | 9 | 0.012 | ug/L | 0.006 | 54 | 3 | 7 | 32 |
| | C | 13 | | mg/L | | | 5654 | 7763 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2493140 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 251444 | 0 |
| [ | V | 51 | 0.809 | ug/L | 0.021 | 2 | 2402 | 11357 | 2 |
| [ | V-1 | 51 | 0.809 | ug/L | 0.012 | 1 | 8286 | 17106 | 0 |
| [ | Cr | 52 | 0.991 | ug/L | 0.030 | 3 | 7360 | 16673 | 1 |
| [ | Cr | 53 | 0.981 | ug/L | 0.074 | 7 | 2713 | 3722 | 2 |
| [ | Mn | 55 | 12.755 | ug/L | 0.184 | 1 | 1178 | 210199 | 1 |
| [ | Co | 59 | 0.118 | ug/L | 0.001 | 0 | 123 | 1588 | 0 |
| [> | Ge | 72 | | ug/L | | | 333920 | 326973 | 0 |
| [ | Ni | 60 | 0.806 | ug/L | 0.013 | 1 | 109 | 2234 | 1 |
| [ | Ni | 62 | 0.796 | ug/L | 0.083 | 10 | 54 | 367 | 8 |
| [ | Cu | 63 | 4.656 | ug/L | 0.059 | 1 | 248 | 27738 | 0 |
| [ | Cu | 65 | 4.683 | ug/L | 0.041 | 0 | 118 | 13355 | 0 |
| [ | Zn | 66 | 341.260 | ug/L | 0.938 | 0 | 695 | 610950 | 0 |
| [ | Zn | 67 | 303.816 | ug/L | 0.631 | 0 | 255 | 90800 | 0 |
| [ | Zn | 68 | 336.640 | ug/L | 1.162 | 0 | 8462 | 431777 | 0 |
| [ | As | 75 | 1.974 | ug/L | 0.023 | 1 | 693 | 4250 | 1 |
| [ | As-1 | 75 | 1.641 | ug/L | 0.101 | 6 | 11505 | 14194 | 0 |
| [ | Se | 82 | 0.170 | ug/L | 0.137 | 80 | -5 | 29 | 95 |
| [ | Se | 78 | -1.071 | ug/L | 0.331 | 30 | 11713 | 10947 | 1 |
| [ | Mo | 98 | 0.416 | ug/L | 0.006 | 1 | 207 | 2979 | 1 |
| | Y | 89 | | ug/L | | | 309412 | 292124 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 381 | 3 |
| [> | In | 115 | | ug/L | | | 365357 | 339212 | 1 |
| [ | Ag | 107 | 0.023 | ug/L | 0.005 | 20 | 101 | 356 | 15 |
| [ | Cd | 111 | 1.102 | ug/L | 0.029 | 2 | 166 | 3195 | 3 |
| [ | Cd | 114 | 1.077 | ug/L | 0.025 | 2 | 27 | 7016 | 1 |
| [ | Sb | 121 | 33.083 | ug/L | 0.424 | 1 | 240 | 310655 | 0 |
| [ | Sb | 123 | 32.700 | ug/L | 0.233 | 0 | 169 | 230560 | 0 |
| [ | Ba | 135 | 6.828 | ug/L | 0.100 | 1 | 32 | 16090 | 0 |
| [ | Ba | 137 | 6.840 | ug/L | 0.098 | 1 | 65 | 27853 | 0 |
| [> | Tb | 159 | | ug/L | | | 430587 | 404466 | 0 |
| [ | Tl | 205 | 0.038 | ug/L | 0.005 | 13 | 147 | 1171 | 12 |
| [ | Pb | 208 | 1.604 | ug/L | 0.016 | 1 | 1493 | 61615 | 1 |
| [ | Bi | 209 | | ug/L | | | 345109 | 322383 | 1 |
| [ | Th | 232 | 0.083 | ug/L | 0.015 | 18 | 719 | 4249 | 16 |
| [ | U | 238 | 0.023 | ug/L | 0.002 | 9 | 97 | 1151 | 8 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: CCV3**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 19:02:19**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 448647 | 0 |
| [ | Be | 9 | 52.102 | ug/L | 0.402 | 0 | 3 | 21665 | 1 |
| | C | 13 | | mg/L | | | 5654 | 5517 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2482968 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 249627 | 2 |
| [ | V | 51 | 48.870 | ug/L | 0.538 | 1 | 2402 | 545143 | 1 |
| [ | V-1 | 51 | 48.920 | ug/L | 0.694 | 1 | 8286 | 558656 | 1 |
| [ | Cr | 52 | 49.056 | ug/L | 0.733 | 1 | 7360 | 479806 | 0 |
| [ | Cr | 53 | 49.207 | ug/L | 1.576 | 3 | 2713 | 58539 | 1 |
| [ | Mn | 55 | 48.007 | ug/L | 1.604 | 3 | 1178 | 782002 | 1 |
| [ | Co | 59 | 48.716 | ug/L | 1.383 | 2 | 123 | 602529 | 1 |
| [> | Ge | 72 | | ug/L | | | 333920 | 326589 | 0 |
| [ | Ni | 60 | 48.921 | ug/L | 0.217 | 0 | 109 | 129051 | 0 |
| [ | Ni | 62 | 48.948 | ug/L | 0.733 | 1 | 54 | 19351 | 1 |
| [ | Cu | 63 | 49.678 | ug/L | 0.486 | 0 | 248 | 293268 | 0 |
| [ | Cu | 65 | 49.680 | ug/L | 0.340 | 0 | 118 | 140398 | 0 |
| [ | Zn | 66 | 50.257 | ug/L | 1.056 | 2 | 695 | 90452 | 2 |
| [ | Zn | 67 | 50.414 | ug/L | 0.553 | 1 | 255 | 15257 | 0 |
| [ | Zn | 68 | 50.157 | ug/L | 0.233 | 0 | 8462 | 71300 | 0 |
| [ | As | 75 | 50.375 | ug/L | 0.311 | 0 | 693 | 91738 | 0 |
| [ | As-1 | 75 | 49.973 | ug/L | 0.109 | 0 | 11505 | 100304 | 0 |
| [ | Se | 82 | 48.586 | ug/L | 0.763 | 1 | -5 | 9789 | 1 |
| [ | Se | 78 | 47.145 | ug/L | 0.390 | 0 | 11713 | 34387 | 0 |
| [ | Mo | 98 | 48.492 | ug/L | 0.189 | 0 | 207 | 323180 | 0 |
| | Y | 89 | | ug/L | | | 309412 | 293197 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 390 | 2 |
| [> | In | 115 | | ug/L | | | 365357 | 338918 | 0 |
| [ | Ag | 107 | 49.791 | ug/L | 0.263 | 0 | 101 | 558130 | 0 |
| [ | Cd | 111 | 50.007 | ug/L | 0.490 | 0 | 166 | 137932 | 0 |
| [ | Cd | 114 | 49.438 | ug/L | 0.109 | 0 | 27 | 320568 | 0 |
| [ | Sb | 121 | 50.557 | ug/L | 0.268 | 0 | 240 | 474253 | 0 |
| [ | Sb | 123 | 50.018 | ug/L | 0.141 | 0 | 169 | 352295 | 0 |
| [ | Ba | 135 | 49.426 | ug/L | 0.616 | 1 | 32 | 116201 | 1 |
| [ | Ba | 137 | 49.349 | ug/L | 0.627 | 1 | 65 | 200422 | 1 |
| [> | Tb | 159 | | ug/L | | | 430587 | 403368 | 0 |
| [ | Tl | 205 | 51.340 | ug/L | 0.507 | 0 | 147 | 1401850 | 0 |
| [ | Pb | 208 | 51.448 | ug/L | 0.082 | 0 | 1493 | 1927998 | 0 |
| [ | Bi | 209 | | ug/L | | | 345109 | 322472 | 0 |
| [ | Th | 232 | 51.896 | ug/L | 0.586 | 1 | 719 | 2221134 | 0 |
| [ | U | 238 | 51.465 | ug/L | 0.709 | 1 | 97 | 2353157 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: CCB3**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 19:08:57**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 445559 | 0 |
| [ | Be | 9 | 0.002 | ug/L | 0.003 | 195 | 3 | 3 | 33 |
| | C | 13 | | mg/L | | | 5654 | 5784 | 2 |
| | Cl | 37 | | mg/L | | | 2331174 | 2511664 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 249460 | 1 |
| \| | V | 51 | -0.023 | ug/L | 0.022 | 93 | 2402 | 2027 | 11 |
| \| | V-1 | 51 | -0.059 | ug/L | 0.010 | 16 | 8286 | 7209 | 1 |
| \| | Cr | 52 | -0.026 | ug/L | 0.017 | 64 | 7360 | 6736 | 1 |
| \| | Cr | 53 | -0.140 | ug/L | 0.101 | 72 | 2713 | 2418 | 4 |
| \| | Mn | 55 | -0.024 | ug/L | 0.002 | 7 | 1178 | 724 | 4 |
| [ | Co | 59 | 0.024 | ug/L | 0.004 | 15 | 123 | 411 | 11 |
| [> | Ge | 72 | | ug/L | | | 333920 | 324289 | 0 |
| \| | Ni | 60 | 0.003 | ug/L | 0.005 | 132 | 109 | 115 | 10 |
| \| | Ni | 62 | 0.030 | ug/L | 0.014 | 46 | 54 | 64 | 7 |
| \| | Cu | 63 | 0.012 | ug/L | 0.005 | 39 | 248 | 311 | 9 |
| \| | Cu | 65 | 0.011 | ug/L | 0.003 | 32 | 118 | 145 | 6 |
| \| | Zn | 66 | 0.214 | ug/L | 0.018 | 8 | 695 | 1055 | 3 |
| \| | Zn | 67 | 0.059 | ug/L | 0.036 | 61 | 255 | 265 | 3 |
| \| | Zn | 68 | -0.132 | ug/L | 0.021 | 16 | 8462 | 8053 | 0 |
| \| | As | 75 | 0.069 | ug/L | 0.033 | 48 | 693 | 796 | 7 |
| \| | As-1 | 75 | -0.263 | ug/L | 0.108 | 41 | 11505 | 10707 | 1 |
| \| | Se | 82 | -0.022 | ug/L | 0.081 | 359 | -5 | -9 | 163 |
| \| | Se | 78 | -1.099 | ug/L | 0.392 | 35 | 11713 | 10844 | 0 |
| [ | Mo | 98 | -0.009 | ug/L | 0.005 | 56 | 207 | 145 | 22 |
| | Y | 89 | | ug/L | | | 309412 | 291440 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 391 | 1 |
| [> | In | 115 | | ug/L | | | 365357 | 336672 | 1 |
| \| | Ag | 107 | 0.014 | ug/L | 0.007 | 49 | 101 | 249 | 29 |
| \| | Cd | 111 | 0.010 | ug/L | 0.006 | 63 | 166 | 180 | 8 |
| \| | Cd | 114 | 0.007 | ug/L | 0.002 | 24 | 27 | 72 | 15 |
| \| | Sb | 121 | 0.046 | ug/L | 0.022 | 48 | 240 | 644 | 31 |
| \| | Sb | 123 | 0.045 | ug/L | 0.019 | 43 | 169 | 469 | 27 |
| \| | Ba | 135 | 0.015 | ug/L | 0.007 | 48 | 32 | 65 | 25 |
| [ | Ba | 137 | 0.010 | ug/L | 0.006 | 59 | 65 | 102 | 23 |
| [> | Tb | 159 | | ug/L | | | 430587 | 405331 | 0 |
| \| | Tl | 205 | 0.012 | ug/L | 0.005 | 45 | 147 | 466 | 31 |
| \| | Pb | 208 | 0.123 | ug/L | 0.007 | 5 | 1493 | 6037 | 4 |
| \| | Bi | 209 | | ug/L | | | 345109 | 323902 | 0 |
| \| | Th | 232 | 0.033 | ug/L | 0.008 | 24 | 719 | 2105 | 16 |
| [ | U | 238 | 0.006 | ug/L | 0.003 | 46 | 97 | 375 | 35 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV14 MB1 REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 19:14:45**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| ⌈> | Li | 6 | | | ug/L | | | 477870 | 453853 | 1 |
| ⌊ | Be | 9 | -0.001 | | ug/L | 0.003 | 591 | 3 | 2 | 49 |
| | C | 13 | | | mg/L | | | 5654 | 6900 | 1 |
| | Cl | 37 | | | mg/L | | | 2331174 | 2487889 | 0 |
| ⌈> | Sc | 45 | | | ug/L | | | 262568 | 254355 | 1 |
| ⌈ | V | 51 | -0.025 | | ug/L | 0.007 | 28 | 2402 | 2041 | 4 |
| ⌊ | V-1 | 51 | -0.104 | | ug/L | 0.033 | 32 | 8286 | 6833 | 4 |
| ⌈ | Cr | 52 | 0.009 | | ug/L | 0.001 | 15 | 7360 | 7220 | 1 |
| ⌊ | Cr | 53 | -0.241 | | ug/L | 0.103 | 42 | 2713 | 2348 | 3 |
| ⌈ | Mn | 55 | -0.035 | | ug/L | 0.003 | 8 | 1178 | 554 | 9 |
| ⌊ | Co | 59 | -0.004 | | ug/L | 0.001 | 21 | 123 | 65 | 16 |
| ⌈> | Ge | 72 | | | ug/L | | | 333920 | 330325 | 1 |
| ⌈ | Ni | 60 | -0.008 | | ug/L | 0.003 | 38 | 109 | 86 | 11 |
| ⌊ | Ni | 62 | 0.014 | | ug/L | 0.027 | 188 | 54 | 59 | 16 |
| ⌈ | Cu | 63 | | U | 0.149 | ug/L | 0.004 | 2 | 248 | 1134 |
| ⌊ | Cu | 65 | 0.138 | | ug/L | 0.009 | 6 | 118 | 511 | 3 |
| ⌈ | Zn | 66 | 0.246 | | ug/L | 0.019 | 7 | 695 | 1133 | 4 |
| ⌊ | Zn | 67 | | U | 0.159 | ug/L | 0.058 | 36 | 255 | 300 |
| ⌊ | Zn | 68 | 0.075 | | ug/L | 0.204 | 271 | 8462 | 8469 | 4 |
| ⌈ | As | 75 | 0.024 | | ug/L | 0.021 | 87 | 693 | 729 | 4 |
| ⌊ | As-1 | 75 | -0.116 | | ug/L | 0.064 | 55 | 11505 | 11173 | 2 |
| ⌈ | Se | 82 | -0.058 | | ug/L | 0.035 | 61 | -5 | -17 | 40 |
| ⌊ | Se | 78 | -0.431 | | ug/L | 0.280 | 64 | 11713 | 11376 | 2 |
| ⌊ | Mo | 98 | -0.017 | | ug/L | 0.004 | 21 | 207 | 92 | 24 |
| | Y | 89 | | | ug/L | | | 309412 | 304704 | 3 |
| | Kr | 83 | | | ug/L | | | 376 | 400 | 1 |
| ⌈> | In | 115 | | | ug/L | | | 365357 | 349564 | 3 |
| ⌈ | Ag | 107 | 0.003 | | ug/L | 0.002 | 73 | 101 | 127 | 13 |
| ⌊ | Cd | 111 | 0.004 | | ug/L | 0.004 | 124 | 166 | 169 | 6 |
| ⌈ | Cd | 114 | 0.002 | | ug/L | 0.001 | 33 | 27 | 37 | 11 |
| ⌊ | Sb | 121 | 0.013 | | ug/L | 0.004 | 30 | 240 | 355 | 7 |
| ⌈ | Sb | 123 | 0.014 | | ug/L | 0.003 | 19 | 169 | 263 | 4 |
| ⌈ | Ba | 135 | 0.015 | | ug/L | 0.004 | 29 | 32 | 66 | 14 |
| ⌊ | Ba | 137 | 0.009 | | ug/L | 0.001 | 15 | 65 | 99 | 5 |
| ⌈> | Tb | 159 | | | ug/L | | | 430587 | 413610 | 2 |
| ⌈ | Tl | 205 | 0.002 | | ug/L | 0.002 | 61 | 147 | 210 | 17 |
| ⌊ | Pb | 208 | 0.103 | | ug/L | 0.004 | 3 | 1493 | 5406 | 1 |
| ⌈ | Bi | 209 | | | ug/L | | | 345109 | 333698 | 1 |
| ⌊ | Th | 232 | 0.034 | | ug/L | 0.005 | 14 | 719 | 2184 | 7 |
| ⌊ | U | 238 | 0.001 | | ug/L | 0.001 | 49 | 97 | 150 | 16 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV14 MB2 REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 19:20:32**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 448883 | 0 |
| [ | Be | 9 | -0.002 | ug/L | 0.003 | 198 | 3 | 2 | 50 |
| | C | 13 | | mg/L | | | 5654 | 6635 | 2 |
| | Cl | 37 | | mg/L | | | 2331174 | 2487338 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 256336 | 1 |
| \| | V | 51 | -0.007 | ug/L | 0.016 | 243 | 2402 | 2267 | 6 |
| \| | V-1 | 51 | -0.139 | ug/L | 0.013 | 9 | 8286 | 6484 | 0 |
| \| | Cr | 52 | 0.062 | ug/L | 0.019 | 31 | 7360 | 7793 | 1 |
| \| | Cr | 53 | -0.359 | ug/L | 0.038 | 10 | 2713 | 2229 | 1 |
| \| | Mn | 55 | -0.014 | ug/L | 0.006 | 46 | 1178 | 921 | 9 |
| [ | Co | 59 | 0.004 | ug/L | 0.000 | 10 | 123 | 171 | 4 |
| [> | Ge | 72 | | ug/L | | | 333920 | 331072 | 0 |
| \| | Ni | 60 | -0.004 | ug/L | 0.001 | 15 | 109 | 97 | 1 |
| \| | Ni | 62 | 0.013 | ug/L | 0.031 | 242 | 54 | 58 | 20 |
| \| | Cu | 63 | 0.244 | ug/L | 0.002 | 0 | 248 | 1704 | 1 |
| \| | Cu | 65 | 0.249 | ug/L | 0.010 | 4 | 118 | 829 | 4 |
| \| | Zn | 66 | 0.261 | ug/L | 0.018 | 6 | 695 | 1163 | 3 |
| \| | Zn | 67 | 0.133 | ug/L | 0.038 | 28 | 255 | 293 | 4 |
| \| | Zn | 68 | 0.497 | ug/L | 0.116 | 23 | 8462 | 9023 | 1 |
| \| | As | 75 | 0.022 | ug/L | 0.020 | 88 | 693 | 727 | 4 |
| \| | As-1 | 75 | 0.164 | ug/L | 0.142 | 87 | 11505 | 11701 | 1 |
| \| | Se | 82 | -0.082 | ug/L | 0.033 | 39 | -5 | -22 | 30 |
| \| | Se | 78 | 0.600 | ug/L | 0.460 | 76 | 11713 | 11908 | 0 |
| [ | Mo | 98 | -0.020 | ug/L | 0.001 | 5 | 207 | 71 | 10 |
| | Y | 89 | | ug/L | | | 309412 | 305035 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 406 | 4 |
| [> | In | 115 | | ug/L | | | 365357 | 353350 | 1 |
| \| | Ag | 107 | 0.000 | ug/L | 0.001 | 228 | 101 | 103 | 13 |
| \| | Cd | 111 | -0.002 | ug/L | 0.002 | 158 | 166 | 157 | 5 |
| \| | Cd | 114 | 0.003 | ug/L | 0.001 | 51 | 27 | 45 | 20 |
| \| | Sb | 121 | -0.001 | ug/L | 0.003 | 194 | 240 | 217 | 13 |
| \| | Sb | 123 | 0.001 | ug/L | 0.003 | 189 | 169 | 174 | 10 |
| \| | Ba | 135 | 0.032 | ug/L | 0.009 | 27 | 32 | 110 | 19 |
| [ | Ba | 137 | 0.033 | ug/L | 0.007 | 21 | 65 | 202 | 13 |
| [> | Tb | 159 | | ug/L | | | 430587 | 419671 | 0 |
| \| | Tl | 205 | -0.001 | ug/L | 0.001 | 83 | 147 | 125 | 12 |
| \| | Pb | 208 | 0.103 | ug/L | 0.002 | 1 | 1493 | 5458 | 1 |
| \| | Bi | 209 | | ug/L | | | 345109 | 332634 | 1 |
| \| | Th | 232 | 0.028 | ug/L | 0.002 | 6 | 719 | 1928 | 4 |
| [ | U | 238 | 0.001 | ug/L | 0.000 | 14 | 97 | 124 | 3 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV14 MB2SPK REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 19:26:19**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| ⌈> | Li | 6 | | ug/L | | | 477870 | 437753 | 1 |
| ⌊ | Be | 9 | 28.612 | ug/L | 0.294 | 1 | 3 | 11609 | 0 |
| | C | 13 | | mg/L | | | 5654 | 8109 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2477507 | 0 |
| ⌈> | Sc | 45 | | ug/L | | | 262568 | 247831 | 2 |
| \| | V | 51 | 27.396 | ug/L | 0.624 | 2 | 2402 | 304314 | 0 |
| \| | V-1 | 51 | 27.359 | ug/L | 0.671 | 2 | 8286 | 313565 | 1 |
| \| | Cr | 52 | 28.062 | ug/L | 0.368 | 1 | 7360 | 275461 | 1 |
| \| | Cr | 53 | 27.917 | ug/L | 0.482 | 1 | 2713 | 34085 | 1 |
| \| | Mn | 55 | 27.869 | ug/L | 0.871 | 3 | 1178 | 451152 | 0 |
| ⌊ | Co | 59 | 28.299 | ug/L | 0.770 | 2 | 123 | 347518 | 0 |
| ⌈> | Ge | 72 | | ug/L | | | 333920 | 317440 | 1 |
| \| | Ni | 60 | 28.888 | ug/L | 0.613 | 2 | 109 | 74093 | 0 |
| \| | Ni | 62 | 29.156 | ug/L | 0.523 | 1 | 54 | 11222 | 0 |
| \| | Cu | 63 | 30.488 | ug/L | 0.174 | 0 | 248 | 175026 | 1 |
| \| | Cu | 65 | 30.067 | ug/L | 0.428 | 1 | 118 | 82632 | 2 |
| \| | Zn | 66 | 89.151 | ug/L | 1.115 | 1 | 695 | 155418 | 0 |
| \| | Zn | 67 | 81.519 | ug/L | 1.438 | 1 | 255 | 23825 | 0 |
| \| | Zn | 68 | 88.605 | ug/L | 1.248 | 1 | 8462 | 116242 | 0 |
| \| | As | 75 | 29.418 | ug/L | 0.392 | 1 | 693 | 52338 | 0 |
| \| | As-1 | 75 | 29.050 | ug/L | 0.787 | 2 | 11505 | 61238 | 0 |
| \| | Se | 82 | 84.639 | ug/L | 1.148 | 1 | -5 | 16576 | 0 |
| \| | Se | 78 | 86.386 | ug/L | 2.639 | 3 | 11713 | 51960 | 0 |
| ⌊ | Mo | 98 | -0.016 | ug/L | 0.001 | 9 | 207 | 94 | 8 |
| | Y | 89 | | ug/L | | | 309412 | 292270 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 391 | 0 |
| ⌈> | In | 115 | | ug/L | | | 365357 | 339920 | 0 |
| \| | Ag | 107 | 28.810 | ug/L | 0.254 | 0 | 101 | 323941 | 0 |
| \| | Cd | 111 | 27.762 | ug/L | 0.229 | 0 | 166 | 76871 | 0 |
| \| | Cd | 114 | 27.397 | ug/L | 0.186 | 0 | 27 | 178187 | 0 |
| \| | Sb | 121 | -0.001 | ug/L | 0.003 | 363 | 240 | 215 | 13 |
| \| | Sb | 123 | -0.000 | ug/L | 0.001 | 186 | 169 | 155 | 2 |
| \| | Ba | 135 | 27.903 | ug/L | 0.263 | 0 | 32 | 65806 | 1 |
| ⌊ | Ba | 137 | 28.036 | ug/L | 0.285 | 1 | 65 | 114222 | 0 |
| ⌈> | Tb | 159 | | ug/L | | | 430587 | 406558 | 0 |
| \| | Tl | 205 | 29.224 | ug/L | 0.356 | 1 | 147 | 804391 | 1 |
| \| | Pb | 208 | 29.429 | ug/L | 0.147 | 0 | 1493 | 1112155 | 0 |
| \| | Bi | 209 | | ug/L | | | 345109 | 327408 | 0 |
| \| | Th | 232 | 29.519 | ug/L | 0.455 | 1 | 719 | 1273791 | 1 |
| ⌊ | U | 238 | 29.493 | ug/L | 0.082 | 0 | 97 | 1359345 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV14 MB1SPK REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 19:32:36**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 453325 | 1 |
| [ | Be | 9 | 26.966 | ug/L | 0.444 | 1 | 3 | 11329 | 1 |
| | C | 13 | | mg/L | | | 5654 | 7256 | 2 |
| | Cl | 37 | | mg/L | | | 2331174 | 2478205 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 253413 | 0 |
| [ | V | 51 | 26.056 | ug/L | 0.229 | 0 | 2402 | 296172 | 1 |
| [ | V-1 | 51 | 26.170 | ug/L | 0.207 | 0 | 8286 | 307159 | 1 |
| [ | Cr | 52 | 26.303 | ug/L | 0.405 | 1 | 7360 | 264493 | 1 |
| [ | Cr | 53 | 26.655 | ug/L | 0.482 | 1 | 2713 | 33401 | 1 |
| [ | Mn | 55 | 26.518 | ug/L | 0.360 | 1 | 1178 | 439217 | 1 |
| [ | Co | 59 | 27.238 | ug/L | 0.410 | 1 | 123 | 342145 | 0 |
| [> | Ge | 72 | | ug/L | | | 333920 | 329314 | 0 |
| [ | Ni | 60 | 27.332 | ug/L | 0.559 | 2 | 109 | 72745 | 1 |
| [ | Ni | 62 | 27.569 | ug/L | 0.392 | 1 | 54 | 11013 | 1 |
| [ | Cu | 63 | 28.387 | ug/L | 0.178 | 0 | 248 | 169082 | 0 |
| [ | Cu | 65 | 28.868 | ug/L | 0.239 | 0 | 118 | 82314 | 1 |
| [ | Zn | 66 | 84.917 | ug/L | 0.075 | 0 | 695 | 153630 | 0 |
| [ | Zn | 67 | 78.909 | ug/L | 0.697 | 0 | 255 | 23938 | 1 |
| [ | Zn | 68 | 85.008 | ug/L | 1.296 | 1 | 8462 | 116050 | 1 |
| [ | As | 75 | 28.016 | ug/L | 0.043 | 0 | 693 | 51750 | 0 |
| [ | As-1 | 75 | 27.369 | ug/L | 0.196 | 0 | 11505 | 60524 | 0 |
| [ | Se | 82 | 81.840 | ug/L | 0.858 | 1 | -5 | 16629 | 0 |
| [ | Se | 78 | 82.436 | ug/L | 1.321 | 1 | 11713 | 51979 | 0 |
| [ | Mo | 98 | -0.016 | ug/L | 0.003 | 16 | 207 | 96 | 18 |
| | Y | 89 | | ug/L | | | 309412 | 305641 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 395 | 1 |
| [> | In | 115 | | ug/L | | | 365357 | 352343 | 1 |
| [ | Ag | 107 | 27.391 | ug/L | 0.141 | 0 | 101 | 319241 | 0 |
| [ | Cd | 111 | 26.342 | ug/L | 0.578 | 2 | 166 | 75605 | 1 |
| [ | Cd | 114 | 26.293 | ug/L | 0.781 | 2 | 27 | 177228 | 2 |
| [ | Sb | 121 | -0.006 | ug/L | 0.001 | 17 | 240 | 174 | 6 |
| [ | Sb | 123 | -0.004 | ug/L | 0.002 | 56 | 169 | 133 | 13 |
| [ | Ba | 135 | 26.497 | ug/L | 0.218 | 0 | 32 | 64773 | 0 |
| [ | Ba | 137 | 26.390 | ug/L | 0.244 | 0 | 65 | 111446 | 0 |
| [> | Tb | 159 | | ug/L | | | 430587 | 416385 | 0 |
| [ | Tl | 205 | 28.047 | ug/L | 0.173 | 0 | 147 | 790651 | 0 |
| [ | Pb | 208 | 28.181 | ug/L | 0.075 | 0 | 1493 | 1090793 | 0 |
| [ | Bi | 209 | | ug/L | | | 345109 | 338943 | 1 |
| [ | Th | 232 | 28.192 | ug/L | 0.205 | 0 | 719 | 1245920 | 0 |
| [ | U | 238 | 27.892 | ug/L | 0.375 | 1 | 97 | 1316647 | 1 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV14 A REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 19:38:52**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | **Li** | **6** | | ug/L | | | 477870 | 433918 | 1 |
| [ | **Be** | **9** | **0.006** | ug/L | 0.008 | 133 | 3 | 5 | 58 |
| | **C** | **13** | | mg/L | | | 5654 | 11683 | 0 |
| | **Cl** | **37** | | mg/L | | | 2331174 | 2516181 | 0 |
| [> | **Sc** | **45** | | ug/L | | | 262568 | 274186 | 0 |
| [ | **V** | **51** | **2.566** | ug/L | 0.098 | 3 | 2402 | 33809 | 2 |
| [ | **V-1** | **51** | **2.536** | ug/L | 0.049 | 1 | 8286 | 40016 | 0 |
| [ | **Cr** | **52** | **10.022** | ug/L | 0.095 | 0 | 7360 | 113797 | 0 |
| [ | **Cr** | **53** | **9.611** | ug/L | 0.102 | 1 | 2713 | 14844 | 1 |
| [ | **Mn** | **55** | **968.563** | ug/L | 3.791 | 0 | 1178 | 17313495 | 0 |
| [ | **Co** | **59** | **0.920** | ug/L | 0.017 | 1 | 123 | 12629 | 1 |
| [> | **Ge** | **72** | | ug/L | | | 333920 | 330561 | 0 |
| [ | **Ni** | **60** | **2.238** | ug/L | 0.016 | 0 | 109 | 6079 | 0 |
| [ | **Ni** | **62** | **1.951** | ug/L | 0.147 | 7 | 54 | 832 | 7 |
| [ | **Cu** | **63** | **62.940** | ug/L | 0.875 | 1 | 248 | 376011 | 1 |
| [ | **Cu** | **65** | **61.883** | ug/L | 0.542 | 0 | 118 | 176982 | 0 |
| [ | **Zn** | **66** | **136.751** | ug/L | 1.566 | 1 | 695 | 247922 | 1 |
| [ | **Zn** | **67** | **122.523** | ug/L | 1.371 | 1 | 255 | 37169 | 0 |
| [ | **Zn** | **68** | **135.921** | ug/L | 1.393 | 1 | 8462 | 181239 | 0 |
| [ | **As** | **75** | **13.187** | ug/L | 0.078 | 0 | 693 | 24812 | 0 |
| [ | **As-1** | **75** | **13.327** | ug/L | 0.048 | 0 | 11505 | 35428 | 0 |
| [ | **Se** | **82** | **0.263** | ug/L | 0.067 | 25 | -5 | 48 | 28 |
| [ | **Se** | **78** | **0.156** | ug/L | 0.222 | 142 | 11713 | 11672 | 0 |
| [ | **Mo** | **98** | **3.637** | ug/L | 0.036 | 0 | 207 | 24725 | 0 |
| | **Y** | **89** | | ug/L | | | 309412 | 310707 | 1 |
| | **Kr** | **83** | | ug/L | | | 376 | 383 | 1 |
| [> | **In** | **115** | | ug/L | | | 365357 | 349845 | 0 |
| [ | **Ag** | **107** | **0.023** | ug/L | 0.006 | 27 | 101 | 367 | 20 |
| [ | **Cd** | **111** | **0.829** | ug/L | 0.016 | 1 | 166 | 2518 | 1 |
| [ | **Cd** | **114** | **0.805** | ug/L | 0.012 | 1 | 27 | 5412 | 1 |
| [ | **Sb** | **121** | **0.483** | ug/L | 0.003 | 0 | 240 | 4900 | 0 |
| [ | **Sb** | **123** | **0.492** | ug/L | 0.016 | 3 | 169 | 3739 | 2 |
| [ | **Ba** | **135** | **13.851** | ug/L | 0.102 | 0 | 32 | 33636 | 0 |
| [ | **Ba** | **137** | **13.973** | ug/L | 0.107 | 0 | 65 | 58622 | 0 |
| [> | **Tb** | **159** | | ug/L | | | 430587 | 415661 | 1 |
| [ | **Tl** | **205** | **0.014** | ug/L | 0.004 | 26 | 147 | 545 | 18 |
| [ | **Pb** | **208** | **2.441** | ug/L | 0.056 | 2 | 1493 | 95633 | 1 |
| [ | **Bi** | **209** | | ug/L | | | 345109 | 327060 | 1 |
| [ | **Th** | **232** | **0.159** | ug/L | 0.018 | 11 | 719 | 7713 | 9 |
| [ | **U** | **238** | **0.037** | ug/L | 0.003 | 7 | 97 | 1832 | 6 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV14 B REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 19:45:09**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 438054 | 0 |
| [ | Be | 9 | 0.005 | ug/L | 0.003 | 64 | 3 | 5 | 25 |
| | C | 13 | | mg/L | | | 5654 | 10123 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2509899 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 285929 | 1 |
| \| | V | 51 | 0.976 | ug/L | 0.036 | 3 | 2402 | 15031 | 3 |
| \| | V-1 | 51 | 0.865 | ug/L | 0.018 | 2 | 8286 | 20183 | 1 |
| \| | Cr | 52 | 4.495 | ug/L | 0.042 | 0 | 7360 | 57648 | 0 |
| \| | Cr | 53 | 3.996 | ug/L | 0.084 | 2 | 2713 | 8161 | 0 |
| \| | Mn | 55 | 1239.413 | ug/L | 15.369 | 1 | 1178 | 23101538 | 0 |
| [ | Co | 59 | 0.960 | ug/L | 0.031 | 3 | 123 | 13738 | 2 |
| [> | Ge | 72 | | ug/L | | | 333920 | 328238 | 0 |
| \| | Ni | 60 | 2.153 | ug/L | 0.026 | 1 | 109 | 5809 | 0 |
| \| | Ni | 62 | 1.965 | ug/L | 0.033 | 1 | 54 | 831 | 1 |
| \| | Cu | 63 | 34.594 | ug/L | 0.267 | 0 | 248 | 205321 | 0 |
| \| | Cu | 65 | 34.295 | ug/L | 0.179 | 0 | 118 | 97442 | 0 |
| \| | Zn | 66 | 88.341 | ug/L | 0.094 | 0 | 695 | 159275 | 0 |
| \| | Zn | 67 | 79.506 | ug/L | 0.743 | 0 | 255 | 24037 | 0 |
| \| | Zn | 68 | 88.335 | ug/L | 0.981 | 1 | 8462 | 119872 | 1 |
| \| | As | 75 | 6.790 | ug/L | 0.094 | 1 | 693 | 13017 | 0 |
| \| | As-1 | 75 | 6.919 | ug/L | 0.080 | 1 | 11505 | 23702 | 0 |
| \| | Se | 82 | 0.184 | ug/L | 0.028 | 15 | -5 | 31 | 18 |
| \| | Se | 78 | 0.455 | ug/L | 0.216 | 47 | 11713 | 11736 | 1 |
| [ | Mo | 98 | 3.226 | ug/L | 0.063 | 1 | 207 | 21798 | 1 |
| | Y | 89 | | ug/L | | | 309412 | 306144 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 398 | 1 |
| [> | In | 115 | | ug/L | | | 365357 | 348661 | 1 |
| \| | Ag | 107 | 0.005 | ug/L | 0.001 | 18 | 101 | 153 | 5 |
| \| | Cd | 111 | 0.388 | ug/L | 0.010 | 2 | 166 | 1260 | 3 |
| \| | Cd | 114 | 0.401 | ug/L | 0.006 | 1 | 27 | 2698 | 0 |
| \| | Sb | 121 | 0.377 | ug/L | 0.013 | 3 | 240 | 3868 | 2 |
| \| | Sb | 123 | 0.373 | ug/L | 0.004 | 1 | 169 | 2866 | 1 |
| \| | Ba | 135 | 9.981 | ug/L | 0.081 | 0 | 32 | 24164 | 0 |
| [ | Ba | 137 | 9.835 | ug/L | 0.066 | 0 | 65 | 41142 | 1 |
| [> | Tb | 159 | | ug/L | | | 430587 | 417833 | 0 |
| \| | Tl | 205 | 0.005 | ug/L | 0.001 | 22 | 147 | 284 | 11 |
| \| | Pb | 208 | 0.722 | ug/L | 0.012 | 1 | 1493 | 29467 | 1 |
| \| | Bi | 209 | | ug/L | | | 345109 | 326676 | 1 |
| \| | Th | 232 | 0.077 | ug/L | 0.005 | 6 | 719 | 4116 | 5 |
| [ | U | 238 | 0.023 | ug/L | 0.000 | 1 | 97 | 1163 | 0 |

UU52 : 02112

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV14 C REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 19:51:28**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 407598 | 1 |
| [ | Be | 9 | 0.003 | ug/L | 0.008 | 217 | 3 | 4 | 69 |
| | C | 13 | | mg/L | | | 5654 | 10204 | 0 |
| | Cl | 37 | | mg/L | | | 2331174 | 2547808 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 249257 | 0 |
| [ | V | 51 | 1.773 | ug/L | 0.025 | 1 | 2402 | 21950 | 1 |
| [ | V-1 | 51 | 1.638 | ug/L | 0.026 | 1 | 8286 | 26284 | 1 |
| [ | Cr | 52 | 0.578 | ug/L | 0.012 | 2 | 7360 | 12547 | 0 |
| [ | Cr | 53 | 0.200 | ug/L | 0.011 | 5 | 2713 | 2803 | 1 |
| [ | Mn | 55 | 596.368 | ug/L | 4.744 | 0 | 1178 | 9691557 | 0 |
| [ | Co | 59 | 0.612 | ug/L | 0.004 | 0 | 123 | 7681 | 0 |
| [> | Ge | 72 | | ug/L | | | 333920 | 308910 | 0 |
| [ | Ni | 60 | 1.529 | ug/L | 0.040 | 2 | 109 | 3913 | 2 |
| [ | Ni | 62 | 1.670 | ug/L | 0.115 | 6 | 54 | 673 | 6 |
| [ | Cu | 63 | 10.136 | ug/L | 0.014 | 0 | 248 | 56784 | 0 |
| [ | Cu | 65 | 10.199 | ug/L | 0.099 | 0 | 118 | 27350 | 0 |
| [ | Zn | 66 | 80.613 | ug/L | 0.661 | 0 | 695 | 136836 | 0 |
| [ | Zn | 67 | 73.690 | ug/L | 0.336 | 0 | 255 | 20985 | 0 |
| [ | Zn | 68 | 82.021 | ug/L | 0.701 | 0 | 8462 | 105311 | 0 |
| [ | As | 75 | 7.509 | ug/L | 0.052 | 0 | 693 | 13479 | 0 |
| [ | As-1 | 75 | 8.098 | ug/L | 0.078 | 0 | 11505 | 24292 | 0 |
| [ | Se | 82 | 0.138 | ug/L | 0.095 | 69 | -5 | 21 | 85 |
| [ | Se | 78 | 2.153 | ug/L | 0.205 | 9 | 11713 | 11827 | 0 |
| [ | Mo | 98 | 3.610 | ug/L | 0.034 | 0 | 207 | 22936 | 0 |
| | Y | 89 | | ug/L | | | 309412 | 286669 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 393 | 2 |
| [> | In | 115 | | ug/L | | | 365357 | 325759 | 1 |
| [ | Ag | 107 | 0.006 | ug/L | 0.002 | 33 | 101 | 153 | 15 |
| [ | Cd | 111 | 0.146 | ug/L | 0.004 | 2 | 166 | 534 | 3 |
| [ | Cd | 114 | 0.128 | ug/L | 0.006 | 4 | 27 | 819 | 3 |
| [ | Sb | 121 | 0.613 | ug/L | 0.020 | 3 | 240 | 5741 | 3 |
| [ | Sb | 123 | 0.625 | ug/L | 0.012 | 1 | 169 | 4380 | 0 |
| [ | Ba | 135 | 24.301 | ug/L | 0.674 | 2 | 32 | 54909 | 0 |
| [ | Ba | 137 | 24.115 | ug/L | 0.749 | 3 | 65 | 94130 | 1 |
| [> | Tb | 159 | | ug/L | | | 430587 | 387854 | 1 |
| [ | Tl | 205 | 0.004 | ug/L | 0.001 | 22 | 147 | 232 | 8 |
| [ | Pb | 208 | 3.982 | ug/L | 0.033 | 0 | 1493 | 144719 | 0 |
| [ | Bi | 209 | | ug/L | | | 345109 | 308369 | 0 |
| [ | Th | 232 | 0.058 | ug/L | 0.003 | 5 | 719 | 3032 | 2 |
| [ | U | 238 | 0.021 | ug/L | 0.001 | 6 | 97 | 1023 | 4 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV05 B REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 19:57:48**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 450485 | 0 |
| [ | Be | 9 | 0.006 | ug/L | 0.012 | 188 | 3 | 5 | 86 |
| | C | 13 | | mg/L | | | 5654 | 7902 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2514270 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 263044 | 2 |
| [ | V | 51 | 0.648 | ug/L | 0.024 | 3 | 2402 | 9984 | 1 |
| [ | V-1 | 51 | 0.504 | ug/L | 0.024 | 4 | 8286 | 14277 | 0 |
| [ | Cr | 52 | 0.888 | ug/L | 0.045 | 5 | 7360 | 16386 | 0 |
| [ | Cr | 53 | 0.423 | ug/L | 0.054 | 12 | 2713 | 3224 | 0 |
| [ | Mn | 55 | 11.246 | ug/L | 0.151 | 1 | 1178 | 193999 | 1 |
| [ | Co | 59 | 0.083 | ug/L | 0.002 | 2 | 123 | 1200 | 2 |
| [> | Ge | 72 | | ug/L | | | 333920 | 336212 | 0 |
| [ | Ni | 60 | 0.759 | ug/L | 0.025 | 3 | 109 | 2170 | 2 |
| [ | Ni | 62 | 0.969 | ug/L | 0.032 | 3 | 54 | 447 | 3 |
| [ | Cu | 63 | 3.376 | ug/L | 0.055 | 1 | 248 | 20751 | 1 |
| [ | Cu | 65 | 3.373 | ug/L | 0.076 | 2 | 118 | 9922 | 1 |
| [ | Zn | 66 | 327.402 | ug/L | 3.425 | 1 | 695 | 602731 | 1 |
| [ | Zn | 67 | 291.576 | ug/L | 1.662 | 0 | 255 | 89615 | 1 |
| [ | Zn | 68 | 322.995 | ug/L | 3.898 | 1 | 8462 | 426309 | 0 |
| [ | As | 75 | 1.800 | ug/L | 0.001 | 0 | 693 | 4048 | 0 |
| [ | As-1 | 75 | 1.864 | ug/L | 0.019 | 1 | 11505 | 15003 | 0 |
| [ | Se | 82 | 0.090 | ug/L | 0.087 | 96 | -5 | 13 | 136 |
| [ | Se | 78 | 0.311 | ug/L | 0.082 | 26 | 11713 | 11949 | 1 |
| [ | Mo | 98 | 0.402 | ug/L | 0.015 | 3 | 207 | 2968 | 3 |
| | Y | 89 | | ug/L | | | 309412 | 308078 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 394 | 2 |
| [> | In | 115 | | ug/L | | | 365357 | 354741 | 0 |
| [ | Ag | 107 | 0.001 | ug/L | 0.000 | 33 | 101 | 114 | 4 |
| [ | Cd | 111 | 0.941 | ug/L | 0.037 | 3 | 166 | 2876 | 4 |
| [ | Cd | 114 | 0.928 | ug/L | 0.017 | 1 | 27 | 6324 | 1 |
| [ | Sb | 121 | 30.573 | ug/L | 0.355 | 1 | 240 | 300253 | 0 |
| [ | Sb | 123 | 30.656 | ug/L | 0.298 | 0 | 169 | 226051 | 0 |
| [ | Ba | 135 | 6.073 | ug/L | 0.110 | 1 | 32 | 14971 | 1 |
| [ | Ba | 137 | 6.068 | ug/L | 0.123 | 2 | 65 | 25849 | 1 |
| [> | Tb | 159 | | ug/L | | | 430587 | 420443 | 1 |
| [ | Tl | 205 | 0.016 | ug/L | 0.001 | 5 | 147 | 587 | 2 |
| [ | Pb | 208 | 0.484 | ug/L | 0.004 | 0 | 1493 | 20353 | 1 |
| [ | Bi | 209 | | ug/L | | | 345109 | 337556 | 0 |
| [ | Th | 232 | 0.015 | ug/L | 0.004 | 23 | 719 | 1357 | 11 |
| [ | U | 238 | 0.012 | ug/L | 0.000 | 2 | 97 | 680 | 3 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV06 A REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 20:04:06**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 414655 | 0 |
| [ | Be | 9 | 0.005 | ug/L | 0.009 | 156 | 3 | 5 | 66 |
| | C | 13 | | mg/L | | | 5654 | 8319 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2463071 | 1 |
| [> | Sc | 45 | | ug/L | | | 262568 | 242739 | 1 |
| [ | V | 51 | 1.067 | ug/L | 0.020 | 1 | 2402 | 13751 | 1 |
| [ | V-1 | 51 | 0.953 | ug/L | 0.011 | 1 | 8286 | 18091 | 0 |
| [ | Cr | 52 | 1.600 | ug/L | 0.045 | 2 | 7360 | 21803 | 2 |
| [ | Cr | 53 | 1.214 | ug/L | 0.114 | 9 | 2713 | 3851 | 3 |
| [ | Mn | 55 | 90.690 | ug/L | 1.520 | 1 | 1178 | 1436040 | 0 |
| [ | Co | 59 | 0.664 | ug/L | 0.005 | 0 | 123 | 8095 | 1 |
| [> | Ge | 72 | | ug/L | | | 333920 | 303932 | 0 |
| [ | Ni | 60 | 2.487 | ug/L | 0.062 | 2 | 109 | 6198 | 2 |
| [ | Ni | 62 | 2.740 | ug/L | 0.200 | 7 | 54 | 1054 | 7 |
| [ | Cu | 63 | 17.701 | ug/L | 0.103 | 0 | 248 | 97395 | 0 |
| [ | Cu | 65 | 17.623 | ug/L | 0.082 | 0 | 118 | 46418 | 0 |
| [ | Zn | 66 | 406.510 | ug/L | 0.991 | 0 | 695 | 676367 | 0 |
| [ | Zn | 67 | 360.340 | ug/L | 1.574 | 0 | 255 | 100060 | 0 |
| [ | Zn | 68 | 401.484 | ug/L | 2.923 | 0 | 8462 | 477175 | 0 |
| [ | As | 75 | 2.023 | ug/L | 0.014 | 0 | 693 | 4033 | 0 |
| [ | As-1 | 75 | 2.543 | ug/L | 0.025 | 0 | 11505 | 14690 | 0 |
| [ | Se | 82 | -0.030 | ug/L | 0.075 | 251 | -5 | -10 | 132 |
| [ | Se | 78 | 2.117 | ug/L | 0.129 | 6 | 11713 | 11619 | 0 |
| [ | Mo | 98 | 0.639 | ug/L | 0.008 | 1 | 207 | 4151 | 1 |
| | Y | 89 | | ug/L | | | 309412 | 290327 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 405 | 1 |
| [> | In | 115 | | ug/L | | | 365357 | 319035 | 1 |
| [ | Ag | 107 | 0.026 | ug/L | 0.001 | 3 | 101 | 357 | 2 |
| [ | Cd | 111 | 0.318 | ug/L | 0.013 | 3 | 166 | 969 | 2 |
| [ | Cd | 114 | 0.278 | ug/L | 0.011 | 3 | 27 | 1720 | 3 |
| [ | Sb | 121 | 0.988 | ug/L | 0.009 | 0 | 240 | 8934 | 2 |
| [ | Sb | 123 | 0.998 | ug/L | 0.009 | 0 | 169 | 6763 | 1 |
| [ | Ba | 135 | 5.482 | ug/L | 0.043 | 0 | 32 | 12157 | 1 |
| [ | Ba | 137 | 5.484 | ug/L | 0.012 | 0 | 65 | 21018 | 1 |
| [> | Tb | 159 | | ug/L | | | 430587 | 377190 | 1 |
| [ | Tl | 205 | 0.012 | ug/L | 0.001 | 8 | 147 | 435 | 6 |
| [ | Pb | 208 | 1.337 | ug/L | 0.023 | 1 | 1493 | 48121 | 0 |
| [ | Bi | 209 | | ug/L | | | 345109 | 306213 | 0 |
| [ | Th | 232 | 0.038 | ug/L | 0.001 | 2 | 719 | 2163 | 0 |
| [ | U | 238 | 0.026 | ug/L | 0.000 | 1 | 97 | 1195 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV06 B REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 20:10:24**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| ⌈> | Li | 6 | | ug/L | | | 477870 | 411922 | 0 |
| ⌊ | Be | 9 | 0.013 | ug/L | 0.002 | 13 | 3 | 7 | 9 |
| | C | 13 | | mg/L | | | 5654 | 8159 | 2 |
| | Cl | 37 | | mg/L | | | 2331174 | 2427130 | 0 |
| ⌈> | Sc | 45 | | ug/L | | | 262568 | 238955 | 1 |
| \| | V | 51 | 0.584 | ug/L | 0.023 | 3 | 2402 | 8398 | 2 |
| \| | V-1 | 51 | 0.490 | ug/L | 0.016 | 3 | 8286 | 12819 | 0 |
| \| | Cr | 52 | 1.156 | ug/L | 0.005 | 0 | 7360 | 17368 | 0 |
| \| | Cr | 53 | 0.833 | ug/L | 0.051 | 6 | 2713 | 3376 | 1 |
| \| | Mn | 55 | 72.300 | ug/L | 1.292 | 1 | 1178 | 1127367 | 2 |
| ⌊ | Co | 59 | 0.432 | ug/L | 0.007 | 1 | 123 | 5222 | 1 |
| ⌈> | Ge | 72 | | ug/L | | | 333920 | 299531 | 0 |
| \| | Ni | 60 | 2.054 | ug/L | 0.026 | 1 | 109 | 5063 | 1 |
| \| | Ni | 62 | 1.985 | ug/L | 0.118 | 5 | 54 | 766 | 5 |
| \| | Cu | 63 | 14.023 | ug/L | 0.251 | 1 | 248 | 76084 | 1 |
| \| | Cu | 65 | 13.920 | ug/L | 0.133 | 0 | 118 | 36157 | 1 |
| \| | Zn | 66 | 358.922 | ug/L | 3.732 | 1 | 695 | 588616 | 1 |
| \| | Zn | 67 | 322.418 | ug/L | 4.358 | 1 | 255 | 88258 | 1 |
| \| | Zn | 68 | 359.168 | ug/L | 3.568 | 0 | 8462 | 421504 | 0 |
| \| | As | 75 | 1.674 | ug/L | 0.033 | 1 | 693 | 3397 | 1 |
| \| | As-1 | 75 | 2.102 | ug/L | 0.038 | 1 | 11505 | 13756 | 0 |
| \| | Se | 82 | 0.065 | ug/L | 0.076 | 117 | -5 | 7 | 198 |
| \| | Se | 78 | 1.894 | ug/L | 0.191 | 10 | 11713 | 11352 | 0 |
| ⌊ | Mo | 98 | 0.572 | ug/L | 0.012 | 2 | 207 | 3682 | 1 |
| | Y | 89 | | ug/L | | | 309412 | 279653 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 399 | 4 |
| ⌈> | In | 115 | | ug/L | | | 365357 | 318089 | 0 |
| \| | Ag | 107 | 0.012 | ug/L | 0.001 | 8 | 101 | 215 | 5 |
| \| | Cd | 111 | 0.210 | ug/L | 0.011 | 5 | 166 | 689 | 3 |
| \| | Cd | 114 | 0.223 | ug/L | 0.006 | 2 | 27 | 1381 | 3 |
| \| | Sb | 121 | 0.860 | ug/L | 0.014 | 1 | 240 | 7778 | 1 |
| \| | Sb | 123 | 0.882 | ug/L | 0.006 | 0 | 169 | 5974 | 1 |
| \| | Ba | 135 | 3.436 | ug/L | 0.035 | 1 | 32 | 7608 | 1 |
| ⌊ | Ba | 137 | 3.442 | ug/L | 0.059 | 1 | 65 | 13170 | 0 |
| ⌈> | Tb | 159 | | ug/L | | | 430587 | 377939 | 1 |
| \| | Tl | 205 | 0.008 | ug/L | 0.001 | 13 | 147 | 332 | 9 |
| \| | Pb | 208 | 0.417 | ug/L | 0.010 | 2 | 1493 | 15955 | 1 |
| \| | Bi | 209 | | ug/L | | | 345109 | 301204 | 1 |
| \| | Th | 232 | 0.012 | ug/L | 0.001 | 7 | 719 | 1124 | 3 |
| ⌊ | U | 238 | 0.013 | ug/L | 0.001 | 9 | 97 | 651 | 9 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: CCV4**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 20:16:44**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 442781 | 0 |
| [ | Be | 9 | 52.490 | ug/L | 0.427 | 0 | 3 | 21540 | 0 |
| | C | 13 | | mg/L | | | 5654 | 5494 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2476583 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 246512 | 1 |
| [ | V | 51 | 49.076 | ug/L | 0.201 | 0 | 2402 | 540639 | 1 |
| [ | V-1 | 51 | 49.372 | ug/L | 0.048 | 0 | 8286 | 556775 | 1 |
| [ | Cr | 52 | 49.264 | ug/L | 0.265 | 0 | 7360 | 475864 | 0 |
| [ | Cr | 53 | 50.192 | ug/L | 0.722 | 1 | 2713 | 58932 | 0 |
| [ | Mn | 55 | 48.578 | ug/L | 0.106 | 0 | 1178 | 781757 | 1 |
| [ | Co | 59 | 49.585 | ug/L | 0.607 | 1 | 123 | 605857 | 2 |
| [> | Ge | 72 | | ug/L | | | 333920 | 327674 | 0 |
| [ | Ni | 60 | 48.723 | ug/L | 0.565 | 1 | 109 | 128952 | 0 |
| [ | Ni | 62 | 48.707 | ug/L | 0.322 | 0 | 54 | 19319 | 0 |
| [ | Cu | 63 | 49.632 | ug/L | 0.170 | 0 | 248 | 293976 | 0 |
| [ | Cu | 65 | 49.758 | ug/L | 0.838 | 1 | 118 | 141088 | 1 |
| [ | Zn | 66 | 50.134 | ug/L | 0.110 | 0 | 695 | 90529 | 0 |
| [ | Zn | 67 | 50.189 | ug/L | 0.620 | 1 | 255 | 15240 | 1 |
| [ | Zn | 68 | 50.694 | ug/L | 0.310 | 0 | 8462 | 72215 | 0 |
| [ | As | 75 | 50.740 | ug/L | 0.157 | 0 | 693 | 92706 | 0 |
| [ | As-1 | 75 | 50.356 | ug/L | 0.080 | 0 | 11505 | 101323 | 0 |
| [ | Se | 82 | 48.618 | ug/L | 0.477 | 0 | -5 | 9827 | 0 |
| [ | Se | 78 | 47.166 | ug/L | 1.008 | 2 | 11713 | 34510 | 1 |
| [ | Mo | 98 | 48.427 | ug/L | 0.176 | 0 | 207 | 323827 | 0 |
| | Y | 89 | | ug/L | | | 309412 | 287153 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 380 | 1 |
| [> | In | 115 | | ug/L | | | 365357 | 337061 | 0 |
| [ | Ag | 107 | 50.390 | ug/L | 0.808 | 1 | 101 | 561698 | 0 |
| [ | Cd | 111 | 49.815 | ug/L | 1.052 | 2 | 166 | 136636 | 1 |
| [ | Cd | 114 | 49.746 | ug/L | 0.749 | 1 | 27 | 320774 | 0 |
| [ | Sb | 121 | 50.076 | ug/L | 0.786 | 1 | 240 | 467128 | 0 |
| [ | Sb | 123 | 50.039 | ug/L | 0.755 | 1 | 169 | 350481 | 0 |
| [ | Ba | 135 | 49.461 | ug/L | 0.368 | 0 | 32 | 115643 | 0 |
| [ | Ba | 137 | 49.548 | ug/L | 0.586 | 1 | 65 | 200124 | 1 |
| [> | Tb | 159 | | ug/L | | | 430587 | 404724 | 0 |
| [ | Tl | 205 | 50.790 | ug/L | 0.290 | 0 | 147 | 1391592 | 1 |
| [ | Pb | 208 | 50.515 | ug/L | 0.638 | 1 | 1493 | 1899504 | 1 |
| [ | Bi | 209 | | ug/L | | | 345109 | 315280 | 1 |
| [ | Th | 232 | 51.120 | ug/L | 0.141 | 0 | 719 | 2195454 | 0 |
| [ | U | 238 | 50.505 | ug/L | 0.363 | 0 | 97 | 2317214 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: CCB4**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 20:23:22**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 443438 | 1 |
| [ | Be | 9 | 0.003 | ug/L | 0.010 | 377 | 3 | 4 | 96 |
| | C | 13 | | mg/L | | | 5654 | 5618 | 2 |
| | Cl | 37 | | mg/L | | | 2331174 | 2520052 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 247693 | 1 |
| \| | V | 51 | -0.030 | ug/L | 0.025 | 84 | 2402 | 1934 | 14 |
| \| | V-1 | 51 | -0.094 | ug/L | 0.018 | 19 | 8286 | 6762 | 1 |
| \| | Cr | 52 | -0.022 | ug/L | 0.032 | 141 | 7360 | 6724 | 2 |
| \| | Cr | 53 | -0.226 | ug/L | 0.108 | 47 | 2713 | 2303 | 4 |
| \| | Mn | 55 | -0.015 | ug/L | 0.004 | 24 | 1178 | 869 | 7 |
| [ | Co | 59 | 0.023 | ug/L | 0.001 | 5 | 123 | 393 | 2 |
| [> | Ge | 72 | | ug/L | | | 333920 | 331377 | 1 |
| \| | Ni | 60 | 0.005 | ug/L | 0.006 | 129 | 109 | 121 | 13 |
| \| | Ni | 62 | 0.067 | ug/L | 0.038 | 57 | 54 | 80 | 18 |
| \| | Cu | 63 | 0.026 | ug/L | 0.006 | 22 | 248 | 401 | 7 |
| \| | Cu | 65 | 0.019 | ug/L | 0.009 | 48 | 118 | 172 | 14 |
| \| | Zn | 66 | 0.253 | ug/L | 0.011 | 4 | 695 | 1148 | 1 |
| \| | Zn | 67 | 0.073 | ug/L | 0.118 | 161 | 255 | 275 | 12 |
| \| | Zn | 68 | -0.123 | ug/L | 0.084 | 67 | 8462 | 8240 | 0 |
| \| | As | 75 | 0.056 | ug/L | 0.008 | 15 | 693 | 789 | 2 |
| \| | As-1 | 75 | -0.366 | ug/L | 0.092 | 25 | 11505 | 10755 | 0 |
| \| | Se | 82 | -0.042 | ug/L | 0.053 | 126 | -5 | -13 | 77 |
| \| | Se | 78 | -1.480 | ug/L | 0.328 | 22 | 11713 | 10892 | 0 |
| [ | Mo | 98 | -0.010 | ug/L | 0.006 | 57 | 207 | 140 | 26 |
| | Y | 89 | | ug/L | | | 309412 | 292561 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 393 | 0 |
| [> | In | 115 | | ug/L | | | 365357 | 336184 | 0 |
| \| | Ag | 107 | 0.013 | ug/L | 0.008 | 64 | 101 | 232 | 39 |
| \| | Cd | 111 | 0.007 | ug/L | 0.009 | 133 | 166 | 172 | 15 |
| \| | Cd | 114 | 0.007 | ug/L | 0.004 | 60 | 27 | 68 | 39 |
| \| | Sb | 121 | 0.035 | ug/L | 0.014 | 39 | 240 | 542 | 23 |
| \| | Sb | 123 | 0.041 | ug/L | 0.017 | 41 | 169 | 443 | 27 |
| \| | Ba | 135 | 0.020 | ug/L | 0.005 | 24 | 32 | 75 | 15 |
| [ | Ba | 137 | 0.011 | ug/L | 0.003 | 24 | 65 | 105 | 10 |
| [> | Tb | 159 | | ug/L | | | 430587 | 401796 | 0 |
| \| | Tl | 205 | 0.013 | ug/L | 0.006 | 50 | 147 | 478 | 36 |
| \| | Pb | 208 | 0.109 | ug/L | 0.004 | 3 | 1493 | 5465 | 3 |
| \| | Bi | 209 | | ug/L | | | 345109 | 320578 | 0 |
| \| | Th | 232 | 0.022 | ug/L | 0.007 | 32 | 719 | 1618 | 19 |
| [ | U | 238 | 0.006 | ug/L | 0.003 | 55 | 97 | 370 | 42 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV16 MB1 REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 20:29:09**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

rerun Pb

| | Analyte | Mass | Conc. Mean | | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | | ug/L | | | 477870 | 479708 | 0 |
| [ | Be | 9 | 0.003 | | ug/L | 0.002 | 58 | 3 | 4 | 15 |
| | C | 13 | | | mg/L | | | 5654 | 6409 | 1 |
| | Cl | 37 | | | mg/L | | | 2331174 | 2520591 | 0 |
| [> | Sc | 45 | | | ug/L | | | 262568 | 275194 | 1 |
| \| | V | 51 | -0.002 | | ug/L | 0.011 | 511 | 2402 | 2490 | 4 |
| \| | V-1 | 51 | -0.191 | | ug/L | 0.019 | 9 | 8286 | 6314 | 2 |
| \| | Cr | 52 | -0.006 | | ug/L | 0.010 | 167 | 7360 | 7646 | 0 |
| \| | Cr | 53 | -0.603 | | ug/L | 0.043 | 7 | 2713 | 2087 | 0 |
| \| | Mn | 55 | -0.035 | | ug/L | 0.002 | 5 | 1178 | 613 | 4 |
| [ | Co | 59 | -0.004 | | ug/L | 0.002 | 38 | 123 | 70 | 30 |
| [> | Ge | 72 | | | ug/L | | | 333920 | 361299 | 0 |
| \| | Ni | 60 | -0.010 | | ug/L | 0.005 | 49 | 109 | 88 | 17 |
| \| | Ni | 62 | 0.045 | | ug/L | 0.019 | 42 | 54 | 78 | 10 |
| \| | Cu | 63 | 0.223 | U | ug/L | 0.007 | 2 | 248 | 1722 | 1 |
| \| | Cu | 65 | 0.232 | | ug/L | 0.011 | 4 | 118 | 853 | 4 |
| \| | Zn | 66 | 0.217 | U | ug/L | 0.013 | 5 | 695 | 1182 | 2 |
| \| | Zn | 67 | 0.071 | | ug/L | 0.008 | 11 | 255 | 299 | 1 |
| \| | Zn | 68 | -0.247 | | ug/L | 0.127 | 51 | 8462 | 8812 | 1 |
| \| | As | 75 | 0.000 | | ug/L | 0.009 | 2313 | 693 | 750 | 3 |
| \| | As-1 | 75 | -0.366 | | ug/L | 0.046 | 12 | 11505 | 11727 | 0 |
| \| | Se | 82 | -0.042 | | ug/L | 0.083 | 196 | -5 | -15 | 120 |
| \| | Se | 78 | -1.438 | | ug/L | 0.162 | 11 | 11713 | 11900 | 0 |
| [ | Mo | 98 | -0.016 | | ug/L | 0.002 | 11 | 207 | 103 | 13 |
| | Y | 89 | | | ug/L | | | 309412 | 327007 | 1 |
| | Kr | 83 | | | ug/L | | | 376 | 395 | 1 |
| [> | In | 115 | | | ug/L | | | 365357 | 377761 | 0 |
| \| | Ag | 107 | 0.001 | | ug/L | 0.001 | 146 | 101 | 116 | 14 |
| \| | Cd | 111 | 0.003 | | ug/L | 0.006 | 231 | 166 | 180 | 9 |
| \| | Cd | 114 | 0.001 | | ug/L | 0.001 | 48 | 27 | 36 | 11 |
| \| | Sb | 121 | 0.002 | | ug/L | 0.003 | 157 | 240 | 271 | 12 |
| \| | Sb | 123 | 0.003 | | ug/L | 0.003 | 104 | 169 | 200 | 12 |
| \| | Ba | 135 | 0.009 | | ug/L | 0.002 | 22 | 32 | 57 | 9 |
| [ | Ba | 137 | 0.006 | | ug/L | 0.003 | 61 | 65 | 93 | 17 |
| [> | Tb | 159 | | | ug/L | | | 430587 | 444493 | 0 |
| \| | Tl | 205 | 0.001 | | ug/L | 0.001 | 68 | 147 | 175 | 9 |
| \| | Pb | 208 | 0.115 | | ug/L | 0.003 | 2 | 1493 | 6288 | 1 |
| \| | Bl | 209 | | | ug/L | | | 345109 | 355052 | 0 |
| \| | Th | 232 | 0.017 | | ug/L | 0.004 | 24 | 719 | 1525 | 13 |
| [ | U | 238 | 0.001 | | ug/L | 0.000 | 13 | 97 | 149 | 5 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV16 MB2 REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 20:34:58**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

new Pb

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 484526 | 1 |
| [ | Be | 9 | -0.003 | ug/L | 0.004 | 146 | 3 | 2 | 91 |
| | C | 13 | | mg/L | | | 5654 | 6777 | 0 |
| | Cl | 37 | | mg/L | | | 2331174 | 2503542 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 273086 | 0 |
| [ | V | 51 | -0.003 | ug/L | 0.013 | 412 | 2402 | 2459 | 7 |
| [ | V-1 | 51 | -0.197 | ug/L | 0.008 | 4 | 8286 | 6196 | 1 |
| [ | Cr | 52 | 0.023 | ug/L | 0.015 | 64 | 7360 | 7898 | 1 |
| [ | Cr | 53 | -0.590 | ug/L | 0.047 | 7 | 2713 | 2087 | 1 |
| [ | Mn | 55 | -0.010 | ug/L | 0.002 | 21 | 1178 | 1051 | 4 |
| [ | Co | 59 | -0.003 | ug/L | 0.000 | 13 | 123 | 92 | 5 |
| [> | Ge | 72 | | ug/L | | | 333920 | 358322 | 1 |
| [ | Ni | 60 | -0.003 | ug/L | 0.004 | 101 | 109 | 107 | 8 |
| [ | Ni | 62 | 0.049 | ug/L | 0.033 | 67 | 54 | 79 | 16 |
| [ | Cu | 63 | U 0.142 | ug/L | 0.005 | 3 | 248 | 1188 | 1 |
| [ | Cu | 65 | 0.141 | ug/L | 0.009 | 6 | 118 | 564 | 3 |
| [ | Zn | 66 | U 0.147 | ug/L | 0.014 | 9 | 695 | 1034 | 4 |
| [ | Zn | 67 | 0.027 | ug/L | 0.009 | 35 | 255 | 282 | 2 |
| [ | Zn | 68 | -0.090 | ug/L | 0.157 | 175 | 8462 | 8955 | 1 |
| [ | As | 75 | -0.003 | ug/L | 0.025 | 764 | 693 | 737 | 7 |
| [ | As-1 | 75 | -0.219 | ug/L | 0.151 | 68 | 11505 | 11914 | 0 |
| [ | Se | 82 | -0.019 | ug/L | 0.085 | 443 | -5 | -9 | 188 |
| [ | Se | 78 | -0.867 | ug/L | 0.568 | 65 | 11713 | 12103 | 0 |
| [ | Mo | 98 | -0.017 | ug/L | 0.002 | 11 | 207 | 99 | 12 |
| | Y | 89 | | ug/L | | | 309412 | 326017 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 391 | 0 |
| [> | In | 115 | | ug/L | | | 365357 | 379695 | 0 |
| [ | Ag | 107 | -0.001 | ug/L | 0.001 | 100 | 101 | 92 | 14 |
| [ | Cd | 111 | 0.001 | ug/L | 0.003 | 312 | 166 | 176 | 6 |
| [ | Cd | 114 | 0.001 | ug/L | 0.001 | 137 | 27 | 32 | 17 |
| [ | Sb | 121 | -0.008 | ug/L | 0.001 | 11 | 240 | 165 | 6 |
| [ | Sb | 123 | -0.006 | ug/L | 0.001 | 19 | 169 | 129 | 7 |
| [ | Ba | 135 | 0.029 | ug/L | 0.003 | 10 | 32 | 109 | 6 |
| [ | Ba | 137 | 0.020 | ug/L | 0.001 | 5 | 65 | 160 | 3 |
| [> | Tb | 159 | | ug/L | | | 430587 | 446765 | 0 |
| [ | Tl | 205 | -0.001 | ug/L | 0.000 | 35 | 147 | 119 | 10 |
| [ | Pb | 208 | 0.091 | ug/L | 0.002 | 1 | 1493 | 5331 | 1 |
| [ | Bi | 209 | | ug/L | | | 345109 | 360787 | 0 |
| [ | Th | 232 | 0.010 | ug/L | 0.001 | 8 | 719 | 1216 | 3 |
| [ | U | 238 | 0.000 | ug/L | 0.000 | 45 | 97 | 122 | 7 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV16 MB2SPK REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 20:40:45**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

rerun Pb

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 476050 | 0 |
| [ | Be | 9 | 25.701 | ug/L | 0.239 | 0 | 3 | 11341 | 1 |
| | C | 13 | | mg/L | | | 5654 | 7652 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2493937 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 272683 | 2 |
| \| | V | 51 | 24.395 | ug/L | 0.218 | 0 | 2402 | 298486 | 1 |
| \| | V-1 | 51 | 24.440 | ug/L | 0.256 | 1 | 8286 | 309189 | 1 |
| \| | Cr | 52 | 24.830 | ug/L | 0.229 | 0 | 7360 | 269083 | 1 |
| \| | Cr | 53 | 24.956 | ug/L | 0.352 | 1 | 2713 | 33829 | 1 |
| \| | Mn | 55 | 24.847 | ug/L | 0.343 | 1 | 1178 | 442820 | 0 |
| [ | Co | 59 | 25.635 | ug/L | 0.249 | 0 | 123 | 346567 | 2 |
| [> | Ge | 72 | | ug/L | | | 333920 | 356019 | 1 |
| \| | Ni | 60 | 25.586 | ug/L | 0.130 | 0 | 109 | 73631 | 1 |
| \| | Ni | 62 | 25.958 | ug/L | 0.307 | 1 | 54 | 11213 | 1 |
| \| | Cu | 63 | 26.923 | ug/L | 0.211 | 0 | 248 | 173376 | 0 |
| \| | Cu | 65 | 26.826 | ug/L | 0.333 | 1 | 118 | 82705 | 2 |
| \| | Zn | 66 | 80.136 | ug/L | 0.198 | 0 | 695 | 156780 | 1 |
| \| | Zn | 67 | 74.632 | ug/L | 0.334 | 0 | 255 | 24491 | 1 |
| \| | Zn | 68 | 78.718 | ug/L | 0.221 | 0 | 8462 | 116846 | 1 |
| \| | As | 75 | 25.807 | ug/L | 0.170 | 0 | 693 | 51594 | 1 |
| \| | As-1 | 75 | 24.916 | ug/L | 0.186 | 0 | 11505 | 60666 | 1 |
| \| | Se | 82 | 75.303 | ug/L | 0.510 | 0 | -5 | 16543 | 1 |
| \| | Se | 78 | 74.625 | ug/L | 0.210 | 0 | 11713 | 52055 | 1 |
| [ | Mo | 98 | -0.014 | ug/L | 0.001 | 3 | 207 | 121 | 2 |
| | Y | 89 | | ug/L | | | 309412 | 325909 | 2 |
| | Kr | 83 | | ug/L | | | 376 | 394 | 2 |
| [> | In | 115 | | ug/L | | | 365357 | 373442 | 1 |
| \| | Ag | 107 | 26.018 | ug/L | 0.282 | 1 | 101 | 321392 | 1 |
| \| | Cd | 111 | 24.718 | ug/L | 0.293 | 1 | 166 | 75204 | 1 |
| \| | Cd | 114 | 24.850 | ug/L | 0.144 | 0 | 27 | 177554 | 1 |
| \| | Sb | 121 | -0.008 | ug/L | 0.000 | 6 | 240 | 166 | 4 |
| \| | Sb | 123 | -0.006 | ug/L | 0.002 | 41 | 169 | 130 | 14 |
| \| | Ba | 135 | 25.240 | ug/L | 0.513 | 2 | 32 | 65399 | 2 |
| [ | Ba | 137 | 25.331 | ug/L | 0.745 | 2 | 65 | 113373 | 2 |
| [> | Tb | 159 | | ug/L | | | 430587 | 443435 | 1 |
| \| | Tl | 205 | 26.346 | ug/L | 0.253 | 0 | 147 | 790930 | 1 |
| \| | Pb | 208 | 26.156 | ug/L | 0.412 | 1 | 1493 | 1078404 | 2 |
| \| | Bi | 209 | | ug/L | | | 345109 | 356329 | 1 |
| \| | Th | 232 | 26.481 | ug/L | 0.405 | 1 | 719 | 1246398 | 1 |
| [ | U | 238 | 26.358 | ug/L | 0.352 | 1 | 97 | 1325123 | 1 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV16 MB1SPK REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 20:47:02**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

rear Pb

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 481504 | 1 |
| [ | Be | 9 | 25.851 | ug/L | 0.458 | 1 | 3 | 11536 | 0 |
| | C | 13 | | mg/L | | | 5654 | 6980 | 0 |
| | Cl | 37 | | mg/L | | | 2331174 | 2504534 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 274452 | 0 |
| [ | V | 51 | 24.618 | ug/L | 0.192 | 0 | 2402 | 303169 | 0 |
| [ | V-1 | 51 | 24.646 | ug/L | 0.208 | 0 | 8286 | 313765 | 0 |
| [ | Cr | 52 | 24.678 | ug/L | 0.287 | 1 | 7360 | 269246 | 1 |
| [ | Cr | 53 | 24.765 | ug/L | 0.282 | 1 | 2713 | 33813 | 1 |
| [ | Mn | 55 | 25.420 | ug/L | 0.200 | 0 | 1178 | 456028 | 0 |
| [ | Co | 59 | 25.735 | ug/L | 0.242 | 0 | 123 | 350126 | 0 |
| [> | Ge | 72 | | ug/L | | | 333920 | 360404 | 0 |
| [ | Ni | 60 | 25.552 | ug/L | 0.302 | 1 | 109 | 74436 | 0 |
| [ | Ni | 62 | 26.303 | ug/L | 0.577 | 2 | 54 | 11502 | 2 |
| [ | Cu | 63 | 26.707 | ug/L | 0.393 | 1 | 248 | 174104 | 1 |
| [ | Cu | 65 | 26.951 | ug/L | 0.232 | 0 | 118 | 84111 | 1 |
| [ | Zn | 66 | 80.136 | ug/L | 0.413 | 0 | 695 | 158710 | 0 |
| [ | Zn | 67 | 73.644 | ug/L | 0.647 | 0 | 255 | 24467 | 0 |
| [ | Zn | 68 | 79.471 | ug/L | 0.962 | 1 | 8462 | 119324 | 0 |
| [ | As | 75 | 26.101 | ug/L | 0.299 | 1 | 693 | 52812 | 0 |
| [ | As-1 | 75 | 25.021 | ug/L | 0.408 | 1 | 11505 | 61619 | 0 |
| [ | Se | 82 | 77.142 | ug/L | 1.002 | 1 | -5 | 17154 | 0 |
| [ | Se | 78 | 75.866 | ug/L | 1.502 | 1 | 11713 | 53359 | 0 |
| [ | Mo | 98 | -0.012 | ug/L | 0.003 | 24 | 207 | 133 | 17 |
| | Y | 89 | | ug/L | | | 309412 | 331227 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 401 | 1 |
| [> | In | 115 | | ug/L | | | 365357 | 383758 | 0 |
| [ | Ag | 107 | 25.476 | ug/L | 0.402 | 1 | 101 | 323409 | 1 |
| [ | Cd | 111 | 24.674 | ug/L | 0.211 | 0 | 166 | 77155 | 1 |
| [ | Cd | 114 | 24.735 | ug/L | 0.234 | 0 | 27 | 181626 | 1 |
| [ | Sb | 121 | -0.009 | ug/L | 0.003 | 28 | 240 | 157 | 17 |
| [ | Sb | 123 | -0.009 | ug/L | 0.001 | 14 | 169 | 107 | 9 |
| [ | Ba | 135 | 24.782 | ug/L | 0.307 | 1 | 32 | 65985 | 0 |
| [ | Ba | 137 | 24.663 | ug/L | 0.132 | 0 | 65 | 113449 | 0 |
| [> | Tb | 159 | | ug/L | | | 430587 | 449154 | 0 |
| [ | Tl | 205 | 26.359 | ug/L | 0.442 | 1 | 147 | 801520 | 1 |
| [ | Pb | 208 | 26.632 | ug/L | 0.344 | 1 | 1493 | 1112008 | 0 |
| [ | Bi | 209 | | ug/L | | | 345109 | 365373 | 1 |
| [ | Th | 232 | 26.465 | ug/L | 0.215 | 0 | 719 | 1261669 | 0 |
| [ | U | 238 | 26.581 | ug/L | 0.282 | 1 | 97 | 1353549 | 1 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV16 A REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 20:53:18**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

rem
Pb

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 333285 | 5 |
| [ | Be | 9 | 0.007 | ug/L | 0.006 | 77 | 3 | 4 | 41 |
| | C | 13 | | mg/L | | | 5654 | 8448 | 0 |
| | Cl | 37 | | mg/L | | | 2331174 | 11927728 | 3 |
| [> | Sc | 45 | | ug/L | | | 262568 | 248311 | 5 |
| [ | V | 51 | 1.952 | ug/L | 0.137 | 7 | 2402 | 23852 | 8 |
| [ | V-1 | 51 | 6.035 | ug/L | 0.417 | 6 | 8286 | 75294 | 3 |
| [ | Cr | 52 | 2.533 | ug/L | 0.076 | 2 | 7360 | 31228 | 2 |
| [ | Cr | 53 | 15.430 | ug/L | 1.684 | 10 | 2713 | 19979 | 6 |
| [ | Mn | 55 | 185.286 | ug/L | 0.248 | 0 | 1178 | 3000585 | 5 |
| [ | Co | 59 | 0.572 | ug/L | 0.009 | 1 | 123 | 7157 | 5 |
| [> | Ge | 72 | | ug/L | | | 333920 | 285385 | 3 |
| [ | Ni | 60 | 8.981 | ug/L | 0.229 | 2 | 109 | 20785 | 5 |
| [ | Ni | 62 | 16.000 | ug/L | 2.505 | 15 | 54 | 5577 | 19 |
| [ | Cu | 63 | 38.420 | ug/L | 0.426 | 1 | 248 | 198298 | 4 |
| [ | Cu | 65 | 31.242 | ug/L | 0.180 | 0 | 118 | 77200 | 4 |
| [ | Zn | 66 | 271.218 | ug/L | 1.823 | 0 | 695 | 423967 | 4 |
| [ | Zn | 67 | 245.573 | ug/L | 0.982 | 0 | 255 | 64095 | 3 |
| [ | Zn | 68 | 271.598 | ug/L | 1.948 | 0 | 8462 | 305441 | 3 |
| [ | As | 75 | 2.592 | ug/L | 0.095 | 3 | 693 | 4687 | 5 |
| [ | As-1 | 75 | 1.260 | ug/L | 0.122 | 9 | 11505 | 11791 | 2 |
| [ | Se | 82 | 6.441 | ug/L | 0.210 | 3 | -5 | 1130 | 6 |
| [ | Se | 78 | 2.737 | ug/L | 0.406 | 14 | 11713 | 11170 | 2 |
| [ | Mo | 98 | 16.794 | ug/L | 0.142 | 0 | 207 | 97936 | 4 |
| | Y | 89 | | ug/L | | | 309412 | 286507 | 5 |
| | Kr | 83 | | ug/L | | | 376 | 481 | 2 |
| [> | In | 115 | | ug/L | | | 365357 | 322415 | 3 |
| [ | Ag | 107 | 0.052 | ug/L | 0.013 | 23 | 101 | 650 | 23 |
| [ | Cd | 111 | 0.562 | ug/L | 0.219 | 39 | 166 | 1625 | 37 |
| [ | Cd | 114 | 1.340 | ug/L | 0.012 | 0 | 27 | 8288 | 3 |
| [ | Sb | 121 | 1.708 | ug/L | 0.008 | 0 | 240 | 15449 | 3 |
| [ | Sb | 123 | 1.694 | ug/L | 0.015 | 0 | 169 | 11497 | 3 |
| [ | Ba | 135 | 91.438 | ug/L | 0.541 | 0 | 32 | 204479 | 3 |
| [ | Ba | 137 | 90.716 | ug/L | 1.134 | 1 | 65 | 350401 | 3 |
| [> | Tb | 159 | | ug/L | | | 430587 | 386477 | 3 |
| [ | Tl | 205 | 0.024 | ug/L | 0.006 | 24 | 147 | 755 | 24 |
| [ | Pb | 208 | 15.483 | ug/L | 0.041 | 0 | 1493 | 556821 | 3 |
| [ | Bi | 209 | | ug/L | | | 345109 | 274053 | 3 |
| [ | Th | 232 | 0.128 | ug/L | 0.041 | 32 | 719 | 5934 | 32 |
| [ | U | 238 | 0.209 | ug/L | 0.004 | 1 | 97 | 9233 | 5 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV14 D REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 20:59:35**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 381146 | 1 |
| [ | Be | 9 | 0.007 | ug/L | 0.006 | 90 | 3 | 5 | 43 |
| | C | 13 | | mg/L | | | 5654 | 7045 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2561209 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 242513 | 0 |
| [ | V | 51 | 0.688 | ug/L | 0.013 | 1 | 2402 | 9641 | 1 |
| [ | V-1 | 51 | 1.419 | ug/L | 0.096 | 6 | 8286 | 23175 | 4 |
| [ | Cr | 52 | 0.285 | ug/L | 0.031 | 10 | 7360 | 9465 | 3 |
| [ | Cr | 53 | 2.615 | ug/L | 0.321 | 12 | 2713 | 5397 | 6 |
| [ | Mn | 55 | 452.182 | ug/L | 3.798 | 0 | 1178 | 7149838 | 0 |
| [ | Co | 59 | 0.444 | ug/L | 0.007 | 1 | 123 | 5451 | 1 |
| [> | Ge | 72 | | ug/L | | | 333920 | 308205 | 1 |
| [ | Ni | 60 | 1.234 | ug/L | 0.021 | 1 | 109 | 3170 | 2 |
| [ | Ni | 62 | 1.187 | ug/L | 0.031 | 2 | 54 | 491 | 1 |
| [ | Cu | 63 | 7.172 | ug/L | 0.051 | 0 | 248 | 40153 | 0 |
| [ | Cu | 65 | 7.053 | ug/L | 0.062 | 0 | 118 | 18903 | 1 |
| [ | Zn | 66 | 54.762 | ug/L | 0.458 | 0 | 695 | 92950 | 1 |
| [ | Zn | 67 | 50.761 | ug/L | 0.702 | 1 | 255 | 14497 | 2 |
| [ | Zn | 68 | 55.614 | ug/L | 0.518 | 0 | 8462 | 73754 | 0 |
| [ | As | 75 | 3.749 | ug/L | 0.065 | 1 | 693 | 7035 | 1 |
| [ | As-1 | 75 | 3.568 | ug/L | 0.079 | 2 | 11505 | 16619 | 1 |
| [ | Se | 82 | 0.130 | ug/L | 0.054 | 41 | -5 | 19 | 51 |
| [ | Se | 78 | -0.473 | ug/L | 0.110 | 23 | 11713 | 10594 | 1 |
| [ | Mo | 98 | 2.689 | ug/L | 0.050 | 1 | 207 | 17089 | 0 |
| | Y | 89 | | ug/L | | | 309412 | 277948 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 392 | 0 |
| [> | In | 115 | | ug/L | | | 365357 | 329136 | 1 |
| [ | Ag | 107 | -0.001 | ug/L | 0.001 | 111 | 101 | 82 | 10 |
| [ | Cd | 111 | 0.088 | ug/L | 0.013 | 14 | 166 | 386 | 8 |
| [ | Cd | 114 | 0.082 | ug/L | 0.006 | 7 | 27 | 542 | 5 |
| [ | Sb | 121 | 0.502 | ug/L | 0.002 | 0 | 240 | 4786 | 0 |
| [ | Sb | 123 | 0.501 | ug/L | 0.013 | 2 | 169 | 3578 | 3 |
| [ | Ba | 135 | 18.384 | ug/L | 0.385 | 2 | 32 | 41993 | 2 |
| [ | Ba | 137 | 18.209 | ug/L | 0.244 | 1 | 65 | 71849 | 0 |
| [> | Tb | 159 | | ug/L | | | 430587 | 388709 | 1 |
| [ | Tl | 205 | 0.003 | ug/L | 0.001 | 29 | 147 | 201 | 9 |
| [ | Pb | 208 | 1.759 | ug/L | 0.002 | 0 | 1493 | 64820 | 1 |
| [ | Bi | 209 | | ug/L | | | 345109 | 317072 | 2 |
| [ | Th | 232 | 0.017 | ug/L | 0.002 | 13 | 719 | 1368 | 8 |
| [ | U | 238 | 0.011 | ug/L | 0.000 | 2 | 97 | 582 | 3 |

UU52 : 02124

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV14 E REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 21:05:50**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 383732 | 1 |
| [ | Be | 9 | 0.003 | ug/L | 0.007 | 231 | 3 | 3 | 66 |
| | C | 13 | | mg/L | | | 5654 | 6797 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2528348 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 241529 | 1 |
| \| | V | 51 | 0.366 | ug/L | 0.016 | 4 | 2402 | 6145 | 2 |
| \| | V-1 | 51 | 0.870 | ug/L | 0.072 | 8 | 8286 | 17090 | 3 |
| \| | Cr | 52 | 0.840 | ug/L | 0.018 | 2 | 7360 | 14602 | 2 |
| \| | Cr | 53 | 2.412 | ug/L | 0.211 | 8 | 2713 | 5150 | 3 |
| \| | Mn | 55 | 4.140 | ug/L | 0.074 | 1 | 1178 | 66256 | 0 |
| [ | Co | 59 | 0.082 | ug/L | 0.002 | 2 | 123 | 1094 | 2 |
| [> | Ge | 72 | | ug/L | | | 333920 | 318751 | 0 |
| \| | Ni | 60 | 0.462 | ug/L | 0.018 | 3 | 109 | 1292 | 3 |
| \| | Ni | 62 | 0.599 | ug/L | 0.125 | 20 | 54 | 282 | 16 |
| \| | Cu | 63 | 4.920 | ug/L | 0.107 | 2 | 248 | 28559 | 1 |
| \| | Cu | 65 | 4.904 | ug/L | 0.051 | 1 | 118 | 13629 | 0 |
| \| | Zn | 66 | 191.635 | ug/L | 2.548 | 1 | 695 | 334727 | 0 |
| \| | Zn | 67 | 170.611 | ug/L | 1.195 | 0 | 255 | 49812 | 0 |
| \| | Zn | 68 | 191.166 | ug/L | 1.653 | 0 | 8462 | 242511 | 0 |
| \| | As | 75 | 0.259 | ug/L | 0.017 | 6 | 693 | 1119 | 2 |
| \| | As-1 | 75 | -0.243 | ug/L | 0.082 | 33 | 11505 | 10560 | 0 |
| \| | Se | 82 | -0.020 | ug/L | 0.092 | 469 | -5 | -9 | 198 |
| \| | Se | 78 | -1.695 | ug/L | 0.302 | 17 | 11713 | 10376 | 0 |
| [ | Mo | 98 | 0.505 | ug/L | 0.004 | 0 | 207 | 3480 | 1 |
| | Y | 89 | | ug/L | | | 309412 | 281880 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 391 | 3 |
| [> | In | 115 | | ug/L | | | 365357 | 332303 | 0 |
| \| | Ag | 107 | 0.001 | ug/L | 0.001 | 41 | 101 | 107 | 5 |
| \| | Cd | 111 | 0.298 | ug/L | 0.003 | 0 | 166 | 955 | 0 |
| \| | Cd | 114 | 0.272 | ug/L | 0.005 | 1 | 27 | 1751 | 1 |
| \| | Sb | 121 | 0.468 | ug/L | 0.008 | 1 | 240 | 4518 | 2 |
| \| | Sb | 123 | 0.483 | ug/L | 0.018 | 3 | 169 | 3490 | 4 |
| \| | Ba | 135 | 2.437 | ug/L | 0.042 | 1 | 32 | 5645 | 2 |
| [ | Ba | 137 | 2.438 | ug/L | 0.020 | 0 | 65 | 9765 | 0 |
| [> | Tb | 159 | | ug/L | | | 430587 | 395925 | 1 |
| \| | Tl | 205 | 0.001 | ug/L | 0.000 | 16 | 147 | 164 | 1 |
| \| | Pb | 208 | 1.207 | ug/L | 0.030 | 2 | 1493 | 45714 | 0 |
| \| | Bi | 209 | | ug/L | | | 345109 | 323359 | 0 |
| \| | Th | 232 | -0.001 | ug/L | 0.001 | 123 | 719 | 637 | 3 |
| [ | U | 238 | 0.004 | ug/L | 0.000 | 8 | 97 | 280 | 4 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV14 F REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 21:12:07**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| ⌈> | **Li** | **6** | | ug/L | | | 477870 | 376991 | 1 |
| ⌊ | **Be** | **9** | **0.002** | ug/L | 0.005 | 272 | 3 | 3 | 57 |
| | **C** | **13** | | mg/L | | | 5654 | 6609 | 2 |
| | **Cl** | **37** | | mg/L | | | 2331174 | 2498525 | 0 |
| ⌈> | **Sc** | **45** | | ug/L | | | 262568 | 232934 | 0 |
| \| | **V** | **51** | **0.259** | ug/L | 0.019 | 7 | 2402 | 4817 | 4 |
| \| | **V-1** | **51** | **0.658** | ug/L | 0.024 | 3 | 8286 | 14263 | 2 |
| \| | **Cr** | **52** | **0.259** | ug/L | 0.012 | 4 | 7360 | 8856 | 1 |
| \| | **Cr** | **53** | **1.520** | ug/L | 0.035 | 2 | 2713 | 4021 | 1 |
| \| | **Mn** | **55** | **2.685** | ug/L | 0.029 | 1 | 1178 | 41822 | 1 |
| ⌊ | **Co** | **59** | **0.062** | ug/L | 0.006 | 9 | 123 | 829 | 7 |
| ⌈> | **Ge** | **72** | | ug/L | | | 333920 | 310577 | 0 |
| \| | **Ni** | **60** | **0.300** | ug/L | 0.016 | 5 | 109 | 854 | 4 |
| \| | **Ni** | **62** | **0.381** | ug/L | 0.024 | 6 | 54 | 193 | 4 |
| \| | **Cu** | **63** | **3.732** | ug/L | 0.042 | 1 | 248 | 21162 | 0 |
| \| | **Cu** | **65** | **3.739** | ug/L | 0.091 | 2 | 118 | 10151 | 2 |
| \| | **Zn** | **66** | **170.113** | ug/L | 0.495 | 0 | 695 | 289604 | 0 |
| \| | **Zn** | **67** | **151.012** | ug/L | 1.789 | 1 | 255 | 42989 | 1 |
| \| | **Zn** | **68** | **168.993** | ug/L | 2.175 | 1 | 8462 | 209800 | 1 |
| \| | **As** | **75** | **0.210** | ug/L | 0.010 | 4 | 693 | 1005 | 1 |
| \| | **As-1** | **75** | **-0.193** | ug/L | 0.046 | 23 | 11505 | 10373 | 0 |
| \| | **Se** | **82** | **-0.050** | ug/L | 0.060 | 119 | -5 | -14 | 78 |
| \| | **Se** | **78** | **-1.292** | ug/L | 0.118 | 9 | 11713 | 10297 | 0 |
| ⌊ | **Mo** | **98** | **0.458** | ug/L | 0.006 | 1 | 207 | 3092 | 1 |
| | **Y** | **89** | | ug/L | | | 309412 | 271284 | 0 |
| | **Kr** | **83** | | ug/L | | | 376 | 394 | 2 |
| ⌈> | **In** | **115** | | ug/L | | | 365357 | 328326 | 1 |
| \| | **Ag** | **107** | **-0.003** | ug/L | 0.001 | 40 | 101 | 59 | 23 |
| \| | **Cd** | **111** | **0.238** | ug/L | 0.004 | 1 | 166 | 786 | 2 |
| \| | **Cd** | **114** | **0.225** | ug/L | 0.012 | 5 | 27 | 1436 | 5 |
| \| | **Sb** | **121** | **0.411** | ug/L | 0.015 | 3 | 240 | 3948 | 2 |
| \| | **Sb** | **123** | **0.425** | ug/L | 0.017 | 3 | 169 | 3050 | 2 |
| \| | **Ba** | **135** | **1.762** | ug/L | 0.011 | 0 | 32 | 4040 | 1 |
| ⌊ | **Ba** | **137** | **1.768** | ug/L | 0.027 | 1 | 65 | 7012 | 1 |
| ⌈> | **Tb** | **159** | | ug/L | | | 430587 | 386278 | 0 |
| \| | **Tl** | **205** | **-0.001** | ug/L | 0.000 | 80 | 147 | 117 | 11 |
| \| | **Pb** | **208** | **0.122** | ug/L | 0.005 | 3 | 1493 | 5716 | 2 |
| \| | **Bi** | **209** | | ug/L | | | 345109 | 311526 | 1 |
| \| | **Th** | **232** | **-0.006** | ug/L | 0.000 | 1 | 719 | 406 | 0 |
| ⌊ | **U** | **238** | **0.002** | ug/L | 0.000 | 3 | 97 | 192 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV14 G REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 21:18:27**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 405533 | 2 |
| [ | Be | 9 | 0.037 | ug/L | 0.011 | 31 | 3 | 16 | 24 |
| | C | 13 | | mg/L | | | 5654 | 7536 | 0 |
| | Cl | 37 | | mg/L | | | 2331174 | 2477118 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 258972 | 1 |
| \| | V | 51 | 5.866 | ug/L | 0.095 | 1 | 2402 | 69982 | 2 |
| \| | V-1 | 51 | 6.078 | ug/L | 0.105 | 1 | 8286 | 79175 | 1 |
| \| | Cr | 52 | 4.198 | ug/L | 0.082 | 1 | 7360 | 49242 | 2 |
| \| | Cr | 53 | 4.939 | ug/L | 0.187 | 3 | 2713 | 8504 | 1 |
| \| | Mn | 55 | 60.063 | ug/L | 0.530 | 0 | 1178 | 1015191 | 1 |
| [ | Co | 59 | 1.261 | ug/L | 0.020 | 1 | 123 | 16305 | 1 |
| [> | Ge | 72 | | ug/L | | | 333920 | 319111 | 0 |
| \| | Ni | 60 | 3.931 | ug/L | 0.033 | 0 | 109 | 10228 | 1 |
| \| | Ni | 62 | 4.766 | ug/L | 0.215 | 4 | 54 | 1887 | 4 |
| \| | Cu | 63 | 13.095 | ug/L | 0.111 | 0 | 248 | 75712 | 0 |
| \| | Cu | 65 | 13.293 | ug/L | 0.160 | 1 | 118 | 36788 | 0 |
| \| | Zn | 66 | 68.536 | ug/L | 0.720 | 1 | 695 | 120279 | 1 |
| \| | Zn | 67 | 62.609 | ug/L | 0.607 | 0 | 255 | 18454 | 0 |
| \| | Zn | 68 | 68.194 | ug/L | 0.128 | 0 | 8462 | 91813 | 0 |
| \| | As | 75 | 1.743 | ug/L | 0.030 | 1 | 693 | 3740 | 1 |
| \| | As-1 | 75 | 1.233 | ug/L | 0.075 | 6 | 11505 | 13142 | 0 |
| \| | Se | 82 | -0.026 | ug/L | 0.069 | 270 | -5 | -10 | 132 |
| \| | Se | 78 | -1.774 | ug/L | 0.207 | 11 | 11713 | 10350 | 0 |
| [ | Mo | 98 | 7.217 | ug/L | 0.073 | 1 | 207 | 47165 | 1 |
| | Y | 89 | | ug/L | | | 309412 | 300849 | 2 |
| | Kr | 83 | | ug/L | | | 376 | 397 | 2 |
| [> | In | 115 | | ug/L | | | 365357 | 335906 | 0 |
| \| | Ag | 107 | 0.027 | ug/L | 0.001 | 4 | 101 | 390 | 4 |
| \| | Cd | 111 | 0.238 | ug/L | 0.044 | 18 | 166 | 805 | 15 |
| \| | Cd | 114 | 0.204 | ug/L | 0.005 | 2 | 27 | 1339 | 2 |
| \| | Sb | 121 | 1.083 | ug/L | 0.022 | 1 | 240 | 10280 | 1 |
| \| | Sb | 123 | 1.082 | ug/L | 0.012 | 1 | 169 | 7707 | 1 |
| \| | Ba | 135 | 21.156 | ug/L | 0.138 | 0 | 32 | 49311 | 0 |
| [ | Ba | 137 | 21.174 | ug/L | 0.465 | 2 | 65 | 85263 | 2 |
| [> | Tb | 159 | | ug/L | | | 430587 | 396686 | 1 |
| \| | Tl | 205 | 0.014 | ug/L | 0.002 | 11 | 147 | 499 | 7 |
| \| | Pb | 208 | 5.842 | ug/L | 0.040 | 0 | 1493 | 216508 | 0 |
| \| | Bi | 209 | | ug/L | | | 345109 | 325096 | 1 |
| \| | Th | 232 | 0.138 | ug/L | 0.004 | 2 | 719 | 6480 | 1 |
| [ | U | 238 | 0.068 | ug/L | 0.003 | 4 | 97 | 3170 | 4 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV14 H REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 21:24:46**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| ⌈> | Li | 6 | | ug/L | | | 477870 | 412524 | 0 |
| ⌊ | Be | 9 | 0.008 | ug/L | 0.002 | 24 | 3 | 5 | 12 |
| | C | 13 | | mg/L | | | 5654 | 7636 | 0 |
| | Cl | 37 | | mg/L | | | 2331174 | 2465844 | 0 |
| ⌈> | Sc | 45 | | ug/L | | | 262568 | 247617 | 0 |
| \| | V | 51 | 1.087 | ug/L | 0.019 | 1 | 2402 | 14246 | 1 |
| \| | V-1 | 51 | 1.219 | ug/L | 0.040 | 3 | 8286 | 21424 | 1 |
| \| | Cr | 52 | 0.478 | ug/L | 0.006 | 1 | 7360 | 11507 | 0 |
| \| | Cr | 53 | 0.919 | ug/L | 0.102 | 11 | 2713 | 3595 | 2 |
| \| | Mn | 55 | 12.022 | ug/L | 0.129 | 1 | 1178 | 195161 | 0 |
| ⌊ | Co | 59 | 0.113 | ug/L | 0.005 | 4 | 123 | 1503 | 3 |
| ⌈> | Ge | 72 | | ug/L | | | 333920 | 321826 | 0 |
| \| | Ni | 60 | 0.758 | ug/L | 0.019 | 2 | 109 | 2074 | 2 |
| \| | Ni | 62 | 0.702 | ug/L | 0.067 | 9 | 54 | 325 | 8 |
| \| | Cu | 63 | 5.194 | ug/L | 0.058 | 1 | 248 | 30428 | 1 |
| \| | Cu | 65 | 5.246 | ug/L | 0.010 | 0 | 118 | 14711 | 0 |
| \| | Zn | 66 | 9.966 | ug/L | 0.147 | 1 | 695 | 18212 | 1 |
| \| | Zn | 67 | 9.113 | ug/L | 0.052 | 0 | 255 | 2919 | 0 |
| \| | Zn | 68 | 9.857 | ug/L | 0.134 | 1 | 8462 | 20361 | 0 |
| \| | As | 75 | 0.887 | ug/L | 0.007 | 0 | 693 | 2248 | 0 |
| \| | As-1 | 75 | 0.272 | ug/L | 0.075 | 27 | 11505 | 11566 | 1 |
| \| | Se | 82 | 0.027 | ug/L | 0.027 | 100 | -5 | 0 | 3118 |
| \| | Se | 78 | -1.818 | ug/L | 0.265 | 14 | 11713 | 10418 | 1 |
| ⌊ | Mo | 98 | 7.172 | ug/L | 0.126 | 1 | 207 | 47272 | 1 |
| | Y | 89 | | ug/L | | | 309412 | 289576 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 447 | 0 |
| ⌈> | In | 115 | | ug/L | | | 365357 | 338594 | 0 |
| \| | Ag | 107 | -0.001 | ug/L | 0.001 | 78 | 101 | 86 | 6 |
| \| | Cd | 111 | 0.019 | ug/L | 0.013 | 65 | 166 | 208 | 16 |
| \| | Cd | 114 | 0.036 | ug/L | 0.005 | 14 | 27 | 257 | 12 |
| \| | Sb | 121 | 0.556 | ug/L | 0.009 | 1 | 240 | 5428 | 1 |
| \| | Sb | 123 | 0.579 | ug/L | 0.019 | 3 | 169 | 4230 | 3 |
| \| | Ba | 135 | 3.637 | ug/L | 0.099 | 2 | 32 | 8569 | 2 |
| ⌊ | Ba | 137 | 3.610 | ug/L | 0.069 | 1 | 65 | 14702 | 1 |
| ⌈> | Tb | 159 | | ug/L | | | 430587 | 395612 | 1 |
| \| | Tl | 205 | -0.001 | ug/L | 0.001 | 81 | 147 | 113 | 16 |
| \| | Pb | 208 | 0.193 | ug/L | 0.001 | 0 | 1493 | 8474 | 0 |
| \| | Bi | 209 | | ug/L | | | 345109 | 324606 | 0 |
| \| | Th | 232 | 0.002 | ug/L | 0.001 | 41 | 719 | 743 | 3 |
| ⌊ | U | 238 | 0.016 | ug/L | 0.000 | 2 | 97 | 816 | 2 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: CCV5**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 21:31:05**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 397873 | 1 |
| [ | Be | 9 | 52.260 | ug/L | 0.540 | 1 | 3 | 19270 | 0 |
| | C | 13 | | mg/L | | | 5654 | 5124 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2510570 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 234949 | 0 |
| [ | V | 51 | 49.402 | ug/L | 0.160 | 0 | 2402 | 518680 | 0 |
| [ | V-1 | 51 | 49.751 | ug/L | 0.205 | 0 | 8286 | 534676 | 0 |
| [ | Cr | 52 | 49.718 | ug/L | 0.178 | 0 | 7360 | 457685 | 0 |
| [ | Cr | 53 | 50.811 | ug/L | 0.947 | 1 | 2713 | 56834 | 1 |
| [ | Mn | 55 | 49.182 | ug/L | 0.662 | 1 | 1178 | 754318 | 0 |
| [ | Co | 59 | 50.145 | ug/L | 0.978 | 1 | 123 | 583916 | 1 |
| [> | Ge | 72 | | ug/L | | | 333920 | 312203 | 1 |
| [ | Ni | 60 | 48.982 | ug/L | 0.659 | 1 | 109 | 123513 | 1 |
| [ | Ni | 62 | 49.639 | ug/L | 1.150 | 2 | 54 | 18756 | 1 |
| [ | Cu | 63 | 50.364 | ug/L | 0.524 | 1 | 248 | 284210 | 0 |
| [ | Cu | 65 | 50.320 | ug/L | 0.486 | 0 | 118 | 135933 | 0 |
| [ | Zn | 66 | 50.993 | ug/L | 0.991 | 1 | 695 | 87714 | 1 |
| [ | Zn | 67 | 52.577 | ug/L | 1.198 | 2 | 255 | 15199 | 1 |
| [ | Zn | 68 | 51.440 | ug/L | 1.112 | 2 | 8462 | 69691 | 0 |
| [ | As | 75 | 50.174 | ug/L | 0.315 | 0 | 693 | 87347 | 0 |
| [ | As-1 | 75 | 49.887 | ug/L | 0.440 | 0 | 11505 | 95736 | 0 |
| [ | Se | 82 | 47.350 | ug/L | 0.968 | 2 | -5 | 9118 | 1 |
| [ | Se | 78 | 46.642 | ug/L | 1.138 | 2 | 11713 | 32635 | 0 |
| [ | Mo | 98 | 48.294 | ug/L | 0.282 | 0 | 207 | 307678 | 0 |
| | Y | 89 | | ug/L | | | 309412 | 274779 | 2 |
| | Kr | 83 | | ug/L | | | 376 | 440 | 5 |
| [> | In | 115 | | ug/L | | | 365357 | 324292 | 1 |
| [ | Ag | 107 | 50.332 | ug/L | 0.751 | 1 | 101 | 539779 | 0 |
| [ | Cd | 111 | 49.694 | ug/L | 0.387 | 0 | 166 | 131151 | 0 |
| [ | Cd | 114 | 49.679 | ug/L | 0.803 | 1 | 27 | 308220 | 2 |
| [ | Sb | 121 | 50.655 | ug/L | 1.034 | 2 | 240 | 454576 | 0 |
| [ | Sb | 123 | 50.495 | ug/L | 1.050 | 2 | 169 | 340236 | 0 |
| [ | Ba | 135 | 49.489 | ug/L | 0.844 | 1 | 32 | 111307 | 0 |
| [ | Ba | 137 | 49.748 | ug/L | 0.940 | 1 | 65 | 193285 | 0 |
| [> | Tb | 159 | | ug/L | | | 430587 | 386560 | 1 |
| [ | Tl | 205 | 51.879 | ug/L | 0.870 | 1 | 147 | 1357457 | 0 |
| [ | Pb | 208 | 51.511 | ug/L | 0.745 | 1 | 1493 | 1849720 | 0 |
| [ | Bi | 209 | | ug/L | | | 345109 | 307037 | 1 |
| [ | Th | 232 | 52.466 | ug/L | 0.676 | 1 | 719 | 2151894 | 0 |
| [ | U | 238 | 51.118 | ug/L | 0.640 | 1 | 97 | 2239904 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: CCB5**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 21:37:44**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 396589 | 1 |
| [ | Be | 9 | 0.000 | ug/L | 0.011 | 2754 | 3 | 2 | 137 |
| | C | 13 | | mg/L | | | 5654 | 5108 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2552551 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 233173 | 0 |
| [ | V | 51 | -0.010 | ug/L | 0.036 | 356 | 2402 | 2028 | 19 |
| [ | V-1 | 51 | 0.112 | ug/L | 0.013 | 11 | 8286 | 8534 | 0 |
| [ | Cr | 52 | -0.012 | ug/L | 0.011 | 89 | 7360 | 6429 | 1 |
| [ | Cr | 53 | 0.374 | ug/L | 0.150 | 40 | 2713 | 2807 | 5 |
| [ | Mn | 55 | -0.017 | ug/L | 0.002 | 8 | 1178 | 781 | 3 |
| [ | Co | 59 | 0.021 | ug/L | 0.001 | 5 | 123 | 353 | 4 |
| [> | Ge | 72 | | ug/L | | | 333920 | 307306 | 0 |
| [ | Ni | 60 | 0.001 | ug/L | 0.005 | 1074 | 109 | 102 | 12 |
| [ | Ni | 62 | 0.036 | ug/L | 0.036 | 97 | 54 | 63 | 20 |
| [ | Cu | 63 | 0.025 | ug/L | 0.002 | 9 | 248 | 367 | 3 |
| [ | Cu | 65 | 0.023 | ug/L | 0.007 | 30 | 118 | 170 | 10 |
| [ | Zn | 66 | 0.284 | ug/L | 0.005 | 1 | 695 | 1118 | 0 |
| [ | Zn | 67 | 0.309 | ug/L | 0.153 | 49 | 255 | 321 | 13 |
| [ | Zn | 68 | 0.251 | ug/L | 0.162 | 64 | 8462 | 8085 | 2 |
| [ | As | 75 | 0.157 | ug/L | 0.007 | 4 | 693 | 905 | 1 |
| [ | As-1 | 75 | -0.227 | ug/L | 0.040 | 17 | 11505 | 10207 | 0 |
| [ | Se | 82 | -0.044 | ug/L | 0.114 | 255 | -5 | -13 | 159 |
| [ | Se | 78 | -0.965 | ug/L | 0.174 | 18 | 11713 | 10338 | 0 |
| [ | Mo | 98 | -0.016 | ug/L | 0.003 | 18 | 207 | 89 | 21 |
| | Y | 89 | | ug/L | | | 309412 | 270720 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 435 | 1 |
| [> | In | 115 | | ug/L | | | 365357 | 323236 | 1 |
| [ | Ag | 107 | 0.004 | ug/L | 0.005 | 105 | 101 | 137 | 37 |
| [ | Cd | 111 | 0.009 | ug/L | 0.002 | 19 | 166 | 170 | 2 |
| [ | Cd | 114 | 0.002 | ug/L | 0.001 | 75 | 27 | 33 | 21 |
| [ | Sb | 121 | 0.027 | ug/L | 0.012 | 42 | 240 | 457 | 24 |
| [ | Sb | 123 | 0.033 | ug/L | 0.015 | 46 | 169 | 371 | 29 |
| [ | Ba | 135 | 0.011 | ug/L | 0.004 | 33 | 32 | 53 | 15 |
| [ | Ba | 137 | 0.010 | ug/L | 0.003 | 24 | 65 | 98 | 9 |
| [> | Tb | 159 | | ug/L | | | 430587 | 381099 | 1 |
| [ | Tl | 205 | 0.005 | ug/L | 0.003 | 52 | 147 | 255 | 24 |
| [ | Pb | 208 | 0.067 | ug/L | 0.004 | 5 | 1493 | 3692 | 2 |
| [ | Bi | 209 | | ug/L | | | 345109 | 307694 | 1 |
| [ | Th | 232 | 0.018 | ug/L | 0.006 | 34 | 719 | 1370 | 18 |
| [ | U | 238 | 0.002 | ug/L | 0.001 | 50 | 97 | 183 | 26 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU62 MB1 REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 21:43:31**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | | ug/L | | | 477870 | 414483 | 0 |
| [ | Be | 9 | | 0.004 | ug/L | 0.012 | 280 | 3 | 4 | 103 |
| | C | 13 | | | mg/L | | | 5654 | 6189 | 2 |
| | Cl | 37 | | | mg/L | | | 2331174 | 2552420 | 0 |
| [> | Sc | 45 | | | ug/L | | | 262568 | 245926 | 0 |
| [ | V | 51 | | -0.012 | ug/L | 0.008 | 62 | 2402 | 2118 | 4 |
| [ | V-1 | 51 | | 0.058 | ug/L | 0.023 | 39 | 8286 | 8403 | 2 |
| [ | Cr | 52 | | -0.002 | ug/L | 0.017 | 912 | 7360 | 6875 | 2 |
| [ | Cr | 53 | | 0.219 | ug/L | 0.082 | 37 | 2713 | 2787 | 3 |
| [ | Mn | 55 | | -0.027 | ug/L | 0.002 | 9 | 1178 | 672 | 6 |
| [ | Co | 59 | | 0.003 | ug/L | 0.002 | 53 | 123 | 151 | 12 |
| [> | Ge | 72 | | | ug/L | | | 333920 | 327718 | 0 |
| [ | Ni | 60 | | -0.004 | ug/L | 0.002 | 58 | 109 | 96 | 7 |
| [ | Ni | 62 | | 0.046 | ug/L | 0.016 | 36 | 54 | 71 | 9 |
| [ | Cu | 63 | | 0.224 | ug/L | 0.003 | 1 | 248 | 1567 | 0 |
| [ | Cu | 65 | | 0.233 | ug/L | 0.009 | 4 | 118 | 775 | 2 |
| [ | Zn | 66 | | 1.136 | ug/L | 0.013 | 1 | 695 | 2719 | 0 |
| [ | Zn | 67 | | 1.046 | ug/L | 0.057 | 5 | 255 | 562 | 2 |
| [ | Zn | 68 | | 0.882 | ug/L | 0.091 | 10 | 8462 | 9416 | 0 |
| [ | As | 75 | U | 0.123 | ug/L | 0.020 | 16 | 693 | 903 | 3 |
| [ | As-1 | 75 | | -0.526 | ug/L | 0.084 | 15 | 11505 | 10350 | 0 |
| [ | Se | 82 | | -0.081 | ug/L | 0.085 | 105 | -5 | -21 | 79 |
| [ | Se | 78 | | -2.119 | ug/L | 0.276 | 13 | 11713 | 10461 | 0 |
| [ | Mo | 98 | | 0.005 | ug/L | 0.004 | 67 | 207 | 240 | 10 |
| | Y | 89 | | | ug/L | | | 309412 | 291735 | 1 |
| | Kr | 83 | | | ug/L | | | 376 | 435 | 2 |
| [> | In | 115 | | | ug/L | | | 365357 | 346056 | 1 |
| [ | Ag | 107 | U | -0.000 | ug/L | 0.001 | 502 | 101 | 94 | 5 |
| [ | Cd | 111 | U | 0.010 | ug/L | 0.006 | 63 | 166 | 185 | 8 |
| [ | Cd | 114 | | 0.000 | ug/L | 0.001 | 186 | 27 | 28 | 19 |
| [ | Sb | 121 | U | 0.001 | ug/L | 0.002 | 185 | 240 | 240 | 10 |
| [ | Sb | 123 | | 0.001 | ug/L | 0.003 | 393 | 169 | 166 | 13 |
| [ | Ba | 135 | | 0.019 | ug/L | 0.004 | 22 | 32 | 77 | 12 |
| [ | Ba | 137 | | 0.023 | ug/L | 0.003 | 13 | 65 | 155 | 6 |
| [> | Tb | 159 | | | ug/L | | | 430587 | 404759 | 0 |
| [ | Tl | 205 | | -0.000 | ug/L | 0.001 | 849 | 147 | 135 | 24 |
| [ | Pb | 208 | | 0.061 | ug/L | 0.002 | 3 | 1493 | 3685 | 1 |
| [ | Bi | 209 | | | ug/L | | | 345109 | 325801 | 1 |
| [ | Th | 232 | | 0.011 | ug/L | 0.003 | 31 | 719 | 1142 | 13 |
| [ | U | 238 | | 0.000 | ug/L | 0.000 | 95 | 97 | 101 | 9 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU62 MB1SPK REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 21:49:20**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 412375 | 0 |
| [ | Be | 9 | 24.427 | ug/L | 0.224 | 0 | 3 | 9337 | 1 |
| | C | 13 | | mg/L | | | 5654 | 6626 | 0 |
| | Cl | 37 | | mg/L | | | 2331174 | 2555264 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 241677 | 0 |
| [ | V | 51 | 24.090 | ug/L | 0.227 | 0 | 2402 | 261285 | 0 |
| [ | V-1 | 51 | 24.381 | ug/L | 0.217 | 0 | 8286 | 273412 | 0 |
| [ | Cr | 52 | 24.293 | ug/L | 0.210 | 0 | 7360 | 233511 | 1 |
| [ | Cr | 53 | 25.208 | ug/L | 0.152 | 0 | 2713 | 30264 | 1 |
| [ | Mn | 55 | 24.393 | ug/L | 0.209 | 0 | 1178 | 385382 | 0 |
| [ | Co | 59 | 24.809 | ug/L | 0.070 | 0 | 123 | 297238 | 0 |
| [> | Ge | 72 | | ug/L | | | 333920 | 317549 | 1 |
| [ | Ni | 60 | 24.908 | ug/L | 0.224 | 0 | 109 | 63936 | 0 |
| [ | Ni | 62 | 25.124 | ug/L | 0.918 | 3 | 54 | 9680 | 2 |
| [ | Cu | 63 | 26.102 | ug/L | 0.218 | 0 | 248 | 149935 | 0 |
| [ | Cu | 65 | 26.531 | ug/L | 0.051 | 0 | 118 | 72957 | 1 |
| [ | Zn | 66 | 79.869 | ug/L | 0.301 | 0 | 695 | 139373 | 1 |
| [ | Zn | 67 | 72.953 | ug/L | 0.910 | 1 | 255 | 21357 | 0 |
| [ | Zn | 68 | 77.448 | ug/L | 0.616 | 0 | 8462 | 102664 | 0 |
| [ | As | 75 | 25.662 | ug/L | 0.362 | 1 | 693 | 45760 | 0 |
| [ | As-1 | 75 | 24.722 | ug/L | 0.443 | 1 | 11505 | 53772 | 0 |
| [ | Se | 82 | 72.248 | ug/L | 0.941 | 1 | -5 | 14155 | 0 |
| [ | Se | 78 | 71.573 | ug/L | 1.273 | 1 | 11713 | 44984 | 0 |
| [ | Mo | 98 | 24.377 | ug/L | 0.292 | 1 | 207 | 158055 | 0 |
| | Y | 89 | | ug/L | | | 309412 | 284726 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 414 | 3 |
| [> | In | 115 | | ug/L | | | 365357 | 335089 | 0 |
| [ | Ag | 107 | 24.401 | ug/L | 0.332 | 1 | 101 | 270463 | 0 |
| [ | Cd | 111 | 24.125 | ug/L | 0.066 | 0 | 166 | 65873 | 0 |
| [ | Cd | 114 | 24.007 | ug/L | 0.351 | 1 | 27 | 153912 | 1 |
| [ | Sb | 121 | 24.539 | ug/L | 0.463 | 1 | 240 | 227693 | 1 |
| [ | Sb | 123 | 24.746 | ug/L | 0.197 | 0 | 169 | 172397 | 0 |
| [ | Ba | 135 | 24.281 | ug/L | 0.338 | 1 | 32 | 56451 | 1 |
| [ | Ba | 137 | 24.313 | ug/L | 0.441 | 1 | 65 | 97646 | 0 |
| [> | Tb | 159 | | ug/L | | | 430587 | 397842 | 0 |
| [ | Tl | 205 | 25.508 | ug/L | 0.306 | 1 | 147 | 687074 | 1 |
| [ | Pb | 208 | 25.644 | ug/L | 0.229 | 0 | 1493 | 948529 | 0 |
| [ | Bi | 209 | | ug/L | | | 345109 | 321033 | 0 |
| [ | Th | 232 | 25.593 | ug/L | 0.158 | 0 | 719 | 1080759 | 0 |
| [ | U | 238 | 25.440 | ug/L | 0.350 | 1 | 97 | 1147411 | 1 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU62 JDUP REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 21:55:39**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | | ug/L | | | 477870 | 424201 | 2 |
| [ | Be | 9 | | 0.002 | ug/L | 0.003 | 158 | 3 | 3 | 33 |
| | C | 13 | | | mg/L | | | 5654 | 6664 | 1 |
| | Cl | 37 | | | mg/L | | | 2331174 | 2541939 | 0 |
| [> | Sc | 45 | | | ug/L | | | 262568 | 251519 | 2 |
| [ | V | 51 | | 0.006 | ug/L | 0.024 | 426 | 2402 | 2362 | 11 |
| [ | V-1 | 51 | | -0.026 | ug/L | 0.030 | 115 | 8286 | 7638 | 2 |
| [ | Cr | 52 | | 0.165 | ug/L | 0.033 | 19 | 7360 | 8648 | 4 |
| [ | Cr | 53 | | 0.058 | ug/L | 0.119 | 205 | 2713 | 2664 | 4 |
| [ | Mn | 55 | | 0.849 | ug/L | 0.012 | 1 | 1178 | 15042 | 2 |
| [ | Co | 59 | | 0.008 | ug/L | 0.001 | 15 | 123 | 219 | 9 |
| [> | Ge | 72 | | | ug/L | | | 333920 | 331115 | 1 |
| [ | Ni | 60 | | 0.049 | ug/L | 0.008 | 16 | 109 | 240 | 10 |
| [ | Ni | 62 | | 0.087 | ug/L | 0.018 | 20 | 54 | 88 | 7 |
| [ | Cu | 63 | | 0.199 | ug/L | 0.008 | 4 | 248 | 1434 | 2 |
| [ | Cu | 65 | | 0.185 | ug/L | 0.006 | 3 | 118 | 648 | 1 |
| [ | Zn | 66 | | 1.745 | ug/L | 0.021 | 1 | 695 | 3850 | 1 |
| [ | Zn | 67 | | 1.618 | ug/L | 0.078 | 4 | 255 | 741 | 4 |
| [ | Zn | 68 | | 1.608 | ug/L | 0.114 | 7 | 8462 | 10439 | 1 |
| [ | As | 75 | U | 0.066 | ug/L | 0.025 | 37 | 693 | 808 | 6 |
| [ | As-1 | 75 | | -0.210 | ug/L | 0.096 | 45 | 11505 | 11031 | 2 |
| [ | Se | 82 | | -0.041 | ug/L | 0.123 | 300 | -5 | -13 | 183 |
| [ | Se | 78 | | -0.853 | ug/L | 0.342 | 40 | 11713 | 11195 | 2 |
| [ | Mo | 98 | | -0.021 | ug/L | 0.001 | 6 | 207 | 61 | 12 |
| | Y | 89 | | | ug/L | | | 309412 | 300784 | 3 |
| | Kr | 83 | | | ug/L | | | 376 | 411 | 2 |
| [> | In | 115 | | | ug/L | | | 365357 | 356015 | 3 |
| [ | Ag | 107 | U | 0.001 | ug/L | 0.002 | 208 | 101 | 107 | 14 |
| [ | Cd | 111 | U | 0.012 | ug/L | 0.007 | 59 | 166 | 199 | 13 |
| [ | Cd | 114 | | 0.003 | ug/L | 0.002 | 69 | 27 | 44 | 30 |
| [ | Sb | 121 | J | 0.006 | ug/L | 0.009 | 133 | 240 | 295 | 24 |
| [ | Sb | 123 | | 0.008 | ug/L | 0.008 | 105 | 169 | 223 | 24 |
| [ | Ba | 135 | | 0.074 | ug/L | 0.008 | 10 | 32 | 214 | 10 |
| [ | Ba | 137 | | 0.073 | ug/L | 0.003 | 4 | 65 | 373 | 1 |
| [> | Tb | 159 | | | ug/L | | | 430587 | 423559 | 1 |
| [ | Tl | 205 | | 0.002 | ug/L | 0.002 | 137 | 147 | 196 | 34 |
| [ | Pb | 208 | | 0.090 | ug/L | 0.001 | 1 | 1493 | 5026 | 0 |
| [ | Bi | 209 | | | ug/L | | | 345109 | 339309 | 2 |
| [ | Th | 232 | | 0.026 | ug/L | 0.008 | 30 | 719 | 1892 | 18 |
| [ | U | 238 | | 0.002 | ug/L | 0.001 | 38 | 97 | 210 | 19 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU62 J REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 22:01:58**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | | ug/L | | | 477870 | 430952 | 0 |
| [ | Be | 9 | | -0.005 | ug/L | 0.002 | 33 | 3 | 0 | 86 |
| | C | 13 | | | mg/L | | | 5654 | 6954 | 0 |
| | Cl | 37 | | | mg/L | | | 2331174 | 2545258 | 0 |
| [> | Sc | 45 | | | ug/L | | | 262568 | 256125 | 0 |
| [ | V | 51 | | -0.008 | ug/L | 0.010 | 122 | 2402 | 2254 | 5 |
| [ | V-1 | 51 | | -0.062 | ug/L | 0.018 | 28 | 8286 | 7363 | 2 |
| [ | Cr | 52 | | 0.157 | ug/L | 0.003 | 1 | 7360 | 8735 | 0 |
| [ | Cr | 53 | | -0.022 | ug/L | 0.069 | 315 | 2713 | 2621 | 2 |
| [ | Mn | 55 | | 0.873 | ug/L | 0.007 | 0 | 1178 | 15723 | 0 |
| [ | Co | 59 | | 0.015 | ug/L | 0.001 | 9 | 123 | 312 | 5 |
| [> | Ge | 72 | | | ug/L | | | 333920 | 330456 | 0 |
| [ | Ni | 60 | | 0.052 | ug/L | 0.004 | 8 | 109 | 246 | 4 |
| [ | Ni | 62 | | 0.084 | ug/L | 0.006 | 7 | 54 | 87 | 2 |
| [ | Cu | 63 | | 0.204 | ug/L | 0.004 | 1 | 248 | 1461 | 1 |
| [ | Cu | 65 | | 0.199 | ug/L | 0.009 | 4 | 118 | 685 | 3 |
| [ | Zn | 66 | | 1.832 | ug/L | 0.019 | 1 | 695 | 3998 | 1 |
| [ | Zn | 67 | | 1.560 | ug/L | 0.066 | 4 | 255 | 722 | 3 |
| [ | Zn | 68 | | 1.852 | ug/L | 0.105 | 5 | 8462 | 10729 | 1 |
| [ | As | 75 | U | 0.064 | ug/L | 0.049 | 76 | 693 | 803 | 10 |
| [ | As-1 | 75 | | -0.165 | ug/L | 0.032 | 19 | 11505 | 11089 | 0 |
| [ | Se | 82 | | -0.015 | ug/L | 0.140 | 926 | -5 | -8 | 334 |
| [ | Se | 78 | | -0.669 | ug/L | 0.068 | 10 | 11713 | 11262 | 0 |
| [ | Mo | 98 | | -0.021 | ug/L | 0.001 | 3 | 207 | 61 | 6 |
| | Y | 89 | | | ug/L | | | 309412 | 302799 | 1 |
| | Kr | 83 | | | ug/L | | | 376 | 408 | 2 |
| [> | In | 115 | | | ug/L | | | 365357 | 359160 | 0 |
| [ | Ag | 107 | U | -0.002 | ug/L | 0.000 | 10 | 101 | 72 | 4 |
| [ | Cd | 111 | | 0.005 | ug/L | 0.008 | 157 | 166 | 179 | 13 |
| [ | Cd | 114 | U | 0.003 | ug/L | 0.001 | 48 | 27 | 45 | 20 |
| [ | Sb | 121 | | -0.012 | ug/L | 0.001 | 8 | 240 | 119 | 9 |
| [ | Sb | 123 | U | -0.009 | ug/L | 0.000 | 0 | 169 | 97 | 0 |
| [ | Ba | 135 | | 0.070 | ug/L | 0.006 | 8 | 32 | 207 | 7 |
| [ | Ba | 137 | | 0.068 | ug/L | 0.004 | 5 | 65 | 357 | 5 |
| [> | Tb | 159 | | | ug/L | | | 430587 | 423208 | 1 |
| [ | Tl | 205 | | -0.002 | ug/L | 0.000 | 25 | 147 | 92 | 13 |
| [ | Pb | 208 | | 0.097 | ug/L | 0.005 | 4 | 1493 | 5282 | 1 |
| [ | Bi | 209 | | | ug/L | | | 345109 | 342808 | 1 |
| [ | Th | 232 | | 0.005 | ug/L | 0.001 | 29 | 719 | 909 | 7 |
| [ | U | 238 | | -0.000 | ug/L | 0.000 | 347 | 97 | 94 | 7 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU62 JSPK REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 22:08:14**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 422494 | 2 |
| [ | Be | 9 | 24.486 | ug/L | 0.497 | 2 | 3 | 9588 | 2 |
| | C | 13 | | mg/L | | | 5654 | 6999 | 0 |
| | Cl | 37 | | mg/L | | | 2331174 | 2535717 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 251250 | 1 |
| [ | V | 51 | 24.472 | ug/L | 0.150 | 0 | 2402 | 275903 | 1 |
| [ | V-1 | 51 | 24.541 | ug/L | 0.197 | 0 | 8286 | 286047 | 0 |
| [ | Cr | 52 | 24.653 | ug/L | 0.328 | 1 | 7360 | 246218 | 1 |
| [ | Cr | 53 | 24.866 | ug/L | 0.465 | 1 | 2713 | 31066 | 1 |
| [ | Mn | 55 | 25.921 | ug/L | 0.589 | 2 | 1178 | 425610 | 1 |
| [ | Co | 59 | 25.337 | ug/L | 0.333 | 1 | 123 | 315548 | 0 |
| [> | Ge | 72 | | ug/L | | | 333920 | 328276 | 1 |
| [ | Ni | 60 | 25.197 | ug/L | 0.164 | 0 | 109 | 66860 | 0 |
| [ | Ni | 62 | 25.696 | ug/L | 0.175 | 0 | 54 | 10236 | 0 |
| [ | Cu | 63 | 26.953 | ug/L | 0.323 | 1 | 248 | 160037 | 0 |
| [ | Cu | 65 | 26.770 | ug/L | 0.309 | 1 | 118 | 76096 | 0 |
| [ | Zn | 66 | 79.773 | ug/L | 0.588 | 0 | 695 | 143902 | 0 |
| [ | Zn | 67 | 73.926 | ug/L | 1.875 | 2 | 255 | 22368 | 1 |
| [ | Zn | 68 | 79.470 | ug/L | 0.371 | 0 | 8462 | 108692 | 1 |
| [ | As | 75 | 25.373 | ug/L | 0.118 | 0 | 693 | 46783 | 0 |
| [ | As-1 | 75 | 24.488 | ug/L | 0.216 | 0 | 11505 | 55171 | 0 |
| [ | Se | 82 | 72.998 | ug/L | 0.989 | 1 | -5 | 14784 | 0 |
| [ | Se | 78 | 72.465 | ug/L | 1.287 | 1 | 11713 | 46939 | 0 |
| [ | Mo | 98 | 24.671 | ug/L | 0.350 | 1 | 207 | 165371 | 1 |
| | Y | 89 | | ug/L | | | 309412 | 299534 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 407 | 3 |
| [> | In | 115 | | ug/L | | | 365357 | 352875 | 0 |
| [ | Ag | 107 | 25.081 | ug/L | 0.194 | 0 | 101 | 292772 | 0 |
| [ | Cd | 111 | 24.617 | ug/L | 0.335 | 1 | 166 | 70778 | 1 |
| [ | Cd | 114 | 24.194 | ug/L | 0.434 | 1 | 27 | 163356 | 1 |
| [ | Sb | 121 | 24.302 | ug/L | 0.092 | 0 | 240 | 237477 | 0 |
| [ | Sb | 123 | 24.611 | ug/L | 0.137 | 0 | 169 | 180564 | 0 |
| [ | Ba | 135 | 24.621 | ug/L | 0.142 | 0 | 32 | 60283 | 0 |
| [ | Ba | 137 | 24.517 | ug/L | 0.152 | 0 | 65 | 103704 | 0 |
| [> | Tb | 159 | | ug/L | | | 430587 | 418602 | 0 |
| [ | Tl | 205 | 25.959 | ug/L | 0.277 | 1 | 147 | 735680 | 0 |
| [ | Pb | 208 | 26.272 | ug/L | 0.328 | 1 | 1493 | 1022414 | 1 |
| [ | Bi | 209 | | ug/L | | | 345109 | 337521 | 0 |
| [ | Th | 232 | 26.018 | ug/L | 0.328 | 1 | 719 | 1156048 | 1 |
| [ | U | 238 | 26.001 | ug/L | 0.150 | 0 | 97 | 1233903 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU62 K REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 22:14:31**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | | ug/L | | | 477870 | 427131 | 0 |
| [ | Be | 9 | | -0.003 | ug/L | 0.002 | 54 | 3 | 1 | 43 |
| | C | 13 | | | mg/L | | | 5654 | 6864 | 3 |
| | Cl | 37 | | | mg/L | | | 2331174 | 2550798 | 0 |
| [> | Sc | 45 | | | ug/L | | | 262568 | 252360 | 1 |
| \| | V | 51 | | 0.010 | ug/L | 0.003 | 30 | 2402 | 2418 | 0 |
| \| | V-1 | 51 | | -0.062 | ug/L | 0.021 | 33 | 8286 | 7253 | 2 |
| \| | Cr | 52 | | 0.136 | ug/L | 0.010 | 7 | 7360 | 8399 | 2 |
| \| | Cr | 53 | | -0.098 | ug/L | 0.049 | 49 | 2713 | 2495 | 1 |
| \| | Mn | 55 | | 2.236 | ug/L | 0.027 | 1 | 1178 | 37911 | 1 |
| [ | Co | 59 | | 0.017 | ug/L | 0.001 | 5 | 123 | 334 | 3 |
| [> | Ge | 72 | | | ug/L | | | 333920 | 328595 | 1 |
| \| | Ni | 60 | | 0.034 | ug/L | 0.002 | 4 | 109 | 199 | 1 |
| \| | Ni | 62 | | 0.086 | ug/L | 0.013 | 15 | 54 | 87 | 6 |
| \| | Cu | 63 | | 6.563 | ug/L | 0.088 | 1 | 248 | 39197 | 1 |
| \| | Cu | 65 | | 6.614 | ug/L | 0.069 | 1 | 118 | 18907 | 0 |
| \| | Zn | 66 | | 2.720 | ug/L | 0.061 | 2 | 695 | 5573 | 2 |
| \| | Zn | 67 | | 2.444 | ug/L | 0.094 | 3 | 255 | 983 | 3 |
| \| | Zn | 68 | | 2.682 | ug/L | 0.152 | 5 | 8462 | 11717 | 1 |
| \| | As | 75 | U | 0.064 | ug/L | 0.006 | 10 | 693 | 798 | 1 |
| \| | As-1 | 75 | | -0.186 | ug/L | 0.084 | 45 | 11505 | 10987 | 0 |
| \| | Se | 82 | | 0.006 | ug/L | 0.034 | 603 | -5 | -4 | 162 |
| \| | Se | 78 | | -0.775 | ug/L | 0.319 | 41 | 11713 | 11146 | 0 |
| [ | Mo | 98 | | -0.024 | ug/L | 0.002 | 6 | 207 | 43 | 24 |
| | Y | 89 | | | ug/L | | | 309412 | 301403 | 2 |
| | Kr | 83 | | | ug/L | | | 376 | 396 | 1 |
| [> | In | 115 | | | ug/L | | | 365357 | 359712 | 0 |
| \| | Ag | 107 | U | 0.002 | ug/L | 0.002 | 103 | 101 | 126 | 21 |
| \| | Cd | 111 | U | 0.012 | ug/L | 0.004 | 29 | 166 | 199 | 5 |
| \| | Cd | 114 | | 0.003 | ug/L | 0.000 | 15 | 27 | 49 | 6 |
| \| | Sb | 121 | U | 0.011 | ug/L | 0.004 | 35 | 240 | 350 | 11 |
| \| | Sb | 123 | | 0.013 | ug/L | 0.005 | 35 | 169 | 267 | 13 |
| \| | Ba | 135 | | 0.037 | ug/L | 0.001 | 3 | 32 | 125 | 2 |
| [ | Ba | 137 | | 0.037 | ug/L | 0.002 | 5 | 65 | 224 | 4 |
| [> | Tb | 159 | | | ug/L | | | 430587 | 421347 | 0 |
| \| | Tl | 205 | | 0.001 | ug/L | 0.002 | 143 | 147 | 183 | 29 |
| \| | Pb | 208 | | 0.171 | ug/L | 0.004 | 2 | 1493 | 8152 | 1 |
| \| | Bi | 209 | | | ug/L | | | 345109 | 340987 | 0 |
| \| | Th | 232 | | 0.026 | ug/L | 0.010 | 38 | 719 | 1852 | 23 |
| [ | U | 238 | | 0.003 | ug/L | 0.001 | 55 | 97 | 222 | 31 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU27 G REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 22:20:47**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | | ug/L | | | 477870 | 419356 | 1 |
| [ | Be | 9 | 0.003 | | ug/L | 0.005 | 154 | 3 | 4 | 45 |
| | C | 13 | | | mg/L | | | 5654 | 6843 | 1 |
| | Cl | 37 | | | mg/L | | | 2331174 | 2564742 | 0 |
| [> | Sc | 45 | | | ug/L | | | 262568 | 253180 | 0 |
| [ | V | 51 | 0.007 | | ug/L | 0.017 | 246 | 2402 | 2393 | 7 |
| [ | V-1 | 51 | -0.072 | | ug/L | 0.021 | 29 | 8286 | 7164 | 3 |
| [ | Cr | 52 | 0.104 | | ug/L | 0.016 | 15 | 7360 | 8112 | 1 |
| [ | Cr | 53 | -0.151 | | ug/L | 0.071 | 46 | 2713 | 2442 | 3 |
| [ | Mn | 55 | 0.482 | | ug/L | 0.010 | 2 | 1178 | 9098 | 1 |
| [ | Co | 59 | 0.027 | | ug/L | 0.000 | 1 | 123 | 456 | 0 |
| [> | Ge | 72 | | | ug/L | | | 333920 | 330731 | 0 |
| [ | Ni | 60 | 0.847 | | ug/L | 0.011 | 1 | 109 | 2369 | 0 |
| [ | Ni | 62 | 0.936 | | ug/L | 0.040 | 4 | 54 | 427 | 3 |
| [ | Cu | 63 | 0.599 | | ug/L | 0.002 | 0 | 248 | 3823 | 0 |
| [ | Cu | 65 | 0.600 | | ug/L | 0.017 | 2 | 118 | 1834 | 2 |
| [ | Zn | 66 | 1.416 | | ug/L | 0.014 | 0 | 695 | 3251 | 1 |
| [ | Zn | 67 | 1.223 | | ug/L | 0.031 | 2 | 255 | 621 | 1 |
| [ | Zn | 68 | 1.313 | | ug/L | 0.110 | 8 | 8462 | 10051 | 1 |
| [ | As | 75 | U | 0.103 | ug/L | 0.024 | 23 | 693 | 874 | 5 |
| [ | As-1 | 75 | -0.222 | | ug/L | 0.045 | 20 | 11505 | 10994 | 0 |
| [ | Se | 82 | -0.079 | | ug/L | 0.100 | 126 | -5 | -21 | 94 |
| [ | Se | 78 | -1.075 | | ug/L | 0.162 | 15 | 11713 | 11072 | 0 |
| [ | Mo | 98 | -0.023 | | ug/L | 0.003 | 12 | 207 | 52 | 35 |
| | Y | 89 | | | ug/L | | | 309412 | 299347 | 2 |
| | Kr | 83 | | | ug/L | | | 376 | 411 | 2 |
| [> | In | 115 | | | ug/L | | | 365357 | 354057 | 0 |
| [ | Ag | 107 | 0.005 | | ug/L | 0.001 | 22 | 101 | 154 | 7 |
| [ | Cd | 111 | 0.016 | | ug/L | 0.009 | 57 | 166 | 206 | 12 |
| [ | Cd | 114 | 0.002 | | ug/L | 0.000 | 19 | 27 | 40 | 7 |
| [ | Sb | 121 | -0.010 | | ug/L | 0.001 | 10 | 240 | 131 | 7 |
| [ | Sb | 123 | -0.007 | | ug/L | 0.003 | 39 | 169 | 116 | 16 |
| [ | Ba | 135 | 0.081 | | ug/L | 0.005 | 6 | 32 | 230 | 5 |
| [ | Ba | 137 | 0.078 | | ug/L | 0.011 | 13 | 65 | 393 | 10 |
| [> | Tb | 159 | | | ug/L | | | 430587 | 419222 | 1 |
| [ | Tl | 205 | 0.001 | | ug/L | 0.000 | 14 | 147 | 176 | 3 |
| [ | Pb | 208 | 0.096 | | ug/L | 0.003 | 3 | 1493 | 5182 | 1 |
| [ | Bi | 209 | | | ug/L | | | 345109 | 339500 | 0 |
| [ | Th | 232 | 0.005 | | ug/L | 0.001 | 16 | 719 | 919 | 4 |
| [ | U | 238 | 0.003 | | ug/L | 0.001 | 27 | 97 | 221 | 16 |

UU52 : 02137

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV16 B REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 22:27:03**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 329282 | 0 |
| [ | Be | 9 | -0.001 | ug/L | 0.005 | 681 | 3 | 2 | 69 |
| | C | 13 | | mg/L | | | 5654 | 8382 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 12532422 | 1 |
| [> | Sc | 45 | | ug/L | | | 262568 | 231272 | 1 |
| \| | V | 51 | 0.161 | ug/L | 0.099 | 61 | 2402 | 3769 | 26 |
| \| | V-1 | 51 | 4.857 | ug/L | 0.441 | 9 | 8286 | 58004 | 9 |
| \| | Cr | 52 | 0.770 | ug/L | 0.029 | 3 | 7360 | 13364 | 2 |
| \| | Cr | 53 | 15.607 | ug/L | 1.669 | 10 | 2713 | 18854 | 10 |
| \| | Mn | 55 | 162.425 | ug/L | 0.865 | 0 | 1178 | 2450006 | 1 |
| [ | Co | 59 | 0.418 | ug/L | 0.006 | 1 | 123 | 4894 | 2 |
| [> | Ge | 72 | | ug/L | | | 333920 | 273399 | 0 |
| \| | Ni | 60 | 5.918 | ug/L | 0.056 | 0 | 109 | 13149 | 1 |
| \| | Ni | 62 | 12.295 | ug/L | 1.174 | 9 | 54 | 4104 | 10 |
| \| | Cu | 63 | 17.187 | ug/L | 0.320 | 1 | 248 | 85079 | 2 |
| \| | Cu | 65 | 9.753 | ug/L | 0.220 | 2 | 118 | 23154 | 3 |
| \| | Zn | 66 | 123.096 | ug/L | 0.702 | 0 | 695 | 184640 | 1 |
| \| | Zn | 67 | 112.886 | ug/L | 1.094 | 0 | 255 | 28342 | 1 |
| \| | Zn | 68 | 123.789 | ug/L | 1.075 | 0 | 8462 | 137144 | 1 |
| \| | As | 75 | 2.175 | ug/L | 0.055 | 2 | 693 | 3859 | 1 |
| \| | As-1 | 75 | 0.891 | ug/L | 0.118 | 13 | 11505 | 10749 | 0 |
| \| | Se | 82 | 5.758 | ug/L | 0.166 | 2 | -5 | 967 | 3 |
| \| | Se | 78 | 2.344 | ug/L | 0.274 | 11 | 11713 | 10544 | 0 |
| [ | Mo | 98 | 14.063 | ug/L | 0.095 | 0 | 207 | 78584 | 1 |
| | Y | 89 | | ug/L | | | 309412 | 267281 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 482 | 1 |
| [> | In | 115 | | ug/L | | | 365357 | 299398 | 2 |
| \| | Ag | 107 | 0.007 | ug/L | 0.002 | 33 | 101 | 155 | 13 |
| \| | Cd | 111 | -0.345 | ug/L | 0.288 | 83 | 166 | -692 | 99 |
| \| | Cd | 114 | 0.752 | ug/L | 0.008 | 1 | 27 | 4327 | 1 |
| \| | Sb | 121 | 1.337 | ug/L | 0.021 | 1 | 240 | 11267 | 2 |
| \| | Sb | 123 | 1.339 | ug/L | 0.015 | 1 | 169 | 8467 | 1 |
| \| | Ba | 135 | 81.096 | ug/L | 0.963 | 1 | 32 | 168384 | 1 |
| [ | Ba | 137 | 80.841 | ug/L | 1.389 | 1 | 65 | 289938 | 1 |
| [> | Tb | 159 | | ug/L | | | 430587 | 357119 | 0 |
| \| | Tl | 205 | 0.012 | ug/L | 0.002 | 13 | 147 | 402 | 9 |
| \| | Pb | 208 | 0.673 | ug/L | 0.022 | 3 | 1493 | 23540 | 3 |
| \| | Bi | 209 | | ug/L | | | 345109 | 253867 | 0 |
| \| | Th | 232 | 0.023 | ug/L | 0.003 | 14 | 719 | 1476 | 7 |
| [ | U | 238 | 0.227 | ug/L | 0.005 | 2 | 97 | 9285 | 1 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV16 C REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 22:33:19**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 347377 | 3 |
| [ | Be | 9 | 0.011 | ug/L | 0.010 | 92 | 3 | 5 | 53 |
| | C | 13 | | mg/L | | | 5654 | 9202 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 11740159 | 1 |
| [> | Sc | 45 | | ug/L | | | 262568 | 239815 | 2 |
| \| | V | 51 | 0.213 | ug/L | 0.121 | 56 | 2402 | 4450 | 27 |
| \| | V-1 | 51 | 5.278 | ug/L | 0.081 | 1 | 8286 | 64677 | 3 |
| \| | Cr | 52 | 0.823 | ug/L | 0.027 | 3 | 7360 | 14342 | 2 |
| \| | Cr | 53 | 16.828 | ug/L | 0.621 | 3 | 2713 | 20880 | 5 |
| \| | Mn | 55 | 159.224 | ug/L | 1.528 | 0 | 1178 | 2490087 | 1 |
| [ | Co | 59 | 0.342 | ug/L | 0.007 | 2 | 123 | 4180 | 0 |
| [> | Ge | 72 | | ug/L | | | 333920 | 286080 | 1 |
| \| | Ni | 60 | 7.874 | ug/L | 0.167 | 2 | 109 | 18271 | 2 |
| \| | Ni | 62 | 14.336 | ug/L | 1.085 | 7 | 54 | 5001 | 9 |
| \| | Cu | 63 | 24.780 | ug/L | 0.184 | 0 | 248 | 128248 | 1 |
| \| | Cu | 65 | 18.216 | ug/L | 0.225 | 1 | 118 | 45159 | 2 |
| \| | Zn | 66 | 176.972 | ug/L | 1.305 | 0 | 695 | 277515 | 2 |
| \| | Zn | 67 | 164.836 | ug/L | 0.834 | 0 | 255 | 43203 | 2 |
| \| | Zn | 68 | 177.830 | ug/L | 1.135 | 0 | 8462 | 202969 | 1 |
| \| | As | 75 | 1.921 | ug/L | 0.086 | 4 | 693 | 3635 | 4 |
| \| | As-1 | 75 | 0.608 | ug/L | 0.062 | 10 | 11505 | 10805 | 1 |
| \| | Se | 82 | 5.087 | ug/L | 0.146 | 2 | -5 | 893 | 4 |
| \| | Se | 78 | 1.447 | ug/L | 0.353 | 24 | 11713 | 10650 | 0 |
| [ | Mo | 98 | 14.965 | ug/L | 0.091 | 0 | 207 | 87486 | 1 |
| | Y | 89 | | ug/L | | | 309412 | 279162 | 2 |
| | Kr | 83 | | ug/L | | | 376 | 487 | 2 |
| [> | In | 115 | | ug/L | | | 365357 | 318729 | 1 |
| \| | Ag | 107 | 0.004 | ug/L | 0.001 | 32 | 101 | 135 | 12 |
| \| | Cd | 111 | 0.610 | ug/L | 0.127 | 20 | 166 | 1728 | 20 |
| \| | Cd | 114 | 1.116 | ug/L | 0.036 | 3 | 27 | 6829 | 3 |
| \| | Sb | 121 | 1.403 | ug/L | 0.024 | 1 | 240 | 12580 | 2 |
| \| | Sb | 123 | 1.415 | ug/L | 0.035 | 2 | 169 | 9519 | 3 |
| \| | Ba | 135 | 83.021 | ug/L | 1.347 | 1 | 32 | 183524 | 1 |
| [ | Ba | 137 | 81.524 | ug/L | 1.481 | 1 | 65 | 311313 | 1 |
| [> | Tb | 159 | | ug/L | | | 430587 | 372826 | 1 |
| \| | Tl | 205 | 0.016 | ug/L | 0.001 | 4 | 147 | 526 | 5 |
| \| | Pb | 208 | 0.314 | ug/L | 0.012 | 3 | 1493 | 12167 | 1 |
| \| | Bi | 209 | | ug/L | | | 345109 | 265062 | 1 |
| \| | Th | 232 | 0.008 | ug/L | 0.001 | 12 | 719 | 920 | 5 |
| [ | U | 238 | 0.180 | ug/L | 0.003 | 1 | 97 | 7689 | 3 |

UU52 : 02139

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UV16 D REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 22:39:35**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 349256 | 1 |
| [ | Be | 9 | 0.016 | ug/L | 0.007 | 47 | 3 | 7 | 33 |
| | C | 13 | | mg/L | | | 5654 | 8618 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 12816126 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 240485 | 1 |
| [ | V | 51 | 0.182 | ug/L | 0.130 | 71 | 2402 | 4153 | 34 |
| [ | V-1 | 51 | 6.304 | ug/L | 0.144 | 2 | 8286 | 75986 | 3 |
| [ | Cr | 52 | 0.697 | ug/L | 0.005 | 0 | 7360 | 13216 | 1 |
| [ | Cr | 53 | 20.052 | ug/L | 0.318 | 1 | 2713 | 24465 | 2 |
| [ | Mn | 55 | 159.581 | ug/L | 1.909 | 1 | 1178 | 2502681 | 0 |
| [ | Co | 59 | 0.406 | ug/L | 0.011 | 2 | 123 | 4946 | 2 |
| [> | Ge | 72 | | ug/L | | | 333920 | 286109 | 1 |
| [ | Ni | 60 | 5.701 | ug/L | 0.091 | 1 | 109 | 13259 | 2 |
| [ | Ni | 62 | 14.536 | ug/L | 1.133 | 7 | 54 | 5069 | 8 |
| [ | Cu | 63 | 14.546 | ug/L | 0.133 | 0 | 248 | 75380 | 1 |
| [ | Cu | 65 | 7.092 | ug/L | 0.122 | 1 | 118 | 17644 | 2 |
| [ | Zn | 66 | 115.104 | ug/L | 1.688 | 1 | 695 | 180689 | 0 |
| [ | Zn | 67 | 107.678 | ug/L | 1.008 | 0 | 255 | 28298 | 0 |
| [ | Zn | 68 | 116.340 | ug/L | 1.629 | 1 | 8462 | 135309 | 1 |
| [ | As | 75 | 2.052 | ug/L | 0.119 | 5 | 693 | 3841 | 3 |
| [ | As-1 | 75 | 0.671 | ug/L | 0.103 | 15 | 11505 | 10905 | 0 |
| [ | Se | 82 | 5.322 | ug/L | 0.194 | 3 | -5 | 934 | 2 |
| [ | Se | 78 | 1.592 | ug/L | 0.212 | 13 | 11713 | 10714 | 0 |
| [ | Mo | 98 | 13.724 | ug/L | 0.250 | 1 | 207 | 80248 | 1 |
| | Y | 89 | | ug/L | | | 309412 | 280063 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 513 | 0 |
| [> | In | 115 | | ug/L | | | 365357 | 316886 | 1 |
| [ | Ag | 107 | -0.000 | ug/L | 0.002 | 1859 | 101 | 86 | 22 |
| [ | Cd | 111 | -0.206 | ug/L | 0.196 | 94 | 166 | -383 | 129 |
| [ | Cd | 114 | 0.697 | ug/L | 0.012 | 1 | 27 | 4247 | 1 |
| [ | Sb | 121 | 1.280 | ug/L | 0.016 | 1 | 240 | 11426 | 0 |
| [ | Sb | 123 | 1.294 | ug/L | 0.027 | 2 | 169 | 8664 | 0 |
| [ | Ba | 135 | 77.891 | ug/L | 1.352 | 1 | 32 | 171176 | 0 |
| [ | Ba | 137 | 77.325 | ug/L | 0.894 | 1 | 65 | 293565 | 0 |
| [> | Tb | 159 | | ug/L | | | 430587 | 368456 | 0 |
| [ | Tl | 205 | 0.012 | ug/L | 0.001 | 4 | 147 | 417 | 2 |
| [ | Pb | 208 | 0.121 | ug/L | 0.006 | 5 | 1493 | 5414 | 3 |
| [ | Bi | 209 | | ug/L | | | 345109 | 261465 | 1 |
| [ | Th | 232 | 0.003 | ug/L | 0.000 | 9 | 719 | 727 | 0 |
| [ | U | 238 | 0.218 | ug/L | 0.003 | 1 | 97 | 9185 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: CCV6**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 22:45:55**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 340469 | 2 |
| [ | Be | 9 | 50.751 | ug/L | 0.644 | 1 | 3 | 16018 | 4 |
| | C | 13 | | mg/L | | | 5654 | 4535 | 2 |
| | Cl | 37 | | mg/L | | | 2331174 | 2652235 | 2 |
| [> | Sc | 45 | | ug/L | | | 262568 | 239379 | 1 |
| [ | V | 51 | 50.109 | ug/L | 0.151 | 0 | 2402 | 535996 | 1 |
| [ | V-1 | 51 | 52.684 | ug/L | 0.330 | 0 | 8286 | 576456 | 1 |
| [ | Cr | 52 | 50.872 | ug/L | 0.577 | 1 | 7360 | 476989 | 1 |
| [ | Cr | 53 | 58.990 | ug/L | 0.863 | 1 | 2713 | 66838 | 2 |
| [ | Mn | 55 | 49.903 | ug/L | 0.514 | 1 | 1178 | 779894 | 2 |
| [ | Co | 59 | 51.861 | ug/L | 0.215 | 0 | 123 | 615303 | 0 |
| [> | Ge | 72 | | ug/L | | | 333920 | 325953 | 1 |
| [ | Ni | 60 | 50.435 | ug/L | 0.221 | 0 | 109 | 132776 | 1 |
| [ | Ni | 62 | 51.627 | ug/L | 0.414 | 0 | 54 | 20365 | 1 |
| [ | Cu | 63 | 52.034 | ug/L | 0.440 | 0 | 248 | 306544 | 1 |
| [ | Cu | 65 | 52.105 | ug/L | 0.117 | 0 | 118 | 146958 | 1 |
| [ | Zn | 66 | 52.071 | ug/L | 0.927 | 1 | 695 | 93501 | 2 |
| [ | Zn | 67 | 55.158 | ug/L | 1.398 | 2 | 255 | 16633 | 1 |
| [ | Zn | 68 | 52.540 | ug/L | 0.918 | 1 | 8462 | 74147 | 2 |
| [ | As | 75 | 50.222 | ug/L | 0.283 | 0 | 693 | 91278 | 1 |
| [ | As-1 | 75 | 50.000 | ug/L | 0.504 | 1 | 11505 | 100147 | 1 |
| [ | Se | 82 | 47.298 | ug/L | 0.403 | 0 | -5 | 9510 | 1 |
| [ | Se | 78 | 46.637 | ug/L | 1.309 | 2 | 11713 | 34066 | 1 |
| [ | Mo | 98 | 50.746 | ug/L | 0.579 | 1 | 207 | 337535 | 2 |
| | Y | 89 | | ug/L | | | 309412 | 284331 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 424 | 1 |
| [> | In | 115 | | ug/L | | | 365357 | 366440 | 1 |
| [ | Ag | 107 | 49.577 | ug/L | 1.351 | 2 | 101 | 600777 | 2 |
| [ | Cd | 111 | 48.989 | ug/L | 0.819 | 1 | 166 | 146088 | 0 |
| [ | Cd | 114 | 49.226 | ug/L | 0.806 | 1 | 27 | 345071 | 0 |
| [ | Sb | 121 | 49.614 | ug/L | 0.842 | 1 | 240 | 503149 | 0 |
| [ | Sb | 123 | 49.665 | ug/L | 0.582 | 1 | 169 | 378186 | 0 |
| [ | Ba | 135 | 49.071 | ug/L | 0.509 | 1 | 32 | 124732 | 1 |
| [ | Ba | 137 | 48.230 | ug/L | 0.639 | 1 | 65 | 211765 | 0 |
| [> | Tb | 159 | | ug/L | | | 430587 | 416878 | 1 |
| [ | Tl | 205 | 53.015 | ug/L | 0.092 | 0 | 147 | 1496156 | 1 |
| [ | Pb | 208 | 52.076 | ug/L | 0.485 | 0 | 1493 | 2016750 | 0 |
| [ | Bi | 209 | | ug/L | | | 345109 | 337030 | 1 |
| [ | Th | 232 | 53.393 | ug/L | 1.332 | 2 | 719 | 2361508 | 1 |
| [ | U | 238 | 52.118 | ug/L | 0.740 | 1 | 97 | 2462822 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: CCB6**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 22:52:34**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 290892 | 1 |
| [ | Be | 9 | 0.003 | ug/L | 0.011 | 323 | 3 | 2 | 98 |
| | C | 13 | | mg/L | | | 5654 | 4190 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2482650 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 215945 | 1 |
| [ | V | 51 | -0.035 | ug/L | 0.028 | 79 | 2402 | 1638 | 15 |
| [ | V-1 | 51 | 1.597 | ug/L | 0.088 | 5 | 8286 | 22376 | 4 |
| [ | Cr | 52 | 0.067 | ug/L | 0.012 | 18 | 7360 | 6615 | 1 |
| [ | Cr | 53 | 5.228 | ug/L | 0.331 | 6 | 2713 | 7379 | 5 |
| [ | Mn | 55 | -0.006 | ug/L | 0.004 | 71 | 1178 | 887 | 7 |
| [ | Co | 59 | 0.024 | ug/L | 0.001 | 5 | 123 | 356 | 4 |
| [> | Ge | 72 | | ug/L | | | 333920 | 310054 | 1 |
| [ | Ni | 60 | 0.001 | ug/L | 0.003 | 348 | 109 | 103 | 7 |
| [ | Ni | 62 | 0.431 ✓ | ug/L | 0.029 | 6 | 54 | 211 | 5 |
| [ | Cu | 63 | 0.091 | ug/L | 0.010 | 11 | 248 | 738 | 8 |
| [ | Cu | 65 | 0.043 | ug/L | 0.011 | 25 | 118 | 225 | 13 |
| [ | Zn | 66 | 0.514 | ug/L | 0.021 | 4 | 695 | 1517 | 2 |
| [ | Zn | 67 | 1.480 | ug/L | 0.093 | 6 | 255 | 655 | 4 |
| [ | Zn | 68 | 1.035 | ug/L | 0.117 | 11 | 8462 | 9091 | 1 |
| [ | As | 75 | 0.087 | ug/L | 0.029 | 33 | 693 | 793 | 5 |
| [ | As-1 | 75 | -0.138 | ug/L | 0.024 | 17 | 11505 | 10450 | 0 |
| [ | Se | 82 | -0.109 | ug/L | 0.128 | 117 | -5 | -26 | 95 |
| [ | Se | 78 | -0.611 | ug/L | 0.039 | 6 | 11713 | 10594 | 0 |
| [ | Mo | 98 | -0.014 | ug/L | 0.004 | 28 | 207 | 106 | 24 |
| | Y | 89 | | ug/L | | | 309412 | 269247 | 2 |
| | Kr | 83 | | ug/L | | | 376 | 409 | 4 |
| [> | In | 115 | | ug/L | | | 365357 | 355722 | 1 |
| [ | Ag | 107 | 0.003 | ug/L | 0.005 | 145 | 101 | 136 | 41 |
| [ | Cd | 111 | 0.018 | ug/L | 0.005 | 26 | 166 | 214 | 7 |
| [ | Cd | 114 | 0.001 | ug/L | 0.001 | 109 | 27 | 34 | 26 |
| [ | Sb | 121 | 0.032 | ug/L | 0.016 | 49 | 240 | 547 | 28 |
| [ | Sb | 123 | 0.031 | ug/L | 0.012 | 39 | 169 | 396 | 23 |
| [ | Ba | 135 | 0.014 | ug/L | 0.005 | 37 | 32 | 66 | 18 |
| [ | Ba | 137 | 0.008 | ug/L | 0.001 | 18 | 65 | 96 | 5 |
| [> | Tb | 159 | | ug/L | | | 430587 | 400993 | 1 |
| [ | Tl | 205 | 0.004 | ug/L | 0.002 | 62 | 147 | 239 | 27 |
| [ | Pb | 208 | 0.064 ✓ | ug/L | 0.003 | 5 | 1493 | 3786 | 3 |
| [ | Bi | 209 | | ug/L | | | 345109 | 332914 | 0 |
| [ | Th | 232 | 0.025 | ug/L | 0.009 | 38 | 719 | 1717 | 24 |
| [ | U | 238 | 0.002 | ug/L | 0.001 | 55 | 97 | 189 | 29 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU52 MB1 SWN**
**Sample Dil Factor: 20**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 22:58:22**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | | ug/L | | | 477870 | 303736 | 0 |
| [ | Be | 9 | | -0.000 | ug/L | 0.005 | 5149 | 3 | 2 | 69 |
| | C | 13 | | | mg/L | | | 5654 | 4281 | 1 |
| | Cl | 37 | | | mg/L | | | 2331174 | 2419876 | 0 |
| [> | Sc | 45 | | | ug/L | | | 262568 | 217385 | 0 |
| [ | V | 51 | | -0.063 | ug/L | 0.046 | 73 | 2402 | 1381 | 32 |
| [ | V-1 | 51 | | 1.193 | ug/L | 0.123 | 10 | 8286 | 18555 | 6 |
| [ | Cr | 52 | | 0.070 | ug/L | 0.017 | 23 | 7360 | 6685 | 2 |
| [ | Cr | 53 | | 4.038 | ug/L | 0.293 | 7 | 2713 | 6247 | 4 |
| [ | Mn | 55 | | -0.038 | ug/L | 0.000 | 1 | 1178 | 435 | 1 |
| [ | Co | 59 | | -0.000 | ug/L | 0.001 | 392 | 123 | 98 | 15 |
| [> | Ge | 72 | | | ug/L | | | 333920 | 313852 | 0 |
| [ | Ni | 60 | | -0.009 | ug/L | 0.003 | 35 | 109 | 80 | 9 |
| [ | Ni | 62 | | 0.343 | ug/L | 0.013 | 3 | 54 | 180 | 3 |
| [ | Cu | 63 | | 0.065 | ug/L | 0.003 | 4 | 248 | 602 | 3 |
| [ | Cu | 65 | | 0.040 | ug/L | 0.007 | 17 | 118 | 220 | 8 |
| [ | Zn | 66 | | 0.338 | ug/L | 0.010 | 3 | 695 | 1234 | 1 |
| [ | Zn | 67 | | 1.130 | ug/L | 0.098 | 8 | 255 | 563 | 5 |
| [ | Zn | 68 | | 0.830 | ug/L | 0.093 | 11 | 8462 | 8955 | 0 |
| [ | As | 75 | U | 0.074 | ug/L | 0.047 | 63 | 693 | 780 | 10 |
| [ | As-1 | 75 | | -0.282 | ug/L | 0.050 | 17 | 11505 | 10332 | 1 |
| [ | Se | 82 | | -0.034 | ug/L | 0.106 | 309 | -5 | -11 | 175 |
| [ | Se | 78 | | -1.150 | ug/L | 0.096 | 8 | 11713 | 10472 | 0 |
| [ | Mo | 98 | | -0.023 | ug/L | 0.001 | 3 | 207 | 48 | 11 |
| | Y | 89 | | | ug/L | | | 309412 | 274938 | 0 |
| | Kr | 83 | | | ug/L | | | 376 | 388 | 1 |
| [> | In | 115 | | | ug/L | | | 365357 | 360104 | 1 |
| [ | Ag | 107 | U | -0.003 | ug/L | 0.000 | 13 | 101 | 60 | 9 |
| [ | Cd | 111 | | 0.017 | ug/L | 0.004 | 20 | 166 | 213 | 5 |
| [ | Cd | 114 | U | 0.000 | ug/L | 0.001 | 324 | 27 | 28 | 22 |
| [ | Sb | 121 | U | -0.002 | ug/L | 0.001 | 54 | 240 | 215 | 6 |
| [ | Sb | 123 | | 0.000 | ug/L | 0.001 | 234 | 169 | 169 | 3 |
| [ | Ba | 135 | | 0.010 | ug/L | 0.002 | 18 | 32 | 57 | 7 |
| [ | Ba | 137 | | 0.012 | ug/L | 0.004 | 36 | 65 | 114 | 15 |
| [> | Tb | 159 | | | ug/L | | | 430587 | 413689 | 0 |
| [ | Tl | 205 | | -0.000 | ug/L | 0.000 | 22 | 147 | 128 | 2 |
| [ | Pb | 208 | | 0.060 | ug/L | 0.001 | 1 | 1493 | 3727 | 1 |
| [ | Bi | 209 | | | ug/L | | | 345109 | 347531 | 2 |
| [ | Th | 232 | | 0.003 | ug/L | 0.002 | 64 | 719 | 841 | 11 |
| [ | U | 238 | | -0.000 | ug/L | 0.000 | 603 | 97 | 90 | 24 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU52 MB1SPK SWN**
**Sample Dil Factor: 20**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 23:04:11**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 302630 | 1 |
| [ | Be | 9 | 25.209 | ug/L | 0.090 | 0 | 3 | 7071 | 1 |
| | C | 13 | | mg/L | | | 5654 | 4071 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2380341 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 217800 | 0 |
| [ | V | 51 | 25.321 | ug/L | 0.348 | 1 | 2402 | 247416 | 1 |
| [ | V-1 | 51 | 26.597 | ug/L | 0.260 | 0 | 8286 | 268174 | 1 |
| [ | Cr | 52 | 26.110 | ug/L | 0.365 | 1 | 7360 | 225717 | 1 |
| [ | Cr | 53 | 30.115 | ug/L | 0.268 | 0 | 2713 | 32144 | 0 |
| [ | Mn | 55 | 25.757 | ug/L | 0.068 | 0 | 1178 | 366688 | 0 |
| [ | Co | 59 | 27.069 | ug/L | 0.045 | 0 | 123 | 292265 | 0 |
| [> | Ge | 72 | | ug/L | | | 333920 | 312721 | 0 |
| [ | Ni | 60 | 25.365 | ug/L | 0.128 | 0 | 109 | 64120 | 0 |
| [ | Ni | 62 | 26.094 | ug/L | 0.181 | 0 | 54 | 9901 | 0 |
| [ | Cu | 63 | 27.312 | ug/L | 0.276 | 1 | 248 | 154494 | 1 |
| [ | Cu | 65 | 27.404 | ug/L | 0.358 | 1 | 118 | 74206 | 1 |
| [ | Zn | 66 | 81.116 | ug/L | 0.292 | 0 | 695 | 139389 | 0 |
| [ | Zn | 67 | 77.364 | ug/L | 0.440 | 0 | 255 | 22291 | 0 |
| [ | Zn | 68 | 82.702 | ug/L | 0.730 | 0 | 8462 | 107430 | 0 |
| [ | As | 75 | 25.501 | ug/L | 0.223 | 0 | 693 | 44789 | 0 |
| [ | As-1 | 75 | 24.933 | ug/L | 0.080 | 0 | 11505 | 53319 | 0 |
| [ | Se | 82 | 74.020 | ug/L | 0.831 | 1 | -5 | 14283 | 1 |
| [ | Se | 78 | 74.674 | ug/L | 0.723 | 0 | 11713 | 45748 | 0 |
| [ | Mo | 98 | 25.785 | ug/L | 0.193 | 0 | 207 | 164641 | 0 |
| | Y | 89 | | ug/L | | | 309412 | 273339 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 384 | 2 |
| [> | In | 115 | | ug/L | | | 365357 | 367979 | 1 |
| [ | Ag | 107 | 24.962 | ug/L | 0.366 | 1 | 101 | 303830 | 0 |
| [ | Cd | 111 | 24.063 | ug/L | 0.325 | 1 | 166 | 72146 | 0 |
| [ | Cd | 114 | 24.059 | ug/L | 0.447 | 1 | 27 | 169367 | 0 |
| [ | Sb | 121 | 24.782 | ug/L | 0.277 | 1 | 240 | 252507 | 0 |
| [ | Sb | 123 | 24.752 | ug/L | 0.550 | 2 | 169 | 189339 | 1 |
| [ | Ba | 135 | 24.259 | ug/L | 0.413 | 1 | 32 | 61929 | 0 |
| [ | Ba | 137 | 24.484 | ug/L | 0.212 | 0 | 65 | 107990 | 0 |
| [> | Tb | 159 | | ug/L | | | 430587 | 423606 | 0 |
| [ | Tl | 205 | 26.564 | ug/L | 0.195 | 0 | 147 | 761839 | 0 |
| [ | Pb | 208 | 26.615 | ug/L | 0.049 | 0 | 1493 | 1048141 | 0 |
| [ | Bi | 209 | | ug/L | | | 345109 | 352637 | 0 |
| [ | Th | 232 | 25.857 | ug/L | 0.221 | 0 | 719 | 1162587 | 0 |
| [ | U | 238 | 25.570 | ug/L | 0.257 | 1 | 97 | 1227910 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU52 CDUP SWN**
**Sample Dil Factor: 20**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 23:10:30**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | | ug/L | | | 477870 | 321915 | 1 |
| [ | Be | 9 | 0.030 | | ug/L | 0.005 | 15 | 3 | 11 | 11 |
| | C | 13 | | | mg/L | | | 5654 | 7241 | 2 |
| | Cl | 37 | | | mg/L | | | 2331174 | 2411298 | 1 |
| [> | Sc | 45 | | | ug/L | | | 262568 | 230646 | 1 |
| [ | V | 51 | 4.410 | | ug/L | 0.156 | 3 | 2402 | 47367 | 3 |
| [ | V-1 | 51 | 5.235 | | ug/L | 0.091 | 1 | 8286 | 61739 | 0 |
| [ | Cr | 52 | 4.546 | | ug/L | 0.134 | 2 | 7360 | 46947 | 1 |
| [ | Cr | 53 | 7.153 | | ug/L | 0.330 | 4 | 2713 | 9901 | 3 |
| [ | Mn | 55 | 32.943 | | ug/L | 0.588 | 1 | 1178 | 496293 | 0 |
| [ | Co | 59 | 1.062 | | ug/L | 0.027 | 2 | 123 | 12241 | 1 |
| [> | Ge | 72 | | | ug/L | | | 333920 | 323226 | 0 |
| [ | Ni | 60 | 4.807 | | ug/L | 0.064 | 1 | 109 | 12645 | 1 |
| [ | Ni | 62 | 6.256 | | ug/L | 0.045 | 0 | 54 | 2493 | 1 |
| [ | Cu | 63 | 14.320 | | ug/L | 0.128 | 0 | 248 | 83835 | 1 |
| [ | Cu | 65 | 14.419 | | ug/L | 0.030 | 0 | 118 | 40412 | 0 |
| [ | Zn | 66 | 34.755 | | ug/L | 0.244 | 0 | 695 | 62112 | 0 |
| [ | Zn | 67 | 32.954 | | ug/L | 0.144 | 0 | 255 | 9956 | 0 |
| [ | Zn | 68 | 35.049 | | ug/L | 0.495 | 1 | 8462 | 51775 | 0 |
| [ | As | 75 | 2.936 | | ug/L | 0.048 | 1 | 693 | 5923 | 0 |
| [ | As-1 | 75 | 2.465 | | ug/L | 0.119 | 4 | 11505 | 15484 | 0 |
| [ | Se | 82 | 0.158 | | ug/L | 0.023 | 14 | -5 | 26 | 16 |
| [ | Se | 78 | -1.603 | | ug/L | 0.305 | 19 | 11713 | 10566 | 0 |
| [ | Mo | 98 | 0.915 | | ug/L | 0.023 | 2 | 207 | 6235 | 1 |
| | Y | 89 | | | ug/L | | | 309412 | 299074 | 0 |
| | Kr | 83 | | | ug/L | | | 376 | 384 | 0 |
| [> | In | 115 | | | ug/L | | | 365357 | 370811 | 0 |
| [ | Ag | 107 | U | 0.069 | ug/L | 0.004 | 5 | 101 | 952 | 4 |
| [ | Cd | 111 | | 0.319 | ug/L | 0.014 | 4 | 166 | 1130 | 3 |
| [ | Cd | 114 | | 0.271 | ug/L | 0.003 | 1 | 27 | 1951 | 0 |
| [ | Sb | 121 | U | 0.029 | ug/L | 0.010 | 35 | 240 | 542 | 19 |
| [ | Sb | 123 | | 0.030 | ug/L | 0.014 | 45 | 169 | 402 | 25 |
| [ | Ba | 135 | 4.572 | | ug/L | 0.092 | 2 | 32 | 11790 | 2 |
| [ | Ba | 137 | 4.523 | | ug/L | 0.018 | 0 | 65 | 20157 | 0 |
| [> | Tb | 159 | | | ug/L | | | 430587 | 431785 | 0 |
| [ | Tl | 205 | 0.023 | | ug/L | 0.001 | 6 | 147 | 830 | 6 |
| [ | Pb | 208 | 15.917 | | ug/L | 0.202 | 1 | 1493 | 639534 | 1 |
| [ | Bi | 209 | | | ug/L | | | 345109 | 356790 | 1 |
| [ | Th | 232 | 0.189 | | ug/L | 0.004 | 2 | 719 | 9383 | 2 |
| [ | U | 238 | 0.444 | | ug/L | 0.003 | 0 | 97 | 21834 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU52 C SWN**
**Sample Dil Factor: 20**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 23:16:49**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | | ug/L | | | 477870 | 333321 | 0 |
| [ | Be | 9 | 0.021 | | ug/L | 0.008 | 39 | 3 | 8 | 28 |
| | C | 13 | | | mg/L | | | 5654 | 7242 | 2 |
| | Cl | 37 | | | mg/L | | | 2331174 | 2429719 | 0 |
| [> | Sc | 45 | | | ug/L | | | 262568 | 230004 | 0 |
| [ | V | 51 | 4.443 | | ug/L | 0.067 | 1 | 2402 | 47581 | 0 |
| [ | V-1 | 51 | 5.233 | | ug/L | 0.055 | 1 | 8286 | 61552 | 0 |
| [ | Cr | 52 | 4.669 | | ug/L | 0.092 | 1 | 7360 | 47911 | 1 |
| [ | Cr | 53 | 7.159 | | ug/L | 0.103 | 1 | 2713 | 9881 | 1 |
| [ | Mn | 55 | 33.146 | | ug/L | 0.756 | 2 | 1178 | 497976 | 1 |
| [ | Co | 59 | 1.097 | | ug/L | 0.026 | 2 | 123 | 12608 | 1 |
| [> | Ge | 72 | | | ug/L | | | 333920 | 326958 | 0 |
| [ | Ni | 60 | 4.685 | | ug/L | 0.150 | 3 | 109 | 12468 | 2 |
| [ | Ni | 62 | 5.931 | | ug/L | 0.084 | 1 | 54 | 2393 | 1 |
| [ | Cu | 63 | 15.027 | | ug/L | 0.103 | 0 | 248 | 88980 | 0 |
| [ | Cu | 65 | 15.137 | | ug/L | 0.093 | 0 | 118 | 42908 | 0 |
| [ | Zn | 66 | 34.970 | | ug/L | 0.456 | 1 | 695 | 63212 | 0 |
| [ | Zn | 67 | 32.672 | | ug/L | 0.428 | 1 | 255 | 9987 | 1 |
| [ | Zn | 68 | 35.044 | | ug/L | 0.242 | 0 | 8462 | 52369 | 0 |
| [ | As | 75 | 2.919 | | ug/L | 0.028 | 0 | 693 | 5960 | 0 |
| [ | As-1 | 75 | 2.331 | | ug/L | 0.052 | 2 | 11505 | 15424 | 0 |
| [ | Se | 82 | 0.142 | | ug/L | 0.176 | 123 | -5 | 23 | 152 |
| [ | Se | 78 | -2.030 | | ug/L | 0.176 | 8 | 11713 | 10481 | 1 |
| [ | Mo | 98 | 0.903 | | ug/L | 0.025 | 2 | 207 | 6224 | 2 |
| | Y | 89 | | | ug/L | | | 309412 | 297544 | 0 |
| | Kr | 83 | | | ug/L | | | 376 | 391 | 6 |
| [> | In | 115 | | U | ug/L | | | 365357 | 371599 | 1 |
| [ | Ag | 107 | 0.061 | | ug/L | 0.003 | 5 | 101 | 850 | 5 |
| [ | Cd | 111 | 0.313 | | ug/L | 0.008 | 2 | 166 | 1115 | 1 |
| [ | Cd | 114 | 0.274 | U | ug/L | 0.006 | 2 | 27 | 1977 | 3 |
| [ | Sb | 121 | 0.008 | | ug/L | 0.003 | 36 | 240 | 330 | 8 |
| [ | Sb | 123 | 0.011 | | ug/L | 0.005 | 41 | 169 | 258 | 14 |
| [ | Ba | 135 | 4.557 | | ug/L | 0.026 | 0 | 32 | 11776 | 1 |
| [ | Ba | 137 | 4.491 | | ug/L | 0.114 | 2 | 65 | 20055 | 1 |
| [> | Tb | 159 | | | ug/L | | | 430587 | 427237 | 0 |
| [ | Tl | 205 | 0.020 | | ug/L | 0.001 | 6 | 147 | 735 | 5 |
| [ | Pb | 208 | 16.897 | | ug/L | 0.057 | 0 | 1493 | 671672 | 0 |
| [ | Bi | 209 | | | ug/L | | | 345109 | 354307 | 0 |
| [ | Th | 232 | 0.170 | | ug/L | 0.002 | 1 | 719 | 8420 | 1 |
| [ | U | 238 | 0.442 | | ug/L | 0.003 | 0 | 97 | 21498 | 1 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU52 CSPK SWN**
**Sample Dil Factor: 20**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 23:23:08**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 323538 | 0 |
| [ | Be | 9 | 24.798 | ug/L | 0.191 | 0 | 3 | 7437 | 1 |
| | C | 13 | | mg/L | | | 5654 | 6381 | 0 |
| | Cl | 37 | | mg/L | | | 2331174 | 2419277 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 223805 | 0 |
| \| | V | 51 | 29.050 | ug/L | 0.243 | 0 | 2402 | 291382 | 1 |
| \| | V-1 | 51 | 30.036 | ug/L | 0.090 | 0 | 8286 | 310292 | 0 |
| \| | Cr | 52 | 29.778 | ug/L | 0.408 | 1 | 7360 | 263626 | 0 |
| \| | Cr | 53 | 32.867 | ug/L | 0.877 | 2 | 2713 | 35837 | 2 |
| \| | Mn | 55 | 58.065 | ug/L | 0.727 | 1 | 1178 | 848151 | 0 |
| [ | Co | 59 | 27.537 | ug/L | 0.173 | 0 | 123 | 305508 | 0 |
| [> | Ge | 72 | | ug/L | | | 333920 | 318087 | 0 |
| \| | Ni | 60 | 29.587 | ug/L | 0.124 | 0 | 109 | 76058 | 0 |
| \| | Ni | 62 | 30.868 | ug/L | 0.539 | 1 | 54 | 11904 | 1 |
| \| | Cu | 63 | 40.605 | ug/L | 0.350 | 0 | 248 | 233515 | 1 |
| \| | Cu | 65 | 40.950 | ug/L | 0.614 | 1 | 118 | 112732 | 1 |
| \| | Zn | 66 | 114.774 | ug/L | 0.695 | 0 | 695 | 200333 | 0 |
| \| | Zn | 67 | 107.329 | ug/L | 1.756 | 1 | 255 | 31361 | 1 |
| \| | Zn | 68 | 114.244 | ug/L | 0.731 | 0 | 8462 | 147876 | 0 |
| \| | As | 75 | 27.956 | ug/L | 0.176 | 0 | 693 | 49879 | 0 |
| \| | As-1 | 75 | 27.167 | ug/L | 0.089 | 0 | 11505 | 58111 | 0 |
| \| | Se | 82 | 70.847 | ug/L | 0.392 | 0 | -5 | 13904 | 0 |
| \| | Se | 78 | 70.447 | ug/L | 0.174 | 0 | 11713 | 44530 | 0 |
| [ | Mo | 98 | 24.301 | ug/L | 0.221 | 0 | 207 | 157842 | 0 |
| | Y | 89 | | ug/L | | | 309412 | 290700 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 399 | 3 |
| [> | In | 115 | | ug/L | | | 365357 | 356853 | 0 |
| \| | Ag | 107 | 23.755 | ug/L | 0.184 | 0 | 101 | 280418 | 0 |
| \| | Cd | 111 | 23.974 | ug/L | 0.260 | 1 | 166 | 69713 | 0 |
| \| | Cd | 114 | 24.080 | ug/L | 0.584 | 2 | 27 | 164412 | 2 |
| \| | Sb | 121 | 2.421 | ug/L | 0.004 | 0 | 240 | 24139 | 0 |
| \| | Sb | 123 | 2.422 | ug/L | 0.024 | 0 | 169 | 18120 | 1 |
| \| | Ba | 135 | 29.169 | ug/L | 0.340 | 1 | 32 | 72219 | 1 |
| [ | Ba | 137 | 29.049 | ug/L | 0.238 | 0 | 65 | 124244 | 0 |
| [> | Tb | 159 | | ug/L | | | 430587 | 414269 | 0 |
| \| | Tl | 205 | 25.590 | ug/L | 0.172 | 0 | 147 | 717729 | 0 |
| \| | Pb | 208 | 42.963 | ug/L | 0.119 | 0 | 1493 | 1653808 | 0 |
| \| | Bi | 209 | | ug/L | | | 345109 | 341493 | 0 |
| \| | Th | 232 | 25.233 | ug/L | 0.115 | 0 | 719 | 1109591 | 0 |
| [ | U | 238 | 25.179 | ug/L | 0.121 | 0 | 97 | 1182551 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU52 CPOST SWN**
**Sample Dil Factor: 20**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 23:29:27**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 328646 | 0 |
| [ | Be | 9 | 24.124 | ug/L | 0.294 | 1 | 3 | 7349 | 1 |
| | C | 13 | | mg/L | | | 5654 | 7437 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2444845 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 230441 | 0 |
| \| | V | 51 | 28.353 | ug/L | 0.394 | 1 | 2402 | 292857 | 1 |
| \| | V-1 | 51 | 28.976 | ug/L | 0.422 | 1 | 8286 | 308447 | 1 |
| \| | Cr | 52 | 29.387 | ug/L | 0.170 | 0 | 7360 | 267970 | 0 |
| \| | Cr | 53 | 31.313 | ug/L | 0.361 | 1 | 2713 | 35266 | 0 |
| \| | Mn | 55 | 56.852 | ug/L | 0.154 | 0 | 1178 | 855115 | 1 |
| [ | Co | 59 | 26.776 | ug/L | 0.316 | 1 | 123 | 305875 | 1 |
| [> | Ge | 72 | | ug/L | | | 333920 | 319471 | 1 |
| \| | Ni | 60 | 29.175 | ug/L | 0.426 | 1 | 109 | 75318 | 0 |
| \| | Ni | 62 | 30.996 | ug/L | 0.057 | 0 | 54 | 12005 | 1 |
| \| | Cu | 63 | 41.347 | ug/L | 0.267 | 0 | 248 | 238802 | 0 |
| \| | Cu | 65 | 41.607 | ug/L | 0.482 | 1 | 118 | 115028 | 0 |
| \| | Zn | 66 | 112.014 | ug/L | 1.463 | 1 | 695 | 196378 | 1 |
| \| | Zn | 67 | 105.565 | ug/L | 1.598 | 1 | 255 | 30983 | 1 |
| \| | Zn | 68 | 113.761 | ug/L | 1.589 | 1 | 8462 | 147909 | 0 |
| \| | As | 75 | 27.431 | ug/L | 0.094 | 0 | 693 | 49166 | 1 |
| \| | As-1 | 75 | 26.945 | ug/L | 0.157 | 0 | 11505 | 57976 | 1 |
| \| | Se | 82 | 71.368 | ug/L | 0.514 | 0 | -5 | 14067 | 0 |
| \| | Se | 78 | 72.070 | ug/L | 0.700 | 0 | 11713 | 45495 | 1 |
| [ | Mo | 98 | 26.449 | ug/L | 0.406 | 1 | 207 | 172520 | 2 |
| | Y | 89 | | ug/L | | | 309412 | 295174 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 390 | 3 |
| [> | In | 115 | | ug/L | | | 365357 | 360330 | 0 |
| \| | Ag | 107 | 23.970 | ug/L | 0.241 | 1 | 101 | 285738 | 1 |
| \| | Cd | 111 | 23.823 | ug/L | 0.233 | 0 | 166 | 69945 | 0 |
| \| | Cd | 114 | 23.502 | ug/L | 0.121 | 0 | 27 | 162031 | 0 |
| \| | Sb | 121 | 25.155 | ug/L | 0.441 | 1 | 240 | 250976 | 1 |
| \| | Sb | 123 | 25.336 | ug/L | 0.267 | 1 | 169 | 189799 | 0 |
| \| | Ba | 135 | 28.486 | ug/L | 0.300 | 1 | 32 | 71212 | 0 |
| [ | Ba | 137 | 28.126 | ug/L | 0.355 | 1 | 65 | 121470 | 1 |
| [> | Tb | 159 | | ug/L | | | 430587 | 417290 | 0 |
| \| | Tl | 205 | 25.657 | ug/L | 0.162 | 0 | 147 | 724882 | 1 |
| \| | Pb | 208 | 42.349 | ug/L | 0.233 | 0 | 1493 | 1641983 | 0 |
| \| | Bi | 209 | | ug/L | | | 345109 | 346362 | 1 |
| \| | Th | 232 | 25.099 | ug/L | 0.418 | 1 | 719 | 1111760 | 2 |
| [ | U | 238 | 24.821 | ug/L | 0.172 | 0 | 97 | 1174267 | 1 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU52 A SWN**
**Sample Dil Factor: 20**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 23:35:43**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 344837 | 0 |
| [ | Be | 9 | 0.055 | ug/L | 0.011 | 19 | 3 | 20 | 16 |
| | C | 13 | | mg/L | | | 5654 | 7421 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2476159 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 237574 | 0 |
| [ | V | 51 | 4.867 | ug/L | 0.115 | 2 | 2402 | 53625 | 2 |
| [ | V-1 | 51 | 5.290 | ug/L | 0.062 | 1 | 8286 | 64189 | 1 |
| [ | Cr | 52 | 4.218 | ug/L | 0.054 | 1 | 7360 | 45354 | 1 |
| [ | Cr | 53 | 5.586 | ug/L | 0.182 | 3 | 2713 | 8503 | 2 |
| [ | Mn | 55 | 31.484 | ug/L | 0.169 | 0 | 1178 | 488684 | 0 |
| [ | Co | 59 | 1.098 | ug/L | 0.008 | 0 | 123 | 13033 | 0 |
| [> | Ge | 72 | | ug/L | | | 333920 | 331292 | 0 |
| [ | Ni | 60 | 4.703 | ug/L | 0.028 | 0 | 109 | 12682 | 0 |
| [ | Ni | 62 | 5.896 | ug/L | 0.265 | 4 | 54 | 2411 | 4 |
| [ | Cu | 63 | 14.928 | ug/L | 0.269 | 1 | 248 | 89570 | 2 |
| [ | Cu | 65 | 15.014 | ug/L | 0.130 | 0 | 118 | 43124 | 0 |
| [ | Zn | 66 | 42.637 | ug/L | 0.215 | 0 | 695 | 77946 | 0 |
| [ | Zn | 67 | 39.545 | ug/L | 0.530 | 1 | 255 | 12195 | 1 |
| [ | Zn | 68 | 43.195 | ug/L | 0.368 | 0 | 8462 | 63452 | 0 |
| [ | As | 75 | 3.499 | ug/L | 0.060 | 1 | 693 | 7103 | 1 |
| [ | As-1 | 75 | 3.150 | ug/L | 0.058 | 1 | 11505 | 17110 | 0 |
| [ | Se | 82 | 0.106 | ug/L | 0.046 | 43 | -5 | 16 | 58 |
| [ | Se | 78 | -1.214 | ug/L | 0.148 | 12 | 11713 | 11022 | 0 |
| [ | Mo | 98 | 1.301 | ug/L | 0.019 | 1 | 207 | 8999 | 1 |
| | Y | 89 | | ug/L | | | 309412 | 305680 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 398 | 2 |
| [> | In | 115 | | ug/L | | | 365357 | 368600 | 0 |
| [ | Ag | 107 | U 0.083 | ug/L | 0.003 | 3 | 101 | 1114 | 3 |
| [ | Cd | 111 | 0.335 | ug/L | 0.016 | 4 | 166 | 1173 | 3 |
| [ | Cd | 114 | 0.298 | ug/L | 0.008 | 2 | 27 | 2131 | 3 |
| [ | Sb | 121 | U 0.028 | ug/L | 0.007 | 24 | 240 | 523 | 13 |
| [ | Sb | 123 | 0.032 | ug/L | 0.008 | 24 | 169 | 418 | 14 |
| [ | Ba | 135 | 4.228 | ug/L | 0.020 | 0 | 32 | 10841 | 1 |
| [ | Ba | 137 | 4.226 | ug/L | 0.077 | 1 | 65 | 18722 | 0 |
| [> | Tb | 159 | | ug/L | | | 430587 | 426058 | 0 |
| [ | Tl | 205 | 0.029 | ug/L | 0.001 | 3 | 147 | 972 | 4 |
| [ | Pb | 208 | 19.711 | ug/L | 0.119 | 0 | 1493 | 781107 | 0 |
| [ | Bi | 209 | | ug/L | | | 345109 | 349959 | 0 |
| [ | Th | 232 | 0.183 | ug/L | 0.003 | 1 | 719 | 8964 | 2 |
| [ | U | 238 | 0.750 | ug/L | 0.006 | 0 | 97 | 36294 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU52 B SWN**
**Sample Dil Factor: 20**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 23:42:00**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 345544 | 0 |
| [ | Be | 9 | 0.033 | ug/L | 0.015 | 44 | 3 | 12 | 36 |
| | C | 13 | | mg/L | | | 5654 | 7418 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2518957 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 241861 | 0 |
| [ | V | 51 | 4.631 | ug/L | 0.056 | 1 | 2402 | 52059 | 1 |
| [ | V-1 | 51 | 5.021 | ug/L | 0.047 | 0 | 8286 | 62406 | 0 |
| [ | Cr | 52 | 4.078 | ug/L | 0.041 | 1 | 7360 | 44867 | 1 |
| [ | Cr | 53 | 5.334 | ug/L | 0.241 | 4 | 2713 | 8378 | 2 |
| [ | Mn | 55 | 31.462 | ug/L | 0.213 | 0 | 1178 | 497151 | 0 |
| [ | Co | 59 | 1.045 | ug/L | 0.011 | 1 | 123 | 12639 | 1 |
| [> | Ge | 72 | | ug/L | | | 333920 | 332680 | 1 |
| [ | Ni | 60 | 4.645 | ug/L | 0.065 | 1 | 109 | 12579 | 1 |
| [ | Ni | 62 | 5.882 | ug/L | 0.144 | 2 | 54 | 2415 | 1 |
| [ | Cu | 63 | 13.456 | ug/L | 0.197 | 1 | 248 | 81091 | 1 |
| [ | Cu | 65 | 13.608 | ug/L | 0.388 | 2 | 118 | 39250 | 1 |
| [ | Zn | 66 | 41.000 | ug/L | 0.311 | 0 | 695 | 75289 | 1 |
| [ | Zn | 67 | 37.896 | ug/L | 0.580 | 1 | 255 | 11745 | 1 |
| [ | Zn | 68 | 41.647 | ug/L | 0.912 | 2 | 8462 | 61726 | 0 |
| [ | As | 75 | 3.540 | ug/L | 0.078 | 2 | 693 | 7207 | 1 |
| [ | As-1 | 75 | 3.257 | ug/L | 0.148 | 4 | 11505 | 17373 | 0 |
| [ | Se | 82 | 0.081 | ug/L | 0.047 | 57 | -5 | 11 | 85 |
| [ | Se | 78 | -1.018 | ug/L | 0.313 | 30 | 11713 | 11164 | 0 |
| [ | Mo | 98 | 1.322 | ug/L | 0.010 | 0 | 207 | 9175 | 2 |
| | Y | 89 | | ug/L | | | 309412 | 305488 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 397 | 1 |
| [> | In | 115 | | ug/L | | | 365357 | 366893 | 1 |
| [ | Ag | 107 | U 0.087 | ug/L | 0.002 | 2 | 101 | 1152 | 3 |
| [ | Cd | 111 | 0.369 | ug/L | 0.014 | 3 | 166 | 1267 | 2 |
| [ | Cd | 114 | 0.281 | ug/L | 0.007 | 2 | 27 | 1999 | 1 |
| [ | Sb | 121 | J 0.023 | ug/L | 0.003 | 13 | 240 | 473 | 5 |
| [ | Sb | 123 | 0.023 | ug/L | 0.005 | 23 | 169 | 346 | 12 |
| [ | Ba | 135 | 4.637 | ug/L | 0.025 | 0 | 32 | 11831 | 1 |
| [ | Ba | 137 | 4.611 | ug/L | 0.129 | 2 | 65 | 20325 | 1 |
| [> | Tb | 159 | | ug/L | | | 430587 | 431284 | 0 |
| [ | Tl | 205 | 0.021 | ug/L | 0.000 | 2 | 147 | 758 | 0 |
| [ | Pb | 208 | 18.284 | ug/L | 0.033 | 0 | 1493 | 733596 | 0 |
| [ | Bi | 209 | | ug/L | | | 345109 | 348541 | 0 |
| [ | Th | 232 | 0.149 | ug/L | 0.002 | 1 | 719 | 7550 | 0 |
| [ | U | 238 | 0.718 | ug/L | 0.012 | 1 | 97 | 35209 | 1 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU52 D SWN**
**Sample Dil Factor: 20**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 23:48:16**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 359199 | 0 |
| [ | Be | 9 | 0.023 | ug/L | 0.004 | 16 | 3 | 10 | 12 |
| | C | 13 | | mg/L | | | 5654 | 7350 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2539103 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 247409 | 0 |
| [ | V | 51 | 3.962 | ug/L | 0.059 | 1 | 2402 | 45884 | 2 |
| [ | V-1 | 51 | 4.274 | ug/L | 0.022 | 0 | 8286 | 55508 | 0 |
| [ | Cr | 52 | 3.717 | ug/L | 0.077 | 2 | 7360 | 42448 | 1 |
| [ | Cr | 53 | 4.717 | ug/L | 0.201 | 4 | 2713 | 7874 | 2 |
| [ | Mn | 55 | 23.827 | ug/L | 0.228 | 0 | 1178 | 385399 | 1 |
| [ | Co | 59 | 0.823 | ug/L | 0.016 | 1 | 123 | 10202 | 1 |
| [> | Ge | 72 | | ug/L | | | 333920 | 341103 | 0 |
| [ | Ni | 60 | 3.915 | ug/L | 0.073 | 1 | 109 | 10889 | 1 |
| [ | Ni | 62 | 4.934 | ug/L | 0.175 | 3 | 54 | 2087 | 3 |
| [ | Cu | 63 | 8.428 | ug/L | 0.229 | 2 | 248 | 52175 | 2 |
| [ | Cu | 65 | 8.496 | ug/L | 0.086 | 1 | 118 | 25176 | 0 |
| [ | Zn | 66 | 24.243 | ug/L | 0.327 | 1 | 695 | 45939 | 1 |
| [ | Zn | 67 | 22.422 | ug/L | 0.414 | 1 | 255 | 7232 | 1 |
| [ | Zn | 68 | 24.343 | ug/L | 0.285 | 1 | 8462 | 40590 | 0 |
| [ | As | 75 | 2.018 | ug/L | 0.051 | 2 | 693 | 4518 | 1 |
| [ | As-1 | 75 | 1.654 | ug/L | 0.063 | 3 | 11505 | 14831 | 0 |
| [ | Se | 82 | 0.157 | ug/L | 0.055 | 35 | -5 | 27 | 42 |
| [ | Se | 78 | -1.213 | ug/L | 0.117 | 9 | 11713 | 11349 | 0 |
| [ | Mo | 98 | 0.724 | ug/L | 0.018 | 2 | 207 | 5245 | 2 |
| | Y | 89 | | ug/L | | | 309412 | 309380 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 395 | 3 |
| [> | In | 115 | | ug/L | | | 365357 | 375052 | 1 |
| [ | Ag | 107 | U 0.042 | ug/L | 0.001 | 1 | 101 | 623 | 2 |
| [ | Cd | 111 | 0.235 | ug/L | 0.022 | 9 | 166 | 885 | 5 |
| [ | Cd | 114 | 0.188 | ug/L | 0.010 | 5 | 27 | 1375 | 4 |
| [ | Sb | 121 | J 0.007 | ug/L | 0.002 | 25 | 240 | 324 | 4 |
| [ | Sb | 123 | 0.010 | ug/L | 0.003 | 27 | 169 | 255 | 7 |
| [ | Ba | 135 | 3.542 | ug/L | 0.047 | 1 | 32 | 9246 | 1 |
| [ | Ba | 137 | 3.552 | ug/L | 0.144 | 4 | 65 | 16020 | 2 |
| [> | Tb | 159 | | ug/L | | | 430587 | 430337 | 1 |
| [ | Tl | 205 | 0.013 | ug/L | 0.001 | 8 | 147 | 537 | 7 |
| [ | Pb | 208 | 10.705 | ug/L | 0.060 | 0 | 1493 | 429140 | 0 |
| [ | Bi | 209 | | ug/L | | | 345109 | 357189 | 0 |
| [ | Th | 232 | 0.121 | ug/L | 0.002 | 1 | 719 | 6254 | 0 |
| [ | U | 238 | 0.425 | ug/L | 0.005 | 1 | 97 | 20814 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU52 E SWN**
**Sample Dil Factor: 20**
**Comments:**
**Sample Date/Time: Wednesday, May 23, 2012 23:54:32**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 360737 | 1 |
| [ | Be | 9 | 0.027 | ug/L | 0.011 | 40 | 3 | 11 | 32 |
| | C | 13 | | mg/L | | | 5654 | 7540 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2547749 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 249561 | 0 |
| \| | V | 51 | 4.135 | ug/L | 0.049 | 1 | 2402 | 48203 | 1 |
| \| | V-1 | 51 | 4.394 | ug/L | 0.049 | 1 | 8286 | 57339 | 1 |
| \| | Cr | 52 | 3.909 | ug/L | 0.056 | 1 | 7360 | 44668 | 1 |
| \| | Cr | 53 | 4.739 | ug/L | 0.060 | 1 | 2713 | 7969 | 0 |
| \| | Mn | 55 | 30.005 | ug/L | 0.287 | 0 | 1178 | 489266 | 0 |
| [ | Co | 59 | 1.027 | ug/L | 0.009 | 0 | 123 | 12822 | 0 |
| [> | Ge | 72 | | ug/L | | | 333920 | 341024 | 0 |
| \| | Ni | 60 | 4.161 | ug/L | 0.084 | 2 | 109 | 11564 | 1 |
| \| | Ni | 62 | 5.140 | ug/L | 0.171 | 3 | 54 | 2171 | 2 |
| \| | Cu | 63 | 10.670 | ug/L | 0.063 | 0 | 248 | 65973 | 1 |
| \| | Cu | 65 | 10.732 | ug/L | 0.063 | 0 | 118 | 31766 | 0 |
| \| | Zn | 66 | 27.810 | ug/L | 0.126 | 0 | 695 | 52581 | 0 |
| \| | Zn | 67 | 25.803 | ug/L | 0.387 | 1 | 255 | 8281 | 1 |
| \| | Zn | 68 | 28.345 | ug/L | 0.595 | 2 | 8462 | 45835 | 2 |
| \| | As | 75 | 2.451 | ug/L | 0.012 | 0 | 693 | 5333 | 0 |
| \| | As-1 | 75 | 2.172 | ug/L | 0.059 | 2 | 11505 | 15792 | 0 |
| \| | Se | 82 | 0.163 | ug/L | 0.105 | 64 | -5 | 28 | 76 |
| \| | Se | 78 | -0.876 | ug/L | 0.142 | 16 | 11713 | 11517 | 0 |
| [ | Mo | 98 | 0.798 | ug/L | 0.014 | 1 | 207 | 5761 | 1 |
| | Y | 89 | | ug/L | | | 309412 | 313295 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 403 | 2 |
| [> | In | 115 | | ug/L | | | 365357 | 374575 | 0 |
| \| | Ag | 107 | U 0.056 | ug/L | 0.002 | 3 | 101 | 803 | 3 |
| \| | Cd | 111 | 0.264 | ug/L | 0.001 | 0 | 166 | 975 | 0 |
| \| | Cd | 114 | J 0.213 | ug/L | 0.004 | 1 | 27 | 1550 | 1 |
| \| | Sb | 121 | J -0.002 | ug/L | 0.003 | 167 | 240 | 230 | 11 |
| \| | Sb | 123 | 0.000 | ug/L | 0.003 | 1034 | 169 | 176 | 11 |
| \| | Ba | 135 | 4.343 | ug/L | 0.060 | 1 | 32 | 11314 | 1 |
| [ | Ba | 137 | 4.319 | ug/L | 0.028 | 0 | 65 | 19445 | 0 |
| [> | Tb | 159 | | ug/L | | | 430587 | 430098 | 0 |
| \| | Tl | 205 | 0.019 | ug/L | 0.001 | 5 | 147 | 708 | 4 |
| \| | Pb | 208 | 11.398 | ug/L | 0.102 | 0 | 1493 | 456610 | 0 |
| \| | Bi | 209 | | ug/L | | | 345109 | 351837 | 0 |
| \| | Th | 232 | 0.138 | ug/L | 0.001 | 0 | 719 | 7021 | 0 |
| [ | U | 238 | 0.407 | ug/L | 0.001 | 0 | 97 | 19929 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: CCV7**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Thursday, May 24, 2012 00:00:48**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 339179 | 0 |
| [ | Be | 9 | 51.346 | ug/L | 0.577 | 1 | 3 | 16141 | 1 |
| | C | 13 | | mg/L | | | 5654 | 4362 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2546777 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 231763 | 0 |
| [ | V | 51 | 50.921 | ug/L | 0.129 | 0 | 2402 | 527303 | 0 |
| [ | V-1 | 51 | 51.612 | ug/L | 0.282 | 0 | 8286 | 546868 | 0 |
| [ | Cr | 52 | 51.690 | ug/L | 0.312 | 0 | 7360 | 469144 | 1 |
| [ | Cr | 53 | 53.845 | ug/L | 0.395 | 0 | 2713 | 59270 | 0 |
| [ | Mn | 55 | 50.165 | ug/L | 0.725 | 1 | 1178 | 758930 | 0 |
| [ | Co | 59 | 53.749 | ug/L | 0.425 | 0 | 123 | 617452 | 1 |
| [> | Ge | 72 | | ug/L | | | 333920 | 325558 | 0 |
| [ | Ni | 60 | 50.336 | ug/L | 0.256 | 0 | 109 | 132357 | 0 |
| [ | Ni | 62 | 50.872 | ug/L | 0.805 | 1 | 54 | 20047 | 1 |
| [ | Cu | 63 | 51.894 | ug/L | 0.410 | 0 | 248 | 305388 | 1 |
| [ | Cu | 65 | 51.542 | ug/L | 0.142 | 0 | 118 | 145199 | 0 |
| [ | Zn | 66 | 51.986 | ug/L | 0.115 | 0 | 695 | 93243 | 0 |
| [ | Zn | 67 | 53.605 | ug/L | 0.996 | 1 | 255 | 16157 | 2 |
| [ | Zn | 68 | 53.325 | ug/L | 0.260 | 0 | 8462 | 75042 | 0 |
| [ | As | 75 | 50.111 | ug/L | 0.548 | 1 | 693 | 90973 | 1 |
| [ | As-1 | 75 | 50.367 | ug/L | 0.377 | 0 | 11505 | 100688 | 0 |
| [ | Se | 82 | 46.324 | ug/L | 0.570 | 1 | -5 | 9303 | 1 |
| [ | Se | 78 | 47.262 | ug/L | 0.408 | 0 | 11713 | 34334 | 0 |
| [ | Mo | 98 | 49.928 | ug/L | 0.282 | 0 | 207 | 331706 | 1 |
| | Y | 89 | | ug/L | | | 309412 | 278413 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 404 | 4 |
| [> | In | 115 | | ug/L | | | 365357 | 356236 | 1 |
| [ | Ag | 107 | 50.240 | ug/L | 1.051 | 2 | 101 | 591861 | 1 |
| [ | Cd | 111 | 49.974 | ug/L | 1.106 | 2 | 166 | 144882 | 2 |
| [ | Cd | 114 | 49.240 | ug/L | 1.126 | 2 | 27 | 335552 | 1 |
| [ | Sb | 121 | 49.475 | ug/L | 0.796 | 1 | 240 | 487766 | 0 |
| [ | Sb | 123 | 49.728 | ug/L | 0.477 | 0 | 169 | 368127 | 0 |
| [ | Ba | 135 | 48.512 | ug/L | 1.038 | 2 | 32 | 119861 | 1 |
| [ | Ba | 137 | 48.869 | ug/L | 0.361 | 0 | 65 | 208599 | 0 |
| [> | Tb | 159 | | ug/L | | | 430587 | 406927 | 0 |
| [ | Tl | 205 | 52.735 | ug/L | 0.320 | 0 | 147 | 1452707 | 0 |
| [ | Pb | 208 | 52.465 | ug/L | 0.333 | 0 | 1493 | 1983399 | 0 |
| [ | Bi | 209 | | ug/L | | | 345109 | 328617 | 0 |
| [ | Th | 232 | 52.672 | ug/L | 0.246 | 0 | 719 | 2274369 | 0 |
| [ | U | 238 | 51.790 | ug/L | 0.708 | 1 | 97 | 2389023 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: CCB7**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Thursday, May 24, 2012 00:07:27**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 339995 | 0 |
| [ | Be | 9 | 0.004 | ug/L | 0.007 | 156 | 3 | 3 | 57 |
| | C | 13 | | mg/L | | | 5654 | 4510 | 0 |
| | Cl | 37 | | mg/L | | | 2331174 | 2577782 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 232392 | 1 |
| [ | V | 51 | -0.051 | ug/L | 0.009 | 17 | 2402 | 1604 | 6 |
| [ | V-1 | 51 | 0.219 | ug/L | 0.026 | 11 | 8286 | 9637 | 4 |
| [ | Cr | 52 | 0.045 | ug/L | 0.013 | 29 | 7360 | 6915 | 1 |
| [ | Cr | 53 | 0.895 | ug/L | 0.047 | 5 | 2713 | 3350 | 2 |
| [ | Mn | 55 | -0.008 | ug/L | 0.001 | 11 | 1178 | 917 | 2 |
| [ | Co | 59 | 0.020 | ug/L | 0.002 | 8 | 123 | 341 | 6 |
| [> | Ge | 72 | | ug/L | | | 333920 | 323240 | 1 |
| [ | Ni | 60 | -0.000 | ug/L | 0.004 | 981 | 109 | 105 | 10 |
| [ | Ni | 62 | 0.136 | ug/L | 0.016 | 11 | 54 | 105 | 5 |
| [ | Cu | 63 | 0.031 | ug/L | 0.003 | 9 | 248 | 419 | 5 |
| [ | Cu | 65 | 0.026 | ug/L | 0.003 | 13 | 118 | 186 | 5 |
| [ | Zn | 66 | 0.376 | ug/L | 0.013 | 3 | 695 | 1338 | 1 |
| [ | Zn | 67 | 0.489 | ug/L | 0.071 | 14 | 255 | 391 | 5 |
| [ | Zn | 68 | 1.250 | ug/L | 0.155 | 12 | 8462 | 9745 | 1 |
| [ | As | 75 | 0.065 | ug/L | 0.014 | 22 | 693 | 788 | 4 |
| [ | As-1 | 75 | 0.100 | ug/L | 0.051 | 51 | 11505 | 11312 | 0 |
| [ | Se | 82 | -0.049 | ug/L | 0.121 | 244 | -5 | -14 | 160 |
| [ | Se | 78 | 0.322 | ug/L | 0.188 | 58 | 11713 | 11493 | 0 |
| [ | Mo | 98 | -0.016 | ug/L | 0.005 | 33 | 207 | 99 | 35 |
| | Y | 89 | | ug/L | | | 309412 | 281440 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 411 | 2 |
| [> | In | 115 | | ug/L | | | 365357 | 352160 | 0 |
| [ | Ag | 107 | 0.000 | ug/L | 0.003 | 2466 | 101 | 98 | 31 |
| [ | Cd | 111 | 0.014 | ug/L | 0.009 | 65 | 166 | 200 | 12 |
| [ | Cd | 114 | 0.001 | ug/L | 0.001 | 109 | 27 | 32 | 20 |
| [ | Sb | 121 | 0.028 | ug/L | 0.013 | 47 | 240 | 506 | 25 |
| [ | Sb | 123 | 0.030 | ug/L | 0.016 | 54 | 169 | 380 | 30 |
| [ | Ba | 135 | 0.012 | ug/L | 0.001 | 11 | 32 | 60 | 5 |
| [ | Ba | 137 | 0.005 | ug/L | 0.006 | 117 | 65 | 84 | 29 |
| [> | Tb | 159 | | ug/L | | | 430587 | 401877 | 0 |
| [ | Tl | 205 | 0.001 | ug/L | 0.001 | 101 | 147 | 175 | 22 |
| [ | Pb | 208 | 0.072 | ug/L | 0.001 | 1 | 1493 | 4097 | 1 |
| [ | Bi | 209 | | ug/L | | | 345109 | 328576 | 1 |
| [ | Th | 232 | 0.022 | ug/L | 0.007 | 31 | 719 | 1622 | 19 |
| [ | U | 238 | 0.002 | ug/L | 0.001 | 69 | 97 | 161 | 31 |

UU52:02154

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU31 MB REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Thursday, May 24, 2012 00:13:14**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | | ug/L | | | 477870 | 357222 | 0 |
| [ | Be | 9 | | 0.003 | ug/L | 0.006 | 227 | 3 | 3 | 57 |
| | C | 13 | | | mg/L | | | 5654 | 5091 | 1 |
| | Cl | 37 | | | mg/L | | | 2331174 | 2607449 | 0 |
| [> | Sc | 45 | | | ug/L | | | 262568 | 243169 | 0 |
| [ | V | 51 | | -0.039 | ug/L | 0.035 | 90 | 2402 | 1806 | 21 |
| [ | V-1 | 51 | | 0.167 | ug/L | 0.015 | 9 | 8286 | 9502 | 1 |
| [ | Cr | 52 | | 0.073 | ug/L | 0.025 | 34 | 7360 | 7502 | 3 |
| [ | Cr | 53 | | 0.718 | ug/L | 0.111 | 15 | 2713 | 3308 | 3 |
| [ | Mn | 55 | | -0.023 | ug/L | 0.001 | 5 | 1178 | 732 | 2 |
| [ | Co | 59 | | 0.006 | ug/L | 0.001 | 18 | 123 | 184 | 7 |
| [> | Ge | 72 | | | ug/L | | | 333920 | 337240 | 0 |
| [ | Ni | 60 | | -0.010 | ug/L | 0.001 | 14 | 109 | 84 | 4 |
| [ | Ni | 62 | | 0.114 | ug/L | 0.026 | 22 | 54 | 101 | 9 |
| [ | Cu | 63 | | 0.123 | ug/L | 0.003 | 2 | 248 | 1002 | 1 |
| [ | Cu | 65 | | 0.123 | ug/L | 0.018 | 14 | 118 | 477 | 10 |
| [ | Zn | 66 | | 0.273 | ug/L | 0.015 | 5 | 695 | 1206 | 2 |
| [ | Zn | 67 | | 0.512 | ug/L | 0.063 | 12 | 255 | 415 | 4 |
| [ | Zn | 68 | | 0.924 | ug/L | 0.140 | 15 | 8462 | 9745 | 1 |
| [ | As | 75 | U | 0.066 | ug/L | 0.032 | 48 | 693 | 823 | 7 |
| [ | As-1 | 75 | | -0.060 | ug/L | 0.056 | 93 | 11505 | 11509 | 0 |
| [ | Se | 82 | J | -0.086 | ug/L | 0.089 | 103 | -5 | -23 | 78 |
| [ | Se | 78 | | -0.311 | ug/L | 0.198 | 63 | 11713 | 11673 | 0 |
| [ | Mo | 98 | | -0.019 | ug/L | 0.004 | 18 | 207 | 76 | 33 |
| | Y | 89 | | | ug/L | | | 309412 | 292645 | 1 |
| | Kr | 83 | | | ug/L | | | 376 | 428 | 0 |
| [> | In | 115 | | | ug/L | | | 365357 | 369099 | 0 |
| [ | Ag | 107 | | -0.004 | ug/L | 0.000 | 9 | 101 | 59 | 6 |
| [ | Cd | 111 | | 0.018 | ug/L | 0.004 | 20 | 166 | 222 | 5 |
| [ | Cd | 114 | | 0.000 | ug/L | 0.001 | 176 | 27 | 29 | 13 |
| [ | Sb | 121 | | -0.002 | ug/L | 0.003 | 216 | 240 | 227 | 16 |
| [ | Sb | 123 | | -0.002 | ug/L | 0.002 | 138 | 169 | 158 | 12 |
| [ | Ba | 135 | | 0.004 | ug/L | 0.003 | 84 | 32 | 42 | 19 |
| [ | Ba | 137 | | -0.004 | ug/L | 0.001 | 36 | 65 | 48 | 13 |
| [> | Tb | 159 | | | ug/L | | | 430587 | 415711 | 0 |
| [ | Tl | 205 | | -0.001 | ug/L | 0.001 | 185 | 147 | 126 | 22 |
| [ | Pb | 208 | J | 0.059 | ug/L | 0.003 | 4 | 1493 | 3709 | 2 |
| [ | Bi | 209 | | | ug/L | | | 345109 | 338752 | 0 |
| [ | Th | 232 | | 0.012 | ug/L | 0.004 | 31 | 719 | 1232 | 13 |
| [ | U | 238 | | 0.001 | ug/L | 0.000 | 24 | 97 | 118 | 4 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU31 MBSPK REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Thursday, May 24, 2012 00:18:59**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 359248 | 0 |
| [ | Be | 9 | 24.621 | ug/L | 0.097 | 0 | 3 | 8199 | 0 |
| | C | 13 | | mg/L | | | 5654 | 5519 | 2 |
| | Cl | 37 | | mg/L | | | 2331174 | 2623364 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 244835 | 1 |
| | V | 51 | 24.683 | ug/L | 0.243 | 0 | 2402 | 271151 | 0 |
| | V-1 | 51 | 24.945 | ug/L | 0.445 | 1 | 8286 | 283167 | 0 |
| | Cr | 52 | 25.445 | ug/L | 0.194 | 0 | 7360 | 247425 | 1 |
| | Cr | 53 | 26.241 | ug/L | 0.843 | 3 | 2713 | 31801 | 1 |
| | Mn | 55 | 24.960 | ug/L | 0.402 | 1 | 1178 | 399419 | 0 |
| [ | Co | 59 | 26.377 | ug/L | 0.319 | 1 | 123 | 320122 | 1 |
| [> | Ge | 72 | | ug/L | | | 333920 | 338108 | 0 |
| | Ni | 60 | 25.487 | ug/L | 0.273 | 1 | 109 | 69658 | 1 |
| | Ni | 62 | 25.941 | ug/L | 0.398 | 1 | 54 | 10643 | 1 |
| | Cu | 63 | 26.658 | ug/L | 0.203 | 0 | 248 | 163043 | 0 |
| | Cu | 65 | 27.224 | ug/L | 0.351 | 1 | 118 | 79704 | 1 |
| | Zn | 66 | 80.560 | ug/L | 1.077 | 1 | 695 | 149676 | 1 |
| | Zn | 67 | 76.023 | ug/L | 0.224 | 0 | 255 | 23688 | 0 |
| | Zn | 68 | 81.115 | ug/L | 0.393 | 0 | 8462 | 114087 | 0 |
| | As | 75 | 25.535 | ug/L | 0.187 | 0 | 693 | 48487 | 0 |
| | As-1 | 75 | 24.863 | ug/L | 0.180 | 0 | 11505 | 57518 | 0 |
| | Se | 82 | 71.956 | ug/L | 0.202 | 0 | -5 | 15011 | 0 |
| | Se | 78 | 72.099 | ug/L | 0.642 | 0 | 11713 | 48165 | 0 |
| [ | Mo | 98 | -0.022 | ug/L | 0.001 | 2 | 207 | 60 | 6 |
| | Y | 89 | | ug/L | | | 309412 | 295123 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 410 | 2 |
| [> | In | 115 | | ug/L | | | 365357 | 368517 | 1 |
| | Ag | 107 | 24.975 | ug/L | 0.455 | 1 | 101 | 304420 | 0 |
| | Cd | 111 | 23.943 | ug/L | 0.301 | 1 | 166 | 71891 | 0 |
| | Cd | 114 | 23.553 | ug/L | 0.333 | 1 | 27 | 166060 | 0 |
| | Sb | 121 | -0.008 | ug/L | 0.000 | 4 | 240 | 159 | 1 |
| | Sb | 123 | -0.006 | ug/L | 0.001 | 20 | 169 | 125 | 7 |
| | Ba | 135 | 23.765 | ug/L | 0.060 | 0 | 32 | 60767 | 1 |
| [ | Ba | 137 | 23.830 | ug/L | 0.401 | 1 | 65 | 105252 | 0 |
| [> | Tb | 159 | | ug/L | | | 430587 | 415432 | 1 |
| | Tl | 205 | 25.971 | ug/L | 0.509 | 1 | 147 | 730349 | 0 |
| | Pb | 208 | 26.123 | ug/L | 0.378 | 1 | 1493 | 1008822 | 0 |
| | Bi | 209 | | ug/L | | | 345109 | 340292 | 0 |
| | Th | 232 | 25.691 | ug/L | 0.413 | 1 | 719 | 1132758 | 0 |
| [ | U | 238 | 25.322 | ug/L | 0.474 | 1 | 97 | 1192462 | 1 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU31 ADUP REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Thursday, May 24, 2012 00:25:19**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 362652 | 2 |
| [ | Be | 9 | 0.007 | ug/L | 0.006 | 85 | 3 | 5 | 43 |
| | C | 13 | | mg/L | | | 5654 | 6480 | 2 |
| | Cl | 37 | | mg/L | | | 2331174 | 2599823 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 262733 | 0 |
| [ | V | 51 | 0.116 | ug/L | 0.012 | 10 | 2402 | 3756 | 4 |
| [ | V-1 | 51 | 0.200 | ug/L | 0.032 | 15 | 8286 | 10665 | 3 |
| [ | Cr | 52 | 0.178 | ug/L | 0.019 | 10 | 7360 | 9165 | 1 |
| [ | Cr | 53 | 0.443 | ug/L | 0.072 | 16 | 2713 | 3245 | 2 |
| [ | Mn | 55 | 665.789 | ug/L | 6.503 | 0 | 1178 | 11404049 | 0 |
| [ | Co | 59 | 0.872 | ug/L | 0.002 | 0 | 123 | 11473 | 1 |
| [> | Ge | 72 | | ug/L | | | 333920 | 329380 | 0 |
| [ | Ni | 60 | 3.373 | ug/L | 0.154 | 4 | 109 | 9072 | 4 |
| [ | Ni | 62 | 1.745 | ug/L | 0.037 | 2 | 54 | 747 | 2 |
| [ | Cu | 63 | 0.941 | ug/L | 0.017 | 1 | 248 | 5846 | 1 |
| [ | Cu | 65 | 1.019 | ug/L | 0.025 | 2 | 118 | 3019 | 2 |
| [ | Zn | 66 | 32.030 | ug/L | 0.276 | 0 | 695 | 58386 | 0 |
| [ | Zn | 67 | 31.304 | ug/L | 0.190 | 0 | 255 | 9650 | 0 |
| [ | Zn | 68 | 34.144 | ug/L | 0.488 | 1 | 8462 | 51616 | 1 |
| [ | As | 75 | 3.190 | ug/L | 0.035 | 1 | 693 | 6500 | 1 |
| [ | As-1 | 75 | 2.910 | ug/L | 0.086 | 2 | 11505 | 16578 | 0 |
| [ | Se | 82 | J 0.253 | ug/L | 0.046 | 18 | -5 | 46 | 20 |
| [ | Se | 78 | -0.676 | ug/L | 0.260 | 38 | 11713 | 11222 | 0 |
| [ | Mo | 98 | 0.090 | ug/L | 0.001 | 1 | 207 | 812 | 1 |
| | Y | 89 | | ug/L | | | 309412 | 292798 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 419 | 1 |
| [> | In | 115 | | ug/L | | | 365357 | 355717 | 0 |
| [ | Ag | 107 | 0.004 | ug/L | 0.003 | 71 | 101 | 141 | 22 |
| [ | Cd | 111 | 0.078 | ug/L | 0.003 | 4 | 166 | 387 | 1 |
| [ | Cd | 114 | 0.045 | ug/L | 0.004 | 9 | 27 | 332 | 9 |
| [ | Sb | 121 | 0.056 | ug/L | 0.003 | 5 | 240 | 782 | 2 |
| [ | Sb | 123 | 0.060 | ug/L | 0.005 | 8 | 169 | 612 | 6 |
| [ | Ba | 135 | 65.427 | ug/L | 0.785 | 1 | 32 | 161426 | 0 |
| [ | Ba | 137 | 64.740 | ug/L | 1.102 | 1 | 65 | 275926 | 1 |
| [> | Tb | 159 | | ug/L | | | 430587 | 413025 | 0 |
| [ | Tl | 205 | 0.003 | ug/L | 0.001 | 42 | 147 | 230 | 16 |
| [ | Pb | 208 | J 0.071 | ug/L | 0.004 | 6 | 1493 | 4158 | 4 |
| [ | Bi | 209 | | ug/L | | | 345109 | 319543 | 0 |
| [ | Th | 232 | 0.080 | ug/L | 0.023 | 29 | 719 | 4208 | 24 |
| [ | U | 238 | 0.066 | ug/L | 0.001 | 1 | 97 | 3191 | 1 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU31 A REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Thursday, May 24, 2012 00:31:38**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | | ug/L | | | 477870 | 388268 | 1 |
| [ | Be | 9 | -0.001 | | ug/L | 0.003 | 553 | 3 | 2 | 50 |
| | C | 13 | | | mg/L | | | 5654 | 6596 | 3 |
| | Cl | 37 | | | mg/L | | | 2331174 | 2617903 | 0 |
| [> | Sc | 45 | | | ug/L | | | 262568 | 268273 | 0 |
| [ | V | 51 | 0.120 | | ug/L | 0.016 | 13 | 2402 | 3881 | 5 |
| [ | V-1 | 51 | 0.142 | | ug/L | 0.018 | 12 | 8286 | 10181 | 1 |
| [ | Cr | 52 | 0.135 | | ug/L | 0.007 | 5 | 7360 | 8918 | 1 |
| [ | Cr | 53 | 0.205 | | ug/L | 0.101 | 49 | 2713 | 3022 | 3 |
| [ | Mn | 55 | 656.146 | | ug/L | 6.203 | 0 | 1178 | 11476234 | 0 |
| [ | Co | 59 | 0.841 | | ug/L | 0.011 | 1 | 123 | 11311 | 1 |
| [> | Ge | 72 | | | ug/L | | | 333920 | 330263 | 0 |
| [ | Ni | 60 | 3.239 | | ug/L | 0.014 | 0 | 109 | 8740 | 0 |
| [ | Ni | 62 | 1.717 | | ug/L | 0.081 | 4 | 54 | 738 | 4 |
| [ | Cu | 63 | 1.095 | | ug/L | 0.020 | 1 | 248 | 6774 | 1 |
| [ | Cu | 65 | 1.202 | | ug/L | 0.024 | 2 | 118 | 3550 | 1 |
| [ | Zn | 66 | 32.088 | | ug/L | 0.137 | 0 | 695 | 58648 | 0 |
| [ | Zn | 67 | 31.124 | | ug/L | 0.598 | 1 | 255 | 9622 | 1 |
| [ | Zn | 68 | 34.001 | | ug/L | 0.179 | 0 | 8462 | 51574 | 0 |
| [ | As | 75 | 3.146 | | ug/L | 0.009 | 0 | 693 | 6436 | 0 |
| [ | As-1 | 75 | 2.858 | | ug/L | 0.106 | 3 | 11505 | 16529 | 1 |
| [ | Se | 82 | 0.146 | J | ug/L | 0.060 | 41 | -5 | 24 | 50 |
| [ | Se | 78 | -0.835 | | ug/L | 0.352 | 42 | 11713 | 11175 | 1 |
| [ | Mo | 98 | 0.096 | | ug/L | 0.003 | 3 | 207 | 852 | 2 |
| | Y | 89 | | | ug/L | | | 309412 | 296235 | 0 |
| | Kr | 83 | | | ug/L | | | 376 | 416 | 4 |
| [> | In | 115 | | | ug/L | | | 365357 | 354719 | 0 |
| [ | Ag | 107 | -0.000 | | ug/L | 0.000 | 231 | 101 | 96 | 3 |
| [ | Cd | 111 | 0.070 | | ug/L | 0.005 | 7 | 166 | 364 | 3 |
| [ | Cd | 114 | 0.044 | | ug/L | 0.000 | 0 | 27 | 327 | 0 |
| [ | Sb | 121 | 0.056 | | ug/L | 0.003 | 5 | 240 | 785 | 2 |
| [ | Sb | 123 | 0.065 | | ug/L | 0.006 | 8 | 169 | 640 | 7 |
| [ | Ba | 135 | 64.904 | | ug/L | 1.018 | 1 | 32 | 159676 | 0 |
| [ | Ba | 137 | 64.994 | | ug/L | 0.259 | 0 | 65 | 276239 | 0 |
| [> | Tb | 159 | | | ug/L | | | 430587 | 409276 | 0 |
| [ | Tl | 205 | -0.001 | | ug/L | 0.000 | 30 | 147 | 111 | 7 |
| [ | Pb | 208 | 0.075 | U | ug/L | 0.002 | 2 | 1493 | 4261 | 1 |
| [ | Bi | 209 | | | ug/L | | | 345109 | 320885 | 0 |
| [ | Th | 232 | 0.017 | | ug/L | 0.001 | 7 | 719 | 1436 | 4 |
| [ | U | 238 | 0.062 | | ug/L | 0.001 | 0 | 97 | 2979 | 1 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU31 ASPK REN**
**Sample Dil Factor: 2**
**Comments:**
**Sample Date/Time: Thursday, May 24, 2012 00:37:58**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| ⌈> | Li | 6 | | ug/L | | | 477870 | 399206 | 0 |
| ⌊ | Be | 9 | 24.954 | ug/L | 0.298 | 1 | 3 | 9234 | 1 |
| | C | 13 | | mg/L | | | 5654 | 6625 | 2 |
| | Cl | 37 | | mg/L | | | 2331174 | 2622662 | 0 |
| ⌈> | Sc | 45 | | ug/L | | | 262568 | 266694 | 0 |
| \| | V | 51 | 22.679 | ug/L | 0.051 | 0 | 2402 | 271606 | 0 |
| \| | V-1 | 51 | 22.912 | ug/L | 0.121 | 0 | 8286 | 284043 | 0 |
| \| | Cr | 52 | 22.527 | ug/L | 0.046 | 0 | 7360 | 239481 | 0 |
| \| | Cr | 53 | 23.269 | ug/L | 0.244 | 1 | 2713 | 31038 | 0 |
| \| | Mn | 55 | 692.189 | ug/L | 1.887 | 0 | 1178 | 12035592 | 0 |
| ⌊ | Co | 59 | 23.370 | ug/L | 0.075 | 0 | 123 | 308990 | 0 |
| ⌈> | Ge | 72 | | ug/L | | | 333920 | 329694 | 0 |
| \| | Ni | 60 | 26.915 | ug/L | 0.467 | 1 | 109 | 71719 | 1 |
| \| | Ni | 62 | 25.546 | ug/L | 0.635 | 2 | 54 | 10220 | 2 |
| \| | Cu | 63 | 24.804 | ug/L | 0.469 | 1 | 248 | 147934 | 1 |
| \| | Cu | 65 | 24.825 | ug/L | 0.377 | 1 | 118 | 70881 | 1 |
| \| | Zn | 66 | 104.860 | ug/L | 0.736 | 0 | 695 | 189771 | 1 |
| \| | Zn | 67 | 98.838 | ug/L | 0.201 | 0 | 255 | 29954 | 0 |
| \| | Zn | 68 | 104.963 | ug/L | 1.056 | 1 | 8462 | 141493 | 0 |
| \| | As | 75 | 28.672 | ug/L | 0.595 | 2 | 693 | 53002 | 1 |
| \| | As-1 | 75 | 27.894 | ug/L | 0.614 | 2 | 11505 | 61535 | 1 |
| \| | Se | 82 | 71.235 | ug/L | 0.935 | 1 | -5 | 14490 | 1 |
| \| | Se | 78 | 70.825 | ug/L | 1.095 | 1 | 11713 | 46339 | 0 |
| ⌊ | Mo | 98 | 0.100 | ug/L | 0.001 | 1 | 207 | 878 | 1 |
| | Y | 89 | | ug/L | | | 309412 | 296884 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 407 | 2 |
| ⌈> | In | 115 | | ug/L | | | 365357 | 352740 | 0 |
| \| | Ag | 107 | 23.666 | ug/L | 0.431 | 1 | 101 | 276152 | 1 |
| \| | Cd | 111 | 23.865 | ug/L | 0.282 | 1 | 166 | 68597 | 1 |
| \| | Cd | 114 | 23.784 | ug/L | 0.310 | 1 | 27 | 160525 | 1 |
| \| | Sb | 121 | 0.058 | ug/L | 0.002 | 3 | 240 | 801 | 2 |
| \| | Sb | 123 | 0.061 | ug/L | 0.004 | 7 | 169 | 611 | 5 |
| \| | Ba | 135 | 90.324 | ug/L | 0.886 | 0 | 32 | 220984 | 0 |
| ⌊ | Ba | 137 | 89.871 | ug/L | 0.489 | 0 | 65 | 379827 | 0 |
| ⌈> | Tb | 159 | | ug/L | | | 430587 | 414302 | 0 |
| \| | Tl | 205 | 24.945 | ug/L | 0.376 | 1 | 147 | 699646 | 1 |
| \| | Pb | 208 | 24.772 | ug/L | 0.155 | 0 | 1493 | 954199 | 0 |
| \| | Bi | 209 | | ug/L | | | 345109 | 321783 | 0 |
| \| | Th | 232 | 25.647 | ug/L | 0.516 | 2 | 719 | 1127720 | 1 |
| ⌊ | U | 238 | 25.937 | ug/L | 0.395 | 1 | 97 | 1218136 | 1 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU52 F SWN**
**Sample Dil Factor: 20**
**Comments:**
**Sample Date/Time: Thursday, May 24, 2012 00:44:17**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 433878 | 0 |
| [ | Be | 9 | 0.011 | ug/L | 0.005 | 47 | 3 | 7 | 28 |
| | C | 13 | | mg/L | | | 5654 | 9610 | 2 |
| | Cl | 37 | | mg/L | | | 2331174 | 2741294 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 259228 | 0 |
| [ | V | 51 | 2.783 | ug/L | 0.044 | 1 | 2402 | 34477 | 0 |
| [ | V-1 | 51 | 2.786 | ug/L | 0.028 | 1 | 8286 | 40755 | 0 |
| [ | Cr | 52 | 1.788 | ug/L | 0.015 | 0 | 7360 | 25168 | 0 |
| [ | Cr | 53 | 1.839 | ug/L | 0.047 | 2 | 2713 | 4851 | 1 |
| [ | Mn | 55 | 22.342 | ug/L | 0.167 | 0 | 1178 | 378733 | 1 |
| [ | Co | 59 | 0.689 | ug/L | 0.007 | 1 | 123 | 8976 | 1 |
| [> | Ge | 72 | | ug/L | | | 333920 | 336832 | 1 |
| [ | Ni | 60 | 3.068 | ug/L | 0.069 | 2 | 109 | 8448 | 0 |
| [ | Ni | 62 | 3.744 | ug/L | 0.081 | 2 | 54 | 1576 | 2 |
| [ | Cu | 63 | 22.284 | ug/L | 0.378 | 1 | 248 | 135797 | 0 |
| [ | Cu | 65 | 22.235 | ug/L | 0.259 | 1 | 118 | 64869 | 0 |
| [ | Zn | 66 | 36.856 | ug/L | 0.514 | 1 | 695 | 68596 | 1 |
| [ | Zn | 67 | 33.567 | ug/L | 0.203 | 0 | 255 | 10563 | 1 |
| [ | Zn | 68 | 37.318 | ug/L | 0.733 | 1 | 8462 | 56892 | 1 |
| [ | As | 75 | 4.625 | ug/L | 0.058 | 1 | 693 | 9320 | 0 |
| [ | As-1 | 75 | 4.262 | ug/L | 0.111 | 2 | 11505 | 19436 | 0 |
| [ | Se | 82 | 0.098 | ug/L | 0.039 | 40 | -5 | 14 | 54 |
| [ | Se | 78 | -1.298 | ug/L | 0.250 | 19 | 11713 | 11163 | 0 |
| [ | Mo | 98 | 1.429 | ug/L | 0.035 | 2 | 207 | 10026 | 1 |
| | Y | 89 | | ug/L | | | 309412 | 314362 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 412 | 4 |
| [> | In | 115 | | ug/L | | | 365357 | 361238 | 0 |
| [ | Ag | 107 | 0.052 | ug/L | 0.002 | 4 | 101 | 725 | 3 |
| [ | Cd | 111 | 0.233 | ug/L | 0.015 | 6 | 166 | 848 | 5 |
| [ | Cd | 114 | 0.203 | ug/L | 0.006 | 2 | 27 | 1430 | 2 |
| [ | Sb | 121 | 0.233 | ug/L | 0.003 | 1 | 240 | 2567 | 1 |
| [ | Sb | 123 | 0.237 | ug/L | 0.003 | 1 | 169 | 1943 | 0 |
| [ | Ba | 135 | 2.309 | ug/L | 0.053 | 2 | 32 | 5816 | 2 |
| [ | Ba | 137 | 2.304 | ug/L | 0.025 | 1 | 65 | 10034 | 0 |
| [> | Tb | 159 | | ug/L | | | 430587 | 425579 | 0 |
| [ | Tl | 205 | 0.012 | ug/L | 0.000 | 2 | 147 | 492 | 2 |
| [ | Pb | 208 | 19.436 | ug/L | 0.059 | 0 | 1493 | 769370 | 0 |
| [ | Bi | 209 | | ug/L | | | 345109 | 342910 | 0 |
| [ | Th | 232 | 0.064 | ug/L | 0.006 | 9 | 719 | 3617 | 7 |
| [ | U | 238 | 0.696 | ug/L | 0.014 | 2 | 97 | 33677 | 2 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU52 G SWN**
**Sample Dil Factor: 20**
**Comments:**
**Sample Date/Time: Thursday, May 24, 2012 00:50:36**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | | ug/L | | | 477870 | 435645 | 1 |
| [ | Be | 9 | 0.015 | | ug/L | 0.003 | 21 | 3 | 9 | 15 |
| | C | 13 | | | mg/L | | | 5654 | 10534 | 2 |
| | Cl | 37 | | | mg/L | | | 2331174 | 2734279 | 0 |
| [> | Sc | 45 | | | ug/L | | | 262568 | 263547 | 1 |
| [ | V | 51 | 4.564 | | ug/L | 0.070 | 1 | 2402 | 55929 | 0 |
| [ | V-1 | 51 | 4.518 | | ug/L | 0.101 | 2 | 8286 | 62010 | 0 |
| [ | Cr | 52 | 1.805 | | ug/L | 0.008 | 0 | 7360 | 25757 | 2 |
| [ | Cr | 53 | 1.776 | | ug/L | 0.100 | 5 | 2713 | 4855 | 1 |
| [ | Mn | 55 | 9.390 | | ug/L | 0.152 | 1 | 1178 | 162488 | 0 |
| [ | Co | 59 | 0.396 | | ug/L | 0.001 | 0 | 123 | 5291 | 1 |
| [> | Ge | 72 | | | ug/L | | | 333920 | 339778 | 0 |
| [ | Ni | 60 | 3.168 | | ug/L | 0.041 | 1 | 109 | 8799 | 1 |
| [ | Ni | 62 | 3.607 | | ug/L | 0.272 | 7 | 54 | 1534 | 7 |
| [ | Cu | 63 | 10.549 | | ug/L | 0.054 | 0 | 248 | 64991 | 0 |
| [ | Cu | 65 | 10.604 | | ug/L | 0.041 | 0 | 118 | 31272 | 0 |
| [ | Zn | 66 | 26.903 | | ug/L | 0.307 | 1 | 695 | 50702 | 0 |
| [ | Zn | 67 | 24.623 | | ug/L | 0.105 | 0 | 255 | 7886 | 0 |
| [ | Zn | 68 | 26.938 | | ug/L | 0.136 | 0 | 8462 | 43826 | 0 |
| [ | As | 75 | 8.094 | | ug/L | 0.038 | 0 | 693 | 15928 | 0 |
| [ | As-1 | 75 | 7.829 | | ug/L | 0.047 | 0 | 11505 | 26222 | 0 |
| [ | Se | 82 | 0.152 | | ug/L | 0.087 | 57 | -5 | 26 | 69 |
| [ | Se | 78 | -1.091 | | ug/L | 0.177 | 16 | 11713 | 11367 | 0 |
| [ | Mo | 98 | 2.494 | | ug/L | 0.050 | 1 | 207 | 17496 | 1 |
| | Y | 89 | | | ug/L | | | 309412 | 321544 | 0 |
| | Kr | 83 | | | ug/L | | | 376 | 411 | 3 |
| [> | In | 115 | | | ug/L | | | 365357 | 367332 | 0 |
| [ | Ag | 107 | J | 0.099 | ug/L | 0.008 | 7 | 101 | 1306 | 7 |
| [ | Cd | 111 | | 0.338 | ug/L | 0.016 | 4 | 166 | 1176 | 4 |
| [ | Cd | 114 | | 0.306 | ug/L | 0.010 | 3 | 27 | 2175 | 2 |
| [ | Sb | 121 | | 0.466 | ug/L | 0.008 | 1 | 240 | 4973 | 0 |
| [ | Sb | 123 | | 0.478 | ug/L | 0.011 | 2 | 169 | 3816 | 2 |
| [ | Ba | 135 | | 4.673 | ug/L | 0.033 | 0 | 32 | 11935 | 0 |
| [ | Ba | 137 | | 4.678 | ug/L | 0.070 | 1 | 65 | 20650 | 0 |
| [> | Tb | 159 | | | ug/L | | | 430587 | 424425 | 0 |
| [ | Tl | 205 | 0.017 | | ug/L | 0.001 | 5 | 147 | 639 | 3 |
| [ | Pb | 208 | 52.310 | | ug/L | 0.566 | 1 | 1493 | 2062500 | 0 |
| [ | Bi | 209 | | | ug/L | | | 345109 | 344476 | 0 |
| [ | Th | 232 | 0.070 | | ug/L | 0.002 | 3 | 719 | 3880 | 2 |
| [ | U | 238 | 0.972 | | ug/L | 0.012 | 1 | 97 | 46872 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU52 H SWN**
**Sample Dil Factor: 20**
**Comments:**
**Sample Date/Time: Thursday, May 24, 2012 00:56:55**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | | ug/L | | | 477870 | 441311 | 1 |
| [ | Be | 9 | | 0.035 | ug/L | 0.003 | 7 | 3 | 17 | 7 |
| | C | 13 | | | mg/L | | | 5654 | 9411 | 1 |
| | Cl | 37 | | | mg/L | | | 2331174 | 2729203 | 0 |
| [> | Sc | 45 | | | ug/L | | | 262568 | 271710 | 0 |
| [ | V | 51 | | 6.917 | ug/L | 0.095 | 1 | 2402 | 86121 | 0 |
| [ | V-1 | 51 | | 6.876 | ug/L | 0.103 | 1 | 8286 | 92839 | 0 |
| [ | Cr | 52 | | 6.132 | ug/L | 0.100 | 1 | 7360 | 71955 | 0 |
| [ | Cr | 53 | | 6.034 | ug/L | 0.129 | 2 | 2713 | 10279 | 0 |
| [ | Mn | 55 | | 50.131 | ug/L | 0.736 | 1 | 1178 | 889118 | 0 |
| [ | Co | 59 | | 1.369 | ug/L | 0.021 | 1 | 123 | 18565 | 0 |
| [> | Ge | 72 | | | ug/L | | | 333920 | 348982 | 0 |
| [ | Ni | 60 | | 7.250 | ug/L | 0.044 | 0 | 109 | 20533 | 0 |
| [ | Ni | 62 | | 8.785 | ug/L | 0.272 | 3 | 54 | 3757 | 3 |
| [ | Cu | 63 | | 17.415 | ug/L | 0.223 | 1 | 248 | 110028 | 1 |
| [ | Cu | 65 | | 17.463 | ug/L | 0.090 | 0 | 118 | 52818 | 0 |
| [ | Zn | 66 | | 94.248 | ug/L | 0.071 | 0 | 695 | 180615 | 0 |
| [ | Zn | 67 | | 85.958 | ug/L | 0.872 | 1 | 255 | 27609 | 0 |
| [ | Zn | 68 | | 93.444 | ug/L | 0.455 | 0 | 8462 | 134312 | 0 |
| [ | As | 75 | | 4.708 | ug/L | 0.063 | 1 | 693 | 9817 | 1 |
| [ | As-1 | 75 | | 4.259 | ug/L | 0.118 | 2 | 11505 | 20133 | 0 |
| [ | Se | 82 | | 0.130 | ug/L | 0.019 | 14 | -5 | 22 | 18 |
| [ | Se | 78 | | -1.570 | ug/L | 0.305 | 19 | 11713 | 11425 | 0 |
| [ | Mo | 98 | | 1.410 | ug/L | 0.022 | 1 | 207 | 10253 | 1 |
| | Y | 89 | | | ug/L | | | 309412 | 338603 | 1 |
| | Kr | 83 | | | ug/L | | | 376 | 430 | 1 |
| [> | In | 115 | | | ug/L | | | 365357 | 367050 | 0 |
| [ | Ag | 107 | U | 0.087 | ug/L | 0.004 | 4 | 101 | 1159 | 4 |
| [ | Cd | 111 | | 0.621 | ug/L | 0.023 | 3 | 166 | 2019 | 3 |
| [ | Cd | 114 | | 0.562 | ug/L | 0.003 | 0 | 27 | 3973 | 0 |
| [ | Sb | 121 | J | 0.034 | ug/L | 0.003 | 7 | 240 | 589 | 4 |
| [ | Sb | 123 | | 0.033 | ug/L | 0.003 | 7 | 169 | 425 | 4 |
| [ | Ba | 135 | | 6.188 | ug/L | 0.014 | 0 | 32 | 15784 | 0 |
| [ | Ba | 137 | | 6.211 | ug/L | 0.079 | 1 | 65 | 27377 | 1 |
| [> | Tb | 159 | | | ug/L | | | 430587 | 429536 | 2 |
| [ | Tl | 205 | | 0.025 | ug/L | 0.001 | 3 | 147 | 874 | 1 |
| [ | Pb | 208 | | 49.207 | ug/L | 1.234 | 2 | 1493 | 1963039 | 0 |
| [ | Bi | 209 | | | ug/L | | | 345109 | 344544 | 0 |
| [ | Th | 232 | | 0.219 | ug/L | 0.002 | 0 | 719 | 10675 | 1 |
| [ | U | 238 | | 0.632 | ug/L | 0.016 | 2 | 97 | 30864 | 1 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU52 I SWN**
**Sample Dil Factor: 20**
**Comments:**
**Sample Date/Time: Thursday, May 24, 2012 01:03:11**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 440119 | 0 |
| [ | Be | 9 | 0.049 | ug/L | 0.015 | 31 | 3 | 22 | 26 |
| | C | 13 | | mg/L | | | 5654 | 9874 | 0 |
| | Cl | 37 | | mg/L | | | 2331174 | 2721081 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 266339 | 0 |
| \| | V | 51 | 6.921 | ug/L | 0.080 | 1 | 2402 | 84473 | 1 |
| \| | V-1 | 51 | 6.886 | ug/L | 0.056 | 0 | 8286 | 91138 | 1 |
| \| | Cr | 52 | 5.700 | ug/L | 0.018 | 0 | 7360 | 66095 | 0 |
| \| | Cr | 53 | 5.642 | ug/L | 0.153 | 2 | 2713 | 9600 | 1 |
| \| | Mn | 55 | 35.690 | ug/L | 0.533 | 1 | 1178 | 620840 | 0 |
| [ | Co | 59 | 1.115 | ug/L | 0.012 | 1 | 123 | 14846 | 0 |
| [> | Ge | 72 | | ug/L | | | 333920 | 346076 | 1 |
| \| | Ni | 60 | 5.830 | ug/L | 0.170 | 2 | 109 | 16395 | 2 |
| \| | Ni | 62 | 7.117 | ug/L | 0.103 | 1 | 54 | 3029 | 1 |
| \| | Cu | 63 | 15.818 | ug/L | 0.380 | 2 | 248 | 99114 | 1 |
| \| | Cu | 65 | 16.010 | ug/L | 0.172 | 1 | 118 | 48025 | 0 |
| \| | Zn | 66 | 48.128 | ug/L | 0.562 | 1 | 695 | 91815 | 1 |
| \| | Zn | 67 | 44.091 | ug/L | 0.149 | 0 | 255 | 14173 | 0 |
| \| | Zn | 68 | 47.803 | ug/L | 0.275 | 0 | 8462 | 72420 | 1 |
| \| | As | 75 | 3.112 | ug/L | 0.025 | 0 | 693 | 6679 | 1 |
| \| | As-1 | 75 | 2.748 | ug/L | 0.070 | 2 | 11505 | 17112 | 0 |
| \| | Se | 82 | 0.053 | ug/L | 0.082 | 156 | -5 | 5 | 310 |
| \| | Se | 78 | -1.194 | ug/L | 0.249 | 20 | 11713 | 11524 | 0 |
| [ | Mo | 98 | 1.801 | ug/L | 0.025 | 1 | 207 | 12926 | 1 |
| | Y | 89 | | ug/L | | | 309412 | 330458 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 439 | 3 |
| [> | In | 115 | | ug/L | | | 365357 | 361180 | 1 |
| \| | Ag | 107 | U 0.072 | ug/L | 0.002 | 2 | 101 | 954 | 0 |
| \| | Cd | 111 | 0.352 | ug/L | 0.021 | 6 | 166 | 1199 | 4 |
| \| | Cd | 114 | 0.302 | ug/L | 0.016 | 5 | 27 | 2111 | 4 |
| \| | Sb | 121 | U 0.035 | ug/L | 0.004 | 11 | 240 | 591 | 7 |
| \| | Sb | 123 | 0.040 | ug/L | 0.003 | 7 | 169 | 466 | 4 |
| \| | Ba | 135 | 6.220 | ug/L | 0.070 | 1 | 32 | 15609 | 0 |
| [ | Ba | 137 | 6.082 | ug/L | 0.050 | 0 | 65 | 26380 | 1 |
| [> | Tb | 159 | | ug/L | | | 430587 | 423101 | 0 |
| \| | Tl | 205 | 0.021 | ug/L | 0.001 | 3 | 147 | 748 | 3 |
| \| | Pb | 208 | 28.096 | ug/L | 0.075 | 0 | 1493 | 1105084 | 0 |
| \| | Bi | 209 | | ug/L | | | 345109 | 338871 | 1 |
| \| | Th | 232 | 0.186 | ug/L | 0.002 | 1 | 719 | 9073 | 0 |
| [ | U | 238 | 1.041 | ug/L | 0.017 | 1 | 97 | 50030 | 1 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: UU52 J SWN**
**Sample Dil Factor: 20**
**Comments:**
**Sample Date/Time: Thursday, May 24, 2012 01:09:28**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 439636 | 0 |
| [ | Be | 9 | 0.019 | ug/L | 0.004 | 19 | 3 | 10 | 13 |
| | C | 13 | | mg/L | | | 5654 | 9009 | 0 |
| | Cl | 37 | | mg/L | | | 2331174 | 2738165 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 268691 | 0 |
| [ | V | 51 | 4.369 | ug/L | 0.046 | 1 | 2402 | 54695 | 1 |
| [ | V-1 | 51 | 4.300 | ug/L | 0.026 | 0 | 8286 | 60600 | 0 |
| [ | Cr | 52 | 4.328 | ug/L | 0.061 | 1 | 7360 | 52444 | 1 |
| [ | Cr | 53 | 4.115 | ug/L | 0.155 | 3 | 2713 | 7814 | 1 |
| [ | Mn | 55 | 27.476 | ug/L | 0.473 | 1 | 1178 | 482432 | 1 |
| [ | Co | 59 | 0.918 | ug/L | 0.018 | 1 | 123 | 12353 | 1 |
| [> | Ge | 72 | | ug/L | | | 333920 | 346876 | 0 |
| [ | Ni | 60 | 4.135 | ug/L | 0.055 | 1 | 109 | 11689 | 0 |
| [ | Ni | 62 | 4.927 | ug/L | 0.137 | 2 | 54 | 2119 | 2 |
| [ | Cu | 63 | 6.770 | ug/L | 0.063 | 0 | 248 | 42670 | 1 |
| [ | Cu | 65 | 6.979 | ug/L | 0.090 | 1 | 118 | 21052 | 0 |
| [ | Zn | 66 | 16.782 | ug/L | 0.266 | 1 | 695 | 32558 | 1 |
| [ | Zn | 67 | 15.685 | ug/L | 0.504 | 3 | 255 | 5224 | 2 |
| [ | Zn | 68 | 16.852 | ug/L | 0.341 | 2 | 8462 | 31282 | 1 |
| [ | As | 75 | 0.890 | ug/L | 0.056 | 6 | 693 | 2427 | 4 |
| [ | As-1 | 75 | 0.537 | ug/L | 0.052 | 9 | 11505 | 12968 | 0 |
| [ | Se | 82 | 0.005 | ug/L | 0.130 | 2852 | -5 | -4 | 589 |
| [ | Se | 78 | -1.125 | ug/L | 0.085 | 7 | 11713 | 11586 | 0 |
| [ | Mo | 98 | 0.984 | ug/L | 0.016 | 1 | 207 | 7177 | 1 |
| | Y | 89 | | ug/L | | | 309412 | 329695 | 1 |
| | Kr | 83 | | ug/L | | | 376 | 432 | 1 |
| [> | In | 115 | | ug/L | | | 365357 | 366365 | 0 |
| [ | Ag | 107 | U 0.039 | ug/L | 0.003 | 6 | 101 | 573 | 6 |
| [ | Cd | 111 | 0.217 | ug/L | 0.006 | 2 | 166 | 814 | 1 |
| [ | Cd | 114 | 0.180 | ug/L | 0.002 | 1 | 27 | 1289 | 1 |
| [ | Sb | 121 | J -0.010 | ug/L | 0.001 | 9 | 240 | 135 | 7 |
| [ | Sb | 123 | -0.011 | ug/L | 0.001 | 8 | 169 | 86 | 7 |
| [ | Ba | 135 | 4.724 | ug/L | 0.044 | 0 | 32 | 12033 | 1 |
| [ | Ba | 137 | 4.647 | ug/L | 0.077 | 1 | 65 | 20462 | 1 |
| [> | Tb | 159 | | ug/L | | | 430587 | 421537 | 0 |
| [ | Tl | 205 | 0.021 | ug/L | 0.001 | 4 | 147 | 746 | 4 |
| [ | Pb | 208 | 6.064 | ug/L | 0.085 | 1 | 1493 | 238744 | 0 |
| [ | Bi | 209 | | ug/L | | | 345109 | 338576 | 0 |
| [ | Th | 232 | 0.157 | ug/L | 0.002 | 1 | 719 | 7722 | 0 |
| [ | U | 238 | 0.476 | ug/L | 0.003 | 0 | 97 | 22851 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: CCV8**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Thursday, May 24, 2012 01:15:45**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 415800 | 0 |
| [ | Be | 9 | 53.273 | ug/L | 0.871 | 1 | 3 | 20528 | 0 |
| | C | 13 | | mg/L | | | 5654 | 5157 | 1 |
| | Cl | 37 | | mg/L | | | 2331174 | 2695359 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 249883 | 0 |
| [ | V | 51 | 48.923 | ug/L | 0.269 | 0 | 2402 | 546317 | 0 |
| [ | V-1 | 51 | 49.155 | ug/L | 0.127 | 0 | 8286 | 561947 | 0 |
| [ | Cr | 52 | 48.948 | ug/L | 0.611 | 1 | 7360 | 479339 | 1 |
| [ | Cr | 53 | 49.682 | ug/L | 0.418 | 0 | 2713 | 59163 | 0 |
| [ | Mn | 55 | 48.556 | ug/L | 0.362 | 0 | 1178 | 792086 | 0 |
| [ | Co | 59 | 49.907 | ug/L | 0.118 | 0 | 123 | 618131 | 0 |
| [> | Ge | 72 | | ug/L | | | 333920 | 329368 | 1 |
| [ | Ni | 60 | 49.815 | ug/L | 0.850 | 1 | 109 | 132511 | 0 |
| [ | Ni | 62 | 50.007 | ug/L | 1.091 | 2 | 54 | 19934 | 1 |
| [ | Cu | 63 | 50.344 | ug/L | 0.391 | 0 | 248 | 299730 | 1 |
| [ | Cu | 65 | 50.794 | ug/L | 1.168 | 2 | 118 | 144743 | 1 |
| [ | Zn | 66 | 52.366 | ug/L | 0.277 | 0 | 695 | 95020 | 1 |
| [ | Zn | 67 | 52.700 | ug/L | 0.772 | 1 | 255 | 16072 | 0 |
| [ | Zn | 68 | 53.460 | ug/L | 1.164 | 2 | 8462 | 76083 | 0 |
| [ | As | 75 | 50.862 | ug/L | 0.723 | 1 | 693 | 93399 | 0 |
| [ | As-1 | 75 | 50.719 | ug/L | 0.560 | 1 | 11505 | 102493 | 0 |
| [ | Se | 82 | 48.970 | ug/L | 1.255 | 2 | -5 | 9948 | 1 |
| [ | Se | 78 | 48.646 | ug/L | 0.636 | 1 | 11713 | 35414 | 0 |
| [ | Mo | 98 | 49.296 | ug/L | 0.891 | 1 | 207 | 331291 | 0 |
| | Y | 89 | | ug/L | | | 309412 | 294064 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 428 | 2 |
| [> | In | 115 | | ug/L | | | 365357 | 346114 | 1 |
| [ | Ag | 107 | 50.567 | ug/L | 1.159 | 2 | 101 | 578776 | 1 |
| [ | Cd | 111 | 50.164 | ug/L | 0.565 | 1 | 166 | 141301 | 0 |
| [ | Cd | 114 | 49.789 | ug/L | 1.132 | 2 | 27 | 329648 | 1 |
| [ | Sb | 121 | 49.822 | ug/L | 0.132 | 0 | 240 | 477294 | 1 |
| [ | Sb | 123 | 49.674 | ug/L | 0.551 | 1 | 169 | 357280 | 0 |
| [ | Ba | 135 | 48.630 | ug/L | 0.406 | 0 | 32 | 116752 | 0 |
| [ | Ba | 137 | 48.514 | ug/L | 0.955 | 1 | 65 | 201196 | 1 |
| [> | Tb | 159 | | ug/L | | | 430587 | 404229 | 0 |
| [ | Tl | 205 | 51.291 | ug/L | 0.415 | 0 | 147 | 1403600 | 1 |
| [ | Pb | 208 | 51.087 | ug/L | 0.223 | 0 | 1493 | 1918553 | 0 |
| [ | Bi | 209 | | ug/L | | | 345109 | 319139 | 0 |
| [ | Th | 232 | 52.897 | ug/L | 0.541 | 1 | 719 | 2268867 | 0 |
| [ | U | 238 | 51.783 | ug/L | 0.463 | 0 | 97 | 2372919 | 0 |

# ICP-MS Quantitative Analysis - Summary Report

**Sample ID: CCB8**
**Sample Dil Factor:**
**Comments:**
**Sample Date/Time: Thursday, May 24, 2012 01:22:24**
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\052312B.cal

| | Analyte | Mass | Conc. Mean | Units | Conc. SD | Conc. RSD | Blank Intens. | Meas. Intens. | Intens. RSD |
|---|---|---|---|---|---|---|---|---|---|
| [> | Li | 6 | | ug/L | | | 477870 | 407996 | 0 |
| [ | Be | 9 | -0.002 | ug/L | 0.004 | 193 | 3 | 2 | 69 |
| | C | 13 | | mg/L | | | 5654 | 5141 | 2 |
| | Cl | 37 | | mg/L | | | 2331174 | 2735401 | 0 |
| [> | Sc | 45 | | ug/L | | | 262568 | 245522 | 0 |
| \| | V | 51 | -0.021 | ug/L | 0.011 | 50 | 2402 | 2014 | 5 |
| \| | V-1 | 51 | -0.045 | ug/L | 0.011 | 23 | 8286 | 7255 | 2 |
| \| | Cr | 52 | -0.007 | ug/L | 0.014 | 207 | 7360 | 6815 | 1 |
| \| | Cr | 53 | -0.081 | ug/L | 0.055 | 67 | 2713 | 2446 | 3 |
| \| | Mn | 55 | -0.010 | ug/L | 0.003 | 31 | 1178 | 935 | 6 |
| [ | Co | 59 | 0.019 | ug/L | 0.003 | 15 | 123 | 350 | 10 |
| [> | Ge | 72 | | ug/L | | | 333920 | 329382 | 0 |
| \| | Ni | 60 | -0.006 | ug/L | 0.003 | 46 | 109 | 90 | 8 |
| \| | Ni | 62 | 0.048 | ug/L | 0.027 | 56 | 54 | 72 | 14 |
| \| | Cu | 63 | 0.014 | ug/L | 0.002 | 17 | 248 | 327 | 4 |
| \| | Cu | 65 | 0.023 | ug/L | 0.008 | 35 | 118 | 183 | 12 |
| \| | Zn | 66 | 0.337 | ug/L | 0.018 | 5 | 695 | 1294 | 2 |
| \| | Zn | 67 | 0.318 | ug/L | 0.091 | 28 | 255 | 347 | 7 |
| \| | Zn | 68 | 0.760 | ug/L | 0.181 | 23 | 8462 | 9310 | 2 |
| \| | As | 75 | 0.077 | ug/L | 0.024 | 31 | 693 | 824 | 5 |
| \| | As-1 | 75 | -0.072 | ug/L | 0.028 | 38 | 11505 | 11220 | 0 |
| \| | Se | 82 | -0.046 | ug/L | 0.052 | 112 | -5 | -14 | 71 |
| \| | Se | 78 | -0.323 | ug/L | 0.151 | 46 | 11713 | 11395 | 0 |
| [ | Mo | 98 | -0.017 | ug/L | 0.004 | 21 | 207 | 91 | 27 |
| | Y | 89 | | ug/L | | | 309412 | 289804 | 0 |
| | Kr | 83 | | ug/L | | | 376 | 423 | 3 |
| [> | In | 115 | | ug/L | | | 365357 | 339102 | 0 |
| \| | Ag | 107 | 0.001 | ug/L | 0.002 | 287 | 101 | 102 | 24 |
| \| | Cd | 111 | 0.017 | ug/L | 0.003 | 17 | 166 | 201 | 3 |
| \| | Cd | 114 | 0.001 | ug/L | 0.000 | 61 | 27 | 30 | 10 |
| \| | Sb | 121 | 0.029 | ug/L | 0.015 | 50 | 240 | 496 | 27 |
| \| | Sb | 123 | 0.031 | ug/L | 0.010 | 33 | 169 | 378 | 19 |
| \| | Ba | 135 | 0.013 | ug/L | 0.002 | 14 | 32 | 59 | 7 |
| [ | Ba | 137 | 0.007 | ug/L | 0.002 | 32 | 65 | 88 | 11 |
| [> | Tb | 159 | | ug/L | | | 430587 | 393951 | 0 |
| \| | Tl | 205 | 0.001 | ug/L | 0.001 | 66 | 147 | 173 | 14 |
| \| | Pb | 208 | 0.061 | ug/L | 0.004 | 6 | 1493 | 3606 | 4 |
| \| | Bi | 209 | | ug/L | | | 345109 | 319967 | 0 |
| \| | Th | 232 | 0.022 | ug/L | 0.009 | 39 | 719 | 1571 | 22 |
| [ | U | 238 | 0.002 | ug/L | 0.001 | 73 | 97 | 175 | 36 |

end package

# Mercury Analysis Log

Analyst: DM

Date: 5-21-12

Instrument: CETAC

Page: 2 of 4

| ARI Sample ID | Prep Code | Dilution | QC Data (ppb) | Comments | |
|---|---|---|---|---|---|
| CCV | TWM | 1X | 4.15 | %R=104 | ✓ |
| CCB | TWM | 1X | -0.01 | | ✓ |
| UU31 A | TWM | 1X | 0.00 | | |
| UU31 AOUP | TWM | 1X | 0.00 | ND RPD: Undetected | ✓ |
| UU31 ASPK | TWM | 1X | 1.10 | %R=110 | ✓ |
| CCV | TWM | 1X | 4.18 | %R=105 | ✓ |
| CCB | TWM | 1X | -0.00 | | ✓ |
| STD 0.0 | SMM | 1X | | | |
| STD 0.1 | SMM | 1X | | | |
| STD 0.5 | SMM | 1X | | | |
| STD 1.0 | SMM | 1X | | | |
| STD 2.0 | SMM | 1X | | | |
| STD 5.0 | SMM | 1X | | | |
| STD 10.0 | SMM | 1X | | | |
| ICV | SMM | 1X | 8.26 | Rzgin CLP %R=103 | ✓ |
| ICB | SMM | 1X | -0.03 | | ✓ |
| CCV1 | SMM | 1X | 4.18 | %R=105 | ✓ |
| CCB1 | SMM | 1X | -0.02 | | ✓ |
| CRA | SMM | 1X | 0.11 | | ✓ |
| UU52 MB1 | SMM | 1X | -0.00 | | ✓ |
| UU52 MB1SPK | SMM | 1X | 2.11 | %R=101 | ✓ |
| UU52 A | SMM | 1X | | | |
| UU52 B | SMM | 1X | | | |
| UU52 C | SMM | 1X | 0.19 | | |
| UU52 COUP | SMM | 1X | 0.19 | | ✓ |
| UU52 CSPK | SMM | 1X | 1.28 | %R=109 | ✓ |
| UU52 D | SMM | 1X | | | |
| UU52 E | SMM | 1X | | | |
| CCV2 | SMM | 1X | 4.21 | %R=105 | ✓ |
| CCB2 | SMM | 1X | -0.01 | | ✓ |

Chemical/Reagent ID:

10% $SnCl_2$: MP2301

14% $NH_2OH$/NaCl: MP2289

Standard ID:

Standard: 2936-9 (TWM)

2936-8 (SMM)

ICV/CCV: 56-8



UU52:02167

# Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 5-21-12

Page: 3 of 4

| ARI Sample ID | Prep Code | Dilution | QC Data (ppb) | Comments | |
|---|---|---|---|---|---|
| UU52 F | 5mm | 1x | | | |
| UU52 G | 5mm | 1x | | | |
| UU52 H | 5mm | 1x | | | |
| UU52 I | 5mm | 1x | | | |
| UU52 J | 5mm | 1x | | | |
| UU77 MB1 | 5mm | 1x | 0.00 | | ✓ |
| UU77 MB1SPK | 5mm | 1x | 2.05 | %R=103 | ✓ |
| UU77 A | 5mm | 1x | | | |
| UU77 B | 5mm | 1x | 0.45 | | |
| UU77 BDUP | 5mm | 1x | 0.68 | DIFF > 0.1 | x |
| CCV3 | 5mm | 1x | 4.19 | %R=105 | ✓ |
| CCB3 | 5mm | 1x | -0.01 | | ✓ |
| UU77 BSPK | 5mm | 1x | 1.46 | %R=101 | ✓ |
| UU77 C | 5mm | 1x | | | |
| UU77 D | 5mm | 1x | | | |
| UU77 E | 5mm | 1x | | | |
| CCV4 | 5mm | 1x | 4.20 | %R=105 | ✓ |
| CCB4 | 5mm | 1x | -0.01 | END CLP | ✓ |
| UU69 MB | 5mm | 1x | -0.00 | | ✓ |
| UU69 MBSPK | 5mm | 1x | 2.15 | %R=108 | ✓ |
| UU69 A | 5mm | 1x | | | |
| UU03 MB3 | 5mm | 1x | -0.00 | | ✓ |
| UU03 MB3SPK | 5mm | 1x | 2.18 | %R=109 | ✓ |
| UU03 K | 5mm | 1x | | | |
| CCV | 5mm | 1x | 4.24 | %R=106 | ✓ |
| CCB | 5mm | 1x | -0.01 | | ✓ |
| CCV | 5mm | 1x | 4.24 | %R=106 | ✓ |
| CCB | 5mm | 1x | -0.01 | | ✓ |
| UU77 B | 5mm | 1x | 0.45 | | |
| UU77 BDUP | 5mm | 1x | 0.70 | DIFF > 0.1 | x |

Chemical/Reagent ID:

10% $SnCl_2$: MP2301

14% $NH_2OH$/NaCl: MP2289

Standard ID:

Standard: 2936-8

ICV/CCV: 56-18

ANALYTICAL RESOURCES INCORPORATED

# Metals Data Review Checklist

**Method:** ICP ICP-MS GFA (CVA)  **Analysis Date:** 5-21-12

| | Analyst 5-21 am | Peer 5.21.12 | Comment |
|---|---|---|---|
| **Logbook:** | | | |
| Analyst, Date, Method info | ✓ | ✓ | |
| Sample ID's | ✓ | ✓ | |
| Standard/QC solution ID's recorded | ✓ | ✓ | |
| Prep codes | ✓ | ✓ | |
| Dilution factors | ✓ | ✓ | |
| Crossouts/Corrections/Deletions | ✓ | ✓ | |
| **Calibration:** | | | |
| Blank & Standard intensities | ✓ | ✓ | |
| Standard deviations | ✓ | ✓ | |
| Curve fit | ✓ | ✓ | |
| **Calibration Verification:** | | | |
| ICV/CCV | ✓ | ✓ | |
| ICB/CCB | ✓ | ✓ | |
| **Samples:** | | | |
| RSD's & SD's | ✓ | ✓ | |
| Internal Standards | – | – | |
| Carry-over | – | – | |
| **Method QC:** | | | |
| CRI/CRA | ✓ | ✓ | |
| ICSA/ICSAB | – | – | |
| Post Spikes/Serial Dilutions | – | – | |
| Analytic Spikes | – | – | |
| **Matrix QC:** | | | |
| SRM/LCS | ✓ | ✓ | |
| Matrix Spikes | ✓ | ✓ | |
| Matrix Duplicates | ✓ | ✓ | W77 BAVP 0.ff70.1 |
| Method Blanks | ✓ | ✓ | |
| **Data Distribution:** | | | |
| Requested elements/isotope identified | ✓ | ✓ | |
| Correct samples identified for distribution | ✓ | ✓ | |
| Raw data match distributed data | ✓ | ✓ | |
| Data filename correct | ✓ | ✓ | |
| **Necessary Analysts Notes and CAF's** | ✓ | ✓ | See CAF |

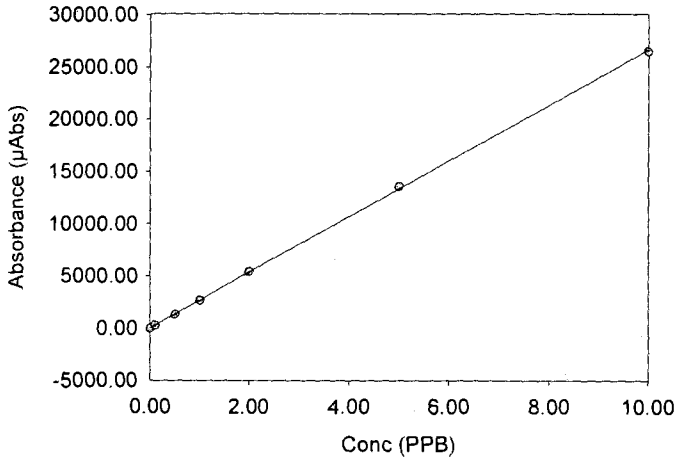
**Analyst**
**Date Started** Monday, May 21, 2012, 14:16:29
**Worksheet** ARI 10ppb CALIB
**Comment**

JMB 5/22/12

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| Calibration Zero | 21-May-2012, 14:16 | 0.00 | 6.14 | -14.40 | 1.00 | |
| Standard #1 | 21-May-2012, 14:18 | 0.10 | 0.92 | 267.00 | 1.00 | |
| Standard #2 | 21-May-2012, 14:19 | 0.50 | 0.22 | 1320.00 | 1.00 | |
| Standard #3 | 21-May-2012, 14:21 | 1.00 | 0.30 | 2660.00 | 1.00 | |
| Standard #4 | 21-May-2012, 14:22 | 2.00 | 0.32 | 5410.00 | 1.00 | |
| Standard #5 | 21-May-2012, 14:24 | 5.00 | 0.32 | 13600.00 | 1.00 | |
| Standard #6 | 21-May-2012, 14:26 | 10.00 | 0.46 | 26500.00 | 1.00 | |

SMM

Calibration Data




| | |
|---|---|
| Int. | 0.000 |
| Slope | 2664.996 |
| Correlation | 0.99992 |

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| ICV | 21-May-2012, 14:29 | 8.26 | 0.34 | 22000.00 | 1.00 | |
| ICB | 21-May-2012, 14:30 | -0.03 | 1.14 | -74.30 | 1.00 | |

BCL in CLP

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| QC Standard | 21-May-2012, 14:32 | 4.18 | 0.38 | 11100.00 | 1.00 | |

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| QC Blank | 21-May-2012, 14:34 | -0.02 | 5.35 | -48.00 | 1.00 | |

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| CRA | 21-May-2012, 14:35 | 0.11 | 0.53 | 283.00 | 1.00 | |
| UU52 MB1 SMM | 21-May-2012, 14:37 | -0.00 | 8.75 | -9.37 | 1.00 | |
| UU52 MB1SPK SMM | 21-May-2012, 14:38 | 2.11 | 0.45 | 5630.00 | 1.00 | |
| UU52 A SMM | 21-May-2012, 14:40 | 0.17 | 0.51 | 448.00 | 1.00 | |
| UU52 B SMM | 21-May-2012, 14:42 | 0.21 | 0.48 | 550.00 | 1.00 | |
| UU52 C SMM | 21-May-2012, 14:43 | 0.19 | 0.74 | 512.00 | 1.00 | |
| UU52 CDUP SMM | 21-May-2012, 14:45 | 0.19 | 0.53 | 516.00 | 1.00 | |
| UU52 CSPK SMM | 21-May-2012, 14:46 | 1.28 | 0.42 | 3410.00 | 1.00 | |
| UU52 D SMM | 21-May-2012, 14:48 | 0.15 | 2.57 | 393.00 | 1.00 | |
| UU52 E SMM | 21-May-2012, 14:50 | 0.13 | 0.56 | 350.00 | 1.00 | |

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| QC Standard | 21-May-2012, 14:51 | 4.21 | 0.53 | 11200.00 | 1.00 | |

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| QC Blank | 21-May-2012, 14:53 | -0.01 | 7.48 | -17.70 | 1.00 | |

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| UU52 F SMM | 21-May-2012, 14:55 | 0.14 | 0.40 | 360.00 | 1.00 | |
| UU52 G SMM | 21-May-2012, 14:56 | 0.31 | 0.42 | 814.00 | 1.00 | |
| UU52 H SMM | 21-May-2012, 14:58 | 0.21 | 0.62 | 546.00 | 1.00 | |
| UU52 I SMM | 21-May-2012, 14:59 | 0.12 | 1.03 | 312.00 | 1.00 | |

**Analyst**
**Date Started** Monday, May 21, 2012, 15:01:35
**Worksheet** ARI 10ppb CALIB
**Comment**

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| UU52 J SMM | 21-May-2012, 15:01 | 0.13 | 0.61 | 334.00 | 1.00 | |
| UU77 MB1 SMM | 21-May-2012, 15:03 | 0.00 | 37.70 | 2.96 | 1.00 | |
| UU77 MB1SPK SMM | 21-May-2012, 15:04 | 2.05 | 0.32 | 5450.00 | 1.00 | |
| UU77 A SMM | 21-May-2012, 15:06 | 0.33 | 0.40 | 885.00 | 1.00 | |
| UU77 B SMM | 21-May-2012, 15:08 | 0.45 | 0.31 | 1200.00 | 1.00 | |
| UU77 BDUP SMM | 21-May-2012, 15:09 | 0.68 | 0.35 | 1820.00 | 1.00 | - D:FF70.1 |

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| QC Standard | 21-May-2012, 15:11 | 4.19 | 0.31 | 11200.00 | 1.00 | |

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| QC Blank | 21-May-2012, 15:13 | -0.01 | 22.10 | -19.70 | 1.00 | |

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| UU77 BSPK SMM | 21-May-2012, 15:14 | 1.46 | 0.31 | 3890.00 | 1.00 | |
| UU77 C SMM | 21-May-2012, 15:16 | 7.02 | 0.25 | 18700.00 | 1.00 | |
| UU77 D SMM | 21-May-2012, 15:17 | 6.09 | 0.33 | 16200.00 | 1.00 | |
| UU77 E SMM | 21-May-2012, 15:19 | 0.46 | 0.50 | 1230.00 | 1.00 | |

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| QC Standard | 21-May-2012, 15:21 | 4.20 | 0.30 | 11200.00 | 1.00 | |

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| QC Blank | 21-May-2012, 15:22 | -0.01 | 5.38 | -26.50 | 1.00 | END CLP |

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| UU69 MB SMM | 21-May-2012, 15:24 | -0.00 | 26.90 | -8.85 | 1.00 | |
| UU69 MBSPK SMM | 21-May-2012, 15:26 | 2.15 | 0.33 | 5730.00 | 1.00 | |
| UU69 A SMM | 21-May-2012, 15:27 | 0.06 | 2.75 | 150.00 | 1.00 | |
| UU03 MB3 SMM | 21-May-2012, 15:29 | -0.00 | 24.60 | -9.91 | 1.00 | |
| UU03 MB3SPK SMM | 21-May-2012, 15:30 | 2.18 | 0.39 | 5810.00 | 1.00 | |
| UU03 K SMM | 21-May-2012, 15:32 | 0.03 | 2.16 | 87.90 | 1.00 | |

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| QC Standard | 21-May-2012, 15:34 | 4.24 | 0.40 | 11300.00 | 1.00 | |

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| QC Blank | 21-May-2012, 15:35 | -0.01 | 6.38 | -32.30 | 1.00 | |

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| QC Standard | 21-May-2012, 15:45 | 4.24 | 0.41 | 11300.00 | 1.00 | |

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| QC Blank | 21-May-2012, 15:47 | -0.01 | 14.30 | -22.90 | 1.00 | |

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| UU77 B SMM | 21-May-2012, 15:49 | 0.45 | 0.11 | 1200.00 | 1.00 | |
| UU77 BDUP SMM | 21-May-2012, 15:50 | 0.70 | 0.45 | 1870.00 | 1.00 | - D:FF70.1 |
| UU77 BSPK SMM | 21-May-2012, 15:52 | 1.47 | 0.38 | 3930.00 | 1.00 | |

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| QC Standard | 21-May-2012, 15:54 | 4.23 | 0.34 | 11300.00 | 1.00 | |

5/21/12

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Mercury Standard Prep Log

Digested 20.0mL

Prep Code: TLM
Analyst: DM
Bath Temp: 95°C
Instrument: CETAC
Date: 5-16-12
Start Time: 1010
End Time: 1210

| Standard ID | Stock ID | Volume Added (mL) | Final Volume (mL) | Standard Conc. (µg/L) | Number Made |
|---|---|---|---|---|---|
| STD0 | — | 0.00 | 100.0 | 0.0 | 1 |
| STD1 | 2936-6 | 0.02 | 100.0 | 0.02 | 1 |
| STD2 | 2936-6 | 0.05 | 100.0 | 0.05 | 1 |
| STD3 | 2936-6 | 0.10 | 100.0 | 0.1 | 1 |
| STD4 | 2936-6 | 0.20 | 100.0 | 0.2 | 1 |
| STD5 | 2936-6 | ~~0.50~~ 0.4 | 100.0 | 0.4 | 1 |
| STD6 | 2936-6 | 1.00 | 100.0 | 1.00 | 1 |
| CRA | 2936-6 | 0.02 | 100.0 | 0.02 | 1 |
| ICB/CCB | — | 0.00 | 100.0 | 0.0 | 1 |
| ICV/LCS | 2936-7 | 1.0 | 100.0 | 0.5 | 1 |
| CCV | 2936-7 | 1.0 | 100.0 | 0.5 | 1 |

Chemical/Reagent ID:

$HNO_3$: I7466
$H_2SO_4$: I7184
HCl: —
5% $K_2S_2O_8$: MP2272
5% $KMnO_4$: MP2273

---

Prep Code: SMM
Analyst: KM
Bath Temp: 95°C
Instrument: CETAC
Date: 5/16/12
Start Time: 1130
End Time: 1200

| Standard ID | Stock ID | Volume Added (mL) | Final Volume (mL) | Standard Conc. (µg/L) | Number Made |
|---|---|---|---|---|---|
| STD0 | —— | 0.00 | 50.0 | 0.0 | 3 |
| STD1 | 2936-8 | 0.01 | 50.0 | 0.1 | 2 |
| STD2 | 2936-8 | 0.05 | 50.0 | 0.5 | 2 |
| STD3 | 2936-8 | 0.10 | 50.0 | 1.0 | 2 |
| STD4 | 2936-8 | 0.20 | 50.0 | 2.0 | 2 |
| STD5 | 2936-8 | 0.50 | 50.0 | 5.0 | 2 |
| STD6 | 2936-8 | 1.00 | 50.0 | 10.0 | 2 |
| CRA | 2936-8 | 0.01 | 50.0 | 0.1 | 1 |
| ICB/CCB | —— | 0.00 | 50.0 | 0.0 | 3 |
| ICV/LCS | 56-18 | 0.08 | 50.0 | 8.0 | 2 |
| CCV | 56-18 | 0.04 | 50.0 | 4.0 | 3 |

Chemical/Reagent ID:

$HNO_3$: I7466
$H_2SO_4$: I7184
HCl: ——
5% $K_2S_2O_8$: MP2272
5% $KMnO_4$: MP2273



UU52:02172

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Mercury Digestion Log

Prep Code: SMM
Analyst: KM
Bath Temp: 95°C
Start Time: 1445
Matrix: Soil
Date: 5/18/12
End Time: 1515

| ARI Sample ID | Sample Bottle # | pH<2 | Initial Weight (g) Volume (mL) | Final Volume (mL) | # $KMnO_4$ Aliquots | CLP | Comments |
|---|---|---|---|---|---|---|---|
| UU52 A | 3 | — | 0.225 | 50.0 | 5/20 1 | Y | |
| UU52 B | 3 | — | 0.269 | 50.0 | 1 | Y | |
| UU52 C | 3 | — | 0.267 | 50.0 | 1 | Y | |
| UU52 D | 3 | — | 0.247 | 50.0 | 1 | Y | |
| UU52 E | 3 | — | 0.270 | 50.0 | 1 | Y | |
| UU52 CDUP | 3 | — | 0.268 | 50.0 | 1 | Y | |
| UU52 CSPK | 3 | — | 0.267 | 50.0 | 1 | Y | |
| UU52 F | 3 | — | 0.216 | 50.0 | 1 | Y | |
| UU52 G | 3 | — | 0.223 | 50.0 | 1 | Y | |
| UU52 H | 3 | — | 0.253 | 50.0 | 1 | Y | |
| UU52 I | 3 | — | 0.234 | 50.0 | 1 | Y | |
| UU52 J | 3 | — | 0.286 | 50.0 | 1 | Y | |
| UU52 MB1 | — | — | — | 50.0 | 1 | Y | |
| UU52 MB1SPK | — | — | — | 50.0 | 1 | Y | |

KM 5/18/12

Chemical/Reagent ID:

$HNO_3$: I7466
$H_2SO_4$: I7184
HCl: —
5% $K_2S_2O_8$: MP2272
5% $KMnO_4$: MP2273
Digest Tube Lot: 1108215



UU52:02173

# Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 5-21-12

Page: 1 of 4

| ARI Sample ID | Prep Code | Dilution | QC Data (ppb) | Comments | |
|---|---|---|---|---|---|
| STD 0.0 | TWM | 1X | | | |
| STD 0.1 | TWM | 1X | | | |
| STD 0.5 | TWM | 1X | | | |
| STD 1.0 | TWM | 1X | | | |
| STD 2.0 | TWM | 1X | | | |
| STD 5.0 | TWM | 1X | | | |
| STD 10.0 | TWM | 1X | | | |
| ICV | TWM | 1X | 8.42 | Begin CLP %R=105 | ✓ |
| ICB | TWM | 1X | -0.02 | | ✓ |
| CCV | TWM | 1X | 4.17 | %R=104 | ✓ |
| CCB | TWM | 1X | -0.01 | | ✓ |
| CRA | TWM | 1X | 0.10 | | ✓ |
| UU62 MB1 | TWM | 1X | 0.00 | | ✓ |
| UU62 MB1SPK | TWM | 1X | 2.21 | %R=111 | ✓ |
| UU62 J | TWM | 1X | -0.00 | | |
| UU62 JDUP | TWM | 1X | -0.00 | NO RPD: Unbracketed | ✓ |
| UU62 JSPK | TWM | 1X | 1.13 | %R=113 | ✓ |
| UU62 K | TWM | 1X | | | |
| CCV2 | TWM | 1X | 4.14 | %R=104 | ✓ |
| CCB2 | TWM | 1X | -0.01 | END CLP | ✓ |
| UU64 MB | TWM | 1X | 0.00 | | ✓ |
| UU64 MBSPK | TWM | 1X | 2.15 | %R=108 | ✓ |
| UU64 A | TWM | 1X | | | |
| UU64 B | TWM | 1X | | | |
| UU68 A | TWM | 1X | | | |
| UU25 MB | TWM | 1X | 0.00 | | ✓ |
| UU25 MBSPK | TWM | 1X | 2.18 | %R=109 | ✓ |
| UU26 A | TWM | 1X | | | |
| UU31 MB | TWM | 1X | 0.00 | | ✓ |
| UU31 MBSPK | TWM | 1X | 2.15 | %R=108 | ✓ |

5/21/12

Chemical/Reagent ID:

10% $SnCl_2$: MP2301

14% $NH_2OH$/NaCl: MP2269

Standard ID:

Standard: 2936-9

ICV/CCV: ~~SG-17~~ SG-18

DM 5-21-12



UU52:02174

ANALYTICAL RESOURCES INCORPORATED

# Metals Data Review Checklist

**Method:** ICP ICP-MS GFA (CVA)  **Analysis Date:** 5-21-12

| | Analyst 5-21 DM | Peer 5/22/12 | Comment |
|---|---|---|---|
| **Logbook:** | | | |
| Analyst, Date, Method info | ✓ | ✓ | |
| Sample ID's | ✓ | ✓ | |
| Standard/QC solution ID's recorded | ✓ | ✓ | |
| Prep codes | ✓ | ✓ | |
| Dilution factors | ✓ | ✓ | |
| Crossouts/Corrections/Deletions | ✓ | ✓ | |
| **Calibration:** | | | |
| Blank & Standard intensities | ✓ | ✓ | |
| Standard deviations | ✓ | ✓ | |
| Curve fit | ✓ | ✓ | |
| **Calibration Verification:** | | | |
| ICV/CCV | ✓ | ✓ | |
| ICB/CCB | ✓ | ✓ | |
| **Samples:** | | | |
| RSD's & SD's | ✓ | ✓ | |
| Internal Standards | – | – | |
| Carry-over | – | – | |
| **Method QC:** | | | |
| CRI/CRA | ✓ | ✓ | |
| ICSA/ICSAB | – | – | |
| Post Spikes/Serial Dilutions | – | – | |
| Analytic Spikes | – | – | |
| **Matrix QC:** | | | |
| SRM/LCS | ✓ | ✓ | |
| Matrix Spikes | ✓ | ✓ | |
| Matrix Duplicates | ✓ | ✓ | W77 Boup 0.ff70.1 |
| Method Blanks | ✓ | ✓ | |
| **Data Distribution:** | | | |
| Requested elements/isotope identified | ✓ | ✓ | |
| Correct samples identified for distribution | ✓ | ✓ | |
| Raw data match distributed data | ✓ | ✓ | |
| Data filename correct | ✓ | ✓ | |
| **Necessary Analysts Notes and CAF's** | ✓ | ✓ | See CAF |



UU52 : 021 75

**Analyst**
**Date Started** Monday, May 21, 2012, 13:12:31
**Worksheet** ARI 10ppb CALIB
**Comment**

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| Std Tube 6 | 21-May-2012, 13:12 | 10.00 | 0.72 | 30900.00 | 1.00 | |

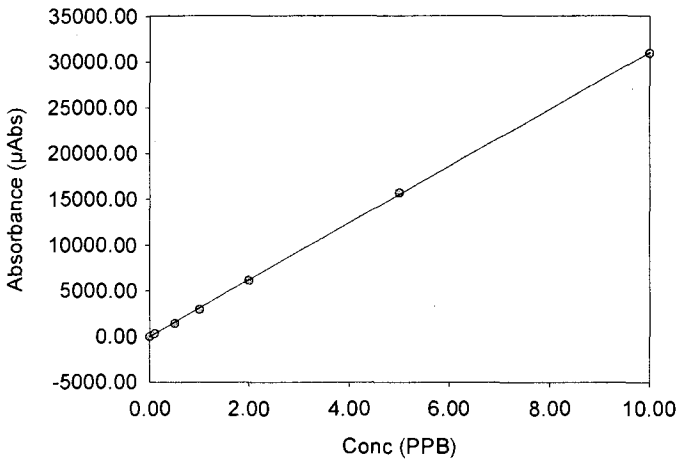
✓ JB 5/22/12

Information about this calibration could not be retrieved from the Master File.

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| Calibration Zero | 21-May-2012, 13:14 | 0.00 | 8.48 | -14.40 | 1.00 | |
| Standard #1 | 21-May-2012, 13:16 | 0.10 | 0.91 | 300.00 | 1.00 | |
| Standard #2 | 21-May-2012, 13:18 | 0.50 | 0.63 | 1390.00 | 1.00 | |
| Standard #3 | 21-May-2012, 13:19 | 1.00 | 0.53 | 2930.00 | 1.00 | |
| Standard #4 | 21-May-2012, 13:21 | 2.00 | 0.62 | 6120.00 | 1.00 | |
| Standard #5 | 21-May-2012, 13:22 | 5.00 | 0.59 | 15700.00 | 1.00 | |
| Standard #6 | 21-May-2012, 13:24 | 10.00 | 0.49 | 31000.00 | 1.00 | |

TWM

Calibration Data




| | |
|---|---|
| Int. | 0.000 |
| Slope | 3105.070 |
| Correlation | 0.99992 |

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| ICV | 21-May-2012, 13:27 | 8.42 | 0.24 | 26100.00 | 1.00 | |
| ICB | 21-May-2012, 13:29 | -0.02 | 2.63 | -71.20 | 1.00 | |

Begin CLP

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| QC Standard | 21-May-2012, 13:30 | 4.17 | 0.37 | 12900.00 | 1.00 | |

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| QC Blank | 21-May-2012, 13:32 | -0.01 | 6.05 | -34.90 | 1.00 | |

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| CRA | 21-May-2012, 13:34 | 0.10 | 0.66 | 309.00 | 1.00 | |
| UU62 MB1 TWM | 21-May-2012, 13:35 | 0.00 | 37.50 | 8.57 | 1.00 | |
| UU62 MB1SPK TWM | 21-May-2012, 13:37 | 2.21 | 0.32 | 6870.00 | 1.00 | |
| UU62 J TWM | 21-May-2012, 13:38 | -0.00 | 16.90 | -10.70 | 1.00 | |
| UU62 JDUP TWM | 21-May-2012, 13:40 | -0.00 | 44.80 | -7.28 | 1.00 | |
| UU62 JSPK TWM | 21-May-2012, 13:42 | 1.13 | 0.39 | 3490.00 | 1.00 | |
| UU62 K TWM | 21-May-2012, 13:43 | 0.00 | 48.80 | 5.01 | 1.00 | |

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| QC Standard | 21-May-2012, 13:45 | 4.14 | 0.43 | 12900.00 | 1.00 | |

| Sample ID | Analysis Time | Conc (PPB) | %RSD | Avg. µAbs | Dilution | Flags |
|---|---|---|---|---|---|---|
| QC Blank | 21-May-2012, 13:46 | -0.01 | 11.30 | -16.50 | 1.00 | |

END CLP

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Mercury Standard Prep Log

Digested 20.0mL

Prep Code: TWM  Instrument: CETAC

Analyst: KM  Date: 5/16/12

Bath Temp: 91°C  Start Time: 1520  End Time: 1720

| Standard ID | Stock ID | Volume Added (mL) | Final Volume (mL) | Standard Conc. (µg/L) | Number Made |
|---|---|---|---|---|---|
| STD0 | — | 0.00 | 100.0 | 0.0 | 1 |
| STD1 | 2936-9 | 0.01 | 100.0 | 0.1 | 1 |
| STD2 | 2936-9 | 0.05 | 100.0 | 0.5 | 1 |
| STD3 | 2936-9 | 0.10 | 100.0 | 1.0 | 1 |
| STD4 | 2936-9 | 0.20 | 100.0 | 2.0 | 1 |
| STD5 | 2936-9 | 0.50 | 100.0 | 5.0 | 1 |
| STD6 | 2936-9 | 1.00 | 100.0 | 10.0 | 1 |
| CRA | 2936-9 | 0.01 | 100.0 | 0.1 | 1 |
| ICB/CCB | — | 0.00 | 100.0 | 0.0 | 1 |
| ICV/LCS | 56-18 | 0.16 | 100.0 | 8.0 | 1 |
| CCV | 56-18 | 0.08 | 100.0 | 4.0 | 1 |

Chemical/Reagent ID:

$HNO_3$: I7466  $H_2SO_4$: I7184  HCl: —

5% $K_2S_2O_8$: MP2272  5% $KMnO_4$: MP2273

---

Prep Code: _____  Instrument: _____

Analyst: _____  Date: _____

Bath Temp: _____  Start Time: _____  End Time: _____

| Standard ID | Stock ID | Volume Added (mL) | Final Volume (mL) | Standard Conc. (µg/L) | Number Made |
|---|---|---|---|---|---|
| STD0 | | 0.00 | | | |
| STD1 | | | | | |
| STD2 | | 0.05 | | | |
| STD3 | | 0.10 | | | |
| STD4 | | 0.20 | | | |
| STD5 | | 0.50 | | | |
| STD6 | | 1.00 | | | |
| CRA | | | | | |
| ICB/CCB | | 0.00 | | | |
| ICV/LCS | | | | | |
| CCV | | | | | |

Chemical/Reagent ID:

$HNO_3$: _____  $H_2SO_4$: _____  HCl: _____

5% $K_2S_2O_8$: _____  5% $KMnO_4$: _____



UU52:02177

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Mercury Digestion Log

**Prep Code:** TWM **Matrix:** Water

**Analyst:** MJ **Date:** 05.18.12

**Bath Temp:** 90°C **Start Time:** 1035 **End Time:** 1235

| ARI Sample ID | Sample Bottle # | pH<2 | Initial ~~Weight (g)~~ Volume (mL) | Final Volume (mL) | # $KMnO_4$ Aliquots | CLP | Comments |
|---|---|---|---|---|---|---|---|
| UU662 J | 1 | ✓ | 20.0 | 20.0 | 05.26 1 | Y | |
| UU662 JDUP | 1 | ✓ | 20.0 | 20.0 | 1 | Y | |
| UU662 JSPK | 1 | ✓ | 20.0 | 20.0 | 1 | Y | |
| UU662 K | 1 | ✓ | 20.0 | 20.0 | 1 | Y | |
| UU662 MB1 | — | ✓ | 20.0 | 20.0 | 1 | Y | |
| UU662 MB1SPK | — | ✓ | 20.0 | 20.0 | 1 | Y | |
| UU666 A | 6 | ✓ | 20.0 | 20.0 | 05.27 1 | N | |
| UU666 B | 6 | ✓ | 20.0 | 20.0 | 1 | N | |
| UU666 MB | — | ✓ | 20.0 | 20.0 | 1 | N | BATCH |
| UU666 MBSPK | — | ✓ | 20.0 | 20.0 | 1 | N | |
| UU668 A | 6 | ✓ | 20.0 | 20.0 | 05.27 1 | N | |

05.18.12 MJ

**Chemical/Reagent ID:**

$HNO_3$: I-7466 $H_2SO_4$: I-7184 HCl: —

5% $K_2S_2O_8$: MP2272 5% $KMnO_4$: MP2273 Digest Tube Lot: UU173



UU52:02178

General Chemistry Raw Data
Analyst Notes and Raw Data

ARI Job ID: UU52, UU62

**TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET**
**SOLIDS** *(dry at 104 (12-24 hr) then combust at 550 (30 min))* **ZnOAc PRES.**

DATE: 5/21/2012
ANALYST: CDE / KE 18:46

***Instrumentation*** ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597
***Muffle Furnace:*** N / A

| ***Batch drying time*** | | |
|---|---|---|
| *record times as mm/dd/yy hh:mm* | | |
| *5/21/2012 18:46* | date/time in oven | CDE |
| *5/22/2012 9:50* | date/time out | KE |
| *elapsed hrs =* | 15.1 | |

*TS (%) calculated as:*
*Final dry wt (g) = (Dry Wt - Tare Wt)*
*TS = (Final Dry Wt)/ (grams Sample-Tare)*

*TVS (mg/kg dry wt) calculated as:*
*Final ash wt (g) = (min ash wt - tare wt)*
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
*if ash wt > dry wt, "Chk for Err"*
*if dry wt-ash wt < 0.001 g, "< (1/dry wt )*1,000,000*

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Cal Weight ID* | CV-02 | CV-02 | CV-02 | CV-02 | | | | CV-02 | CV-02 | | | |
| | *Date & Time* | 5/21/17 18:31 CDE | 5/21/12 18:02 CDE | 5/22/12 10:07 KE | | | | | | | | | |
| *Cal Wt (g)* | 10.0000 | 10.0000 | 10.0000 | 10.0000 | | | | | | | | | |
| | *record weights to 4 places* | *Cal OK!* | *Cal OK!* | *Cal OK!* | | | | | | | | | |

| SAMPLE ID | DISH # | SAMPLE (grams) | TARE WT (grams) | DRY WT 104C (grams) 1 | | | dry Wt (g) | TS (%) | ASH WT 550C (grams) 1 | 2 | | Ash Wt (g) | TVS (mg/kg) | (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blank | | | 1.0697 | 1.0695 | | | 0.00 | | | | | | | |
| UU52 A1 | | 5.7549 | 1.1032 | 1.5528 | | | 0.45 | 9.7% | | | | | | |
| UU52 B1 | | 5.9279 | 1.1152 | 1.5816 | | | 0.47 | 9.7% | | | | | | |
| UU52 C1 | | 6.0710 | 1.0846 | 1.6088 | | | 0.52 | 10.5% | | | | | | |
| UU52 D1 | | 5.9068 | 1.0853 | 1.6087 | | | 0.52 | 10.9% | | | | | | |
| UU52 E1 | | 5.6996 | 1.0903 | 1.5517 | | | 0.46 | 10.0% | | | | | | |
| UU52 F1 | | 7.0072 | 1.1037 | 1.5950 | | | 0.49 | 8.3% | | | | | | |
| UU52 G1 | | 7.1493 | 1.1040 | 1.5189 | | | 0.41 | 6.9% | | | | | | |
| UU52 H1 | | 7.1873 | 1.1164 | 2.2680 | | | 1.15 | 19.0% | | | | | | |
| UU52 I 1 | | 6.7462 | 1.1051 | 1.5634 | | | 0.46 | 8.1% | | | | | | |
| UU52 J 1 | | 6.1080 | 1.0705 | 1.6069 | | | 0.54 | 10.6% | | | | | | |
| UU52 K1 | | 6.2759 | 1.1027 | 1.6435 | | | 0.54 | 10.5% | | | | | | |
| UU62 A2 | | 5.4002 | 1.1191 | 1.5754 | | | 0.46 | 10.7% | | | | | | |
| UU62 A2 dup | | 6.2273 | 1.0920 | 1.6397 | | | 0.55 | 10.7% | | | | | | |
| | | | | | | | RPD = | 0.06% | | | | RPD = | NA | |
| UU62 B2 | | 6.7711 | 1.1052 | 1.7301 | | | 0.62 | 11.0% | | | | | | |
| UU62 C2 | | 5.9420 | 1.0731 | 1.5823 | | | 0.51 | 10.5% | | | | | | |
| UU62 D2 | | 6.9835 | 1.0837 | 1.6509 | | | 0.57 | 9.6% | | | | | | |
| UU62 E2 | | 6.2392 | 1.0827 | 1.6378 | | | 0.56 | 10.8% | | | | | | |
| UU62 F2 | | 6.0887 | 1.0727 | 1.6248 | | | 0.55 | 11.0% | | | | | | |
| UU62 G2 | | 7.2866 | 1.0940 | 1.7732 | | | 0.68 | 11.0% | | | | | | |
| UU62 H2 | | 7.1339 | 1.0867 | 1.5338 | | | 0.45 | 7.4% | | | | | | |
| UU62 I 2 | | 7.2643 | 1.0665 | 1.7520 | | | 0.69 | 11.1% | | | | | | |

**Analytical Resources, Incorporated**
**Analytical Chemists and Consultants**

# TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET

ZnOAc Preserved

| Analyst: CWC / (N) | Date: 5-21-12 | Oven ID: 12 | Balance ID: 1123230597 |
|---|---|---|---|
| Time in Oven: 18:46 | Time Out of Oven: 9:50 | Elapsed Time (> 12 Hrs): | |

*Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places*

TS (%) calculated as:
Final Dry Weight (g) = (Dry Weight – Tare Weight)
TS = (Final Dry Weight) / (Grams Sample – Tare Weight)

TVS (mg/kg dry weight) calculated as:
Final Ash Weight (g) = (Minimum Ash Weight – Tare Weight)
TVS (mg/kg) = [(Dry Weight – Ash Weight) / (Dry Weight) * 1,000,000
If Ash Weight > Dry Weight then "Check for Error"
If Dry Weight – Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Cal Weight ID | CV-02 | CV-02 | CV-02 | CV-02 | CV-02 | [redacted] | CV-02 | CV-02 | CV-02 |
| Date & Time: | 5-21-12 19:31 | 5-21-12 18:07 | 5-22-12 10:07 | | | | | | |
| Cal Weight (10.0000): | 10.0000 CWC | 10.0000 CWC | 10.0000 (N) | | | | | | |

| Sample ID | Dish # | Sample | Tare | Dry Weight 104°C | | | Dry Weight | Ash Weight 550°C | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1 | 2 | 3 | grams | 1 | 2 | 3 |
| BLANK | Z1 | Ø | 1.0697 | 1.0695 | | | | | | |
| 1152 A' | 2 | 5.7549 | 1.1032 | 1.5528 | | | | | | |
| B' | 3 | 5.9279 | 1.1152 | 1.5816 | | | | | | |
| C' | 4 | 6.0710 | 1.0846 | 1.6088 | | | | | | |
| D' | 5 | 5.9068 | 1.0853 | 1.6087 | | | | | | |
| E' | 6 | 5.6996 | 1.0903 | 1.5517 | | | | | | |
| F' | 7 | 7.0072 | 1.1037 | 1.5950 | | | | | | |
| G' | 8 | 7.1493 | 1.1040 | 1.5189 | | | | | | |
| H' | 9 | 7.1873 | 1.1164 | 2.2680 | | | | | | |
| I' | 10 | 6.7462 | 1.1051 | 1.5634 | | | | | | |
| J' | 11 | 6.1080 | 1.0705 | 1.6069 | | | | | | |
| K' | 12 | 6.2759 | 1.1027 | 1.6435 | | | | | | |
| 1152 A² | 13 | 5.4002 | 1.1191 | 1.5754 | | | | | | |
| A²d | 14 | 6.2273 | 1.0920 | 1.6397 | | | | | | |
| B² | 15 | 6.7711 | 1.1052 | 1.7301 | | | | | | |
| C² | 16 | 5.9420 | 1.0731 | 1.5823 | | | | | | |
| D² | 17 | 6.9835 | 1.0837 | 1.6509 | | | | | | |
| E² | 18 | 6.2392 | 1.0827 | 1.6378 | | | | | | |
| F² | 19 | 6.0887 | 1.0727 | 1.6248 | | | | | | |
| G² | 20 | 7.2866 | 1.0940 | 1.7732 | | | | | | |
| H² | 21 | 7.1339 | 1.0867 | 1.5338 | | | | | | |
| I² | 22 | 7.2643 | 1.0665 | 1.7520 | | | | | | |
| | | | | 5-21-12 (N) | | | | | | |



T8129.2507

5/23/12

# TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

DATE: 5/22/2012

**SOLIDS** *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

ANALYST: KE 19:59 ( A )

***Instrumentation*** **Drying Ovens:** 12 **Analytical Balance:** 1123230597

**Muffle Furnace:** N / A

| ***Batch drying time*** | | |
|---|---|---|
| *record times as mm/dd/yy hh:mm* | | |
| *5/22/2012 19:59* | date/time in oven | KE |
| *5/23/2012 11:24* | date/time out | KE |
| *elapsed hrs =* | 15.4 | |

*TS (%) calculated as:*
*Final dry wt (g) = (Dry Wt - Tare Wt)*
*TS = (Final Dry Wt)/ (grams Sample-Tare)*

*TVS (mg/kg dry wt) calculated as:*
*Final ash wt (g) = (min ash wt - tare wt)*
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
*if ash wt > dry wt, "Chk for Err"*
*if dry wt-ash wt < 0.001 g, "< (1/dry wt )*1,000,000*

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Cal Weight ID* | CV-02 | CV-02 | CV-02 | CV-02 | | | | CV-02 | CV-02 | | | | | |
| | *Date & Time* | 5/22/12 14:10 KE | 5/22/12 13:10 KE | 5/23/12 11:39 KE | | | | | | | | | | | |
| *Cal Wt (g)* | 10.0000 | 10.0000 | 10.0000 | 10.0000 | | | | | | | | | | | |
| | *record weights to 4 places* | *Cal OK!* | *Cal OK!* | *Cal OK!* | | | | | | | | | | | |

| SAMPLE ID | DISH # | SAMPLE (grams) | TARE WT (grams) | DRY WT 104C (grams) 1 | | | dry Wt (g) | TS (%) | ASH WT 550C (grams) 1 | 2 | | Ash Wt (g) | TVS (mg/kg) | TVS (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blank | | | 1.0920 | 1.0919 | | | 0.00 | | | | | | | |
| UU52 A1 | | 6.4621 | 1.0627 | 1.6154 | | | 0.55 | 10.2% | | | | | | |
| UU52 B1 | | 6.2811 | 1.0880 | 1.6202 | | | 0.53 | 10.2% | | | | | | |
| UU52 C1 | | 6.7227 | 1.0774 | 1.6636 | | | 0.59 | 10.4% | | | | | | |
| UU52 D1 | | 6.6617 | 1.1141 | 1.6305 | | | 0.52 | 9.3% | | | | | | |
| UU52 E1 | | 6.5580 | 1.1073 | 1.6687 | | | 0.56 | 10.3% | | | | | | |
| UU52 F1 | | 6.9637 | 1.0952 | 1.6367 | | | 0.54 | 9.2% | | | | | | |
| UU52 G1 | | 6.2645 | 1.0996 | 1.6055 | | | 0.51 | 9.8% | | | | | | |
| UU52 H1 | | 6.3479 | 1.0822 | 1.9688 | | | 0.89 | 16.8% | | | | | | |
| UU52 I 1 | | 6.0304 | 1.0868 | 1.6179 | | | 0.53 | 10.7% | | | | | | |
| UU52 J 1 | | 7.4572 | 1.0873 | 1.7334 | | | 0.65 | 10.1% | | | | | | |
| UU62 A1 | | 5.7385 | 1.1214 | 1.6022 | | | 0.48 | 10.4% | | | | | | |
| UU62 A1 dup | | 5.9644 | 1.0850 | 1.5891 | | | 0.50 | 10.3% | | | | | | |
| | | | | | | | RPD = | 0.79% | | | | RPD = | NA | |
| UU62 A1 trp | | 5.8348 | 1.0790 | 1.5736 | | | 0.49 | 10.4% | | | | | | |
| | | | | | | | RSD = | 0.42% | | | | RSD = | NA | |
| UU62 B1 | | 6.3197 | 1.0853 | 1.5963 | | | 0.51 | 9.8% | | | | | | |
| UU62 B1 | | 8.1428 | 1.0999 | 1.7818 | | | 0.68 | 9.7% | | | | | | |
| UU62 B1 | | 7.0330 | 1.1032 | 1.6553 | | | 0.55 | 9.3% | | | | | | |
| UU62 B1 | | 7.3446 | 1.0745 | 1.6899 | | | 0.62 | 9.8% | | | | | | |
| UU62 B1 | | 6.7839 | 1.1072 | 1.6913 | | | 0.58 | 10.3% | | | | | | |
| UU62 B1 | | 7.1027 | 1.1112 | 1.8522 | | | 0.74 | 12.4% | | | | | | |

**TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET** DATE: 5/22/2012

**SOLIDS** *(dry at 104 (12-24 hr) then combust at 550 (30 min))* ANALYST: KE 19:59 ( A )

***Instrumentation*** ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

***Muffle Furnace:*** N / A

| ***Batch drying time*** | | |
|---|---|---|
| *record times as mm/dd/yy hh:mm* | | |
| *5/22/2012 19:59* | date/time in oven | KE |
| *5/23/2012 11:24* | date/time out | KE |
| *elapsed hrs =* | 15.4 | |

*TS (%) calculated as:*
*Final dry wt (g) = (Dry Wt - Tare Wt)*
*TS = (Final Dry Wt)/ (grams Sample-Tare)*

*TVS (mg/kg dry wt) calculated as:*
*Final ash wt (g) = (min ash wt - tare wt)*
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
*if ash wt > dry wt, "Chk for Err"*
*if dry wt-ash wt < 0.001 g, "< (1/dry wt )*1,000,000*

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Cal Weight ID* | | CV-02 | CV-02 | CV-02 | CV-02 | | | | CV-02 | CV-02 | | | |
| *Date & Time* | | 5/22/12 14:10 KE | 5/22/12 13:10 KE | 5/23/12 11:39 KE | | | | | | | | | |
| *Cal Wt (g)* | 10.0000 | 10.0000 | 10.0000 | 10.0000 | | | | | | | | | |
| *record weights to 4 places* | | *Cal OK!* | *Cal OK!* | *Cal OK!* | | | | | | | | | |

| SAMPLE ID | DISH # | SAMPLE (grams) | TARE WT (grams) | DRY WT 104C (grams) 1 | | | dry Wt (g) | TS (%) | ASH WT 550C (grams) 1 | 2 | | Ash Wt (g) | TVS (mg/kg) | (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UU61 B2 | | 6.5073 | 1.0778 | 1.5330 | | | 0.46 | 8.4% | | | | | | |
| UU61 B2 | | 6.5346 | 1.0854 | 1.7256 | | | 0.64 | 11.7% | | | | | | |
| UU52 K1 | | 7.1779 | 1.0738 | 1.7226 | | | 0.65 | 10.6% | | | | | | |

UU52 : 02183

**Analytical Resources, Incorporated**
**Analytical Chemists and Consultants**

# TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET

| Analyst: (W) | Date: 5-22-12 | Oven ID: 12 | Balance ID: 1123230597 |
|---|---|---|---|
| Time in Oven: 19:59 | Time Out of Oven: 11:84 | Elapsed Time (> 12 Hrs): | |

*Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places*

TS (%) calculated as:
Final Dry Weight (g) = (Dry Weight – Tare Weight)
TS = (Final Dry Weight) / (Grams Sample – Tare Weight)

TVS (mg/kg dry weight) calculated as:
Final Ash Weight (g) = (Minimum Ash Weight – Tare Weight)
TVS (mg/kg) = [(Dry Weight – Ash Weight) / (Dry Weight) * 1,000,000
If Ash Weight > Dry Weight then "Check for Error"
If Dry Weight – Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000
(A)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Cal Weight ID | CV-02 | CV-02 | CV-02 | CV-02 | CV-02 | [redacted] | CV-02 | CV-02 | CV-02 |
| Date & Time: | 5-22-12 19:10 | 5-22-12 13:10 | 5-23-12 11:39 | | | | | | |
| Cal Weight (10.0000): | 10.0000 (W) | 10.0000 (W) | 10.0000 (W) | | | | | | |

| Sample ID | Dish # | Sample | Tare | Dry Weight 104°C 1 | Dry Weight 104°C 2 | Dry Weight 104°C 3 | Dry Weight grams | Ash Weight 550°C 1 | Ash Weight 550°C 2 | Ash Weight 550°C 3 |
|---|---|---|---|---|---|---|---|---|---|---|
| BLANK | 1 | 0 | 1.0920 | 1.0919 | | | | | | |
| UU52 A1 | 2 | 6.4621 | 1.0627 | 1.6154 | | | | | | |
| B1 | 3 | 6.2811 | 1.0880 | 1.6202 | | | | | | |
| C1 | 4 | 6.7227 | 1.0774 | 1.6636 | | | | | | |
| D1 | 5 | 6.6617 | 1.1141 | 1.6305 | | | | | | |
| E1 | 6 | 6.5580 | 1.1073 | 1.6687 | | | | | | |
| F1 | 7 | 6.9637 | 1.0952 | 1.6367 | | | | | | |
| G1 | 8 | 6.2645 | 1.0996 | 1.6055 | | | | | | |
| H1 | 9 | 6.3479 | 1.0822 | 1.9688 | | | | | | |
| I1 | 10 | 6.0304 | 1.0868 | 1.6179 | | | | | | |
| J1 | 11 | 7.4572 | 1.0873 | 1.7334 | | | | | | |
| UU62 A1 | 12 | 5.7385 | 1.1214 | 1.6022 | | | | | | |
| 2xA1 | 13 | 5.9644 | 1.0858 | 1.5891 | | | | | | |
| 10xA1 | 14 | 5.8348 | 1.0790 | 1.5736 | | | | | | |
| D1 | 15 | 6.3197 | 1.0853 | 1.5963 | | | | | | |
| C1 | 16 | 5.1428 | 1.0999 | 1.7818 | | | | | | |
| D1 | 17 | 7.0330 | 1.1032 | 1.6553 | | | | | | |
| E1 | 18 | 7.3446 | 1.0745 | 1.6899 | | | | | | |
| F1 | 19 | 6.7839 | 1.1072 | 1.6913 | | | | | | |
| G1 | 20 | 7.1027 | 1.1112 | 1.8522 | | | | | | |
| H1 | 21 | 6.5073 | 1.0778 | 1.5330 | | | | | | |
| I1 | 22 | 6.5346 | 1.0854 | 1.7256 | | | | | | |
| UU52 J1 | 23 | 7.1779 | 1.0738 | 1.7226 | | | | | | |



1123230597

5/24/12

# TOC Solids Prep Log

| DATE: | 5/22/2012 |
|---|---|
| ANALYST: | KE 20:16 ( A ) |

*acid purging to remove IC and drying at 70°C for TOC analysis*

*General notes regarding prep method and samples (identify the acid used)*

*make no entry to shaded cells, they are calculated*

| Sample ID | | IC Test | Gravimetric Data (grams) | | | % | *Sample description & notes* |
|---|---|---|---|---|---|---|---|
| ARI # | Client | + / - | Tare Wt. | Wet wt. | 70°C dry wt | Solids | *(homogeneity and exclusions)* |
| Blank | | | 13.2166 | | 13.2166 | 0 mg | |
| UU52 A1 | | - | 13.2789 | 18.4767 | 13.8568 | 11.12% | |
| UU52 B1 | | - | 13.2959 | 18.4106 | 13.8641 | 11.11% | |
| UU52 C1 | | - | 13.3543 | 18.1976 | 13.9180 | 11.64% | |
| UU52 D1 | | - | 13.3613 | 18.5305 | 13.9056 | 10.53% | |
| UU52 E1 | | - | 13.4183 | 19.5993 | 14.1012 | 11.05% | |
| UU52 F1 | | - | 13.2879 | 19.2153 | 13.8039 | 8.71% | |
| UU52 G1 | | - | 13.2933 | 17.6730 | 13.7292 | 9.95% | |
| UU52 H1 | | - | 13.2445 | 19.3995 | 14.3521 | 18.00% | |
| UU52 I 1 | | - | 13.3466 | 19.9070 | 14.1765 | 12.65% | |
| UU52 J 1 | | - | 13.3198 | 19.1937 | 13.9878 | 11.37% | |
| UU62 A1 | | - | 13.3426 | 17.5260 | 13.8293 | 11.63% | |
| UU62 A1 dup | | - | 13.4002 | 17.5174 | 13.8807 | 11.67% | RPD = 0.31% |
| UU62 A1 trip | | - | 13.2918 | 17.6138 | 13.7951 | 11.65% | RSD = 0.16% |
| UU62 B1 | | - | 13.2982 | 17.8189 | 13.7296 | 9.54% | |
| UU62 C1 | | - | 13.2593 | 18.8427 | 13.8487 | 10.56% | |
| UU62 D1 | | - | 13.3530 | 18.2639 | 13.8584 | 10.29% | |
| UU62 E1 | | - | 13.2843 | 20.2848 | 14.0388 | 10.78% | |
| UU62 F1 | | - | 13.3865 | 18.4751 | 13.9651 | 11.37% | |
| UU62 G1 | | - | 13.2466 | 18.2343 | 14.0005 | 15.12% | |
| UU62 H1 | | - | 13.3433 | 18.1257 | 13.7770 | 9.07% | |
| UU62 I 1 | | - | 13.1241 | 18.2178 | 13.7988 | 13.25% | |
| UU52 K1 | | - | 13.2392 | 19.5091 | 13.9541 | 11.40% | |

(2) 13.2166 5-22-12 (K)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis
Add general notes regarding samples and preparation and identify the acid used

(1) - 5-22-12 (L)

Analyst (D) 20:16 Date 5-22-12 (A)

| Sample Idenification | | IC | Gravimetric Data | | | % Solids | Sample description & notes |
|---|---|---|---|---|---|---|---|
| ARI # | Client ID | Test | Tare | Wet | 70 °C | | |
| **Blank** | | | (2) | 0 | 13.2166 | | |
| UU52 A1 | | — | 13.2789 | 18.4767 | 13.8568 | | V. wet Sed + Rubble |
| B1 | | — | 13.2959 | 18.4106 | 13.8641 | | |
| C1 | | — | 13.3543 | 18.1976 | 13.9180 | | |
| D1 | | — | 13.3613 | 18.5305 | 13.9056 | | |
| E1 | | — | 13.4183 | 19.5993 | 14.1012 | | |
| F1 | | — | 13.2879 | 19.2153 | 13.8039 | | Debri & Sed+ |
| G1 | | — | 13.2933 | 17.6730 | 13.7292 | | Debri & moisture |
| H1 | | — | 13.2445 | 19.3995 | 14.3521 | | Wet Sed+ + Rubble |
| I1 | | — | 13.3466 | 19.9070 | 14.1765 | | |
| J1 | | — | 13.3198 | 19.1937 | 13.9878 | | V-wet Sed+ |
| UU52 A1 | | — | 13.3426 | 17.5760 | 13.8293 | | |
| AA1 | | — | 13.4002 | 17.5174 | 13.8807 | | |
| AD1 | | — | 13.2918 | 17.6138 | 13.7951 | | |
| B1 | | — | 13.2982 | ~~17.8210~~ | 17.8189 | 13.7296 | Debri wet sed & moisture |
| C1 | | — | 13.2593 | 18.8427 | ~~13.7293~~ (C) | 13.8487 | Sed+ V.Wet + Rubble |
| D1 | | — | 13.3530 | 18.2639 | ~~13.8487~~ (D) | 13.8584 | |
| E1 | | — | 13.2843 | 20.2848 | ~~13.8584~~ (E) | 14.0388 | |
| F1 | | — | 13.3865 | 18.4751 | ~~14.0388~~ (F) | 13.9651 | |
| G1 | | — | 13.2466 | 18.7343 | ~~13.9651~~ (G) | 14.0005 | |
| H1 | | — | 13.3433 | 18.1257 | ~~13.9~~ (H) | ~~14.0005~~ | 13.7770 |
| I1 | | — | 13.1241 | 18.2178 | ~~13.7768~~ | 13.7788 | Debri-Sed+-Moisture |
| UU52 K1 | | — | 13.2392 | 19.5091 | 13.9541 | | Wet Sed + Rubble |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | 5-22-12 (L) | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |



UU52:02186

Original Run Filename: OM_5-21-2012_12-47-10PM.OMN Created: 5/21/2012 12:47:10 PM
Original Run Author's Signature: [Carol Hawkins]
Current Run Filename: 052112NH3A.omn Last Modified: 5/21/2012 3:04:13 PM
Current Run Author's Signature: [Carol Hawkins]
Description: LACHAT 1
ARI In-House Standards: 00122-3

| Sample | Cup No. | Channel 1 NH3 Conc. (mg N/L) | Channel 1 NH3 Area (V.s) | Detection Time | MANUAL DILUTION FACTOR |
|---|---|---|---|---|---|
| STD 1.0 | S1 | 1 | 40.2259 | 5/21/2012@12:48:09 PM | |
| STD 0.8 | S2 | 0.8 | 32.0222 | 5/21/2012@12:49:20 PM | |
| STD 0.5 | S3 | 0.5 | 19.8143 | 5/21/2012@12:50:30 PM | |
| STD 0.2 | S4 | 0.2 | 7.981 | 5/21/2012@12:51:40 PM | |
| STD 0.05 | S5 | 0.05 | 1.9237 | 5/21/2012@12:52:50 PM | |
| STD 0.02 | S6 | 0.02 | 0.8151 | 5/21/2012@12:54:01 PM | |
| STD 0.01 | S7 | 0.01 | 0.4091 | 5/21/2012@12:55:11 PM | |
| BLANK | S8 | 0 | -0.3586 | 5/21/2012@12:56:21 PM | |
| ICV ERA 130611 | 9 | 0.5275 | 21.1039 | 5/21/2012@12:57:32 PM | |
| Known Conc: | | 0.5 | | | |
| ICB | 10 | -0.0052 | -0.3331 | 5/21/2012@1:03:28 PM | |
| Known Conc: | | 0 | | | |
| LOW | 11 | 0.0136 | 0.4225 | 5/21/2012@1:09:25 PM | |
| Known Conc: | | 0.01 | | | |
| PREP BLANK | 12 | -0.0044 | -0.2993 | 5/21/2012@1:15:22 PM | |
| ~~PREP CHECK~~ | ~~13~~ | ~~39.856~~ | ~~80.0689~~ | ~~5/21/2012@1:16:32 PM~~ | ~~20~~ |
| ~~Spiking Conc:~~ | | ~~10~~ | | | |

%R= 105.50

| | | | | | | |
|---|---|---|---|---|---|---|
| UU62A1 | 14 | 0.9842 | 39.4815 | 5/21/2012@1:17:43 PM | | |
| ~~UU62A1-DUP~~ | ~~15~~ | ~~1.0276~~ | ~~41.2291~~ | ~~5/21/2012@1:18:53 PM~~ | | |
| ~~UU62A1-MS~~ | ~~16~~ | ~~41.3349~~ | ~~83.0447~~ | ~~5/21/2012@1:20:04 PM~~ | ~~20~~ | |
| ~~Spiking Conc:~~ | | ~~10~~ | | | | |
| UU62B1 | 19 | 0.2162 | 8.5762 | 5/21/2012@1:21:15 PM | | |
| ~~UU62C1~~ | ~~20~~ | ~~1.5325~~ | ~~61.545~~ | ~~5/21/2012@1:22:25 PM~~ | | |
| ~~UU62D1~~ | ~~21~~ | ~~1.0591~~ | ~~42.4959~~ | ~~5/21/2012@1:23:36 PM~~ | | |
| ~~UU62E1~~ | ~~22~~ | ~~1.9593~~ | ~~78.72~~ | ~~5/21/2012@1:24:48 PM~~ | | |
| CCV | 17 | 0.5262 | 21.0497 | 5/21/2012@1:25:58 PM | | %R= 105.24 |
| Known Conc: | | 0.5 | | | | |
| CCB | 18 | -0.0056 | -0.3486 | 5/21/2012@1:31:55 PM | | |
| Known Conc: | | 0 | | | | |
| ~~UU62F1~~ | ~~23~~ | ~~1.2848~~ | ~~51.5793~~ | ~~5/21/2012@1:37:52 PM~~ | | |
| ~~UU62G1~~ | ~~24~~ | ~~1.5016~~ | ~~60.302~~ | ~~5/21/2012@1:39:03 PM~~ | | |
| UU62H1 | 25 | 0.954 | 38.2667 | 5/21/2012@1:40:13 PM | | |
| ~~UU62I1~~ | ~~26~~ | ~~1.4353~~ | ~~57.6342~~ | ~~5/21/2012@1:41:25 PM~~ | | |
| ~~UU52A2~~ | ~~27~~ | ~~1.3537~~ | ~~54.35~~ | ~~5/21/2012@1:42:37 PM~~ | | |
| ~~UU52B2~~ | ~~28~~ | ~~1.3099~~ | ~~52.588~~ | ~~5/21/2012@1:43:48 PM~~ | | |
| ~~UU52C2~~ | ~~29~~ | ~~2.1347~~ | ~~85.7796~~ | ~~5/21/2012@1:44:59 PM~~ | | |
| ~~UU52D2~~ | ~~30~~ | ~~1.4843~~ | ~~59.6048~~ | ~~5/21/2012@1:46:10 PM~~ | | |
| ~~UU52E2~~ | ~~31~~ | ~~1.8371~~ | ~~73.8039~~ | ~~5/21/2012@1:47:22 PM~~ | | |
| UU52F2 | 32 | 0.6199 | 24.8216 | 5/21/2012@1:48:33 PM | | |
| CCV | 17 | 0.5265 | 21.0616 | 5/21/2012@1:49:44 PM | | %R= 105.30 |
| Known Conc: | | 0.5 | | | | |
| CCB | 18 | -0.0059 | -0.3618 | 5/21/2012@1:55:40 PM | | |
| Known Conc: | | 0 | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| UU52G2 | 33 | 0.1747 | 6.9063 | 5/21/2012@2:01:38 PM | | |
| UU52H2 | 34 | 0.5669 | 22.6888 | 5/21/2012@2:02:48 PM | | |
| UU52I2 | 35 | 0.1269 | 4.9835 | 5/21/2012@2:04:00 PM | | |
| ~~UU52J2~~ | ~~36~~ | ~~1.1247~~ | ~~45.1362~~ | ~~5/21/2012@2:05:12 PM~~ | | |
| ~~UU52K2~~ | ~~37~~ | ~~1.1343~~ | ~~45.5205~~ | ~~5/21/2012@2:06:24 PM~~ | | |
| PREP CHECK | 38 | 10.0876 | 20.1731 | 5/21/2012@2:07:35 PM | 20 | %R= 100.88 |
| UU62A1 MS | 39 | 10.424 | 20.849 | 5/21/2012@2:08:46 PM | 20 | %R= 93.87 |
| Spiking Conc: | | 10 | | | SPK=0.4ML@1000PPM/40ML=10PPM | |
| UU62A1 DUP | 40 | 1.0373 | 20.7476 | 5/21/2012@2:09:58 PM | 2 | %RPD= 5.25 |
| UU62C1 | 41 | 1.5427 | 30.9172 | 5/21/2012@2:11:09 PM | 2 | |
| UU62D1 | 42 | 1.0635 | 21.2749 | 5/21/2012@2:12:21 PM | 2 | |
| CCV | 17 | 0.5268 | 21.074 | 5/21/2012@2:13:32 PM | | %R= 105.36 |
| Known Conc: | | 0.5 | | | | |
| CCB | 18 | -0.003 | -0.2446 | 5/21/2012@2:19:28 PM | | |
| Known Conc: | | 0 | | | | |
| UU62E1 | 43 | 1.9343 | 15.4442 | 5/21/2012@2:25:26 PM | 5 | |
| UU62F1 | 44 | 1.2823 | 25.6772 | 5/21/2012@2:26:38 PM | 2 | |
| UU62G1 | 45 | 1.5107 | 30.2719 | 5/21/2012@2:27:49 PM | 2 | |
| UU62I1 | 46 | 1.4366 | 28.7815 | 5/21/2012@2:29:01 PM | 2 | |
| UU52A2 | 47 | 1.3558 | 27.1552 | 5/21/2012@2:30:13 PM | 2 | |
| UU52B2 | 48 | 1.3064 | 26.1615 | 5/21/2012@2:31:25 PM | 2 | |
| UU52C2 | 49 | 2.1155 | 16.9026 | 5/21/2012@2:32:37 PM | 5 | |
| UU52D2 | 50 | 1.4922 | 29.9 | 5/21/2012@2:33:49 PM | 2 | |
| UU52E2 | 51 | 1.8262 | 14.5737 | 5/21/2012@2:35:01 PM | 5 | |
| UU52J2 | 52 | 1.1319 | 22.6501 | 5/21/2012@2:36:13 PM | 2 | |

| | | | | | |
|---|---|---|---|---|---|
| CCV | 17 | 0.5277 | 21.1127 | 5/21/2012@2:37:24 PM | |
| Known Conc: | | 0.5 | | | |
| CCB | 18 | -0.0047 | -0.3116 | 5/21/2012@2:43:21 PM | |
| Known Conc: | | 0 | | | |
| UU52K2 | 53 | 1.1393 | 22.7995 | 5/21/2012@2:49:19 PM | 2 |
| KCL | 54 | -0.0062 | -0.3714 | 5/21/2012@2:50:31 PM | |
| CCV | 17 | 0.5291 | 21.1675 | 5/21/2012@2:51:42 PM | |
| Known Conc: | | 0.5 | | | |
| CCB | 18 | -0.0054 | -0.3411 | 5/21/2012@2:57:39 PM | |
| Known Conc: | | 0 | | | |

%R= 105.54

%R= 105.82

## Soil Extraction Log

**Parameter:**

Date: 5-21-12 11:10

Analyst: [illegible]

*Extraction Procedure:* N45 Soil 40 ml KCl
Shake 1 hr allow settle, filter, Analyze

| Time | Sample ID | Sample Wt (grams) | Extract Vol (mL) | Spikes and Standards: Vol added (mL) | Spikes and Standards: Conc of Std (mg/L) | Spikes and Standards: Conc in Extract (mg/L) | Notes & Comments |
|---|---|---|---|---|---|---|---|
| 11:10 | Blank | | 40 ml | | | | |
| | PrepCheck | | | 0.4 | 1000 | 10 | ERA 130611 |
| | UU52A1 | 3.96 | | | | | |
| | dup | 4.06 | | | | | |
| | MS | 3.84 | | 0.4 | 1000 | 10 | ACT |
| | B1 | 4.24 | | | | | |
| | C1 | 4.09 | | | | | |
| | D1 | 4.28 | | | | | |
| | E1 | 3.87 | | | | | |
| | F1 | 4.11 | | | | | |
| | G1 | 3.79 | | | | | |
| | H1 | 3.87 | | | | | |
| | I1 | 3.80 | | | | | |
| | UU52A2 | 4.04 | | | | | |
| | B2 | 3.94 | | | | | |
| | C2 | 3.83 | | | | | |
| | D2 | 3.77 | | | | | |
| | E2 | 4.00 | | | | | |
| | F2 | 3.79 | | | | | |
| | G2 | 4.00 | | | | | |
| | H2 | 4.07 | | | | | |
| | I2 | 3.77 | | | | | |
| | J2 | 3.84 | | | | | |
| | K2 | 4.29 | | | | | |

Author: Carol Hawkins

Date : 5/21/2012

Original Run Filename: OM_5-21-2012_12-47-10PM.OMN Created: 5/21/2012 12:47:10 PM
Original Run Author's Signature: [Carol Hawkins]
Current Run Filename: 052112NH3A.omn Last Modified: 5/21/2012 3:04:13 PM
Current Run Author's Signature: [Carol Hawkins]
Description: Default New Run

| Sample | Cup No. | Channel 1 NH3 Conc. (mg N/L) | Channel 1 NH3 Area (V.s) | Detection Time | MDF |
|---|---|---|---|---|---|
| STD 1.0 | S1 | 1.0000 | 40.2259 | 5/21/2012@12:48:09 PM | |
| STD 0.8 | S2 | 0.8000 | 32.0222 | 5/21/2012@12:49:20 PM | |
| STD 0.5 | S3 | 0.5000 | 19.8143 | 5/21/2012@12:50:30 PM | |
| STD 0.2 | S4 | 0.2000 | 7.9810 | 5/21/2012@12:51:40 PM | |
| STD 0.05 | S5 | 0.0500 | 1.9237 | 5/21/2012@12:52:50 PM | |
| STD 0.02 | S6 | 0.0200 | 0.8151 | 5/21/2012@12:54:01 PM | |
| STD 0.01 | S7 | 0.0100 | 0.4091 | 5/21/2012@12:55:11 PM | |
| BLANK | S8 | 0.0000 | -0.3586 | 5/21/2012@12:56:21 PM | |
| ICV | 9 | 0.5275 | 21.1039 | 5/21/2012@12:57:32 PM | |
| Known Conc: | | 0.5000 | | | |
| Calibration: | | Table/Fig. : 1 | | | |
| ICB | 10 | -0.0052 | -0.3331 | 5/21/2012@1:03:28 PM | |
| Known Conc: | | 0.0000 | | | |
| LOW | 11 | 0.0136 | 0.4225 | 5/21/2012@1:09:25 PM | |
| Known Conc: | | 0.0100 | | | |
| PREP BLANK | 12 | -0.0044 | -0.2993 | 5/21/2012@1:15:22 PM | |
| PREP CHECK | 13 | 39.8560 | 80.0689 | 5/21/2012@1:16:32 PM | 20.00 5 |
| Spiking Conc: | | 10.0000 | | | |
| UU62A1 | 14 | 0.9842 | 39.4815 | 5/21/2012@1:17:43 PM | |
| UU62A1 DUP | 15 | 1.0276 | 41.2291 | 5/21/2012@1:18:53 PM | |
| UU62A1 MS | 16 | 41.3349 | 83.0447 | 5/21/2012@1:20:04 PM | 20.00 5 |
| Spiking Conc: | | 10.0000 | | | |
| UU62B1 | 19 | 0.2162 | 8.5762 | 5/21/2012@1:21:15 PM | |
| UU62C1 | 20 | 1.5325 | 61.5450 | 5/21/2012@1:22:25 PM | |
| UU62D1 | 21 | 1.0591 | 42.4959 | 5/21/2012@1:23:36 PM | |
| UU62E1 | 22 | 1.9593 | 78.7200 | 5/21/2012@1:24:48 PM | |
| CCV | 17 | 0.5262 | 21.0497 | 5/21/2012@1:25:58 PM | |
| Known Conc: | | 0.5000 | | | |
| CCB | 18 | -0.0056 | -0.3486 | 5/21/2012@1:31:55 PM | |
| Known Conc: | | 0.0000 | | | |
| UU62F1 | 23 | 1.2848 | 51.5793 | 5/21/2012@1:37:52 PM | |
| UU62G1 | 24 | 1.5016 | 60.3020 | 5/21/2012@1:39:03 PM | |
| UU62H1 | 25 | 0.9540 | 38.2667 | 5/21/2012@1:40:13 PM | |
| UU62I1 | 26 | 1.4353 | 57.6342 | 5/21/2012@1:41:25 PM | |
| UU52A2 | 27 | 1.3537 | 54.3500 | 5/21/2012@1:42:37 PM | |
| UU52B2 | 28 | 1.3099 | 52.5880 | 5/21/2012@1:43:48 PM | |
| UU52C2 | 29 | 2.1347 | 85.7796 | 5/21/2012@1:44:59 PM | |
| UU52D2 | 30 | 1.4843 | 59.6048 | 5/21/2012@1:46:10 PM | |
| UU52E2 | 31 | 1.8371 | 73.8039 | 5/21/2012@1:47:22 PM | |
| UU52F2 | 32 | 0.6199 | 24.8216 | 5/21/2012@1:48:33 PM | |
| CCV | 17 | 0.5265 | 21.0616 | 5/21/2012@1:49:44 PM | |
| Known Conc: | | 0.5000 | | | |
| CCB | 18 | -0.0059 | -0.3618 | 5/21/2012@1:55:40 PM | |
| Known Conc: | | 0.0000 | | | |
| UU52G2 | 33 | 0.1747 | 6.9063 | 5/21/2012@2:01:38 PM | |
| UU52H2 | 34 | 0.5669 | 22.6888 | 5/21/2012@2:02:48 PM | |
| UU52I2 | 35 | 0.1269 | 4.9835 | 5/21/2012@2:04:00 PM | |
| UU52J2 | 36 | 1.1247 | 45.1362 | 5/21/2012@2:05:12 PM | |
| UU52K2 | 37 | 1.1343 | 45.5205 | 5/21/2012@2:06:24 PM | |
| PREP CHECK | 38 | 10.0876 | 20.1731 | 5/21/2012@2:07:35 PM | 20.00 |
| UU62A1 MS | 39 | ~~10.4240.5212~~ | 20.8490 | 5/21/2012@2:08:46 PM | ~~1.00~~ 20 |
| Spiking Conc: | | 10.0000 | | | |
| UU62A1 DUP | 40 | 1.0373 | 20.7476 | 5/21/2012@2:09:58 PM | 2.00 |
| UU62C1 | 41 | 1.5427 | 30.9172 | 5/21/2012@2:11:09 PM | 2.00 |
| UU62D1 | 42 | 1.0635 | 21.2749 | 5/21/2012@2:12:21 PM | 2.00 |
| CCV | 17 | 0.5268 | 21.0740 | 5/21/2012@2:13:32 PM | |
| Known Conc: | | 0.5000 | | | |
| CCB | 18 | -0.0030 | -0.2446 | 5/21/2012@2:19:28 PM | |

PH
5-21-12



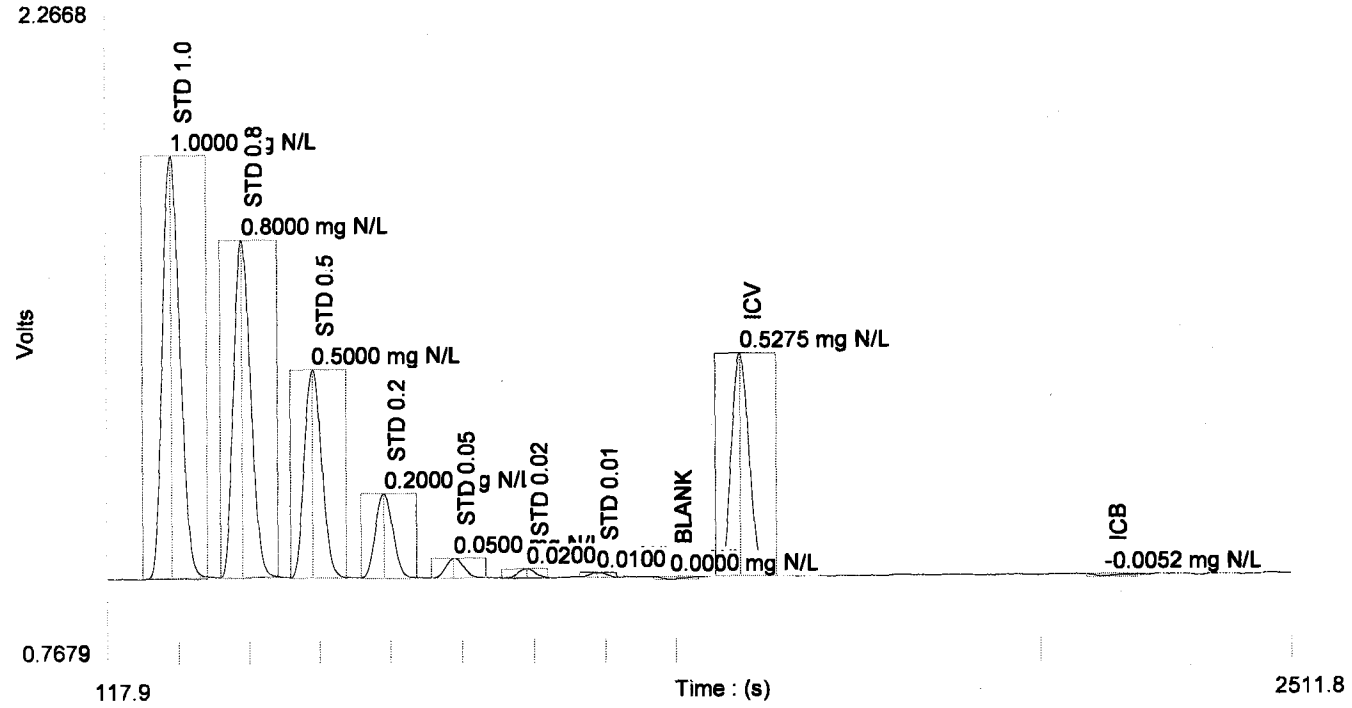
UU52 : 02192

Author: Carol Hawkins

Date : 5/21/2012

| | | | | | |
|---|---|---|---|---|---|
| | Known Conc: | 0.0000 | | | |
| UU62E1 | 43 | 1.9343 | 15.4442 | 5/21/2012@2:25:26 PM | 5.00 |
| UU62F1 | 44 | 1.2823 | 25.6772 | 5/21/2012@2:26:38 PM | 2.00 |
| UU62G1 | 45 | 1.5107 | 30.2719 | 5/21/2012@2:27:49 PM | 2.00 |
| UU62I1 | 46 | 1.4366 | 28.7815 | 5/21/2012@2:29:01 PM | 2.00 |
| UU52A2 | 47 | 1.3558 | 27.1552 | 5/21/2012@2:30:13 PM | 2.00 |
| UU52B2 | 48 | 1.3064 | 26.1615 | 5/21/2012@2:31:25 PM | 2.00 |
| UU52C2 | 49 | 2.1155 | 16.9026 | 5/21/2012@2:32:37 PM | 5.00 |
| UU52D2 | 50 | 1.4922 | 29.9000 | 5/21/2012@2:33:49 PM | 2.00 |
| UU52E2 | 51 | 1.8262 | 14.5737 | 5/21/2012@2:35:01 PM | 5.00 |
| UU52J2 | 52 | 1.1319 | 22.6501 | 5/21/2012@2:36:13 PM | 2.00 |
| CCV | 17 | 0.5277 | 21.1127 | 5/21/2012@2:37:24 PM | |
| | Known Conc: | 0.5000 | | | |
| CCB | 18 | -0.0047 | -0.3116 | 5/21/2012@2:43:21 PM | |
| | Known Conc: | 0.0000 | | | |
| UU52K2 | 53 | 1.1393 | 22.7995 | 5/21/2012@2:49:19 PM | 2.00 |
| KCL | 54 | -0.0062 | -0.3714 | 5/21/2012@2:50:31 PM | |
| CCV | 17 | 0.5291 | 21.1675 | 5/21/2012@2:51:42 PM | |
| | Known Conc: | 0.5000 | | | |
| CCB | 18 | -0.0054 | -0.3411 | 5/21/2012@2:57:39 PM | |
| | Known Conc: | 0.0000 | | | |

Channel 1 - Set: 1 / 7



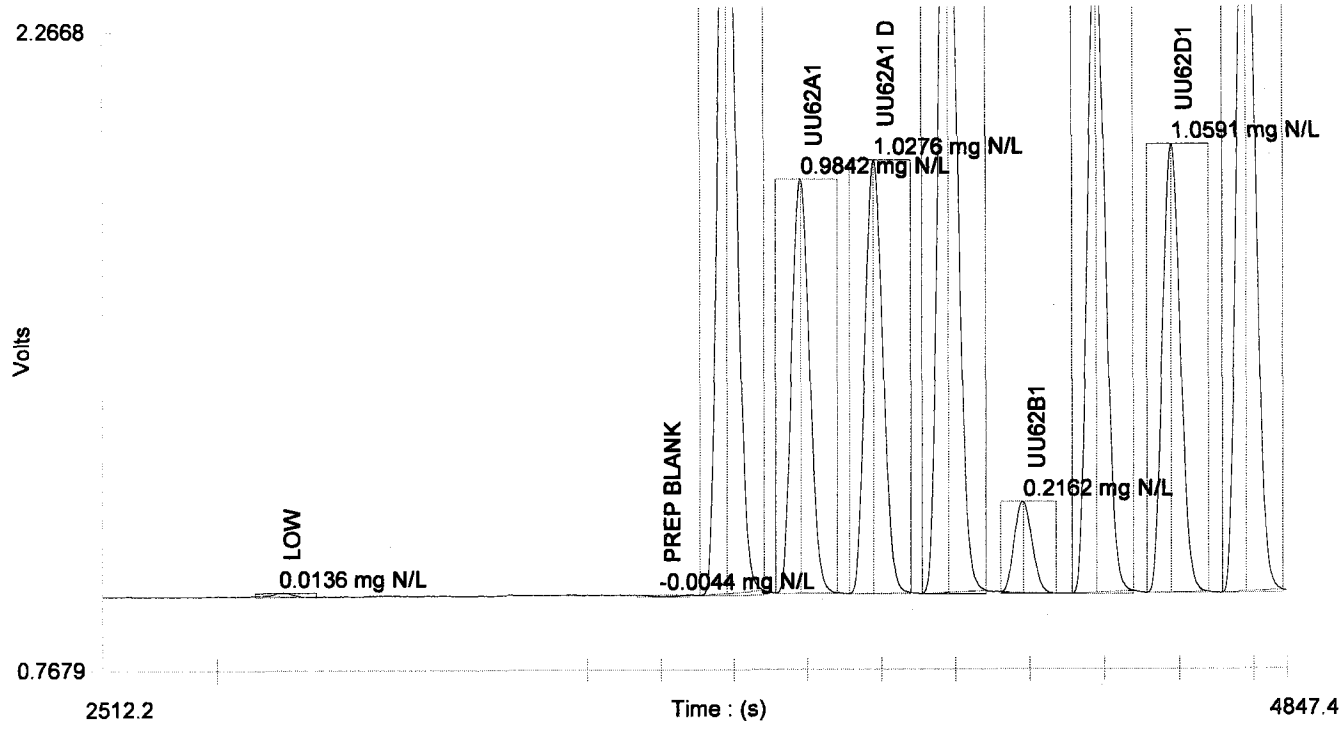



UU52 : 02193

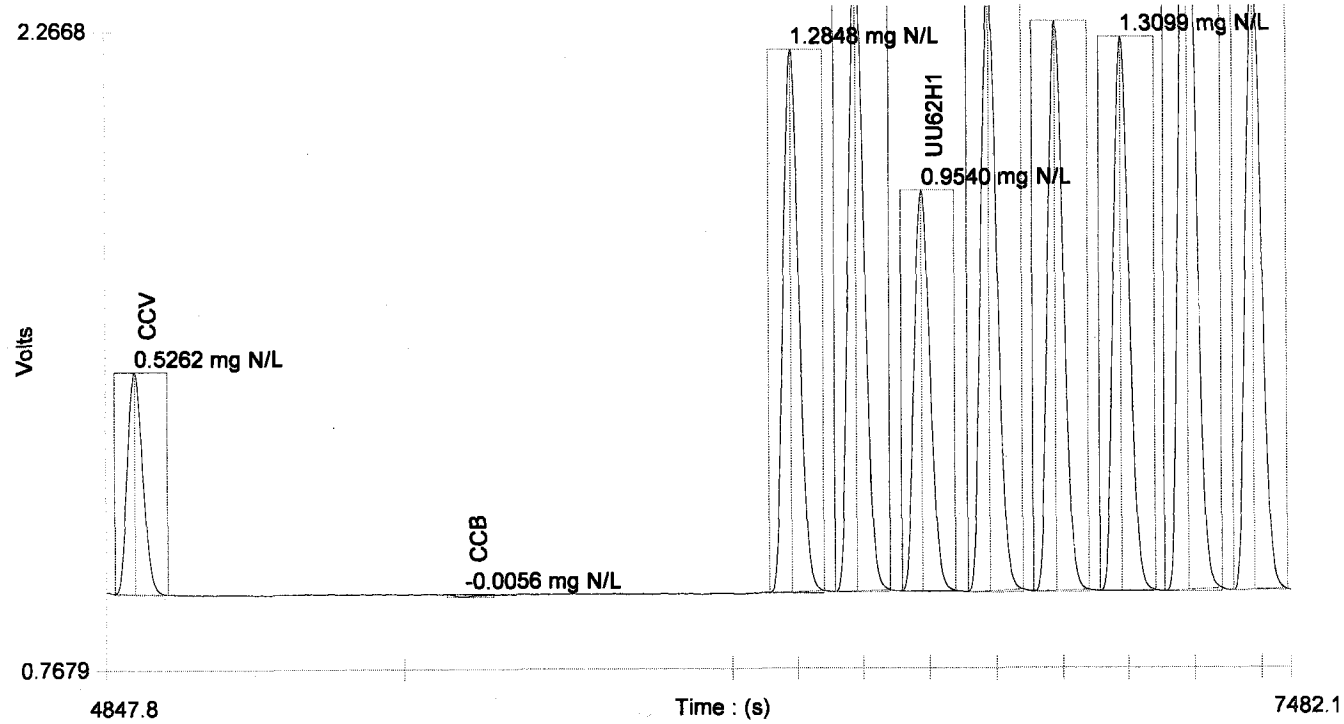
Author: Carol Hawkins

Date : 5/21/2012

Channel 1 - Set: 2 / 7




Channel 1 - Set: 3 / 7





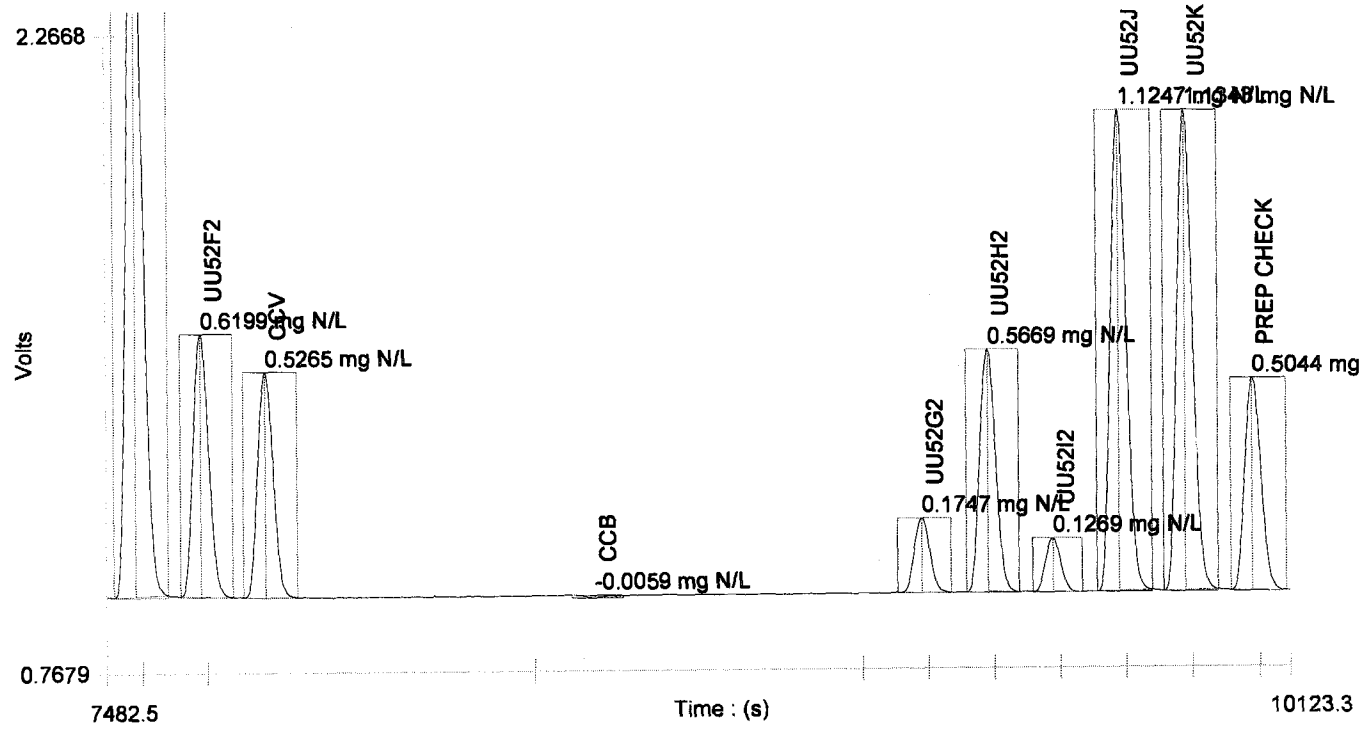

05212012NH3A SOILS LACHAT 1

UU52 : 0219H

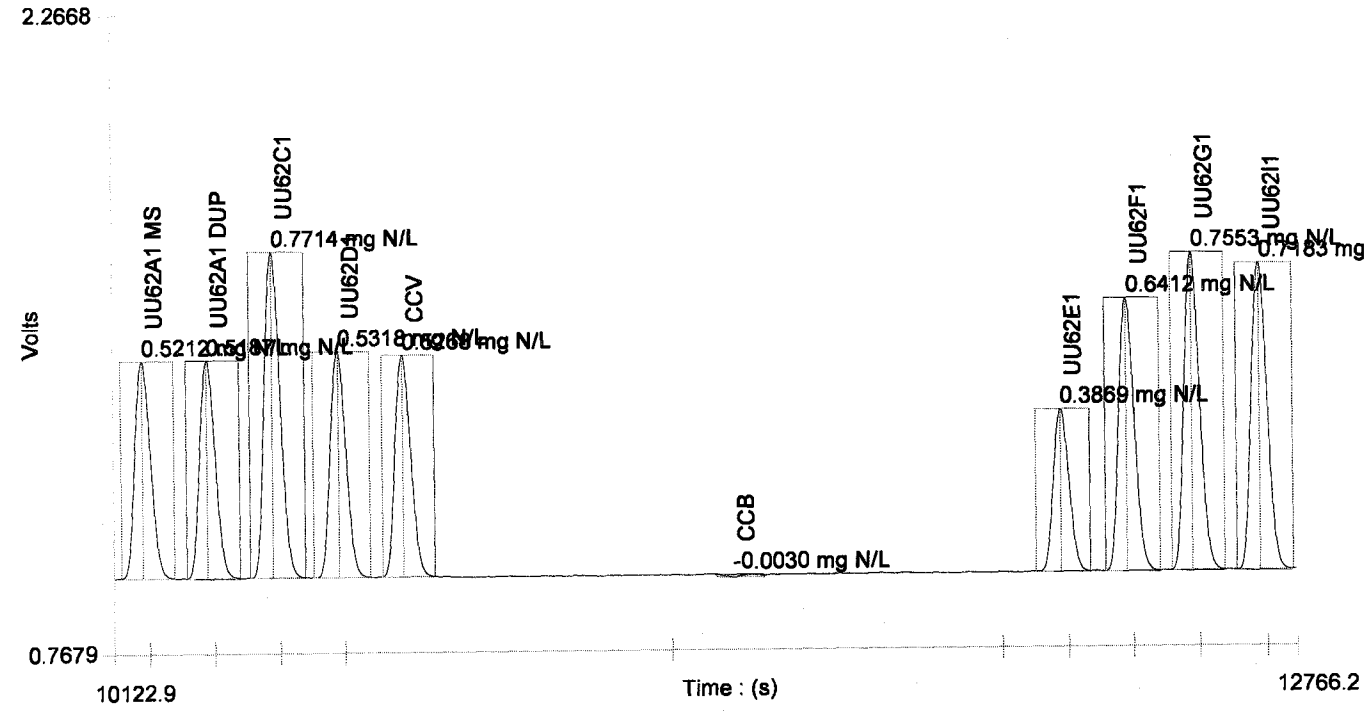
Author: Carol Hawkins

Date : 5/21/2012

Channel 1 - Set: 4 / 7




Channel 1 - Set: 5 / 7





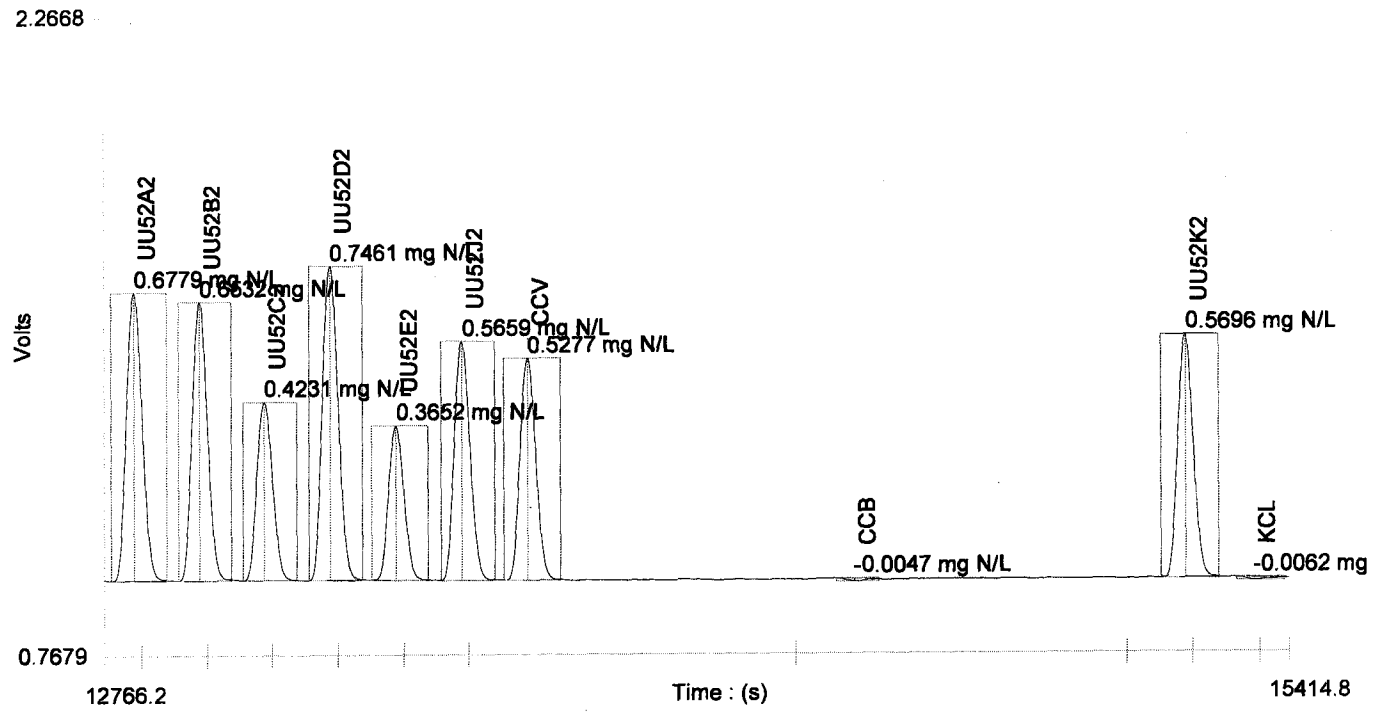



UU52 : 02195

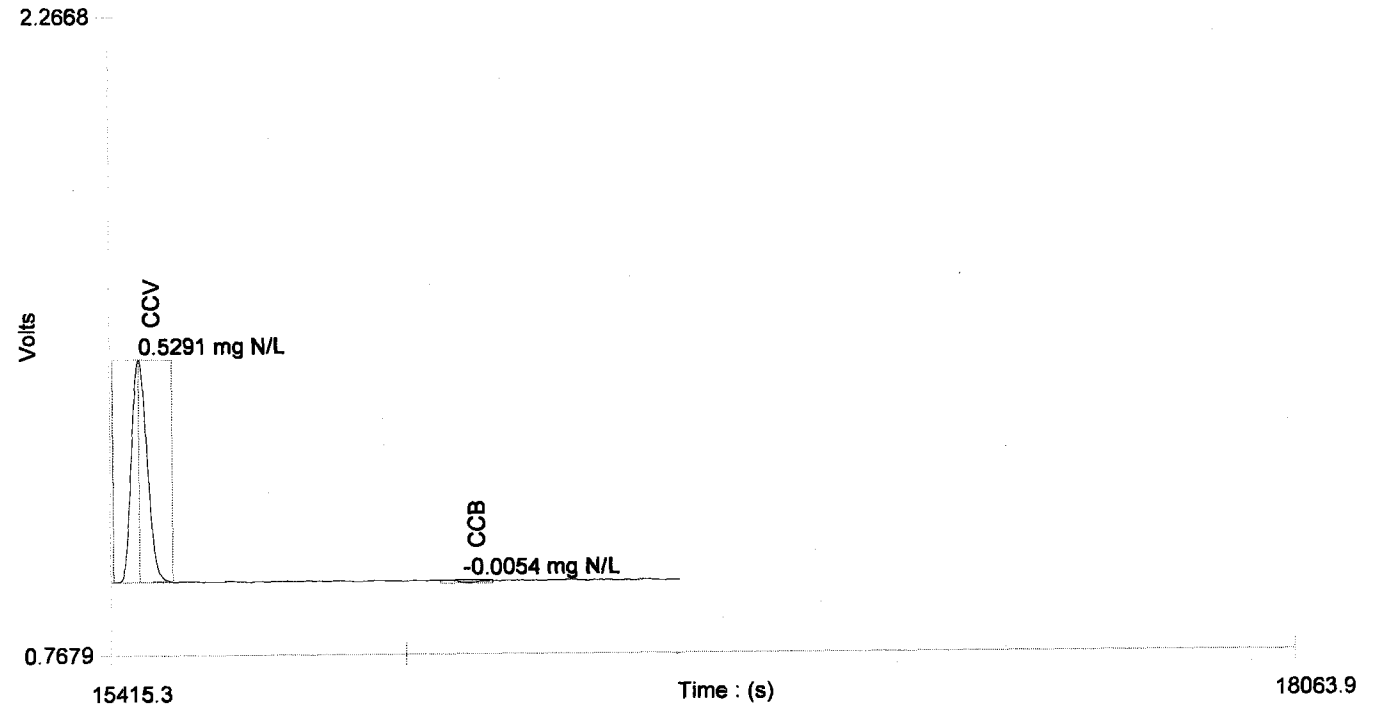
Author: Carol Hawkins

Date : 5/21/2012

Channel 1 - Set: 6 / 7




Channel 1 - Set: 7 / 7





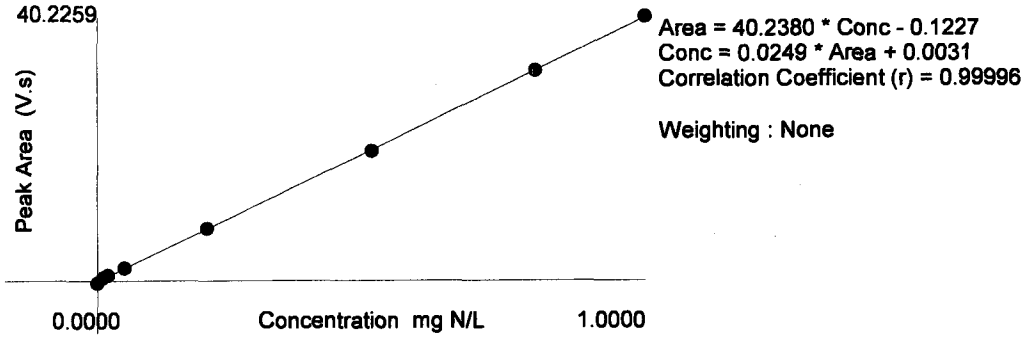

05212012NH3A SOILS LACHAT 1

UU52 : 02196

Table : 1 (NH3)

| | Known Conc. (mg N/L) | Rep. | Peak Area (V.s) | Peak Height (V) | % RSD | % Residual | Det. Conc (mg N/L) | Detection Date | Detection Time |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.0000 | 1 | 40.2259 | 0.9906 | 0.0 | -0.3 | 1.0027 | 5/21/2012 | 12:48:09 PM |
| 2 | 0.8000 | 1 | 32.0222 | 0.7910 | 0.0 | 0.1 | 0.7988 | 5/21/2012 | 12:49:20 PM |
| 3 | 0.5000 | 1 | 19.8143 | 0.4876 | 0.0 | 0.9 | 0.4955 | 5/21/2012 | 12:50:30 PM |
| 4 | 0.2000 | 1 | 7.9810 | 0.1977 | 0.0 | -0.7 | 0.2014 | 5/21/2012 | 12:51:40 PM |
| 5 | 0.0500 | 1 | 1.9237 | 0.0467 | 0.0 | -1.8 | 0.0509 | 5/21/2012 | 12:52:50 PM |
| 6 | 0.0200 | 1 | 0.8151 | 0.0212 | 0.0 | -19.5 | 0.0233 | 5/21/2012 | 12:54:01 PM |
| 7 | 0.0100 | 1 | 0.4091 | 0.0114 | 0.0 | -46.3 | 0.0132 | 5/21/2012 | 12:55:11 PM |
| 8 | 0.0000 | 1 | -0.3586 | -0.0067 | | | -0.0058 | 5/21/2012 | 12:56:21 PM |

Figure : 1 (NH3)






UU52 : 02197

| SULFIDE BENCHSHEET (Spectrophotometric, EPA 376.2) | | Date Time | Analyst |
|---|---|---|---|
| **Soils, sediments and solid phase samples** | *Distillation* | 5/18/12 8:40 | CLH/CR |
| | *Finish* | 5/18/12 17:31 | CLH/CR |

*If distilled, specify Procedure:* **PSEP**

**1. *Standardization of sodium thiosulfate titrant***

*Buret used for titrations:* CLASS A GLASS S2

*Thiosulfate ID:* **9237C**

*Bi-iodate ID:* **8560C**

*Stock bi-iodate =* **0.8130** *grams to* 1000 *mL*

*Normality =* **0.025**

*Titration of bi-iodate with thiosulfate*

| | | | | |
|---|---|---|---|---|
| *mL bi-iodate =* | 3.00 | 3.00 | 3.00 | |
| *mL thiosulfate =* | 3.15 | 3.10 | 3.10 | *nthio* |
| *Normality thiosulfate = (mL bi-iodate*normbio) / mL thiosulfate =* | 0.024 | 0.024 | 0.024 | **0.024** |

**2. *Normality of Iodine***

*Iodine ID:* **9182C**

*Titration of Iodine with thiosulfate*

| | | | | |
|---|---|---|---|---|
| *mL iodine =* | 3.00 | 3.00 | 3.00 | |
| *mL thiosulfate =* | 3.05 | 3.05 | 3.05 | *ni* |
| *Normality iodine = (mL thiosulfate*nthio) / mL iodine=* | 0.024 | 0.024 | 0.024 | **0.024** |

**3. *Standardization of Sodium Sulfide Stock***

*Stock ID =* **00122-6**

*Approx conc in 100ml*

*g Na2S =* 0.6026 *mg /mL =* 0.804

*Titration of standard with thiosulfate*

| | | | | |
|---|---|---|---|---|
| *mL Standard =* | 1.00 | 1.00 | 1.00 | |
| *mL iodine =* | 3.00 | 3.00 | 3.00 | |
| *mL thiosulfate =* | 1.40 | 1.40 | 1.40 | *stkconc (mg/mL)* |
| *Sulfide (mg/mL) = {[(mL iodine*ni)-(mL thio *nthio)]*16) / mL standard =* | 0.636 | 0.636 | 0.636 | **0.636** |

***Intermediate Standard***

*Add* 9.8 *mL stk to* 250 *mL 0.01M NaOH =* **0.025** ***mg/mL***

*mL required for for 0.025 mg/mL* 9.8

**4. *Calibration Standard Curve***

***spectrophotometer used:***

| Inter Std Volume (mL) | Final Volume (mL) | Calc Conc (mg S/L) | Absorbance @650 nm 1 | Absorbance @650 nm 2 | AVG ABS | mg/L |
|---|---|---|---|---|---|---|
| 0.00 | 50 | 0.000 | 0.000 | | 0.000 | *0.013* |
| 0.10 | 50 | 0.050 | 0.033 | | 0.033 | *0.054* |
| 0.25 | 50 | 0.125 | 0.087 | | 0.087 | *0.122* |
| 0.50 | 50 | 0.249 | 0.175 | | 0.175 | *0.233* |
| 1.00 | 50 | 0.498 | 0.381 | | 0.381 | *0.493* |
| 2.00 | 50 | 0.997 | 0.787 | | 0.787 | *1.004* |
| ***Calib Verif Std =*** | | 1.0 | *ml INT to* | 50 | *ml ZnOAc=* | 0.498 *mg/l* |
| ***Distillation Std =*** | | 1.0 | *ml stk to* | 100 | = | 6.36 *mg/l* |

**RegressionData**

*intercept =* -0.010

*slope =* 0.794

*r =* 0.9996

*Comment:* Calibration OK!

*maxabs =* 0.787

**SAMPLE DATA**

*enter dilution as mL final/mL sample*

| | Distillation Data | | | Spectrophotometric Data | | | | SAMPLE DATA | |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID | SAMPLE SIZE | % Solids | TRAP VOLUME (ml) | Dilution Factor | Abs @ 650 nm Sample | Abs @ 650 nm Bkg | regressed Conc (mg S/L) | CORR CONC (ppm) | |
| ICB | | na | na | 1.00 | 0.000 | | 0.013 | < 0.05 | *OK!* |
| ~~ICV~~ | | ~~na~~ | ~~na~~ | ~~1.00~~ | ~~0.338~~ | | ~~0.438~~ | ~~0.438~~ | ~~*Err @88%*~~ |
| ICV | | na | na | 1.00 | 0.347 | | 0.450 | 0.450 | *90.23%* |
| ***Distilled samples*** | | | | | | | | | |
| Dist Blk | 100.0 | 100% | 100 | 1.00 | 0.004 | | 0.018 | < 0.05 | *OK!* |
| Dist Chk | 100.0 | 100% | 100 | 10.00 | 0.486 | | 0.625 | 6.249 | *98.28%* |
| Dist Chk2 | 100.0 | 100% | 100 | 10.00 | 0.439 | | 0.566 | 5.657 | *88.97%* |
| ***Soil Samples*** | **(grams)** | **% Solids** | **(mL)** | | **Sample** | **Bkg** | **(mg/L)** | **mg/kg** | |
| UU62A2 | 5.1130 | 10.7% | 100 | 10.00 | 0.748 | | 0.955 | 1745.335 | |
| UU62A2 dup | 5.1500 | 10.7% | 100 | 10.00 | 0.655 | | 0.838 | 1520.232 | *RPD=13.79%* |
| ~~UU62A2 ms~~ | 5.1740 | 10.7% | 100 | 20.00 | 0.880 | | 1.121 | 4050.125 | *offscale* |
| | | *Spike at* | *2.00* | *ml stock to* | *0.554* | *g dry wt =* | | *2296.959* | *mg/kg* |
| UU62B2 | 5.122 | 11.0% | 100 | 1.00 | 0.024 | | 0.043 | < 8.847 | |
| UU62C2 | 5.054 | 10.5% | 100 | 20.00 | 0.448 | | 0.577 | 2174.637 | |
| UU62D2 | 5.084 | 9.6% | 100 | 10.00 | 0.580 | | 0.743 | 1522.876 | |
| ~~UU62E2~~ | ~~5.253~~ | ~~10.8%~~ | ~~100~~ | ~~20.00~~ | ~~1.529~~ | | ~~1.939~~ | ~~6833.930~~ | ~~*offscale*~~ |
| Cal Blk | | na | na | 1.00 | -0.001 | | 0.011 | < 0.05 | *OK!* |
| CCV | | na | na | 1.00 | 0.370 | | 0.479 | 0.479 | *96.04%* |



UU52 : 02198

**SAMPLE DATA**

*enter dilution as mL final/mL sample*

| | Distillation Data | | | Spectrophotometric Data | | | | SAMPLE DATA | |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID | SAMPLE SIZE | % Solids | TRAP VOLUME (ml) | Dilution Factor | Abs @ 650 nm Sample | Bkg | regressed Conc (mg S/L) | CORR CONC (ppm) | |
| ~~UU62F2~~ | ~~5.106~~ | ~~11.0%~~ | ~~100~~ | ~~10.00~~ | ~~0.947~~ | | ~~1.205~~ | ~~2146.312~~ | ~~*offscale*~~ |
| UU62G2 | 5.085 | 11.0% | 100 | 10.00 | 0.301 | | 0.392 | 700.565 | |
| UU62H2 | 5.139 | 7.9% | 100 | 10.00 | 0.728 | | 0.930 | 2289.928 | |
| ~~UU62I2~~ | ~~4.754~~ | ~~11.1%~~ | ~~100~~ | ~~10.00~~ | ~~1.101~~ | | ~~1.399~~ | ~~2652.030~~ | ~~*offscale*~~ |
| ~~UU52A1~~ | ~~4.992~~ | ~~9.7%~~ | ~~100~~ | ~~10.00~~ | ~~1.107~~ | | ~~1.407~~ | ~~2905.716~~ | ~~*offscale*~~ |
| ~~UU52B1~~ | ~~5.000~~ | ~~9.7%~~ | ~~100~~ | ~~10.00~~ | ~~1.155~~ | | ~~1.467~~ | ~~3025.718~~ | ~~*offscale*~~ |
| ~~UU52C1~~ | ~~4.831~~ | ~~10.5%~~ | ~~100~~ | ~~10.00~~ | ~~1.274~~ | | ~~1.617~~ | ~~3188.443~~ | ~~*offscale*~~ |
| UU52D1 | 4.564 | 10.9% | 100 | 20.00 | 0.708 | | 0.904 | 3636.264 | |
| UU52E1 | 4.824 | 10.0% | 100 | 20.00 | 0.768 | | 0.980 | 4063.213 | |
| UU52F1 | 5.100 | 8.3% | 100 | 10.00 | 0.609 | | 0.780 | 1842.161 | |
| Cal Blk | | na | na | 1.00 | -0.001 | | 0.011 | < 0.05 | *OK!* |
| CCV | | na | na | 1.00 | 0.358 | | 0.464 | 0.464 | *93.01%* |
| UU52G1 | 5.154 | 6.9% | 100 | 1.00 | 0.048 | | 0.073 | 20.585 | |
| UU52H1 | 5.003 | 19.0% | 100 | 10.00 | 0.531 | | 0.682 | 716.986 | |
| UU52I1 | 5.447 | 8.1% | 100 | 10.00 | 0.610 | | 0.781 | 1770.249 | |
| UU52J1 | 5.254 | 10.6% | 100 | 10.00 | 0.749 | | 0.956 | 1716.781 | |
| UU52K1 | 5.376 | 10.5% | 100 | 20.00 | 0.445 | | 0.573 | 2030.997 | |
| UU62A2 ms | 5.1740 | 10.7% | 100 | 50.00 | 0.362 | | 0.469 | 4232.975 | *108.30%* |
| | | *Spike at* | *2.00* | *ml stock to* | *0.554* | *g dry wt =* | | *2296.959* | *mg/kg* |
| UU62E2 | 5.253 | 10.8% | 100 | 50.00 | 0.391 | | 0.505 | 4452.621 | |
| UU62F2 | 5.106 | 11.0% | 100 | 20.00 | 0.465 | | 0.598 | 2130.893 | |
| UU62I2 | 4.754 | 11.1% | 100 | 20.00 | 0.610 | | 0.781 | 2960.224 | |
| UU52A1 | 4.992 | 9.7% | 100 | 20.00 | 0.558 | | 0.716 | 2955.459 | |
| Cal Blk | | na | na | 1.00 | -0.004 | | 0.008 | < 0.05 | *OK!* |
| CCV | | na | na | 1.00 | 0.347 | | 0.450 | 0.450 | *90.23%* |
| UU52B1 | 5.000 | 9.7% | 100 | 20.00 | 0.587 | | 0.752 | 3101.351 | |
| UU52C1 | 4.831 | 10.5% | 100 | 20.00 | 0.463 | | 0.596 | 2349.507 | |
| Cal Blk | | na | na | 1.00 | -0.003 | | 0.009 | < 0.05 | *OK!* |
| CCV | | na | na | 1.00 | 0.348 | | 0.451 | 0.451 | *90.49%* |



UU52102199

| SULFIDE BENCHSHEET (Spectrophotometric, EPA 376.2) Soils, sediments and solid phase samples | | Date Time | Analyst |
|---|---|---|---|
| | Distillation | 5-18-12 8:40 | [illegible] /CR |
| | Finish | 5-18-12 17:31 | [illegible] /CR |

If distilled, specify Procedure: PSEP

**1. Standardization of sodium thiosulfate titrant** — Buret used for titrations: Class A Glass S2

Thiosulfate ID: 9237C

Bi-iodate ID: 8530C

Stock bi-iodate = 0.8130 grams to 1000 mL

Normality =

Titration of bi-iodate with thiosulfate

| | | | | |
|---|---|---|---|---|
| mL bi-iodate = | 3.0 | 3.0 | 3.0 | |
| mL thiosulfate = | | | | nthio |
| Normality thiosulfate = (mL bi-iodate*normbio) / mL thiosulfate = | | | | |

**2. Normality of Iodine**

Iodine ID: 9182C

Titration of Iodine with thiosulfate

| | | | | |
|---|---|---|---|---|
| mL iodine = | 3.0 | 3.0 | 3.0 | |
| mL thiosulfate = | 3.05 | 3.05 | 3.05 | ni |
| Normality iodine = (mL thiosulfate*nthio) / mL iodine= | | | | |

**3. Standardization of Sodium Sulfide Stock**

Stock ID = 00122-6

Approx conc in 100ml

g Na2S = 0.6026 mg /mL =

Titration of standard with thiosulfate

| | | | | |
|---|---|---|---|---|
| mL Standard = | 1.0 | 1.0 | 1.0 | |
| mL iodine = | 3.0 | 3.0 | 3.0 | |
| mL thiosulfate = | 1.4 | 1.4 | 1.4 | stkconc (mg/mL) |
| Sulfide (mg/mL) = {[(mL iodine*ni)-(mL thio *nthio)]*16} / mL standard = | | | | |

**Intermediate Standard**

Add 9.8 mL stk to 250 mL 0.01M NaOH = mg/mL

**4. Calibration Standard Curve** — spectrophotometer used:

| Inter Std Volume (mL) | Final Volume (mL) | Calc Conc (mg S/L) | Absorbance @650 nm 1 | Absorbance @650 nm 2 | AVG ABS | mg/L |
|---|---|---|---|---|---|---|
| 0.00 | 50 | | 0.000 | | | |
| 0.10 | 50 | | 0.033 | | | |
| 0.25 | 50 | | 0.087 | | | |
| 0.50 | 50 | | 0.175 | | | |
| 1.00 | 50 | | 0.381 | | | |
| 1.50 | 50 | | 0.787 | | | |

**RegressionData**

intercept =

slope =

r =

Comment:

maxabs =

| | | | | | | |
|---|---|---|---|---|---|---|
| **Calib Verif Std =** | 0.5 | ml int to | 50 | ml ZnOAc= | | mg/l |
| **Distillation Std =** | 1 | ml stk to | 100 | = | | mg/l |

**SAMPLE DATA**

enter dilution as mL final/mL sample

| SAMPLE ID | Distillation Data: SAMPLE SIZE | % Solids | TRAP VOLUME (ml) | Dilution Factor | Spectrophotometric Data: Abs @ 650 nm Sample | Abs @ 650 nm Bkg | regressed Conc (mg S/L) | SAMPLE DATA: CORR CONC (ppm) | |
|---|---|---|---|---|---|---|---|---|---|
| **Soil Samples** | **(grams)** | **% Solids** | **(mL)** | | **Sample** | **Bkg** | **(mg/L)** | **mg/kg** | |
| ICB | | | | | 0.000 | | | | |
| ICV/ICV | | | | | 0.338/0.347 | | | | |
| D. Blank | — | — | 100 | | ~~0.347~~ 0.004 | | | | |
| LCS | — | — | | 10 | ~~0.004~~ 0.486 | | | | |
| LCS2 | — | — | | 10 | 0.439 | | | | |
| UU62A2 | 5.1130 | 10.7 | | 10 | 0.748 | | | | |
| ↓ A2 | 5.150 | ↓ | | 10 | 0.655 | | | | |
| ↓ B2 | 5.174 | ↓ | | 20 | 0.880 | | | | |
| ↓ B2 | 5.122 | 11.0 | | 1 | 0.024 | | | | |
| ↓ C2 | 5.054 | 10.5 | | 20 | 0.448 | | | | |
| ↓ D2 | 5.084 | 9.6 | | 10 | 0.580 | | | | |
| ↓ E2 | 5.253 | 10.8 | ↓ | 20 | 1.529 | | | | |
| CCB | | | | | -0.001 | | | | |
| CCW | | | | | 0.370 | | | | |
| UU62F2 | 5.106 | 11.0 | 100 | 10 | 0.947 | | | | |
| ↓ G2 | 5.085 | 11.0 | | 10 | 0.301 | | | | |
| ↓ H2 | 5.139 | 7.9 | | 10 | 0.728 | | | | |
| ↓ I2 | 4.755 | 11.1 | | 10 | 1.101 | | | | |
| UU52A1 | 4.992 | 9.7 | | 10 | 1.107 | | | | |
| ↓ B1 | 5.000 | 9.7 | | 10 | 1.155 | | | | |
| ↓ C1 | 4.831 | 10.5 | | 10 | 1.274 | | | | |
| ↓ D1 | 4.564 | 10.9 | | 20 | 0.708 | | | | |
| ↓ E1 | 4.829 | 10.0 | | 20 | 0.768 | | | | |
| ↓ F1 | 5.100 | 8.3 | ↓ | 10 | 0.609 | | | | |
| CCB | | | | | -0.001 | | | | |
| CCW | | | | | 0.358 | | | | |
| UU52G1 | 5.154 | 0.9 ~~11.0~~ | 100 | 1 | 0.048 | | | | |
| ↓ H1 | 5.003 | ~~7.9~~ 19.0 | ↓ | 10 | 0.531 | | | | |

**SAMPLE DATA**

*enter dilution as mL final/mL sample*

| | Distillation Data | | | Spectrophotometric Data | | | | SAMPLE DATA | |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID | SAMPLE SIZE | % Solids | TRAP VOLUME (ml) | Dilution Factor | Abs @ 650 nm Sample | Abs @ 650 nm Bkg | regressed Conc (mg S/L) | CORR CONC (ppm) | |
| UU52I1 | 5.447 | ~~11.1~~ 0.1 | 100 | 10 | 0.610 | | | | |
| J1 | 5.254 | 10.6 | | 10 | 0.749 | | | | |
| K1 | 5.376 | 10.5 | | 20 | 0.445 | | | | |
| UU62A[illegible] | 5.1740 | 10.7 | | ~~70~~ 50 | 0.362 | | | | |
| E2 | 5.253 | 10.8 | | 50 | 0.391 | | | | |
| F2 | 5.106 | 11.0 | | ~~50~~ 20 | 0.465 | | | | |
| I2 | 4.759 | 11.1 | | 20 | 0.610 | | | | |
| UU52A1 | 4.992 | 97 | | 20 | 0.558 | | | | |
| CUB | | | | ~~20~~ | -0.004 | | | | |
| CCV | | | | | 0.347 | | | | |
| UU52B1 | 5.000 | 97 | 100 | 20 | 0.587 | | | | |
| C1 | 4.831 | 10.5 | | 20 | 0.463 | | | | |
| CCB | | | | | -0.003 | | | | |
| CCV | | | | | 0.348 | | | | |

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# Sulfide Digestion Log

| | | | Pretreatment Data | | | | | | | Sample Extraction Data | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | % Solids | % Water | Date | Sample Weight | Extract Method* | Acid | Required pH | mL DI Water | Observed mL acid | Date | Sample Weight | mL Acid Required | mL DI Water Required | Trap Volume (mL) |
| PB | | | 5-18-12 | NA | PSEP | HCl/NAI | < 3 | NA | NA | 5-18-12 | 100ml | NA | NA | 100ml |
| 2CS | | | | | | | | | | | | | | |
| UU62 A2 | 10.7 | | | | | | | | | | 5.113 | | 50ml | |
| A2 DUP | | | | | | | | | | | 5.150 | | | |
| A2 MS | | | | | | | | | | | 5.174 | | | |
| B2 | 11.0 | | | | | | | | | | 5.122 | | | |
| C2 | 10.5 | | | | | | | | | | 5.054 | | | |
| D2 | 9.6 | | | | | | | | | | 5.084 | | | |
| E2 | 10.8 | | | | | | | | | | 5.253 | | | |
| F2 | 11.0 | | | | | | | | | | 5.106 | | | |
| G2 | 11.0 | | | | | | | | | | 5.085 | | | |
| H2 | 7.4 | | | | | | | | | | 5.139 | | | |
| I2 | 11.1 | | | | | | | | | | 4.754 | | | |
| UU52 A2 | 9.7 | | | | | | | | | | 4.992 | | | |
| B2 | 9.7 | | | | | | | | | | 5.000 | | | |
| C2 | 10.5 | | | | | | | | | | 4.831 | | | |
| D2 | 10.9 | | | | | | | | | | 4.564 | | | |
| E2 | 10.0 | | | | | | | | | | 4.824 | | | |
| F2 | 8.3 | | | | | | | | | | 5.100 | | | |
| G2 | 6.9 | | | | | | | | | | 5.154 | | | |

1ml
ARA
00127-6
2ml

UU52:02202

* Extarct Methods: **PSEP** = PSEP; **9030A** = 9030A Acid Soluble; **9030AI** = 9030A acid insoluble; **AVS** = Acid Volatile; **Reactive** = SW-846 reactive

**Analyst Name:** CM **Date:** 5-18-12 **Time:** 8:40

Analytical Resources, Incorporated
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# Sulfide Digestion Log

| | | | Pretreatment Data | | | | | | | Sample Extraction Data | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | % Solids | % Water | Date | Sample Weight | Extract Method* | Acid | Required pH | mL DI Water | Observed mL acid | Date | Sample Weight | mL Acid Required | mL DI Water Required | Trap Volume (mL) |
| H2 H1 | 19.0 | | 5.18.12 | NA | PSEP | HCl w/ AI | <3 | NA | NA | 5-15-12 | 5.003 | NA | 50ml | 100ml |
| I2 I1 | 8.1 | | | | | | | | | | 5.447 | | | |
| J2 J1 | 10.6 | | | | | | | | | | 5.254 | | | |
| K2 K1 | 10.5 | | | | | | | | | | 5.376 | | | |
| LCS 2X | | | | | | | | | | | 100ml | | NA | |

1ml Stk

* Extarct Methods: **PSEP** = PSEP; **9030A** = 9030A Acid Soluble; **9030AI** = 9030A acid insoluble; **AVS** = Acid Volatile; **Reactive** = SW-846 reactive

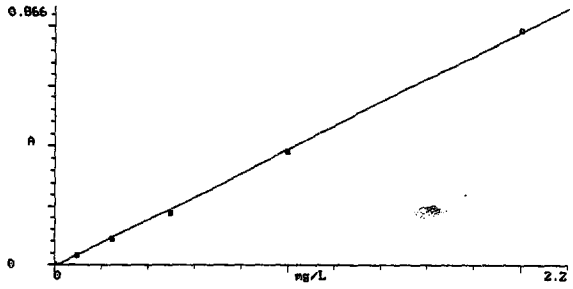
Analyst Name: _____ Date: _____ Time: _____



UU52 : 02203

TEST SETUP
GENESYS 10 v2.021 2G2G048006

| | |
|---|---|
| Standard Curve | 17:31 18May12 |
| Test Name | SULFIDE[Saved] |
| Date Standards Measured | 18May12 |
| Wavelength | 650nm |
| Ref. Wavelength Correction | Off |
| Curve Fit | Linear |
| Number of Standards | 6 |
| Units | mg/L |
| ID# (0=OFF) | Off |
| Low/High Limits | 0.050/1.000 |
| Statistics | Off |
| Auto Print | On |




| | |
|---|---|
| Curve Fit | Linear |
| Slope | 0.396 |
| Intercept | -0.0101 |
| Std Dev | 0.009 |
| Corr Coeff | 1.000 |

| Conc. mg/L | Abs 650nm |
|---|---|
| 0.000 | 0.000 |
| 0.100 | 0.033 |
| 0.250 | 0.087 |
| 0.500 | 0.175 |
| 1.000 | 0.381 |
| 2.000 | 0.787 |

5-18-12

TEST SETUP
GENESYS 10 v2.021 2G2G048006

| | |
|---|---|
| Advanced A-%T-C | 17:32 18May12 |
| Test Name | SULFIDE[Saved] |
| Measurement Mode | Absorbance |
| Wavelength | 650nm |
| Ref. Wavelength Correction | Off |
| Delay Time (min:sec) | 0:00 |
| ID# (0=OFF) | 1 |
| Low/High Limits | 0.000/1.000 |
| Statistics | Off |
| Auto Print | On |

| ID# | Abs 650nm |
|---|---|
| 1 | 0.000 |

| | |
|---|---|
| 2 | 0.338 |
| 3 | 0.347 |
| 4 | 0.004 |
| 5 | 0.486 |
| 6 | 0.439 |
| 7 | 0.748 |
| 8 | 0.655 |
| 9 | 0.880 |
| 10 | 0.024 |
| 11 | 0.448 |
| 12 | 0.580 |
| 13 | 1.529 |
| 14 | -0.001 |
| 15 | 0.370 |

UU52 : 02205

16 0.947

17 0.301

18 0.728

19 1.101

20 1.107

21 1.155

22 1.274

23 0.708

24 0.768

25 0.609

26 -0.001

27 0.358

28 0.048

29 0.531

UU52 : 02206

30 0.610

31 0.749

32 0.445

33 0.362

34 0.391

35 0.465

36 0.610

37 0.558

38 -0.004

39 0.347

40 0.587

41 0.463

42 -0.003

43 0.348

UU52 : 02267

## TOC, Solids Data Analysis

DATE: 5/24/2012
ANALYST: KE 11:48

*Instrument:* Apollo 2
*Mode:* NPOC *Inlet:* Boat
*Spike Std =* 2,500 *ppm C*

### *Calibration Data*

*Cal Curve ID:* **4/30/12 BOAT CAL** *Conc:* 5,000 *ppm*
*Calibration Curve Standard:* **00123 - 4** *Curve Date:* **04/30/12**
*CalFact:* **2.796E+05** *intercept:* **-226534** *r2 :* **0.99943**
*Curve Range (ppm)* 200 *to* 2,500
*Curve Range (µgC):* 8 *to* 100 *40 µL injections of designated standard*

### *Verification Standard*

Source: ***ERA# 0513 - 10 - 06*** *Conc:* **5,000** *ppm*
***dilution :*** 10 *mL to* 50 **1,000** *ppm*

### *Standard Reference Material*

Source: ***NIST 8704*** *Conc:* **33,510** *ppm*
Source: ***NIST 1941B*** *Conc:* **29,900** *ppm*

### *Silica Blanks*

| Replicate determinations | | | | | | Mean | RSD | condition |
|---|---|---|---|---|---|---|---|---|
| 18.8 | 26.7 | 31.6 | | | | 25.7 | 25.1% | *OK* |

### *Sample Data*

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

| Sample ID | Dilution Data | | | | Spike | Combustion Data | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample wt. (mg) | Final wt. (mg) | Silica (%) | Dilution Factor | (µL Std) | Burn wt. (mg) | C obs (ppm C) | C corr (ppm C) | *comments* |
| ICV | | | | 1.00 | | 40.0 | 971 | 971 | *97.10%* |
| Blank | | | | 1.00 | | 40.0 | 24.77 | 25 | *Blank OK* |
| ~~NIST 1941B~~ | | | - | ~~1.00~~ | | ~~3.5~~ | ~~29334~~ | ~~29,334~~ | ~~*Offscale, dilute*~~ |
| NIST 1941B | | | | 1.00 | | 2.8 | 27419 | 27,419 | *91.70%* |
| ~~UU62 A1~~ | | | - | ~~1.00~~ | | ~~0.8~~ | ~~129030~~ | ~~129,030~~ | ~~*Offscale, dilute*~~ |
| Silica Blanks 1 | | | | 1.00 | | 36.0 | 18.81 | 19 | *Low Scale* |
| Silica Blanks 2 | | | | 1.00 | | 36.5 | 26.65 | 27 | *Low Scale* |
| Silica Blanks 3 | | | | 1.00 | | 34.3 | 31.6 | 32 | *Low Scale* |
| UU62 A1 | 10.0 | 100.0 | 90.00% | 10.00 | | 1.8 | 14036 | 140,129 | *Range OK!* |
| UU62 A1 dup | 10.4 | 104.0 | 90.00% | 10.00 | | 1.7 | 13357 | 133,339 | *RPD=5%* |
| UU62 A1 trp | 10.1 | 100.2 | 89.92% | 9.92 | | 1.9 | 14320 | 141,837 | *RSD=3.2%* |
| UU62 A1 ms | 10.0 | 100.0 | 90.00% | 10.00 | 10 | 1.5 | 34016 | 339,929 | *Range OK!* |
| *Spike =* | *0.025* | *mg C to* | *0.2* | *mg samp=* | *166,667* | *ppm* | | *120%* | |
| CCV | | | | 1.00 | | 40.0 | 1001 | 1,001 | *100.10%* |
| Blank | | | | 1.00 | | 40.0 | 57.85 | 58 | *Blank OK* |

***Sample Data***

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

| Sample ID | Dilution Data | | | | Spike | Combustion Data | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample wt. (mg) | Final wt. (mg) | Silica (%) | Dilution Factor | (µL Std) | Burn wt. (mg) | C obs (ppm C) | C corr (ppm C) | comments |
| UU62 B1 | 11.1 | 109.7 | 89.88% | 9.88 | | 0.9 | 32808 | 324,009 | *Range OK!* |
| UU62 C1 | 11.8 | 117.5 | 89.96% | 9.96 | | 1.3 | 20861 | 207,496 | *Range OK!* |
| UU62 D1 | 10.7 | 104.2 | 89.73% | 9.74 | | 1.2 | 17437 | 169,583 | *Range OK!* |
| UU62 E1 | 12.2 | 117.3 | 89.60% | 9.61 | | 1.8 | 16031 | 153,913 | *Range OK!* |
| UU62 F1 | 11.3 | 112.6 | 89.96% | 9.96 | | 1.4 | 13041 | 129,718 | *Range OK!* |
| UU62 G1 | 11.2 | 109.1 | 89.73% | 9.74 | | 1.6 | 16535 | 160,844 | *Range OK!* |
| UU62 H1 | 11.6 | 113.7 | 89.80% | 9.80 | | 1.8 | 20591 | 201,601 | *Range OK!* |
| UU62 I 1 | 11.2 | 111.3 | 89.94% | 9.94 | | 1.5 | 16041 | 159,178 | *Range OK!* |
| UU52 A1 | 14.6 | 141.1 | 89.65% | 9.66 | | 1.9 | 18666 | 180,173 | *Range OK!* |
| UU52 B1 | 11.9 | 110.8 | 89.26% | 9.31 | | 1.5 | 18166 | 168,929 | *Range OK!* |
| CCV | | | | 1.00 | | 40.0 | 956 | 956 | *95.60%* |
| Blank | | | | 1.00 | | 40.0 | 24.33 | 24 | *Blank OK* |
| UU52 C1 | 12.3 | 119.8 | 89.73% | 9.74 | | 1.8 | 15684 | 152,535 | *Range OK!* |
| UU52 D1 | 10.4 | 103.6 | 89.96% | 9.96 | | 1.3 | 20977 | 208,733 | *Range OK!* |
| UU52 E1 | 23.7 | 216.8 | 89.07% | 9.15 | | 1.8 | 18284 | 167,047 | *Range OK!* |
| UU52 F1 | 12.7 | 121.4 | 89.54% | 9.56 | | 1.8 | 32095 | 306,578 | *Range OK!* |
| UU52 G1 | 10.3 | 107.5 | 90.42% | 10.44 | | 1.7 | 30151 | 314,440 | *Range OK!* |
| UU52 H1 | 16.4 | 161.6 | 89.85% | 9.85 | | 1.1 | 15836 | 155,815 | *Range OK!* |
| UU52 I 1 | 10.2 | 102.0 | 90.00% | 10.00 | | 1.1 | 19014 | 189,909 | *Range OK!* |
| UU52 J 1 | 10.9 | 103.6 | 89.48% | 9.50 | | 2.2 | 11417 | 108,295 | *Range OK!* |
| UU52 K1 | 13.7 | 112.8 | 87.85% | 8.23 | | 1.4 | 13394 | 110,095 | *Range OK!* |
| US34 L ( PE ) | | | | 1.00 | | 8.8 | 8809 | 8,809 | *Range OK!* |
| NIST 1941B | | | | 1.00 | | 3.1 | 31263 | 31,263 | *104.56%* |
| CCV | | | | 1.00 | | 40.0 | 973 | 973 | *97.30%* |
| Blank | | | | 1.00 | | 40.0 | 25.70 | 26 | *Blank OK* |

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(1) 5-24-12 (4)

# TOC Solids Sample Run Log
## Apollo 9000

Page 1 of 2

| Set-Up Parameters MODE: NPOC | | | INLET: Boat Sampler |
|---|---|---|---|
| Standards: | Source | Conc (ppm) | |
| Calibration: | ARI – 00123-4 | 5000 | |
| Verification: | ERA – 1513-10-06 | 5000 to 1000 for CVS | 11:48 |
| SRM: | NBS ~~1941b~~ or 8704 | 29900 | |

Sample Sequence:

| Sample ID | Dilution Data (mg) | | Burn Wt | Matrix Spike Data | | Comments |
|---|---|---|---|---|---|---|
| | Sample | + Silica Gel | mg | mg/L | µL added | |
| ICV | | | 40 | | | |
| ICB | | | 40 | | | |
| NBS 1941B | | | 3.5 | | | offscale Rslts |
| NBS 1941B | | | 2.8 | | | |
| UU62 A1 | | | 0.8 | | | offscale Rslts |
| SB 1 | | | 36.0 | | | |
| 2 | | | 36.5 | | | |
| 3 | | | 34.3 | | | |
| UU62 A' | 10.0 | 100.0 | 1.8 | | | |
| DPA' | 10.4 | 104.0 | 1.7 | | | |
| MPA' | 10.1 | 100.2 | 1.9 | | | |
| MSA' | 10.0 | 100.0 | 1.5 | 2500 | 10 | |
| CCV | | | 40 | | | |
| CCB | | | 40 | | | |
| UU62 B' | 11.1 | 109.7 | 0.9 | | | |
| C' | 11.8 | 117.8 | 1.3 | | | |
| D' | 10.7 | 104.2 | 1.2 | | | |
| E' | 12.2 | 117.3 | 1.8 | | | |
| F' | 11.3 | 112.6 | 1.4 | | | |
| G' | 11.2 | 109.1 | 1.6 | | | |
| H' | 11.6 | 113.7 | 1.8 | | | |
| I' | 11.2 | 111.3 | 1.5 | | | |
| UU52 A' | 14.6 | 141.1 | 1.9 | | | |
| B' | 11.9 | 110.8 | 1.5 | | | |
| CCV | | | 40 | | | |
| CCB | | | 40 | | | |
| UU52 C' | 12.3 | 119.8 | 1.8 | | | |
| D' | 10.4 | 103.6 | 1.3 | | | |
| E' | 23.7 | 216.8 | 1.8 | | | |
| F' | 12.7 | 121.4 | 1.8 | | | |
| G' | 10.3 | 107.5 | 1.7 | | | |
| H' | 16.4 | 161.6 | 1.1 | | | |



UU52:02210

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① 5-24-12 (W)

# TOC Solids Sample Run Log
## Apollo 9000

Page 2 of 2

| Set-Up Parameters MODE: NPOC | | INLET: Boat Sampler | |
|---|---|---|---|
| Standards: | Source | Conc (ppm) | 11:48 |
| Calibration: | ARI – 00123-4 | 5000 | |
| Verification: | ERA – 1513-10-06 | 5000 to 1000 for CVS | |
| SRM: | NBS – 1941b or 8704 | 299 00 | |

Sample Sequence:

| Sample ID | Dilution Data (mg) | | Burn Wt | Matrix Spike Data | | Comments |
|---|---|---|---|---|---|---|
| | Sample | + Silica Gel | mg | mg/L | µL added | |
| WU52 I | 10.2 | 102.0 | 1.1 | | | |
| J | 10.9 | 103.6 | 2.2 | | | |
| K | 13.7 | 112.8 | 1.4 | | | |
| WS39 (PC) C | | | 8.8 | | | |
| NB1941 B | | | 3.1 | | | |
| CCV | | ~~40~~ ① | 40 | | | |
| CCB | | ~~40~~ ① | 40 | | | |

5-24-10 (W)

5-24-12 (W)

Detailed Analysis Report  Print Date/Time: 2012/05/24 19:27:55

Sample ID: ICB BOAT  Mode: TOC
Method: Boat Sampler  Filename: 05241136
Cal. Curve: 43012 BOAT CAL  Timestamp: 2012/05/24 11:41
Operator ID: TRINA  Sample Type: Cal. Verification

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 971.3245 | 38.8530 | 10637403 | 37.141 | 38.137 | 184 |

Last Message: ~~Out of Calibration~~ OK 5-24-12

Sample ID: ICB BOAT  Mode: TOC
Method: Boat Sampler  Filename: 05241144
Cal. Curve: 43012 BOAT CAL  Timestamp: 2012/05/24 11:47
Operator ID: TRINA  Sample Type: Cal. Verification

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 24.7707 | 0.9908 | 50518 | 36.955 | 36.934 | 120 |

Last Message: Low Sample Detected

Sample ID: NBS 1941B  Mode: TOC
Method: Boat Sampler  Filename: 05241227
Cal. Curve: 43012 BOAT CAL  Timestamp: 2012/05/24 12:32
Operator ID: TRINA  Sample Type: Cal. Verification

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 29334.1992 | 102.6697 | 28481616 | 36.810 | 37.807 | 277 |

Sample ID: NBS 1941B  Mode: TOC
Method: Boat Sampler  Filename: 05241251
Cal. Curve: 43012 BOAT CAL  Timestamp: 2012/05/24 12:57
Operator ID: TRINA  Sample Type: Cal. Verification

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 27418.7734 | 76.7726 | 21240346 | 36.996 | 37.994 | 270 |

Sample ID: UU62 A1  Mode: TOC
Method: Boat Sampler  Filename: 05241308
Cal. Curve: 43012 BOAT CAL  Timestamp: 2012/05/24 13:23
Operator ID: TRINA  Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 129029.6562 | 103.2237 | 28863064 | 36.915 | 37.913 | 241 |

Last Message: Over-range

Sample ID: Silica Blank 1  Mode: TOC
Method: Boat Sampler  Filename: 05241334
Cal. Curve: 43012 BOAT CAL  Timestamp: 2012/05/24 13:38
Operator ID: TRINA  Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 18.8074 | 0.6771 | 189319 | 36.892 | 37.892 | 62 |

Sample ID: Silica Blank 2  Mode: TOC
Method: Boat Sampler  Filename: 05241345
Cal. Curve: 43012 BOAT CAL  Timestamp: 2012/05/24 13:48



UU52 : 62212

Operator ID: TRINA Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 26.6516 | 0.9728 | 272007 | 37.228 | 38.219 | 68 |

Sample ID: Silica Blank 3 Mode: TOC
Method: Boat Sampler Filename: 05241359
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 14:01
Operator ID: TRINA Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 31.5980 | 1.0838 | 303052 | 37.059 | 38.056 | 66 |

Sample ID: UU62 A1 Mode: TOC
Method: Boat Sampler Filename: 05241449
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 14:53
Operator ID: TRINA Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 14035.7002 | 25.2643 | 7064306 | 37.097 | 38.096 | 174 |

Sample ID: UU62 A1 DD Mode: TOC
Method: Boat Sampler Filename: 05241457
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 15:02
Operator ID: TRINA Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 13356.9072 | 22.7067 | 6349181 | 37.286 | 38.280 | 159 |

Sample ID: UU62 A1 iP Mode: TOC
Method: Boat Sampler Filename: 05241520
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 15:23
Operator ID: TRINA Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 14319.8271 | 27.2077 | 7607715 | 37.403 | 38.397 | 166 |

Sample ID: UU62 A1 MS Mode: TOC
Method: Boat Sampler Filename: 05241527
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 15:31
Operator ID: TRINA Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 34015.6445 | 51.0235 | 14267006 | 37.298 | 38.295 | 211 |

Sample ID: CVS BOAT 1000 Mode: TOC
Method: Boat Sampler Filename: 05241537
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 15:41
Operator ID: TRINA Sample Type: Cal. Verification

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 1001.3187 | 40.0527 | 10972878 | 37.392 | 38.390 | 178 |

Sample ID: ICB BOAT Mode: TOC
Method: Boat Sampler Filename: 05241548
Cal. Curve: 43012 BOAT CAL Timestamp: 2012/05/24 15:51
Operator ID: TRINA Sample Type: Cal. Verification

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 57.8453 | 2.3138 | 420446 | 37.024 | 38.019 | 67 |

Sample ID: UU62 B1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241558
Timestamp: 2012/05/24 16:02
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 32808.4688 | 29.5276 | 8256412 | 36.857 | 37.853 | 169 |

Sample ID: UU62 C1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241622
Timestamp: 2012/05/24 16:26
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 20860.7637 | 27.1190 | 7582919 | 36.683 | 37.674 | 175 |

Sample ID: UU62 D1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241630
Timestamp: 2012/05/24 16:34
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 17437.0371 | 20.9244 | 5850821 | 36.974 | 37.972 | 165 |

Sample ID: UU62 E1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241640
Timestamp: 2012/05/24 16:49
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 16030.5889 | 28.8551 | 8068353 | 37.345 | 38.344 | 187 |

Sample ID: UU62 F1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241652
Timestamp: 2012/05/24 16:56
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 13040.6104 | 18.2569 | 5104919 | 37.690 | 38.686 | 147 |

Sample ID: UU62 G1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241659
Timestamp: 2012/05/24 17:03
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 16535.1309 | 26.4562 | 7397594 | 37.853 | 38.852 | 160 |

Sample ID: UU62 H1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241707
Timestamp: 2012/05/24 17:11
Sample Type: Sample


UU52 : 62214

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 20591.4219 | 37.0646 | 10363864 | 37.683 | 38.679 | 177 |

Sample ID: UU62 I 1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241715
Timestamp: 2012/05/24 17:18
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 16040.7617 | 24.0611 | 6727894 | 37.313 | 38.303 | 157 |

Sample ID: UU52 A1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241723
Timestamp: 2012/05/24 17:27
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 18665.8730 | 35.4652 | 9916646 | 36.955 | 37.949 | 184 |

Sample ID: UU52 B1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241730
Timestamp: 2012/05/24 17:34
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 18165.8848 | 27.2488 | 7619224 | 36.825 | 37.824 | 175 |

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241739
Timestamp: 2012/05/24 17:43
Sample Type: Cal. Verification

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 956.1100 | 38.2444 | 10467234 | 36.809 | 37.808 | 179 |

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241746
Timestamp: 2012/05/24 17:51
Sample Type: Cal. Verification

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 24.3262 | 0.9730 | 45546 | 36.453 | 36.455 | 120 |

Last Message: Low Sample Detected

Sample ID: UU52 C1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241753
Timestamp: 2012/05/24 17:56
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 15683.7822 | 28.2308 | 7893802 | 36.443 | 37.437 | 160 |

Sample ID: UU52 D1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241758
Timestamp: 2012/05/24 18:01
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 20976.8145 | 27.2699 | 7625104 | 37.007 | 38.004 | 143 |

Sample ID: UU52 E1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241807
Timestamp: 2012/05/24 18:10
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 18284.0977 | 32.9114 | 9202566 | 36.346 | 37.343 | 177 |

Sample ID: UU52 F1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241813
Timestamp: 2012/05/24 18:18
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 32095.4609 | 57.7718 | 16153960 | 36.423 | 37.419 | 204 |

Sample ID: UU52 G1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241820
Timestamp: 2012/05/24 18:25
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 30150.9082 | 51.2565 | 14332179 | 36.400 | 37.398 | 233 |

Sample ID: UU52 H1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241827
Timestamp: 2012/05/24 18:31
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 15836.4854 | 17.4201 | 4870958 | 36.736 | 37.736 | 130 |

Sample ID: UU52 I 1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241833
Timestamp: 2012/05/24 18:37
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 19014.4082 | 20.9158 | 5848418 | 36.683 | 37.682 | 145 |

Sample ID: UU52 J1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241841
Timestamp: 2012/05/24 18:46
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 11417.4170 | 25.1183 | 7023497 | 36.703 | 37.703 | 154 |

Sample ID: UU52 K1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241851
Timestamp: 2012/05/24 18:54
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 13394.1924 | 18.7519 | 5243333 | 36.458 | 37.458 | 147 |

Sample ID: US34 L ( PE )
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241857
Timestamp: 2012/05/24 19:02
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 8809.4980 | 77.5236 | 21676876 | 36.423 | 37.421 | 281 |

Sample ID: NBS 1941B
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241910
Timestamp: 2012/05/24 19:15
Sample Type: Cal. Verification

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 31263.0469 | 96.9154 | 26872630 | 36.223 | 37.220 | 251 |

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241918
Timestamp: 2012/05/24 19:22
Sample Type: Cal. Verification

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 973.2827 | 38.9313 | 10659304 | 36.274 | 37.273 | 176 |

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241923
Timestamp: 2012/05/24 19:25
Sample Type: Cal. Verification

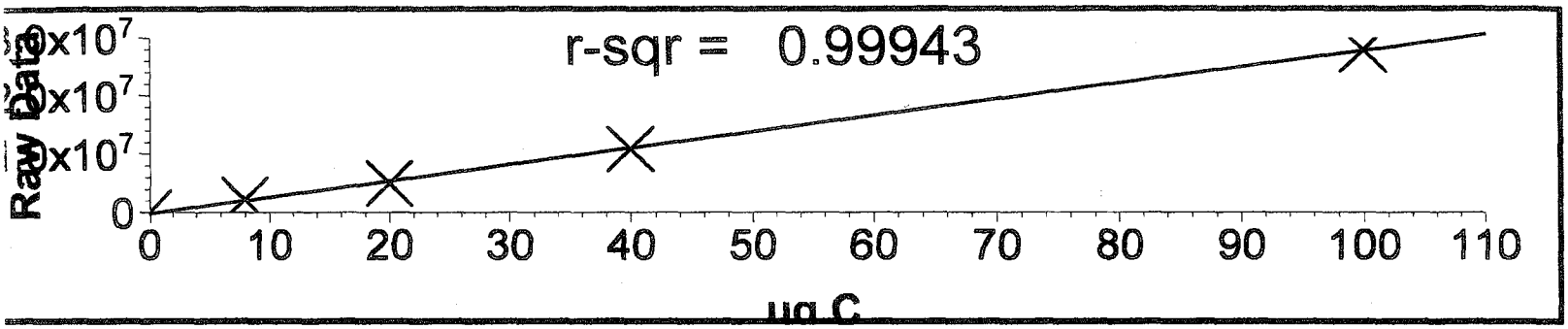
| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 25.7007 | 1.0280 | 60920 | 35.814 | 36.813 | 50 |


UU52 : 02217

Calibration Report  Print Date/Time: 2012/04/30 14:05:52

Cal. Curve ID: 43012 BOAT CAL
Created: 2012/04/30 13:43
Calibration Factor (m): 2.796e+05
Y Intercept (b): -226534
r-squared: 0.99943

| Standard ID | Y Raw Data | X Expected ug C | Measured ug C | Message | Date & Time |
|---|---|---|---|---|---|
| DI WATER | 52595 | 0.000 | 0.998 | | 2012/04/30 11:58 |
| 200 | 2144822 | 8.000 | 8.481 | | 2012/04/30 12:17 |
| 500 | 4986789 | 20.000 | 18.645 | | 2012/04/30 12:34 |
| 1000 | 10792143 | 40.000 | 39.406 | | 2012/04/30 12:59 |
| 2500 | 27866566 | 100.000 | 100.470 | Max Integrati | 2012/04/30 13:42 |


r-sqr = 0.99943
Raw Data
x10^7
x10^7
x10^7
0
0
10
20
30
40
50
60
70
80
90
100
110
ug C

Detailed Analysis Report  Print Date/Time: 2012/04/30 14:01:21

Sample ID: DI WATER
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301036
Timestamp: 2012/04/30 10:51
Sample Type: TOC Standard

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | | | 47566 | 33.280 | 33.185 | 120 |
| 2 | | | 203139 | 33.304 | 34.302 | 63 |
| 3 | | | 1104 | 33.476 | 33.511 | 120 |

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 83936 Std Dev: 105814 RSD: 126.06

Sample ID: 200
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301053
Timestamp: 2012/04/30 10:56
Sample Type: TOC Standard

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | | | 1241941 | 33.597 | 34.592 | 83 |

Sample ID: DI WATER
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301141
Timestamp: 2012/04/30 11:43
Sample Type: TOC Standard

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | | | 723490 | 34.109 | 41.661 | 46 |

Last Message: Canceled

Sample ID: DI WATER
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301150
Timestamp: 2012/04/30 11:58
Sample Type: TOC Standard

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | | | 92631 | 34.301 | 35.189 | 120 |
| 2 | | | 19076 | 34.635 | 34.665 | 120 |
| 3 | | | 46077 | 35.023 | 36.011 | 43 |

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 52595 Std Dev: 37208 RSD: 70.75

Sample ID: 200
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301202
Timestamp: 2012/04/30 12:17
Sample Type: TOC Standard

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | | | 2354047 | 34.824 | 35.822 | 117 |
| 2 | | | 2071224 | 34.958 | 35.956 | 106 |
| 3 | | | 2009197 | 35.047 | 36.046 | 100 |

<<<Statistics>>> Mean: 2144823 Std Dev: 183829 RSD: 8.57

Sample ID: 500
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301220
Timestamp: 2012/04/30 12:34
Sample Type: TOC Standard

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | | | 5039759 | 35.057 | 36.056 | 104 |
| 2 | | | 4609986 | 35.167 | 36.164 | 123 |
| 3 | | | 5310623 | 35.293 | 36.291 | 131 |

<<<Statistics>>> Mean: 4986790 Std Dev: 353309 RSD: 7.08

Sample ID: 1000
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301241
Timestamp: 2012/04/30 12:59
Sample Type: TOC Standard

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | | | 10754481 | 35.424 | 36.423 | 161 |
| 2 | | | 10442873 | 36.018 | 37.015 | 150 |
| 3 | | | 11179075 | 36.556 | 37.551 | 190 |

<<<Statistics>>> Mean: 10792143 Std Dev: 369543 RSD: 3.42

Sample ID: 2500
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301309
Timestamp: 2012/04/30 13:42
Sample Type: TOC Standard

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | | | 29661636 | 37.962 | 38.960 | 254 |
| 2 | | | 29032984 | 38.591 | 39.586 | 273 |
| 3 | | | 24905076 | 39.615 | 40.673 | 300 |

Last Message: Max Integration Time Reached
<<<Statistics>>> Mean: 27866566 Std Dev: 2583915 RSD: 9.27

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301346
Timestamp: 2012/04/30 13:51
Sample Type: Cal. Verification

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 1028.4240 | 41.1370 | 11276042 | 40.270 | 41.269 | 235 |

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301352
Timestamp: 2012/04/30 13:55
Sample Type: Cal. Verification

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 23.6818 | 0.9473 | 38339 | 40.923 | 41.149 | 120 |

Last Message: Low Sample Detected

# TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

**SOLIDS** *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

DATE: 5/22/2012

ANALYST: KE 19:59 ( A )

***Instrumentation*** ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

***Muffle Furnace:*** N / A

***Batch drying time***

*record times as mm/dd/yy hh:mm*

*5/22/2012 19:59* date/time in oven KE

*5/23/2012 11:24* date/time out KE

*elapsed hrs =* 15.4

*TS (%) calculated as:*
*Final dry wt (g) = (Dry Wt - Tare Wt)*
*TS = (Final Dry Wt)/ (grams Sample-Tare)*

*TVS (mg/kg dry wt) calculated as:*
*Final ash wt (g) = (min ash wt - tare wt)*
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
*if ash wt > dry wt, "Chk for Err"*
*if dry wt-ash wt < 0.001 g, "< (1/dry wt )*1,000,000*

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Cal Weight ID* | CV-02 | CV-02 | CV-02 | CV-02 | | | | CV-02 | CV-02 | | | | |
| | *Date & Time* | 5/22/12 14:10 KE | 5/22/12 13:10 KE | 5/23/12 11:39 KE | | | | | | | | | | |
| *Cal Wt (g)* | 10.0000 | 10.0000 | 10.0000 | 10.0000 | | | | | | | | | | |
| | *record weights to 4 places* | *Cal OK!* | *Cal OK!* | *Cal OK!* | | | | | | | | | | |

| SAMPLE ID | DISH # | SAMPLE (grams) | TARE WT (grams) | DRY WT 104C (grams) 1 | | | dry Wt (g) | TS (%) | ASH WT 550C (grams) 1 | 2 | | Ash Wt (g) | TVS (mg/kg) | TVS (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blank | | | 1.0920 | 1.0919 | | | 0.00 | | | | | | | |
| UU52 A1 | | 6.4621 | 1.0627 | 1.6154 | | | 0.55 | 10.2% | | | | | | |
| UU52 B1 | | 6.2811 | 1.0880 | 1.6202 | | | 0.53 | 10.2% | | | | | | |
| UU52 C1 | | 6.7227 | 1.0774 | 1.6636 | | | 0.59 | 10.4% | | | | | | |
| UU52 D1 | | 6.6617 | 1.1141 | 1.6305 | | | 0.52 | 9.3% | | | | | | |
| UU52 E1 | | 6.5580 | 1.1073 | 1.6687 | | | 0.56 | 10.3% | | | | | | |
| UU52 F1 | | 6.9637 | 1.0952 | 1.6367 | | | 0.54 | 9.2% | | | | | | |
| UU52 G1 | | 6.2645 | 1.0996 | 1.6055 | | | 0.51 | 9.8% | | | | | | |
| UU52 H1 | | 6.3479 | 1.0822 | 1.9688 | | | 0.89 | 16.8% | | | | | | |
| UU52 I 1 | | 6.0304 | 1.0868 | 1.6179 | | | 0.53 | 10.7% | | | | | | |
| UU52 J 1 | | 7.4572 | 1.0873 | 1.7334 | | | 0.65 | 10.1% | | | | | | |
| UU62 A1 | | 5.7385 | 1.1214 | 1.6022 | | | 0.48 | 10.4% | | | | | | |
| UU62 A1 dup | | 5.9644 | 1.0850 | 1.5891 | | | 0.50 | 10.3% | | | | | | |
| | | | | | | | RPD = | 0.79% | | | | RPD = | | NA |
| UU62 A1 trp | | 5.8348 | 1.0790 | 1.5736 | | | 0.49 | 10.4% | | | | | | |
| | | | | | | | RSD = | 0.42% | | | | RSD = | | NA |
| UU62 B1 | | 6.3197 | 1.0853 | 1.5963 | | | 0.51 | 9.8% | | | | | | |
| UU62 B1 | | 8.1428 | 1.0999 | 1.7818 | | | 0.68 | 9.7% | | | | | | |
| UU62 B1 | | 7.0330 | 1.1032 | 1.6553 | | | 0.55 | 9.3% | | | | | | |
| UU62 B1 | | 7.3446 | 1.0745 | 1.6899 | | | 0.62 | 9.8% | | | | | | |
| UU62 B1 | | 6.7839 | 1.1072 | 1.6913 | | | 0.58 | 10.3% | | | | | | |
| UU62 B1 | | 7.1027 | 1.1112 | 1.8522 | | | 0.74 | 12.4% | | | | | | |

**TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET** DATE: 5/22/2012

**SOLIDS** *(dry at 104 (12-24 hr) then combust at 550 (30 min))* ANALYST: KE 19:59 ( A )

***Instrumentation*** ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

***Muffle Furnace:*** N / A

***Batch drying time***

*record times as mm/dd/yy hh:mm*

*5/22/2012 19:59* date/time in oven KE

*5/23/2012 11:24* date/time out KE

*elapsed hrs =* 15.4

*TS (%) calculated as:*
*Final dry wt (g) = (Dry Wt - Tare Wt)*
*TS = (Final Dry Wt)/ (grams Sample-Tare)*

*TVS (mg/kg dry wt) calculated as:*
*Final ash wt (g) = (min ash wt - tare wt)*
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
*if ash wt > dry wt, "Chk for Err"*
*if dry wt-ash wt < 0.001 g, "< (1/dry wt )*1,000,000*

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Cal Weight ID* | CV-02 | CV-02 | CV-02 | CV-02 | | | | CV-02 | CV-02 | | | |
| | *Date & Time* | 5/22/12 14:10 KE | 5/22/12 13:10 KE | 5/23/12 11:39 KE | | | | | | | | | |
| *Cal Wt (g)* | 10.0000 | 10.0000 | 10.0000 | 10.0000 | | | | | | | | | |
| | *record weights to 4 places* | *Cal OK!* | *Cal OK!* | *Cal OK!* | | | | | | | | | |

| SAMPLE ID | DISH # | SAMPLE (grams) | TARE WT (grams) | DRY WT 104C (grams) 1 | | | dry Wt (g) | TS (%) | ASH WT 550C (grams) 1 | 2 | | Ash Wt (g) | TVS (mg/kg) | TVS (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UU61 B2 | | 6.5073 | 1.0778 | 1.5330 | | | 0.46 | 8.4% | | | | | | |
| UU61 B2 | | 6.5346 | 1.0854 | 1.7256 | | | 0.64 | 11.7% | | | | | | |
| UU52 K1 | | 7.1779 | 1.0738 | 1.7226 | | | 0.65 | 10.6% | | | | | | |

**Analytical Resources, Incorporated**
**Analytical Chemists and Consultants**

# TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET

| Analyst: (W) | Date: 5-22-12 | Oven ID: 12 | Balance ID: 1123230597 |
|---|---|---|---|
| Time in Oven: 19:59 | Time Out of Oven: 11:84 | Elapsed Time (> 12 Hrs): | |

*Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places*

TS (%) calculated as:
Final Dry Weight (g) = (Dry Weight – Tare Weight)
TS = (Final Dry Weight) / (Grams Sample – Tare Weight)

TVS (mg/kg dry weight) calculated as:
Final Ash Weight (g) = (Minimum Ash Weight – Tare Weight)
TVS (mg/kg) = [(Dry Weight – Ash Weight) / (Dry Weight) * 1,000,000 (A)
If Ash Weight > Dry Weight then "Check for Error"
If Dry Weight – Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Cal Weight ID | | CV-02 | CV-02 | CV-02 | CV-02 | CV-02 | [redacted] | CV-02 | CV-02 | CV-02 |
| Date & Time: | | 5-22-12 19:10 | 5-22-12 13:10 | 5-23-12 11:31 | | | | | | |
| Cal Weight (10.0000): | | 10.0002 (W) | 10.0000 (R) | 10.0000 (N) | | | | | | |
| Sample ID | Dish # | Sample | Tare | Dry Weight 104°C 1 | 2 | 3 | Dry Weight grams | Ash Weight 550°C 1 | 2 | 3 |
| BLANK | 1 | 0 | 1.0920 | 1.0919 | | | | | | |
| UU52 A1 | 2 | 6.4621 | 1.0627 | 1.6154 | | | | | | |
| B1 | 3 | 6.2811 | 1.0880 | 1.6202 | | | | | | |
| C1 | 4 | 6.7227 | 1.0774 | 1.6036 | | | | | | |
| D1 | 5 | 6.6617 | 1.1141 | 1.6305 | | | | | | |
| E1 | 6 | 6.5580 | 1.1073 | 1.6687 | | | | | | |
| F1 | 7 | 6.9637 | 1.0952 | 1.6367 | | | | | | |
| G1 | 8 | 6.2645 | 1.0996 | 1.6055 | | | | | | |
| H1 | 9 | 6.3479 | 1.0822 | 1.5688 | | | | | | |
| I1 | 10 | 6.0304 | 1.0868 | 1.6179 | | | | | | |
| J1 | 11 | 7.4572 | 1.0873 | 1.7334 | | | | | | |
| UU62 A1 | 12 | 5.7385 | 1.1214 | 1.6022 | | | | | | |
| DRA1 | 13 | 5.9644 | 1.0858 | 1.5891 | | | | | | |
| DUPA1 | 14 | 5.8348 | 1.0790 | 1.5736 | | | | | | |
| B1 | 15 | 6.3197 | 1.0853 | 1.5963 | | | | | | |
| C1 | 16 | 8.1428 | 1.0999 | 1.7818 | | | | | | |
| D1 | 17 | 7.0330 | 1.1032 | 1.6553 | | | | | | |
| E1 | 18 | 7.3446 | 1.0745 | 1.6899 | | | | | | |
| F1 | 19 | 6.7839 | 1.1072 | 1.6913 | | | | | | |
| G1 | 20 | 7.1027 | 1.1112 | 1.8522 | | | | | | |
| H1 | 21 | 6.5073 | 1.0778 | 1.5330 | | | | | | |
| I1 | 22 | 6.6346 | 1.0854 | 1.7256 | | | | | | |
| UU52 K1 | 23 | 7.1779 | 1.0738 | 1.7226 | | | | | | |

UU52: 5/22/12

5/24/12

## TOC Solids Prep Log

DATE: 5/22/2012

ANALYST: KE 20:16 ( A )

*acid purging to remove IC and drying at 70°C for TOC analysis*

*General notes regarding prep method and samples (identify the acid used)*

*make no entry to shaded cells, they are calculated*

| Sample ID | | IC Test | Gravimetric Data (grams) | | | % | Sample description & notes |
|---|---|---|---|---|---|---|---|
| ARI # | Client | + / - | Tare Wt. | Wet wt. | 70°C dry wt | Solids | (homogeneity and exclusions) |
| Blank | | | 13.2166 | | 13.2166 | 0 mg | |
| UU52 A1 | | - | 13.2789 | 18.4767 | 13.8568 | 11.12% | |
| UU52 B1 | | - | 13.2959 | 18.4106 | 13.8641 | 11.11% | |
| UU52 C1 | | - | 13.3543 | 18.1976 | 13.9180 | 11.64% | |
| UU52 D1 | | - | 13.3613 | 18.5305 | 13.9056 | 10.53% | |
| UU52 E1 | | - | 13.4183 | 19.5993 | 14.1012 | 11.05% | |
| UU52 F1 | | - | 13.2879 | 19.2153 | 13.8039 | 8.71% | |
| UU52 G1 | | - | 13.2933 | 17.6730 | 13.7292 | 9.95% | |
| UU52 H1 | | - | 13.2445 | 19.3995 | 14.3521 | 18.00% | |
| UU52 I 1 | | - | 13.3466 | 19.9070 | 14.1765 | 12.65% | |
| UU52 J 1 | | - | 13.3198 | 19.1937 | 13.9878 | 11.37% | |
| UU62 A1 | | - | 13.3426 | 17.5260 | 13.8293 | 11.63% | |
| UU62 A1 dup | | - | 13.4002 | 17.5174 | 13.8807 | 11.67% | RPD = 0.31% |
| UU62 A1 trip | | - | 13.2918 | 17.6138 | 13.7951 | 11.65% | RSD = 0.16% |
| UU62 B1 | | - | 13.2982 | 17.8189 | 13.7296 | 9.54% | |
| UU62 C1 | | - | 13.2593 | 18.8427 | 13.8487 | 10.56% | |
| UU62 D1 | | - | 13.3530 | 18.2639 | 13.8584 | 10.29% | |
| UU62 E1 | | - | 13.2843 | 20.2848 | 14.0388 | 10.78% | |
| UU62 F1 | | - | 13.3865 | 18.4751 | 13.9651 | 11.37% | |
| UU62 G1 | | - | 13.2466 | 18.2343 | 14.0005 | 15.12% | |
| UU62 H1 | | - | 13.3433 | 18.1257 | 13.7770 | 9.07% | |
| UU62 I 1 | | - | 13.1241 | 18.2178 | 13.7988 | 13.25% | |
| UU52 K1 | | - | 13.2392 | 19.5091 | 13.9541 | 11.40% | |

(2) 13.2166 5-22-12 (K)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis
Add general notes regarding samples and preparation and identify the acid used

(1)-5-22-12 (K)

Analyst (D) 20:16 Date 5-22-12 (A)

| Sample Idenification | | IC | Gravimetric Data | | | % Solids | Sample description & notes |
|---|---|---|---|---|---|---|---|
| ARI # | Client ID | Test | Tare | Wet | 70 °C | | |
| **Blank** | | | (2) | 0 | 13.2166 | | |
| UU52 A1 | | — | 13.2789 | 18.4767 | 13.8568 | | 11. wet Sed + Rubble |
| B1 | | — | 13.2959 | 18.4106 | 13.8641 | | |
| C1 | | — | 13.3543 | 18.1976 | 13.9180 | | |
| D1 | | — | 13.3613 | 18.5305 | 13.9056 | | |
| E1 | | — | 13.4183 | 19.5993 | 14.1012 | | |
| F1 | | — | 13.2879 | 19.2153 | 13.8039 | | Debris & Sed |
| G1 | | — | 13.2933 | 17.6730 | 13.7292 | | Debris & moisture |
| H1 | | — | 13.2445 | 19.3995 | 14.3521 | | wet Sed + Rubble |
| I1 | | — | 13.3466 | 19.9070 | 14.1765 | | |
| J1 | | — | 13.3198 | 19.1937 | 13.9878 | | V-wet Sed |
| UU62 A1 | | — | 13.3426 | 17.5260 | 13.8293 | | |
| DUP A1 | | — | 13.4002 | 17.5174 | 13.8807 | | |
| DUP1 | | — | 13.2918 | 17.6138 | 13.7951 | | |
| B1 | | — | 13.2982 | ~~17.8210~~ | 17.8189 | 13.7296 | Debris wood & bark & moisture |
| C1 | | — | 13.2593 | 18.8427 | ~~13.7293~~ (D) | 13.8487 | Sed + V. Wet + Rubble |
| D1 | | — | 13.3530 | 18.2639 | ~~13.8487~~ (D) | 13.8584 | |
| E1 | | — | 13.2843 | 20.2848 | ~~13.8584~~ (K) | 14.0388 | |
| F1 | | — | 13.3865 | 18.4751 | ~~14.0388~~ (K) | 13.9651 | |
| G1 | | — | 13.2466 | 18.7343 | ~~13.9651~~ (K) | 14.0005 | |
| H1 | | — | 13.3433 | 18.1257 | ~~13.9~~ (K) | ~~14.0005~~ | 13.7770 |
| I1 | | — | 13.1241 | 18.2178 | ~~13.7768~~ (K) | 13.7788 | Debris - Sand - Moisture |
| UU52 K1 | | — | 13.2392 | 19.5091 | 13.9541 | | Wet Sed + Rubble |

5-22-12 (K)

# TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

**SOLIDS** *(dry at 104 (12-24 hr) then combust at 550 (30 min))* **ZnOAc PRES.**

DATE: 5/21/2012

ANALYST: CDE / KE 18:46

***Instrumentation*** ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

***Muffle Furnace:*** N / A

***Batch drying time***

*record times as mm/dd/yy hh:mm*

*5/21/2012 18:46* date/time in oven CDE

*5/22/2012 9:50* date/time out KE

*elapsed hrs =* 15.1

*TS (%) calculated as:*
*Final dry wt (g) = (Dry Wt - Tare Wt)*
*TS = (Final Dry Wt)/ (grams Sample-Tare)*

*TVS (mg/kg dry wt) calculated as:*
*Final ash wt (g) = (min ash wt - tare wt)*
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
*if ash wt > dry wt, "Chk for Err"*
*if dry wt-ash wt < 0.001 g, "< (1/dry wt )*1,000,000*

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Cal Weight ID* | CV-02 | CV-02 | CV-02 | CV-02 | | | | CV-02 | CV-02 | | | | | |
| *Date & Time* | 5/21/17 18:31 CDE | 5/21/12 18:02 CDE | 5/22/12 10:07 KE | | | | | | | | | | | |
| *Cal Wt (g)* 10.0000 | 10.0000 | 10.0000 | 10.0000 | | | | | | | | | | | |
| *record weights to 4 places* | *Cal OK!* | *Cal OK!* | *Cal OK!* | | | | | | | | | | | |

| SAMPLE ID | DISH # | SAMPLE (grams) | TARE WT (grams) | DRY WT 104C (grams) 1 | | | dry Wt (g) | TS (%) | ASH WT 550C (grams) 1 | 2 | | Ash Wt (g) | TVS (mg/kg) | TVS (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blank | | | 1.0697 | 1.0695 | | | 0.00 | | | | | | | |
| UU52 A1 | | 5.7549 | 1.1032 | 1.5528 | | | 0.45 | 9.7% | | | | | | |
| UU52 B1 | | 5.9279 | 1.1152 | 1.5816 | | | 0.47 | 9.7% | | | | | | |
| UU52 C1 | | 6.0710 | 1.0846 | 1.6088 | | | 0.52 | 10.5% | | | | | | |
| UU52 D1 | | 5.9068 | 1.0853 | 1.6087 | | | 0.52 | 10.9% | | | | | | |
| UU52 E1 | | 5.6996 | 1.0903 | 1.5517 | | | 0.46 | 10.0% | | | | | | |
| UU52 F1 | | 7.0072 | 1.1037 | 1.5950 | | | 0.49 | 8.3% | | | | | | |
| UU52 G1 | | 7.1493 | 1.1040 | 1.5189 | | | 0.41 | 6.9% | | | | | | |
| UU52 H1 | | 7.1873 | 1.1164 | 2.2680 | | | 1.15 | 19.0% | | | | | | |
| UU52 I 1 | | 6.7462 | 1.1051 | 1.5634 | | | 0.46 | 8.1% | | | | | | |
| UU52 J 1 | | 6.1080 | 1.0705 | 1.6069 | | | 0.54 | 10.6% | | | | | | |
| UU52 K1 | | 6.2759 | 1.1027 | 1.6435 | | | 0.54 | 10.5% | | | | | | |
| UU62 A2 | | 5.4002 | 1.1191 | 1.5754 | | | 0.46 | 10.7% | | | | | | |
| UU62 A2 dup | | 6.2273 | 1.0920 | 1.6397 | | | 0.55 | 10.7% | | | | | | |
| | | | | | | | RPD = | 0.06% | | | | RPD = | | NA |
| UU62 B2 | | 6.7711 | 1.1052 | 1.7301 | | | 0.62 | 11.0% | | | | | | |
| UU62 C2 | | 5.9420 | 1.0731 | 1.5823 | | | 0.51 | 10.5% | | | | | | |
| UU62 D2 | | 6.9835 | 1.0837 | 1.6509 | | | 0.57 | 9.6% | | | | | | |
| UU62 E2 | | 6.2392 | 1.0827 | 1.6378 | | | 0.56 | 10.8% | | | | | | |
| UU62 F2 | | 6.0887 | 1.0727 | 1.6248 | | | 0.55 | 11.0% | | | | | | |
| UU62 G2 | | 7.2866 | 1.0940 | 1.7732 | | | 0.68 | 11.0% | | | | | | |
| UU62 H2 | | 7.1339 | 1.0867 | 1.5338 | | | 0.45 | 7.4% | | | | | | |
| UU62 I 2 | | 7.2643 | 1.0665 | 1.7520 | | | 0.69 | 11.1% | | | | | | |

UU52, UU62

**Analytical Resources, Incorporated**
**Analytical Chemists and Consultants**

# TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET

ZnOAc Preserved

| | | | | | |
|---|---|---|---|---|---|
| Analyst: CDC / (N) | Date: 5-21-12 | Oven ID: 12 | Balance ID: 1123230597 | | |
| Time in Oven: 18:46 | Time Out of Oven: 9:50 | Elapsed Time (> 12 Hrs): | | | |

*Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places*

TS (%) calculated as:
Final Dry Weight (g) = (Dry Weight – Tare Weight)
TS = (Final Dry Weight) / (Grams Sample – Tare Weight)

TVS (mg/kg dry weight) calculated as:
Final Ash Weight (g) = (Minimum Ash Weight – Tare Weight)
TVS (mg/kg) = [(Dry Weight – Ash Weight) / (Dry Weight) * 1,000,000
If Ash Weight > Dry Weight then "Check for Error"
If Dry Weight – Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000

| Cal Weight ID | CV-02 | CV-02 | CV-02 | CV-02 | CV-02 | [redacted] | CV-02 | CV-02 | CV-02 |
|---|---|---|---|---|---|---|---|---|---|
| Date & Time: | 5-21-12 14:31 | 5-21-12 18:07 | 5-22-12 10:07 | | | | | | |
| Cal Weight (10.0000): | 10.0000 CDC | 10.0000 CDC | 10.0000 (N) | | | | | | |

| Sample ID | Dish # | Sample | Tare | Dry Weight 104°C 1 | Dry Weight 104°C 2 | Dry Weight 104°C 3 | Dry Weight grams | Ash Weight 550°C 1 | Ash Weight 550°C 2 | Ash Weight 550°C 3 |
|---|---|---|---|---|---|---|---|---|---|---|
| BLANK | Z1 | Ø | 1.0697 | 1.0695 | | | | | | |
| UU52 A1 | 2 | 5.7549 | 1.1032 | 1.5528 | | | | | | |
| B1 | 3 | 5.9279 | 1.1152 | 1.5816 | | | | | | |
| C1 | 4 | 6.0710 | 1.0846 | 1.6088 | | | | | | |
| D1 | 5 | 5.9068 | 1.0853 | 1.6087 | | | | | | |
| E1 | 6 | 5.6996 | 1.0903 | 1.5517 | | | | | | |
| F1 | 7 | 7.0072 | 1.1037 | 1.5950 | | | | | | |
| G1 | 8 | 7.1493 | 1.1040 | 1.5189 | | | | | | |
| H1 | 9 | 7.1873 | 1.1164 | 2.2680 | | | | | | |
| I1 | 10 | 6.7462 | 1.1051 | 1.5634 | | | | | | |
| J1 | 11 | 6.1080 | 1.0705 | 1.6069 | | | | | | |
| K1 | 12 | 6.2759 | 1.1027 | 1.6435 | | | | | | |
| UU62 A2 | 13 | 5.4002 | 1.1191 | 1.5754 | | | | | | |
| A2 dp | 14 | 6.2273 | 1.0920 | 1.6397 | | | | | | |
| B2 | 15 | 6.7711 | 1.1052 | 1.7301 | | | | | | |
| C2 | 16 | 5.9420 | 1.0731 | 1.5823 | | | | | | |
| D2 | 17 | 6.9835 | 1.0837 | 1.6509 | | | | | | |
| E2 | 18 | 6.2392 | 1.0827 | 1.6378 | | | | | | |
| F2 | 19 | 6.0887 | 1.0727 | 1.6248 | | | | | | |
| G2 | 20 | 7.2866 | 1.0940 | 1.7732 | | | | | | |
| H2 | 21 | 7.1339 | 1.0867 | 1.5338 | | | | | | |
| I2 | 22 | 7.2643 | 1.0665 | 1.7520 | | | | | | |

5-21-12 (N)

6053F Page 00534 Revision 002
12/28/09

UU52 : 02228

Original Run Filename: OM_5-21-2012_12-47-10PM.OMN Created: 5/21/2012 12:47:10 PM
Original Run Author's Signature: [Carol Hawkins]
Current Run Filename: 052112NH3A.omn Last Modified: 5/21/2012 3:04:13 PM
Current Run Author's Signature: [Carol Hawkins]
Description: LACHAT 1
ARI In-House Standards: 00122-3

| Sample | Cup No. | Channel 1 NH3 Conc. (mg N/L) | Channel 1 NH3 Area (V.s) | Detection Time | MANUAL DILUTION FACTOR |
|---|---|---|---|---|---|
| STD 1.0 | S1 | 1 | 40.2259 | 5/21/2012@12:48:09 PM | |
| STD 0.8 | S2 | 0.8 | 32.0222 | 5/21/2012@12:49:20 PM | |
| STD 0.5 | S3 | 0.5 | 19.8143 | 5/21/2012@12:50:30 PM | |
| STD 0.2 | S4 | 0.2 | 7.981 | 5/21/2012@12:51:40 PM | |
| STD 0.05 | S5 | 0.05 | 1.9237 | 5/21/2012@12:52:50 PM | |
| STD 0.02 | S6 | 0.02 | 0.8151 | 5/21/2012@12:54:01 PM | |
| STD 0.01 | S7 | 0.01 | 0.4091 | 5/21/2012@12:55:11 PM | |
| BLANK | S8 | 0 | -0.3586 | 5/21/2012@12:56:21 PM | |
| ICV ERA 130611 | 9 | 0.5275 | 21.1039 | 5/21/2012@12:57:32 PM | |
| Known Conc: | | 0.5 | | | |
| ICB | 10 | -0.0052 | -0.3331 | 5/21/2012@1:03:28 PM | |
| Known Conc: | | 0 | | | |
| LOW | 11 | 0.0136 | 0.4225 | 5/21/2012@1:09:25 PM | |
| Known Conc: | | 0.01 | | | |
| PREP BLANK | 12 | -0.0044 | -0.2993 | 5/21/2012@1:15:22 PM | |
| ~~PREP CHECK~~ | ~~13~~ | ~~39.856~~ | ~~80.0689~~ | ~~5/21/2012@1:16:32 PM~~ | ~~20~~ |
| ~~Spiking Conc:~~ | | ~~10~~ | | | |

%R= 105.50

| | | | | | |
|---|---|---|---|---|---|
| UU62A1 | 14 | 0.9842 | 39.4815 | 5/21/2012@1:17:43 PM | |
| ~~UU62A1-DUP~~ | ~~15~~ | ~~1.0276~~ | ~~41.2291~~ | ~~5/21/2012@1:18:53 PM~~ | |
| ~~UU62A1-MS~~ | ~~16~~ | ~~41.3349~~ | ~~83.0447~~ | ~~5/21/2012@1:20:04 PM~~ | ~~20~~ |
| ~~Spiking Conc:~~ | | ~~10~~ | | | |
| UU62B1 | 19 | 0.2162 | 8.5762 | 5/21/2012@1:21:15 PM | |
| ~~UU62C1~~ | ~~20~~ | ~~1.5325~~ | ~~61.545~~ | ~~5/21/2012@1:22:25 PM~~ | |
| ~~UU62D1~~ | ~~21~~ | ~~1.0591~~ | ~~42.4959~~ | ~~5/21/2012@1:23:36 PM~~ | |
| ~~UU62E1~~ | ~~22~~ | ~~1.9593~~ | ~~78.72~~ | ~~5/21/2012@1:24:48 PM~~ | |
| CCV | 17 | 0.5262 | 21.0497 | 5/21/2012@1:25:58 PM | %R= 105.24 |
| Known Conc: | | 0.5 | | | |
| CCB | 18 | -0.0056 | -0.3486 | 5/21/2012@1:31:55 PM | |
| Known Conc: | | 0 | | | |
| ~~UU62F1~~ | ~~23~~ | ~~1.2848~~ | ~~51.5793~~ | ~~5/21/2012@1:37:52 PM~~ | |
| ~~UU62G1~~ | ~~24~~ | ~~1.5016~~ | ~~60.302~~ | ~~5/21/2012@1:39:03 PM~~ | |
| UU62H1 | 25 | 0.954 | 38.2667 | 5/21/2012@1:40:13 PM | |
| ~~UU62I1~~ | ~~26~~ | ~~1.4353~~ | ~~57.6342~~ | ~~5/21/2012@1:41:25 PM~~ | |
| ~~UU52A2~~ | ~~27~~ | ~~1.3537~~ | ~~54.35~~ | ~~5/21/2012@1:42:37 PM~~ | |
| ~~UU52B2~~ | ~~28~~ | ~~1.3099~~ | ~~52.588~~ | ~~5/21/2012@1:43:48 PM~~ | |
| ~~UU52C2~~ | ~~29~~ | ~~2.1347~~ | ~~85.7796~~ | ~~5/21/2012@1:44:59 PM~~ | |
| ~~UU52D2~~ | ~~30~~ | ~~1.4843~~ | ~~59.6048~~ | ~~5/21/2012@1:46:10 PM~~ | |
| ~~UU52E2~~ | ~~31~~ | ~~1.8371~~ | ~~73.8039~~ | ~~5/21/2012@1:47:22 PM~~ | |
| UU52F2 | 32 | 0.6199 | 24.8216 | 5/21/2012@1:48:33 PM | |
| CCV | 17 | 0.5265 | 21.0616 | 5/21/2012@1:49:44 PM | %R= 105.30 |
| Known Conc: | | 0.5 | | | |
| CCB | 18 | -0.0059 | -0.3618 | 5/21/2012@1:55:40 PM | |
| Known Conc: | | 0 | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| UU52G2 | 33 | 0.1747 | 6.9063 | 5/21/2012@2:01:38 PM | | |
| UU52H2 | 34 | 0.5669 | 22.6888 | 5/21/2012@2:02:48 PM | | |
| UU52I2 | 35 | 0.1269 | 4.9835 | 5/21/2012@2:04:00 PM | | |
| ~~UU52J2~~ | ~~36~~ | ~~1.1247~~ | ~~45.1362~~ | ~~5/21/2012@2:05:12 PM~~ | | |
| ~~UU52K2~~ | ~~37~~ | ~~1.1343~~ | ~~45.5205~~ | ~~5/21/2012@2:06:24 PM~~ | | |
| PREP CHECK | 38 | 10.0876 | 20.1731 | 5/21/2012@2:07:35 PM | 20 | %R= 100.88 |
| UU62A1 MS | 39 | 10.424 | 20.849 | 5/21/2012@2:08:46 PM | 20 | %R= 93.87 |
| Spiking Conc: | | 10 | | | SPK=0.4ML@1000PPM/40ML=10PPM | |
| UU62A1 DUP | 40 | 1.0373 | 20.7476 | 5/21/2012@2:09:58 PM | 2 | %RPD= 5.25 |
| UU62C1 | 41 | 1.5427 | 30.9172 | 5/21/2012@2:11:09 PM | 2 | |
| UU62D1 | 42 | 1.0635 | 21.2749 | 5/21/2012@2:12:21 PM | 2 | |
| CCV | 17 | 0.5268 | 21.074 | 5/21/2012@2:13:32 PM | | %R= 105.36 |
| Known Conc: | | 0.5 | | | | |
| CCB | 18 | -0.003 | -0.2446 | 5/21/2012@2:19:28 PM | | |
| Known Conc: | | 0 | | | | |
| UU62E1 | 43 | 1.9343 | 15.4442 | 5/21/2012@2:25:26 PM | 5 | |
| UU62F1 | 44 | 1.2823 | 25.6772 | 5/21/2012@2:26:38 PM | 2 | |
| UU62G1 | 45 | 1.5107 | 30.2719 | 5/21/2012@2:27:49 PM | 2 | |
| UU62I1 | 46 | 1.4366 | 28.7815 | 5/21/2012@2:29:01 PM | 2 | |
| UU52A2 | 47 | 1.3558 | 27.1552 | 5/21/2012@2:30:13 PM | 2 | |
| UU52B2 | 48 | 1.3064 | 26.1615 | 5/21/2012@2:31:25 PM | 2 | |
| UU52C2 | 49 | 2.1155 | 16.9026 | 5/21/2012@2:32:37 PM | 5 | |
| UU52D2 | 50 | 1.4922 | 29.9 | 5/21/2012@2:33:49 PM | 2 | |
| UU52E2 | 51 | 1.8262 | 14.5737 | 5/21/2012@2:35:01 PM | 5 | |
| UU52J2 | 52 | 1.1319 | 22.6501 | 5/21/2012@2:36:13 PM | 2 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| CCV | 17 | 0.5277 | 21.1127 | 5/21/2012@2:37:24 PM | | %R= 105.54 |
| Known Conc: | | 0.5 | | | | |
| CCB | 18 | -0.0047 | -0.3116 | 5/21/2012@2:43:21 PM | | |
| Known Conc: | | 0 | | | | |
| UU52K2 | 53 | 1.1393 | 22.7995 | 5/21/2012@2:49:19 PM | 2 | |
| KCL | 54 | -0.0062 | -0.3714 | 5/21/2012@2:50:31 PM | | |
| CCV | 17 | 0.5291 | 21.1675 | 5/21/2012@2:51:42 PM | | %R= 105.82 |
| Known Conc: | | 0.5 | | | | |
| CCB | 18 | -0.0054 | -0.3411 | 5/21/2012@2:57:39 PM | | |
| Known Conc: | | 0 | | | | |

## Soil Extraction Log

**Parameter:**

Date: 5-21-12 11:10

Analyst: QL

*Extraction Procedure:* N45 Soil 40 ml KCl
Shake 1 hr allow Settle, filter, Analyze

| Time | Sample ID | Sample Wt (grams) | Extract Vol (mL) | Spikes and Standards: Vol added (mL) | Spikes and Standards: Conc of Std (mg/L) | Spikes and Standards: Conc in Extract (mg/L) | Notes & Comments |
|---|---|---|---|---|---|---|---|
| 11:10 | Blank | | 40 ml | | | | |
| | PrepCheck | | | 0.4 | 1000 | 10 | ERA 130611 |
| | UU52A1 | 3.96 | | | | | |
| | dup | 4.06 | | | | | |
| | MS | 3.84 | | 0.4 | 1000 | 10 | ACT |
| | B1 | 4.24 | | | | | |
| | C1 | 4.09 | | | | | |
| | D1 | 4.28 | | | | | |
| | E1 | 3.87 | | | | | |
| | F1 | 4.11 | | | | | |
| | G1 | 3.79 | | | | | |
| | H1 | 3.87 | | | | | |
| | I1 | 3.80 | | | | | |
| | UU52A2 | 4.04 | | | | | |
| | B2 | 3.94 | | | | | |
| | C2 | 3.83 | | | | | |
| | D2 | 3.77 | | | | | |
| | E2 | 4.00 | | | | | |
| | F2 | 3.79 | | | | | |
| | G2 | 4.00 | | | | | |
| | H2 | 4.07 | | | | | |
| | I2 | 3.77 | | | | | |
| | J2 | 3.84 | | | | | |
| | K2 | 4.29 | | | | | |

Author: Carol Hawkins

Date : 5/21/2012

Original Run Filename: OM_5-21-2012_12-47-10PM.OMN Created: 5/21/2012 12:47:10 PM
Original Run Author's Signature: [Carol Hawkins]
Current Run Filename: 052112NH3A.omn Last Modified: 5/21/2012 3:04:13 PM
Current Run Author's Signature: [Carol Hawkins]
Description: Default New Run

| Sample | Cup No. | Channel 1 NH3 Conc. (mg N/L) | Channel 1 NH3 Area (V.s) | Detection Time | MDF |
|---|---|---|---|---|---|
| STD 1.0 | S1 | 1.0000 | 40.2259 | 5/21/2012@12:48:09 PM | |
| STD 0.8 | S2 | 0.8000 | 32.0222 | 5/21/2012@12:49:20 PM | |
| STD 0.5 | S3 | 0.5000 | 19.8143 | 5/21/2012@12:50:30 PM | |
| STD 0.2 | S4 | 0.2000 | 7.9810 | 5/21/2012@12:51:40 PM | |
| STD 0.05 | S5 | 0.0500 | 1.9237 | 5/21/2012@12:52:50 PM | |
| STD 0.02 | S6 | 0.0200 | 0.8151 | 5/21/2012@12:54:01 PM | |
| STD 0.01 | S7 | 0.0100 | 0.4091 | 5/21/2012@12:55:11 PM | |
| BLANK | S8 | 0.0000 | -0.3586 | 5/21/2012@12:56:21 PM | |
| ICV | 9 | 0.5275 | 21.1039 | 5/21/2012@12:57:32 PM | |
| Known Conc: | | 0.5000 | | | |
| Calibration: | | Table/Fig. : 1 | | | |
| ICB | 10 | -0.0052 | -0.3331 | 5/21/2012@1:03:28 PM | |
| Known Conc: | | 0.0000 | | | |
| LOW | 11 | 0.0136 | 0.4225 | 5/21/2012@1:09:25 PM | |
| Known Conc: | | 0.0100 | | | |
| PREP BLANK | 12 | -0.0044 | -0.2993 | 5/21/2012@1:15:22 PM | |
| PREP CHECK | 13 | 39.8560 | 80.0689 | 5/21/2012@1:16:32 PM | 20.00 5 |
| Spiking Conc: | | 10.0000 | | | |
| UU62A1 | 14 | 0.9842 | 39.4815 | 5/21/2012@1:17:43 PM | |
| UU62A1 DUP | 15 | 1.0276 | 41.2291 | 5/21/2012@1:18:53 PM | |
| UU62A1 MS | 16 | 41.3349 | 83.0447 | 5/21/2012@1:20:04 PM | 20.00 5 |
| Spiking Conc: | | 10.0000 | | | |
| UU62B1 | 19 | 0.2162 | 8.5762 | 5/21/2012@1:21:15 PM | |
| UU62C1 | 20 | 1.5325 | 61.5450 | 5/21/2012@1:22:25 PM | |
| UU62D1 | 21 | 1.0591 | 42.4959 | 5/21/2012@1:23:36 PM | |
| UU62E1 | 22 | 1.9593 | 78.7200 | 5/21/2012@1:24:48 PM | |
| CCV | 17 | 0.5262 | 21.0497 | 5/21/2012@1:25:58 PM | |
| Known Conc: | | 0.5000 | | | |
| CCB | 18 | -0.0056 | -0.3486 | 5/21/2012@1:31:55 PM | |
| Known Conc: | | 0.0000 | | | |
| UU62F1 | 23 | 1.2848 | 51.5793 | 5/21/2012@1:37:52 PM | |
| UU62G1 | 24 | 1.5016 | 60.3020 | 5/21/2012@1:39:03 PM | |
| UU62H1 | 25 | 0.9540 | 38.2667 | 5/21/2012@1:40:13 PM | |
| UU62I1 | 26 | 1.4353 | 57.6342 | 5/21/2012@1:41:25 PM | |
| UU52A2 | 27 | 1.3537 | 54.3500 | 5/21/2012@1:42:37 PM | |
| UU52B2 | 28 | 1.3099 | 52.5880 | 5/21/2012@1:43:48 PM | |
| UU52C2 | 29 | 2.1347 | 85.7796 | 5/21/2012@1:44:59 PM | |
| UU52D2 | 30 | 1.4843 | 59.6048 | 5/21/2012@1:46:10 PM | |
| UU52E2 | 31 | 1.8371 | 73.8039 | 5/21/2012@1:47:22 PM | |
| UU52F2 | 32 | 0.6199 | 24.8216 | 5/21/2012@1:48:33 PM | |
| CCV | 17 | 0.5265 | 21.0616 | 5/21/2012@1:49:44 PM | |
| Known Conc: | | 0.5000 | | | |
| CCB | 18 | -0.0059 | -0.3618 | 5/21/2012@1:55:40 PM | |
| Known Conc: | | 0.0000 | | | |
| UU52G2 | 33 | 0.1747 | 6.9063 | 5/21/2012@2:01:38 PM | |
| UU52H2 | 34 | 0.5669 | 22.6888 | 5/21/2012@2:02:48 PM | |
| UU52I2 | 35 | 0.1269 | 4.9835 | 5/21/2012@2:04:00 PM | |
| UU52J2 | 36 | 1.1247 | 45.1362 | 5/21/2012@2:05:12 PM | |
| UU52K2 | 37 | 1.1343 | 45.5205 | 5/21/2012@2:06:24 PM | |
| PREP CHECK | 38 | 10.0876 | 20.1731 | 5/21/2012@2:07:35 PM | 20.00 |
| UU62A1 MS | 39 | 10.4240.5212 | 20.8490 | 5/21/2012@2:08:46 PM | 1.00 20 |
| Spiking Conc: | | 10.0000 | | | |
| UU62A1 DUP | 40 | 1.0373 | 20.7476 | 5/21/2012@2:09:58 PM | 2.00 |
| UU62C1 | 41 | 1.5427 | 30.9172 | 5/21/2012@2:11:09 PM | 2.00 |
| UU62D1 | 42 | 1.0635 | 21.2749 | 5/21/2012@2:12:21 PM | 2.00 |
| CCV | 17 | 0.5268 | 21.0740 | 5/21/2012@2:13:32 PM | |
| Known Conc: | | 0.5000 | | | |
| CCB | 18 | -0.0030 | -0.2446 | 5/21/2012@2:19:28 PM | |

5-21-12



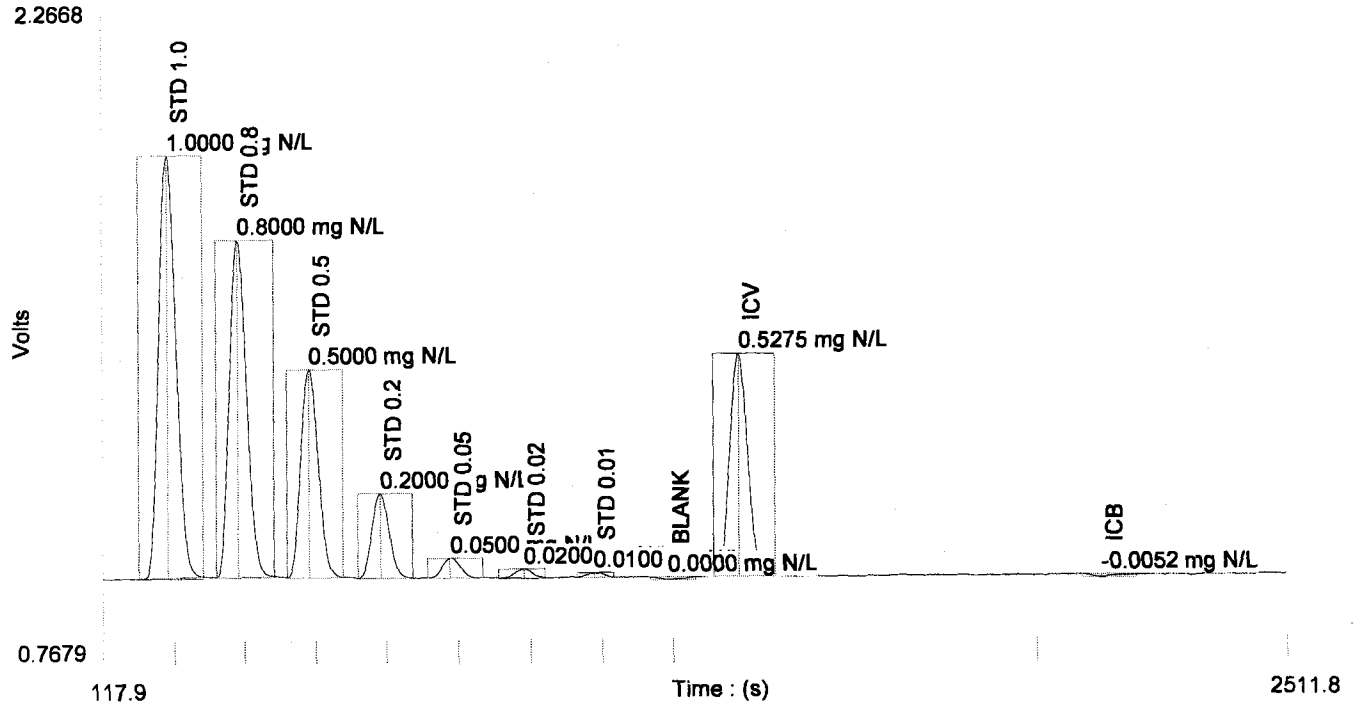
UU52 : 02234

Author: Carol Hawkins

Date : 5/21/2012

| | | | | | |
|---|---|---|---|---|---|
| | Known Conc: | 0.0000 | | | |
| UU62E1 | 43 | 1.9343 | 15.4442 | 5/21/2012@2:25:26 PM | 5.00 |
| UU62F1 | 44 | 1.2823 | 25.6772 | 5/21/2012@2:26:38 PM | 2.00 |
| UU62G1 | 45 | 1.5107 | 30.2719 | 5/21/2012@2:27:49 PM | 2.00 |
| UU62I1 | 46 | 1.4366 | 28.7815 | 5/21/2012@2:29:01 PM | 2.00 |
| UU52A2 | 47 | 1.3558 | 27.1552 | 5/21/2012@2:30:13 PM | 2.00 |
| UU52B2 | 48 | 1.3064 | 26.1615 | 5/21/2012@2:31:25 PM | 2.00 |
| UU52C2 | 49 | 2.1155 | 16.9026 | 5/21/2012@2:32:37 PM | 5.00 |
| UU52D2 | 50 | 1.4922 | 29.9000 | 5/21/2012@2:33:49 PM | 2.00 |
| UU52E2 | 51 | 1.8262 | 14.5737 | 5/21/2012@2:35:01 PM | 5.00 |
| UU52J2 | 52 | 1.1319 | 22.6501 | 5/21/2012@2:36:13 PM | 2.00 |
| CCV | 17 | 0.5277 | 21.1127 | 5/21/2012@2:37:24 PM | |
| | Known Conc: | 0.5000 | | | |
| CCB | 18 | -0.0047 | -0.3116 | 5/21/2012@2:43:21 PM | |
| | Known Conc: | 0.0000 | | | |
| UU52K2 | 53 | 1.1393 | 22.7995 | 5/21/2012@2:49:19 PM | 2.00 |
| KCL | 54 | -0.0062 | -0.3714 | 5/21/2012@2:50:31 PM | |
| CCV | 17 | 0.5291 | 21.1675 | 5/21/2012@2:51:42 PM | |
| | Known Conc: | 0.5000 | | | |
| CCB | 18 | -0.0054 | -0.3411 | 5/21/2012@2:57:39 PM | |
| | Known Conc: | 0.0000 | | | |

Channel 1 - Set: 1 / 7





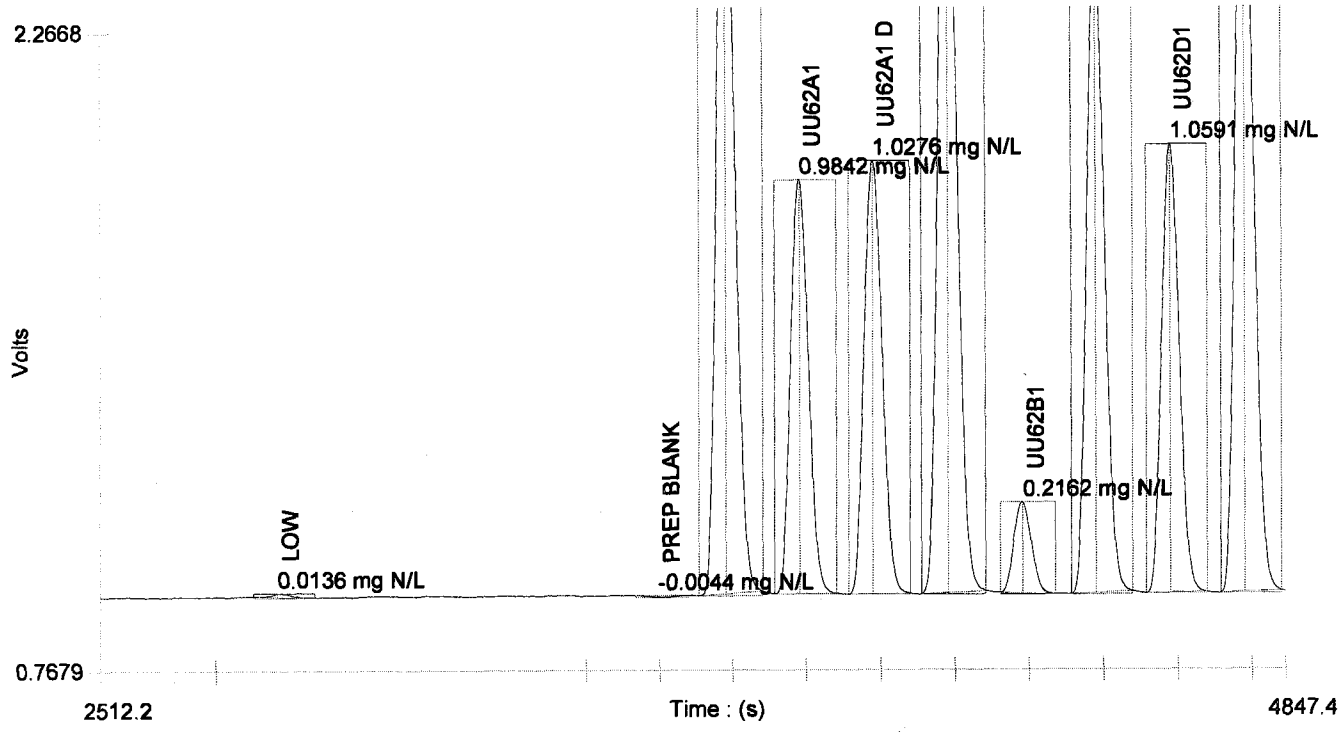



UU52 : 02295

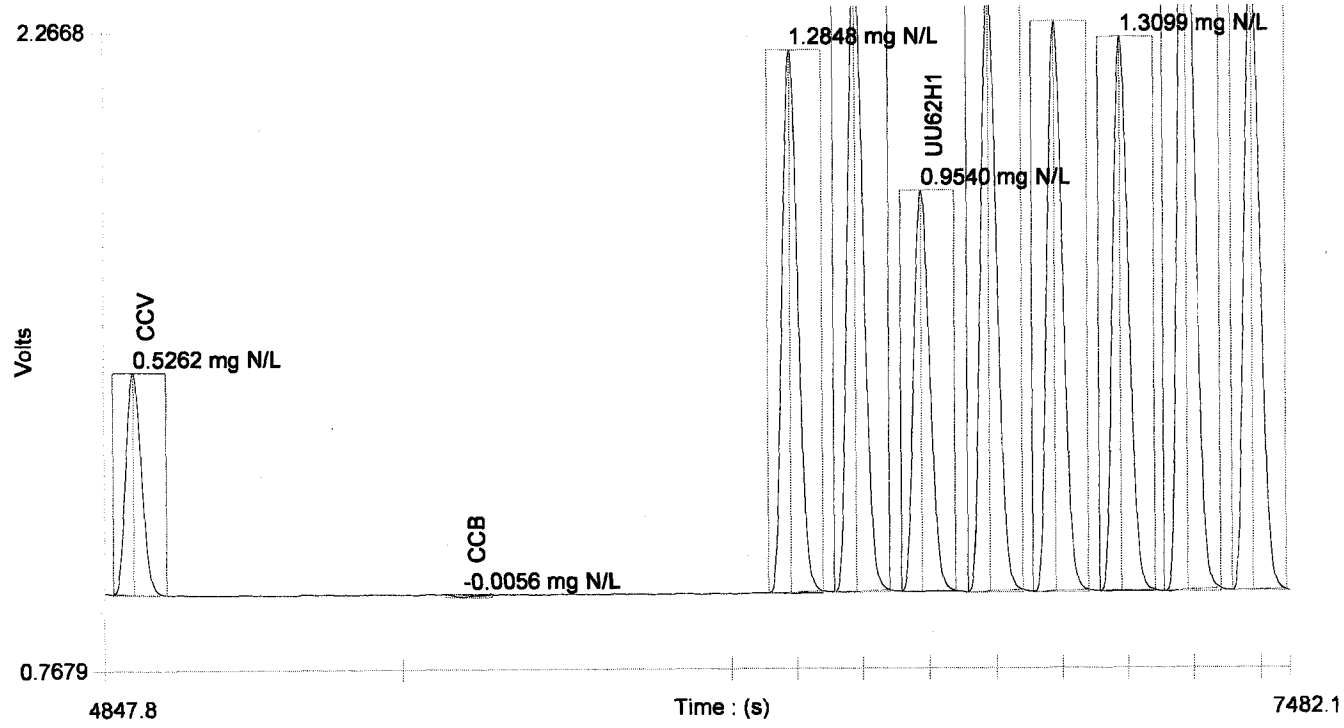
Author: Carol Hawkins

Date : 5/21/2012

Channel 1 - Set: 2 / 7




Channel 1 - Set: 3 / 7



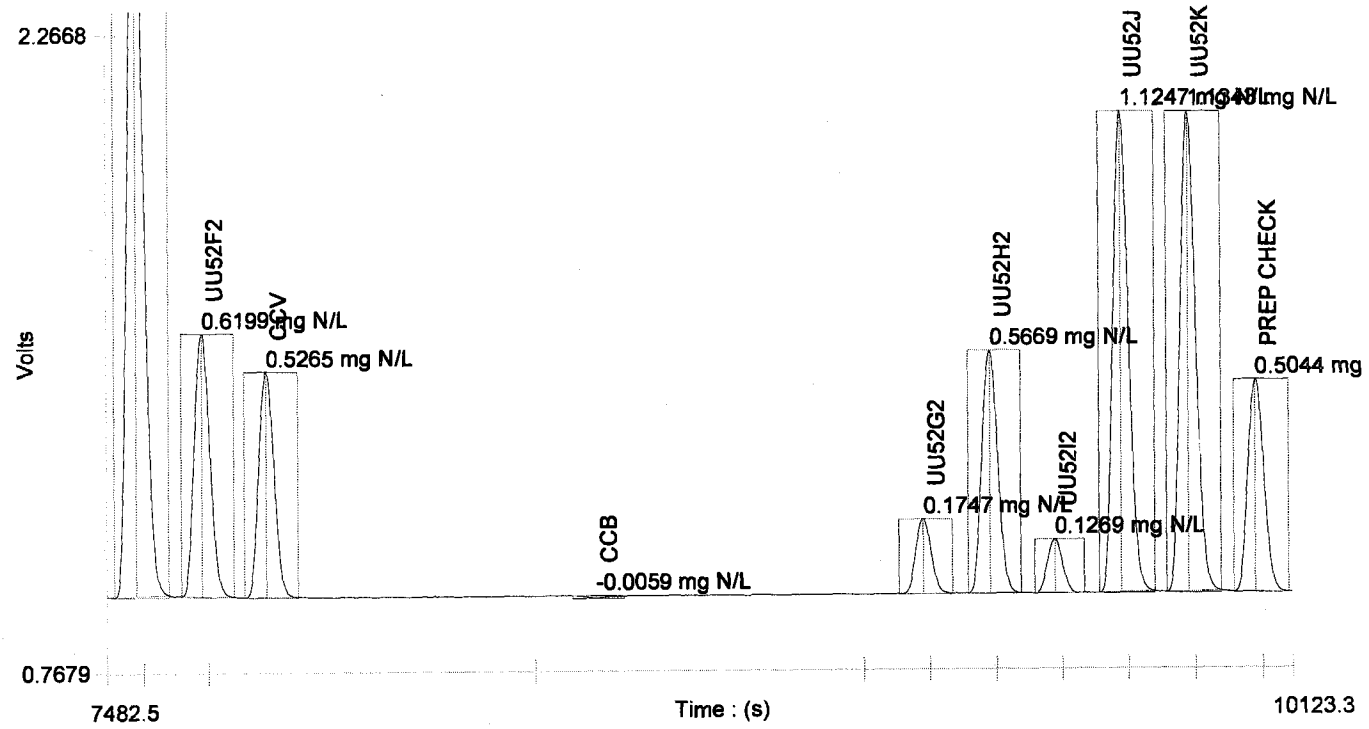



UU52 : 02236

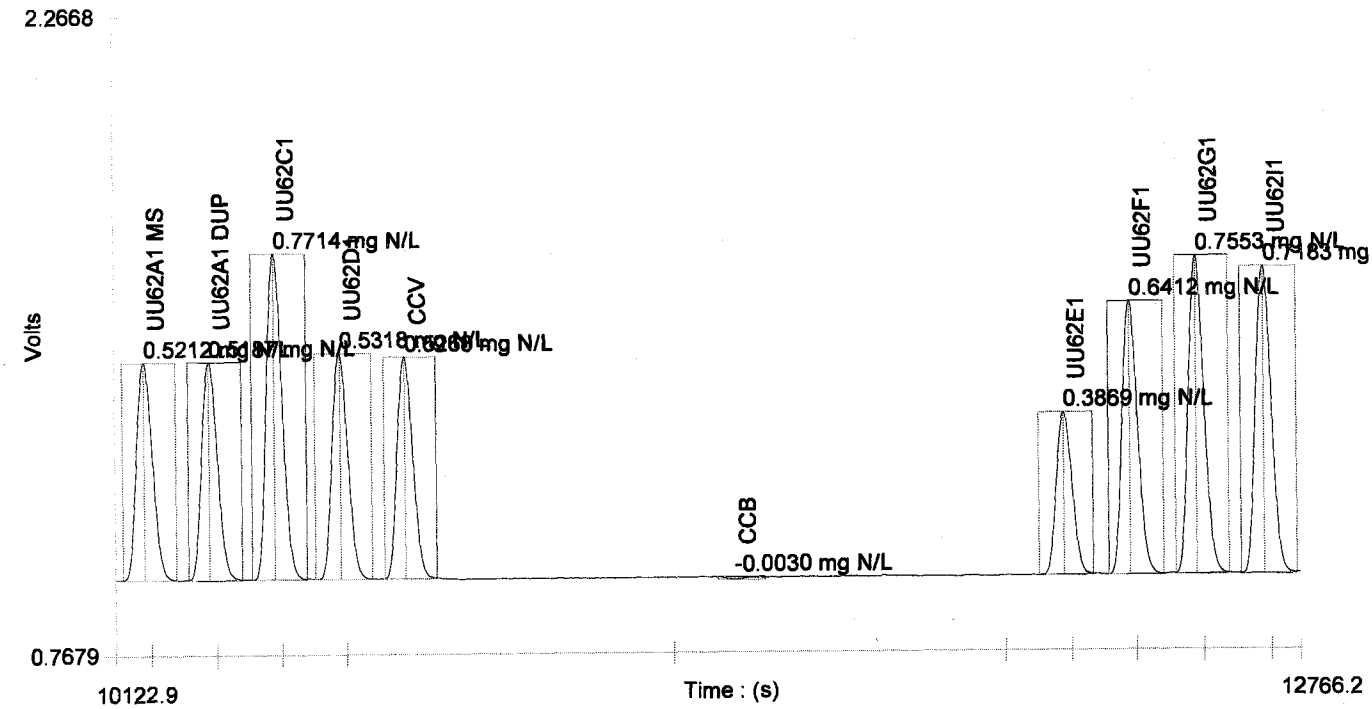
Author: Carol Hawkins

Date : 5/21/2012

Channel 1 - Set: 4 / 7




Channel 1 - Set: 5 / 7





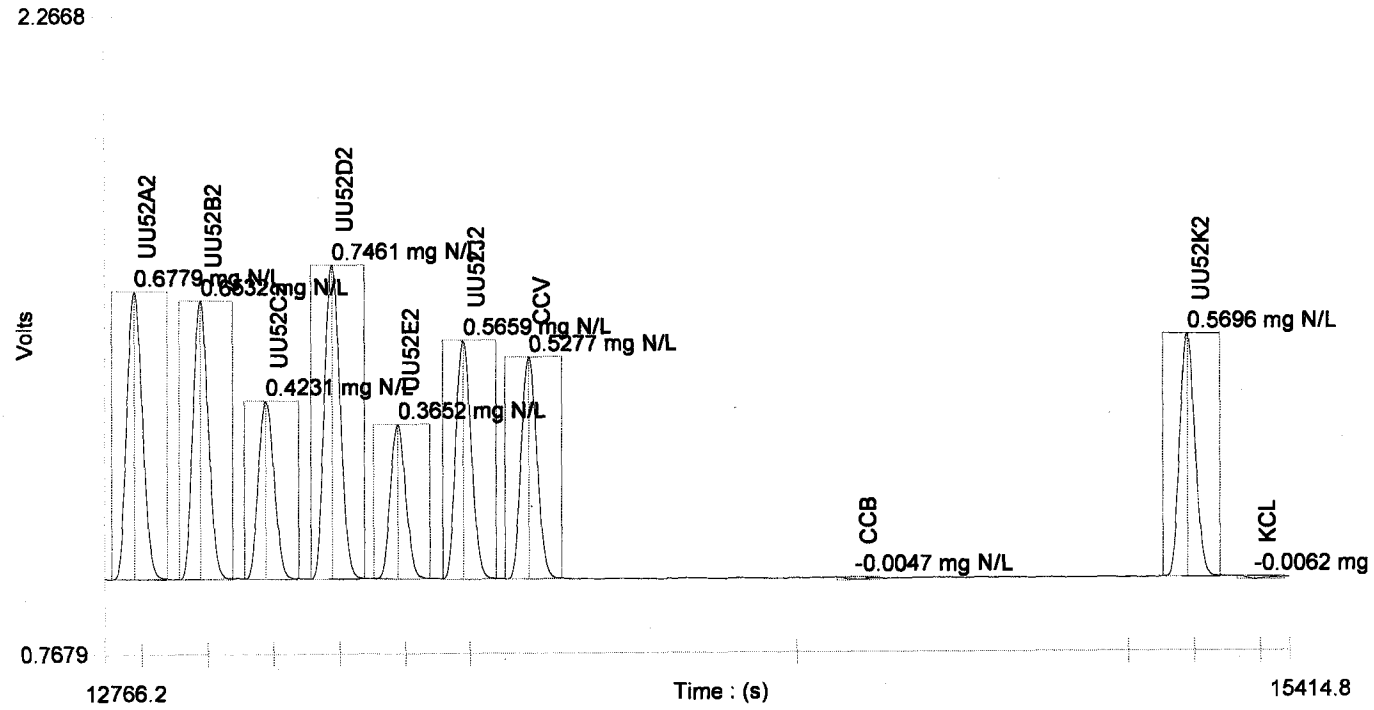

05212012NH3A SOILS LACHAT 1

UU52 : 622237

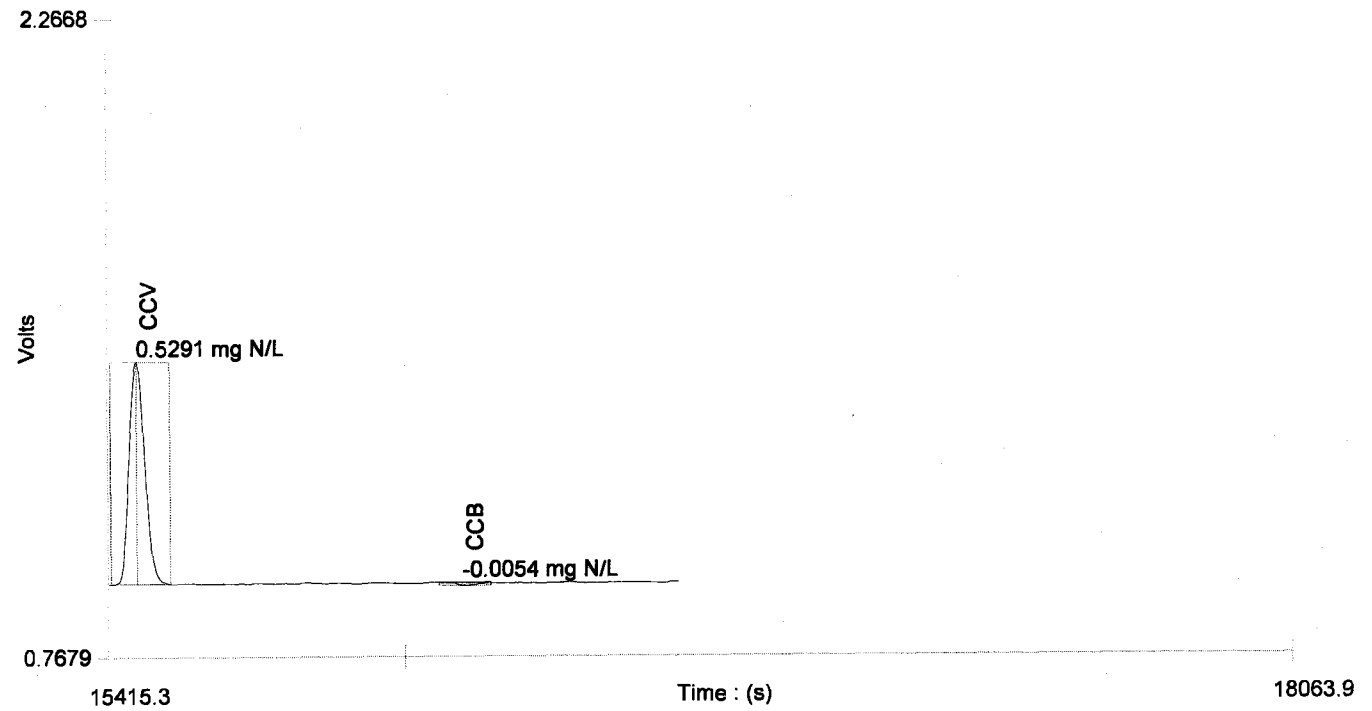
Author: Carol Hawkins

Date : 5/21/2012

Channel 1 - Set: 6 / 7




Channel 1 - Set: 7 / 7





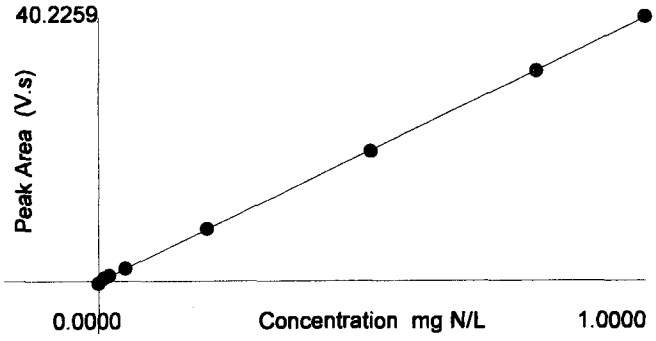

05212012NH3A SOILS LACHAT 1

UU52 : 02238

Table : 1 (NH3)

| | Known Conc. (mg N/L) | Rep. | Peak Area (V.s) | Peak Height (V) | % RSD | % Residual | Det. Conc (mg N/L) | Detection Date | Detection Time |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.0000 | 1 | 40.2259 | 0.9906 | 0.0 | -0.3 | 1.0027 | 5/21/2012 | 12:48:09 PM |
| 2 | 0.8000 | 1 | 32.0222 | 0.7910 | 0.0 | 0.1 | 0.7988 | 5/21/2012 | 12:49:20 PM |
| 3 | 0.5000 | 1 | 19.8143 | 0.4876 | 0.0 | 0.9 | 0.4955 | 5/21/2012 | 12:50:30 PM |
| 4 | 0.2000 | 1 | 7.9810 | 0.1977 | 0.0 | -0.7 | 0.2014 | 5/21/2012 | 12:51:40 PM |
| 5 | 0.0500 | 1 | 1.9237 | 0.0467 | 0.0 | -1.8 | 0.0509 | 5/21/2012 | 12:52:50 PM |
| 6 | 0.0200 | 1 | 0.8151 | 0.0212 | 0.0 | -19.5 | 0.0233 | 5/21/2012 | 12:54:01 PM |
| 7 | 0.0100 | 1 | 0.4091 | 0.0114 | 0.0 | -46.3 | 0.0132 | 5/21/2012 | 12:55:11 PM |
| 8 | 0.0000 | 1 | -0.3586 | -0.0067 | | | -0.0058 | 5/21/2012 | 12:56:21 PM |

Figure : 1 (NH3)




Area = 40.2380 * Conc - 0.1227
Conc = 0.0249 * Area + 0.0031
Correlation Coefficient (r) = 0.99996

Weighting : None



UU52 : 02239

5/28/12

| SULFIDE BENCHSHEET (Spectrophotometric, EPA 376.2) | Date Time | Analyst |
|---|---|---|
| Soils, sediments and solid phase samples — *Distillation* | 5/18/12 8:40 | CLH/CR |
| *Finish* | 5/18/12 17:31 | CLH/CR |

*If distilled, specify Procedure:* **PSEP**

**1. *Standardization of sodium thiosulfate titrant*** — *Buret used for titrations:* CLASS A GLASS S2

*Thiosulfate ID:* **9237C**
*Bi-iodate ID:* **8560C**
*Stock bi-iodate =* **0.8130** *grams to* 1000 *mL*
*Normality =* **0.025**

*Titration of bi-iodate with thiosulfate*

| | | | | |
|---|---|---|---|---|
| *mL bi-iodate =* | 3.00 | 3.00 | 3.00 | |
| *mL thiosulfate =* | 3.15 | 3.10 | 3.10 | *nthio* |
| *Normality thiosulfate = (mL bi-iodate*normbio) / mL thiosulfate =* | 0.024 | 0.024 | 0.024 | **0.024** |

**2. *Normality of Iodine***

*Iodine ID:* **9182C**

*Titration of Iodine with thiosulfate*

| | | | | |
|---|---|---|---|---|
| *mL iodine =* | 3.00 | 3.00 | 3.00 | |
| *mL thiosulfate =* | 3.05 | 3.05 | 3.05 | *ni* |
| *Normality iodine = (mL thiosulfate*nthio) / mL iodine=* | 0.024 | 0.024 | 0.024 | **0.024** |

**3. *Standardization of Sodium Sulfide Stock***

*Stock ID =* **00122-6**
*Approx conc in 100ml*
*g Na2S =* 0.6026 *mg /mL =* 0.804

*Titration of standard with thiosulfate*

| | | | | |
|---|---|---|---|---|
| *mL Standard =* | 1.00 | 1.00 | 1.00 | |
| *mL iodine =* | 3.00 | 3.00 | 3.00 | |
| *mL thiosulfate =* | 1.40 | 1.40 | 1.40 | *stkconc (mg/mL)* |
| *Sulfide (mg/mL) = {[(mL iodine*ni)-(mL thio *nthio)]*16} / mL standard =* | 0.636 | 0.636 | 0.636 | **0.636** |

***Intermediate Standard*** — *mL required for for 0.025 mg/mL* 9.8

*Add* 9.8 *mL stk to* 250 *mL 0.01M NaOH =* **0.025** ***mg/mL***

**4. *Calibration Standard Curve*** — ***spectrophotometer used:***

| Inter Std Volume (mL) | Final Volume (mL) | Calc Conc (mg S/L) | Absorbance @650 nm 1 | Absorbance @650 nm 2 | AVG ABS | mg/L |
|---|---|---|---|---|---|---|
| 0.00 | 50 | 0.000 | 0.000 | | 0.000 | *0.013* |
| 0.10 | 50 | 0.050 | 0.033 | | 0.033 | *0.054* |
| 0.25 | 50 | 0.125 | 0.087 | | 0.087 | *0.122* |
| 0.50 | 50 | 0.249 | 0.175 | | 0.175 | *0.233* |
| 1.00 | 50 | 0.498 | 0.381 | | 0.381 | *0.493* |
| 2.00 | 50 | 0.997 | 0.787 | | 0.787 | *1.004* |

**RegressionData**

*intercept =* -0.010
*slope =* 0.794
*r =* 0.9996

*Comment:* Calibration OK!

*maxabs =* 0.787

| | | | | | | |
|---|---|---|---|---|---|---|
| ***Calib Verif Std =*** | 1.0 | *ml INT to* | 50 | *ml ZnOAc=* | 0.498 | *mg/l* |
| ***Distillation Std =*** | 1.0 | *ml stk to* | 100 | = | 6.36 | *mg/l* |

**SAMPLE DATA**

*enter dilution as mL final/mL sample*

| | Distillation Data | | | Spectrophotometric Data | | | SAMPLE DATA | |
|---|---|---|---|---|---|---|---|---|
| SAMPLE ID | SAMPLE SIZE | % Solids | TRAP VOLUME (ml) | Dilution Factor | Abs @ 650 nm Sample | Abs @ 650 nm Bkg | regressed Conc (mg S/L) | CORR CONC (ppm) | |
| ICB | | na | na | 1.00 | 0.000 | | 0.013 | < 0.05 | *OK!* |
| ~~ICV~~ | | ~~na~~ | ~~na~~ | ~~1.00~~ | ~~0.338~~ | | ~~0.438~~ | ~~0.438~~ | ~~*Err @88%*~~ |
| ICV | | na | na | 1.00 | 0.347 | | 0.450 | 0.450 | *90.23%* |
| ***Distilled samples*** | | | | | | | | | |
| Dist Blk | 100.0 | 100% | 100 | 1.00 | 0.004 | | 0.018 | < 0.05 | *OK!* |
| Dist Chk | 100.0 | 100% | 100 | 10.00 | 0.486 | | 0.625 | 6.249 | *98.28%* |
| Dist Chk2 | 100.0 | 100% | 100 | 10.00 | 0.439 | | 0.566 | 5.657 | *88.97%* |
| ***Soil Samples*** | **(grams)** | **% Solids** | **(mL)** | | **Sample** | **Bkg** | **(mg/L)** | **mg/kg** | |
| UU62A2 | 5.1130 | 10.7% | 100 | 10.00 | 0.748 | | 0.955 | 1745.335 | |
| UU62A2 dup | 5.1500 | 10.7% | 100 | 10.00 | 0.655 | | 0.838 | 1520.232 | *RPD=13.79%* |
| ~~UU62A2 ms~~ | 5.1740 | 10.7% | 100 | 20.00 | 0.880 | | 1.121 | 4050.125 | *offscale* |
| | | *Spike at* | *2.00* | *ml stock to* | *0.554* | *g dry wt =* | | *2296.959* | *mg/kg* |
| UU62B2 | 5.122 | 11.0% | 100 | 1.00 | 0.024 | | 0.043 | < 8.847 | |
| UU62C2 | 5.054 | 10.5% | 100 | 20.00 | 0.448 | | 0.577 | 2174.637 | |
| UU62D2 | 5.084 | 9.6% | 100 | 10.00 | 0.580 | | 0.743 | 1522.876 | |
| ~~UU62E2~~ | ~~5.253~~ | ~~10.8%~~ | ~~100~~ | ~~20.00~~ | ~~1.529~~ | | ~~1.939~~ | ~~6833.930~~ | ~~*offscale*~~ |
| Cal Blk | | na | na | 1.00 | -0.001 | | 0.011 | < 0.05 | *OK!* |
| CCV | | na | na | 1.00 | 0.370 | | 0.479 | 0.479 | *96.04%* |



UU52 : 02246

**SAMPLE DATA**

*enter dilution as mL final/mL sample*

| | Distillation Data | | | Spectrophotometric Data | | | | SAMPLE DATA | |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID | SAMPLE SIZE | % Solids | TRAP VOLUME (ml) | Dilution Factor | Abs @ 650 nm Sample | Bkg | regressed Conc (mg S/L) | CORR CONC (ppm) | |
| ~~UU62F2~~ | ~~5.106~~ | ~~11.0%~~ | ~~100~~ | ~~10.00~~ | ~~0.947~~ | | ~~1.205~~ | ~~2146.312~~ | ~~*offscale*~~ |
| UU62G2 | 5.085 | 11.0% | 100 | 10.00 | 0.301 | | 0.392 | 700.565 | |
| UU62H2 | 5.139 | 7.9% | 100 | 10.00 | 0.728 | | 0.930 | 2289.928 | |
| ~~UU62I2~~ | ~~4.754~~ | ~~11.1%~~ | ~~100~~ | ~~10.00~~ | ~~1.101~~ | | ~~1.399~~ | ~~2652.030~~ | ~~*offscale*~~ |
| ~~UU52A1~~ | ~~4.992~~ | ~~9.7%~~ | ~~100~~ | ~~10.00~~ | ~~1.107~~ | | ~~1.407~~ | ~~2905.716~~ | ~~*offscale*~~ |
| ~~UU52B1~~ | ~~5.000~~ | ~~9.7%~~ | ~~100~~ | ~~10.00~~ | ~~1.155~~ | | ~~1.467~~ | ~~3025.718~~ | ~~*offscale*~~ |
| ~~UU52C1~~ | ~~4.831~~ | ~~10.5%~~ | ~~100~~ | ~~10.00~~ | ~~1.274~~ | | ~~1.617~~ | ~~3188.443~~ | ~~*offscale*~~ |
| UU52D1 | 4.564 | 10.9% | 100 | 20.00 | 0.708 | | 0.904 | 3636.264 | |
| UU52E1 | 4.824 | 10.0% | 100 | 20.00 | 0.768 | | 0.980 | 4063.213 | |
| UU52F1 | 5.100 | 8.3% | 100 | 10.00 | 0.609 | | 0.780 | 1842.161 | |
| Cal Blk | | na | na | 1.00 | -0.001 | | 0.011 | < 0.05 | *OK!* |
| CCV | | na | na | 1.00 | 0.358 | | 0.464 | 0.464 | *93.01%* |
| UU52G1 | 5.154 | 6.9% | 100 | 1.00 | 0.048 | | 0.073 | 20.585 | |
| UU52H1 | 5.003 | 19.0% | 100 | 10.00 | 0.531 | | 0.682 | 716.986 | |
| UU52I1 | 5.447 | 8.1% | 100 | 10.00 | 0.610 | | 0.781 | 1770.249 | |
| UU52J1 | 5.254 | 10.6% | 100 | 10.00 | 0.749 | | 0.956 | 1716.781 | |
| UU52K1 | 5.376 | 10.5% | 100 | 20.00 | 0.445 | | 0.573 | 2030.997 | |
| UU62A2 ms | 5.1740 | 10.7% | 100 | 50.00 | 0.362 | | 0.469 | 4232.975 | *108.30%* |
| | | *Spike at* | *2.00* | *ml stock to* | *0.554* | *g dry wt =* | | *2296.959* | *mg/kg* |
| UU62E2 | 5.253 | 10.8% | 100 | 50.00 | 0.391 | | 0.505 | 4452.621 | |
| UU62F2 | 5.106 | 11.0% | 100 | 20.00 | 0.465 | | 0.598 | 2130.893 | |
| UU62I2 | 4.754 | 11.1% | 100 | 20.00 | 0.610 | | 0.781 | 2960.224 | |
| UU52A1 | 4.992 | 9.7% | 100 | 20.00 | 0.558 | | 0.716 | 2955.459 | |
| Cal Blk | | na | na | 1.00 | -0.004 | | 0.008 | < 0.05 | *OK!* |
| CCV | | na | na | 1.00 | 0.347 | | 0.450 | 0.450 | *90.23%* |
| UU52B1 | 5.000 | 9.7% | 100 | 20.00 | 0.587 | | 0.752 | 3101.351 | |
| UU52C1 | 4.831 | 10.5% | 100 | 20.00 | 0.463 | | 0.596 | 2349.507 | |
| Cal Blk | | na | na | 1.00 | -0.003 | | 0.009 | < 0.05 | *OK!* |
| CCV | | na | na | 1.00 | 0.348 | | 0.451 | 0.451 | *90.49%* |



UU52 : 02241

**SULFIDE BENCHSHEET (Spectrophotometric, EPA 376.2)**
**Soils, sediments and solid phase samples**

| | Date Time | Analyst |
|---|---|---|
| Distillation | 5-18-12 8:40 | JCR |
| Finish | 5-18-12 17:31 | JCR |

*If distilled, specify Procedure:* PSEP

**1. Standardization of sodium thiosulfate titrant**

Buret used for titrations: Class A Glass 52

Thiosulfate ID: 1237 C
Bi-iodate ID: 5530C
Stock bi-iodate = 0.8130 grams to 1000 mL
Normality =

| Titration of bi-iodate with thiosulfate | | | |
|---|---|---|---|
| mL bi-iodate = | 3.0 | 3.0 | 3.0 |
| mL thiosulfate = | | | nthio |
| Normality thiosulfate = (mL bi-iodate*normbio) / mL thiosulfate = | | | |

**2. Normality of Iodine**

Iodine ID: 9182C

| Titration of Iodine with thiosulfate | | | |
|---|---|---|---|
| mL iodine = | 3.0 | 3.0 | 3.0 |
| mL thiosulfate = | 3.05 | 3.05 | 3.05 |
| Normality iodine = (mL thiosulfate*nthio) / mL iodine= | | | ni |

**3. Standardization of Sodium Sulfide Stock**

Stock ID = 001 22-6
Approx conc in 100ml
g Na2S = 0.6026 mg /mL =

| Titration of standard with thiosulfate | | | |
|---|---|---|---|
| mL Standard = | 1.0 | 1.0 | 1.0 |
| mL iodine = | 3.0 | 3.0 | 3.0 |
| mL thiosulfate = | 1.4 | 1.4 | 1.4 |
| Sulfide (mg/mL) = {[(mL iodine*ni)-(mL thio *nthio)]*16} / mL standard = | | | stkconc (mg/mL) |

**Intermediate Standard**

Add 9.8 mL stk to 250 mL 0.01M NaOH = mg/mL

**4. Calibration Standard Curve**

spectrophotometer used:

| Inter Std Volume (mL) | Final Volume (mL) | Calc Conc (mg S/L) | Absorbance @650 nm 1 | Absorbance @650 nm 2 | AVG ABS | mg/L |
|---|---|---|---|---|---|---|
| 0.00 | 50 | | 0.000 | | | |
| 0.10 | 50 | | 0.033 | | | |
| 0.25 | 50 | | 0.087 | | | |
| 0.50 | 50 | | 0.175 | | | |
| 1.00 | 50 | | 0.381 | | | |
| 1.50 | 50 | | 0.789 | | | |

**RegressionData**

intercept =
slope =
r =
Comment:
maxabs =

| | | | | | | |
|---|---|---|---|---|---|---|
| **Calib Verif Std =** | 0.5 | ml int to | 50 | ml ZnOAc= | | mg/l |
| **Distillation Std =** | 1 | ml stk to | 100 | = | | mg/l |

**SAMPLE DATA**

*enter dilution as mL final/mL sample*

| SAMPLE ID | Distillation Data: SAMPLE SIZE (grams) | % Solids | TRAP VOLUME (mL) | Spectrophotometric Data: Dilution Factor | Abs @ 650 nm: Sample | Bkg | regressed Conc (mg S/L) | SAMPLE DATA: CORR CONC (ppm) | |
|---|---|---|---|---|---|---|---|---|---|
| **Soil Samples** | | | | | | | | | |
| ICB | | | | | 0.000 | | | | |
| ICV/ICV | | | | | 0.338/0.347 | | | | |
| D. Blank | — | — | 100 | | ~~0.347~~ 0.004 | | | | |
| LCS | — | — | | 10 | ~~0.354~~ 0.486 | | | | |
| LCSD | — | — | | 10 | 0.439 | | | | |
| 446A2 | 5.1130 | 10.7 | | 10 | 0.748 | | | | |
| A2 | 5.150 | | | 10 | 0.655 | | | | |
| B2 | 5.174 | | | 20 | 0.850 | | | | |
| B2 | 5.122 | 11.0 | | 1 | 0.029 | | | | |
| C2 | 5.054 | 10.5 | | 20 | 0.448 | | | | |
| D2 | 5.084 | 9.6 | | 10 | 0.580 | | | | |
| E2 | 5.253 | 10.8 | | 20 | 1.529 | | | | |
| CCB | | | | | -0.001 | | | | |
| CCV | | | | | 0.370 | | | | |
| 446F2 | 5.106 | 11.0 | 100 | 10 | 0.997 | | | | |
| C2 | 5.085 | 11.0 | | 10 | 0.301 | | | | |
| H2 | 5.139 | 7.9 | | 10 | 0.729 | | | | |
| I2 | 4.755 | 11.1 | | 10 | 1.101 | | | | |
| 446J1 | 4.992 | 9.7 | | 10 | 1.107 | | | | |
| K1 | 5.000 | 9.9 | | 10 | 1.155 | | | | |
| L1 | 4.831 | 10.5 | | 10 | 1.274 | | | | |
| M1 | 4.564 | 10.9 | | 20 | 0.708 | | | | |
| N1 | 4.824 | 10.0 | | 20 | 0.768 | | | | |
| O1 | 5.100 | 9.3 | | 10 | 0.609 | | | | |
| CCB | | | | | -0.001 | | | | |
| CCV | | | | | 0.358 | | | | |
| 446L1 | 5.154 | ~~11.0~~ 19.0 | 100 | 1 | 0.044 | | | | |
| H1 | 5.003 | ~~7.9~~ 19.0 | | 10 | 0.531 | | | | |



UU52:02242

**SAMPLE DATA**

*enter dilution as mL final/mL sample*

| | Distillation Data | | | Spectrophotometric Data | | | | SAMPLE DATA | |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE ID | SAMPLE SIZE | % Solids | TRAP VOLUME (ml) | Dilution Factor | Abs @ 650 nm Sample | Bkg | regressed Conc (mg S/L) | CORR CONC (ppm) | |
| UU52I1 | 5.447 | ~~11.1~~ 0.1 | 100 | 10 | 0.610 | | | | |
| J1 | 5.254 | 10.6 | | 10 | 0.749 | | | | |
| K1 | 5.376 | 10.5 | | 20 | 0.445 | | | | |
| UU62A[illegible] | 5.1740 | 10.7 | | ~~20~~ 50 | 0.362 | | | | |
| E2 | 5.253 | 10.8 | | 50 | 0.391 | | | | |
| F2 | 5.106 | 11.0 | | ~~50~~ 20 | 0.465 | | | | |
| I2 | 4.754 | 11.1 | | 20 | 0.610 | | | | |
| UU52A1 | 4.992 | 97 | | 20 | 0.558 | | | | |
| CCB | | | | ~~20~~ | -0.004 | | | | |
| CCV | | | | | 0.347 | | | | |
| UU52B1 | 5.000 | 97 | 100 | 20 | 0.587 | | | | |
| C1 | 4.831 | 10.5 | | 20 | 0.463 | | | | |
| CCB | | | | | -0.003 | | | | |
| CCV | | | | | 0.348 | | | | |

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# Sulfide Digestion Log

| | | | Pretreatment Data | | | | | | | Sample Extraction Data | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | % Solids | % Water | Date | Sample Weight | Extract Method* | Acid | Required pH | mL DI Water | Observed mL acid | Date | Sample Weight | mL Acid Required | mL DI Water Required | Trap Volume (mL) |
| PB | | | 5-18-12 | NA | PSEP | HCl/NaAl | < 3 | NA | NA | 5-18-12 | 100ml | NA | NA | 100ml |
| 2C3 | | | | | | | | | | | | | | |
| UU62 A2 | 10.7 | | | | | | | | | | 5.113 | | 50ml | |
| A2 DUP | | | | | | | | | | | 5.150 | | | |
| A2 MS | | | | | | | | | | | 5.174 | | | |
| B2 | 11.0 | | | | | | | | | | 5.122 | | | |
| C2 | 10.5 | | | | | | | | | | 5.054 | | | |
| D2 | 9.6 | | | | | | | | | | 5.084 | | | |
| E2 | 10.8 | | | | | | | | | | 5.253 | | | |
| F2 | 11.0 | | | | | | | | | | 5.106 | | | |
| G2 | 11.0 | | | | | | | | | | 5.085 | | | |
| H2 | 7.4 | | | | | | | | | | 5.139 | | | |
| I2 | 11.1 | | | | | | | | | | 4.754 | | | |
| UU52 A2 | 9.7 | | | | | | | | | | 4.992 | | | |
| B2 | 9.7 | | | | | | | | | | 5.000 | | | |
| C2 | 10.5 | | | | | | | | | | 4.831 | | | |
| D2 | 10.9 | | | | | | | | | | 4.564 | | | |
| E2 | 10.0 | | | | | | | | | | 4.824 | | | |
| F2 | 8.3 | | | | | | | | | | 5.100 | | | |
| G2 | 6.9 | | | | | | | | | | 5.154 | | | |

1 ml
ARA
00127-6
2 ml

* Extarct Methods: **PSEP** = PSEP; **9030A** = 9030A Acid Soluble; **9030AI** = 9030A acid insoluble; **AVS** = Acid Volatile; **Reactive** = SW-846 reactive

Analyst Name: [illegible] Date: 5-18-12 Time: [illegible]

UU52 : 0244

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# Sulfide Digestion Log

| | | | Pretreatment Data | | | | | | | Sample Extraction Data | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | % Solids | % Water | Date | Sample Weight | Extract Method* | Acid | Required pH | mL DI Water | Observed mL acid | Date | Sample Weight | mL Acid Required | mL DI Water Required | Trap Volume (mL) |
| H2 H1 | 19.0 | | 5-18-12 | NA | PSEP | HCl w/ | <3 | NA | NA | 5-18-12 | 5.003 | NA | 50ml | 100ml |
| I2 I1 | 8.1 | | | | | | | | | | 5.447 | | | |
| J2 J1 | 10.6 | | | | | | | | | | 5.259 | | | |
| K2 K1 | 10.5 | | | | | | | | | | 5.376 | | | |
| LCS 2 | | | | | | | | | | | 100ml | | NA | |

1ml STK

* Extarct Methods: **PSEP** = PSEP; **9030A** = 9030A Acid Soluble; **9030AI** = 9030A acid insoluble; **AVS** = Acid Volatile; **Reactive** = SW-846 reactive

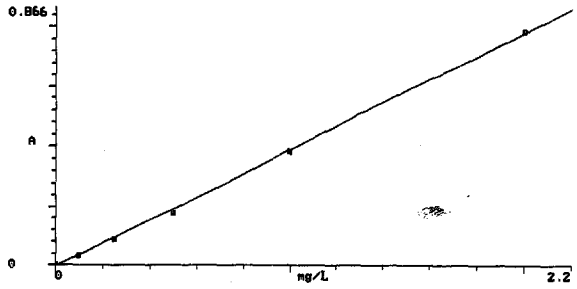
Analyst Name: _____ Date: _____ Time: _____



UU52:02245

TEST SETUP
GENESYS 10 v2.021 2GZG048006

| | |
|---|---|
| Standard Curve | 17:31 18May12 |
| Test Name | SULFIDE[Saved] |
| Date Standards Measured | 18May12 |
| Wavelength | 650nm |
| Ref. Wavelength Correction | Off |
| Curve Fit | Linear |
| Number of Standards | 6 |
| Units | mg/L |
| ID# (0=OFF) | Off |
| Low/High Limits | 0.050/1.000 |
| Statistics | Off |
| Auto Print | On |




| | |
|---|---|
| Curve Fit | Linear |
| Slope | 0.396 |
| Intercept | -0.0101 |
| Std Dev | 0.009 |
| Corr Coeff | 1.000 |

| Conc. mg/L | Abs 650nm |
|---|---|
| 0.000 | 0.000 |
| 0.100 | 0.033 |
| 0.250 | 0.087 |
| 0.500 | 0.175 |
| 1.000 | 0.381 |
| 2.000 | 0.787 |

5-18-12

TEST SETUP
GENESYS 10 v2.021 2GZG048006

| | |
|---|---|
| Advanced A-%T-C | 17:32 18May12 |
| Test Name | SULFIDE[Saved] |
| Measurement Mode | Absorbance |
| Wavelength | 650nm |
| Ref. Wavelength Correction | Off |
| Delay Time (min:sec) | 0:00 |
| ID# (0=OFF) | 1 |
| Low/High Limits | 0.000/1.000 |
| Statistics | Off |
| Auto Print | On |

| ID# | Abs 650nm |
|---|---|
| 1 | 0.000 |

| | |
|---|---|
| 2 | 0.338 |
| 3 | 0.347 |
| 4 | 0.004 |
| 5 | 0.486 |
| 6 | 0.439 |
| 7 | 0.748 |
| 8 | 0.655 |
| 9 | 0.880 |
| 10 | 0.024 |
| 11 | 0.448 |
| 12 | 0.580 |
| 13 | 1.529 |
| 14 | -0.001 |
| 15 | 0.370 |

UU52:02247

| | |
|---|---|
| 16 | 0.947 |
| 17 | 0.301 |
| 18 | 0.728 |
| 19 | 1.101 |
| 20 | 1.107 |
| 21 | 1.155 |
| 22 | 1.274 |
| 23 | 0.708 |
| 24 | 0.768 |
| 25 | 0.609 |
| 26 | -0.001 |
| 27 | 0.358 |
| 28 | 0.048 |
| 29 | 0.531 |

UU52 : 022248

30 0.610

31 0.749

32 0.445

33 0.362

34 0.391

35 0.465

36 0.610

37 0.558

38 -0.004

39 0.347

40 0.587

41 0.463

42 -0.003

43 0.348

# TOC, Solids Data Analysis

DATE: 5/24/2012

ANALYST: KE 11:48

*Instrument:* Apollo 2

*Mode:* NPOC *Inlet:* Boat

*Spike Std =* **2,500** *ppm C*

## *Calibration Data*

*Cal Curve ID:* **4/30/12 BOAT CAL** *Conc:* 5,000 *ppm*

*Calibration Curve Standard:* **00123 - 4** *Curve Date:* **04/30/12**

*CalFact:* ***2.796E+05*** *intercept:* **-226534** *r2 :* **0.99943**

*Curve Range (ppm)* 200 *to* 2,500

*Curve Range (µgC):* **8** *to* **100** *40 µL injections of designated standard*

## *Verification Standard*

Source: ***ERA# 0513 - 10 - 06*** *Conc:* **5,000** *ppm*

***dilution :*** 10 *mL to* 50 **1,000** *ppm*

## *Standard Reference Material*

Source: ***NIST 8704*** *Conc:* **33,510** *ppm*

Source: ***NIST 1941B*** *Conc:* **29,900** *ppm*

## *Silica Blanks*

| Replicate determinations | | | | | | Mean | RSD | condition |
|---|---|---|---|---|---|---|---|---|
| 18.8 | 26.7 | 31.6 | | | | 25.7 | 25.1% | *OK* |

## *Sample Data*

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

| Sample ID | Dilution Data | | | | Spike | Combustion Data | | | comments |
|---|---|---|---|---|---|---|---|---|---|
| | Sample wt. (mg) | Final wt. (mg) | Silica (%) | Dilution Factor | (µL Std) | Burn wt. (mg) | C obs (ppm C) | C corr (ppm C) | |
| ICV | | | | 1.00 | | 40.0 | 971 | 971 | *97.10%* |
| Blank | | | | 1.00 | | 40.0 | 24.77 | 25 | *Blank OK* |
| ~~NIST 1941B~~ | | | - | ~~1.00~~ | | ~~3.5~~ | ~~29334~~ | ~~29,334~~ | ~~*Offscale, dilute*~~ |
| NIST 1941B | | | | 1.00 | | 2.8 | 27419 | 27,419 | *91.70%* |
| ~~UU62 A1~~ | | | - | ~~1.00~~ | | ~~0.8~~ | ~~129030~~ | ~~129,030~~ | ~~*Offscale, dilute*~~ |
| Silica Blanks 1 | | | | 1.00 | | 36.0 | 18.81 | 19 | *Low Scale* |
| Silica Blanks 2 | | | | 1.00 | | 36.5 | 26.65 | 27 | *Low Scale* |
| Silica Blanks 3 | | | | 1.00 | | 34.3 | 31.6 | 32 | *Low Scale* |
| UU62 A1 | 10.0 | 100.0 | 90.00% | 10.00 | | 1.8 | 14036 | 140,129 | *Range OK!* |
| UU62 A1 dup | 10.4 | 104.0 | 90.00% | 10.00 | | 1.7 | 13357 | 133,339 | *RPD=5%* |
| UU62 A1 trp | 10.1 | 100.2 | 89.92% | 9.92 | | 1.9 | 14320 | 141,837 | *RSD=3.2%* |
| UU62 A1 ms | 10.0 | 100.0 | 90.00% | 10.00 | 10 | 1.5 | 34016 | 339,929 | *Range OK!* |
| *Spike =* | *0.025* | *mg C to* | *0.2* | *mg samp=* | *166,667* | *ppm* | | *120%* | |
| CCV | | | | 1.00 | | 40.0 | 1001 | 1,001 | *100.10%* |
| Blank | | | | 1.00 | | 40.0 | 57.85 | 58 | *Blank OK* |



UU52 : 02250

***Sample Data***

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

| Sample ID | Dilution Data | | | | Spike | Combustion Data | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sample wt. (mg) | Final wt. (mg) | Silica (%) | Dilution Factor | (µL Std) | Burn wt. (mg) | C obs (ppm C) | C corr (ppm C) | comments |
| UU62 B1 | 11.1 | 109.7 | 89.88% | 9.88 | | 0.9 | 32808 | 324,009 | *Range OK!* |
| UU62 C1 | 11.8 | 117.5 | 89.96% | 9.96 | | 1.3 | 20861 | 207,496 | *Range OK!* |
| UU62 D1 | 10.7 | 104.2 | 89.73% | 9.74 | | 1.2 | 17437 | 169,583 | *Range OK!* |
| UU62 E1 | 12.2 | 117.3 | 89.60% | 9.61 | | 1.8 | 16031 | 153,913 | *Range OK!* |
| UU62 F1 | 11.3 | 112.6 | 89.96% | 9.96 | | 1.4 | 13041 | 129,718 | *Range OK!* |
| UU62 G1 | 11.2 | 109.1 | 89.73% | 9.74 | | 1.6 | 16535 | 160,844 | *Range OK!* |
| UU62 H1 | 11.6 | 113.7 | 89.80% | 9.80 | | 1.8 | 20591 | 201,601 | *Range OK!* |
| UU62 I 1 | 11.2 | 111.3 | 89.94% | 9.94 | | 1.5 | 16041 | 159,178 | *Range OK!* |
| UU52 A1 | 14.6 | 141.1 | 89.65% | 9.66 | | 1.9 | 18666 | 180,173 | *Range OK!* |
| UU52 B1 | 11.9 | 110.8 | 89.26% | 9.31 | | 1.5 | 18166 | 168,929 | *Range OK!* |
| CCV | | | | 1.00 | | 40.0 | 956 | 956 | *95.60%* |
| Blank | | | | 1.00 | | 40.0 | 24.33 | 24 | *Blank OK* |
| UU52 C1 | 12.3 | 119.8 | 89.73% | 9.74 | | 1.8 | 15684 | 152,535 | *Range OK!* |
| UU52 D1 | 10.4 | 103.6 | 89.96% | 9.96 | | 1.3 | 20977 | 208,733 | *Range OK!* |
| UU52 E1 | 23.7 | 216.8 | 89.07% | 9.15 | | 1.8 | 18284 | 167,047 | *Range OK!* |
| UU52 F1 | 12.7 | 121.4 | 89.54% | 9.56 | | 1.8 | 32095 | 306,578 | *Range OK!* |
| UU52 G1 | 10.3 | 107.5 | 90.42% | 10.44 | | 1.7 | 30151 | 314,440 | *Range OK!* |
| UU52 H1 | 16.4 | 161.6 | 89.85% | 9.85 | | 1.1 | 15836 | 155,815 | *Range OK!* |
| UU52 I 1 | 10.2 | 102.0 | 90.00% | 10.00 | | 1.1 | 19014 | 189,909 | *Range OK!* |
| UU52 J 1 | 10.9 | 103.6 | 89.48% | 9.50 | | 2.2 | 11417 | 108,295 | *Range OK!* |
| UU52 K1 | 13.7 | 112.8 | 87.85% | 8.23 | | 1.4 | 13394 | 110,095 | *Range OK!* |
| US34 L ( PE ) | | | | 1.00 | | 8.8 | 8809 | 8,809 | *Range OK!* |
| NIST 1941B | | | | 1.00 | | 3.1 | 31263 | 31,263 | *104.56%* |
| CCV | | | | 1.00 | | 40.0 | 973 | 973 | *97.30%* |
| Blank | | | | 1.00 | | 40.0 | 25.70 | 26 | *Blank OK* |

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(1) 5-24-12 (4)

# TOC Solids Sample Run Log
## Apollo 9000



| Set-Up Parameters MODE: NPOC | | | INLET: Boat Sampler |
|---|---|---|---|
| Standards: | Source | Conc (ppm) | |
| Calibration: | ARI - 00123-4 | 5000 | 11:48 |
| Verification: | ERA - 1S13-60-06 | 5000 to 1000 for CVS | |
| SRM: | NBS ~~1941b~~ or 8704 | 29900 | |

Sample Sequence:

| Sample ID | Dilution Data (mg) | | Burn Wt | Matrix Spike Data | | Comments |
|---|---|---|---|---|---|---|
| | Sample | + Silica Gel | mg | mg/L | µL added | |
| ICV | | | 40 | | | |
| ICB | | | 40 | | | |
| NBS 1941B | | | 3.5 | | | offscale Rslts |
| NBS 1941B | | | 2.8 | | | |
| UU62 A' | | | 0.8 | | | offscale Rslts |
| SB 1 | | | 36.0 | | | |
| 2 | | | 36.5 | | | |
| 3 | | | 34.3 | | | |
| UU62 A' | 10.0 | 100.0 | 1.8 | | | |
| DPA' | 10.4 | 104.0 | 1.7 | | | |
| MPA' | 10.1 | 100.2 | 1.9 | | | |
| MSA' | 10.0 | 100.0 | 1.5 | 2500 | 10 | |
| CCV | | | 40 | | | |
| CCB | | | 40 | | | |
| UU62 B' | 11.1 | 109.7 | 0.9 | | | |
| C' | 11.8 | 117.8 | 1.3 | | | |
| D' | 10.7 | 104.2 | 1.2 | | | |
| E' | 12.2 | 117.3 | 1.8 | | | |
| F' | 11.3 | 112.6 | 1.4 | | | |
| G' | 11.2 | 109.1 | 1.6 | | | |
| H' | 11.6 | 113.7 | 1.8 | | | |
| I' | 11.2 | 111.3 | 1.5 | | | |
| UU52 A' | 14.6 | 111.1 | 1.9 | | | |
| B' | 11.9 | 110.8 | 1.5 | | | |
| CCV | | | 40 | | | |
| CCB | | | 40 | | | |
| UU52 C' | 12.3 | 119.8 | 1.8 | | | |
| D' | 10.4 | 103.6 | 1.3 | | | |
| E' | 23.7 | 216.8 | 1.8 | | | |
| F' | 12.7 | 121.4 | 1.8 | | | |
| G' | 10.3 | 107.5 | 1.7 | | | |
| H' | 16.4 | 161.6 | 1.1 | | | |

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Analytical Chemists and Consultants

① 5-24-12 (W)

# TOC Solids Sample Run Log
## Apollo 9000

Page 2 of 2

| Set-Up Parameters MODE: NPOC | | INLET: Boat Sampler |
|---|---|---|
| **Standards:** | **Source** | **Conc (ppm)** |
| **Calibration:** | ARI – 00123-4 | 5000 |
| **Verification:** | ERA – 1513-10-06 | 5000 to 1000 for CVS |
| **SRM:** | NBS – 1941b or 8704 | 299 00 |

11:48

**Sample Sequence:**

| Sample ID | Dilution Data (mg) | | Burn Wt | Matrix Spike Data | | Comments |
|---|---|---|---|---|---|---|
| | Sample | + Silica Gel | mg | mg/L | µL added | |
| UU52 I | 10.2 | 102.0 | 1.1 | | | |
| J | 10.9 | 103.6 | 2.2 | | | |
| K | 13.7 | 112.8 | 1.4 | | | |
| U539 (PC) C | | | 8.8 | | | |
| NB19 U1 B | | | 3.1 | | | |
| CCV | | ~~40~~ ① | 40 | | | |
| CCB | | ~~40~~ ① | 40 | | | |

5-24-10 (W)

5-24-12 (W)

Detailed Analysis Report  Print Date/Time: 2012/05/24 19:27:55

Sample ID: ICV BOAT  Mode: TOC
Method: Boat Sampler  Filename: 05241136
Cal. Curve: 43012 BOAT CAL  Timestamp: 2012/05/24 11:41
Operator ID: TRINA  Sample Type: Cal. Verification

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 971.3245 | 38.8530 | 10637403 | 37.141 | 38.137 | 184 |

Last Message: ~~Out of Calibration~~ OK 5-24-12

Sample ID: ICB BOAT  Mode: TOC
Method: Boat Sampler  Filename: 05241144
Cal. Curve: 43012 BOAT CAL  Timestamp: 2012/05/24 11:47
Operator ID: TRINA  Sample Type: Cal. Verification

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 24.7707 | 0.9908 | 50518 | 36.955 | 36.934 | 120 |

Last Message: Low Sample Detected

Sample ID: NBS 1941B  Mode: TOC
Method: Boat Sampler  Filename: 05241227
Cal. Curve: 43012 BOAT CAL  Timestamp: 2012/05/24 12:32
Operator ID: TRINA  Sample Type: Cal. Verification

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 29334.1992 | 102.6697 | 28481616 | 36.810 | 37.807 | 277 |

Sample ID: NBS 1941B  Mode: TOC
Method: Boat Sampler  Filename: 05241251
Cal. Curve: 43012 BOAT CAL  Timestamp: 2012/05/24 12:57
Operator ID: TRINA  Sample Type: Cal. Verification

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 27418.7734 | 76.7726 | 21240346 | 36.996 | 37.994 | 270 |

Sample ID: UU62 A1  Mode: TOC
Method: Boat Sampler  Filename: 05241308
Cal. Curve: 43012 BOAT CAL  Timestamp: 2012/05/24 13:23
Operator ID: TRINA  Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 129029.6562 | 103.2237 | 28863064 | 36.915 | 37.913 | 241 |

Last Message: Over-range

Sample ID: Silica Blank 1  Mode: TOC
Method: Boat Sampler  Filename: 05241334
Cal. Curve: 43012 BOAT CAL  Timestamp: 2012/05/24 13:38
Operator ID: TRINA  Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 18.8074 | 0.6771 | 189319 | 36.892 | 37.892 | 62 |

Sample ID: Silica Blank 2  Mode: TOC
Method: Boat Sampler  Filename: 05241345
Cal. Curve: 43012 BOAT CAL  Timestamp: 2012/05/24 13:48



UU52 : 02254

Operator ID: TRINA  Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 26.6516 | 0.9728 | 272007 | 37.228 | 38.219 | 68 |

Sample ID: Silica Blank 3  Mode: TOC
Method: Boat Sampler  Filename: 05241359
Cal. Curve: 43012 BOAT CAL  Timestamp: 2012/05/24 14:01
Operator ID: TRINA  Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 31.5980 | 1.0838 | 303052 | 37.059 | 38.056 | 66 |

Sample ID: UU62 A1  Mode: TOC
Method: Boat Sampler  Filename: 05241449
Cal. Curve: 43012 BOAT CAL  Timestamp: 2012/05/24 14:53
Operator ID: TRINA  Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 14035.7002 | 25.2643 | 7064306 | 37.097 | 38.096 | 174 |

Sample ID: UU62 A1 DP  Mode: TOC
Method: Boat Sampler  Filename: 05241457
Cal. Curve: 43012 BOAT CAL  Timestamp: 2012/05/24 15:02
Operator ID: TRINA  Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 13356.9072 | 22.7067 | 6349181 | 37.286 | 38.280 | 159 |

Sample ID: UU62 A1 D  Mode: TOC
Method: Boat Sampler  Filename: 05241520
Cal. Curve: 43012 BOAT CAL  Timestamp: 2012/05/24 15:23
Operator ID: TRINA  Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 14319.8271 | 27.2077 | 7607715 | 37.403 | 38.397 | 166 |

Sample ID: UU62 A1 MS  Mode: TOC
Method: Boat Sampler  Filename: 05241527
Cal. Curve: 43012 BOAT CAL  Timestamp: 2012/05/24 15:31
Operator ID: TRINA  Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 34015.6445 | 51.0235 | 14267006 | 37.298 | 38.295 | 211 |

Sample ID: CVS BOAT 1000  Mode: TOC
Method: Boat Sampler  Filename: 05241537
Cal. Curve: 43012 BOAT CAL  Timestamp: 2012/05/24 15:41
Operator ID: TRINA  Sample Type: Cal. Verification

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 1001.3187 | 40.0527 | 10972878 | 37.392 | 38.390 | 178 |

Sample ID: ICB BOAT  Mode: TOC
Method: Boat Sampler  Filename: 05241548
Cal. Curve: 43012 BOAT CAL  Timestamp: 2012/05/24 15:51
Operator ID: TRINA  Sample Type: Cal. Verification


UU52 : 02255

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 57.8453 | 2.3138 | 420446 | 37.024 | 38.019 | 67 |

Sample ID: UU62 B1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241558
Timestamp: 2012/05/24 16:02
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 32808.4688 | 29.5276 | 8256412 | 36.857 | 37.853 | 169 |

Sample ID: UU62 C1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241622
Timestamp: 2012/05/24 16:26
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 20860.7637 | 27.1190 | 7582919 | 36.683 | 37.674 | 175 |

Sample ID: UU62 D1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241630
Timestamp: 2012/05/24 16:34
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 17437.0371 | 20.9244 | 5850821 | 36.974 | 37.972 | 165 |

Sample ID: UU62 E1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241640
Timestamp: 2012/05/24 16:49
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 16030.5889 | 28.8551 | 8068353 | 37.345 | 38.344 | 187 |

Sample ID: UU62 F1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241652
Timestamp: 2012/05/24 16:56
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 13040.6104 | 18.2569 | 5104919 | 37.690 | 38.686 | 147 |

Sample ID: UU62 G1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241659
Timestamp: 2012/05/24 17:03
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 16535.1309 | 26.4562 | 7397594 | 37.853 | 38.852 | 160 |

Sample ID: UU62 H1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241707
Timestamp: 2012/05/24 17:11
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 20591.4219 | 37.0646 | 10363864 | 37.683 | 38.679 | 177 |

Sample ID: UU62 I 1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241715
Timestamp: 2012/05/24 17:18
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 16040.7617 | 24.0611 | 6727894 | 37.313 | 38.303 | 157 |

Sample ID: UU52 A1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241723
Timestamp: 2012/05/24 17:27
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 18665.8730 | 35.4652 | 9916646 | 36.955 | 37.949 | 184 |

Sample ID: UU52 B1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241730
Timestamp: 2012/05/24 17:34
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 18165.8848 | 27.2488 | 7619224 | 36.825 | 37.824 | 175 |

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241739
Timestamp: 2012/05/24 17:43
Sample Type: Cal. Verification

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 956.1100 | 38.2444 | 10467234 | 36.809 | 37.808 | 179 |

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241746
Timestamp: 2012/05/24 17:51
Sample Type: Cal. Verification

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 24.3262 | 0.9730 | 45546 | 36.453 | 36.455 | 120 |

Last Message: Low Sample Detected

Sample ID: UU52 C1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241753
Timestamp: 2012/05/24 17:56
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 15683.7822 | 28.2308 | 7893802 | 36.443 | 37.437 | 160 |

Sample ID: UU52 D1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241758
Timestamp: 2012/05/24 18:01
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 20976.8145 | 27.2699 | 7625104 | 37.007 | 38.004 | 143 |

Sample ID: UU52 E1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241807
Timestamp: 2012/05/24 18:10
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 18284.0977 | 32.9114 | 9202566 | 36.346 | 37.343 | 177 |

Sample ID: UU52 F1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241813
Timestamp: 2012/05/24 18:18
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 32095.4609 | 57.7718 | 16153960 | 36.423 | 37.419 | 204 |

Sample ID: UU52 G1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241820
Timestamp: 2012/05/24 18:25
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 30150.9082 | 51.2565 | 14332179 | 36.400 | 37.398 | 233 |

Sample ID: UU52 H1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241827
Timestamp: 2012/05/24 18:31
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 15836.4854 | 17.4201 | 4870958 | 36.736 | 37.736 | 130 |

Sample ID: UU52 I 1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241833
Timestamp: 2012/05/24 18:37
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 19014.4082 | 20.9158 | 5848418 | 36.683 | 37.682 | 145 |

Sample ID: UU52 J1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241841
Timestamp: 2012/05/24 18:46
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 11417.4170 | 25.1183 | 7023497 | 36.703 | 37.703 | 154 |

Sample ID: UU52 K1
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241851
Timestamp: 2012/05/24 18:54
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 13394.1924 | 18.7519 | 5243333 | 36.458 | 37.458 | 147 |

Sample ID: US34 L ( PE )
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241857
Timestamp: 2012/05/24 19:02
Sample Type: Sample

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 8809.4980 | 77.5236 | 21676876 | 36.423 | 37.421 | 281 |

Sample ID: NBS 1941B
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241910
Timestamp: 2012/05/24 19:15
Sample Type: Cal. Verification

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 31263.0469 | 96.9154 | 26872630 | 36.223 | 37.220 | 251 |

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241918
Timestamp: 2012/05/24 19:22
Sample Type: Cal. Verification

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 973.2827 | 38.9313 | 10659304 | 36.274 | 37.273 | 176 |

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 05241923
Timestamp: 2012/05/24 19:25
Sample Type: Cal. Verification

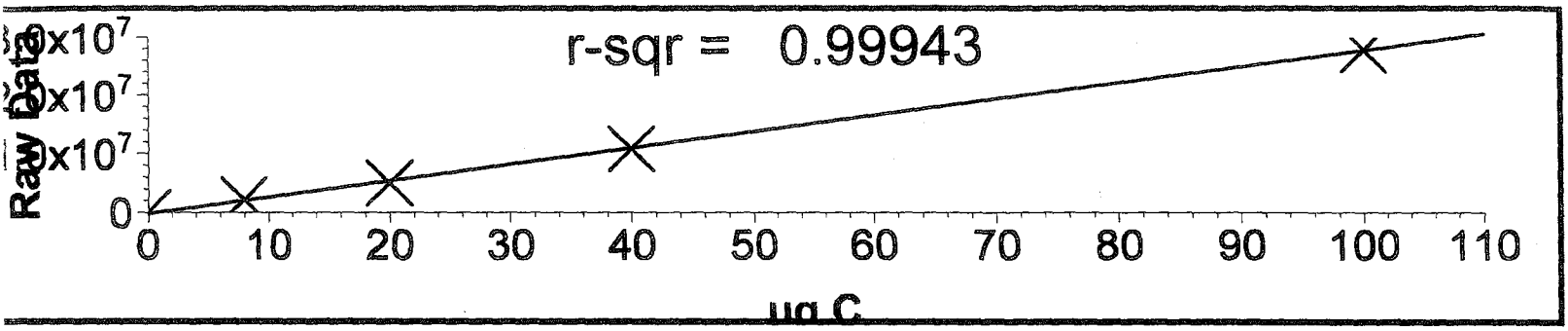
| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 25.7007 | 1.0280 | 60920 | 35.814 | 36.813 | 50 |


UU52 : 02259

Calibration Report  Print Date/Time: 2012/04/30 14:05:52

Cal. Curve ID: 43012 BOAT CAL
Created: 2012/04/30 13:43
Calibration Factor (m): 2.796e+05
Y Intercept (b): -226534
r-squared: 0.99943

| Standard ID | Y Raw Data | X Expected ug C | Measured ug C | Message | Date & Time |
|---|---|---|---|---|---|
| DI WATER | 52595 | 0.000 | 0.998 | | 2012/04/30 11:58 |
| 200 | 2144822 | 8.000 | 8.481 | | 2012/04/30 12:17 |
| 500 | 4986789 | 20.000 | 18.645 | | 2012/04/30 12:34 |
| 1000 | 10792143 | 40.000 | 39.406 | | 2012/04/30 12:59 |
| 2500 | 27866566 | 100.000 | 100.470 | Max Integrati | 2012/04/30 13:42 |


r-sqr = 0.99943
Raw Data
x10^7
x10^7
x10^7
0
0
10
20
30
40
50
60
70
80
90
100
110
ug C

Detailed Analysis Report  Print Date/Time: 2012/04/30 14:01:21

Sample ID: DI WATER
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301036
Timestamp: 2012/04/30 10:51
Sample Type: TOC Standard

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | | | 47566 | 33.280 | 33.185 | 120 |
| 2 | | | 203139 | 33.304 | 34.302 | 63 |
| 3 | | | 1104 | 33.476 | 33.511 | 120 |

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 83936 Std Dev: 105814 RSD: 126.06

Sample ID: 200
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301053
Timestamp: 2012/04/30 10:56
Sample Type: TOC Standard

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | | | 1241941 | 33.597 | 34.592 | 83 |

Sample ID: DI WATER
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301141
Timestamp: 2012/04/30 11:43
Sample Type: TOC Standard

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | | | 723490 | 34.109 | 41.661 | 46 |

Last Message: Canceled

Sample ID: DI WATER
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301150
Timestamp: 2012/04/30 11:58
Sample Type: TOC Standard

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | | | 92631 | 34.301 | 35.189 | 120 |
| 2 | | | 19076 | 34.635 | 34.665 | 120 |
| 3 | | | 46077 | 35.023 | 36.011 | 43 |

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 52595 Std Dev: 37208 RSD: 70.75

Sample ID: 200
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301202
Timestamp: 2012/04/30 12:17
Sample Type: TOC Standard

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | | | 2354047 | 34.824 | 35.822 | 117 |
| 2 | | | 2071224 | 34.958 | 35.956 | 106 |
| 3 | | | 2009197 | 35.047 | 36.046 | 100 |

<<<Statistics>>> Mean: 2144823 Std Dev: 183829 RSD: 8.57

Sample ID: 500
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 04301220
Timestamp: 2012/04/30 12:34
Sample Type: TOC Standard

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | | | 5039759 | 35.057 | 36.056 | 104 |
| 2 | | | 4609986 | 35.167 | 36.164 | 123 |
| 3 | | | 5310623 | 35.293 | 36.291 | 131 |

<<<Statistics>>> Mean: 4986790 Std Dev: 353309 RSD: 7.08

Sample ID: 1000
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 04301241
Timestamp: 2012/04/30 12:59
Sample Type: TOC Standard

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | | | 10754481 | 35.424 | 36.423 | 161 |
| 2 | | | 10442873 | 36.018 | 37.015 | 150 |
| 3 | | | 11179075 | 36.556 | 37.551 | 190 |

<<<Statistics>>> Mean: 10792143 Std Dev: 369543 RSD: 3.42

Sample ID: 2500
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 04301309
Timestamp: 2012/04/30 13:42
Sample Type: TOC Standard

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | | | 29661636 | 37.962 | 38.960 | 254 |
| 2 | | | 29032984 | 38.591 | 39.586 | 273 |
| 3 | | | 24905076 | 39.615 | 40.673 | 300 |

Last Message: Max Integration Time Reached
<<<Statistics>>> Mean: 27866566 Std Dev: 2583915 RSD: 9.27

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 04301346
Timestamp: 2012/04/30 13:51
Sample Type: Cal. Verification

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 1028.4240 | 41.1370 | 11276042 | 40.270 | 41.269 | 235 |

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: 43012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 04301352
Timestamp: 2012/04/30 13:55
Sample Type: Cal. Verification

| Rep # | ppm C | ug C | Raw Data | Beginning Baseline | Ending Baseline | Integration Time |
|---|---|---|---|---|---|---|
| 1 | 23.6818 | 0.9473 | 38339 | 40.923 | 41.149 | 120 |

Last Message: Low Sample Detected

Geotechnical Raw Data
Analyst Notes and Raw Data

ARI Job ID: UU52, UU62

UU52 : 02264

## PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: C-1 Client Sample No.: MS002-SS-120515

Set-up Date: 05/18/12 Sample Description: Organic fines

### SOLIDS CONTENT

| Moisture Content | Initials: kb |
|---|---|
| Container No. | 115 |
| Tare Weight | 1.5226 |
| Wet Weight + Tare | 26.8264 |
| Dry Weight + Tare | 4.1030 |

| Test Sample | Initials: kb |
|---|---|
| Container No. | 115 |
| Tare Weight | 51.2844 |
| Wet Weight + Tare | 144.6142 |
| Dry Weight + Tare | 54.3063 |

Calgon Batch #: 267

### SIEVE ANALYSIS

Sieve Date: 5-21-2012

Sieve Set #: 1 Initials: BR

| Sieve Size | Weight Retained |
|---|---|
| Tare | 51.3476 |
| 4 | 51.3476 |
| 10 | 51.3828 |
| 18 | 52.7330 |
| 35 | 53.3044 |
| 60 | 53.7241 |
| 120 | 54.0082 |
| 230 | 54.2244 |
| PAN | .2274 |

5/24/2012

Temp:23

### PIPETTE ANALYSIS

Initials: BR

| TIME | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| 10:09:00 | | | |
| 10:09:20 | C11 | 1.5283 | 1.6777 |
| 10:10:46 | C12 | 1.5232 | 1.6678 |
| 10:16:05 | C13 | 1.5368 | 1.6444 |
| 10:37:18 | C14 | 1.5240 | 1.6076 |
| 12:02:00 | C15 | 1.5219 | 1.5757 |
| 15:35:00 | C16 | 1.5087 | 1.5536 |
| 8:45:00 | C17 | 1.5062 | 1.5405 |

### SALT CORRECTION

Date: _____ Initials: ____

| Tare Weight | |
|---|---|
| Dry Weight + Tare | |

1115F-A
Rev. 01

## PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: C-2 Client Sample No.: MS002-SS-120515

Set-up Date: 05/18/12 Sample Description: _____

### SOLIDS CONTENT

| Moisture Content | Initials: [illegible] |
|---|---|
| Container No. | 142 |
| Tare Weight | 1.5386 |
| Wet Weight + Tare | 26.2812 |
| Dry Weight + Tare | 4.0695 |

| Test Sample | Initials: [illegible] |
|---|---|
| Container No. | 142 |
| Tare Weight | 50.6905 |
| Wet Weight + Tare | 144.4374 |
| Dry Weight + Tare | 53.4802 |

Calgon Batch #: 267

### SIEVE ANALYSIS

Sieve Date: 5-21-2012

Sieve Set #: 2 Initials: [illegible]

| Sieve Size | Weight Retained |
|---|---|
| Tare | 50.7552 |
| 4 | 50.8139 |
| 10 | 50.8438 |
| 18 | 51.8080 |
| 35 | 52.3723 |
| 60 | 52.7741 |
| 120 | 53.0709 |
| 230 | 53.3156 |
| PAN | .2782 |

5/24/2012

Temp:23

### PIPETTE ANALYSIS

Initials: [illegible]

| TIME | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| 10:12:00 | C21 | 1.5354 | 1.6908 |
| 10:12:20 | C22 | 1.5363 | 1.6886 |
| 10:13:46 | C23 | 1.5302 | 1.6443 |
| 10:19:05 | C24 | 1.5312 | 1.6182 |
| 10:40:18 | C25 | 1.5295 | 1.5842 |
| 12:05:00 | C26 | 1.5033 | 1.5492 |
| 15:38:00 | C27 | 1.5097 | 1.5455 |
| 8:48:00 | | | |

### SALT CORRECTION

Date: _____ Initials: ____

| Tare Weight | |
|---|---|
| Dry Weight + Tare | |

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## PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: C-3 Client Sample No.: MS002-SS-120515

Set-up Date: 05/18/12 Sample Description: _____

### SOLIDS CONTENT

| Moisture Content | Initials: deb |
|---|---|
| Container No. | 145 |
| Tare Weight | 1.5745 |
| Wet Weight + Tare | 25.1975 |
| Dry Weight + Tare | 3.9966 |

| Test Sample | Initials: deb |
|---|---|
| Container No. | 145 |
| Tare Weight | 50.7661 |
| Wet Weight + Tare | 146.1496 |
| Dry Weight + Tare | 54.6611 |

Calgon Batch #: 267

5/24/2012

Temp:23

### PIPETTE ANALYSIS

Initials: CR

| TIME | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| 10:15:00 | C31 | 1.5337 | 1.6710 |
| 10:15:20 | C32 | 1.5417 | 1.6763 |
| 10:16:46 | C33 | 1.5333 | 1.6412 |
| 10:22:05 | C34 | 1.5411 | 1.6222 |
| 10:43:18 | C35 | 1.5384 | 1.5895 |
| 12:08:00 | C36 | 1.5318 | 1.5747 |
| 15:41:00 | C37 | 1.5309 | 1.5644 |
| 8:51:00 | | | |

### SIEVE ANALYSIS

Sieve Date: 5-21-2012

Sieve Set #: 1 Initials: CR

| Sieve Size | Weight Retained |
|---|---|
| Tare | 50.8527 |
| 4 | 50.8527 |
| 10 | 51.1144 |
| 18 | 52.6273 |
| 35 | 53.3200 |
| 60 | 53.8102 |
| 120 | 54.1514 |
| 230 | 54.4180 |
| PAN | .3087 |

### SALT CORRECTION

Date: _____ Initials: ____

| Tare Weight | |
|---|---|
| Dry Weight + Tare | |

## PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: A Client Sample No.: M S001 -SS-120515

Set-up Date: 05/18/12 Sample Description: organic fines and some debris

### SOLIDS CONTENT

| Moisture Content | Initials: kb |
|---|---|
| Container No. | 146 |
| Tare Weight | 1.5639 |
| Wet Weight + Tare | 28.1907 |
| Dry Weight + Tare | 4.2386 |

| Test Sample | Initials: kb |
|---|---|
| Container No. | 146 |
| Tare Weight | 50.4750 |
| Wet Weight + Tare | 142.6621 |
| Dry Weight + Tare | 54.5104 |

Calgon Batch #: 267

### SIEVE ANALYSIS

Sieve Date: 5-21-2012

Sieve Set #: 2 Initials: BR

| Sieve Size | Weight Retained |
|---|---|
| Tare | 50.5419 |
| 4 | ~~50.5116~~ 50.5419 m |
| 10 | ~~50.5116~~ 50.5419 |
| 18 | 52.8042 |
| 35 | 53.4663 |
| 60 | 53.8862 |
| 120 | 54.1632 |
| 230 | 54.3589 |
| PAN | .2649 |

5/24/2012

Temp:23

TIME

### PIPETTE ANALYSIS

Initials: BR

| 10:18:00 | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| 10:18:20 | A1 | 1.5097 | 1.6328 |
| 10:19:46 | A2 | 1.5485 | 1.6675 |
| 10:25:05 | A3 | 1.5219 | 1.6161 |
| 10:46:18 | A4 | 1.5223 | 1.59~~51~~ |
| 12:11:00 | A5 | 1.5197 | 1.5690 |
| 15:44:00 | A6 | 1.5749 | 1.6184 |
| 8:54:00 | A7 | 1.5418 | 1.5790 |

### SALT CORRECTION

Date: _____ Initials: ____

| Tare Weight | |
|---|---|
| Dry Weight + Tare | |

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# PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: B Client Sample No.: MS101-SS-120515

Set-up Date: 05/18/12 Sample Description: Organic fines and some debris

## SOLIDS CONTENT

| Moisture Content | Initials: leb |
|---|---|
| Container No. | 159 |
| Tare Weight | 1.5589 |
| Wet Weight + Tare | 25.4710 |
| Dry Weight + Tare | 3.9582 |

| Test Sample | Initials: leb |
|---|---|
| Container No. | 159 |
| Tare Weight | 49.4112 |
| Wet Weight + Tare | 145.9912 |
| Dry Weight + Tare | 54.3370 |

Calgon Batch #: 267

## SIEVE ANALYSIS

Sieve Date: 5-21-2012

Sieve Set #: 1 Initials: BR

| Sieve Size | Weight Retained |
|---|---|
| Tare | 49.5259 |
| 4 | 49.5259 |
| 10 | 50.6657 |
| 18 | 52.3186 |
| 35 | 53.0846 |
| 60 | 53.5467 |
| 120 | 53.8586 |
| 230 | 54.0918 |
| PAN | .3135 |

5/24/2012

Temp:23

## PIPETTE ANALYSIS

Initials: BR

| TIME | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| 10:21:00 | | | |
| 10:21:20 | B1 | 1.5147 | 1.6276 |
| 10:22:46 | B2 | 1.5161 | 1.6269 |
| 10:28:05 | B3 | 1.5219 | 1.6104 |
| 10:49:18 | B4 | 1.5287 | 1.5979 |
| 12:14:00 | B5 | 1.5288 | 1.5763 |
| 15:47:00 | B6 | 1.5124 | 1.5534 |
| 8:57:00 | B7 | 1.5456 | 1.5800 |

## SALT CORRECTION

Date: _____ Initials: ____

| Tare Weight | |
|---|---|
| Dry Weight + Tare | |

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## PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: D Client Sample No.: MS003-SS-120515

Set-up Date: 5-22-2012 Sample Description: Organic Fines & Debris

### SOLIDS CONTENT

| Moisture Content | Initials: |
|---|---|
| Container No. | 102 |
| Tare Weight | 1.5461 |
| Wet Weight + Tare | 16.9686 |
| Dry Weight + Tare | 2.9819 |

| Test Sample | Initials: |
|---|---|
| Container No. | 102 |
| Tare Weight | 49.5041 |
| Wet Weight + Tare | 201.4140 |
| Dry Weight + Tare | 55.6845 |

Calgon Batch #: 267

### SIEVE ANALYSIS

Sieve Date: 05/23/12

Sieve Set #: 1 Initials:

| Sieve Size | Weight Retained |
|---|---|
| Tare | 49.6322 |
| 4 | 49.7337 |
| 10 | 50.6913 |
| 18 | 52.3609 |
| 35 | 53.5134 |
| 60 | 54.3145 |
| 120 | 54.8849 |
| 230 | 55.2731 |
| PAN | 0.5313 |

5/24/2012

Temp:23

### PIPETTE ANALYSIS

Initials:

| TIME | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| 10:24:00 | | | |
| 10:24:20 | D1 | 1.5431 | 1.7255 |
| 10:25:46 | D2 | 1.5453 | 1.7119 |
| 10:31:05 | D3 | 1.5416 | 1.6383 |
| 10:52:18 | D4 | 1.5617 | 1.6365 |
| 12:17:00 | D5 | 1.5454 | 1.6034 |
| 15:50:00 | D6 | 1.5496 | 1.6039 |
| 9:00:00 | D7 | 1.5396 483 | 1.5954 |

### SALT CORRECTION

Date: _____ Initials: ____

| | |
|---|---|
| Tare Weight | |
| Dry Weight + Tare | |

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## PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: E Client Sample No.: M8004-SS-120515

Set-up Date: 5.22.2012 Sample Description: Organic Fines, some Organic Debris

### SOLIDS CONTENT

| Moisture Content | Initials: BR |
|---|---|
| Container No. | 117 |
| Tare Weight | 1.5446 |
| Wet Weight + Tare | 31.6308 |
| Dry Weight + Tare | 4.5162 |

| Test Sample | Initials: BR |
|---|---|
| Container No. | 117 |
| Tare Weight | 50.1511 |
| Wet Weight + Tare | 201.7921 |
| Dry Weight + Tare | 56.2979 |

Calgon Batch #: 267

5/24/2012

Temp:23

### PIPETTE ANALYSIS

Initials: BR

| TIME | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| 10:27:00 | | | |
| 10:27:20 | E1 | 1.5185 | 1.7220 |
| 10:28:46 | E2 | 1.5429 | 1.7333 |
| 10:34:05 | E3 | 1.5425 | 1.6572 |
| 10:55:18 | E4 | 1.5385 | 1.6279 |
| 12:20:00 | E5 | 1.5670 | 1.6337 |
| 15:53:00 | E6 | 1.5373 | 1.5944 |
| 9:03:00 | E7 | 1.5130 | 1.5589 |

### SIEVE ANALYSIS

Sieve Date: 05/23/12

Sieve Set #: 2 Initials: leb

| Sieve Size | Weight Retained |
|---|---|
| Tare | 50.2502 |
| 4 | 50.2502 |
| 10 | 50.9449 |
| 18 | 52.1659 |
| 35 | 53.2943 |
| 60 | 54.2935 |
| 120 | 55.0857 |
| 230 | 55.6337 |
| PAN | 0.7583 |

### SALT CORRECTION

Date: _____ Initials: ____

| Tare Weight | |
|---|---|
| Dry Weight + Tare | |

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## PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: F Client Sample No.: MS005-SS-120515

Set-up Date: 05/18/12 Sample Description: organic fines and debris (large twigs)

### SOLIDS CONTENT

| Moisture Content | Initials: kb |
|---|---|
| Container No. | 165 |
| Tare Weight | 1.5569 |
| Wet Weight + Tare | 28.0460 |
| Dry Weight + Tare | 3.8376 |

| Test Sample | Initials: kb |
|---|---|
| Container No. | 165 |
| Tare Weight | 50.7926 |
| Wet Weight + Tare | 165.0214 |
| Dry Weight + Tare | 57.7985 |

Calgon Batch #: 267

### SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 2 Initials: kb

| Sieve Size | Weight Retained |
|---|---|
| Tare | 50.8912 |
| 4 | 51.1424 |
| 10 | 52.7740 |
| 18 | 54.1397 |
| 35 | 55.2440 |
| 60 | 56.1764 |
| 120 | 56.8286 |
| 230 | 57.2289 |
| PAN | 0.5577 ~~74~~ 81 kb |

3.4g

5/24/2012

Temp:23

TIME

### PIPETTE ANALYSIS

Initials: BR

| 10:30:00 | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| 10:30:20 | ~~D~~ F1 | 1.5249 | 1.5991 |
| 10:31:46 | F2 | 1.5462 | 1.6190 |
| 10:37:05 | F3 | 1.5530 | 1.6179 |
| 10:58:18 | F4 | 1.5521 | 1.6046 |
| 12:23:00 | F5 | 1.5494 | ~~1.6336~~ 1.5905 |
| 15:56:00 | F6 | 1.5541 | 1.5861 |
| 9:06:00 | F7 | 1.5488 | 1.5764 |

### SALT CORRECTION

Date: _____ Initials: ____

| Tare Weight | |
|---|---|
| Dry Weight + Tare | |

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~~RESPLIT~~

# PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: G Client Sample No.: MSØØ6-SS-12Ø515

Set-up Date: 05/18/12 Sample Description: organic fines and mostly debris (1.5" debris excluded) diameter

## SOLIDS CONTENT

| Moisture Content | Initials: kb |
|---|---|
| Container No. | 166 |
| Tare Weight | ~~1.5541~~ 1.5537 * |
| Wet Weight + Tare | ~~28.6715~~ 18.8582 |
| Dry Weight + Tare | ~~4.0520~~ 3.2334 |

| Test Sample | Initials: kb |
|---|---|
| Container No. | 166 |
| Tare Weight | 50.8403 |
| Wet Weight + Tare | 181.3984 |
| Dry Weight + Tare | 61.2147 |

Calgon Batch #: 267

## SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 1 Initials: kb

| Sieve Size | Weight Retained |
|---|---|
| Tare | 50.9335 |
| 4 | 50.9813 |
| 10 | 52.9902 |
| 18 | 55.3977 |
| 35 | 57.4921 |
| 60 | 59.0891 |
| 120 | 60.1000 |
| 230 | 60.7250 |
| PAN | 0.5729 |

5/24/2012

Temp:23

## PIPETTE ANALYSIS

Initials: BL

TIME

| 10:33:00 | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| 10:33:20 | G1 | 1.5133 | 1.5727 |
| 10:34:46 | G2 | 1.5142 | 1.5721 |
| 10:40:05 | G3 | 1.5122 | 1.5643 |
| 11:01:18 | G4 | 1.5145 | 1.5581 |
| 12:26:00 | G5 | 1.5176 | 1.5512 |
| 15:59:00 | G6 | 1.5216 | 1.5497 |
| 9:09:00 | G7 | 1.5327 | 1.5551 |

## SALT CORRECTION

~~32g~~ 28g

Date: _____ Initials: ____

| Tare Weight | |
|---|---|
| Dry Weight + Tare | |

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* moisture content redo.

## PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: H Client Sample No.: MSD07-SS-120515

Set-up Date: 05/18/12 Sample Description: organic fines and debris

### SOLIDS CONTENT

| Moisture Content | Initials: kb |
|---|---|
| Container No. | 172 |
| Tare Weight | 1.5638 |
| Wet Weight + Tare | 26.7949 |
| Dry Weight + Tare | 5.8038 |

| Test Sample | Initials: kb |
|---|---|
| Container No. | 172 |
| Tare Weight | 50.7376 |
| Wet Weight + Tare | 174.7784 |
| Dry Weight + Tare | 64.2657 |

Calgon Batch #: 267

### SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 1 Initials: kb

| Sieve Size | Weight Retained |
|---|---|
| Tare | 50.8000 |
| 4 | 50.8703 |
| 10 | 51.0490 |
| 18 | 54.4648 |
| 35 | 56.4839 |
| 60 | 58.1849 |
| 120 | 60.1761 |
| 230 | 62.3102 |
| PAN | 2.1591 |

5/24/2012

Temp:23

### PIPETTE ANALYSIS

Initials: [illegible]

| TIME | | | |
|---|---|---|---|
| 10:36:00 | Tare ID | Tare Wt | Dry Wt & Tare |
| 10:36:20 | H1 | 1.5287 | 1.7226 |
| 10:37:46 | H2 | 1.5347 | 1.6838 |
| 10:43:05 | H3 | 1.5344 | 1.6432 |
| 11:04:18 | H4 | 1.5287 | 1.6076 |
| 12:29:00 | H5 | 1.5299 | 1.5802 |
| 16:02:00 | H6 | 1.5221 | 1.5633 |
| 9:12:00 | H7 | 1.5355 | 1.5675 |

### SALT CORRECTION

Date: _____ Initials: ____

| | |
|---|---|
| Tare Weight | |
| Dry Weight + Tare | |

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## PSEP GRAIN SIZE ANALYSIS

ARI Job No.: 11152 ARI Sample Letter: I Client Sample No.: MS008-SS-120515

Set-up Date: 05/18/12 Sample Description: Organic fines and mostly debris

### SOLIDS CONTENT

| Moisture Content | Initials: kb |
|---|---|
| Container No. | 174 |
| Tare Weight | ~~1.5717~~ 1.5498 |
| Wet Weight + Tare | ~~45.1727~~ 26.5340 |
| Dry Weight + Tare | ~~6.3689~~ 4.7257 |

| Test Sample | Initials: kb |
|---|---|
| Container No. | 174 |
| Tare Weight | 49.3566 |
| Wet Weight + Tare | 184.3567 |
| Dry Weight + Tare | 63.8897 |

Calgon Batch #: 267

5/24/2012

Temp:23

### PIPETTE ANALYSIS

Initials:

| TIME | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| 10:39:00 | I1 | 1.5461 | 1.6216 |
| 10:39:20 | I2 | 1.5458 | 1.6190 |
| 10:40:46 | I3 | 1.5477 | 1.6125 |
| 10:46:05 | I4 | 1.5437 | 1.5947 |
| 11:07:18 | I5 | 1.5414 | 1.5791 |
| 12:32:00 | I6 | 1.5438 | 1.5717 |
| 16:05:00 | I7 | 1.5502 | 1.5716 |
| 9:15:00 | | | |

### SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 2 Initials: kb

| Sieve Size | Weight Retained |
|---|---|
| Tare | 49.4822 |
| 4 | 55.5918 |
| 10 | 57.0519 |
| 18 | 59.0052 |
| 35 | 60.2405 |
| 60 | 61.1683 |
| 120 | 61.8845 |
| 230 | 62.4158 |
| PAN | 0.8339 |

1.8g

### SALT CORRECTION

Date: _____ Initials: ____

| | |
|---|---|
| Tare Weight | |
| Dry Weight + Tare | |

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# PSEP GRAIN SIZE ANALYSIS

ARI Job No.: 11452 ARI Sample Letter: J Client Sample No.: MS09-SS-120515

Set-up Date: 5-22-2012 Sample Description: Organic Fines, some Organic Debris

## SOLIDS CONTENT

| Moisture Content | Initials: RR |
|---|---|
| Container No. | 188 |
| Tare Weight | 1.5413 |
| Wet Weight + Tare | 25.5176 |
| Dry Weight + Tare | 3.9523 |

| Test Sample | Initials: RR |
|---|---|
| Container No. | 188 |
| Tare Weight | 50.3679 |
| Wet Weight + Tare | 201.4468 |
| Dry Weight + Tare | 57.2632 |

Calgon Batch #: 267

## SIEVE ANALYSIS

Sieve Date: 05/23/12

Sieve Set #: 1 Initials: kb

| Sieve Size | Weight Retained |
|---|---|
| Tare | 50.4835 |
| 4 | 50.5226 |
| 10 | 51.3124 |
| 18 | 52.5792 |
| 35 | 53.6485 |
| 60 | 54.5993 |
| 120 | 55.4001 |
| 230 | 56.0806 |
| PAN | 1.2316 |

5/24/2012

Temp:23

## PIPETTE ANALYSIS

Initials: RR

| TIME | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| 10:42:00 | J1 | 1.5488 | 1.7507 |
| 10:42:20 | J2 | 1.5442 | 1.7149 |
| 10:43:46 | J3 | 1.5400 | 1.6738 |
| 10:49:05 | J4 | 1.5468 | 1.6533 |
| 11:10:18 | J5 | 1.5484 | 1.6223 |
| 12:35:00 | J6 | 1.5500 | 1.6112 |
| 16:08:00 | J7 | 1.5472 | 1.5959 |
| 9:18:00 | | | |

## SALT CORRECTION

Date: _____ Initials: ____

| Tare Weight | |
|---|---|
| Dry Weight + Tare | |

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## PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: J Client Sample No.: MS09-SS-120515

Set-up Date: 5-22-2012 Sample Description: Organic Fines, some Organic Debris

### SOLIDS CONTENT

| Moisture Content | Initials: [illegible] |
|---|---|
| Container No. | 188 |
| Tare Weight | 1.5413 |
| Wet Weight + Tare | 25.5176 |
| Dry Weight + Tare | 3.9523 |

| Test Sample | Initials: [illegible] |
|---|---|
| Container No. | 188 |
| Tare Weight | 50.3679 |
| Wet Weight + Tare | 201.4468 |
| Dry Weight + Tare | 57.2632 |

Calgon Batch #: 267

### SIEVE ANALYSIS

Sieve Date: 05/23/12

Sieve Set #: 1 Initials: kb

| Sieve Size | Weight Retained |
|---|---|
| Tare | 50.4835 |
| 4 | 50.5226 |
| 10 | 51.3124 |
| 18 | 52.5792 |
| 35 | 53.6485 |
| 60 | 54.5993 |
| 120 | 55.4001 |
| 230 | 56.0806 |
| PAN | 1.2316 |

5/24/2012

Temp:23

### PIPETTE ANALYSIS

Initials: [illegible]

| TIME | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| 10:42:00 | | | |
| 10:42:20 | J1 | 1.5488 | 1.7507 |
| 10:43:46 | J2 | 1.5442 | 1.7149 |
| 10:49:05 | J3 | 1.5400 | 1.6738 |
| 11:10:18 | J4 | 1.5468 | 1.6533 |
| 12:35:00 | J5 | 1.5484 | 1.6223 |
| 16:08:00 | J6 | 1.5500 | 1.6112 |
| 9:18:00 | J7 | 1.5472 | 1.5959 |

### SALT CORRECTION

Date: _____ Initials: ____

| Tare Weight | |
|---|---|
| Dry Weight + Tare | |

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## PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: K Client Sample No.: MS010-SS-120515

Set-up Date: 5-22-2012 Sample Description: Organic Fines & Debris

### SOLIDS CONTENT

| Moisture Content | Initials: [illegible] |
|---|---|
| Container No. | 107 |
| Tare Weight | 1.5406 |
| Wet Weight + Tare | 23.8149 |
| Dry Weight + Tare | 3.8104 |

| Test Sample | Initials: [illegible] |
|---|---|
| Container No. | 107 |
| Tare Weight | 51.1612 |
| Wet Weight + Tare | 203.1282 |
| Dry Weight + Tare | 58.7756 |

Calgon Batch #: 267

### SIEVE ANALYSIS

Sieve Date: 05/23/12

Sieve Set #: 2 Initials: kb

| Sieve Size | Weight Retained |
|---|---|
| Tare | 51.2419 |
| 4 | 51.6558 |
| 10 | 53.0011 |
| 18 | 54.4742 |
| 35 | 55.5675 |
| 60 | 56.4609 |
| 120 | 57.1813 |
| 230 | 57.7624 |
| PAN | 1.0769 |

5/24/2012

Temp:23

### PIPETTE ANALYSIS

Initials: [illegible]

| TIME | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| 10:45:00 | | | |
| 10:45:20 | K1 | 1.5546 | 1.7499 |
| 10:46:46 | K2 | 1.5537 | 1.7210 |
| 10:52:05 | K3 | 1.5520 | 1.6736 |
| 11:13:18 | K4 | 1.5499 | 1.6458 |
| 12:38:00 | K5 | 1.5472 | 1.6155 |
| 16:11:00 | K6 | 1.5495 | 1.6085 |
| 9:21:00 | K7 | 1.5440 | 1.5907 |

### SALT CORRECTION

Date: _____ Initials: ____

| Tare Weight | |
|---|---|
| Dry Weight + Tare | |

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Rev. 01

Reglot

# PSEP GRAIN SIZE ANALYSIS

ARI Job No.: 4452 ARI Sample Letter: D Client Sample No.: MS003-SS-120515

Set-up Date: 05/18/12 Sample Description: organic debris and roots

## SOLIDS CONTENT

| Moisture Content | Initials: kb |
|---|---|
| Container No. | 163 |
| Tare Weight | 1.5568 |
| Wet Weight + Tare | 27.0263 |
| Dry Weight + Tare | 3.9512 |

| Test Sample | Initials: kb |
|---|---|
| Container No. | 163 |
| Tare Weight | 49.9129 |
| Wet Weight + Tare | 141.1672 |
| Dry Weight + Tare | 55.2024 |

Calgon Batch #: _____

## PIPETTE ANALYSIS

Initials: _____

| | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
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| | | | |
| | | | |
| | | | |

## SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 2 Initials: kb

| Sieve Size | Weight Retained |
|---|---|
| Tare | 50.0165 |
| 4 | 50.6823 |
| 10 | 51.2272 |
| 18 | 52.7430 |
| 35 | 53.6891 |
| 60 | 54.2712 |
| 120 | 54.6544 |
| 230 | 54.8892 |
| PAN | 0.3251 |

3.6g

## SALT CORRECTION

Date: _____ Initials: ____

| | |
|---|---|
| Tare Weight | |
| Dry Weight + Tare | |

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Rev. 01

Result

# PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU52 ARI Sample Letter: E Client Sample No.: MS004-SS-120515

Set-up Date: 05/18/12 Sample Description: Organic fines and some debris

## SOLIDS CONTENT

| Moisture Content | Initials: kb |
|---|---|
| Container No. | 164 |
| Tare Weight | 1.5520 |
| Wet Weight + Tare | 28.1639 |
| Dry Weight + Tare | 4.1979 |

| Test Sample | Initials: kb |
|---|---|
| Container No. | 164 |
| Tare Weight | 50.1655 |
| Wet Weight + Tare | 145.2235 |
| Dry Weight + Tare | 55.7068 |

Calgon Batch #: _____

## PIPETTE ANALYSIS

Initials: _____

| | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
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| | | | |
| | | | |
| | | | |

## SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 1 Initials: kb

| Sieve Size | Weight Retained |
|---|---|
| Tare | 50.2881 |
| 4 | 50.2881 |
| 10 | 50.4364 |
| 18 | 51.3756 |
| 35 | 52.8633 |
| 60 | 53.8469 |
| 120 | 54.4963 |
| 230 | 54.9583 |
| PAN | 0.6633 |

4.7g

## SALT CORRECTION

Date: _____ Initials: ____

| Tare Weight | |
|---|---|
| Dry Weight + Tare | |

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Rev. 01

Result

# PSEP GRAIN SIZE ANALYSIS

ARI Job No.: 11152 ARI Sample Letter: J Client Sample No.: M5009-SS-120515

Set-up Date: 05/18/12 Sample Description: organic fines

## SOLIDS CONTENT

| Moisture Content | Initials: KLB |
|---|---|
| Container No. | 175 |
| Tare Weight | 1.5303 |
| Wet Weight + Tare | 26.0627 |
| Dry Weight + Tare | 4.0328 |

| Test Sample | Initials: KLB |
|---|---|
| Container No. | 175 |
| Tare Weight | 51.7100 |
| Wet Weight + Tare | 154.4465 |
| Dry Weight + Tare | 58.6064 |

Calgon Batch #: _____

## PIPETTE ANALYSIS

Initials: _____

| | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 1 Initials: KL

| Sieve Size | Weight Retained |
|---|---|
| Tare | 51.8180 |
| 4 | 55.0883 |
| 10 | 55.4610 |
| 18 | 56.7755 |
| 35 | 57.3199 |
| 60 | 57.6910 |
| 120 | 57.9663 |
| 230 | 58.2109 |
| PAN | 0.4745 |

4.0g

## SALT CORRECTION

Date: _____ Initials: ____

| | |
|---|---|
| Tare Weight | |
| Dry Weight + Tare | |

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Rosdet

# PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU152 ARI Sample Letter: K Client Sample No.: MS010-SS-120515

Set-up Date: 05/18/12 Sample Description: organic fines and debris (leaves)

## SOLIDS CONTENT

| Moisture Content | Initials: kb |
|---|---|
| Container No. | 183 |
| Tare Weight | 1.5293 |
| Wet Weight + Tare | 28.5431 |
| Dry Weight + Tare | 4.3462 |

| Test Sample | Initials: kb |
|---|---|
| Container No. | 183 |
| Tare Weight | 50.1317 |
| Wet Weight + Tare | 162.1158 |
| Dry Weight + Tare | 57.9773 |

Calgon Batch #: _____

## PIPETTE ANALYSIS

Initials: _____

| | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 2 Initials: kb

| Sieve Size | Weight Retained |
|---|---|
| Tare | 50.2367 |
| 4 | 50.3780 |
| 10 | 52.0966 |
| 18 | 54.0738 |
| 35 | 55.2121 |
| 60 | 56.0023 |
| 120 | 56.5738 |
| 230 | 56.9883 |
| PAN | 0.6908 |

4.8g

## SALT CORRECTION

Date: _____ Initials: ____

| Tare Weight | |
|---|---|
| Dry Weight + Tare | |

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## PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU62 ARI Sample Letter: A Client Sample No.: MS110-SS-120515

Set-up Date: 05/18/12 Sample Description: organic fines

### SOLIDS CONTENT

| Moisture Content | Initials: kb |
|---|---|
| Container No. | 187 |
| Tare Weight | 1.5340 |
| Wet Weight + Tare | 24.4385 |
| Dry Weight + Tare | 3.9320 |

| Test Sample | Initials: kb |
|---|---|
| Container No. | 187 |
| Tare Weight | 51.6329 |
| Wet Weight + Tare | 140.1905 |
| Dry Weight + Tare | 56.1097 |

Calgon Batch #: 267

### SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 1 Initials: kb

| Sieve Size | Weight Retained |
|---|---|
| Tare | 51.6947 |
| 4 | kb ~~51.9343~~ 51.6947 |
| 10 | kb ~~53.2542~~ 51.9343 |
| 18 | kb ~~54.1234~~ 53.2542 |
| 35 | kb 54.~~7217~~1234 |
| 60 | 54.7217 |
| 120 | 55.1893 |
| 230 | 55.5412 |
| PAN | 0.5473~~4~~ kb |

5/24/2012

Temp:23

### PIPETTE ANALYSIS

Initials: KB

| TIME | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| 10:48:00 | | | |
| 10:48:20 | A1 | 1.5509 | 1.6682 |
| 10:49:46 | A2 | 1.5499 | 1.6633 |
| 10:55:05 | A3 | 1.5466 | 1.6425 |
| 11:16:18 | A4 | 1.5423 | 1.6208 |
| 12:41:00 | A5 | 1.5469 | 1.5970 |
| 16:14:00 | A6 | 1.5483 | 1.5882 |
| 9:24:00 | A7 | 1.5509 | 1.5832 |

### SALT CORRECTION

Date: _____ Initials: ____

| | |
|---|---|
| Tare Weight | |
| Dry Weight + Tare | |



UU52:02282

## PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU62 ARI Sample Letter: B Client Sample No.: MS011-SS-120515

Set-up Date: 05/18/12 Sample Description: organic fines and mostly debris

### SOLIDS CONTENT

| Moisture Content | Initials: kb |
|---|---|
| Container No. | 192 |
| Tare Weight | 1.5367 |
| Wet Weight + Tare | 26.8762 |
| Dry Weight + Tare | 3.9940 |

| Test Sample | Initials: kb |
|---|---|
| Container No. | 192 |
| Tare Weight | 50.3076 |
| Wet Weight + Tare | 177.0360 |
| Dry Weight + Tare | ~~60 66.28~~ 3699 kb 60.3699 |

Calgon Batch #: 267

### SIEVE ANALYSIS

Sieve Date: 05/23/12

Sieve Set #: 1 Initials: kb

| Sieve Size | Weight Retained |
|---|---|
| Tare | 50.3384 |
| 4 | 50.8763 |
| 10 | 53.2421 |
| 18 | 55.4285 |
| 35 | 57.2076 |
| 60 | 58.6427 |
| 120 | 59.5499 |
| 230 | 60.1164 |
| PAN | 0.5508 |

2.4g

5/24/2012

Temp:23

### PIPETTE ANALYSIS

Initials: BL

| TIME | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| 10:51:00 | | | |
| 10:51:20 | B1 | 1.5623 | 1.6258 |
| 10:52:46 | B2 | 1.5792 | 1.6399 |
| 10:58:05 | B3 | 1.5761 | 1.6329 |
| 11:19:18 | B-4 | 1.5705 | 1.6182 |
| 12:44:00 | B5 | 1.5685 | 1.6058 |
| 16:17:00 | B6 | 1.5646 | 1.5940 |
| 9:27:00 | B7 | 1.5623 | 1.5853 |

### SALT CORRECTION

Date: _____ Initials: ____

| Tare Weight | |
|---|---|
| Dry Weight + Tare | |

## PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU62 ARI Sample Letter: C Client Sample No.: MS012-SS-120515

Set-up Date: 5-23-2012 Sample Description: Organic Fines & Debris

### SOLIDS CONTENT

| Moisture Content | Initials: |
|---|---|
| Container No. | 109 A |
| Tare Weight | 1.5269 |
| Wet Weight + Tare | 17.0493 |
| Dry Weight + Tare | 3.0252 |

| Test Sample | Initials: |
|---|---|
| Container No. | 109 A |
| Tare Weight | 51.1594 |
| Wet Weight + Tare | 201.1164 |
| Dry Weight + Tare | 58.26x25 eg |

Calgon Batch #: 267

5/24/2012

Temp:23

### PIPETTE ANALYSIS

Initials:

| TIME | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| 10:54:00 | | | |
| 10:54:20 | C1 | 1.5307 | 1.6969 |
| 10:55:46 | C2 | 1.5232 | 1.6740 |
| 11:01:05 | C3 | 1.5486 | 1.6442 |
| 11:22:18 | C4 | 1.5478 | 1.6243 |
| 12:47:00 | C5 | 1.5486 | 1.6130 |
| 16:20:00 | C6 | 1.5480 | 1.6090 |
| 9:30:00 | C7 | 1.5451 | 1.5997 |

### SIEVE ANALYSIS

Sieve Date: 5-24-12

Sieve Set #: 1 Initials: eg

| Sieve Size | Weight Retained |
|---|---|
| Tare | 51.3621 |
| 4 | 51.4668 |
| 10 | 54.4496 |
| 18 | 56.0412 |
| 35 | 56.8947 |
| 60 | 57.4887 |
| 120 | 57.8943 |
| 230 | 58.16784 eg |
| PAN | 0.3399 |

### SALT CORRECTION

Date: _____ Initials: ____

| | |
|---|---|
| Tare Weight | |
| Dry Weight + Tare | |

# PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU62 ARI Sample Letter: D Client Sample No.: MS013.SS.12055

Set-up Date: 5.23.2012 Sample Description: Organic Fines & Debris

## SOLIDS CONTENT

| Moisture Content | Initials: |
|---|---|
| Container No. | 173 |
| Tare Weight | 1.5254 |
| Wet Weight + Tare | 20.2970 |
| Dry Weight + Tare | 3.27758 |

eg

| Test Sample | Initials: |
|---|---|
| Container No. | 173 |
| Tare Weight | 50.0618 |
| Wet Weight + Tare | 204.3727 |
| Dry Weight + Tare | 57.9585 |

Calgon Batch #: 267

## SIEVE ANALYSIS

Sieve Date: 5.24.12

Sieve Set #: 2 Initials: eg

| Sieve Size | Weight Retained |
|---|---|
| Tare | 50.3173 |
| 4 | 50.3639 |
| 10 | 53.7088 |
| 18 | 55.3751 |
| 35 | 56.3931 |
| 60 | 56.89260 |
| 120 | 57.5349 |
| 230 | 57.7976 |
| PAN | 0.3455 |

## PIPETTE ANALYSIS

5/24/2012

Temp:23

Initials:

| TIME | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| 10:57:00 | D1 | 1.5542 | 1.7011 |
| 10:57:20 | D2 | 1.5449 | 1.6805 |
| 10:58:46 | D3 | 1.5428 | 1.6415 |
| 11:04:05 | D4 | 1.5429 | 1.6084 |
| 11:25:18 | D5 | 1.5433 | 1.5890 |
| 12:50:00 | D6 | 1.5391 | 1.5784 |
| 16:23:00 | D7 | 1.5320 | 1.5690 |
| 9:33:00 | | | |

## SALT CORRECTION

Date: _____ Initials: ____

| | |
|---|---|
| Tare Weight | |
| Dry Weight + Tare | |

## PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU62 ARI Sample Letter: E Client Sample No.: MS014-SS-120515

Set-up Date: 05/18/12 Sample Description: Organic fines

### SOLIDS CONTENT

| Moisture Content | Initials: kb |
|---|---|
| Container No. | 212 |
| Tare Weight | 1.5309 |
| Wet Weight + Tare | 24.6228 |
| Dry Weight + Tare | 3.8196 |

| Test Sample | Initials: kb |
|---|---|
| Container No. | 212 |
| Tare Weight | 49.7864 |
| Wet Weight + Tare | 143.6680 |
| Dry Weight + Tare | 54.6256 |

Calgon Batch #: 267

### SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 2 Initials: kb

| Sieve Size | Weight Retained |
|---|---|
| Tare | 49.8400 |
| 4 | 49.8400 |
| 10 | 50.4845 |
| 18 | 51.7297 |
| 35 | 52.6842 |
| 60 | 53.3366 |
| 120 | 53.7958 |
| 230 | 54.0966 |
| PAN | 0.4935 |

5/24/2012

Temp:23

### PIPETTE ANALYSIS

Initials:

| TIME | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| 11:00:00 | E1 | 1.5613 | 1.6689 |
| 11:00:20 | E2 | 1.5641 | 1.6699 |
| 11:01:46 | E3 | 1.5657 | 1.6574 |
| 11:07:05 | E4 | 1.5642 | 1.6341 |
| 11:28:18 | E5 | 1.5615 | 1.6080 |
| 12:53:00 | E6 | 1.5624 | 1.6004 |
| 16:26:00 | E7 | 1.5317 | 1.5635 |
| 9:36:00 | | | |

### SALT CORRECTION

Date: _____ Initials: ____

| Tare Weight | |
|---|---|
| Dry Weight + Tare | |

## PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU62 ARI Sample Letter: F Client Sample No.: MS015-SS-120515

Set-up Date: 05/18/12 Sample Description: organic fines and debris

### SOLIDS CONTENT

| Moisture Content | Initials: kb |
|---|---|
| Container No. | 217 |
| Tare Weight | 1.5302 |
| Wet Weight + Tare | 26.6770 |
| Dry Weight + Tare | 4.1495 |

| Test Sample | Initials: kb |
|---|---|
| Container No. | 217 |
| Tare Weight | 49.9762 |
| Wet Weight + Tare | 153.5721 |
| Dry Weight + Tare | 55.0849 |

Calgon Batch #: 267

### SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 2 Initials: kb

| Sieve Size | Weight Retained |
|---|---|
| Tare | 50.0455 |
| 4 | 50.4794 |
| 10 | 51.7912 |
| 18 | 53.0154 |
| 35 | 53.8223 |
| 60 | 54.3372 |
| 120 | 54.6307 |
| 230 | 54.7945 |
| PAN | 0.2023 |

5/24/2012

Temp:23

### PIPETTE ANALYSIS

Initials: BL

| TIME | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| 11:03:00 | F1 | 1.5248 | 1.6532 |
| 11:03:20 | F2 | 1.5241 | 1.6492 |
| 11:04:46 | F3 | 1.5538 | 1.6537 |
| 11:10:05 | F4 | 1.5433 | 1.6178 |
| 11:31:18 | F5 | 1.5354 | 1.5827 |
| 12:56:00 | F6 | 1.5636 | 1.6023 |
| 16:29:00 | F7 | 1.5413 | 1.5739 |
| 9:39:00 | | | |

### SALT CORRECTION

Date: _____ Initials: ____

| Tare Weight | |
|---|---|
| Dry Weight + Tare | |

# PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU62 ARI Sample Letter: G Client Sample No.: MSØ16-SS-120515

Set-up Date: 05/18/12 Sample Description: Organic fines and debris

## SOLIDS CONTENT

| Moisture Content | Initials: kb |
|---|---|
| Container No. | 223 |
| Tare Weight | 1.5305 |
| Wet Weight + Tare | 24.8896 |
| Dry Weight + Tare | 4.2537 |

| Test Sample | Initials: kb |
|---|---|
| Container No. | 223 |
| Tare Weight | 49.5627 |
| Wet Weight + Tare | 167.0475 |
| Dry Weight + Tare | ~~73.800~~ kb 57.7657 |

Calgon Batch #: 267

## SIEVE ANALYSIS

Sieve Date: 05/23/12

Sieve Set #: 2 Initials: kb

| Sieve Size | Weight Retained |
|---|---|
| Tare | 49.6443 |
| 4 | 50.5527 |
| 10 | 52.0169 |
| 18 | 53.9328 |
| 35 | 55.3555 |
| 60 | 56.3420 |
| 120 | 56.9617 |
| 230 | 57.3443 |
| PAN | 0.5690 |

5/24/2012

Temp:23

## PIPETTE ANALYSIS

Initials: BL

| TIME | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| 11:06:00 | G1 | 1.5488 | 1.6831 |
| 11:06:20 | G2 | 1.5394 | 1.6708 |
| 11:07:46 | G3 | 1.5512 | 1.6589 |
| 11:13:05 | G4 | 1.5623 | 1.6340 |
| 11:34:18 | G5 | 1.5487 | 1.5946 |
| 12:59:00 | G6 | 1.5558 | 1.5959 |
| 16:32:00 | G7 | 1.5356 | 1.5687 |
| 9:42:00 | | | |

## SALT CORRECTION

Date: _____ Initials: ____

| Tare Weight | |
|---|---|
| Dry Weight + Tare | |

## PSEP GRAIN SIZE ANALYSIS

ARI Job No.: 1462 ARI Sample Letter: H Client Sample No.: MS017-SS-120515

Set-up Date: 05/18/12 Sample Description: Organic fines and debris

### SOLIDS CONTENT

| Moisture Content | Initials: kb |
|---|---|
| Container No. | 225 |
| Tare Weight | 1.5321 |
| Wet Weight + Tare | 26.9824 |
| Dry Weight + Tare | 3.4718 |

| Test Sample | Initials: kb |
|---|---|
| Container No. | 225 |
| Tare Weight | 49.3647 |
| Wet Weight + Tare | 160.5373 |
| Dry Weight + Tare | 55.1418 |

Calgon Batch #: 267

5/24/2012

Temp:23

### PIPETTE ANALYSIS

Initials:

| TIME | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| 11:09:00 | H1 | 1.5784 | 1.6526 |
| 11:10:46 | H2 | 1.5540 | 1.6270 |
| 11:16:05 | H3 | 1.5422 | 1.6095 |
| 11:37:18 | H4 | 1.5351 | 1.5872 |
| 13:02:00 | H5 | 1.5384 | 1.5764 |
| 16:35:00 | H6 | 1.5368 | 1.5707 |
| 9:45:00 | H7 | 1.5517 | 1.5813 |

### SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 1 Initials: kb

| Sieve Size | Weight Retained |
|---|---|
| Tare | 49.4370 |
| 4 | 49.6583 |
| 10 | 51.0964 |
| 18 | 52.3110 |
| 35 | 53.2829 |
| 60 | 53.9795 |
| 120 | 54.4300 |
| 230 | 54.7191 |
| PAN | 0.3465 |

3.1g

### SALT CORRECTION

Date: _____ Initials: ____

| Tare Weight | |
|---|---|
| Dry Weight + Tare | |

## PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU62 ARI Sample Letter: I Client Sample No.: MS018.SS.120515

Set-up Date: 5.23.2012 Sample Description: Organic Flats & Robins

### SOLIDS CONTENT

| Moisture Content | Initials: |
|---|---|
| Container No. | 177 |
| Tare Weight | 1.5556 |
| Wet Weight + Tare | 18.5055 |
| Dry Weight + Tare | 3.5038 |

| Test Sample | Initials: |
|---|---|
| Container No. | 177 |
| Tare Weight | 50.5436 |
| Wet Weight + Tare | 200.0182 |
| Dry Weight + Tare | 57.6077 |

Calgon Batch #: 267

5/24/2012

Temp:23

### PIPETTE ANALYSIS

Initials:

| TIME | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| 11:12:00 | I1 | 1.5420 | 1.7693 |
| 11:12:20 | I2 | 1.5276 | 1.7467 |
| 11:13:46 | I3 | 1.5502 | 1.7076 |
| 11:19:05 | I4 | 1.5444 | 1.6568 |
| 11:40:18 | I5 | 1.5528 | 1.6406 |
| 13:05:00 | I6 | 1.5489 | 1.6206 |
| 16:38:00 | I7 | 1.5554 | 1.6106 |
| 9:48:00 | | | |

### SIEVE ANALYSIS

Sieve Date: 5.24.12

Sieve Set #: 1 Initials: eg

| Sieve Size | Weight Retained |
|---|---|
| Tare | 50.6958 |
| 4 | 50.6958 |
| 10 | 53.5849 |
| 18 | 545.0736 eg |
| 35 | 55.8616 |
| 60 | 56.4338 |
| 120 | 56.9078 |
| 230 | 57.2734 |
| PAN | 0.4934 |

### SALT CORRECTION

Date: _____ Initials: ____

| | |
|---|---|
| Tare Weight | |
| Dry Weight + Tare | |

Replot

# PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU62 ARI Sample Letter: C Client Sample No.: MS012-SS-120515

Set-up Date: 05/18/12 Sample Description: organic fines and debris

## SOLIDS CONTENT

| Moisture Content | Initials: kb |
|---|---|
| Container No. | 198 |
| Tare Weight | 1.5266 |
| Wet Weight + Tare | 26.0961 |
| Dry Weight + Tare | 3.9965 |

| Test Sample | Initials: kb |
|---|---|
| Container No. | 198 |
| Tare Weight | 50.6519 |
| Wet Weight + Tare | 153.7572 |
| Dry Weight + Tare | 57.6486 |

Calgon Batch #: _____

## SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 2 Initials: kb

| Sieve Size | Weight Retained |
|---|---|
| Tare | 50.7339 |
| 4 | 52.3535 |
| 10 | 54.7553 |
| 18 | 55.8784 |
| 35 | 56.5892 |
| 60 | 57.0089 |
| 120 | 57.2635 |
| 230 | 57.4035 |
| PAN | 0.1628 |

3.6 g

## PIPETTE ANALYSIS

Initials: _____

| | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## SALT CORRECTION

Date: _____ Initials: ____

| Tare Weight | |
|---|---|
| Dry Weight + Tare | |

1115F-A
Rev. 01

Resplit

# PSEP GRAIN SIZE ANALYSIS

ARI Job No.: LL162 ARI Sample Letter: D Client Sample No.: MS013-SS-120515

Set-up Date: 05/18/12 Sample Description: organic fines and debris

## SOLIDS CONTENT

| Moisture Content | Initials: kb |
|---|---|
| Container No. | 210 |
| Tare Weight | 1.5332 |
| Wet Weight + Tare | 28.0727 |
| Dry Weight + Tare | 4.0819 |

| Test Sample | Initials: kb |
|---|---|
| Container No. | 210 |
| Tare Weight | 49.8242 |
| Wet Weight + Tare | 166.2798 |
| Dry Weight + Tare | 57.0808 |

Calgon Batch #: _____

## PIPETTE ANALYSIS

Initials: _____

| | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 1 Initials: kb

| Sieve Size | Weight Retained |
|---|---|
| Tare | 49.8873 |
| 4 | 50.2797 |
| 10 | 51.4747 |
| 18 | 53.1275 |
| 35 | 54.4599 |
| 60 | 55.3916 |
| 120 | 56.0131 |
| 230 | 56.4199 |
| PAN | 0.6388 4.6g |

## SALT CORRECTION

Date: _____ Initials: ____

| | |
|---|---|
| Tare Weight | |
| Dry Weight + Tare | |

1115F-A
Rev. 01

Replot

# PSEP GRAIN SIZE ANALYSIS

ARI Job No.: UU62 ARI Sample Letter: I Client Sample No.: MS018-SS-120515

Set-up Date: 05/18/12 Sample Description: Organic fines

## SOLIDS CONTENT

| Moisture Content | Initials: kb |
|---|---|
| Container No. | 229 |
| Tare Weight | 1.5373 |
| Wet Weight + Tare | 25.8094 |
| Dry Weight + Tare | 4.4080 |

| Test Sample | Initials: kb |
|---|---|
| Container No. | 229 |
| Tare Weight | 49.5231 |
| Wet Weight + Tare | 146.5467 |
| Dry Weight + Tare | 57.8087 |

Calgon Batch #: _____

## PIPETTE ANALYSIS

Initials: _____

| | Tare ID | Tare Wt | Dry Wt & Tare |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## SIEVE ANALYSIS

Sieve Date: 05/22/12

Sieve Set #: 1 Initials: kb

| Sieve Size | Weight Retained |
|---|---|
| Tare | 49.5776 |
| 4 | 49.7977 |
| 10 | 52.0578 |
| 18 | 54.0900 |
| 35 | 55.2760 |
| 60 | 56.0465 |
| 120 | 56.5999 |
| 230 | 57.0147 |
| PAN | 0.6224 |

4.05

## SALT CORRECTION

Date: _____ Initials: ____

| Tare Weight | |
|---|---|
| Dry Weight + Tare | |

1115F-A
Rev. 01

Table of Contents: ARI Job UW85

Client: Anchor QEA, LLC. Project: 120909-01.01 Jeld Wen Maulsby Marsh


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BC
Signature

June-12-2012
Date

**Analytical Resources, Incorporated**
Analytical Chemists and Consultants

June 12, 2012

David Gillingham
Anchor QEA
720 Olive Way, Suite 1900
Seattle, WA 98101

**RE: Client Project: Jeld Wen Maulsby Marsh, 120909-01.01**
**ARI Job No.: UW85**

Dear David:

Please find enclosed the Chain of Custody (COC) record, sample receipt documentation, and the final data package for samples from the project referenced above.

Sample receipt and details of these analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile: UW85

Enclosures



4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Documentation

ARI Job ID: UW85

# Chain of Custody Record & Laboratory Analysis Request

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

| | |
|---|---|
| ARI Assigned Number: | Turn-around Requested: Std |
| ARI Client Company: Anchor QEA | Phone: 206 287 9130 |
| Client Contact: Nathan Soccorsy / David Gillingham | |
| Client Project Name: Jeld wen Maulsby Marsh | |
| Client Project #: 120909-01.01 | Samplers: DG |

Page: 1 of 3

Date: 5/16/12 Ice Present? Y

No. of Coolers: Cooler Temps:

| Sample ID | Date | Time | Matrix | No Containers | PCB/Pest | Metals | SVOC | TPH | EPH Archive | Grainsize | TS/TOC Ammonia | Sulfides | Notes/Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS001-SS-120515 | 5/15/12 | 1339 | Sed | 8 | X | X | X | X | X | X | X | X | |
| MS002-SS-120515 | | 1317 | | 8 | X | X | X | X | X | X | X | X | |
| MS003-SS-120515 | | 1234 | | 8 | X | X | X | X | X | X | X | X | |
| MS004-SS-120515 | | 1153 | | 8 | X | X | X | X | X | X | X | X | |
| MS005-SS-120515 | | 855 | | | X | X | X | X | X | X | X | X | |
| MS006-SS-120515 | | 916 | | | X | X | X | X | X | X | X | X | |
| MS007-SS-120515 | | 945 | | | X | X | X | X | X | X | X | X | |
| MS008-SS-120515 | | 940 | | | X | X | X | X | X | X | X | X | |
| MS009-SS-120515 | | 1010 | | | X | X | X | X | X | X | X | X | |
| MS010-SS-120515 | | 1030 | | | | | | | X | X | X | X | Hold Select Analysis |

Comments/Special Instructions: EPH - extract only & hold.

| Relinquished by: | Received by: | Relinquished by: | Received by: |
|---|---|---|---|
| (Signature) Cindy Fields | (Signature) [signature] | (Signature) | (Signature) |
| Printed Name: Cindy Fields | Printed Name: Chris Atwell | Printed Name: | Printed Name: |
| Company: Anchor QEA | Company: ARI | Company: | Company: |
| Date & Time: 5/16/2012 10:05am | Date & Time: 5/16/12 10:05 | Date & Time: | Date & Time: |

**Limits of Liability:** *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

**Sample Retention Policy:** All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Cooler Receipt Form

ARI Client: Anchor QEA

Project Name: JW - mailsby Marsh

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: UU52

Tracking No: _____ NA

**Preliminary Examination Phase:**

| | | |
|---|---|---|
| Were intact, properly signed and dated custody seals attached to the outside of to cooler? | YES | NO |
| Were custody papers included with the cooler? | YES | NO |
| Were custody papers properly filled out (ink, signed, etc.) | YES | NO |

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)..... 0.5 0.5 0.5 0.3 4.4 3.0 0.4

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: ~~90~~ 77952

Cooler Accepted by: CA Date: 5/16/12 Time: 10:05

*Complete custody forms and attach all shipping documents*

## Log-In Phase:

| | | | |
|---|---|---|---|
| Was a temperature blank included in the cooler? | | YES | NO |
| What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____ | | | |
| Was sufficient ice used (if appropriate)? | NA | YES | NO |
| Were all bottles sealed in individual plastic bags? | | YES | NO |
| Did all bottles arrive in good condition (unbroken)? | | YES | NO |
| Were all bottle labels complete and legible? | | YES | NO |
| Did the number of containers listed on COC match with the number of containers received? | | YES | NO |
| Did all bottle labels and tags agree with custody papers? | | YES | NO |
| Were all bottles used correct for the requested analyses? | | YES | NO |
| Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)... | NA | YES | NO |
| Were all VOC vials free of air bubbles? | NA | YES | NO |
| Was sufficient amount of sample sent in each bottle? | | YES | NO |
| Date VOC Trip Blank was made at ARI | NA | | |

Was Sample Split by ARI : NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: TS Date: 5-16-12 Time: 1313

** *Notify Project Manager of discrepancies or concerns* **

| Sample ID on Bottle | Sample ID on COC | Sample ID on Bottle | Sample ID on COC |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

*Additional Notes, Discrepancies, & Resolutions:*

MS101-55 Added to ~~COC~~ SDG per client request.

By: TS Date: 5-16-12 Its a dupe taken from MS001-55

| Small Air Bubbles ~2mm | Peabubbles 2-4 mm | LARGE Air Bubbles > 4 mm |
|---|---|---|

| | |
|---|---|
| Small → "sm" | |
| Peabubbles → "pb" | |
| Large → "lg" | |
| Headspace → "hs" | |

**Subject:** UU52/UU62 EPH Triggers
**From:** Cindy Fields <cfields@anchorqea.com>
**Date:** 6/1/2012 9:17 AM
**To:** Cheronne Oreiro <cheronneo@arilabs.com>
**CC:** Nathan Soccorsy <nsoccorsy@anchorqea.com>, David Gillingham <dgillingham@anchorqea.com>

Hi Cheronne,
Could you please trigger the following samples for EPH analysis?

MS001-SS-120515
MS002-SS-120515
MS003-SS-120515
MS006-SS-120515

Thank you,

Cindy Fields
Scientist
ANCHOR QEA, LLC
cfields@anchorqea.com
D 206.903.3394

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UW85 : 000085

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: UW85

ANALYTICAL
RESOURCES
INCORPORATED

# *Case Narrative*

**Client: Anchor QEA**
**Project: Jeld Wen Maulsby Marsh, 120909-01.01**
**ARI Job No.: UW85**

## Sample Receipt

Four sediment samples were removed from frozen archive June 1, 2012 and logged under ARI job UW85. The samples were analyzed for EPH, as requested. For details regarding sample receipt, please refer to the Cooler Receipt Form.

## Extractable Petroleum Hydrocarbons (EPH)

The samples and associated laboratory QC were extracted and analyzed within the method recommended holding times for sample stored frozen.

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.

The method blank was clean at the reporting limits The LCS and LCSD percent recoveries were within control limits.

The matrix spike and matrix spike duplicate percent recoveries were within advisory control limits.

# Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: UW85
Client: Anchor QEA, LLC.
Project Event: 120909-01.01
Project Name: Jeld Wen Maulsby Marsh

| | Sample ID | ARI Lab ID | ARI LIMS ID | Matrix | Sample Date/Time | VTSR |
|---|---|---|---|---|---|---|
| 1. | MS001-SS-120515 | UW85A | 12-10066 | Sediment | 05/15/12 13:39 | 05/16/12 12:26 |
| 2. | MS002-SS-120515 | UW85B | 12-10067 | Sediment | 05/15/12 13:17 | 05/16/12 12:26 |
| 3. | MS003-SS-120515 | UW85C | 12-10068 | Sediment | 05/15/12 12:34 | 05/16/12 12:26 |
| 4. | MS006-SS-120515 | UW85D | 12-10069 | Sediment | 05/15/12 09:16 | 05/16/12 12:26 |

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Analytical Chemists and Consultants

# Data Reporting Qualifiers

**Effective 2/14/2011**

## Inorganic Data

U — Indicates that the target analyte was not detected at the reported concentration

* — Duplicate RPD is not within established control limits

B — Reported value is less than the CRDL but ≥ the Reporting Limit

N — Matrix Spike recovery not within established control limits

NA — Not Applicable, analyte not spiked

H — The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible

L — Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

## Organic Data

U — Indicates that the target analyte was not detected at the reported concentration

* — Flagged value is not within established control limits

B — Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.

J — Estimated concentration when the value is less than ARI's established reporting limits

D — The spiked compound was not detected due to sample extract dilution

E — Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Q — Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).



UW85 : 00009

S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**

## Geotechnical Data

A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.

F Samples were frozen prior to particle size determination

SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations

SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis

W Weight of sample in some pipette aliquots was below the level required for accurate weighting



UW85 : 00011

**Analytical Resources,Incorporated**
Analytical Chemists and Consultants

# Spike Recovery Control Limits for Extractable Petroleum Hydrocarbons (EPH) Washington Department of Ecology Interim Method[1,2]

Effective: 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

| | **ARI's Calculated Control Limits [3]** | |
|---|---|---|
| **Sample Matrix** | Water | Soil / Sediment |
| **Sample Amount / Final Volume:** | 500 mL / 1 mL | 10 g / 1 mL |
| **LCS Spike Recovery [4]** | | |
| C8-C10 Aliphatics | **10** - **100** | 21 - **100** |
| C10-C12 Aliphatics | 14 - **100** | 23 - **100** |
| C12-C16 Aliphatics | 43 - 110 | 30 - 120 |
| C16-C21 Aliphatics | 44 - 122 | 32 - 129 |
| C10-C12 Aromatics | 16 - 105 | 20 - 109 |
| C12-C16 Aromatics | 42 - 116 | 30 - 125 |
| C16-C21 Aromatics | 55 - 127 | 37 - 135 |
| C21-C34 Aromatics | 54 - 136 | 45 - 137 |
| | | |
| **Method Blank/LCS Surrogate Recovery** | | |
| Ortho-Terphenyl | 44 - 133 | 34 - 133 |
| 1-Chloro-octadecane | 38 - 121 | 27 - 128 |
| | | |
| **Sample Surrogate Recovery** | | |
| Ortho-Terphenyl | 39 - 141 | **10** - 143 |
| 1-Chloro-octadecane | 42 - 120 | 39 - 131 |

(1) Control limits calculated using all available data for 1/1/08 through 11/30/08.
(2) Analytical method published in: *Washington State Department of Ecology, Analytical Methods for Petroleum Hydrocarbons, Publication No. ECY 97-602, June 1997*
(3) Highlighted control limits (**bold font**) adjusted to demonstrate that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(4) Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analyzes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.



UW85 : 00012

EPH Analysis
Report and Summary QC Forms

ARI Job ID: UW85

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**Aliphatic/Aromatic GC-EPH**
**Extraction Method: SW3550C**
Page 1 of 1

**Sample ID: MS001-SS-120515**
**SAMPLE**

Lab Sample ID: UW85A
LIMS ID: 12-10066
Matrix: Sediment
Data Release Authorized:
Reported: 06/11/12

QC Report No: UW85-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 06/04/12
Percent Moisture: 90.3%

Sample Amount: 0.98 g-dry-wt
Final Extract Volume: 1.0 mL

**Aliphatic**
Date Analyzed: 06/08/12 15:09
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

**Aromatic**
Date Analyzed: 06/08/12 21:01
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

| Range | RL | Result |
|---|---|---|
| C8-C10 Aliphatics | 20,000 | < 20,000 U |
| C10-C12 Aliphatics | 20,000 | < 20,000 U |
| C12-C16 Aliphatics | 20,000 | < 20,000 U |
| C16-C21 Aliphatics | 20,000 | < 20,000 U |
| **C21-C34 Aliphatics** | **20,000** | **180,000** |
| C8-C10 Aromatics | 20,000 | < 20,000 U |
| C10-C12 Aromatics | 20,000 | < 20,000 U |
| C12-C16 Aromatics | 20,000 | < 20,000 U |
| C16-C21 Aromatics | 20,000 | < 20,000 U |
| **C21-C34 Aromatics** | **20,000** | **31,000** |

Reported in µg/kg (ppb)

**EPH Surrogate Recovery**

| | | |
|---|---|---|
| **Aliphatic** | 1-Chlorooctadecane | 83.5% |
| **Aromatic** | o-Terphenyl | 73.4% |

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**Aliphatic/Aromatic GC-EPH**
**Extraction Method: SW3550C**
Page 1 of 1

**Sample ID: MS002-SS-120515**
**SAMPLE**

Lab Sample ID: UW85B
LIMS ID: 12-10067
Matrix: Sediment
Data Release Authorized:
Reported: 06/11/12

QC Report No: UW85-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 06/04/12
Percent Moisture: 89.8%

Sample Amount: 1.04 g-dry-wt
Final Extract Volume: 1.0 mL

**Aliphatic**
Date Analyzed: 06/08/12 16:24
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

**Aromatic**
Date Analyzed: 06/08/12 22:17
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

| Range | RL | Result |
|---|---|---|
| **C8-C10 Aliphatics** | **19,000** | **19,000** |
| C10-C12 Aliphatics | 19,000 | < 19,000 U |
| C12-C16 Aliphatics | 19,000 | < 19,000 U |
| **C16-C21 Aliphatics** | **19,000** | **29,000** |
| **C21-C34 Aliphatics** | **19,000** | **190,000** |
| C8-C10 Aromatics | 19,000 | < 19,000 U |
| C10-C12 Aromatics | 19,000 | < 19,000 U |
| C12-C16 Aromatics | 19,000 | < 19,000 U |
| C16-C21 Aromatics | 19,000 | < 19,000 U |
| **C21-C34 Aromatics** | **19,000** | **48,000** |

Reported in µg/kg (ppb)

**EPH Surrogate Recovery**

| | | |
|---|---|---|
| **Aliphatic** | 1-Chlorooctadecane | 84.4% |
| **Aromatic** | o-Terphenyl | 75.1% |

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**Aliphatic/Aromatic GC-EPH**
**Extraction Method: SW3550C**
Page 1 of 1

**Sample ID: MS003-SS-120515**
**SAMPLE**

Lab Sample ID: UW85C
LIMS ID: 12-10068
Matrix: Sediment
Data Release Authorized:
Reported: 06/11/12

QC Report No: UW85-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 06/04/12
Percent Moisture: 90.7%

Sample Amount: 0.95 g-dry-wt
Final Extract Volume: 1.0 mL

**Aliphatic**
Date Analyzed: 06/08/12 16:49
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

**Aromatic**
Date Analyzed: 06/08/12 22:42
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

| Range | RL | Result |
|---|---|---|
| C8-C10 Aliphatics | 21,000 | < 21,000 U |
| C10-C12 Aliphatics | 21,000 | < 21,000 U |
| C12-C16 Aliphatics | 21,000 | < 21,000 U |
| **C16-C21 Aliphatics** | **21,000** | **38,000** |
| **C21-C34 Aliphatics** | **21,000** | **160,000** |
| C8-C10 Aromatics | 21,000 | < 21,000 U |
| C10-C12 Aromatics | 21,000 | < 21,000 U |
| C12-C16 Aromatics | 21,000 | < 21,000 U |
| C16-C21 Aromatics | 21,000 | < 21,000 U |
| **C21-C34 Aromatics** | **21,000** | **53,000** |

Reported in µg/kg (ppb)

**EPH Surrogate Recovery**

| | | |
|---|---|---|
| **Aliphatic** | 1-Chlorooctadecane | 87.3% |
| **Aromatic** | o-Terphenyl | 72.2% |

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**Aliphatic/Aromatic GC-EPH**
**Extraction Method: SW3550C**
Page 1 of 1

**Sample ID: MS006-SS-120515**
**SAMPLE**

Lab Sample ID: UW85D
LIMS ID: 12-10069
Matrix: Sediment
Data Release Authorized:
Reported: 06/11/12

QC Report No: UW85-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 06/04/12
Percent Moisture: 90.8%

Sample Amount: 0.95 g-dry-wt
Final Extract Volume: 1.0 mL

**Aliphatic**
Date Analyzed: 06/08/12 17:14
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

**Aromatic**
Date Analyzed: 06/08/12 23:07
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

| Range | RL | Result |
|---|---|---|
| **C8-C10 Aliphatics** | **21,000** | **21,000** |
| C10-C12 Aliphatics | 21,000 | < 21,000 U |
| C12-C16 Aliphatics | 21,000 | < 21,000 U |
| C16-C21 Aliphatics | 21,000 | < 21,000 U |
| **C21-C34 Aliphatics** | **21,000** | **120,000** |
| C8-C10 Aromatics | 21,000 | < 21,000 U |
| C10-C12 Aromatics | 21,000 | < 21,000 U |
| C12-C16 Aromatics | 21,000 | < 21,000 U |
| C16-C21 Aromatics | 21,000 | < 21,000 U |
| **C21-C34 Aromatics** | **21,000** | **30,000** |

Reported in µg/kg (ppb)

**EPH Surrogate Recovery**

| | | |
|---|---|---|
| **Aliphatic** | 1-Chlorooctadecane | 83.0% |
| **Aromatic** | o-Terphenyl | 73.2% |

**FORM I**

ANALYTICAL RESOURCES INCORPORATED

## ALEPH SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: UW85-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01

| Client ID | COD | TOT OUT |
|---|---|---|
| MB-060412 | 81.2% | 0 |
| LCS-060412 | 72.9% | 0 |
| LCSD-060412 | 80.9% | 0 |
| MS001-SS-120515 | 83.5% | 0 |
| MS001-SS-120515 MS | 86.8% | 0 |
| MS001-SS-120515 MSD | 84.5% | 0 |
| MS002-SS-120515 | 84.4% | 0 |
| MS003-SS-120515 | 87.3% | 0 |
| MS006-SS-120515 | 83.0% | 0 |

| | LCS/MB LIMITS | QC LIMITS |
|---|---|---|
| (COD) = 1-Chlorooctadecane | (27-128) | (39-131) |

Prep Method: SW3550C
Log Number Range: 12-10066 to 12-10069

ANALYTICAL RESOURCES INCORPORATED

## AREPH SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: UW85-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01

| Client ID | OTER | TOT OUT |
|---|---|---|
| MB-060412 | 75.5% | 0 |
| LCS-060412 | 68.6% | 0 |
| LCSD-060412 | 71.1% | 0 |
| MS001-SS-120515 | 73.4% | 0 |
| MS001-SS-120515 MS | 73.4% | 0 |
| MS001-SS-120515 MSD | 70.0% | 0 |
| MS002-SS-120515 | 75.1% | 0 |
| MS003-SS-120515 | 72.2% | 0 |
| MS006-SS-120515 | 73.2% | 0 |

| | LCS/MB LIMITS | QC LIMITS |
|---|---|---|
| (OTER) = o-Terphenyl | (34-133) | (10-143) |

Prep Method: SW3550C
Log Number Range: 12-10066 to 12-10069

FORM-II AREPH

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**Aliphatic/Aromatic GC-EPH**
Page 1 of 1

**Sample ID: MS001-SS-120515**
**MS/MSD**

Lab Sample ID: UW85A
LIMS ID: 12-10066
Matrix: Sediment
Data Release Authorized:
Reported: 06/11/12

QC Report No: UW85-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted MS/MSD: 06/04/12

Sample Amount MS: 0.97 g-dry-wt
MSD: 0.98 g-dry-wt
Final Extract Volume MS: 1.0 mL
MSD: 1.0 mL

**Aliphatic**
Date Analyzed MS: 06/08/12 15:34
MSD: 06/08/12 15:59
Instrument/Analyst MS: FID8/MH
MSD: FID8/MH

Dilution Factor MS: 1.00
MSD: 1.00

**Aromatic**
Date Analyzed MS: 06/08/12 21:26
MSD: 06/08/12 21:52
Instrument/Analyst MS: FID8/MH
MSD: FID8/MH

Dilution Factor MS: 1.00
MSD: 1.00

| Range | Sample | MS | Spike Added-MS | MS Recovery | MSD | Spike Added-MSD | MSD Recovery | RPD |
|---|---|---|---|---|---|---|---|---|
| C8-C10 Aliphatics | < 20400 U | 90700 | 155000 | 58.7% | 104000 | 153000 | 67.9% | 13.7% |
| C10-C12 Aliphatics | < 20400 U | 97900 | 155000 | 63.3% | 98000 | 153000 | 64.0% | 0.1% |
| C12-C16 Aliphatics | < 20400 U | 126000 | 155000 | 81.5% | 119000 | 153000 | 77.7% | 5.7% |
| C16-C21 Aliphatics | < 20400 U | 168000 | 155000 | 109% | 154000 | 153000 | 101% | 8.7% |
| C10-C12 Aromatics | < 20400 U | 87600 | 155000 | 56.6% | 96900 | 153000 | 63.3% | 10.1% |
| C12-C16 Aromatics | < 20400 U | 101000 | 155000 | 65.3% | 98000 | 153000 | 64.0% | 3.0% |
| C16-C21 Aromatics | < 20400 U | 233000 | 309000 | 75.3% | 222000 | 306000 | 72.5% | 4.8% |
| C21-C34 Aromatics | 30600 | 264000 | 309000 | 75.5% | 249000 | 306000 | 71.3% | 5.8% |

Results reported in µg/kg
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**Aliphatic/Aromatic GC-EPH** **Sample ID: MS001-SS-120515**
**Extraction Method: SW3550C** **MATRIX SPIKE**


Lab Sample ID: UW85A
LIMS ID: 12-10066
Matrix: Sediment
Data Release Authorized:
Reported: 06/11/12

QC Report No: UW85-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 06/04/12
Percent Moisture: 90.3%

Sample Amount: 0.97 g-dry-wt
Final Extract Volume: 1.0 mL

**Aliphatic**
Date Analyzed: 06/08/12 15:34
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

**Aromatic**
Date Analyzed: 06/08/12 21:26
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

| Range | RL | Result |
|---|---|---|
| C8-C10 Aliphatics | 21,000 | --- |
| C10-C12 Aliphatics | 21,000 | --- |
| C12-C16 Aliphatics | 21,000 | --- |
| C16-C21 Aliphatics | 21,000 | --- |
| C8-C10 Aromatics | 21,000 | < 21,000 U |
| C10-C12 Aromatics | 21,000 | --- |
| C12-C16 Aromatics | 21,000 | --- |
| C16-C21 Aromatics | 21,000 | --- |
| C21-C34 Aromatics | 21,000 | --- |

Reported in µg/kg (ppb)

**EPH Surrogate Recovery**

| | | |
|---|---|---|
| **Aliphatic** | 1-Chlorooctadecane | 86.8% |
| **Aromatic** | o-Terphenyl | 73.4% |

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**Aliphatic/Aromatic GC-EPH**
**Extraction Method: SW3550C**
Page 1 of 1

**Sample ID: MS001-SS-120515**
**MATRIX SPIKE DUP**

Lab Sample ID: UW85A
LIMS ID: 12-10066
Matrix: Sediment
Data Release Authorized:
Reported: 06/11/12

QC Report No: UW85-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh 120909-01.01
Date Sampled: 05/15/12
Date Received: 05/16/12

Date Extracted: 06/04/12
Percent Moisture: 90.3%

Sample Amount: 0.98 g-dry-wt
Final Extract Volume: 1.0 mL

**Aliphatic**
Date Analyzed: 06/08/12 15:59
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

**Aromatic**
Date Analyzed: 06/08/12 21:52
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

| Range | RL | Result |
|---|---|---|
| C8-C10 Aliphatics | 20,000 | --- |
| C10-C12 Aliphatics | 20,000 | --- |
| C12-C16 Aliphatics | 20,000 | --- |
| C16-C21 Aliphatics | 20,000 | --- |
| C8-C10 Aromatics | 20,000 | < 20,000 U |
| C10-C12 Aromatics | 20,000 | --- |
| C12-C16 Aromatics | 20,000 | --- |
| C16-C21 Aromatics | 20,000 | --- |
| C21-C34 Aromatics | 20,000 | --- |

Reported in µg/kg (ppb)

**EPH Surrogate Recovery**

| | | |
|---|---|---|
| **Aliphatic** | 1-Chlorooctadecane | 84.5% |
| **Aromatic** | o-Terphenyl | 70.0% |

ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**Aliphatic/Aromatic GC-EPH**
Page 1 of 1

**Sample ID: LCS-060412**
**LCS/LCSD**

Lab Sample ID: LCS-060412
LIMS ID: 12-10066
Matrix: Sediment
Data Release Authorized:
Reported: 06/11/12

QC Report No: UW85-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh
120909-01.01
Date Sampled: NA
Date Received: NA

Date Extracted LCS/LCSD: 06/04/12

Sample Amount LCS: 10.0 g-as-rec
LCSD: 10.0 g-as-rec
Final Extract Volume LCS: 1.0 mL
LCSD: 1.0 mL

**Aliphatic**
Date Analyzed LCS: 06/08/12 13:28
LCSD: 06/08/12 13:53
Dilution Factor LCS: 1.00
LCSD: 1.00
Instrument/Analyst LCS: FID8/MH
LCSD: FID8/MH

**Aromatic**
Date Analyzed LCS: 06/08/12 19:20
LCSD: 06/08/12 19:46
Dilution Factor LCS: 1.00
LCSD: 1.00
Instrument/Analyst LCS: FID8/MH
LCSD: FID8/MH

| Range | LCS | Spike Added-LCS | LCS Recovery | LCSD | Spike Added-LCSD | LCSD Recovery | RPD |
|---|---|---|---|---|---|---|---|
| C8-C10 Aliphatics | 12000 | 15000 | 80.0% | 10000 | 15000 | 66.7% | 18.2% |
| C10-C12 Aliphatics | 9400 | 15000 | 62.7% | 9700 | 15000 | 64.7% | 3.1% |
| C12-C16 Aliphatics | 12000 | 15000 | 80.0% | 12200 | 15000 | 81.3% | 1.7% |
| C16-C21 Aliphatics | 12000 | 15000 | 80.0% | 13000 | 15000 | 86.7% | 8.0% |
| C10-C12 Aromatics | 9700 | 15000 | 64.7% | 9100 | 15000 | 60.7% | 6.4% |
| C12-C16 Aromatics | 9600 | 15000 | 64.0% | 9400 | 15000 | 62.7% | 2.1% |
| C16-C21 Aromatics | 21300 | 30000 | 71.0% | 21700 | 30000 | 72.3% | 1.9% |
| C21-C34 Aromatics | 20900 | 30000 | 69.7% | 22100 | 30000 | 73.7% | 5.6% |

**EPH Surrogate Recovery**

| | | LCS | LCSD |
|---|---|---|---|
| **Aliphatic** | 1-Chlorooctadecane | 72.9% | 80.9% |
| **Aromatic** | o-Terphenyl | 68.6% | 71.1% |

Results reported in µg/kg
RPD calculated using sample concentrations per SW846.

# EPH ALIPH METHOD BLANK SUMMARY

BLANK NO.: UW85MBS1

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR

SDG No.: UW85  Project No.: JELD WEN MAULSBY

Date Analyzed : 06/08/12  Matrix: SOLID

Time Analyzed : 1302  Instrument ID : FID8

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED |
|---|---|---|---|
| 01 | UW85LCSS1 | UW85LCSS1 | 06/08/12 |
| 02 | UW94LCSDS1 | UW85LCSDS1 | 06/08/12 |
| 03 | MS001-SS-120 | UW85A | 06/08/12 |
| 04 | MS001-SS-120 | UW85AMS | 06/08/12 |
| 05 | MS001-SS-120 | UW85AMSD | 06/08/12 |
| 06 | MS002-SS-120 | UW85B | 06/08/12 |
| 07 | MS003-SS-120 | UW85C | 06/08/12 |
| 08 | MS006-SS-120 | UW85D | 06/08/12 |
| 09 | | | |
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| 12 | | | |
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# EPH AROM METHOD BLANK SUMMARY

BLANK NO.: UW85MBS1

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR

SDG No.: UW85  Project No.: JELD WEN MAULSBY

Date Analyzed : 06/08/12  Matrix: SOLID

Time Analyzed : 1855  Instrument ID : FID8

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED |
|---|---|---|---|
| 01 | UW85LCSS1 | UW85LCSS1 | 06/08/12 |
| 02 | UW85LCSDS1 | UW85LCSDS1 | 06/08/12 |
| 03 | MS001-SS-120 | UW85A | 06/08/12 |
| 04 | MS001-SS-120 | UW85AMS | 06/08/12 |
| 05 | MS001-SS-120 | UW85AMSD | 06/08/12 |
| 06 | MS002-SS-120 | UW85B | 06/08/12 |
| 07 | MS003-SS-120 | UW85C | 06/08/12 |
| 08 | MS006-SS-120 | UW85D | 06/08/12 |
| 09 | | | |
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ANALYTICAL RESOURCES INCORPORATED

**ORGANICS ANALYSIS DATA SHEET**
**Aliphatic/Aromatic GC-EPH** **Sample ID: MB-060412**
**Extraction Method: SW3550C** **METHOD BLANK**


Lab Sample ID: MB-060412
LIMS ID: 12-10066
Matrix: Sediment
Data Release Authorized:
Reported: 06/11/12

QC Report No: UW85-Anchor QEA, LLC.
Project: Jeld Wen Maulsby Marsh 120909-01.01
Date Sampled: NA
Date Received: NA

Date Extracted: 06/04/12
Percent Moisture: NA

Sample Amount: 10.0 g-as-rec
Final Extract Volume: 1.0 mL

**Aliphatic**
Date Analyzed: 06/08/12 13:02
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

**Aromatic**
Date Analyzed: 06/08/12 18:55
Instrument/Analyst: FID8/MH

Dilution Factor: 1.00

| Range | RL | Result |
|---|---|---|
| C8-C10 Aliphatics | 2,000 | < 2,000 U |
| C10-C12 Aliphatics | 2,000 | < 2,000 U |
| C12-C16 Aliphatics | 2,000 | < 2,000 U |
| C16-C21 Aliphatics | 2,000 | < 2,000 U |
| C21-C34 Aliphatics | 2,000 | < 2,000 U |
| C8-C10 Aromatics | 2,000 | < 2,000 U |
| C10-C12 Aromatics | 2,000 | < 2,000 U |
| C12-C16 Aromatics | 2,000 | < 2,000 U |
| C16-C21 Aromatics | 2,000 | < 2,000 U |
| C21-C34 Aromatics | 2,000 | < 2,000 U |

Reported in µg/kg (ppb)

**EPH Surrogate Recovery**

| | | |
|---|---|---|
| **Aliphatic** | 1-Chlorooctadecane | 81.2% |
| **Aromatic** | o-Terphenyl | 75.5% |

6a
EPH ALIPHATICS INITIAL CALIBRATION
WA DOE Method

Lab Name: ANALYTICAL RESOURCES, INC. Client:ANCHOR

Instrument: FID8.I Project: JELD WEN MAULSBY

Calibration Date: 18-MAY-2012 SDG No.: UW85

| Aliphatics EPH Range | RF1 20 | RF2 50 | RF3 100 | RF4 150 | RF5 200 | Ave RF | %RSD |
|---|---|---|---|---|---|---|---|
| C8-C10 | 19743 | 19743 | 18783 | 18410 | 20582 | 19452 | 4.4 |
| C10-C12 | 18366 | 18148 | 17433 | 17019 | 19138 | 18021 | 4.6 |
| C12-C16 | 17468 | 17169 | 16604 | 16160 | 17539 | 16988 | 3.5 |
| C16-C21 | 16646 | 16277 | 15748 | 15297 | 17125 | 16219 | 4.4 |
| C21-C34 | 16279 | 16732 | 16490 | 16906 | 18666 | 17015 | 5.6 |

<- Indicates %RSD outside limits
Surrogate areas are not included in RF calculation.

| Calibration Files | Analysis Time |
|---|---|
| 0518A009.D | 18-MAY-2012 12:05 |
| 0518A010.D | 18-MAY-2012 12:30 |
| 0518A011.D | 18-MAY-2012 12:55 |
| 0518A012.D | 18-MAY-2012 13:20 |
| 0518A013.D | 18-MAY-2012 13:46 |
| | 18-MAY-2012 13:46 |

6a
EPH AROMATICS INITIAL CALIBRATION
WA DOE Method

Lab Name: ANALYTICAL RESOURCES, INC. Client:ANCHOR

Instrument: FID8.I Project: JELD WEN MAULSBY

Calibration Date: 18-MAY-2012 SDG No.: UW85

| Aromatics EPH Range | RF1 20 | RF2 50 | RF3 100 | RF4 150 | RF5 200 | Ave RF | %RSD |
|---|---|---|---|---|---|---|---|
| C8-C10 | 20027 | 19417 | 19870 | 21146 | 19509 | 19994 | 3.5 |
| C10-C12 | 19373 | 19093 | 19637 | 20545 | 18711 | 19472 | 3.6 |
| C12-C16 | 18967 | 18573 | 19074 | 19789 | 18051 | 18891 | 3.4 |
| C16-C21 | 22427 | 21852 | 22472 | 23276 | 21709 | 22347 | 2.8 |
| C21-C34 | 25303 | 24075 | 24295 | 24977 | 24387 | 24608 | 2.1 |

<- Indicates %RSD outside limits
Surrogate areas are not included in RF calculation.

| Calibration Files | Analysis Time |
|---|---|
| 0518A031.D | 18-MAY-2012 21:13 |
| 0518A032.D | 18-MAY-2012 21:38 |
| 0518A033.D | 18-MAY-2012 22:03 |
| 0518A034.D | 18-MAY-2012 22:28 |
| 0518A035.D | 18-MAY-2012 22:53 |
| | 18-MAY-2012 22:53 |

# EPH ALIPH CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR

SDG No.: UW85  Project No.: JELD WEN MAULSBY

Instrument/Det: FID8/ZB-5  Calibration Date: 06/08/12

Init. Calib. Date(s): 05/18/12  Calib. File: 0608A003.D

| COMPOUND | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng/mL) | NOM AMOUNT (ng/mL) | %D |
|---|---|---|---|---|---|---|
| C8 | 1.11 | 1.09 | 1.19 | 95.24 | 100.0 | -4.7 |
| C10 | 3.27 | 3.23 | 3.33 | 92.66 | 100.0 | -7.3 |
| C12 | 4.09 | 4.05 | 4.15 | 90.42 | 100.0 | -9.5 |
| C16 | 5.25 | 5.21 | 5.31 | 88.75 | 100.0 | -11.2 |
| C21 | 6.86 | 6.82 | 6.92 | 108.6 | 100.0 | 8.6 |
| C34 | 11.83 | 11.79 | 11.89 | 96.90 | 100.0 | -3.1 |
| 1-Chloro-Octodecane | 6.80 | 6.76 | 6.86 | 108.5 | 100.0 | 8.5 |

# EPH ALIPH CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR

SDG No.: UW85  Project No.: JELD WEN MAULSBY

Instrument/Det: FID8/ZB-5  Calibration Date: 06/08/12

Init. Calib. Date(s): 05/18/12  Calib. File: 0608A015.D

| COMPOUND | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng/mL) | NOM AMOUNT (ng/mL) | %D |
|---|---|---|---|---|---|---|
| C8 | 1.11 | 1.09 | 1.19 | 90.43 | 100.0 | -9.5 |
| C10 | 3.27 | 3.23 | 3.33 | 94.33 | 100.0 | -5.6 |
| C12 | 4.09 | 4.05 | 4.15 | 92.57 | 100.0 | -7.4 |
| C16 | 5.25 | 5.21 | 5.31 | 89.43 | 100.0 | -10.5 |
| C21 | 6.84 | 6.82 | 6.92 | 109.4 | 100.0 | 9.4 |
| C34 | 11.82 | 11.79 | 11.89 | 100.3 | 100.0 | 0.3 |
| 1-Chloro-Octodecane | 6.79 | 6.76 | 6.86 | 109.2 | 100.0 | 9.2 |

# EPH AROM CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR

SDG No.: UW85  Project No.: JELD WEN MAULSBY

Instrument/Det: FID8/ZB-5  Calibration Date: 06/08/12

Init. Calib. Date(s): 05/18/12  Calib. File: 0608A017.D

| COMPOUND | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng/mL) | NOM AMOUNT (ng/mL) | %D |
|---|---|---|---|---|---|---|
| 1-chlorooctodecane | 6.78 | 6.73 | 6.83 | 0.000 | 100.0 | -100.0 |
| Toluene | 0.75 | 0.70 | 0.80 | 96.11 | 100.0 | -3.8 |
| 1,2,3-Trimetben | 3.38 | 3.33 | 3.43 | 96.85 | 100.0 | -3.1 |
| Naphthalene | 4.06 | 4.01 | 4.11 | 96.99 | 100.0 | -3.0 |
| Acenaphthene | 5.00 | 4.95 | 5.05 | 96.54 | 100.0 | -3.4 |
| Pyrene | 7.01 | 6.96 | 7.06 | 102.7 | 100.0 | 2.7 |
| Benzo-ghi-per | 11.51 | 11.45 | 11.55 | 87.44 | 100.0 | -12.5 |
| o-Terph Surr | 6.08 | 6.03 | 6.13 | 97.44 | 100.0 | -2.5 |

# EPH AROM CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR

SDG No.: UW85  Project No.: JELD WEN MAULSBY

Instrument/Det: FID8/ZB-5  Calibration Date: 06/08/12

Init. Calib. Date(s): 05/18/12  Calib. File: 0608A029.D

| COMPOUND | RT | RT WINDOW FROM | RT WINDOW TO | CALC AMOUNT (ng/mL) | NOM AMOUNT (ng/mL) | %D |
|---|---|---|---|---|---|---|
| 1-chlorooctodecane | 6.78 | 6.73 | 6.83 | 0.000 | 100.0 | -100.0 |
| Toluene | 0.75 | 0.70 | 0.80 | 98.69 | 100.0 | -1.3 |
| 1,2,3-Trimetben | 3.38 | 3.33 | 3.43 | 97.84 | 100.0 | -2.1 |
| Naphthalene | 4.06 | 4.01 | 4.11 | 96.57 | 100.0 | -3.4 |
| Acenaphthene | 5.00 | 4.95 | 5.05 | 93.00 | 100.0 | -7.0 |
| Pyrene | 7.01 | 6.96 | 7.06 | 102.0 | 100.0 | 2.0 |
| Benzo-ghi-per | 11.50 | 11.45 | 11.55 | 87.31 | 100.0 | -12.6 |
| o-Terph Surr | 6.08 | 6.03 | 6.13 | 93.14 | 100.0 | -6.8 |

# EPH ALIPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR

SDG No.: UW85  Project: JELD WEN MAULSBY

Instrument ID: FID8  GC Detector: ZB-5

Run Date: 06/08/12

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

| | METHOD SURROGATE RT<br>S1 : 6.81 | | | | |
|---|---|---|---|---|---|
| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME ANALYZED | SURR RT |
| 01 | ZZZZZ | ZZZZZ | 06/08/12 | 1147 | |
| 02 | ALIPH IB | ALIPH IB | 06/08/12 | 1211 | 6.80 |
| 03 | ALIPHATIC #1 | ALIPHATIC #1 | 06/08/12 | 1237 | 6.80 |
| 04 | UW85MBS1 | UW85MBS1 | 06/08/12 | 1302 | 6.80 |
| 05 | UW85LCSS1 | UW85LCSS1 | 06/08/12 | 1328 | 6.79 |
| 06 | UW94LCSDS1 | UW85LCSDS1 | 06/08/12 | 1353 | 6.79 |
| 07 | ZZZZZ | ZZZZZ | 06/08/12 | 1418 | 6.83 |
| 08 | ZZZZZ | ZZZZZ | 06/08/12 | 1443 | 6.82 |
| 09 | MS001-SS-120 | UW85A | 06/08/12 | 1509 | 6.79 |
| 10 | MS001-SS-120 | UW85AMS | 06/08/12 | 1534 | 6.79 |
| 11 | MS001-SS-120 | UW85AMSD | 06/08/12 | 1559 | 6.79 |
| 12 | MS002-SS-120 | UW85B | 06/08/12 | 1624 | 6.79 |
| 13 | MS003-SS-120 | UW85C | 06/08/12 | 1649 | 6.79 |
| 14 | MS006-SS-120 | UW85D | 06/08/12 | 1714 | 6.79 |
| 15 | ALIPHATIC #2 | ALIPHATIC #2 | 06/08/12 | 1740 | 6.79 |

QC LIMITS

S1 = 1-Chloro-Octodecane (+/- 0.05 MINUTES)

* Values outside of QC limits.

# EPH AROM ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR

SDG No.: UW85  Project: JELD WEN MAULSBY

Instrument ID: FID8  GC Detector: ZB-5

Run Date: 06/08/12

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

METHOD SURROGATE RT
S1 : 6.08

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME ANALYZED | SURR RT |
|---|---|---|---|---|---|
| 01 | AROM IB | AROM IB | 06/08/12 | 1805 | 6.08 |
| 02 | AROMATIC #1 | AROMATIC #1 | 06/08/12 | 1830 | 6.08 |
| 03 | UW85MBS1 | UW85MBS1 | 06/08/12 | 1855 | 6.08 |
| 04 | UW85LCSS1 | UW85LCSS1 | 06/08/12 | 1920 | 6.08 |
| 05 | UW85LCSDS1 | UW85LCSDS1 | 06/08/12 | 1946 | 6.07 |
| 06 | ZZZZZ | ZZZZZ | 06/08/12 | 2011 | 6.08 |
| 07 | ZZZZZ | ZZZZZ | 06/08/12 | 2036 | 6.08 |
| 08 | MS001-SS-120 | UW85A | 06/08/12 | 2101 | 6.08 |
| 09 | MS001-SS-120 | UW85AMS | 06/08/12 | 2126 | 6.08 |
| 10 | MS001-SS-120 | UW85AMSD | 06/08/12 | 2152 | 6.08 |
| 11 | MS002-SS-120 | UW85B | 06/08/12 | 2217 | 6.08 |
| 12 | MS003-SS-120 | UW85C | 06/08/12 | 2242 | 6.08 |
| 13 | MS006-SS-120 | UW85D | 06/08/12 | 2307 | 6.08 |
| 14 | AROMATIC #2 | AROMATIC #2 | 06/08/12 | 2332 | 6.08 |

QC LIMITS
S1 = o-Terph Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.



FORM VIII-2 VPH/EPH

# EPH ALIPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR

SDG No.: 20120518ALIPH  Project: JELD WEN MAULSBY

Instrument ID: FID8  GC Detector: ZB-5

Run Date: 05/18/12

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

METHOD SURROGATE RT
S1 : 6.81

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME ANALYZED | SURR RT |
|---|---|---|---|---|---|
| 01 | | ALIPH 20 | 05/18/12 | 1141 | 6.82 |
| 02 | | ALIPH 20 | 05/18/12 | 1205 | 6.80 |
| 03 | | ALIPH 50 | 05/18/12 | 1230 | 6.79 |
| 04 | | ALIPH 100 | 05/18/12 | 1255 | 6.80 |
| 05 | | ALIPH 150 | 05/18/12 | 1320 | 6.80 |
| 06 | | ALIPH 200 | 05/18/12 | 1346 | 6.81 |
| 07 | | ALIPH ICV | 05/18/12 | 1411 | 6.80 |

QC LIMITS

S1 = 1-Chloro-Octodecane (+/- 0.05 MINUTES)

* Values outside of QC limits.





UW85 : 00035

# EPH AROM ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC  Client: ANCHOR

SDG No.: 20120518AROM  Project: JELD WEN MAULSBY

Instrument ID: FID8  GC Detector: ZB-5

Run Date: 05/18/12

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

METHOD SURROGATE RT
S1 : 6.07

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME ANALYZED | SURR RT |
|---|---|---|---|---|---|
| 01 | | ARO IB | 05/18/12 | 2049 | 6.08 |
| 02 | | ARO 20 | 05/18/12 | 2113 | 6.07 |
| 03 | | ARO 50 | 05/18/12 | 2138 | 6.08 |
| 04 | | ARO 100 | 05/18/12 | 2203 | 6.08 |
| 05 | | ARO 150 | 05/18/12 | 2228 | 6.08 |
| 06 | | ARO 200 | 05/18/12 | 2253 | 6.08 |
| 07 | | ARO ICV | 05/18/12 | 2317 | 6.09 |

QC LIMITS

S1 = o-Terph Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

Total Solids

ARI Job ID: UW85

Extractions Total Solids-extts
Data By: Alex Choeng
Created: 5/16/12

Worklist: 1682
Analyst: AC
Comments:

Oven ID:_____

Balance ID:_____

Samples In: Date:_____ Time:_____ Temp:_____ Analyst:_____

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

| | ARI ID<br>CLIENT ID | Tare Wt<br>(g) | Wet Wt<br>(g) | Dry Wt<br>(g) | % Solids | pH |
|---|---|---|---|---|---|---|
| 1. | UU52B<br>12-8894<br>MS101-SS-120515 | 1.13 | 11.68 | 2.16 | 9.76 | NR |
| 2. | UU52C<br>12-8895<br>MS002-SS-120515 | 1.14 | 12.09 | 2.26 | 10.2 | NR |
| 3. | UU52D<br>12-8896<br>MS003-SS-120515 | 1.14 | 11.81 | 2.13 | 9.28 | NR |
| 4. | UU52E<br>12-8897<br>MS004-SS-120515 | 1.13 | 12.65 | 2.23 | 9.55 | NR |
| 5. | UU52F<br>12-8898<br>MS005-SS-120515 | 1.14 | 11.67 | 2.08 | 8.93 | NR |
| 6. | UU52G<br>12-8899<br>MS006-SS-120515 | 1.14 | 11.99 | 2.14 | 9.22 | NR |
| 7. | UU52H<br>12-8900<br>MS007-SS-120515 | 1.12 | 13.33 | 3.09 | 16.1 | NR |
| 8. | UU52I<br>12-8901<br>MS008-SS-120515 | 1.14 | 11.32 | 2.26 | 11.0 | NR |
| 9. | UU52J<br>12-8902<br>MS009-SS-120515 | 1.13 | 12.50 | 2.25 | 9.85 | NR |



Co 6/10/12

~~UU52:00378~~
UW85:00038

Extractions Total Solids-extts
Data By: Warren P. Woodard
Created: 5/17/12

Worklist: 2060
Analyst: WPW
Comments:

Oven ID:_____

Balance ID:_____

Samples In: Date:_____ Time:_____ Temp:_____ Analyst:_____

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

| | ARI ID<br>CLIENT ID | Tare Wt<br>(g) | Wet Wt<br>(g) | Dry Wt<br>(g) | % Solids | pH |
|---|---|---|---|---|---|---|
| 1. | UU52A<br>12-8893<br>MS001-SS-120515 | 1.15 | 13.57 | 2.35 | 9.66 | NR |



90 6/12/12

~~UU52:00380~~
UW85:00039

EPH Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: UW85

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Organic Extractions Benchsheet

EPH – Soil / Sediment
Sonication (3550C) (SOP # 3304S)

**Preparation Test EPH # 1 (EPHSDCI)**
ARI JOB No(s) UW94, UW85

Page 1 of 1

In-House (2000ppb)
Batch set up by: ~~SK~~

| Bottle # | Extraction Requirements | Weight Extracted (wet wt) | Sonic Horn ID + Check | Fractionate Aromatic/ Aliphatic (1:1) | Final Effective Volume AR | Final Effective Volume AL | Volume to Lab AR | Volume to Lab AL | Comments | Verify Client ID |
|---|---|---|---|---|---|---|---|---|---|---|
| | UW94 MBS | 10.00g | 1 | (1:1) 2mL | 1mL | 1mL | 1mL | 1mL | | NL 6/4/12 |
| | SBS | 10.00g | 2 | (1:1) 2mL | 1mL | 1mL | 1mL | 1mL | | Analyst/Date |
| | ~~QLS~~ SBS Dup | 10.00g | 3 | (1:1) 2mL | 1mL | 1mL | 1mL | 1mL | | KD 80-85°C To 1mL |
| 2 | A | 10.09 | 4 | (1:1) 2mL | 1mL | 1mL | 1mL | 1mL | | Exchange with 30mL 90:10 Pentane/Hexane 100°C To 1mL |
| 2 | B | 10.07 | 5 | (1:1) 2mL | 1mL | 1mL | 1mL | 1mL | | RR 6/5/12 |
| 1 | UW85 A | 10.10 | 6 | (1:1) 2mL | 1mL | 1mL | 1mL | 1mL | | Analyst/Date |
| 1 | Ams | 10.06 | 7 | (1:1) 2mL | 1mL | 1mL | 1mL | 1mL | | TurboVap 1 2 3 Pre-Fractionation |
| 1 | Amsd | 10.13 | 8 | (1:1) 2mL | 1mL | 1mL | 1mL | 1mL | | |
| 1 | B | 10.19 | 9 | (1:1) 2mL | 1mL | 1mL | 1mL | 1mL | | |
| 1 | C | 10.27 | 10 | (1:1) 2mL | 1mL | 1mL | 1mL | 1mL | | |
| 1 | D | 10.25 | 1 | (1:1) 2mL | 1mL | 1mL | 1mL | 1mL | | |
| | | | | (1:1) 2mL | 1mL | 1mL | 1mL | 1mL | | |
| | | | | (1:1) 2mL | 1mL | 1mL | 1mL | 1mL | | |
| | | | | (1:1) 2mL | 1mL | 1mL | 1mL | 1mL | | CSZ 6/7/12 |
| | | | | (1:1) 2mL | 1mL | 1mL | 1mL | 1mL | | Analyst/Date |
| | | | | (1:1) 2mL | 1mL | 1mL | 1mL | 1mL | | TurboVap 1 2 3 Post Fractionation |
| | | | | (1:1) 2mL | 1mL | 1mL | 1mL | 1mL | | |
| | | | | (1:1) 2mL | 1mL | 1mL | 1mL | 1mL | | |
| | | | | (1:1) 2mL | 1mL | 1mL | 1mL | 1mL | | |
| Analyst/Date | NL 6/4/12 | | | | | | | | | CSZ 6/8/12 Analyst/Date |

| Standard | Standard ID | Concentration | Volume | Expiration Date | Analyst | Witness |
|---|---|---|---|---|---|---|
| Surrogate | M (1962-4) | 1500µg/mL | 100µL | 8/30/12 | NL | AC |
| Spike | 5 (1962-4) | 1500µg/mL | 100µL | 10/04/12 | NL | AC |
| ~~QLS Spike~~ | ~~22 ( )~~ | ~~400µg/mL~~ | ~~50µL~~ | | | |

Extraction Time: 13:12

Balance ID: B139798002

SPECIAL INSTRUCTIONS: 1. Weigh into 250mL beakers. 2. Dry with neutral sodium sulfate 3. Add surr/spk. 4. Extract 3X with DCM for 5minutes. 5. Collect into KD with small funnel and neutral glasswool NO SODIUM SULFATE. 6. KD to no more than 1mL at 80°C. 7. Exchange with 30mL 90:10 Pentane/Hexane. 8. KD to no more than 1mL at 100°C. 9. Let Cool: After cooling: volume should be 5mL 10. TurboVap to 2mL 11. Fractionate Aromatic/Aliphatic- collect each fractions extract into (2) Turbo Tubes. 12. TurboVap to 1mL. 13. Vial both fractions in DCM.

A. Need Total Solids Y / N — UW94 only

B. Archive/Freeze Y / N — UW94 UW85

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Organic Extractions Laboratory Analyst Notes

ARI Job No.: UW85 Client ID: Anchor QEA, LLC.

Parameter: EPH Client Project: Jeld Wen Maulsby Marsh

| Screens: Soil/Sediment/Solid/Other: | Analyst/Date |
|---|---|
| ☐ No Anomalies (standard soil/wet sediment/sand/gravel)= | |
| ☒ Standing Water Decanted (Not shared)= A, B, C, D | M 6/4/12 |
| ☐ Standing Water Homogenized (Shared samples)= | |
| ☐ Clay/Clumps (Difficult to homogenize)= | |
| ☐ Rocks (%+size)? | |
| ☒ Organics (Leaves/sticks/grass)= A, B, C, D | ML 6/4/12 |
| ☒ Oily, obvious fuel/sulfur odors= A, B, C, D | ML 6/4/12 |
| ☐ Other (Details)= | |
| | |
| | |
| | |
| Aqueous: | |
| ☐ No Anomalies | |
| ☐ Turbid/Color= | |
| ☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead) | |
| ☐ Emulsions (%)= | |
| ☐ Other (Details)= | |
| | |
| | |
| ☐ Other Notes/Comments= (Note problems, concerns, corrective actions). | |

EPH Raw Data
Initial Calibration

ARI Job ID: UW85

**Analytical Resources, Incorporated**
Analytical Chemists and Consultants

Aliphatic

# GC Initial Calibration Notes

ARI SOP: **403S**(PCB) ~~**405S**(Herb)~~ **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
**427S**(Dir Inj) ~~**428S**(EPH)~~ **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 (FID-8)
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date(s): 5/18/12 Internal Standard ID — Expiration —

| | | | |
|---|---|---|---|
| Endrin/DDT Breakdown <15%? YES / NO / NA | | ICV Exceeding ±20%? | C21 YES / (NO) |
| ICal Meets %RSD & $r^2$ Criteria | (YES) / NO | ICV Exceeding ±30%? | YES / (NO) |
| Manual Integrations for ICal? | (YES) / NO | Linear Fits Used? | YES / (NO) |
| Minimum Response S/N Met | (YES) / NO | Quadratic Fits Used? | YES / (NO) |
| | | Calibration Points Dropped? | YES / (NO) |

| Primary Source | Standard # | Expiration | Secondary Source | Standard # | Expiration |
|---|---|---|---|---|---|
| Ultra | I7251 | 8/30/12 | Accustandard | I7241 | 8/30/12 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

**Detail problems, corrective actions and/or other pertinent information below:**

**Analyst:** [signature] **Date:** 5/25/12

**Reviewer:** [signature] **Date:** 5/25/12

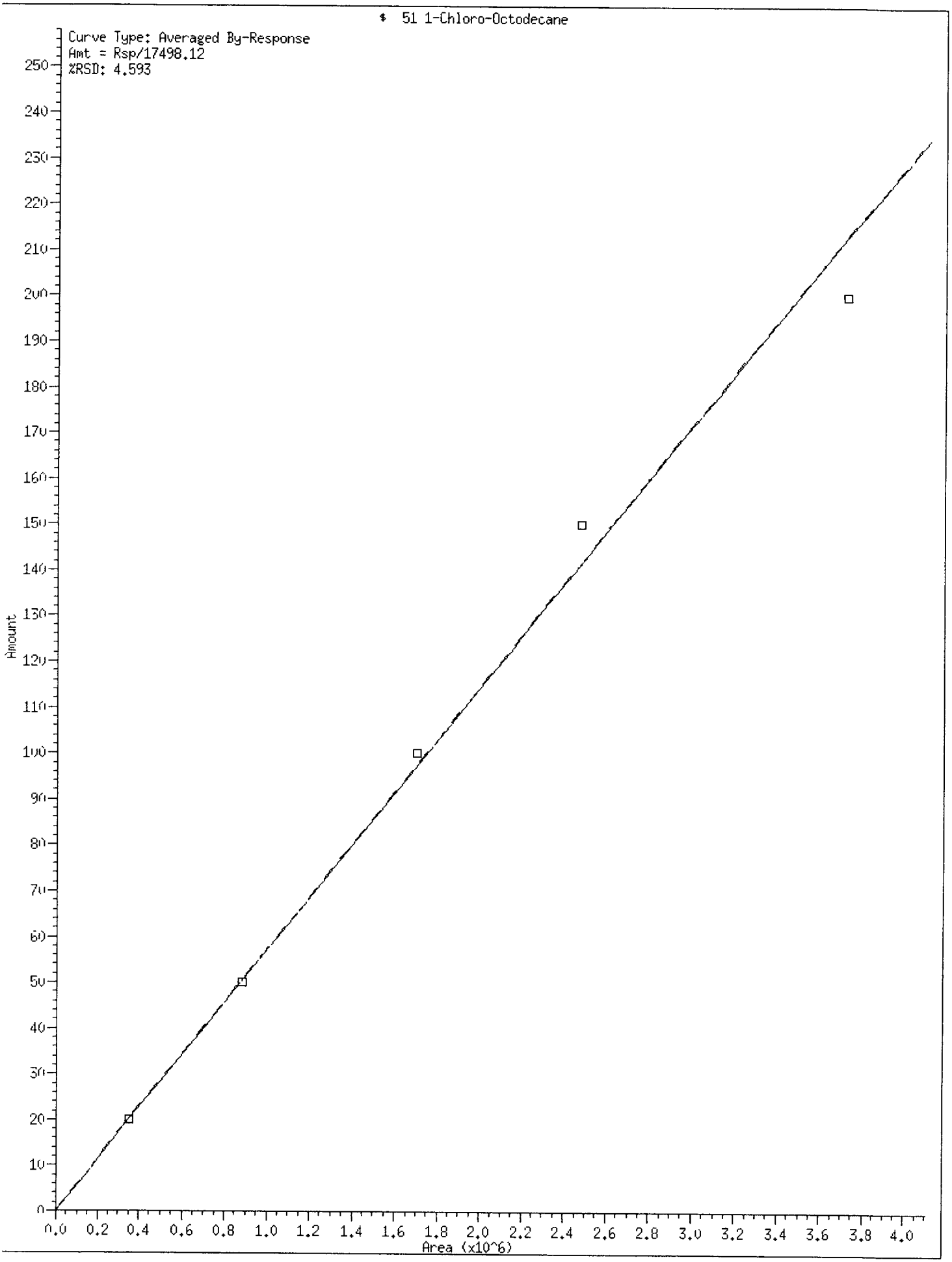
Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 18-MAY-2012 12:05
End Cal Date : 18-MAY-2012 13:46
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Cal Date : 19-May-2012 09:32 jrains
Curve Type : Average

Calibration File Names:
Level 1: /chem2/fid8.i/20120518ALIPH.b/0518A009.D
Level 2: /chem2/fid8.i/20120518ALIPH.b/0518A010.D
Level 3: /chem2/fid8.i/20120518ALIPH.b/0518A011.D
Level 4: /chem2/fid8.i/20120518ALIPH.b/0518A012.D
Level 5: /chem2/fid8.i/20120518ALIPH.b/0518A013.D

| Compound | 20.000 Level 1 | 50 000 Level 2 | 100 000 Level 3 | 150.000 Level 4 | 200 000 Level 5 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|
| 2 C8 | 20340 | 20409 | 19139 | 18795 | 20916 | 19920 | 4.547 |
| 3 C10 | 19145 | 19077 | 18427 | 18024 | 20248 | 18984 | 4.456 |
| 45 C12 | 18366 | 18148 | 17433 | 17019 | 19138 | 18021 | 4.586 |
| 46 C16 | 17468 | 17169 | 16604 | 16160 | 17539 | 16988 | 3.483 |
| 47 C21 | 16646 | 16277 | 15748 | 15297 | 17125 | 16219 | 4 445 |
| 48 C34 | 16279 | 16732 | 16490 | 16906 | 18666 | 17015 | 5 603 |
| $ 51 1-Chloro-Octodecane | 17683 | 17603 | 17033 | 16512 | 18660 | 17498 | 4 593 |


$ 51 1-Chloro-Octodecane
Curve Type: Averaged By-Response
Amt = Rsp/17498.12
%RSD: 4.593
Amount
Area (x10^6)
0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 3.6 3.8 4.0
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250

6a

# EPH ALIPHATICS INITIAL CALIBRATION
WA DOE Method

Lab Name: ANALYTICAL RESOURCES, INC.

Client: 20120518ALIPH

Instrument: FID8.I

Project:

Calibration Date: 18-MAY-2012

SDG No.: 20120518ALIPH

| Aliphatics EPH Range | RF1 20 | RF2 50 | RF3 100 | RF4 150 | RF5 200 | Ave RF | %RSD |
|---|---|---|---|---|---|---|---|
| C8-C10 | 19743 | 19743 | 18783 | 18410 | 20582 | 19452 | 4.4 |
| C10-C12 | 18366 | 18148 | 17433 | 17019 | 19138 | 18021 | 4.6 |
| C12-C16 | 17468 | 17169 | 16604 | 16160 | 17539 | 16988 | 3.5 |
| C16-C21 | 16646 | 16277 | 15748 | 15297 | 17125 | 16219 | 4.4 |
| C21-C34 | 16279 | 16732 | 16490 | 16906 | 18666 | 17015 | 5.6 |

<- Indicates %RSD outside limits
Surrogate areas are not included in RF calculation.

| Calibration Files | Analysis Time |
|---|---|
| 0518A009.D | 18-MAY-2012 12:05 |
| 0518A010.D | 18-MAY-2012 12:30 |
| 0518A011.D | 18-MAY-2012 12:55 |
| 0518A012.D | 18-MAY-2012 13:20 |
| 0518A013.D | 18-MAY-2012 13:46 |
| | 18-MAY-2012 13:46 |

8

# TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC  Client:

SDG No.: 20120518ALIPH  Project:

Instrument ID: FID8  GC Column: ZB-5

Run Date: 05/18/12

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
S1 : 6.81

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME ANALYZED | S1 RT | # |
|---|---|---|---|---|---|---|
| 01 | | ALIPH 20 | 05/18/12 | 1141 | 6.82 | |
| 02 | | ALIPH 20 | 05/18/12 | 1205 | 6.80 | |
| 03 | | ALIPH 50 | 05/18/12 | 1230 | 6.79 | |
| 04 | | ALIPH 100 | 05/18/12 | 1255 | 6.80 | |
| 05 | | ALIPH 150 | 05/18/12 | 1320 | 6.80 | |
| 06 | | ALIPH 200 | 05/18/12 | 1346 | 6.81 | |
| 07 | | ALIPH ICV | 05/18/12 | 1411 | 6.80 | |

S1 = 1-Chloro-Octodecane  QC LIMITS (+/- 0.05 MINUTES)

* Values outside of QC limits.



UW85 : 00048

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Batch File: /chem2/fid8.i/20120518ALIPH.b
Inst ID: fid8.i

| ID: | RT01 | RT02 | RT03 | RT04 | RT05 |
|---|---|---|---|---|---|
| FILENAME: | 0518A009 | 0518A010 | 0518A011 | 0518A012 | 0518A013 |
| INJ.DATE: | 18-MAY-2012 | 18-MAY-2012 | 18-MAY-2012 | 18-MAY-2012 | 18-MAY-2012 |
| INJ.TIME: | 12:05 | 12 30 | 12.55 | 13.20 | 13 46 |

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|
| 2 C8 | 1 132 | 1.135 | 1.130 | 1 131 | 1.141 | 1.132 | 1.082-1 182 | 1.134 | 0.005 |
| 3 C10 | 3 278 | 3.279 | 3 280 | 3 281 | 3.282 | 3.278 | 3 228-3 328 | 3 280 | 0.002 |
| 45 C12 | 4 093 | 4 093 | 4 095 | 4 095 | 4 096 | 4.093 | 4 043-4 143 | 4 094 | 0.002 |
| 46 C16 | 5 255 | 5 255 | 5.256 | 5 258 | 5.261 | 5.255 | 5.205-5 305 | 5 257 | 0.002 |
| $ 51 1-Chloro-Octodecane | 6.796 | 6 794 | 6.796 | 6.800 | 6 813 | 6 796 | 6 746-6.846 | 6.800 | 0.008 |
| 47 C21 | 6.851 | 6 850 | 6 851 | 6.856 | 6.867 | 6 851 | 6.801-6.901 | 6.855 | 0 007 |
| 48 C34 | 11.824 | 11.827 | 11.827 | 11.830 | 11 838 | 11 824 | 11.774-11.874 | 11 829 | 0 005 |

Reviewer 1 _____ Date: 5/23/12
Reviewer 2 _____ Date: 5/23/12

Gb2669 JM8S

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518ALIPH.b/0518A009.D
Lab Smp Id: ALIPH 20
Inj Date : 18-MAY-2012 12:05
Operator : MH Inst ID: fid8.i
Smp Info : ALIPH 20
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Meth Date : 19-May-2012 09:48 jrains Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT (ng/mL) | AMOUNTS ON-COL (ng/mL) |
|---|---|---|---|---|---|---|
| 2 C8 | 1.132 | 1 141 | -0.009 | 406804 | 20 0000 | 20 421 |
| 3 C10 | 3.278 | 3.282 | -0 004 | 382897 | 20.0000 | 20 169 |
| 45 C12 | 4.093 | 4 096 | -0 003 | 367321 | 20.0000 | 20 383 |
| 46 C16 | 5 255 | 5.261 | -0.006 | 349352 | 20 0000 | 20 564 |
| 51 1-Chloro-Octodecane | 6 796 | 6 813 | -0.017 | 353665 | 20 0000 | 20.211 |
| 47 C21 | 6 851 | 6.867 | -0 016 | 332918 | 20 0000 | 20 526 |
| 48 C34 | 11 824 | 11 838 | -0.014 | 325586 | 20 0000 | 19 135 |

JWS 5/19/12

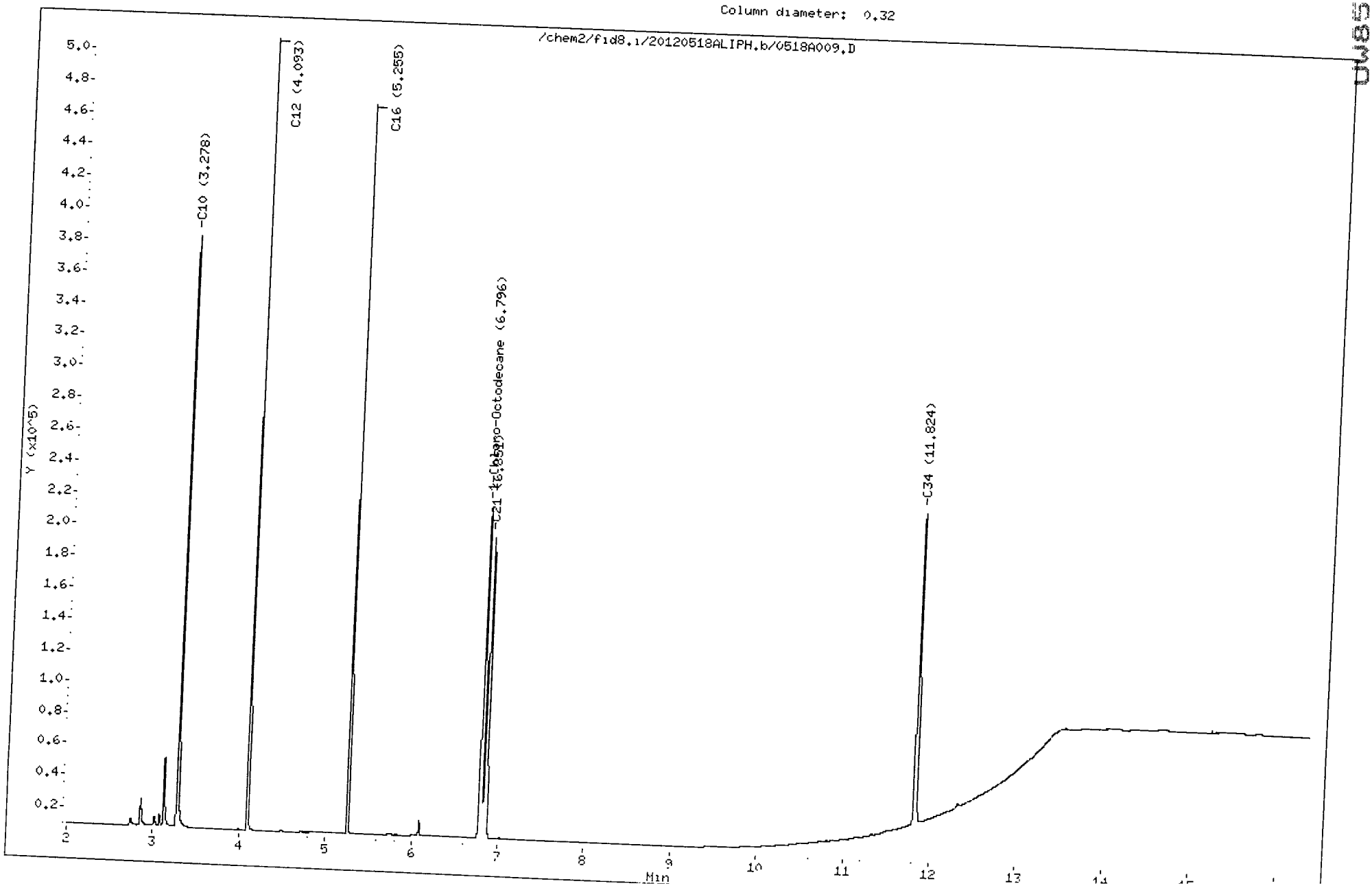
Data File: /chem2/fid8.1/20120518ALIPH.b/0518A009.D
Date : 18-MAY-2012 12:05
Client ID:
Sample Info: ALIPH 20

Instrument: fid8.1

Operator: MH
Column diameter: 0.32

Column phase: ZB-5





Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20120518ALIPH.b/0518A009.D
Method: /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

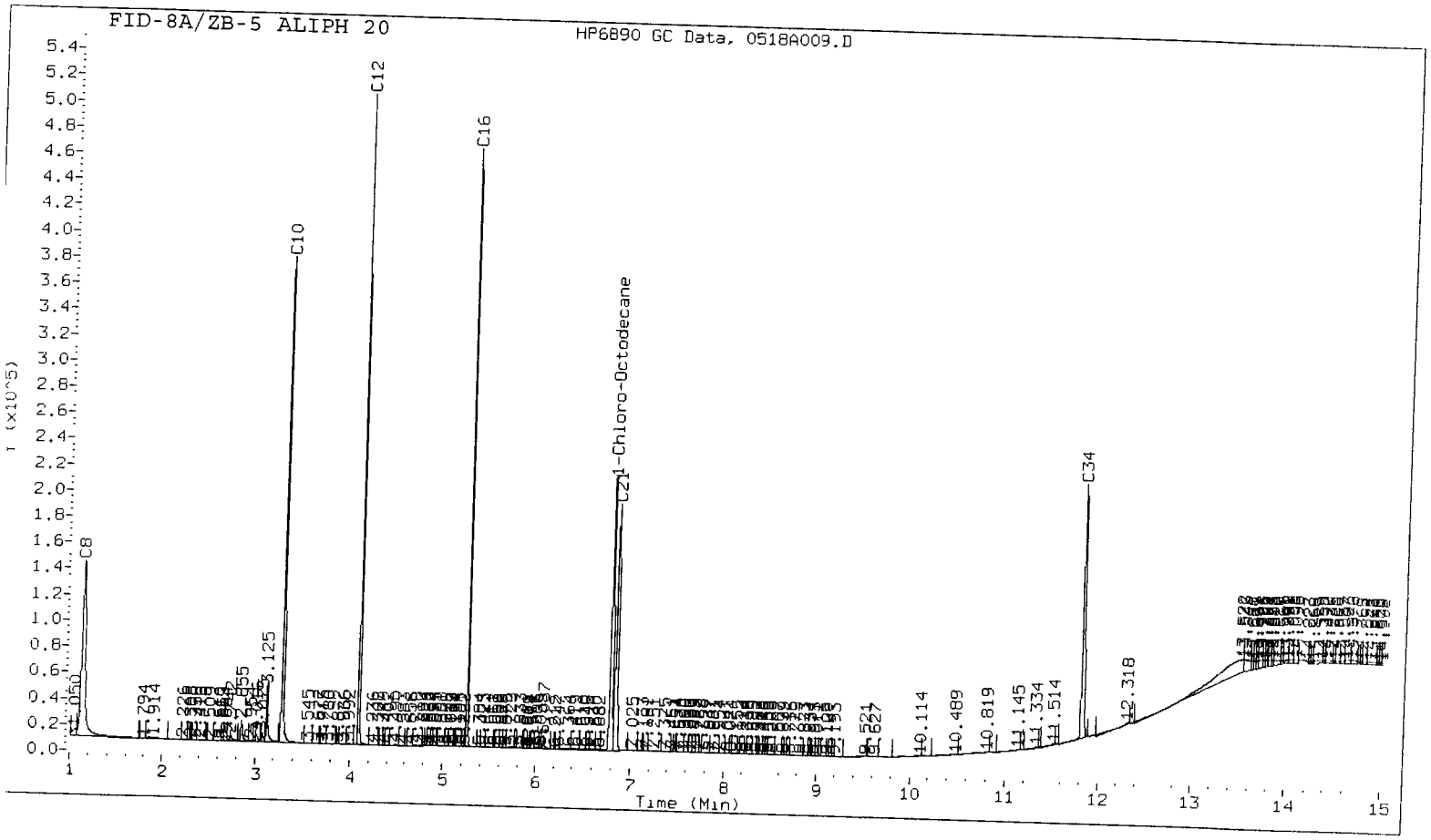
ARI ID: ALIPH 20
Client ID:
Injection: 18-MAY-2012 12:05
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

| Quant Range | | Area | Conc | Time Range |
|---|---|---|---|---|
| C8-C10 | Aliph. | 921681 | 47 | (1.041 - 3.382) |
| C10-C12 | Aliph. | 369312 | 20 | (3.382 - 4.196) |
| C12-C16 | Aliph. | 351527 | 21 | (4.196 - 5.361) |
| C16-C21 | Aliph. | 358532 | 22 | (5.361 - 6.967) |
| C21-C34 | Aliph. | 350169 | 21 | (6.967 - 11.938) |

Surrogate Rec: 13.5%

JK 05/19/12



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518ALIPH.b/0518A010.D
Lab Smp Id: ALIPH 50
Inj Date : 18-MAY-2012 12:30
Operator : MH
Inst ID: fid8.i
Smp Info : ALIPH 50
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Meth Date : 19-May-2012 09:48 jrains
Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46
Cal File: 0518A013.D
Als bottle: 2
Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon
Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable

Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT (ng/mL) | AMOUNTS ON-COL (ng/mL) |
|---|---|---|---|---|---|---|
| 2 C8 | 1 135 | 1 141 | -0.006 | 1020441 | 50 0000 | 51 227 |
| 3 C10 | 3 279 | 3 282 | -0.003 | 953850 | 50 0000 | 50.244 |
| 45 C12 | 4.093 | 4.096 | -0 003 | 907393 | 50.0000 | 50.353 |
| 46 C16 | 5 255 | 5.261 | -0 006 | 858437 | 50 0000 | 50.532 |
| $ 51 1-Chloro-Octodecane | 6 794 | 6 813 | -0.019 | 880169 | 50 0000 | 50 300 |
| 47 C21 | 6.850 | 6 867 | -0.017 | 813840 | 50.0000 | 50.179 |
| 48 C34 | 11.827 | 11.838 | -0.011 | 836609 | 50 0000 | 49 169 |

5/19/12

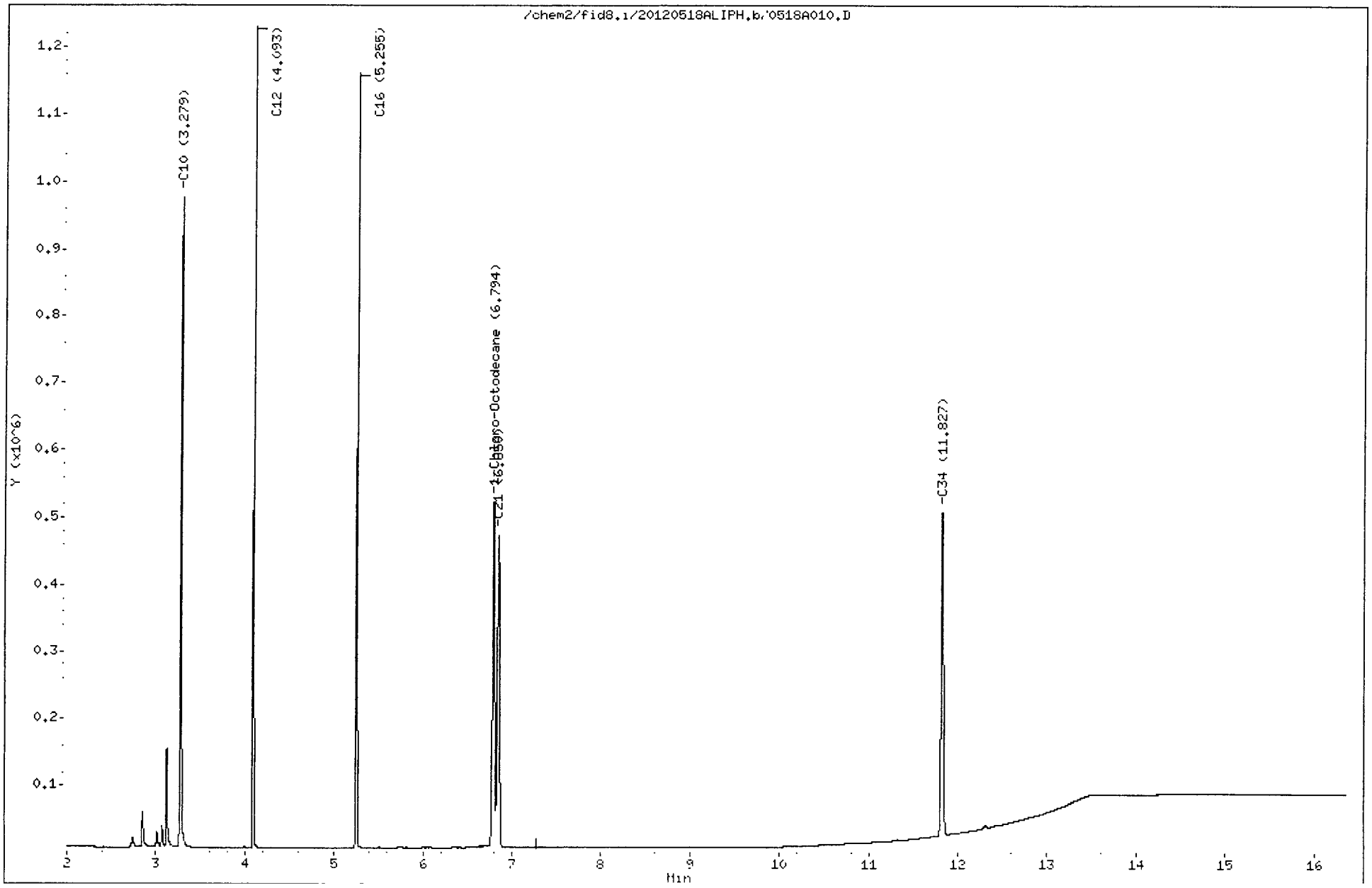
Data File: /chem2/fid8.i/20120518ALIPH.b/0518A010.D
Date : 18-MAY-2012 12:30
Client ID:
Sample Info: ALIPH 50

Column phase: ZB-5

Instrument: fid8.i

Operator: MH
Column diameter: 0.32






UW85:00054

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20120518ALIPH.b/0518A010.D
Method: /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

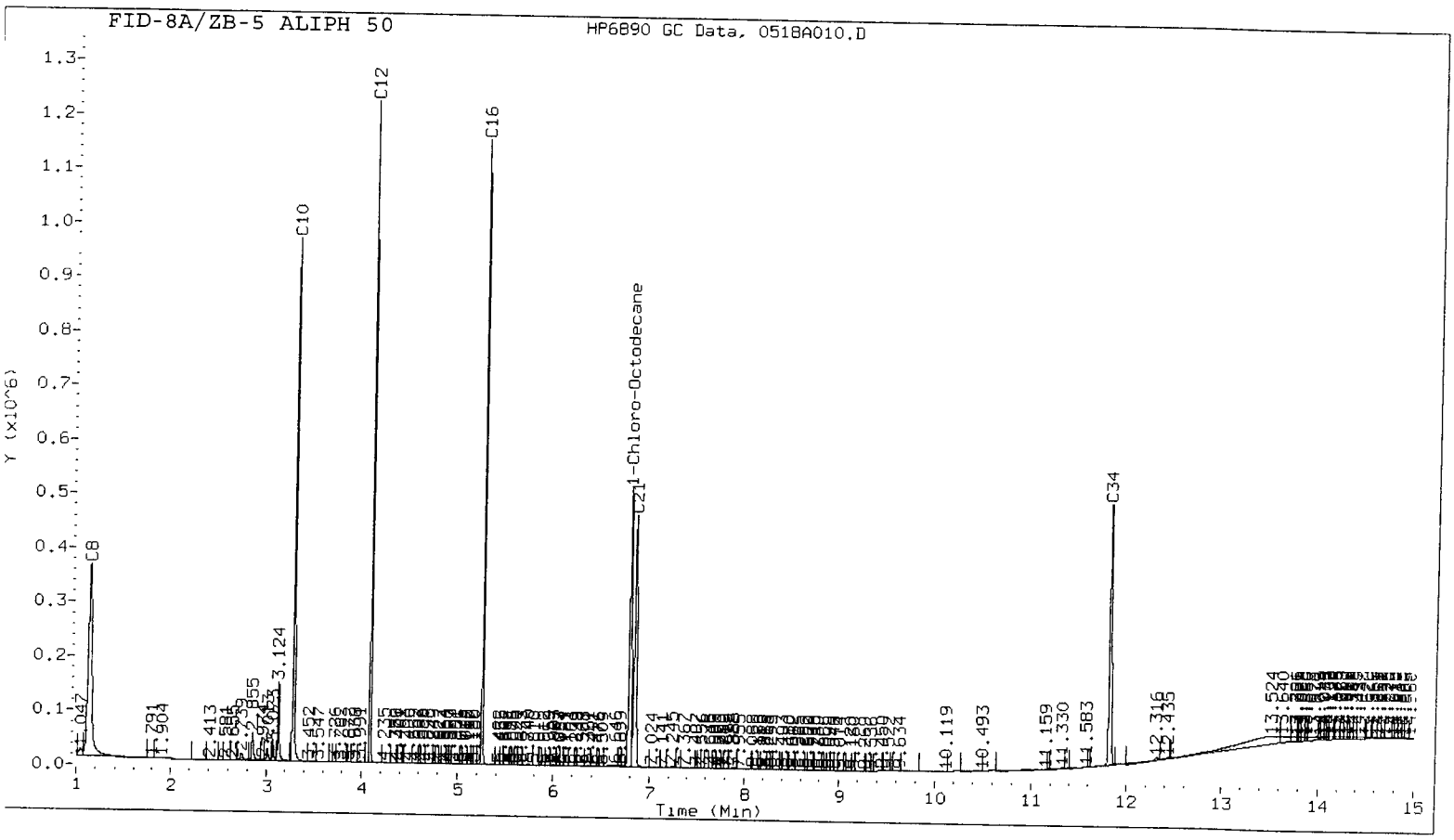
ARI ID: ALIPH 50
Client ID:
Injection: 18-MAY-2012 12:30
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

| Quant Range | | Area | Conc | Time Range |
|---|---|---|---|---|
| C8-C10 | Aliph. | 2354572 | 121 | (1.041 - 3.382) |
| C10-C12 | Aliph. | 911868 | 51 | (3.382 - 4.196) |
| C12-C16 | Aliph. | 861316 | 51 | (4.196 - 5.361) |
| C16-C21 | Aliph. | 854917 | 53 | (5.361 - 6.967) |
| C21-C34 | Aliph. | 875939 | 51 | (6.967 - 11.938) |

Surrogate Rec: 33.5%

05/19/12



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518ALIPH.b/0518A011.D
Lab Smp Id: ALIPH 100
Inj Date : 18-MAY-2012 12:55
Operator : MH Inst ID: fid8.i
Smp Info : ALIPH 100
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Meth Date : 19-May-2012 09:48 jrains Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

05/19/12

| Compounds | RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT (ng/mL) | AMOUNTS ON-COL (ng/mL) |
|---|---|---|---|---|---|---|
| 2 C8 | 1.130 | 1 141 | -0.011 | 1913941 | 100.000 | 96.081 |
| 3 C10 | 3.280 | 3 282 | -0 002 | 1842656 | 100 000 | 97.063 |
| 45 C12 | 4 095 | 4 096 | -0.001 | 1743265 | 100 000 | 96.737 |
| 46 C16 | 5.256 | 5.261 | -0.005 | 1660405 | 100 000 | 97.740 |
| 51 1-Chloro-Octodecane | 6 796 | 6.813 | -0.017 | 1703265 | 100 000 | 97.339 |
| 47 C21 | 6.851 | 6 867 | -0.016 | 1574815 | 100 000 | 97 099 |
| 48 C34 | 11 827 | 11 838 | -0.011 | 1648999 | 100 000 | 96 915 |

Data File: /chem2/fid8.1/20120518ALIPH.b/0518A011.D
Date : 18-MAY-2012 12:55
Client ID:
Sample Info: ALIPH 100

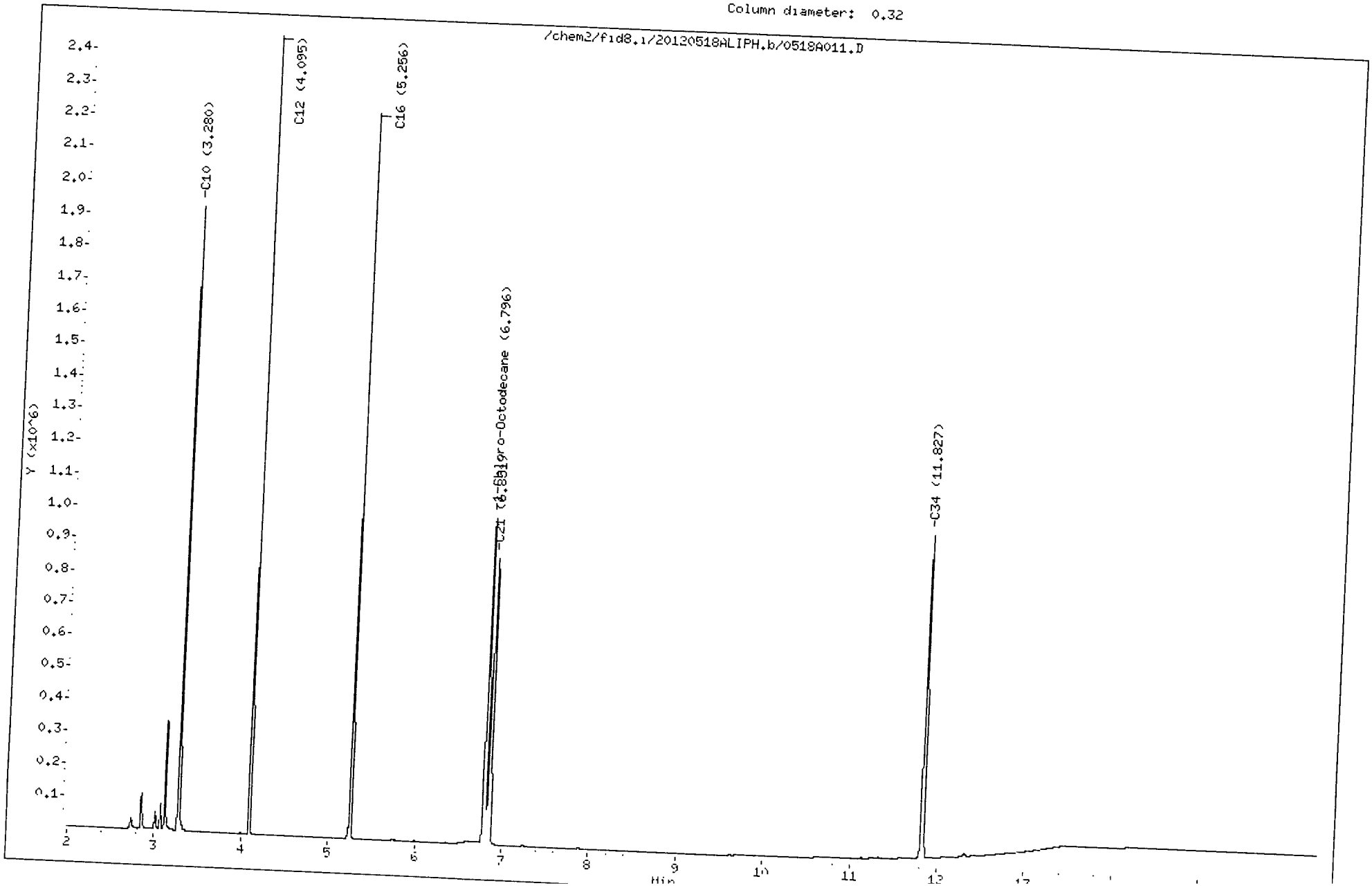
Instrument: fid8.1

Operator: MH
Column diameter: 0.32

Column phase: ZB-5



UW85 : 00057



Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20120518ALIPH.b/0518A011.D
Method: /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

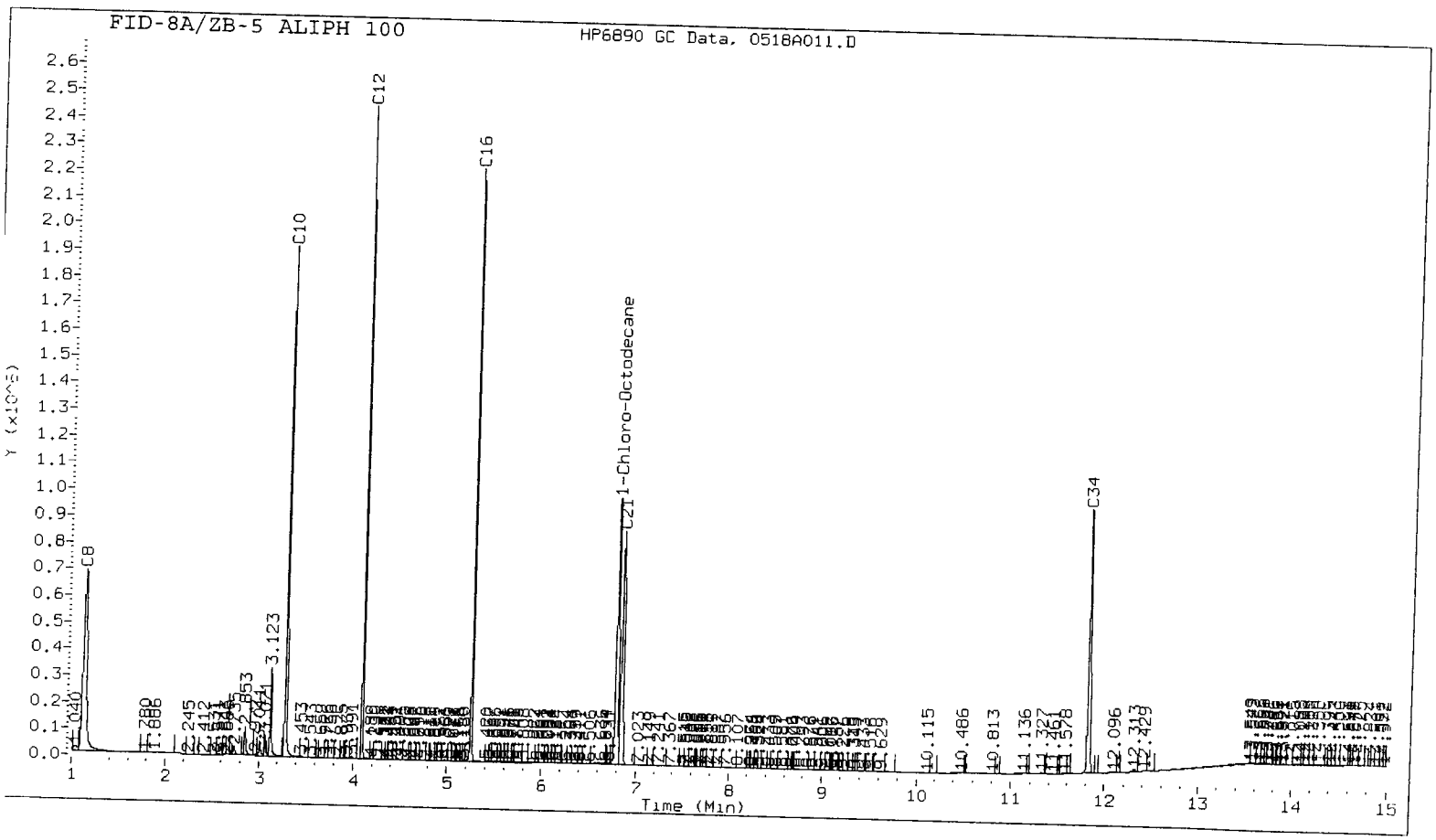
ARI ID: ALIPH 100
Client ID:
Injection: 18-MAY-2012 12:55
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

| Quant Range | | Area | Conc | Time Range |
|---|---|---|---|---|
| C8-C10 | Aliph. | 4489303 | 231 | (1.041 - 3.382) |
| C10-C12 | Aliph. | 1752050 | 97 | (3.382 - 4.196) |
| C12-C16 | Aliph. | 1665699 | 98 | (4.196 - 5.361) |
| C16-C21 | Aliph. | 1686914 | 104 | (5.361 - 6.967) |
| C21-C34 | Aliph. | 1685198 | 99 | (6.967 - 11.938) |

Surrogate Rec: 64.9%

05/9/12



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518ALIPH.b/0518A012.D
Lab Smp Id: ALIPH 150
Inj Date : 18-MAY-2012 13:20
Operator : MH
Smp Info : ALIPH 150 Inst ID: fid8.i
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Meth Date : 19-May-2012 09:48 jrains Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 3.50 Compound Sublist: waliph.sub

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| ompounds | RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT (ng/mL) | AMOUNTS ON-COL (ng/mL) |
|---|---|---|---|---|---|---|
| 2 C8 | 1 131 | 1 141 | -0 010 | 2819293 | 150.000 | 141.531 |
| 3 C10 | 3 281 | 3 282 | -0 001 | 2703657 | 150.000 | 142.417 |
| 45 C12 | 4 095 | 4.096 | -0 001 | 2552846 | 150.000 | 141 662 |
| 46 C16 | 5.258 | 5 261 | -0 003 | 2423967 | 150.000 | 142.687 |
| 51 1-Chloro-Octodecane | 6 800 | 6 813 | -0 013 | 2476764 | 150.000 | 141 544 |
| 47 C21 | 6 856 | 6.867 | -0 011 | 2294540 | 150.000 | 141 475 |
| 48 C34 | 11 830 | 11 838 | -0 008 | 2535888 | 150.000 | 149 040 |

JK 05/19/12

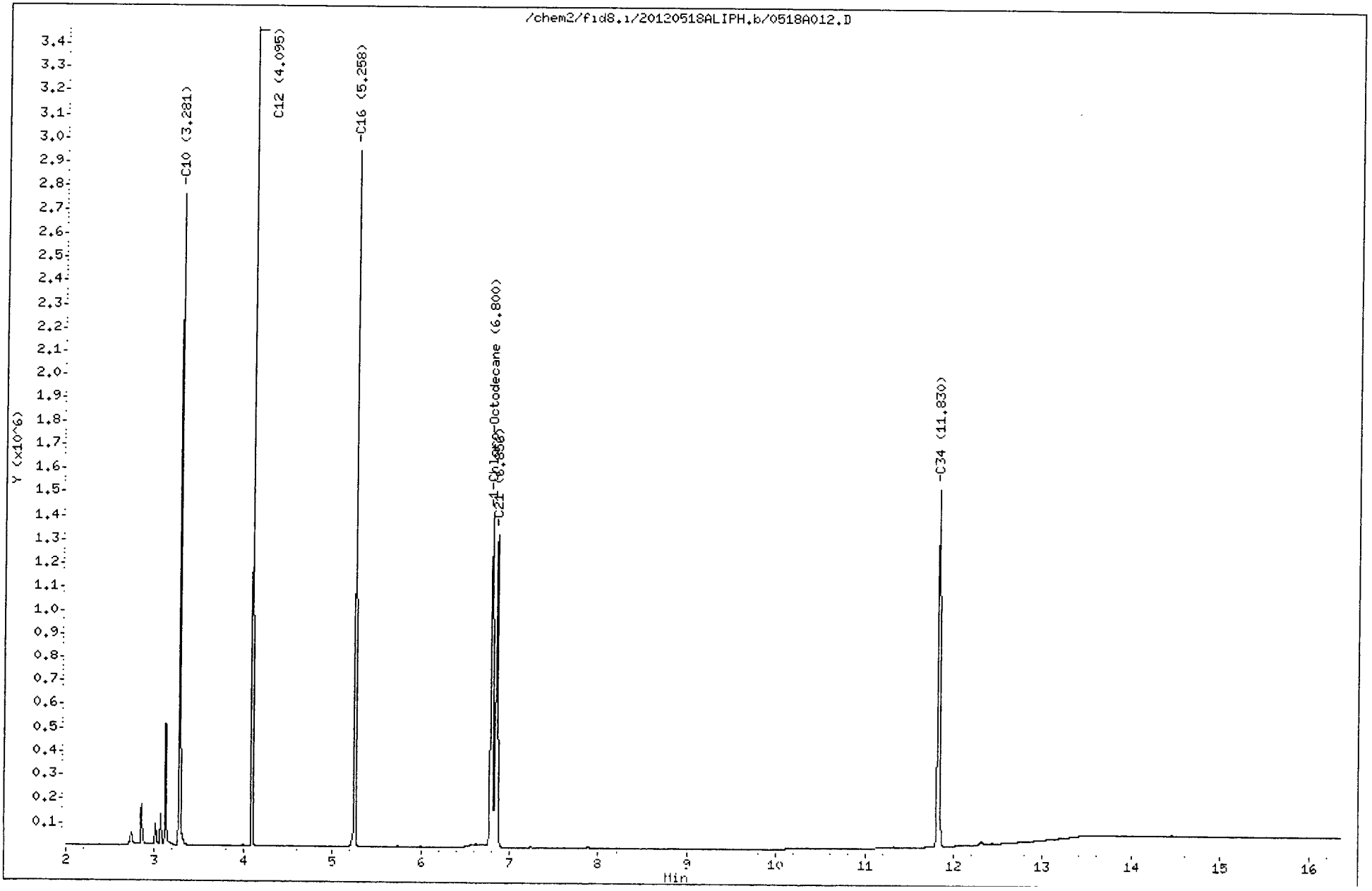
Data File: /chem2/fid8.i/20120518ALIPH.b/0518A012.D
Date : 18-MAY-2012 13:20
Client ID:
Sample Info: ALIPH 150

Column phase: ZB-5

Instrument: fid8.i

Operator: MH
Column diameter: 0.32






UW85 0065

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20120518ALIPH.b/0518A012.D
Method: /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

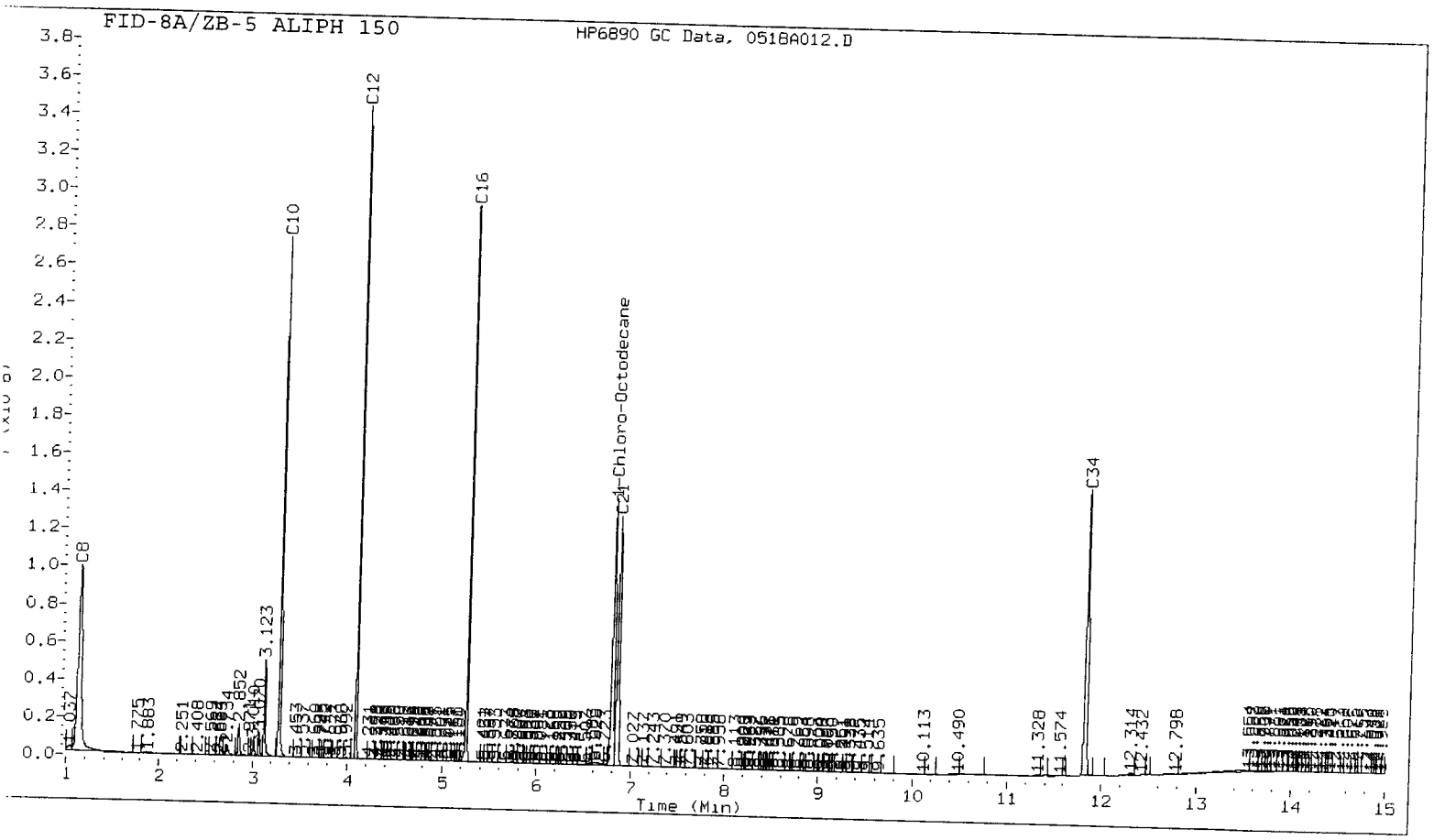
ARI ID: ALIPH 150
Client ID:
Injection: 18-MAY-2012 13:20
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

| Quant Range | | Area | Conc | Time Range |
|---|---|---|---|---|
| C8-C10 | Aliph. | 6650004 | 342 | (1.041 - 3.382) |
| C10-C12 | Aliph. | 2565008 | 142 | (3.382 - 4.196) |
| C12-C16 | Aliph. | 2430021 | 143 | (4.196 - 5.361) |
| C16-C21 | Aliph. | 2466801 | 152 | (5.361 - 6.967) |
| C21-C34 | Aliph. | 2598436 | 153 | (6.967 - 11.938) |

Surrogate Rec: 94.4%

JT 05/19/12



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518ALIPH.b/0518A013.D
Lab Smp Id: ALIPH 200
Inj Date : 18-MAY-2012 13:46
Operator : MH
Inst ID: fid8.i
Smp Info : ALIPH 200
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Meth Date : 19-May-2012 09:48 jrains
Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46
Cal File: 0518A013.D
Als bottle: 5
Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon
Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable
Local Compound Variable

05/19/12

| Compounds | RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT (ng/mL) | AMOUNTS ON-COL (ng/mL) |
|---|---|---|---|---|---|---|
| 2 C8 | 1.141 | 1.141 | 0.000 | 4183188 | 200 000 | 210 000 |
| 3 C10 | 3.282 | 3.282 | 0.000 | 4049500 | 200.000 | 213.310 |
| 45 C12 | 4.096 | 4.096 | 0.000 | 3827511 | 200 000 | 212 396 |
| 46 C16 | 5.261 | 5.261 | 0 000 | 3507865 | 200.000 | 206 491 |
| 51 1-Chloro-Octodecane | 6 813 | 6.813 | 0.000 | 3731907 | 200 000 | 213.274 |
| 47 C21 | 6 867 | 6.867 | 0 000 | 3425030 | 200 000 | 211 179 |
| 48 C34 | 11 838 | 11 838 | 0.000 | 3733248 | 200 000 | 219 412 |

Data File: /chem2/fid8.i/20120518ALIPH.b/0518A013.D
Date : 18-MAY-2012 13:46
Client ID:
Sample Info: ALIPH 200

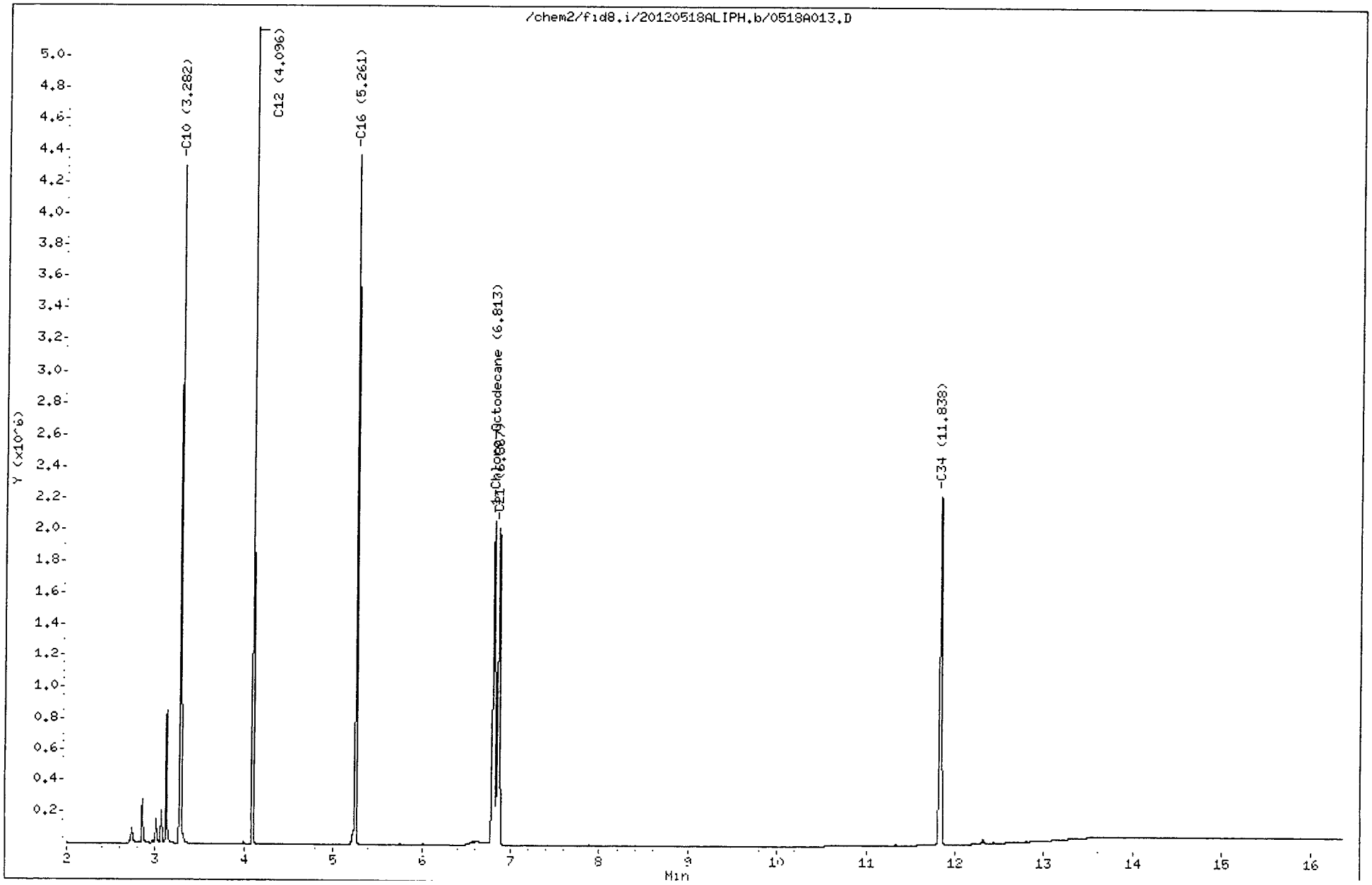
Column phase: ZB-5

Instrument: fid8.i

Operator: MH
Column diameter: 0.32



UW35 00063



Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20120518ALIPH.b/0518A013.D
Method: /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

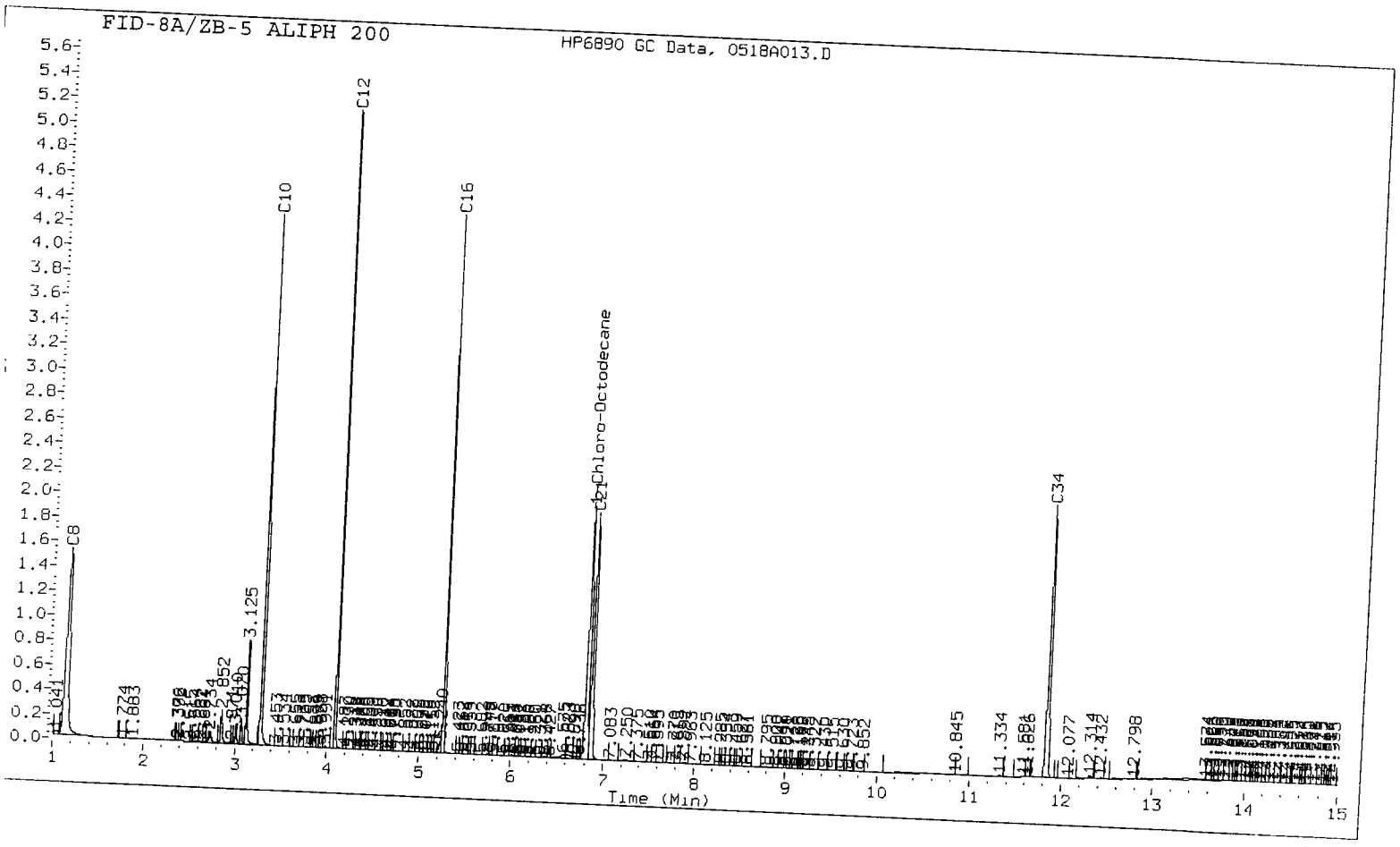
ARI ID: ALIPH 200
Client ID:
Injection: 18-MAY-2012 13:46
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

| Quant Range | | Area | Conc | Time Range |
|---|---|---|---|---|
| C8-C10 | Aliph. | 10001204 | 514 | (1.041 - 3.382) |
| C10-C12 | Aliph. | 3847512 | 214 | (3.382 - 4.196) |
| C12-C16 | Aliph. | 3668666 | 216 | (4.196 - 5.361) |
| C16-C21 | Aliph. | 3737181 | 230 | (5.361 - 6.967) |
| C21-C34 | Aliph. | 3796460 | 223 | (6.967 - 11.938) |

Surrogate Rec: 142.2%

JL 05/19/12



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518ALIPH.b/0518A014.D
Lab Smp Id: ALIPH ICV
Inj Date : 18-MAY-2012 14:11
Operator : MH Inst ID: fid8.i
Smp Info : ALIPH ICV
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Meth Date : 19-May-2012 09:48 jrains Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | CONCENTRATIONS FINAL (ug/Kg) |
|---|---|---|---|---|---|---|---|
| 2 | C8 | 1.157 | 1.141 | 0.016 | 2287049 | 114 812 | 114.812 |
| 3 | C10 | 3.282 | 3.282 | 0 000 | 2107693 | 111.024 | 111.024 |
| 45 | C12 | 4 095 | 4.096 | -0 001 | 2044190 | 113 436 | 113 436 |
| 46 | C16 | 5.259 | 5 261 | -0 002 | 2004786 | 118 013 | 118.012 |
| $ 51 | 1-Chloro-Octodecane | 6 805 | 6 813 | -0 008 | 2089255 | 119 399 | 119 398 |
| 47 | C21 | 6.860 | 6.867 | -0 007 | 2064469 | 127.290 | 127 290 |
| 48 | C34 | 11.830 | 11.838 | -0.008 | 1827896 | 107 430 | 107.430 |

FT

Data File: /chem2/fid8.i/20120518ALIPH.b/0518A014.D

Date : 18-MAY-2012 14:11

Client ID:

Sample Info: ALIPH ICV

Column phase: ZB-5

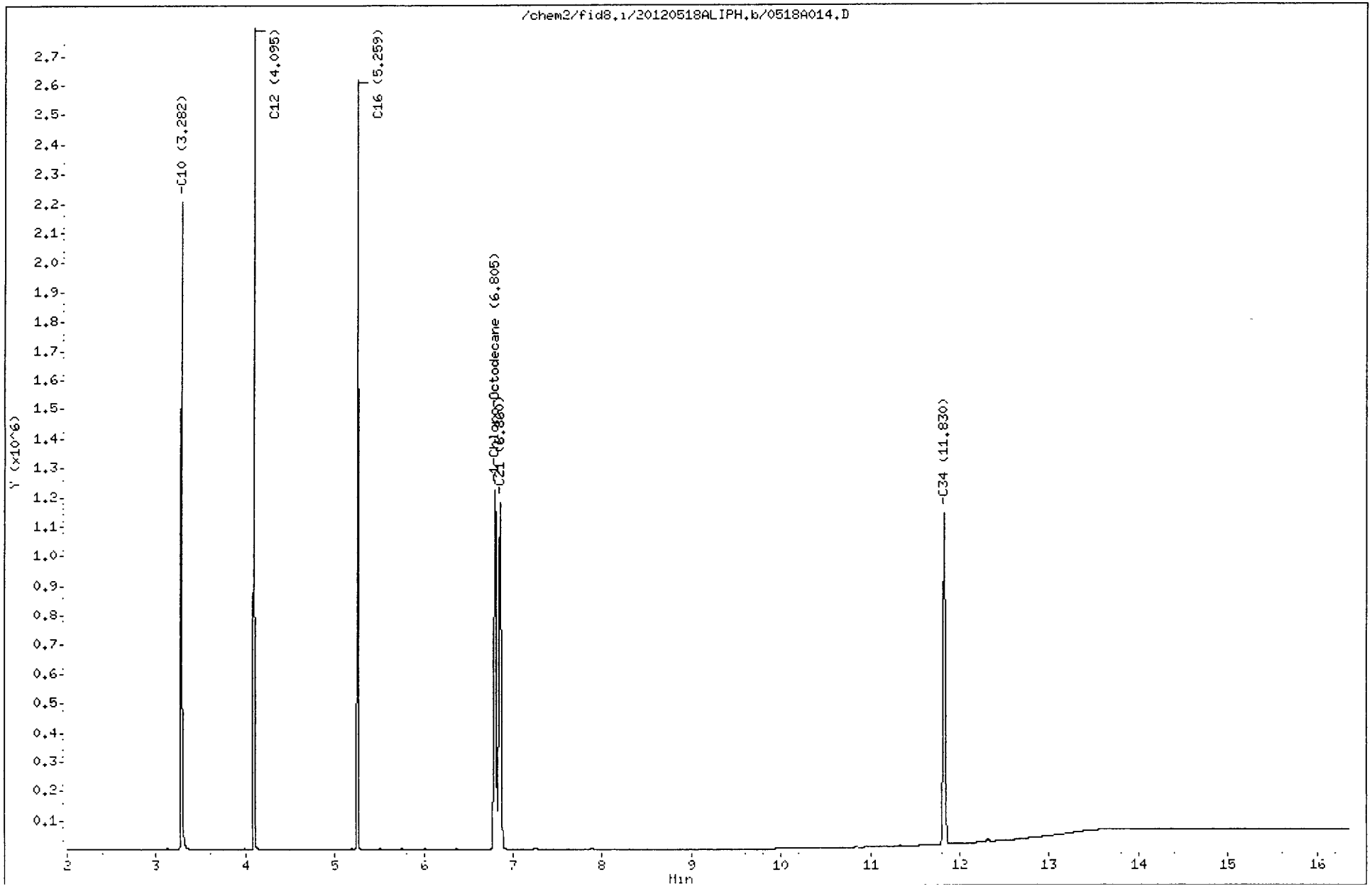


Instrument: fid8.i

Operator: MH

Column diameter: 0.32

UW35 00055



Analytical Resources Inc.
WA. EPH Aliphatics Report

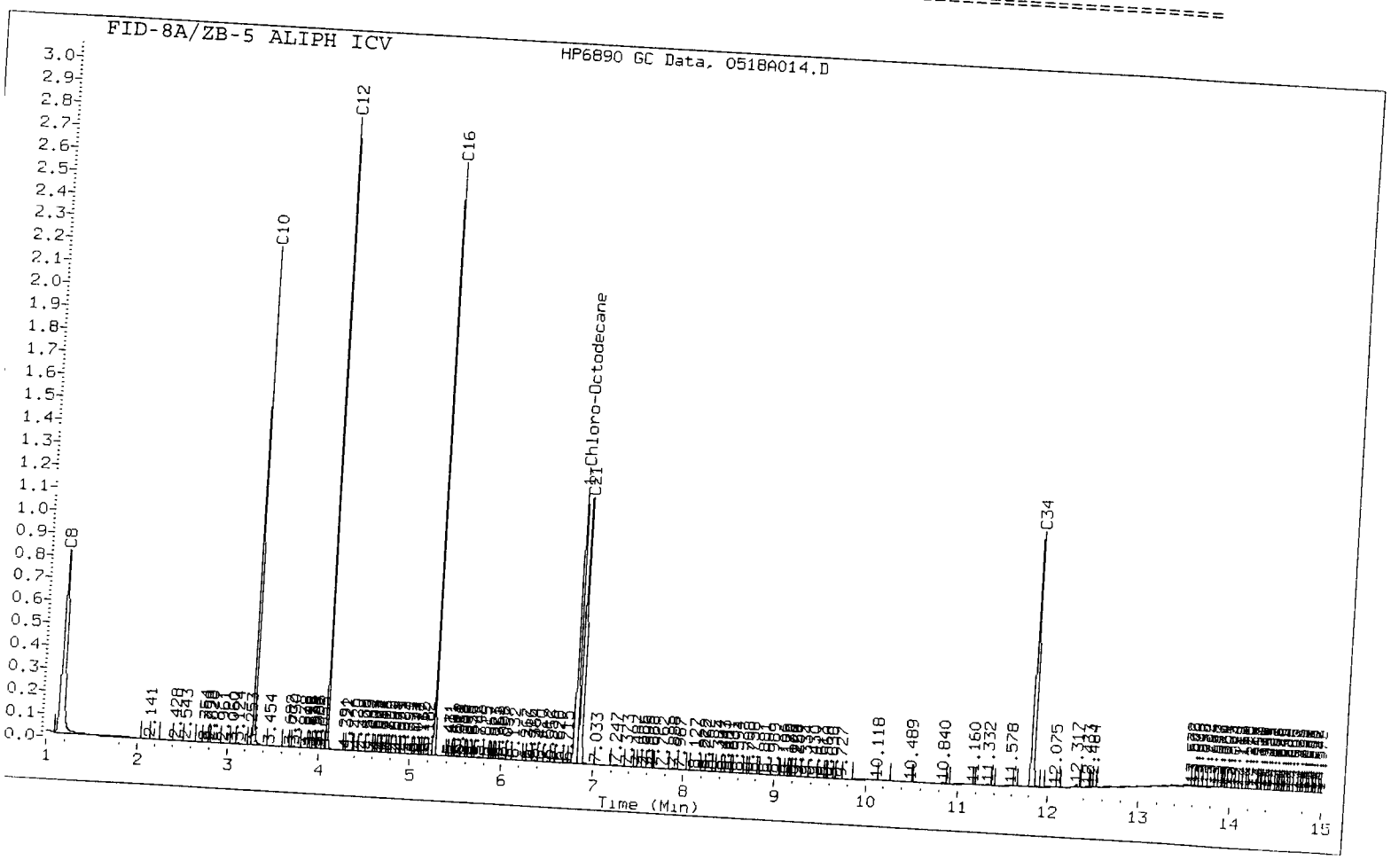
Data file: /chem2/fid8.i/20120518ALIPH.b/0518A014.D
Method: /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

ARI ID: ALIPH ICV
Client ID:
Injection: 18-MAY-2012 14:11
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

| Quant Range | | Area | Conc | Time Range |
|---|---|---|---|---|
| C8-C10 | Aliph. | 4421602 | 227 | (1.041 - 3.382) |
| C10-C12 | Aliph. | 2056033 | 114 | (3.382 - 4.196) |
| C12-C16 | Aliph. | 2013916 | 119 | (4.196 - 5.361) |
| C16-C21 | Aliph. | 2103786 | 130 | (5.361 - 6.967) |
| C21-C34 | Aliph. | 1874865 | 110 | (6.967 - 11.938) |

Surrogate Rec: 79.6%



Report Date : 25-May-2012 07:49



Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/fid8.i/20120518ALIPH.b/EPHAliph.m
Batch File: /chem2/fid8.i/20120518ALIPH.b
Inst ID: fid8.i

| ID· | RT01 | RT02 | RT03 | RT04 | RT05 |
|---|---|---|---|---|---|
| FILENAME. | 0518A009 | 0518A010 | 0518A011 | 0518A012 | 0518A013 |
| INJ.DATE· | 18-MAY-2012 | 18-MAY-2012 | 18-MAY-2012 | 18-MAY-2012 | 18-MAY-2012 |
| INJ.TIME | 12 05 | 12.30 | 12:55 | 13:20 | 13.46 |

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|
| 2 C8 | 1 132 | 1.135 | 1 130 | 1.131 | 1.141 | 1.141 | 1.091-1.191 | 1.134 | 0 005 |
| 3 C10 | 3.278 | 3.279 | 3 280 | 3.281 | 3.282 | 3 282 | 3 232-3.332 | 3.280 | 0 002 |
| 45 C12 | 4 093 | 4.093 | 4.095 | 4 095 | 4.096 | 4 096 | 4.046-4 146 | 4.094 | 0.002 |
| 46 C16 | 5.255 | 5.255 | 5.256 | 5 258 | 5.261 | 5 261 | 5.211-5 311 | 5 257 | 0 002 |
| $ 51 1-Chloro-Octodecane | 6.796 | 6.794 | 6 796 | 6.800 | 6.813 | 6 813 | 6 763-6.863 | 6.800 | 0 008 |
| 47 C21 | 6.851 | 6.850 | 6 851 | 6 856 | 6 867 | 6 867 | 6.817-6 917 | 6.855 | 0.007 |
| 48 C34 | 11.824 | 11.827 | 11.827 | 11 830 | 11.838 | 11.838 | 11.788-11.888 | 11.829 | 0 005 |

Reviewer 1 MH Date: ~~5/24/12~~ 5/25/12
Reviewer 2 Date: 5/25/12

UW85 00068

**Analytical Resources, Incorporated**
Analytical Chemists and Consultants

Aromatic.

# GC Initial Calibration Notes

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
**427S**(Dir Inj) ~~**428S**(EPH)~~ **Other**

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 (FID-8)
FID-9 ECD-1 ECD-5 ECD-6 ECD-7 ECD-8

Curve Date(s): 5/18/12 Internal Standard ID — Expiration —

Endrin/DDT Breakdown <15%? YES / NO / NA

ICal Meets %RSD & $r^2$ Criteria (YES) / NO

Manual Integrations for ICal? (YES) / NO

Minimum Response S/N Met (YES) / NO

ICV Exceeding ±20%? YES / (NO)

ICV Exceeding ±30%? YES / (NO)

Linear Fits Used? YES / ~~NO~~

Quadratic Fits Used? YES / ~~NO~~

Calibration Points Dropped? YES / ~~NO~~

| Primary Source | Standard # | Expiration | Secondary Source | Standard # | Expiration |
|---|---|---|---|---|---|
| Ultra | I7250 | 5/17/13 | Accustandard | I7242 | 5/17/13 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

**Detail problems, corrective actions and/or other pertinent information below:**

**Analyst:** _____ **Date:** 5/25/12

**Reviewer:** _____ **Date:** 5/25/12

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 18-MAY-2012 21:13
End Cal Date : 18-MAY-2012 22:53
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem2/fid8.i/20120518AROM.b/EPHArom.m
Cal Date : 19-May-2012 10:10 jrains
Curve Type : Average

Calibration File Names:
Level 1: /chem2/fid8.i/20120518AROM.b/0518A031.D
Level 2: /chem2/fid8.i/20120518AROM.b/0518A032.D
Level 3: /chem2/fid8.i/20120518AROM.b/0518A033.D
Level 4: /chem2/fid8.i/20120518AROM.b/0518A034.D
Level 5: /chem2/fid8.i/20120518AROM.b/0518A035.D

| Compound | 20 000 Level 1 | 50.000 Level 2 | 100 000 Level 3 | 150.000 Level 4 | 200 000 Level 5 | ___ RRF | % RSD |
|---|---|---|---|---|---|---|---|
| 2 Toluene | 20969 | 20179 | 20657 | 22328 | 20698 | 20966 | 3.877 |
| 75 1-chlorooctodecane | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| 3 1,2,3-Trimetben | 19085 | 18656 | 19084 | 19964 | 18321 | 19022 | 3.242 |
| 4 Naphthalene | 19373 | 19093 | 19637 | 20545 | 18711 | 19472 | 3.550 |
| 7 Acenaphthene | 18967 | 18573 | 19074 | 19789 | 18051 | 18891 | 3 402 |
| 13 Pyrene | 22427 | 21852 | 22472 | 23276 | 21709 | 22347 | 2 775 |
| 21 Benzo-ghi-per | 25303 | 24075 | 24295 | 24977 | 24387 | 24608 | 2 082 |
| $ 11 o-Terph Surr | 20883 | 20307 | 20799 | 21426 | 19678 | 20618 | 3.195 |

6a

# EPH AROMATICS INITIAL CALIBRATION
WA DOE Method

Lab Name: ANALYTICAL RESOURCES, INC.

Client: 20120518AROM

Instrument: FID8.I

Project:

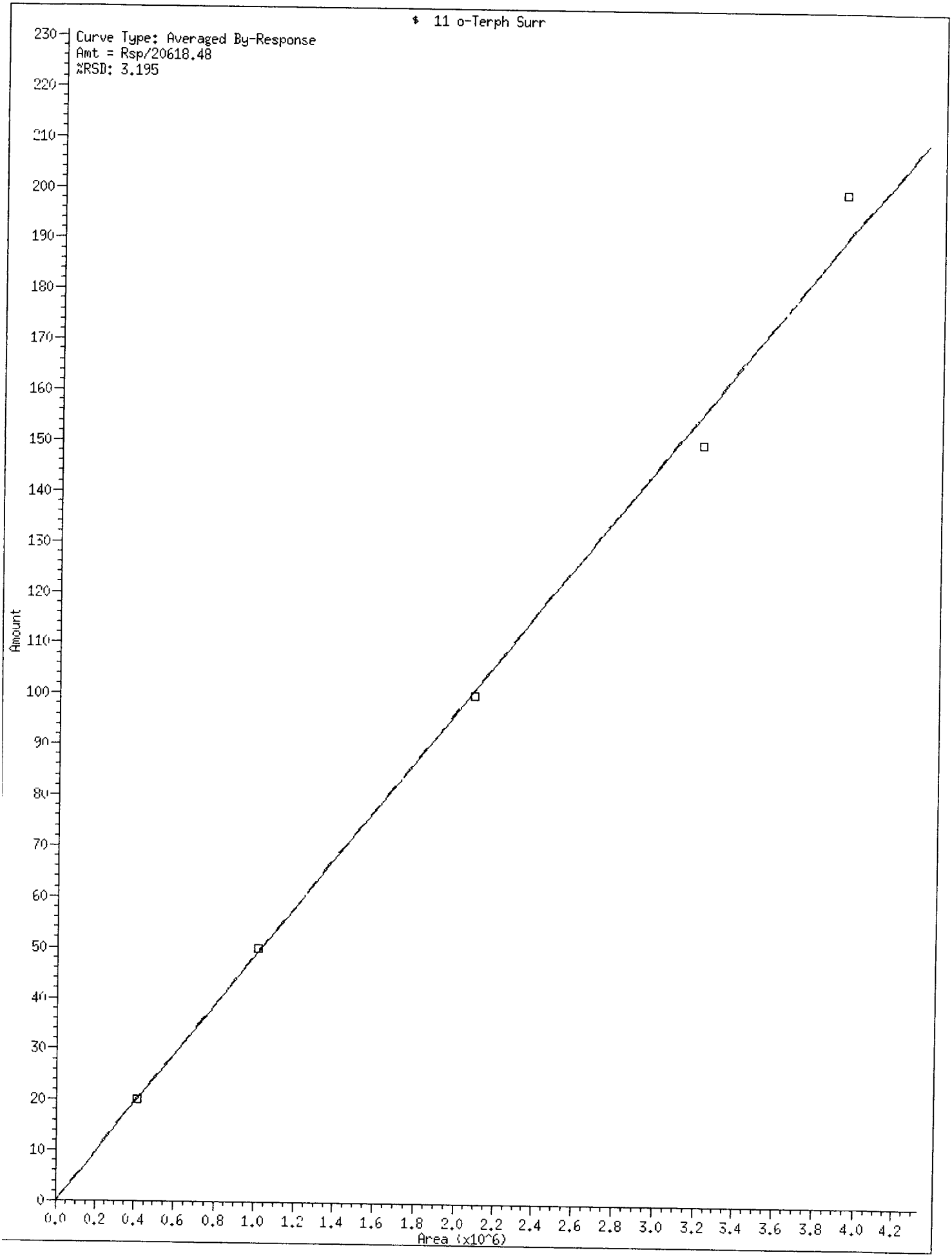
Calibration Date: 18-MAY-2012

SDG No.: 20120518AROM

| Aromatics EPH Range | RF1 20 | RF2 50 | RF3 100 | RF4 150 | RF5 200 | Ave RF | %RSD |
|---|---|---|---|---|---|---|---|
| C8-C10 | 20027 | 19417 | 19870 | 21146 | 19509 | 19994 | 3.5 |
| C10-C12 | 19373 | 19093 | 19637 | 20545 | 18711 | 19472 | 3.6 |
| C12-C16 | 18967 | 18573 | 19074 | 19789 | 18051 | 18891 | 3.4 |
| C16-C21 | 22427 | 21852 | 22472 | 23276 | 21709 | 22347 | 2.8 |
| C21-C34 | 25303 | 24075 | 24295 | 24977 | 24387 | 24608 | 2.1 |

<- Indicates %RSD outside limits
Surrogate areas are not included in RF calculation.

| Calibration Files | Analysis Time |
|---|---|
| 0518A031.D | 18-MAY-2012 21:13 |
| 0518A032.D | 18-MAY-2012 21:38 |
| 0518A033.D | 18-MAY-2012 22:03 |
| 0518A034.D | 18-MAY-2012 22:28 |
| 0518A035.D | 18-MAY-2012 22:53 |
| | 18-MAY-2012 22:53 |


$ 11 o-Terph Surr
Curve Type: Averaged By-Response
Amt = Rsp/20618.48
%RSD: 3.195
Amount
Area (x10^6)
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
210
220
230
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2
3.4
3.6
3.8
4.0
4.2

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/fid8.i/20120518AROM.b/EPHArom.m
Batch File: /chem2/fid8.i/20120518AROM.b
Inst ID: fid8.i

| ID: | RT01 | RT02 | RT03 | RT04 | RT05 |
|---|---|---|---|---|---|
| FILENAME: | 0518A031 | 0518A032 | 0518A033 | 0518A034 | 0518A035 |
| INJ DATE: | 18-MAY-2012 | 18-MAY-2012 | 18-MAY-2012 | 18-MAY-2012 | 18-MAY-2012 |
| INJ.TIME. | 21:13 | 21.38 | 22:03 | 22.28 | 22:53 |

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|
| 2 Toluene | 0.755 | 0 755 | 0 753 | 0.763 | 0.757 | 0.755 | 0.705-0 805 | 0 757 | 0.004 |
| 75 1-chlorooctodecane | +++++ | +++++ | +++++ | +++++ | +++++ | 6.780 | 6.730-6.830 | +++++ | +++++ |
| 3 1,2,3-Trimetben | 3.387 | 3.386 | 3.387 | 3 389 | 3.389 | 3.387 | 3 337-3 437 | 3 388 | 0.001 |
| 4 Naphthalene | 4.062 | 4.062 | 4.063 | 4.064 | 4 066 | 4.062 | 4 012-4 112 | 4 063 | 0.002 |
| 7 Acenaphthene | 5.001 | 5 001 | 5.003 | 5 005 | 5.007 | 5.001 | 4 951-5.051 | 5 003 | 0 002 |
| $ 11 o-Terph Surr | 6.074 | 6 080 | 6.078 | 6.081 | 6 082 | 6.074 | 6.024-6 124 | 6.079 | 0.003 |
| 13 Pyrene | 7 007 | 7 013 | 7.017 | 7 025 | 7 031 | 7.007 | 6.957-7 057 | 7 018 | 0 010 |
| 21 Benzo-ghi-per | 11.493 | 11 500 | 11.511 | 11.519 | 11 529 | 11 493 | 11 443-11 543 | 11 510 | 0.015 |

Reviewer 1 MH Date: 5/25/12
Reviewer 2 [signature] Date: 5/25/12

UW85:00073

8

# TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES INC  Client:

SDG No.: 20120518AROM  Project:

Instrument ID: FID8  GC Column: ZB-5

Run Date: 05/18/12

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
S1 : 6.07

| | CLIENT SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME ANALYZED | S1 RT | # |
|---|---|---|---|---|---|---|
| 01 | | ARO 20 | 05/18/12 | 2113 | 6.07 | |
| 02 | | ARO 50 | 05/18/12 | 2138 | 6.08 | |
| 03 | | ARO 100 | 05/18/12 | 2203 | 6.08 | |
| 04 | | ARO 150 | 05/18/12 | 2228 | 6.08 | |
| 05 | | ARO 200 | 05/18/12 | 2253 | 6.08 | |

S1 = o-Terph Surr

QC LIMITS
(+/- 0.05 MINUTES)

* Values outside of QC limits.





UW85:00074

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518AROM.b/0518A031.D
Lab Smp Id: ARO 20
Inj Date : 18-MAY-2012 21:13
Operator : MH
Inst ID: fid8.i
Smp Info : ARO 20
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518AROM.b/EPHArom.m
Meth Date : 19-May-2012 10:13 jrains
Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13
Cal File: 0518A031.D
Als bottle: 20
Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon
Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable

Local Compound Variable

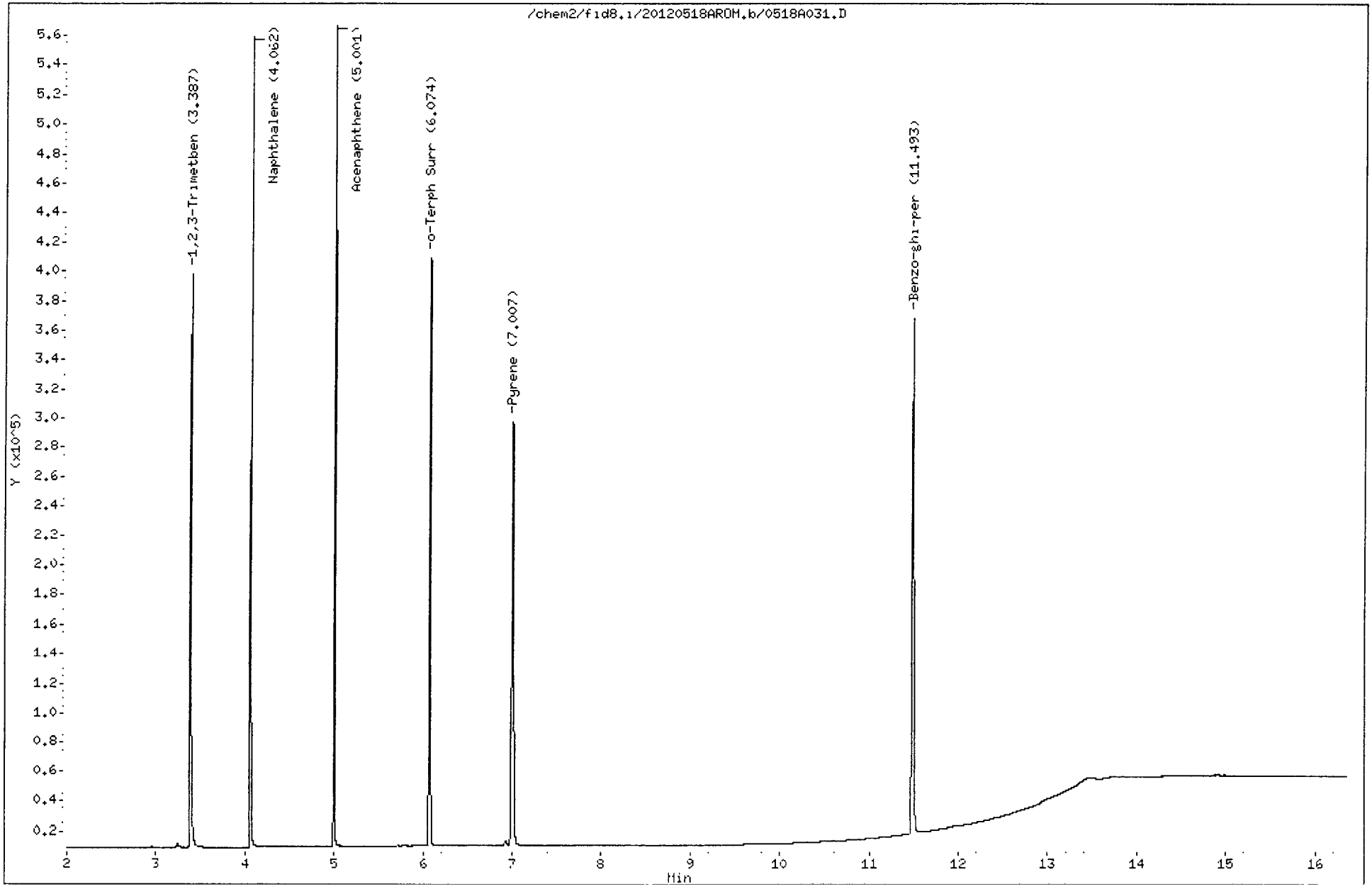
| Compounds | RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT (ng/mL) | AMOUNTS ON-COL (ng/mL) |
|---|---|---|---|---|---|---|
| 2 Toluene | 0 755 | 0.755 | 0 000 | 419377 | 20.0000 | 20.002 |
| 3 1,2,3-Trimetben | 3.387 | 3.387 | 0.000 | 381694 | 20.0000 | 20.066 |
| 4 Naphthalene | 4 062 | 4 062 | 0 000 | 387454 | 20.0000 | 19.898 |
| 7 Acenaphthene | 5 001 | 5 001 | 0.000 | 379332 | 20.0000 | 20.080 |
| $ 11 o-Terph Surr | 6 074 | 6 074 | 0 000 | 417653 | 20.0000 | 20 256 |
| 75 1-chlorooctodecane | Compound Not Detected | | | | | |
| 13 Pyrene | 7.007 | 7 007 | 0 000 | 448547 | 20.0000 | 20.071 |
| 21 Benzo-ghi-per | 11 493 | 11.493 | 0.000 | 506062 | 20.0000 | 20.565 |

Data File: /chem2/fid8.i/20120518AROM.b/0518A031.D
Date : 18-MAY-2012 21:13
Client ID:
Sample Info: ARO 20

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5




UW35:00975

Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120518AROM.b/0518A031.D
Method: /chem2/fid8.i/20120518AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 05/19/2012
Macro: AROM120911FID8

ARI ID: ARO 20
Client ID:
Injection: 18-MAY-2012 21:13
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

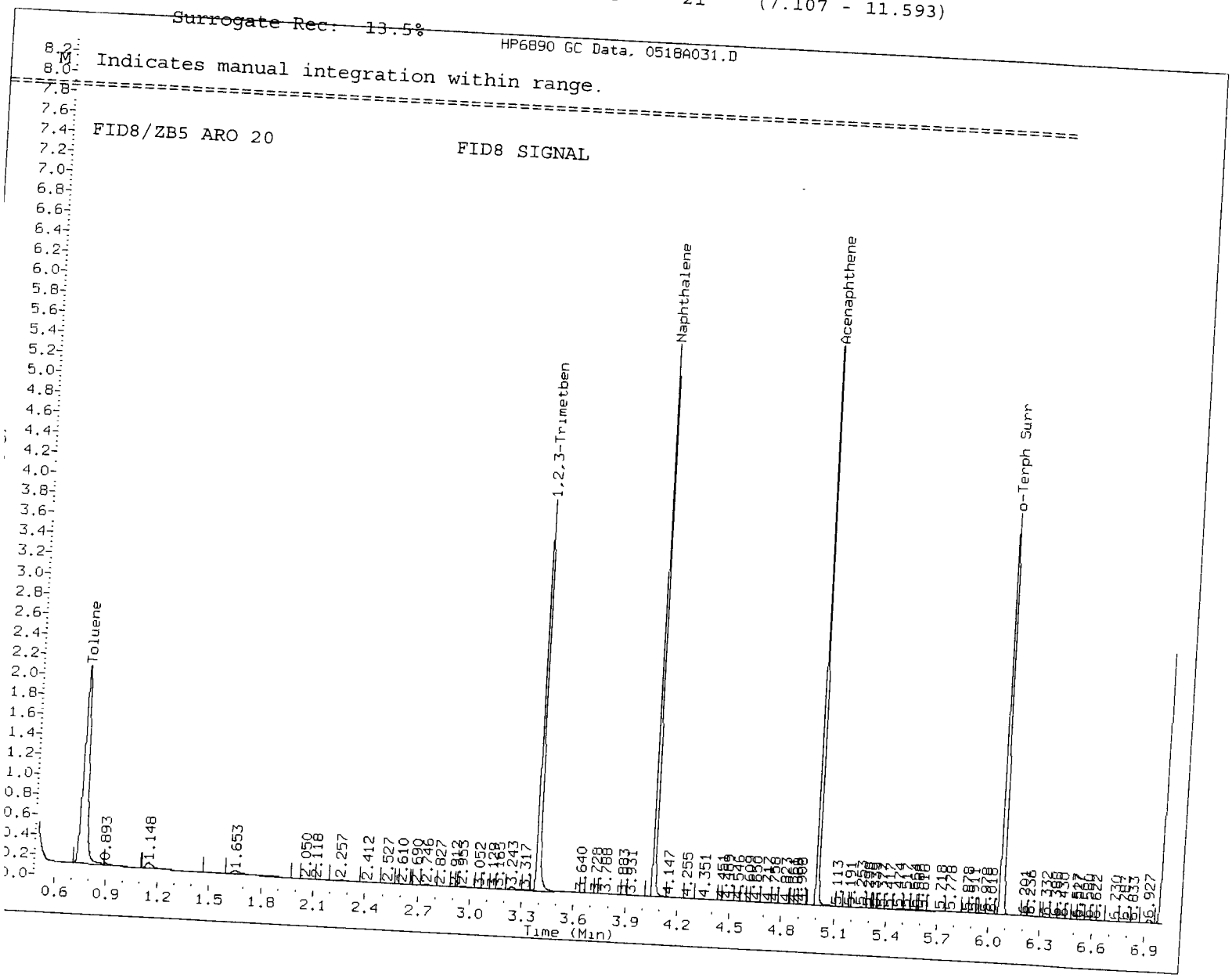
| Quant Range | | RF | Area | Conc | Time Range |
|---|---|---|---|---|---|
| C8-C10 | Arom. | 19994 | 848532 | 42 | (0.655 - 3.487) |
| C10-C12 | Arom. | 19472 | 390255 | 20 | (3.487 - 4.162) |
| C12-C16 | Arom. | 18891 | 381173 | 20 | (4.162 - 5.101) |
| C16-C21 | Arom. | 22347 | 468442 | 21 | (5.101 - 7.107) |
| C21-C34 | Arom. | 24608 | 512415 | 21 | (7.107 - 11.593) |

Surrogate Rec: 13.5%

M Indicates manual integration within range.

FID8/ZB5 ARO 20

FID8 SIGNAL



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518AROM.b/0518A032.D
Lab Smp Id: ARO 50
Inj Date : 18-MAY-2012 21:38
Operator : MH Inst ID: fid8.i
Smp Info : ARO 50
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518AROM.b/EPHArom.m
Meth Date : 19-May-2012 10:13 jrains Quant Type: ESTD
Cal Date : 18-MAY-2012 21:38 Cal File: 0518A032.D
Als bottle: 21 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT (ng/mL) | AMOUNTS ON-COL (ng/mL) |
|---|---|---|---|---|---|---|
| 2 Toluene | 0 755 | 0.755 | 0 000 | 1008964 | 50 0000 | 48.123 |
| 3 1,2,3-Trimetben | 3.386 | 3 387 | -0 001 | 932782 | 50 0000 | 49.037 |
| 4 Naphthalene | 4.062 | 4 062 | 0.000 | 954674 | 50 0000 | 49.028 |
| 7 Acenaphthene | 5 001 | 5 001 | 0 000 | 928660 | 50 0000 | 49.159 |
| 11 o-Terph Surr | 6.080 | 6 074 | 0.006 | 1015369 | 50.0000 | 49 245 |
| 75 1-chlorooctodecane | Compound Not Detected. | | | | | |
| 13 Pyrene | 7.013 | 7 007 | 0.006 | 1092577 | 50.0000 | 48 890 |
| 21 Benzo-ghi-per | 11 500 | 11.493 | 0.007 | 1203771 | 50.0000 | 48 918 |

Data File: /chem2/fid8.i/20120518AROM.b/0518A032.D
Date : 18-MAY-2012 21:38
Client ID:
Sample Info: ARO 50

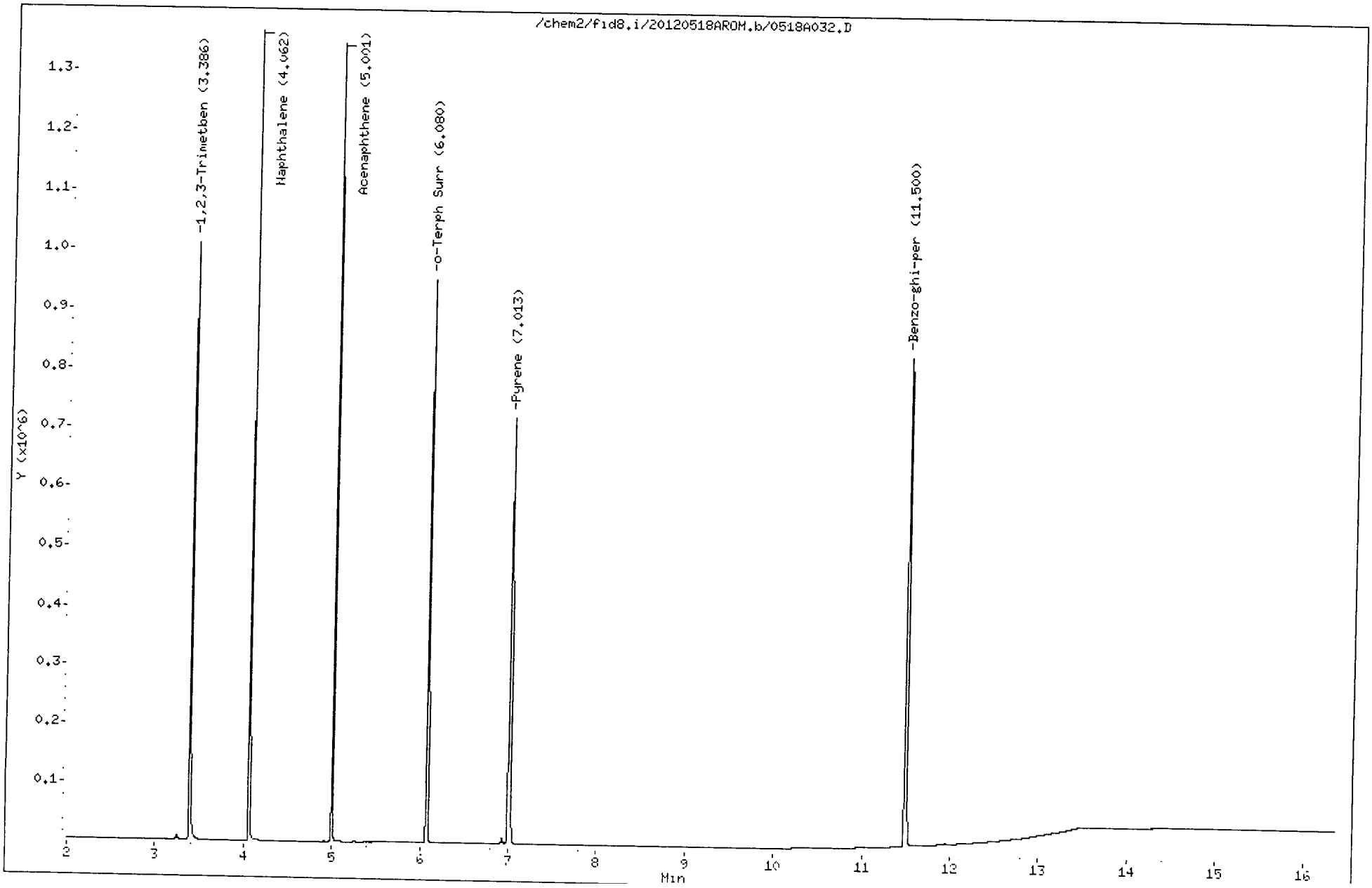
Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5



UW35 : 00979



Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120518AROM.b/0518A032.D
Method: /chem2/fid8.i/20120518AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 05/19/2012
Macro: AROM120911FID8

ARI ID: ARO 50
Client ID:
Injection: 18-MAY-2012 21:38
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

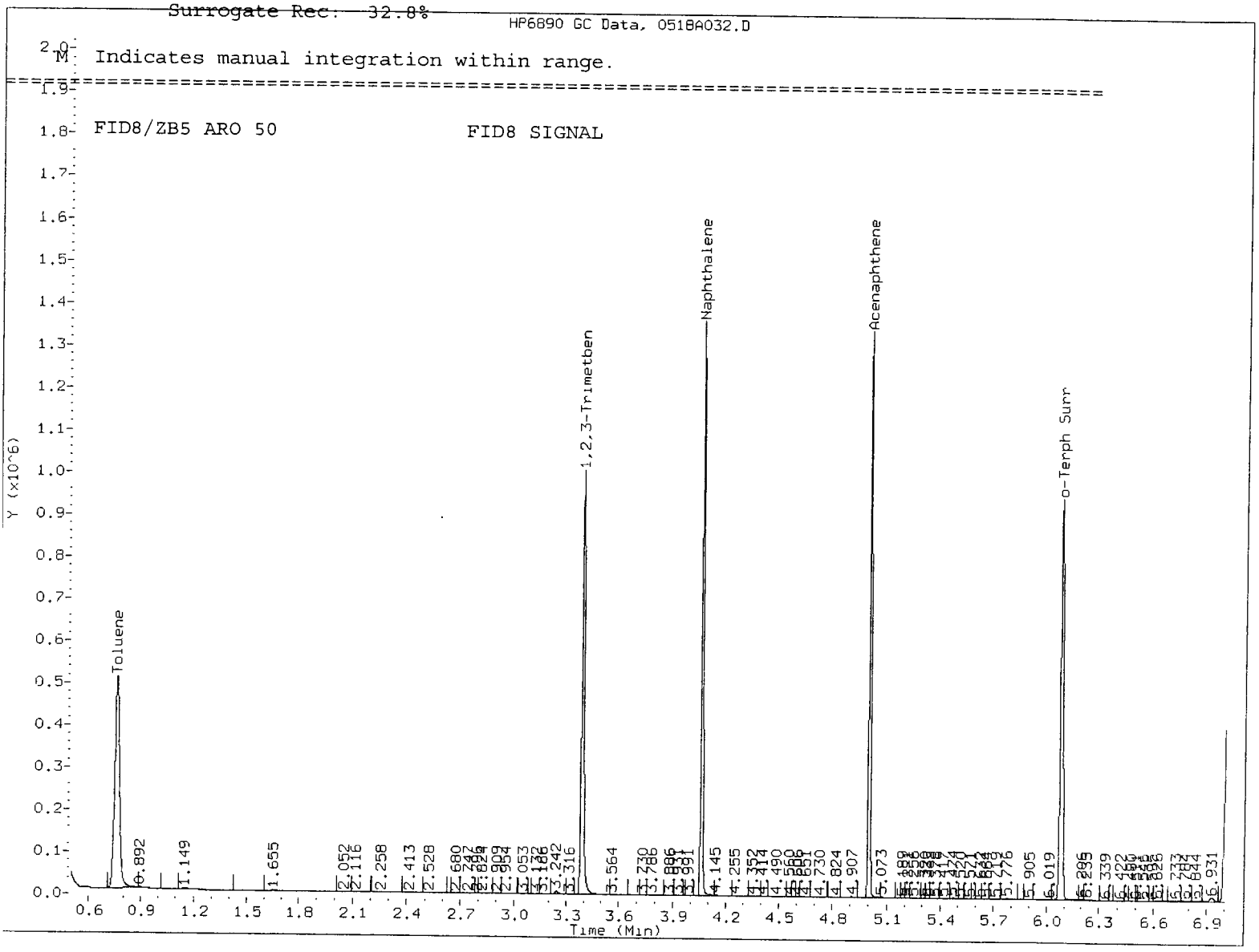
| Quant Range | | RF | Area | Conc | Time Range |
|---|---|---|---|---|---|
| C8-C10 | Arom. | 19994 | 1982595 | 99 | (0.655 - 3.487) |
| C10-C12 | Arom. | 19472 | 960539 | 49 | (3.487 - 4.162) |
| C12-C16 | Arom. | 18891 | 934415 | 49 | (4.162 - 5.101) |
| C16-C21 | Arom. | 22347 | 1121943 | 50 | (5.101 - 7.107) |
| C21-C34 | Arom. | 24608 | 1219688 | 50 | (7.107 - 11.593) |

Surrogate Rec: 32.8%

M Indicates manual integration within range.

FID8/ZB5 ARO 50

FID8 SIGNAL



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518AROM.b/0518A033.D
Lab Smp Id: ARO 100
Inj Date : 18-MAY-2012 22:03
Operator : MH Inst ID: fid8.i
Smp Info : ARO 100
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518AROM.b/EPHArom.m
Meth Date : 19-May-2012 10:13 jrains Quant Type: ESTD
Cal Date : 18-MAY-2012 22:03 Cal File: 0518A033.D
Als bottle: 22 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT (ng/mL) | AMOUNTS ON-COL (ng/mL) |
|---|---|---|---|---|---|---|
| 2 Toluene | 0.753 | 0 755 | -0 002 | 2065713 | 100.000 | 98 525 |
| 3 1,2,3-Trimetben | 3 387 | 3 387 | 0 000 | 1908356 | 100 000 | 100.324 |
| 4 Naphthalene | 4 063 | 4.062 | 0 001 | 1963717 | 100.000 | 100 849 |
| 7 Acenaphthene | 5 003 | 5 001 | 0 002 | 1907395 | 100.000 | 100 969 |
| 11 o-Terph Surr | 6 078 | 6 074 | 0.004 | 2079908 | 100 000 | 100 875 |
| 75 1-chlorooctodecane | Compound Not Detected. | | | | | |
| 13 Pyrene | 7 017 | 7 007 | 0.010 | 2247249 | 100 000 | 100.559 |
| 21 Benzo-ghi-per | 11 511 | 11.493 | 0.018 | 2429504 | 100.000 | 98.729 |

Data File: /chem2/fid8.i/20120518AROM.b/0518A033.D
Date : 18-MAY-2012 22:03
Client ID:
Sample Info: ARO 100

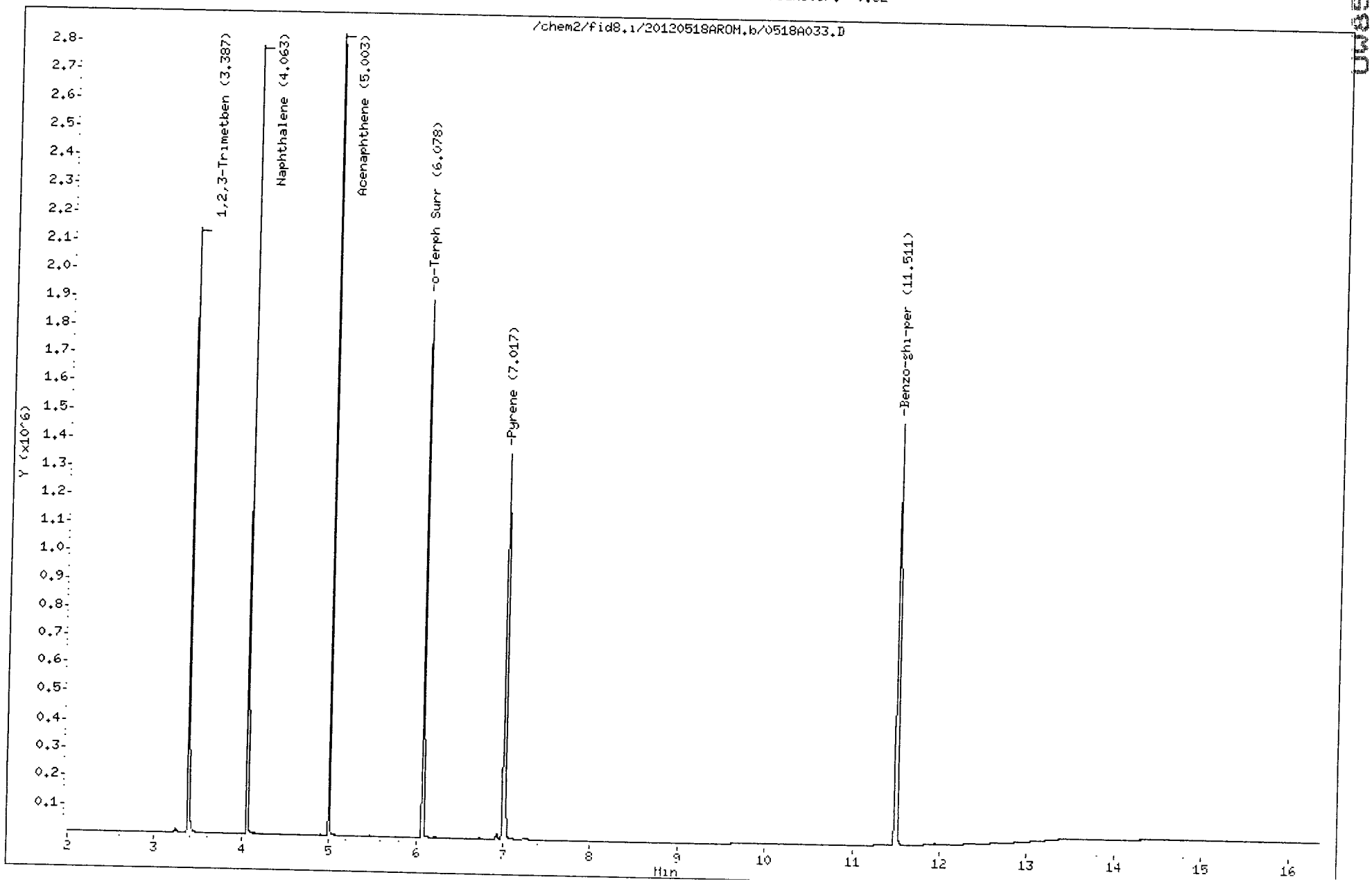
Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5



UW35:00082



Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120518AROM.b/0518A033.D
Method: /chem2/fid8.i/20120518AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 05/19/2012
Macro: AROM120911FID8

ARI ID: ARO 100
Client ID:
Injection: 18-MAY-2012 22:03
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

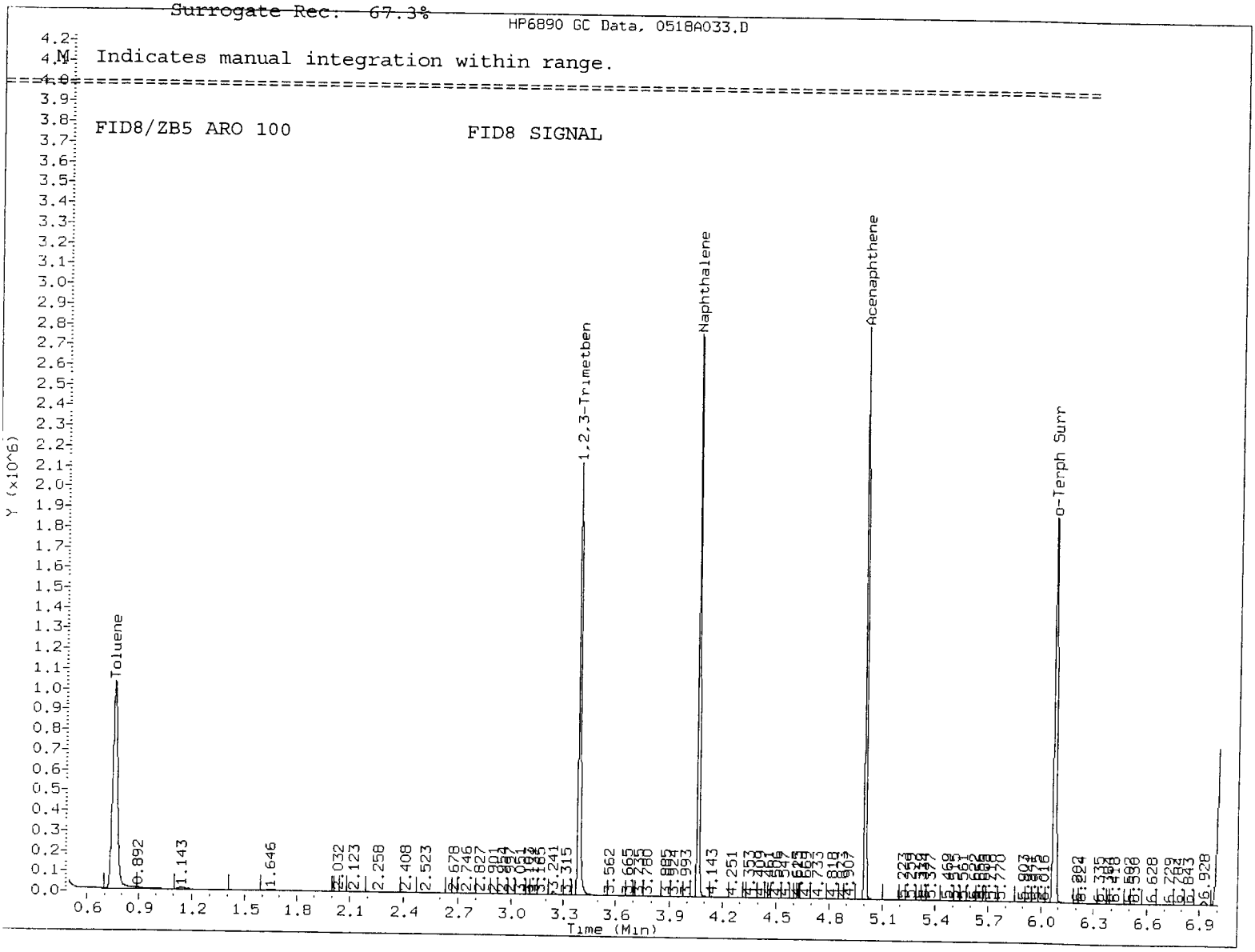
| Quant Range | | RF | Area | Conc | Time Range |
|---|---|---|---|---|---|
| C8-C10 | Arom. | 19994 | 4083855 | 204 | (0.655 - 3.487) |
| C10-C12 | Arom. | 19472 | 1972297 | 101 | (3.487 - 4.162) |
| C12-C16 | Arom. | 18891 | 1912161 | 101 | (4.162 - 5.101) |
| C16-C21 | Arom. | 22347 | 2300474 | 103 | (5.101 - 7.107) |
| C21-C34 | Arom. | 24608 | 2445403 | 99 | (7.107 - 11.593) |

Surrogate Rec: 67.3%

M Indicates manual integration within range.

FID8/ZB5 ARO 100

FID8 SIGNAL



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518AROM.b/0518A034.D
Lab Smp Id: ARO 150
Inj Date : 18-MAY-2012 22:28
Operator : MH
Smp Info : ARO 150 Inst ID: fid8.i
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518AROM.b/EPHArom.m
Meth Date : 19-May-2012 10:13 jrains Quant Type: ESTD
Cal Date : 18-MAY-2012 22:28 Cal File: 0518A034.D
Als bottle: 23 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT (ng/mL) | ON-COL (ng/mL) |
|---|---|---|---|---|---|---|
| 2 Toluene | 0 763 | 0 755 | 0 008 | 3349251 | 150 000 | 159.744 |
| 3 1,2,3-Trimetben | 3 389 | 3 387 | 0.002 | 2994643 | 150 000 | 157 432 |
| 4 Naphthalene | 4.064 | 4 062 | 0 002 | 3081761 | 150.000 | 158.267 |
| 7 Acenaphthene | 5.005 | 5.001 | 0 004 | 2968376 | 150 000 | 157.132 |
| 11 o-Terph Surr | 6.081 | 6.074 | 0.007 | 3213834 | 150.000 | 155.871 |
| 75 1-chlorooctodecane | Compound Not Detected | | | | | |
| 13 Pyrene | 7.025 | 7.007 | 0.018 | 3491467 | 150.000 | 156 236 |
| 21 Benzo-ghi-per | 11.519 | 11 493 | 0.026 | 3746611 | 150 000 | 152.253 |

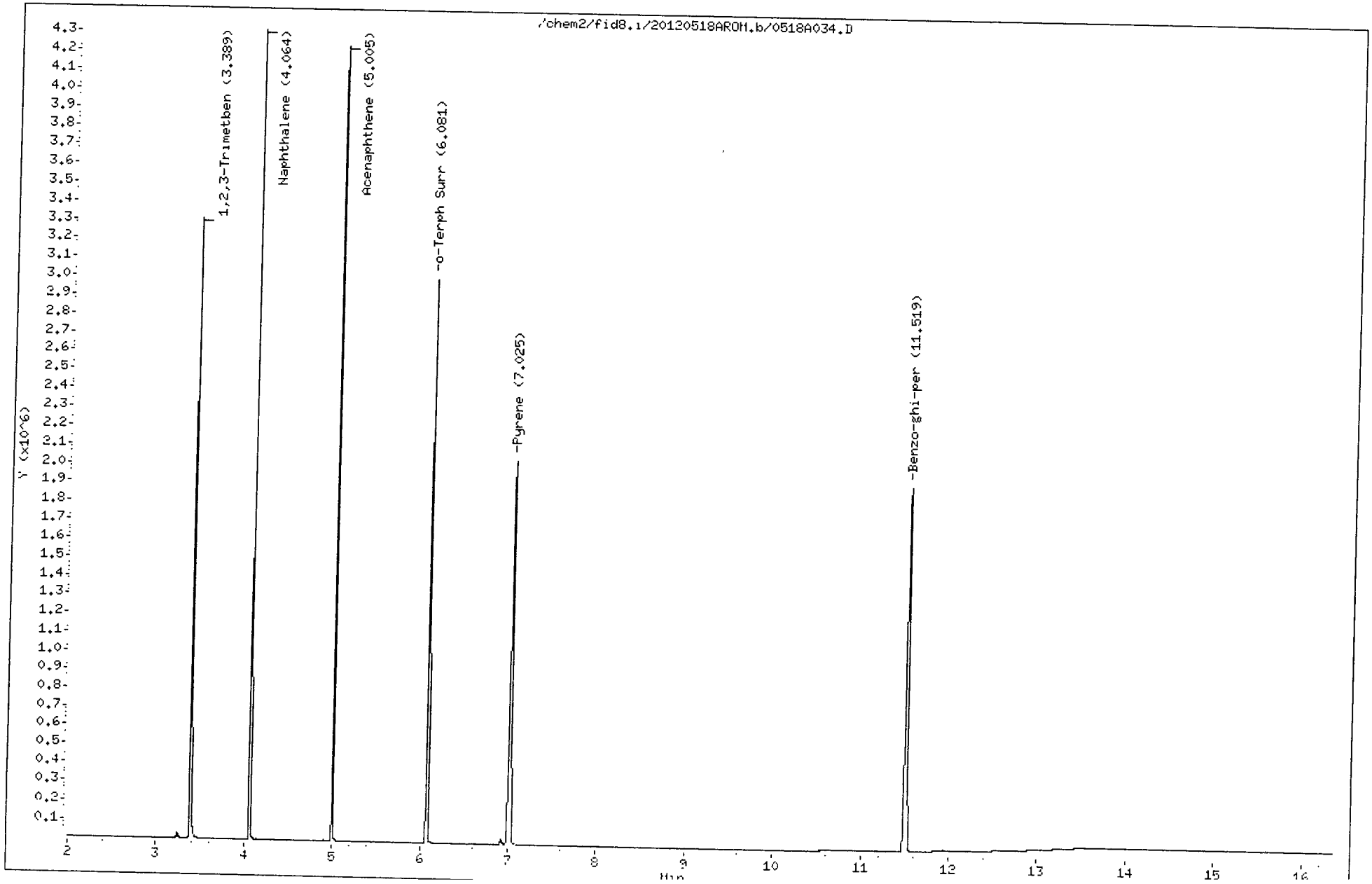
Data File: /chem2/fid8.1/20120518AROM.b/0518A034.D
Date : 18-MAY-2012 22:28
Client ID:
Sample Info: ARO 150

Instrument: fid8.1

Operator: MH
Column diameter: 0.32

Column phase: ZB-5






UW85 : 00035

Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120518AROM.b/0518A034.D
Method: /chem2/fid8.i/20120518AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 05/19/2012
Macro: AROM120911FID8

ARI ID: ARO 150
Client ID:
Injection: 18-MAY-2012 22:28
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

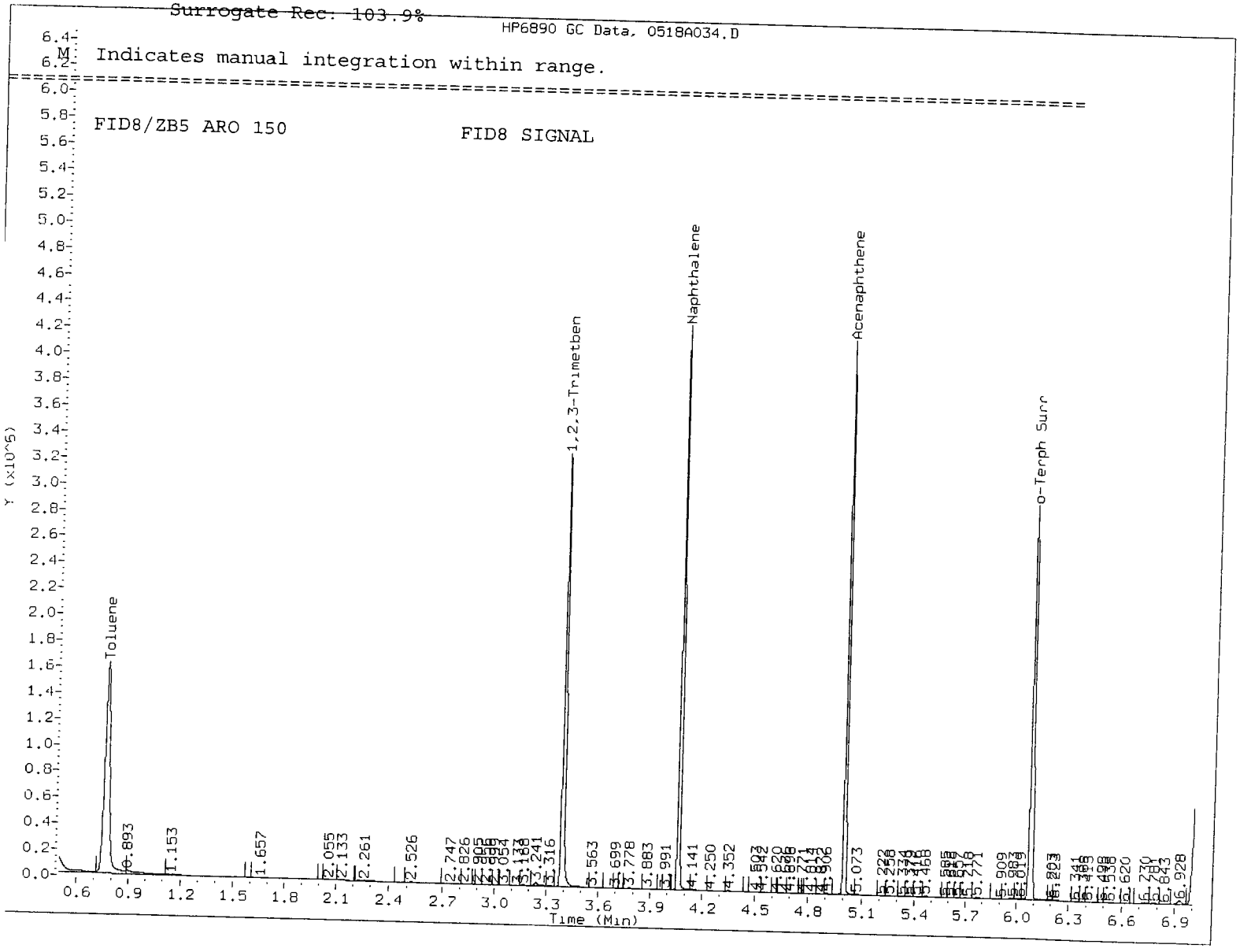
| Quant Range | | RF | Area | Conc | Time Range |
|---|---|---|---|---|---|
| C8-C10 | Arom. | 19994 | 6592680 | 330 | (0.655 - 3.487) |
| C10-C12 | Arom. | 19472 | 3095143 | 159 | (3.487 - 4.162) |
| C12-C16 | Arom. | 18891 | 2981916 | 158 | (4.162 - 5.101) |
| C16-C21 | Arom. | 22347 | 3568661 | 160 | (5.101 - 7.107) |
| C21-C34 | Arom. | 24608 | 3766518 | 153 | (7.107 - 11.593) |

Surrogate Rec: 103.9%

M Indicates manual integration within range.

FID8/ZB5 ARO 150

FID8 SIGNAL



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518AROM.b/0518A035.D
Lab Smp Id: ARO 200
Inj Date : 18-MAY-2012 22:53
Operator : MH
Smp Info : ARO 200 Inst ID: fid8.i
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518AROM.b/EPHArom.m
Meth Date : 19-May-2012 10:13 jrains Quant Type: ESTD
Cal Date : 18-MAY-2012 22:53 Cal File: 0518A035.D
Als bottle: 24 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 3.50 Compound Sublist: warom.sub

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| ompounds | RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT (ng/mL) | ON-COL (ng/mL) |
|---|---|---|---|---|---|---|
| 2 Toluene | 0.757 | 0 755 | 0.002 | 4139534 | 200 000 | 197 437 |
| 3 1,2,3-Trimetben | 3.389 | 3 387 | 0.002 | 3664156 | 200.000 | 192.629 |
| 4 Naphthalene | 4.066 | 4.062 | 0.004 | 3742154 | 200.000 | 192.182 |
| 7 Acenaphthene | 5 007 | 5 001 | 0.006 | 3610274 | 200.000 | 191.112 |
| 11 o-Terph Surr | 6 082 | 6 074 | 0.008 | 3935550 | 200 000 | 190.874 |
| 75 1-chlorooctodecane | Compound Not Detected | | | | | |
| 13 Pyrene | 7 031 | 7 007 | 0 024 | 4341791 | 200.000 | 194.286 |
| 21 Benzo-ghi-per | 11.529 | 11 493 | 0.036 | 4877445 | 200.000 | 198 208 |

Data File: /chem2/fid8.i/20120518AROM.b/0518A035.D

Date : 18-MAY-2012 22:53

Client ID:

Sample Info: ARO 200

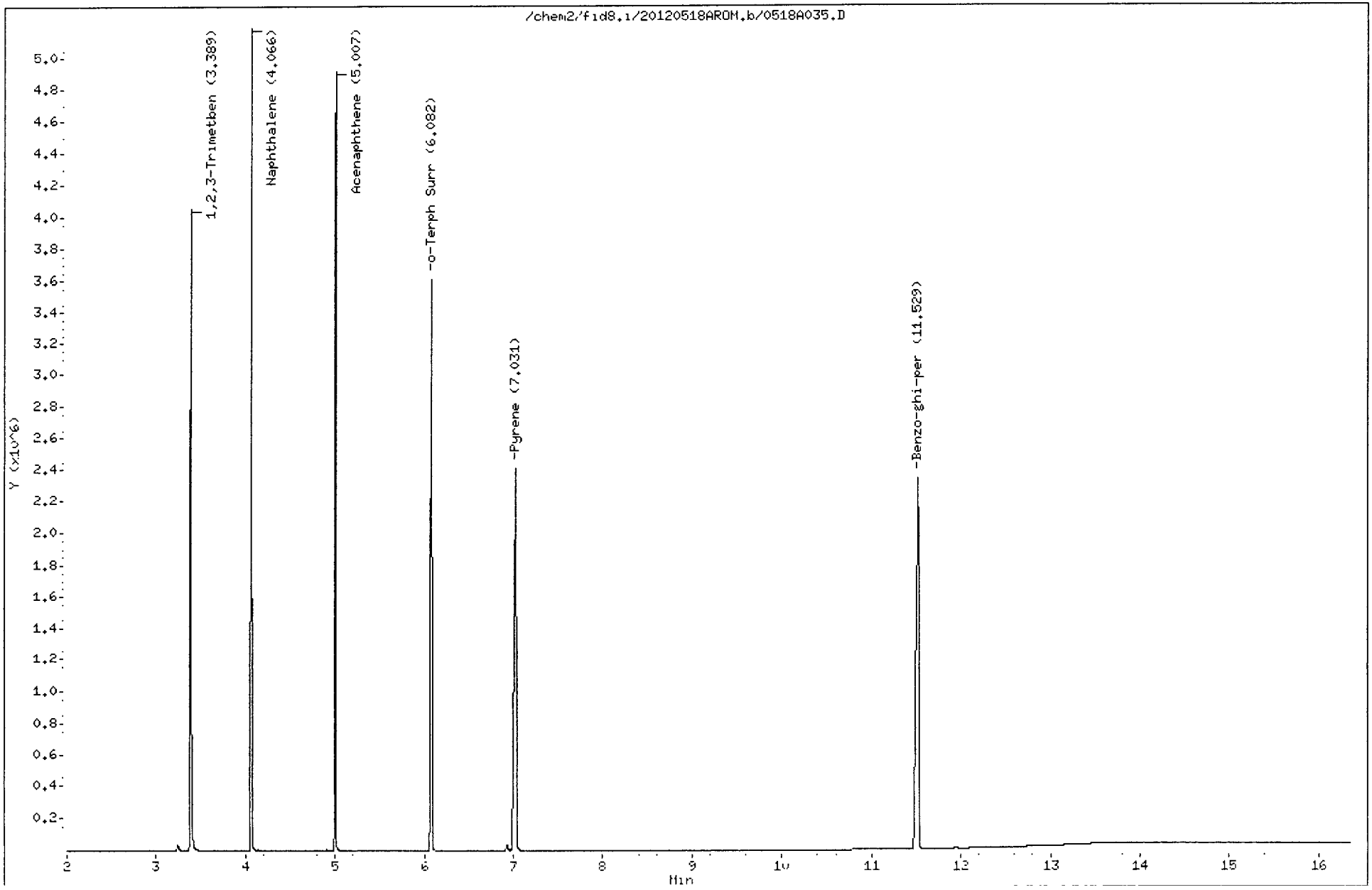
Column phase: ZB-5

Instrument: fid8.i

Operator: MH

Column diameter: 0.32






UW85:00088

Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120518AROM.b/0518A035.D
Method: /chem2/fid8.i/20120518AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 05/19/2012
Macro: AROM120911FID8

ARI ID: ARO 200
Client ID:
Injection: 18-MAY-2012 22:53
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

| Quant Range | | RF | Area | Conc | Time Range |
|---|---|---|---|---|---|
| C8-C10 | Arom. | 19994 | 7953332 | 398 | (0.655 - 3.487) |
| C10-C12 | Arom. | 19472 | 3758493 | 193 | (3.487 - 4.162) |
| C12-C16 | Arom. | 18891 | 3626749 | 192 | (4.162 - 5.101) |
| C16-C21 | Arom. | 22347 | 4446568 | 199 | (5.101 - 7.107) |
| C21-C34 | Arom. | 24608 | 4896120 | 199 | (7.107 - 11.593) |

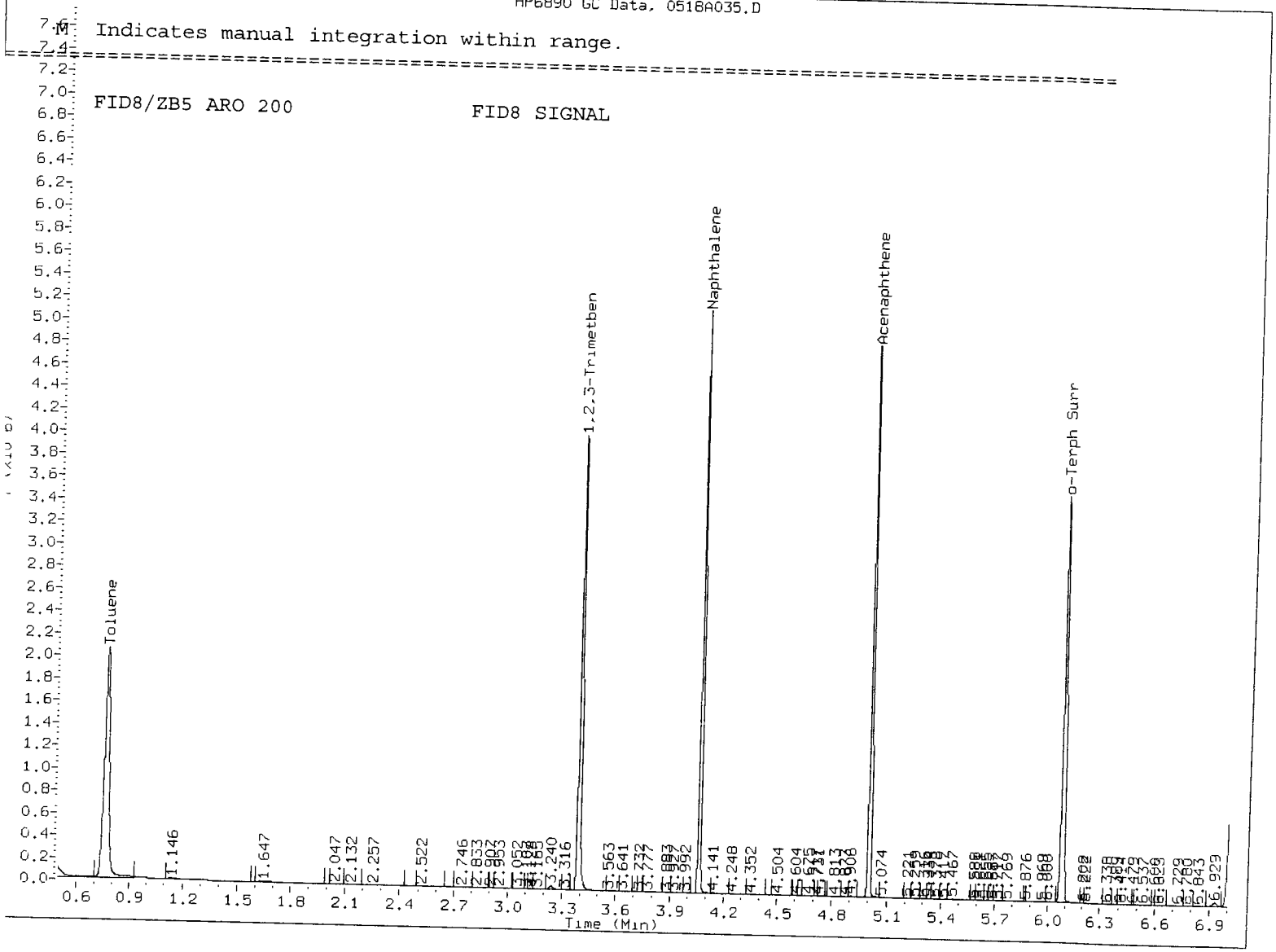
Surrogate Rec. 127.2%

M Indicates manual integration within range.

FID8/ZB5 ARO 200

FID8 SIGNAL

HP6890 GC Data, 0518A035.D



MH 5/25/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120518AROM.b/0518A036.D
Lab Smp Id: ARO~~ARO~~ ICV
Inj Date : 18-MAY-2012 23:17
Operator : MH
Smp Info : AROARO Inst ID: fid8.i
Misc Info :
Comment :
Method : /chem2/fid8.i/20120518AROM.b/EPHArom.m
Meth Date : 19-May-2012 10:13 jrains Quant Type: ESTD
Cal Date : 18-MAY-2012 22:53 Cal File: 0518A035.D
Als bottle: 25
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 3.50 Compound Sublist: warom.sub

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

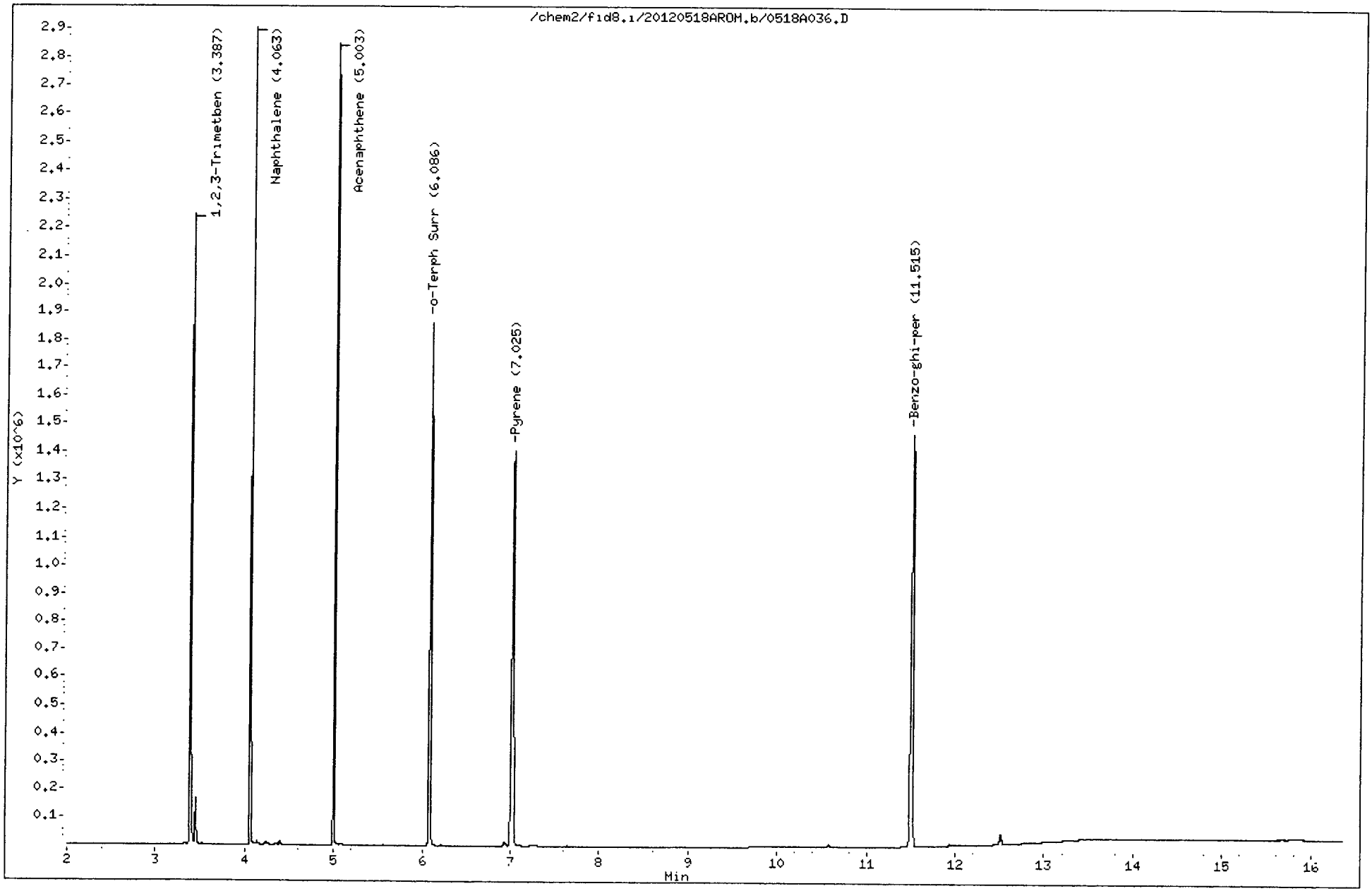
| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | CONCENTRATIONS FINAL (ug/Kg) |
|---|---|---|---|---|---|---|
| 2 Toluene | 0 755 | 0 755 | 0.000 | 2124448 | 101 327 | 101.327 |
| 3 1,2,3-Trimetben | 3 387 | 3.387 | 0 000 | 2069967 | 108.821 | 108 820 |
| 4 Naphthalene | 4 063 | 4.062 | 0.001 | 2023668 | 103 928 | 103.927 |
| 7 Acenaphthene | 5.003 | 5.001 | 0 002 | 1954049 | 103.439 | 103.438 |
| $ 11 o-Terph Surr | 6 086 | 6 074 | 0 012 | 2025360 | 98 2303 | 98 230 |
| 75 1-chlorooctodecane | Compound Not Detected. | | | | | |
| 13 Pyrene | 7.025 | 7 007 | 0 018 | 2337551 | 104 601 | 104.600 |
| 21 Benzo-ghi-per | 11.515 | 11.493 | 0 022 | 2410395 | 97 9531 | 97 953 |

Data File: /chem2/fid8.1/20120518AROM.b/0518A036.D
Date : 18-MAY-2012 23:17
Client ID:
Sample Info: AROARO

Instrument: fid8.1

Operator: MH
Column diameter: 0.32

Column phase: ZB-5




UW85:00591

Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120518AROM.b/0518A036.D
Method: /chem2/fid8.i/20120518AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 05/25/2012
Macro: AROM120911FID8

ARI ID: AROARO
Client ID:
Injection: 18-MAY-2012 23:17
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

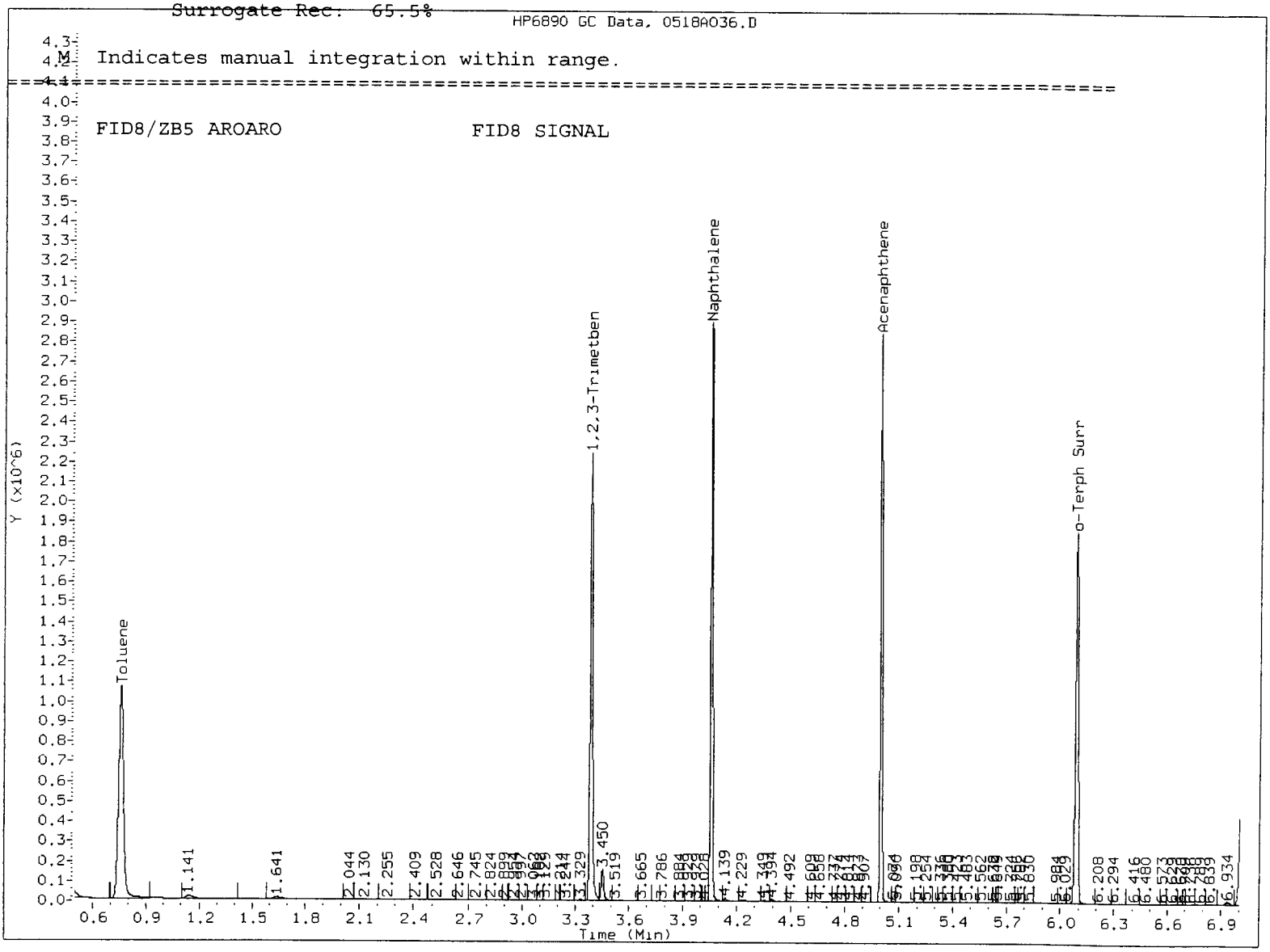
| Quant Range | | RF | Area | Conc | Time Range |
|---|---|---|---|---|---|
| C8-C10 | Arom. | 19994 | 4449529 | 223 | (0.655 - 3.487) |
| C10-C12 | Arom. | 19472 | 2048909 | 105 | (3.487 - 4.162) |
| C12-C16 | Arom. | 18891 | 2008866 | 106 | (4.162 - 5.101) |
| C16-C21 | Arom. | 22347 | 2388770 | 107 | (5.101 - 7.107) |
| C21-C34 | Arom. | 24608 | 2450210 | 100 | (7.107 - 11.593) |

Surrogate Rec: 65.5%

M Indicates manual integration within range.

FID8/ZB5 AROARO

FID8 SIGNAL



Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/fid8.i/20120518AROM.b/EPHArom.m
Batch File: /chem2/fid8.i/20120518AROM.b
Inst ID: fid8.i

| ID. | RT01 | RT02 | RT03 | RT04 | RT05 |
|---|---|---|---|---|---|
| FILENAME: | 0518A031 | 0518A032 | 0518A033 | 0518A034 | 0518A035 |
| INJ.DATE: | 18-MAY-2012 | 18-MAY-2012 | 18-MAY-2012 | 18-MAY-2012 | 18-MAY-2012 |
| INJ.TIME | 21.13 | 21·38 | 22.03 | 22 28 | 22·53 |

| | Compound | RT01 | RT02 | RT03 | RT04 | RT05 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2 Toluene | 0.755 | 0.755 | 0 753 | 0.763 | 0 757 | 0.755 | 0 705-0.805 | 0.757 | 0 004 |
| | 75 1-chlorooctodecane | +++++ | +++++ | +++++ | +++++ | +++++ | 6.780 | 6.730-6.830 | +++++ | +++++ |
| | 3 1,2,3-Trimetben | 3.387 | 3.386 | 3 387 | 3.389 | 3 389 | 3 387 | 3.337-3.437 | 3.388 | 0 001 |
| | 4 Naphthalene | 4 062 | 4.062 | 4.063 | 4.064 | 4.066 | 4 062 | 4 012-4.112 | 4.063 | 0 002 |
| | 7 Acenaphthene | 5 001 | 5.001 | 5.003 | 5 005 | 5.007 | 5.001 | 4.951-5 051 | 5 003 | 0 002 |
| $ | 11 o-Terph Surr | 6 074 | 6 080 | 6.078 | 6 081 | 6.082 | 6.074 | 6 024-6.124 | 6.079 | 0.003 |
| | 13 Pyrene | 7 007 | 7.013 | 7.017 | 7.025 | 7 031 | 7.007 | 6.957-7.057 | 7 018 | 0.010 |
| | 21 Benzo-ghi-per | 11.493 | 11.500 | 11 511 | 11.519 | 11.529 | 11 493 | 11.443-11 543 | 11 510 | 0 015 |

Reviewer 1 MH Date: 5/25/12

Reviewer 2 _____ Date: 5/25/12

USS-00093

EPH Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: UW85

**Analytical Resources, Incorporated**
Analytical Chemists and Consultants

# GC Analyst Notes / Corrective Action Log

ARI Project ID: UW85 Client ID: Anchor QEA, LLC.

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) **412S**(PCP) **423S**(Pest)
**427S**(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): NAEPH

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7

Dates: Curve: 5/18/12 Analysis Start: 6/8/12

Endrin/DDT Breakdown <15%? YES / NO / NA
Method Blank In Control? YES / NO

ICal Meets RF & %RSD Criteria? YES / NO
LCS/LCSD Recovery In Control? YES / NO

CCal Meets RF & %RSD Criteria? YES / NO
Surrogate Recovery In Control? YES / NO

Manual Integrations for ICal? YES / NO
Manual Integrations for Samples? YES / NO

Internal Standard Meets Criteria? YES / NO / NA
Special Analysis Criteria Met? YES / NO / NA

**Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):**

**Additional Details on Reverse: Yes / No**

**Analyst:** _____ **Date:** 6/11/12

**Reviewer:** _____ **Date:** _____

# Analytical Resources Inc.: Organics Instrument Log
## FID-8 Agilent 6890N - Serial No.: US10138016

Date: 6/8/12 Analysis: EPH Analyst: MH

Column 1 Serial No.: 167634 Column Type: ZB-5

Column 2 Serial No.: Column Type: —

GC Method: EPH ICal Date: 5/18/12 Injection Volume: 1µl

**IS**

**Ical/Ccal**

~~1876-4~~ 1987-2
1978-3 MH 6/11
1978-1
1978-4

**ICV**

## Document All Maintenance Tasks In StarLIMS

Aliphatic

| | Inject Date/Time | Filename | DF | LabID | ClientID |
|---|---|---|---|---|---|
| 1 | 08-JUN-2012 11:47 | 0608A001.D | 1 | RINSE | |
| 2 | 08-JUN-2012 12:11 | 0608A002.D | 1 | ALIPH IB | |
| 3 | 08-JUN-2012 12:37 | 0608A003.D | 1 | ALIPHATIC #1 | |
| 4 | 08-JUN-2012 13:02 | 0608A004.D | 1 | UW94MBS1 | UW94MBS1 |
| 5 | 08-JUN-2012 13:28 | 0608A005.D | 1 | UW94LCSS1 | UW94LCSS1 |
| 6 | 08-JUN-2012 13:53 | 0608A006.D | 1 | UW94LCSDS1 | UW94LCSDS1 |
| 7 | 08-JUN-2012 14:18 | 0608A007.D | 1 | UW94A | C01 |
| 8 | 08-JUN-2012 14:43 | 0608A008.D | 1 | UW94B | C02 |
| 9 | 08-JUN-2012 15:09 | 0608A009.D | 1 | UW85A | MS001-SS-120515 |
| 10 | 08-JUN-2012 15:34 | 0608A010.D | 1 | UW85AMS | MS001-SS-120515 MS |
| 11 | 08-JUN-2012 15:59 | 0608A011.D | 1 | UW85AMSD | MS001-SS-120515 MSD |
| 12 | 08-JUN-2012 16:24 | 0608A012.D | 1 | UW85B | MS002-SS-120515 |
| 13 | 08-JUN-2012 16:49 | 0608A013.D | 1 | UW85C | MS003-SS-120515 |
| 14 | 08-JUN-2012 17:14 | 0608A014.D | 1 | UW85D | MS006-SS-120515 |
| 15 | 08-JUN-2012 17:40 | 0608A015.D | 1 | ALIPHATIC #2 | |

MH 6/11/12

Aromatic.

| | Inject Date/Time | Filename | DF | LabID | ClientID |
|---|---|---|---|---|---|
| 1 | 08-JUN-2012 18:05 | 0608A016.D | 1 | AROM IB | |
| 2 | 08-JUN-2012 18:30 | 0608A017.D | 1 | AROMATIC #1 | |
| 3 | 08-JUN-2012 18:55 | 0608A018.D | 1 | UW94MBS1 | UW94MBS1 |
| 4 | 08-JUN-2012 19:20 | 0608A019.D | 1 | UW94LCSS1 | UW94LCSS1 |
| 5 | 08-JUN-2012 19:46 | 0608A020.D | 1 | UW94LCSDS1 | UW94LCSDS1 |
| 6 | 08-JUN-2012 20:11 | 0608A021.D | 1 | UW94A | C01 |
| 7 | 08-JUN-2012 20:36 | 0608A022.D | 1 | UW94B | C02 |
| 8 | 08-JUN-2012 21:01 | 0608A023.D | 1 | UW85A | MS001-SS-120515 |
| 9 | 08-JUN-2012 21:26 | 0608A024.D | 1 | UW85AMS | MS001-SS-120515 MS |
| 10 | 08-JUN-2012 21:52 | 0608A025.D | 1 | UW85AMSD | MS001-SS-120515 MSD |
| 11 | 08-JUN-2012 22:17 | 0608A026.D | 1 | UW85B | MS002-SS-120515 |
| 12 | 08-JUN-2012 22:42 | 0608A027.D | 1 | UW85C | MS003-SS-120515 |
| 13 | 08-JUN-2012 23:07 | 0608A028.D | 1 | UW85D | MS006-SS-120515 |
| 14 | 08-JUN-2012 23:32 | 0608A029.D | 1 | AROMATIC #2 | |

MH 6/11/12

**Every line must contain information or be lined out. Make all entries legible.**
**Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS**

MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A002.D
Lab Smp Id: ALIPH IB
Inj Date : 08-JUN-2012 12:11
Operator : MH Inst ID: fid8.i
Smp Info : ALIPH IB
Misc Info :
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

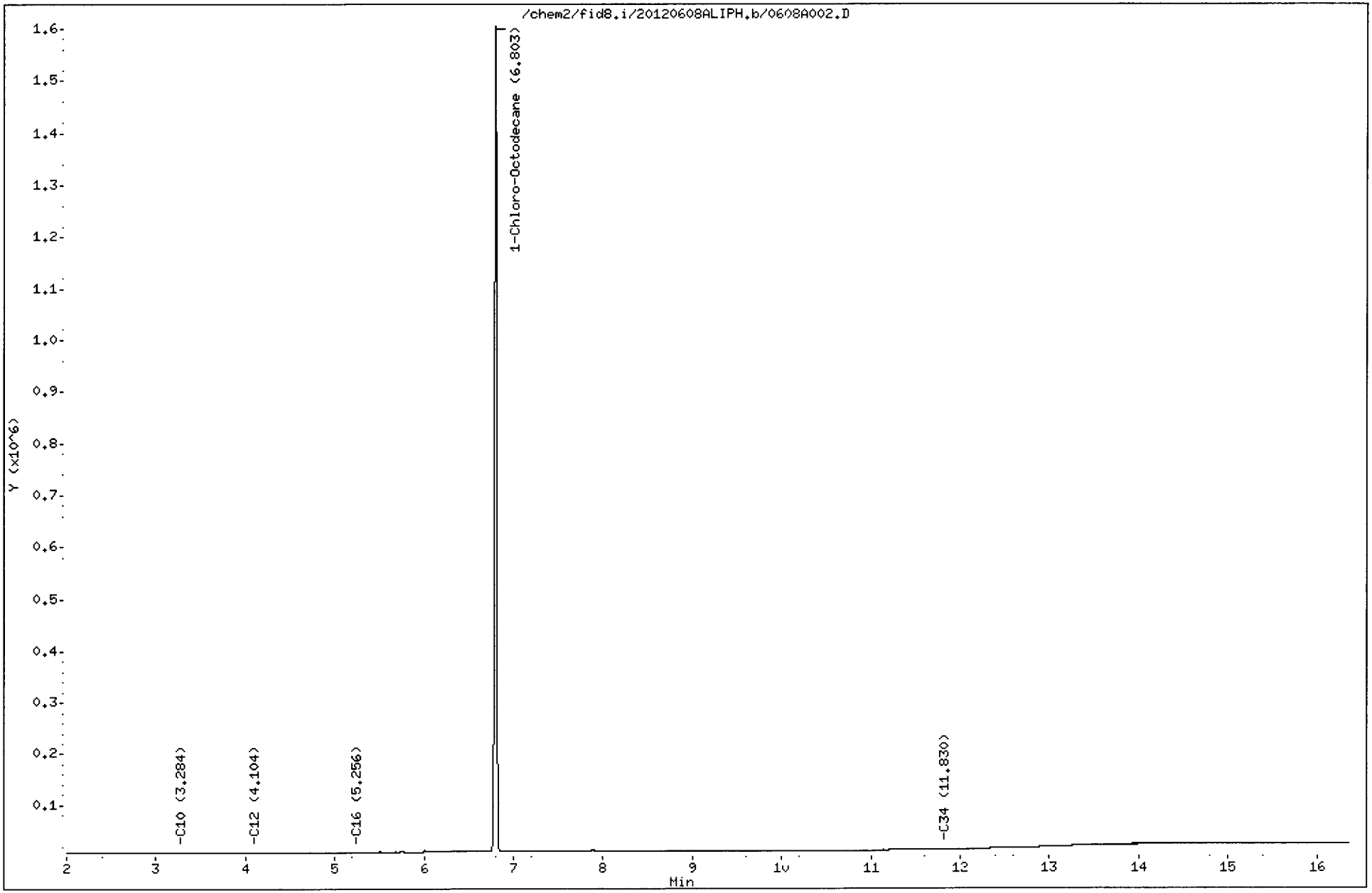
| | Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | CONCENTRATIONS FINAL (ug/Kg) |
|---|---|---|---|---|---|---|---|
| 2 | C8 | Compound Not Detected. | | | | | |
| 3 | C10 | 3.284 | 3.282 | 0.002 | 18 | 0.000948 | 0.000 |
| 45 | C12 | 4.104 | 4.096 | 0.008 | 55 | 0.00305 | 0.003 |
| 46 | C16 | 5.256 | 5.261 | -0.005 | 181 | 0.01065 | 0 010 |
| $ 51 | 1-Chloro-Octodecane | 6.803 | 6.813 | -0.010 | 2644623 | 151.138 | 151.137 |
| 47 | C21 | Compound Not Detected. | | | | | |
| 48 | C34 | 11.830 | 11.838 | -0.008 | 90 | 0.00529 | 0.005 |

Data File: /chem2/fid8.i/20120608ALIPH.b/0608A002.D
Date : 08-JUN-2012 12:11
Client ID:
Sample Info: ALIPH IB

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5




UW85.00098

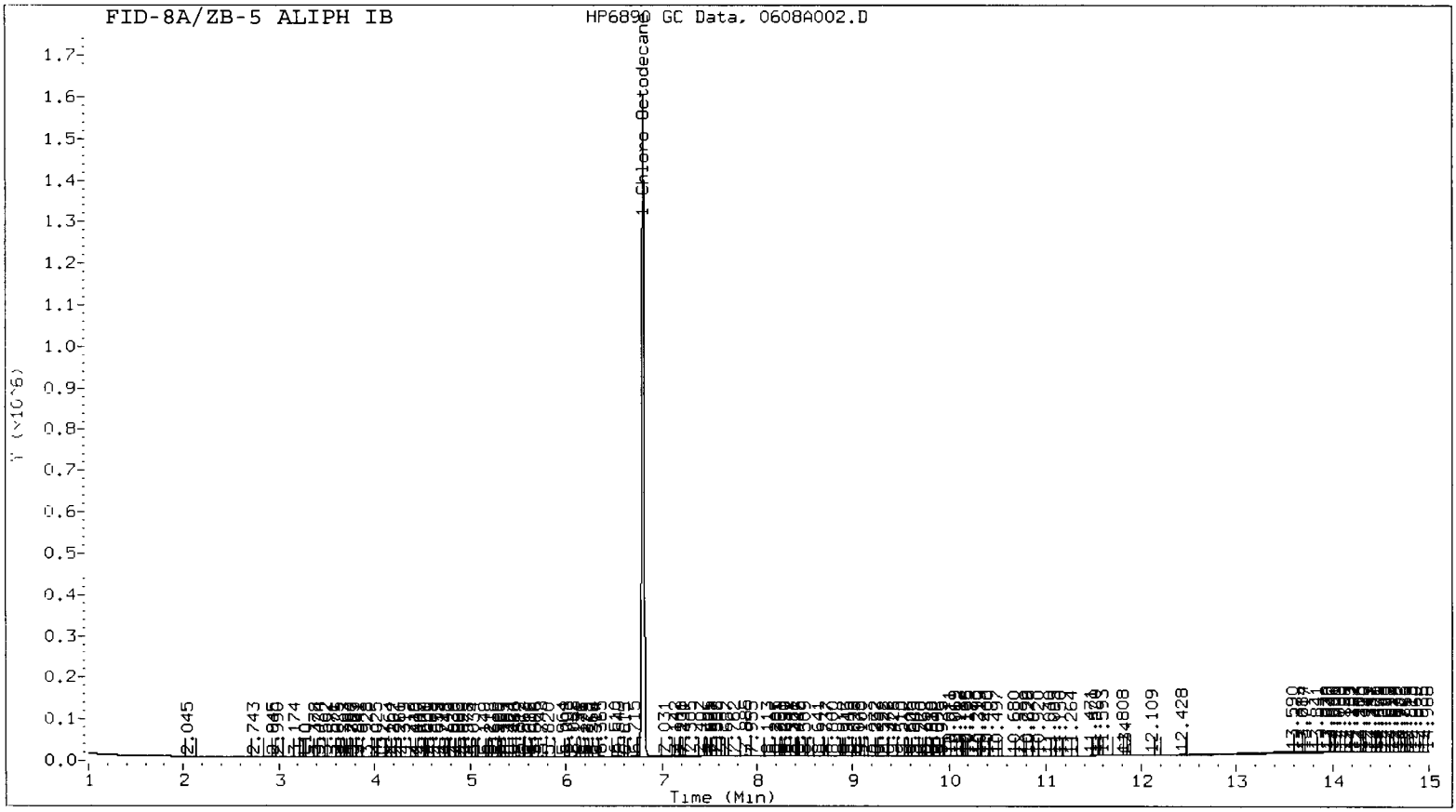
Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20120608ALIPH.b/0608A002.D  ARI ID: ALIPH IB
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m  Client ID:
Instrument: fid8.i  Injection: 08-JUN-2012 12:11
Operator: MH  Matrix: SOIL
Macro: ALIPH120912FID8  Dilution Factor: 1

EPH-ALIPHATIC RESULTS

| Quant Range | | Area | Conc | Time Range |
|---|---|---|---|---|
| C8-C10 | Aliph. | 7728 | 0 | (1.041 - 3.382) |
| C10-C12 | Aliph. | 597 | 0 | (3.382 - 4.196) |
| C12-C16 | Aliph. | 1703 | 0 | (4.196 - 5.361) |
| C16-C21 | Aliph. | 30062 | 2 | (5.361 - 6.967) |
| C21-C34 | Aliph. | 25957 | 2 | (6.967 - 11.938) |

Surrogate Rec: 100.8%



MH 6/11/12



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A003.D
Lab Smp Id: ALIPHATIC #1
Inj Date : 08-JUN-2012 12:37
Operator : MH Inst ID: fid8.i
Smp Info : ALIPHATIC #1
Misc Info :
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

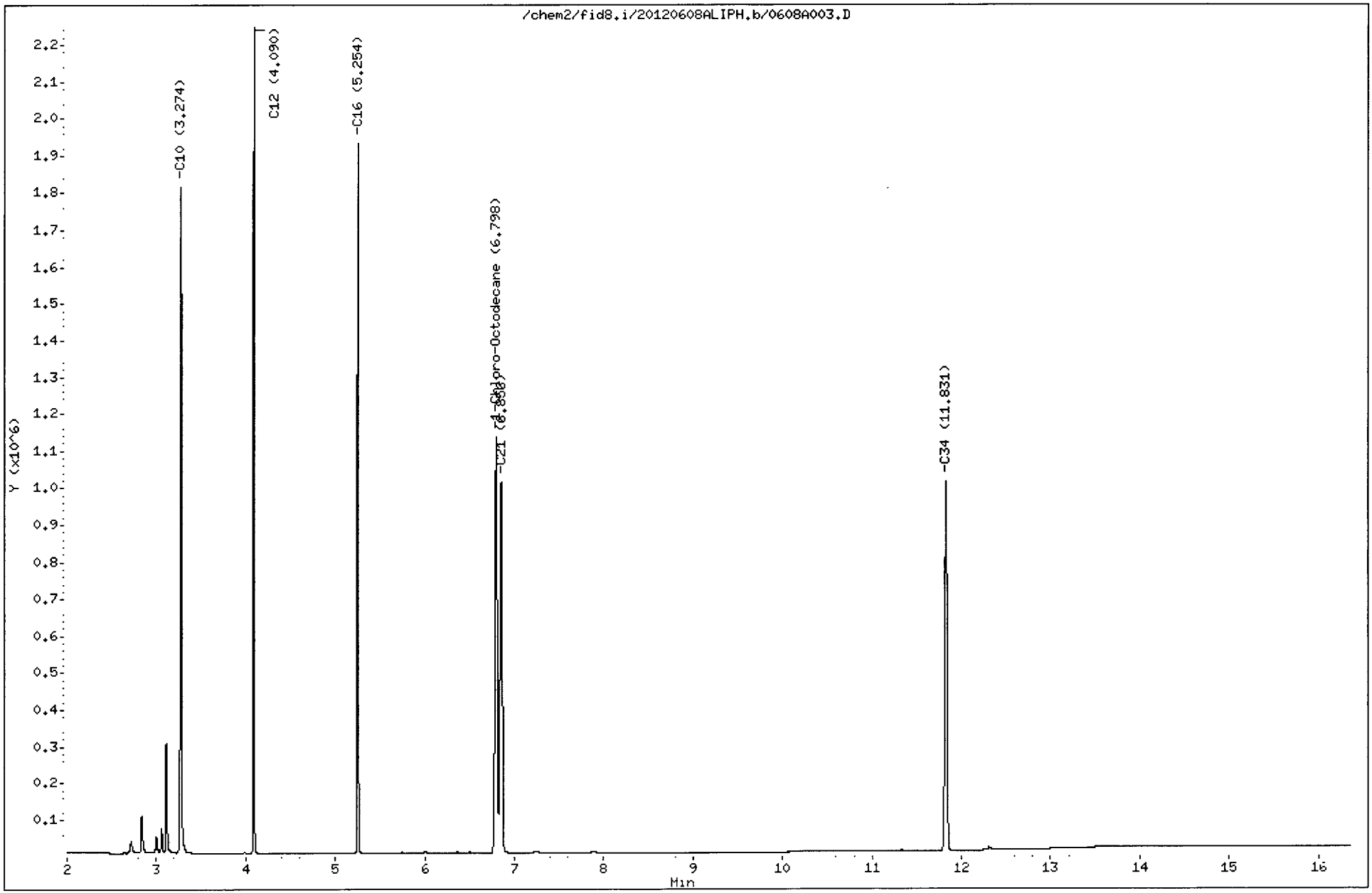
| | Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | CONCENTRATIONS FINAL (ug/Kg) |
|---|---|---|---|---|---|---|---|
| | 2 C8 | 1.110 | 1.141 | -0.031 | 1897139 | 95.2382 | 95.238 |
| | 3 C10 | 3.274 | 3.282 | -0.008 | 1759063 | 92.6600 | 92.660 |
| | 45 C12 | 4.090 | 4.096 | -0.006 | 1629356 | 90.4162 | 90.416 |
| | 46 C16 | 5.254 | 5.261 | -0.007 | 1507669 | 88.7496 | 88.749 |
| $ | 51 1-Chloro-Octodecane | 6.798 | 6.813 | -0.015 | 1899253 | 108.540 | 108.540 |
| | 47 C21 | 6.856 | 6.867 | -0.011 | 1761470 | 108.608 | 108.608 |
| | 48 C34 | 11.831 | 11.838 | -0.007 | 1648770 | 96.9025 | 96.902 |

Data File: /chem2/fid8.i/20120608ALIPH.b/0608A003.D
Date : 08-JUN-2012 12:37
Client ID:
Sample Info: ALIPHATIC #1

Column phase: ZB-5

Instrument: fid8.i

Operator: MH
Column diameter: 0.32




UW35 : 001191

Analytical Resources Inc.
WA. EPH Aliphatics Report

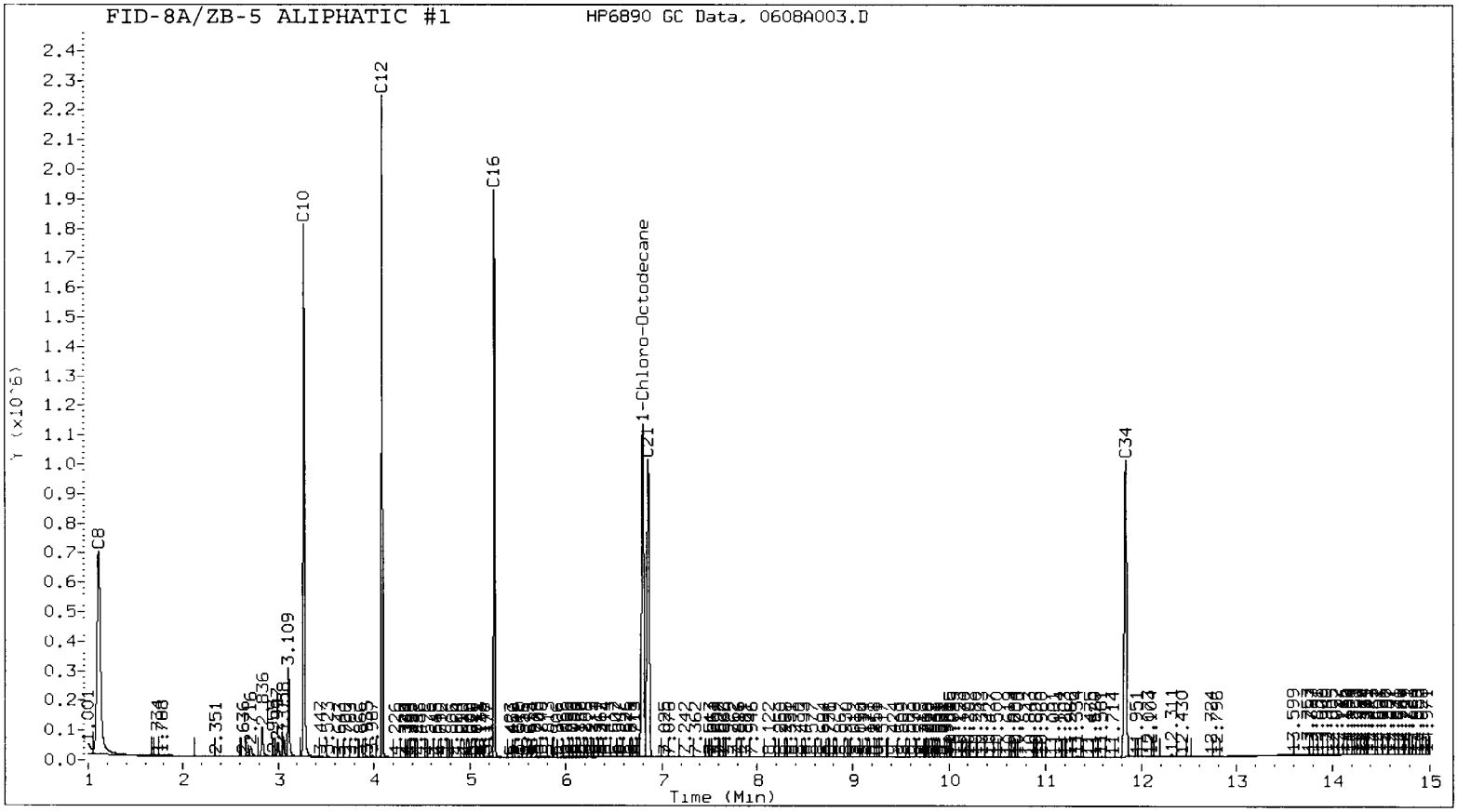
Data file: /chem2/fid8.i/20120608ALIPH.b/0608A003.D
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

ARI ID: ALIPHATIC #1
Client ID:
Injection: 08-JUN-2012 12:37
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

| Quant Range | | Area | Conc | Time Range |
|---|---|---|---|---|
| C8-C10 | Aliph. | 4345426 | 223 | (1.041 - 3.382) |
| C10-C12 | Aliph. | 1637006 | 91 | (3.382 - 4.196) |
| C12-C16 | Aliph. | 1511581 | 89 | (4.196 - 5.361) |
| C16-C21 | Aliph. | 1785574 | 110 | (5.361 - 6.967) |
| C21-C34 | Aliph. | 1686154 | 99 | (6.967 - 11.938) |

Surrogate Rec: 72.4%



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A004.D
Lab Smp Id: UW94MBS1 Client Smp ID: UW94MBS1
Inj Date : 08-JUN-2012 13:02
Operator : MH Inst ID: fid8.i
Smp Info : UW94MBS1
Misc Info : 12-10102
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | CONCENTRATIONS FINAL (ug/Kg) |
|---|---|---|---|---|---|---|---|
| 2 | C8 | Compound Not Detected. | | | | | |
| 3 | C10 | 3.274 | 3.282 | -0.008 | 3480 | 0.18335 | 0.183 |
| 45 | C12 | 4.090 | 4.096 | -0.006 | 3877 | 0 21520 | 0.215 |
| 46 | C16 | 5.262 | 5.261 | 0.001 | 4403 | 0 25923 | 0.259 |
| $ 51 | 1-Chloro-Octodecane | 6 802 | 6.813 | -0.011 | 2130030 | 121.729 | 121.729 |
| 47 | C21 | Compound Not Detected. | | | | | |
| 48 | C34 | 11.827 | 11.838 | -0.011 | 166 | 0.00980 | 0.009 |

Data File: /chem2/fid8.i/20120608ALIPH.b/0608A004.D

Date : 08-JUN-2012 13:02

Client ID: UW94MBS1

Sample Info: UW94MBS1

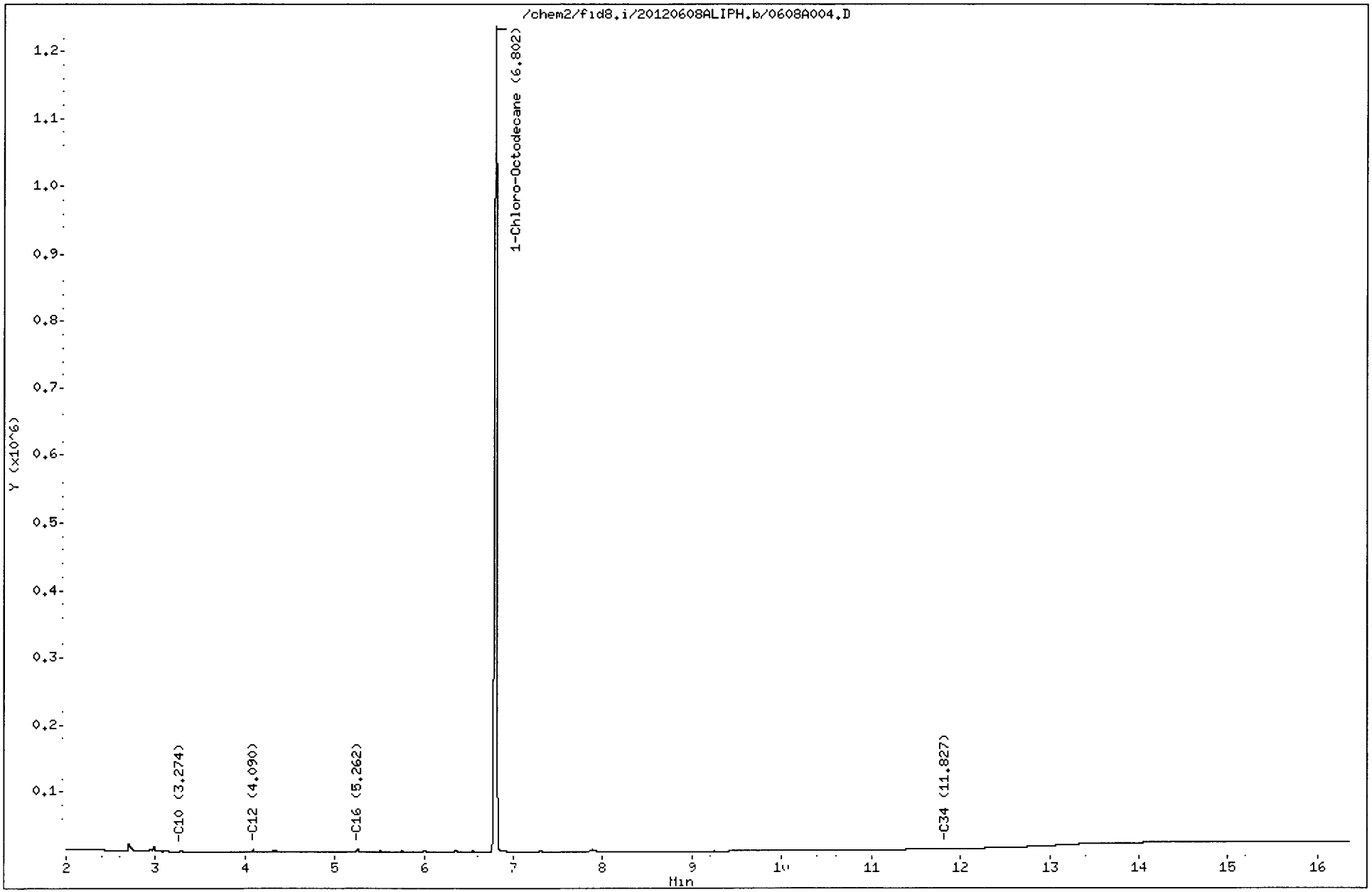
Column phase: ZB-5

Instrument: fid8.i

Operator: MH

Column diameter: 0.32






UW85.00104

Analytical Resources Inc.
WA. EPH Aliphatics Report

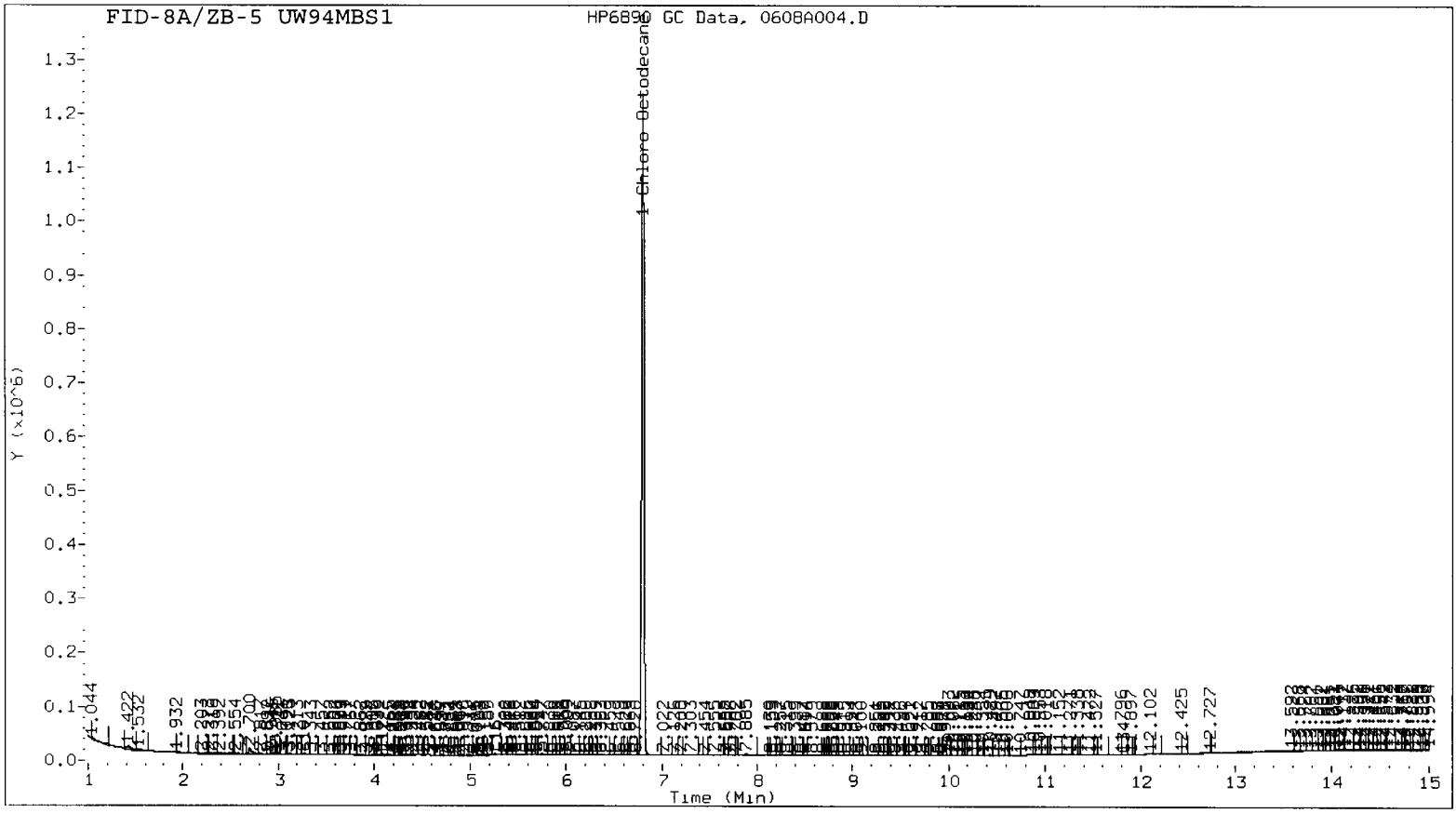
Data file: /chem2/fid8.i/20120608ALIPH.b/0608A004.D
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

ARI ID: UW94MBS1
Client ID: UW94MBS1
Injection: 08-JUN-2012 13:02
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

| Quant Range | | Area | Conc | Time Range |
|---|---|---|---|---|
| C8-C10 | Aliph. | 173691 | 9 | (1.041 - 3.382) |
| C10-C12 | Aliph. | 9664 | 1 | (3.382 - 4.196) |
| C12-C16 | Aliph. | 10733 | 1 | (4.196 - 5.361) |
| C16-C21 | Aliph. | 16415 | 1 | (5.361 - 6.967) |
| C21-C34 | Aliph. | 20423 | 1 | (6.967 - 11.938) |

Surrogate Rec: 81.2%



MH 6/11/12



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A005.D
Lab Smp Id: UW94LCSS1 Client Smp ID: UW94LCSS1
Inj Date : 08-JUN-2012 13:28
Operator : MH Inst ID: fid8.i
Smp Info : UW94LCSS1
Misc Info : 12-10102
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

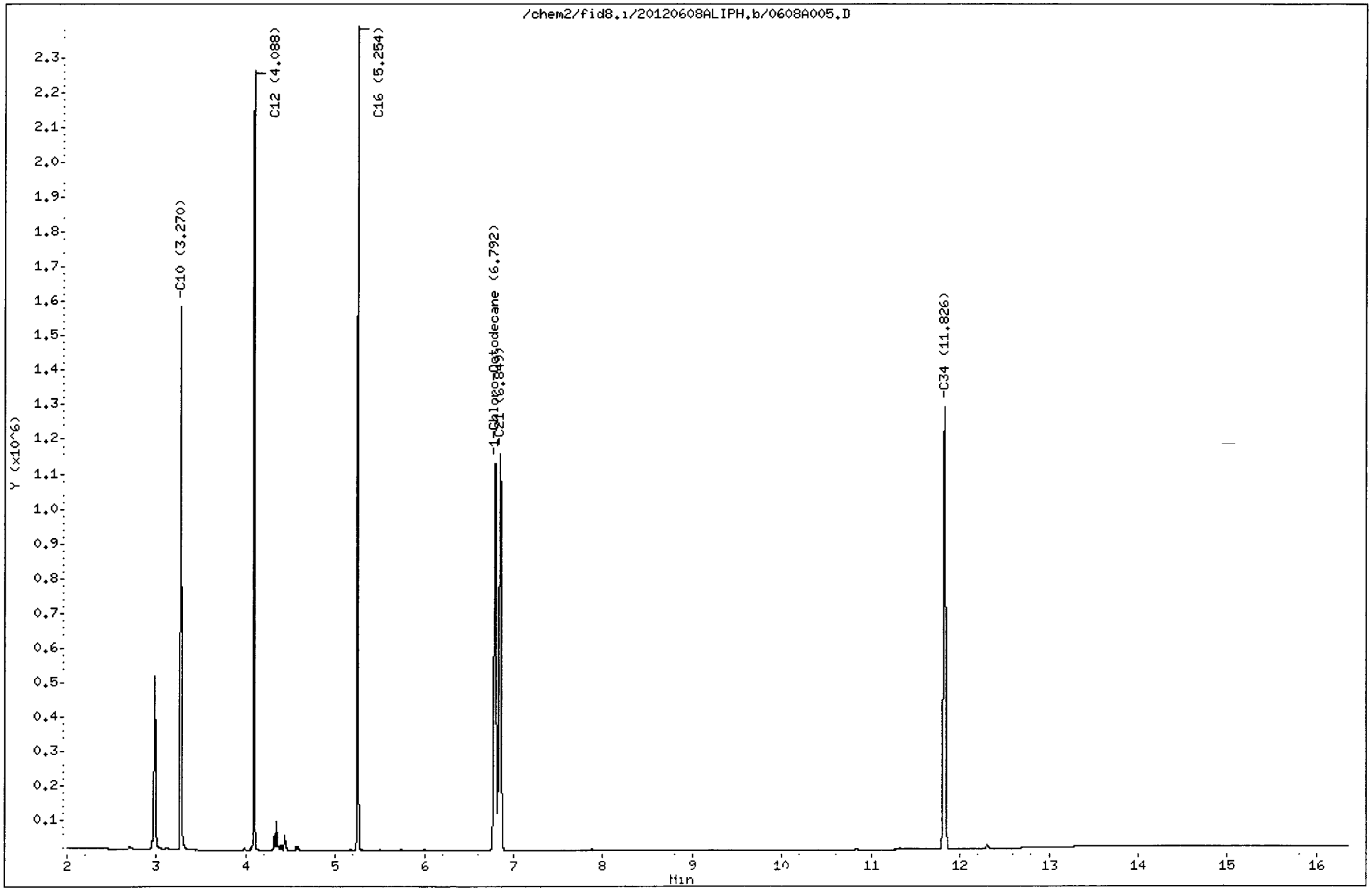
| | Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | FINAL (ug/Kg) |
|---|---|---|---|---|---|---|---|
| 2 | C8 | Compound Not Detected. | | | | | |
| 3 | C10 | 3.270 | 3.282 | -0.012 | 1539276 | 81.0826 | 81.082 |
| 45 | C12 | 4.088 | 4.096 | -0.008 | 1664555 | 92.3695 | 92.369 |
| 46 | C16 | 5.254 | 5.261 | -0.007 | 1853324 | 109 097 | 109.096 |
| $ 51 | 1-Chloro-Octodecane | 6.792 | 6.813 | -0.021 | 1912113 | 109 275 | 109.275 |
| 47 | C21 | 6.849 | 6.867 | -0.018 | 1982349 | 122 227 | 122.227 |
| 48 | C34 | 11.826 | 11.838 | -0.012 | 2212086 | 130 010 | 130.010 |

Data File: /chem2/fid8.i/20120608ALIPH.b/0608A005.D
Date : 08-JUN-2012 13:28
Client ID: UW94LCSS1
Sample Info: UW94LCSS1

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5




UW85 - 001107

Analytical Resources Inc.
WA. EPH Aliphatics Report

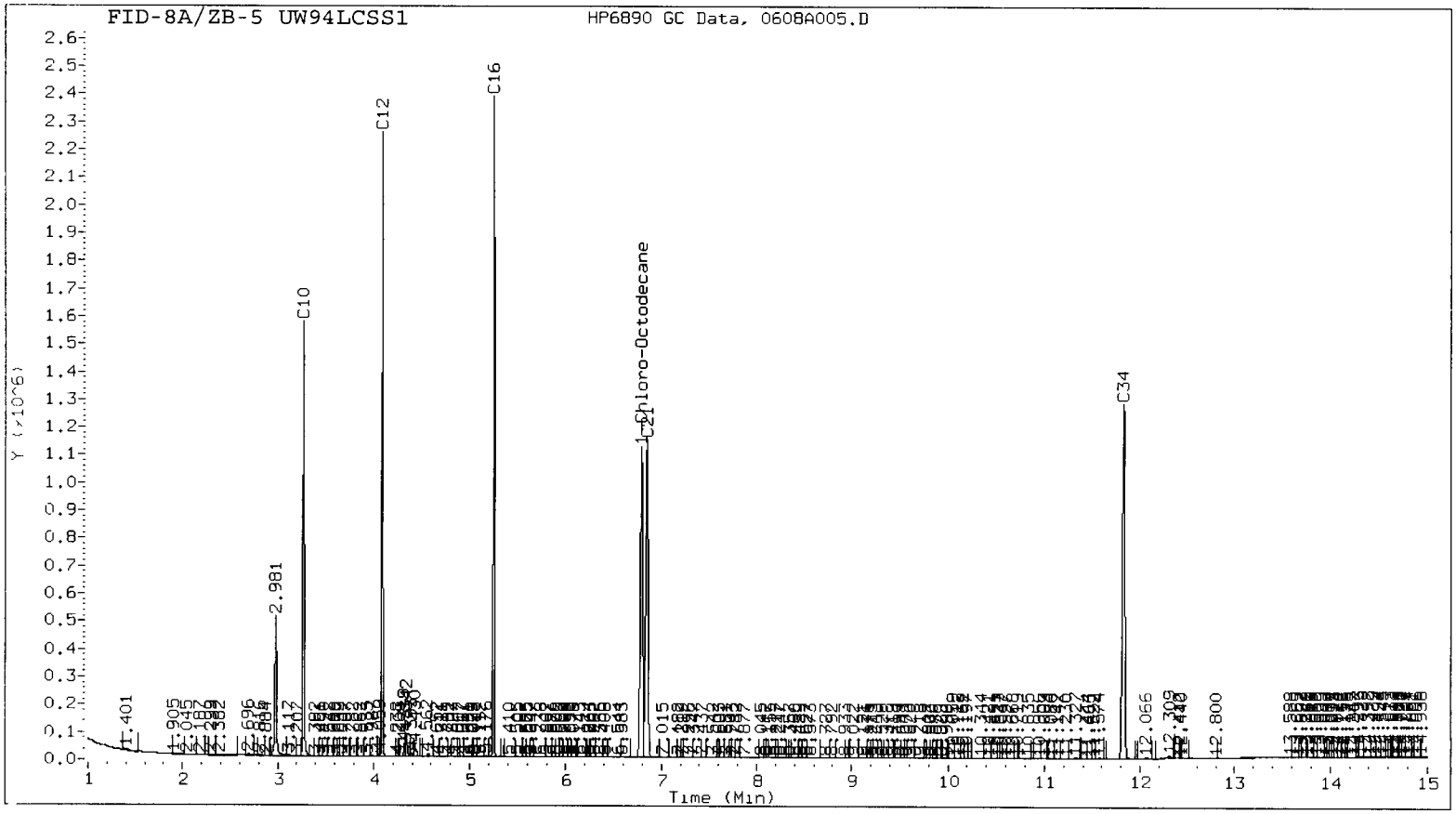
Data file: /chem2/fid8.i/20120608ALIPH.b/0608A005.D
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

ARI ID: UW94LCSS1
Client ID: UW94LCSS1
Injection: 08-JUN-2012 13:28
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

| Quant Range | | Area | Conc | Time Range |
|---|---|---|---|---|
| C8-C10 | Aliph. | 2402655 | 124 | (1.041 - 3.382) |
| C10-C12 | Aliph. | 1688397 | 94 | (3.382 - 4.196) |
| C12-C16 | Aliph. | 2067332 | 122 | (4.196 - 5.361) |
| C16-C21 | Aliph. | 2004367 | 124 | (5.361 - 6.967) |
| C21-C34 | Aliph. | 2239093 | 132 | (6.967 - 11.938) |

Surrogate Rec: 72.9%



MH 6/11/12



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A006.D
Lab Smp Id: UW94LCSDS1 Client Smp ID: UW94LCSDS1
Inj Date : 08-JUN-2012 13:53
Operator : MH Inst ID: fid8.i
Smp Info : UW94LCSDS1
Misc Info : 12-10102
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | CONCENTRATIONS FINAL (ug/Kg) |
|---|---|---|---|---|---|---|---|
| | 2 C8 | 1.169 | 1.141 | 0.028 | 13544 | 0.67993 | 0.679 |
| | 3 C10 | 3 269 | 3.282 | -0.013 | 1596416 | 84.0925 | 84.092 |
| | 45 C12 | 4.089 | 4.096 | -0.007 | 1721875 | 95.5503 | 95.550 |
| | 46 C16 | 5.254 | 5.261 | -0.007 | 1994445 | 117.404 | 117.403 |
| $ | 51 1-Chloro-Octodecane | 6.794 | 6.813 | -0.019 | 2122901 | 121.322 | 121.321 |
| | 47 C21 | 6.853 | 6.867 | -0.014 | 2083846 | 128.485 | 128.485 |
| | 48 C34 | 11.825 | 11.838 | -0.013 | 2419733 | 142.214 | 142.214 |

Data File: /chem2/fid8.i/20120608ALIPH.b/0608A006.D

Date : 08-JUN-2012 13:53

Client ID: UW94LCSDS1

Sample Info: UW94LCSDS1

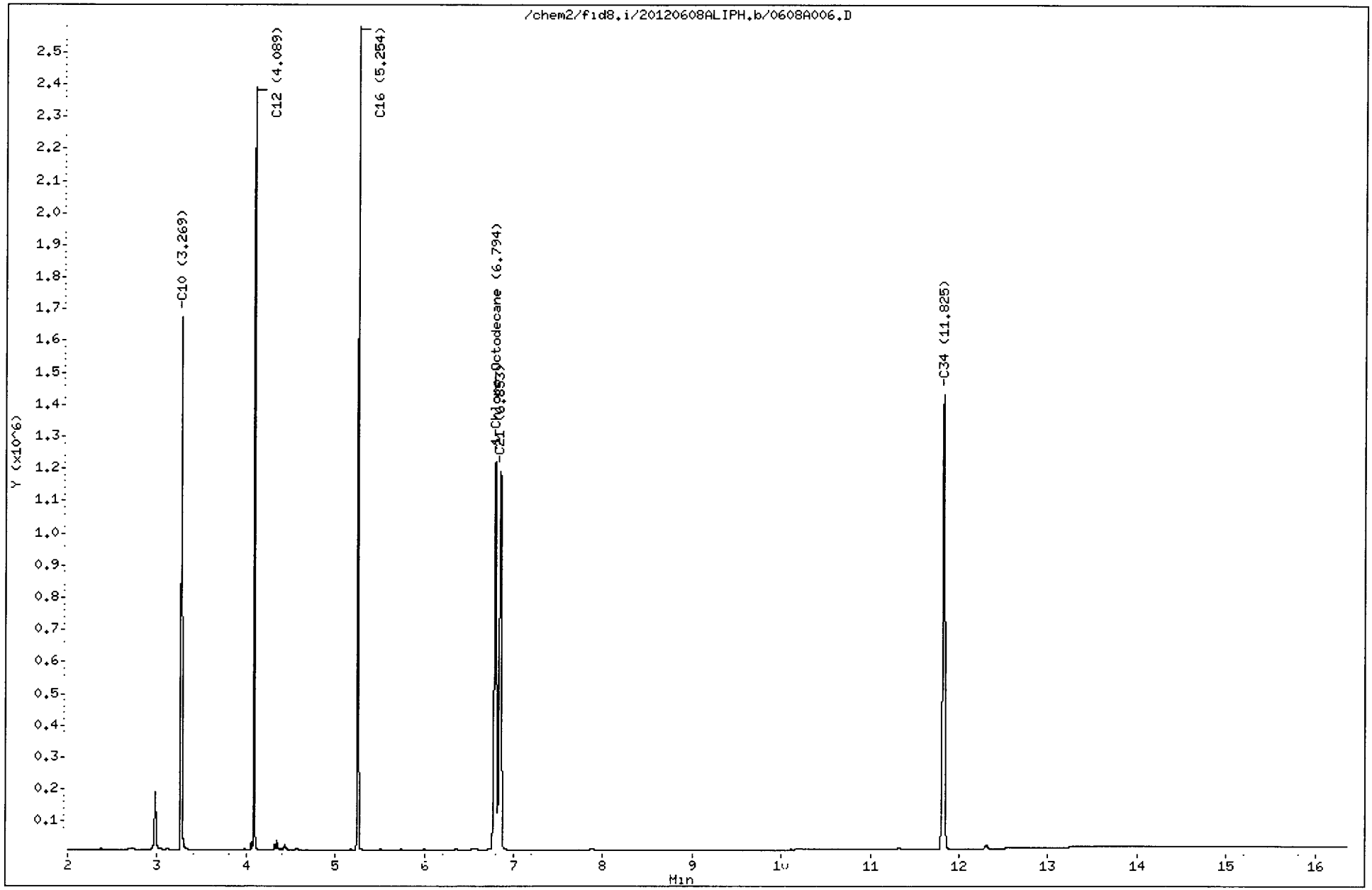
Column phase: ZB-5

Instrument: fid8.i

Operator: MH

Column diameter: 0.32






UW85:00110

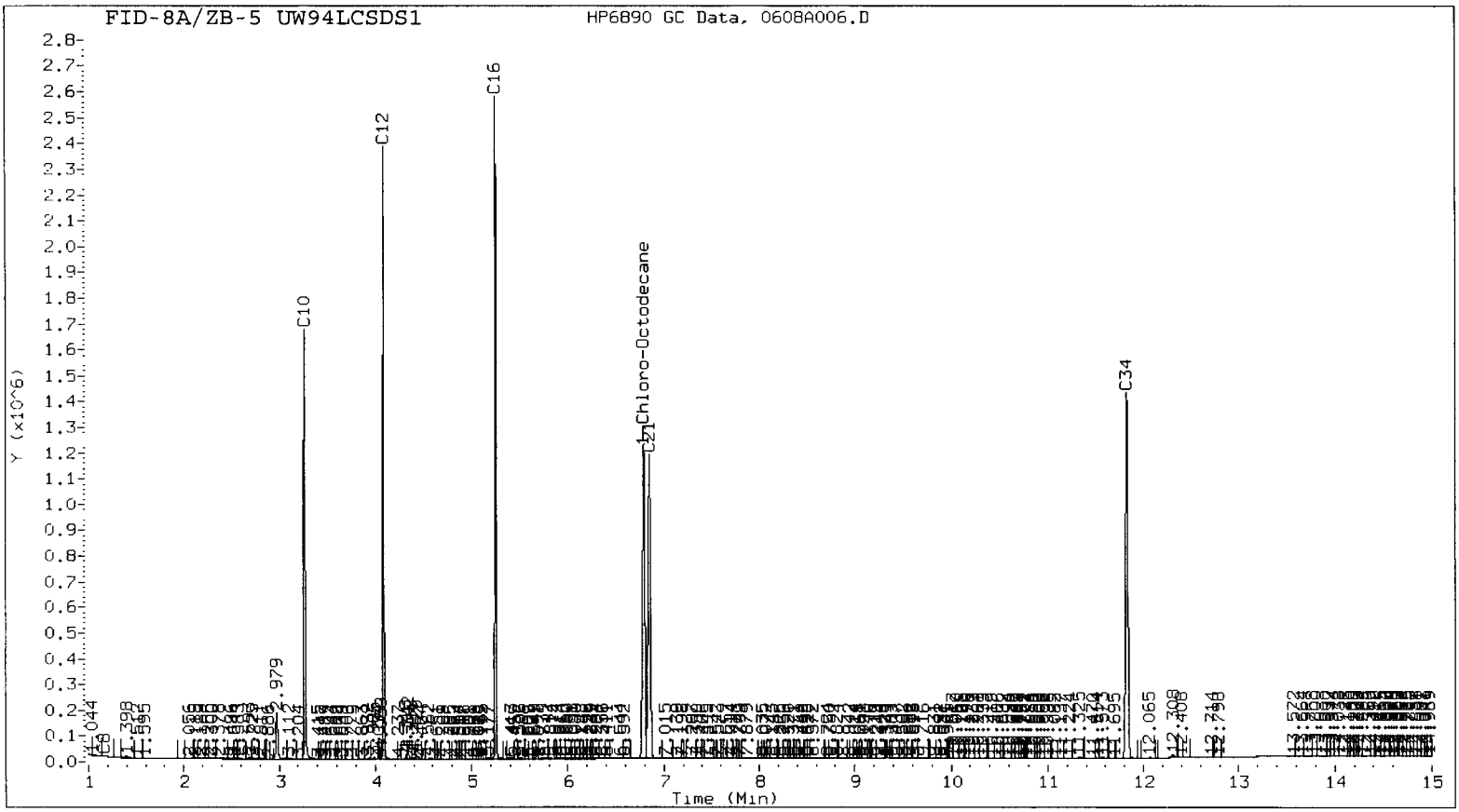
Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: /chem2/fid8.i/20120608ALIPH.b/0608A006.D  ARI ID: UW94LCSDS1
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m  Client ID: UW94LCSDS1
Instrument: fid8.i  Injection: 08-JUN-2012 13:53
Operator: MH  Matrix: SOIL
Macro: ALIPH120912FID8  Dilution Factor: 1

EPH-ALIPHATIC RESULTS

| Quant Range | | Area | Conc | Time Range |
|---|---|---|---|---|
| C8-C10 | Aliph. | 1949277 | 100 | (1.041 - 3.382) |
| C10-C12 | Aliph. | 1750118 | 97 | (3.382 - 4.196) |
| C12-C16 | Aliph. | 2075357 | 122 | (4.196 - 5.361) |
| C16-C21 | Aliph. | 2114018 | 130 | (5.361 - 6.967) |
| C21-C34 | Aliph. | 2453144 | 144 | (6.967 - 11.938) |

Surrogate Rec: 80.9%



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A010.D
Lab Smp Id: UW85AMS Client Smp ID: MS001-SS-120515 MS
Inj Date : 08-JUN-2012 15:34
Operator : MH Inst ID: fid8.i
Smp Info : UW85AMS
Misc Info : 12-10066
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 9 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|
| 2 | C8 | Compound Not Detected. | | | | | |
| 3 | C10 | 3 271 | 3 282 | -0.011 | 1367003 | 72 0080 | 72.007 |
| 45 | C12 | 4.089 | 4.096 | -0.007 | 1589738 | 88.2177 | 88.217 |
| 46 | C16 | 5 252 | 5.261 | -0.009 | 2023260 | 119.100 | 119.100 |
| $ 51 | 1-Chloro-Octodecane | 6 789 | 6.813 | -0.024 | 2277007 | 130.129 | 130.128 |
| 47 | C21 | 6.847 | 6.867 | -0.020 | 2279132 | 140.526 | 140.525 |
| 48 | C34 | 11 824 | 11.838 | -0.014 | 2501494 | 147.019 | 147.019 |

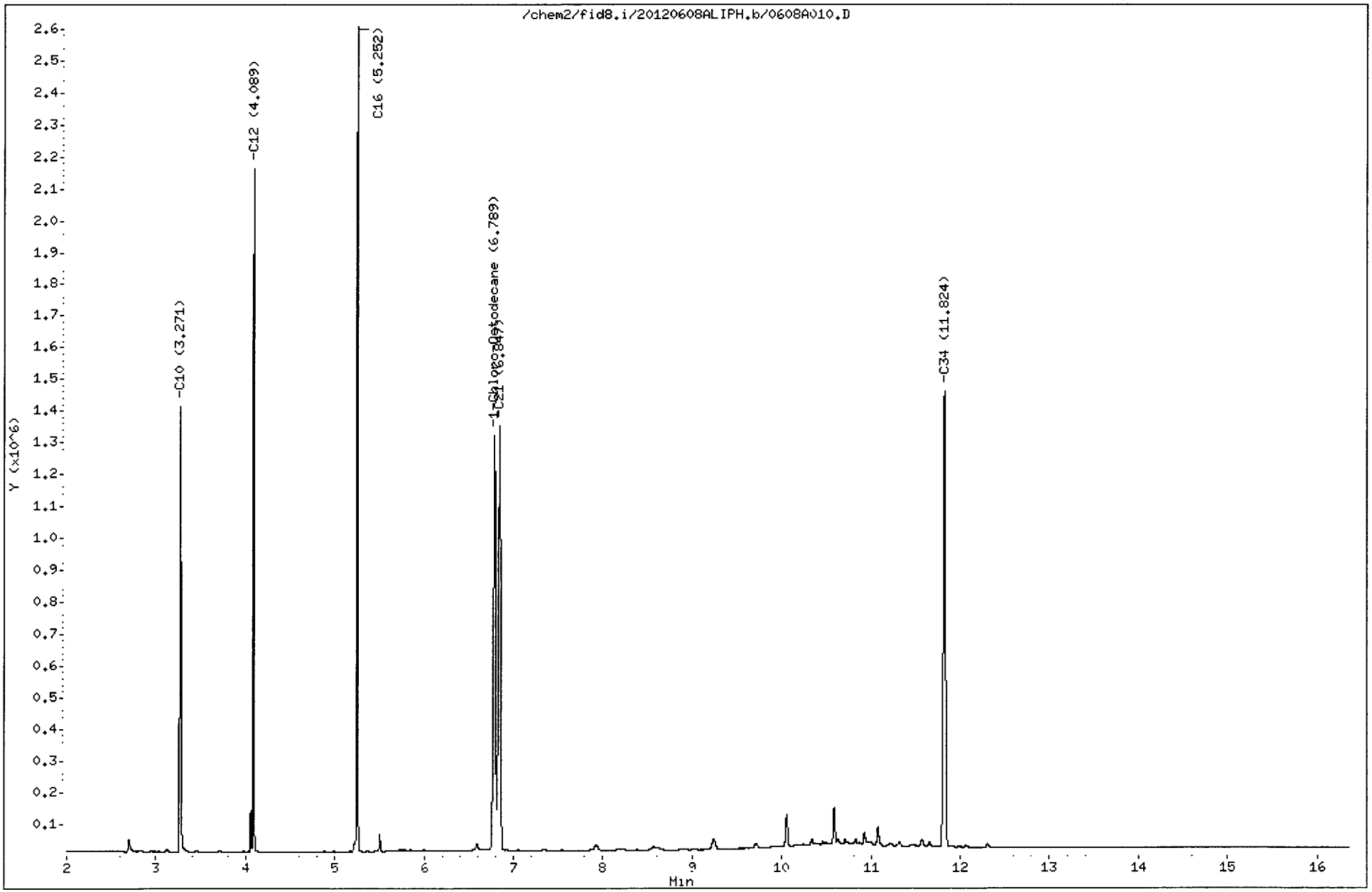
Data File: /chem2/fid8.i/20120608ALIPH.b/0608A010.D
Date : 08-JUN-2012 15:34
Client ID: MS001-SS-120515 MS
Sample Info: UW85AMS

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5





Analytical Resources Inc.
WA. EPH Aliphatics Report

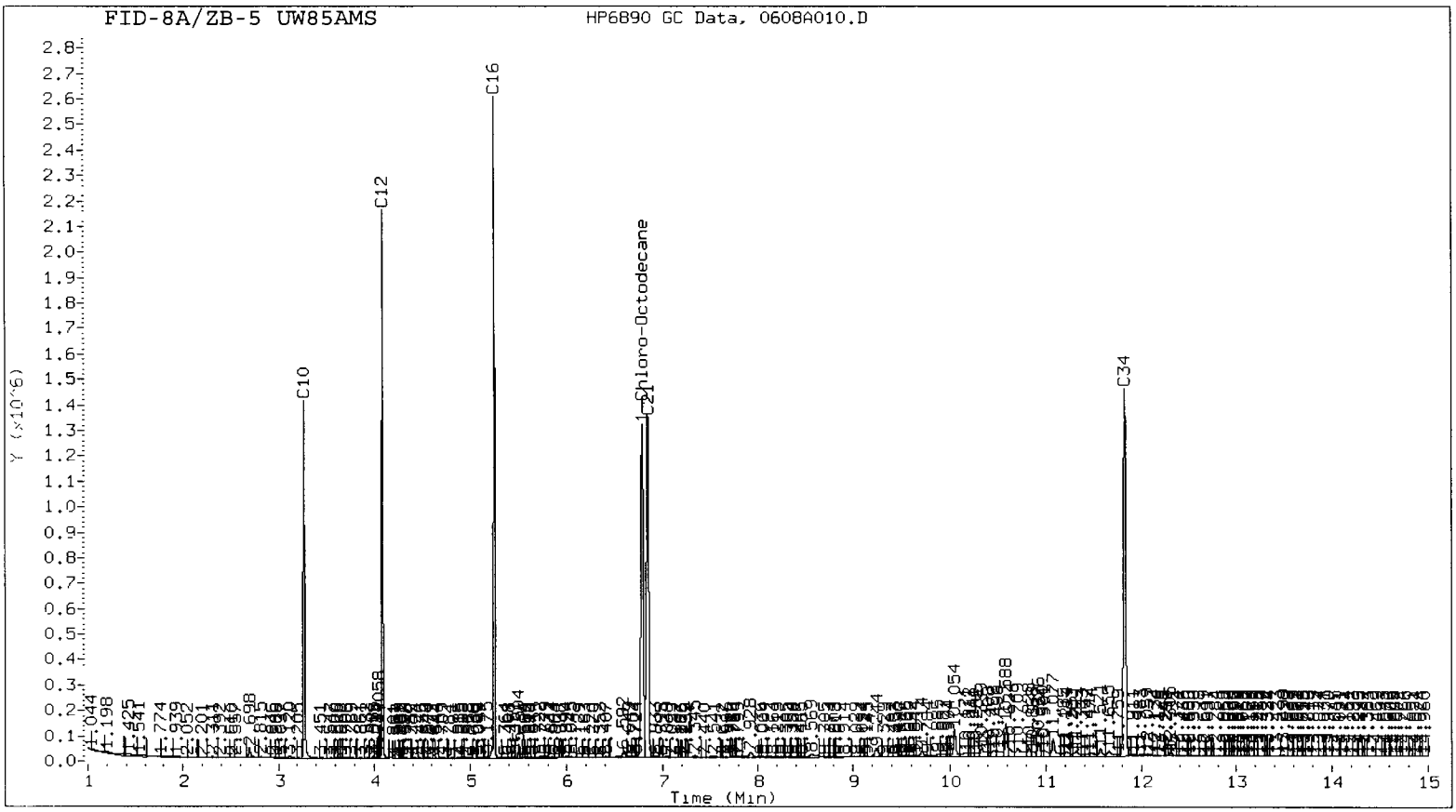
Data file: /chem2/fid8.i/20120608ALIPH.b/0608A010.D
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

ARI ID: UW85AMS
Client ID: MS001-SS-120515 MS
Injection: 08-JUN-2012 15:34
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

| Quant Range | | Area | Conc | Time Range |
|---|---|---|---|---|
| C8-C10 | Aliph. | 1707433 | 88 | (1.041 - 3.382) |
| C10-C12 | Aliph. | 1717014 | 95 | (3.382 - 4.196) |
| C12-C16 | Aliph. | 2079041 | 122 | (4.196 - 5.361) |
| C16-C21 | Aliph. | 2641663 | 163 | (5.361 - 6.967) |
| C21-C34 | Aliph. | 5259541 | 309 | (6.967 - 11.938) |

Surrogate Rec: 86.8%



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A011.D
Lab Smp Id: UW85AMSD Client Smp ID: MS001-SS-120515 MSD
Inj Date : 08-JUN-2012 15:59
Operator : MH Inst ID: fid8.i
Smp Info : UW85AMSD
Misc Info : 12-10066
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 10 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|
| 2 | C8 | Compound Not Detected. | | | | | |
| 3 | C10 | 3.269 | 3 282 | -0.013 | 1561041 | 82 2291 | 82.229 |
| 45 | C12 | 4.088 | 4 096 | -0.008 | 1701071 | 94 3958 | 94.395 |
| 46 | C16 | 5 253 | 5.261 | -0.008 | 1958711 | 115 300 | 115.300 |
| $ 51 | 1-Chloro-Octodecane | 6.792 | 6.813 | -0.021 | 2216670 | 126.681 | 126.680 |
| 47 | C21 | 6.849 | 6.867 | -0.018 | 2160003 | 133.181 | 133.180 |
| 48 | C34 | 11.826 | 11.838 | -0.012 | 2364827 | 138.987 | 138.987 |

Data File: /chem2/fid8.i/20120608ALIPH.b/0608A011.D

Date : 08-JUN-2012 15:59

Client ID: MS001-SS-120515 MSD

Sample Info: UW85AMSD

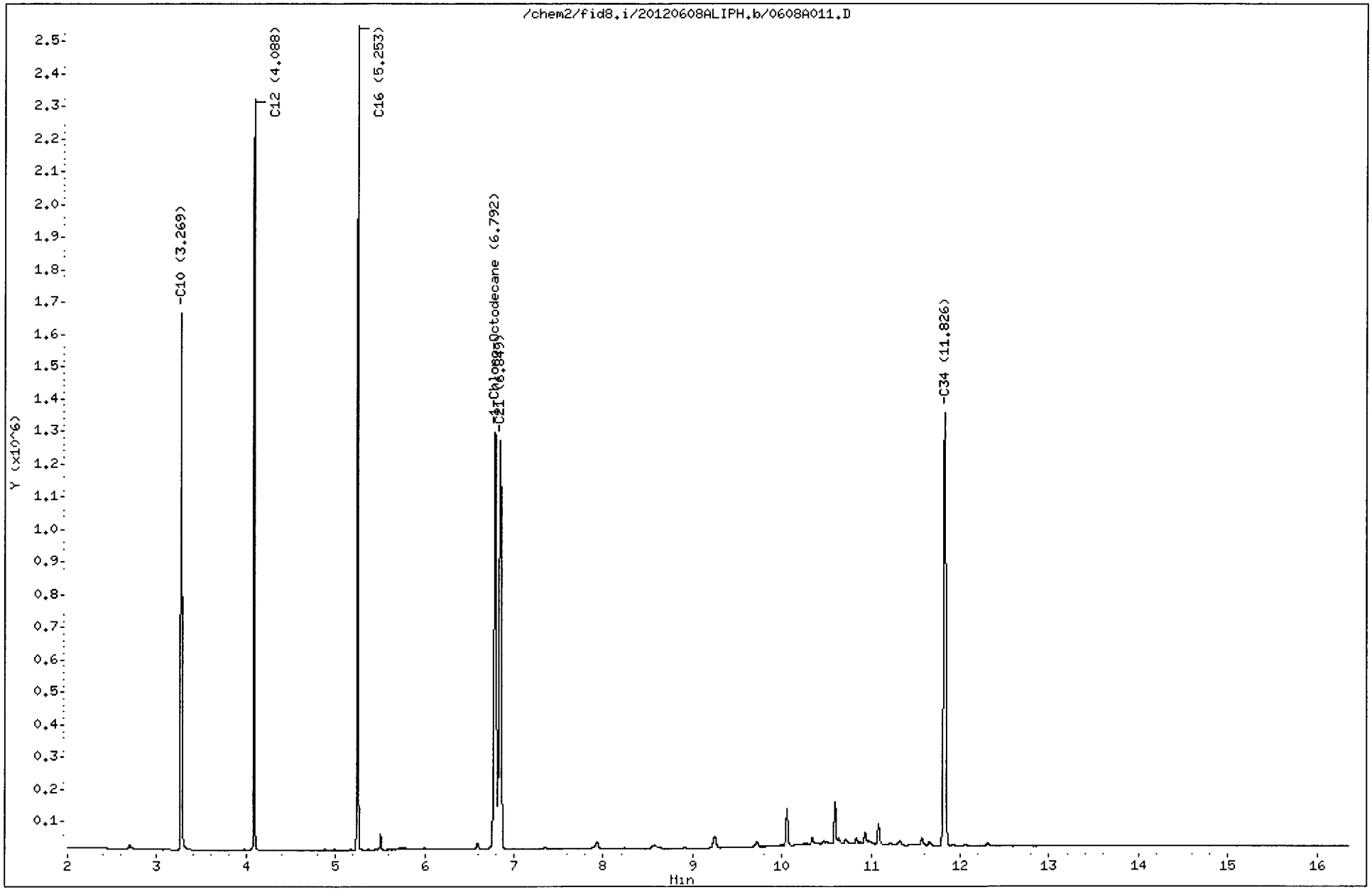
Column phase: ZB-5

Instrument: fid8.i

Operator: MH

Column diameter: 0.32






UW85:00116

Analytical Resources Inc.
WA. EPH Aliphatics Report

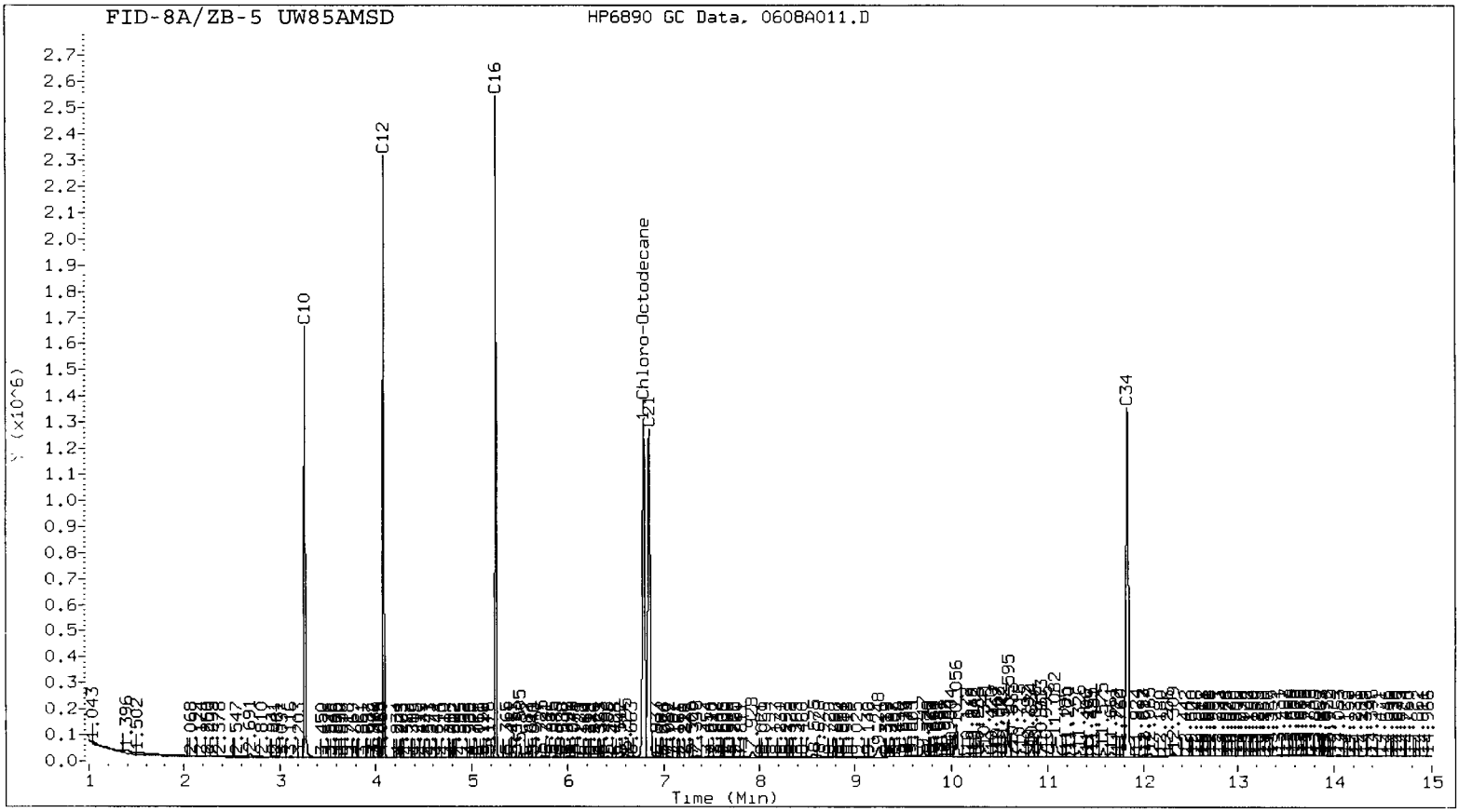
Data file: /chem2/fid8.i/20120608ALIPH.b/0608A011.D
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

ARI ID: UW85AMSD
Client ID: MS001-SS-120515 MSD
Injection: 08-JUN-2012 15:59
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

| Quant Range | | Area | Conc | Time Range |
|---|---|---|---|---|
| C8-C10 | Aliph. | 1978260 | 102 | (1.041 - 3.382) |
| C10-C12 | Aliph. | 1734856 | 96 | (3.382 - 4.196) |
| C12-C16 | Aliph. | 1989099 | 117 | (4.196 - 5.361) |
| C16-C21 | Aliph. | 2449777 | 151 | (5.361 - 6.967) |
| C21-C34 | Aliph. | 5081480 | 299 | (6.967 - 11.938) |

Surrogate Rec: 84.5%



MH 6/11/12



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A009.D
Lab Smp Id: UW85A Client Smp ID: MS001-SS-120515
Inj Date : 08-JUN-2012 15:09
Operator : MH Inst ID: fid8.i
Smp Info : UW85A
Misc Info : 12-10066
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|
| | 2 C8 | 1.123 | 1.141 | -0.018 | 19382 | 0.97301 | 0.973(M) |
| | 3 C10 | 3.271 | 3.282 | -0.011 | 7973 | 0.41999 | 0.419 |
| | 45 C12 | 4 089 | 4.096 | -0.007 | 7164 | 0.39760 | 0 397 |
| | 46 C16 | 5.251 | 5.261 | -0.010 | 6205 | 0.36529 | 0 365 |
| $ | 51 1-Chloro-Octodecane | 6.791 | 6.813 | -0.022 | 2190414 | 125 180 | 125 180 |
| | 47 C21 | 6.839 | 6.867 | -0.028 | 27368 | 1.68747 | 1.687 |
| | 48 C34 | 11.814 | 11.838 | -0.024 | 40180 | 2.36151 | 2 361 |

QC Flag Legend

M - Compound response manually integrated.

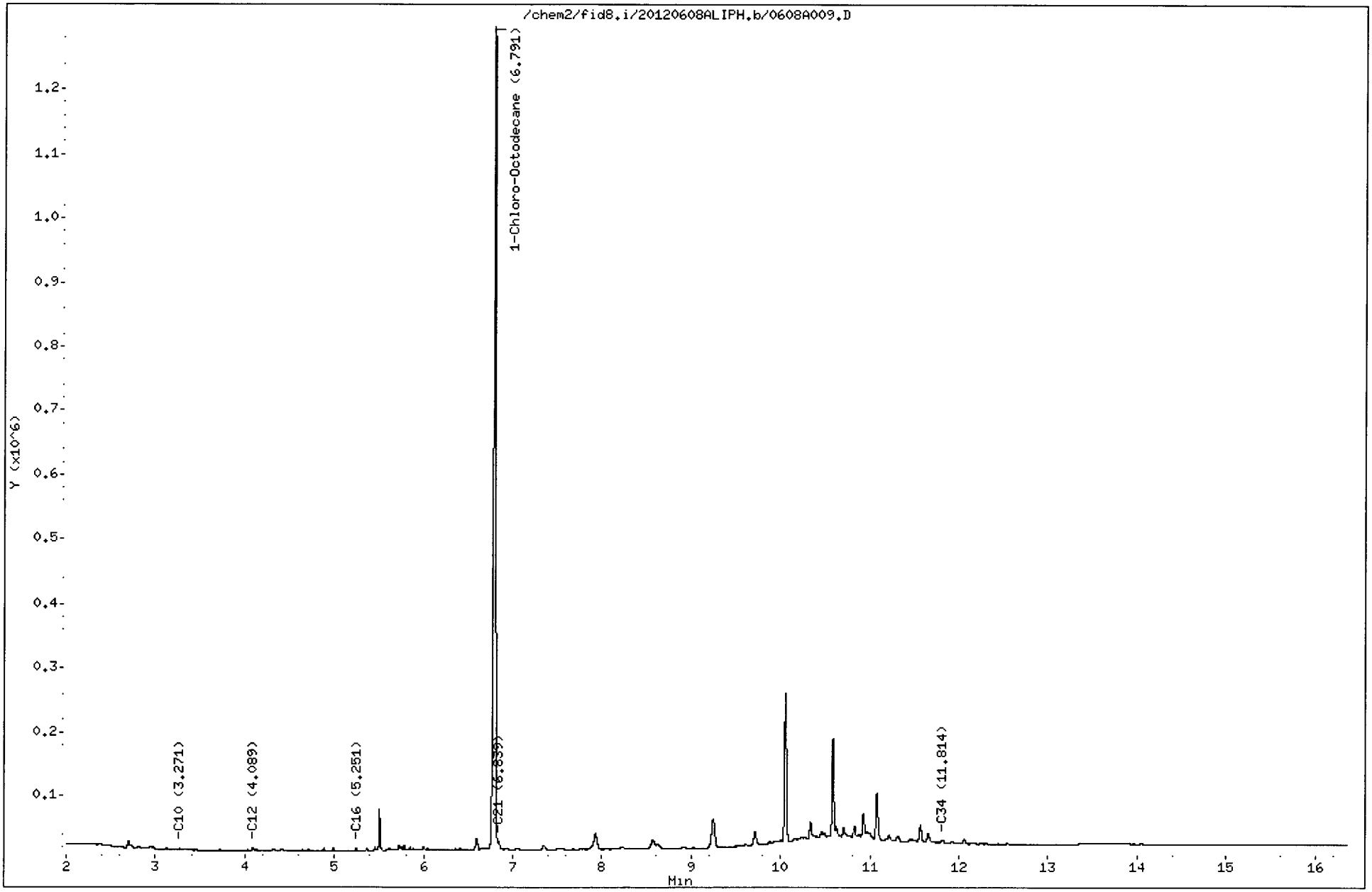
Data File: /chem2/fid8.i/20120608ALIPH.b/0608A009.D
Date : 08-JUN-2012 15:09
Client ID: MS001-SS-120515
Sample Info: UW85A

Column phase: ZB-5

Instrument: fid8.i

Operator: MH
Column diameter: 0.32






UW85:00119

Analytical Resources Inc.
WA. EPH Aliphatics Report

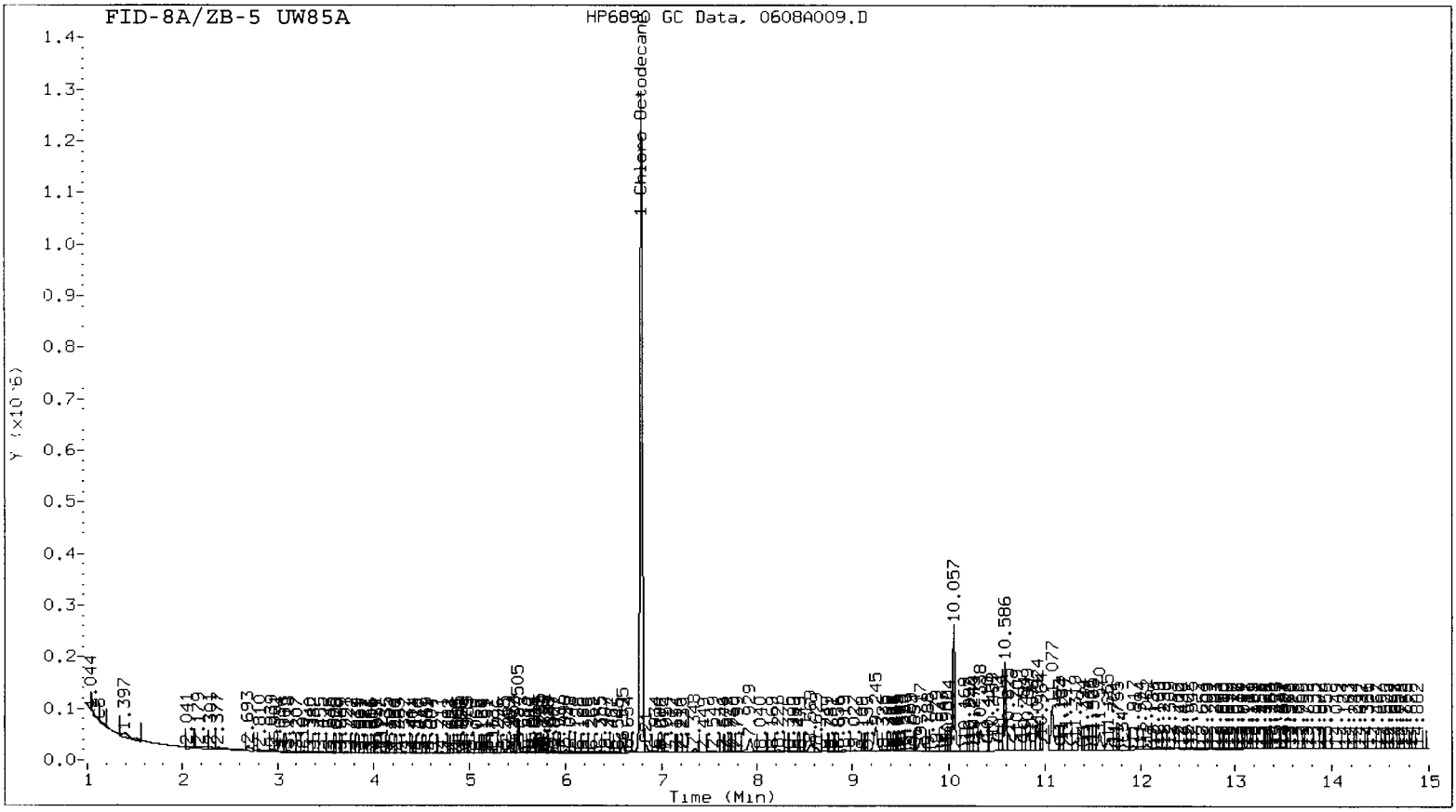
Data file: /chem2/fid8.i/20120608ALIPH.b/0608A009.D
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

ARI ID: UW85A
Client ID: MS001-SS-120515
Injection: 08-JUN-2012 15:09
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

| Quant Range | | Area | Conc | Time Range |
|---|---|---|---|---|
| C8-C10 | Aliph. | 269186 | 14 | (1.041 - 3.382) |
| C10-C12 | Aliph. | 47569 | 3 | (3.382 - 4.196) |
| C12-C16 | Aliph. | 75860 | 4 | (4.196 - 5.361) |
| C16-C21 | Aliph. | 301512 | 19 | (5.361 - 6.967) |
| C21-C34 | Aliph. | 3047133 | 179 | (6.967 - 11.938) |

Surrogate Rec: 83.5%




MANUAL INTEGRATION - Baseline Correction

Analyst: MH Date: 6/11/12

MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A012.D
Lab Smp Id: UW85B Client Smp ID: MS002-SS-120515
Inj Date : 08-JUN-2012 16:24
Operator : MH Inst ID: fid8.i
Smp Info : UW85B
Misc Info : 12-10067
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | | | CONCENTRATIONS | |
|---|---|---|---|---|---|---|---|
| | | | | | | ON-COLUMN | FINAL |
| | Compounds | RT | EXP RT | DLT RT | RESPONSE | (ng/mL) | (ug/kg) |
| | 2 C8 | Compound Not Detected. | | | | | |
| | 3 C10 | 3.270 | 3.282 | -0 012 | 6771 | 0.35668 | 0.356(M) |
| | 45 C12 | 4.088 | 4.096 | -0 008 | 3009 | 0.16699 | 0.166(M) |
| | 46 C16 | 5.250 | 5.261 | -0.011 | 8818 | 0.51913 | 0.519(M) |
| $ | 51 1-Chloro-Octodecane | 6.790 | 6.813 | -0.023 | 2216034 | 126.644 | 126.644(M) |
| | 47 C21 | 6.878 | 6.867 | 0.011 | 11062 | 0.68211 | 0.682(M) |
| | 48 C34 | 11.811 | 11.838 | -0.027 | 58710 | 3.45057 | 3.450(M) |

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem2/fid8.i/20120608ALIPH.b/0608A012.D

Date : 08-JUN-2012 16:24

Client ID: MS002-SS-120515

Sample Info: UW85B

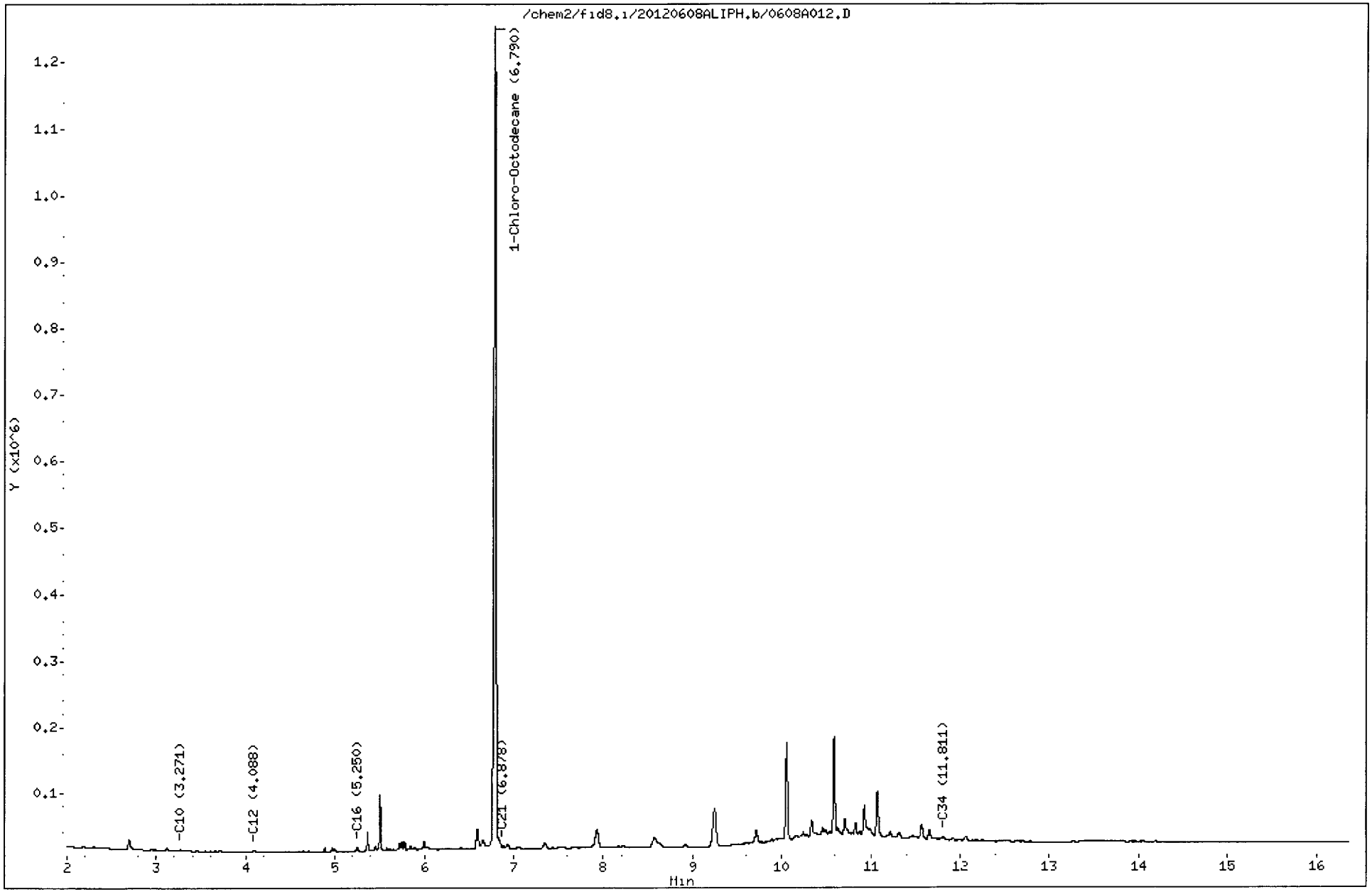
Column phase: ZB-5

Instrument: fid8.i

Operator: MH

Column diameter: 0.32






UW85:00122

Analytical Resources Inc.
WA. EPH Aliphatics Report

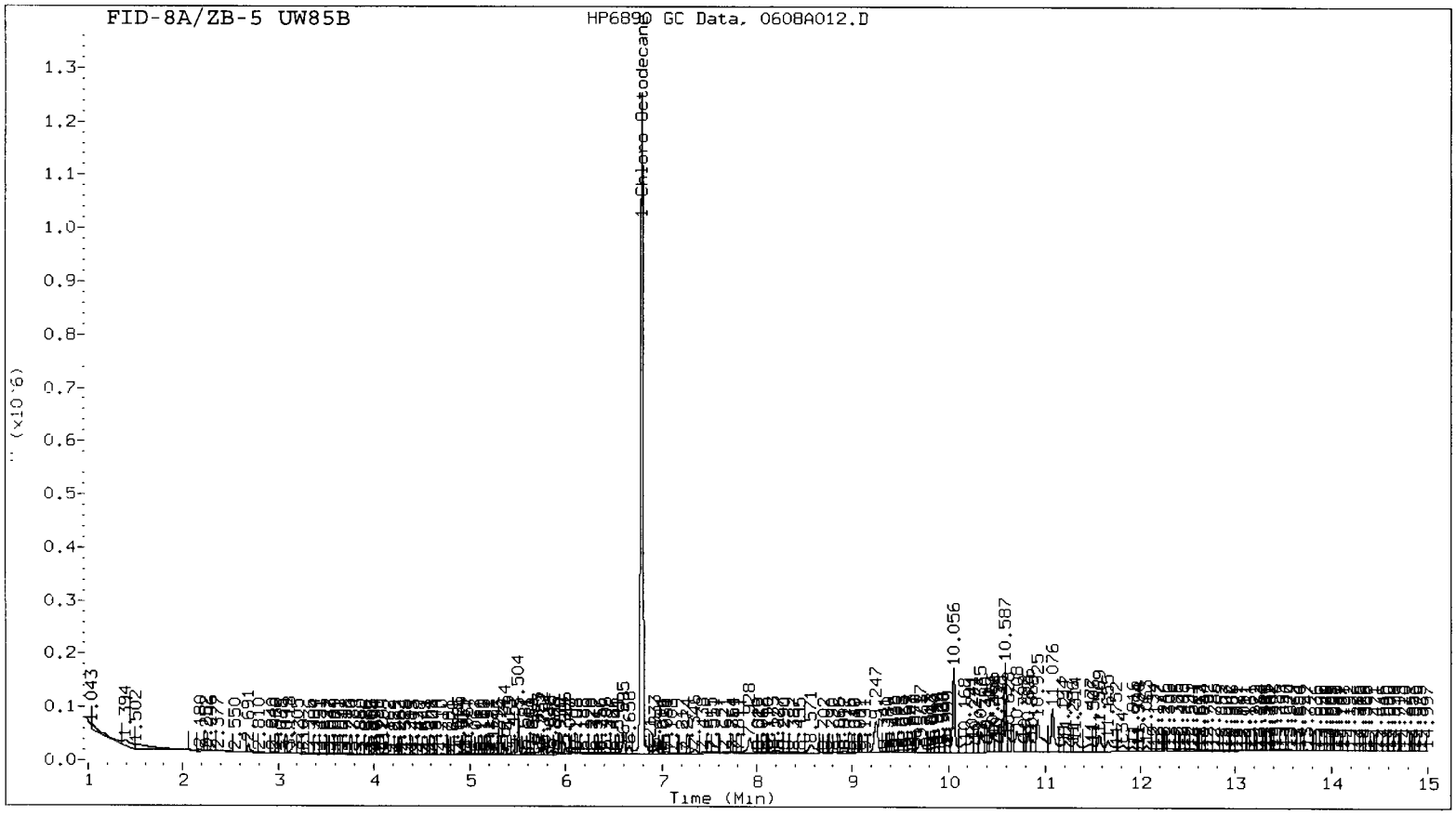
Data file: /chem2/fid8.i/20120608ALIPH.b/0608A012.D
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

ARI ID: UW85B
Client ID: MS002-SS-120515
Injection: 08-JUN-2012 16:24
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

| Quant Range | | Area | Conc | Time Range |
|---|---|---|---|---|
| C8-C10 | Aliph. | 382172 | 20 | (1.041 - 3.382) |
| C10-C12 | Aliph. | 24706 | 1 | (3.382 - 4.196) |
| C12-C16 | Aliph. | 72254 | 4 | (4.196 - 5.361) |
| C16-C21 | Aliph. | 480093 | 30 | (5.361 - 6.967) |
| C21-C34 | Aliph. | 3306230 | 194 | (6.967 - 11.938) |

Surrogate Rec: 84.4%




MANUAL INTEGRATION - Baseline Correction

Analyst: MH Date: 6/11/12

MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A013.D
Lab Smp Id: UW85C Client Smp ID: MS003-SS-120515
Inj Date : 08-JUN-2012 16:49
Operator : MH Inst ID: fid8.i
Smp Info : UW85C
Misc Info : 12-10068
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|
| 2 | C8 | Compound Not Detected | | | | | |
| 3 | C10 | 3.270 | 3.282 | -0.012 | 2298 | 0.12107 | 0.121 |
| 45 | C12 | 4 089 | 4.096 | -0.007 | 4958 | 0.27513 | 0.275 |
| 46 | C16 | 5.250 | 5.261 | -0.011 | 4100 | 0.24138 | 0.241 |
| $ 51 | 1-Chloro-Octodecane | 6 792 | 6.813 | -0.021 | 2290945 | 130 925 | 130.925 |
| 47 | C21 | 6.882 | 6.867 | 0.015 | 20386 | 1.25700 | 1.256 |
| 48 | C34 | 11 807 | 11.838 | -0.031 | 30233 | 1.77690 | 1.776 |

Data File: /chem2/fid8.i/20120608ALIPH.b/0608A013.D

Date : 08-JUN-2012 16:49

Client ID: MS003-SS-120515

Sample Info: UW85C

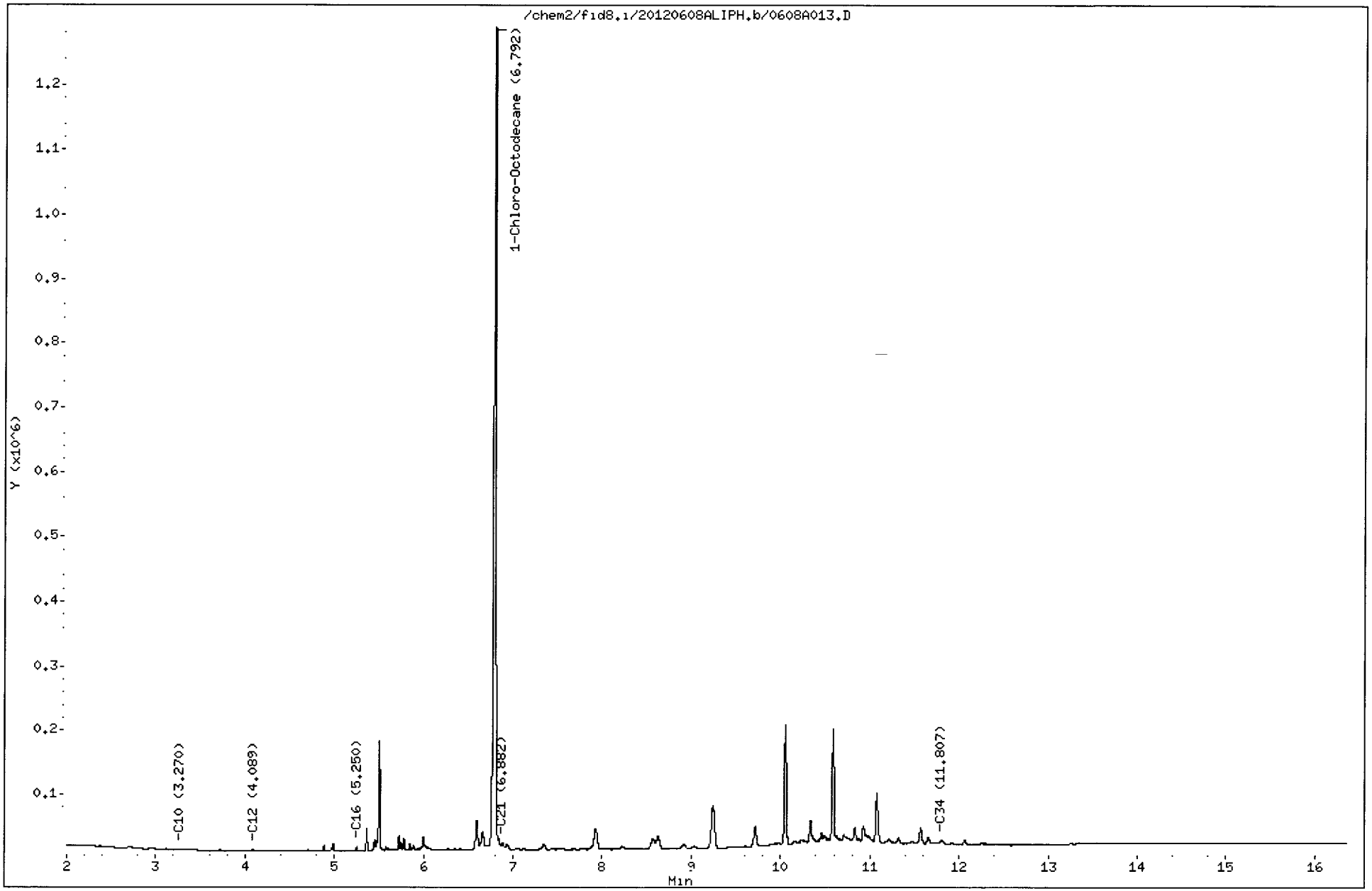
Column phase: ZB-5

Instrument: fid8.i

Operator: MH

Column diameter: 0.32






UW85:00125

Analytical Resources Inc.
WA. EPH Aliphatics Report

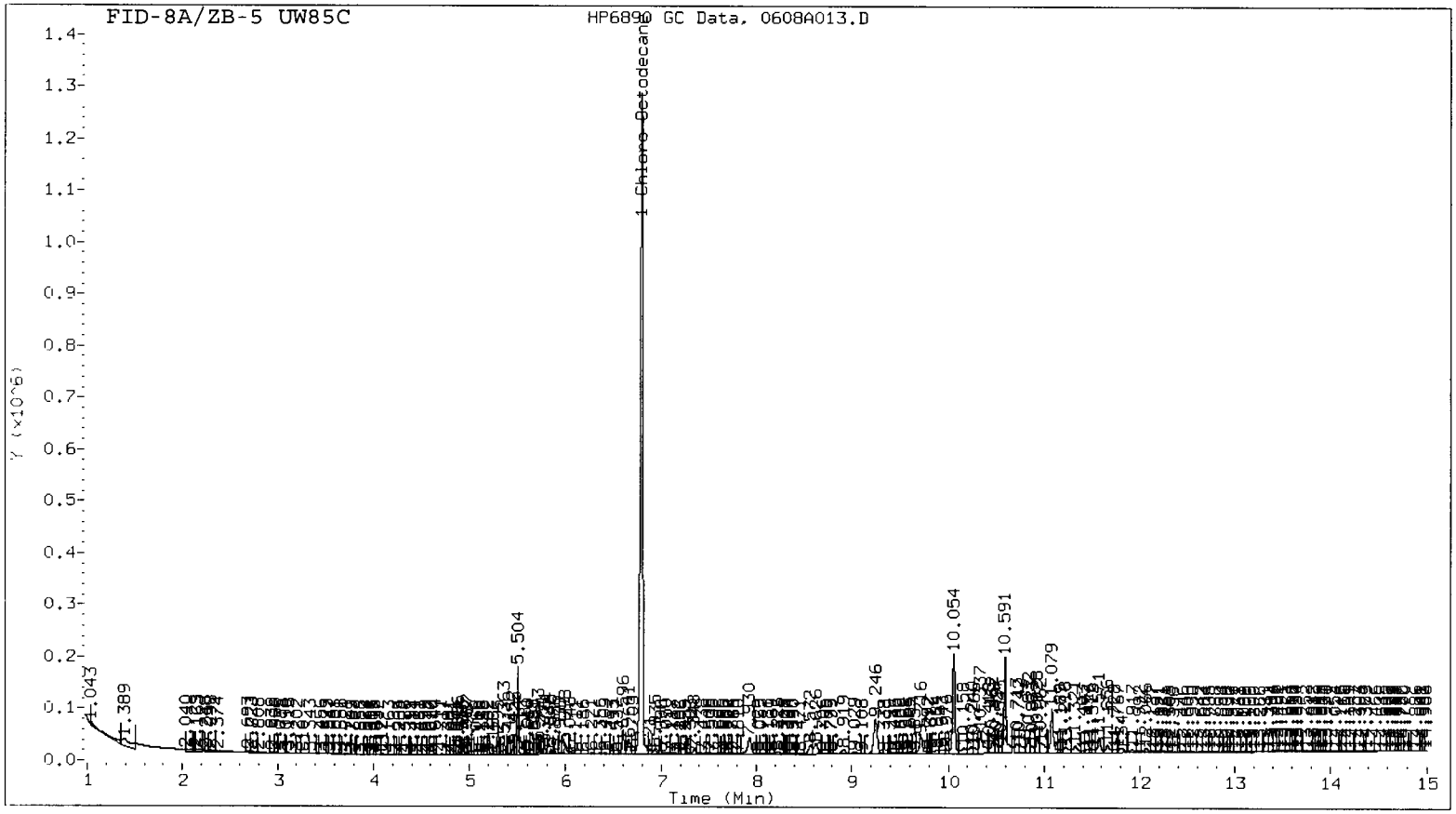
Data file: /chem2/fid8.i/20120608ALIPH.b/0608A013.D
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

ARI ID: UW85C
Client ID: MS003-SS-120515
Injection: 08-JUN-2012 16:49
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

| Quant Range | | Area | Conc | Time Range |
|---|---|---|---|---|
| C8-C10 | Aliph. | 315821 | 16 | (1.041 - 3.382) |
| C10-C12 | Aliph. | 34091 | 2 | (3.382 - 4.196) |
| C12-C16 | Aliph. | 38319 | 2 | (4.196 - 5.361) |
| C16-C21 | Aliph. | 581565 | 36 | (5.361 - 6.967) |
| C21-C34 | Aliph. | 2552341 | 150 | (6.967 - 11.938) |

Surrogate Rec: 87.3%



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A014.D
Lab Smp Id: UW85D Client Smp ID: MS006-SS-120515
Inj Date : 08-JUN-2012 17:14
Operator : MH Inst ID: fid8.i
Smp Info : UW85D
Misc Info : 12-10069
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|
| 2 | C8 | Compound Not Detected. | | | | | |
| 3 | C10 | 3.273 | 3.282 | -0.009 | 3580 | 0.18859 | 0.188 |
| 45 | C12 | 4.090 | 4.096 | -0.006 | 1224 | 0.06797 | 0 067 |
| 46 | C16 | 5.250 | 5.261 | -0.011 | 938 | 0.05523 | 0.055 |
| $ 51 | 1-Chloro-Octodecane | 6.793 | 6.813 | -0.020 | 2179799 | 124.573 | 124.573 |
| 47 | C21 | Compound Not Detected. | | | | | |
| 48 | C34 | 11.815 | 11.838 | -0.023 | 16340 | 0.96035 | 0.960 |

Data File: /chem2/fid8.i/20120608ALIPH.b/0608A014.D

Date : 08-JUN-2012 17:14

Client ID: MS006-SS-120515

Sample Info: UW85D

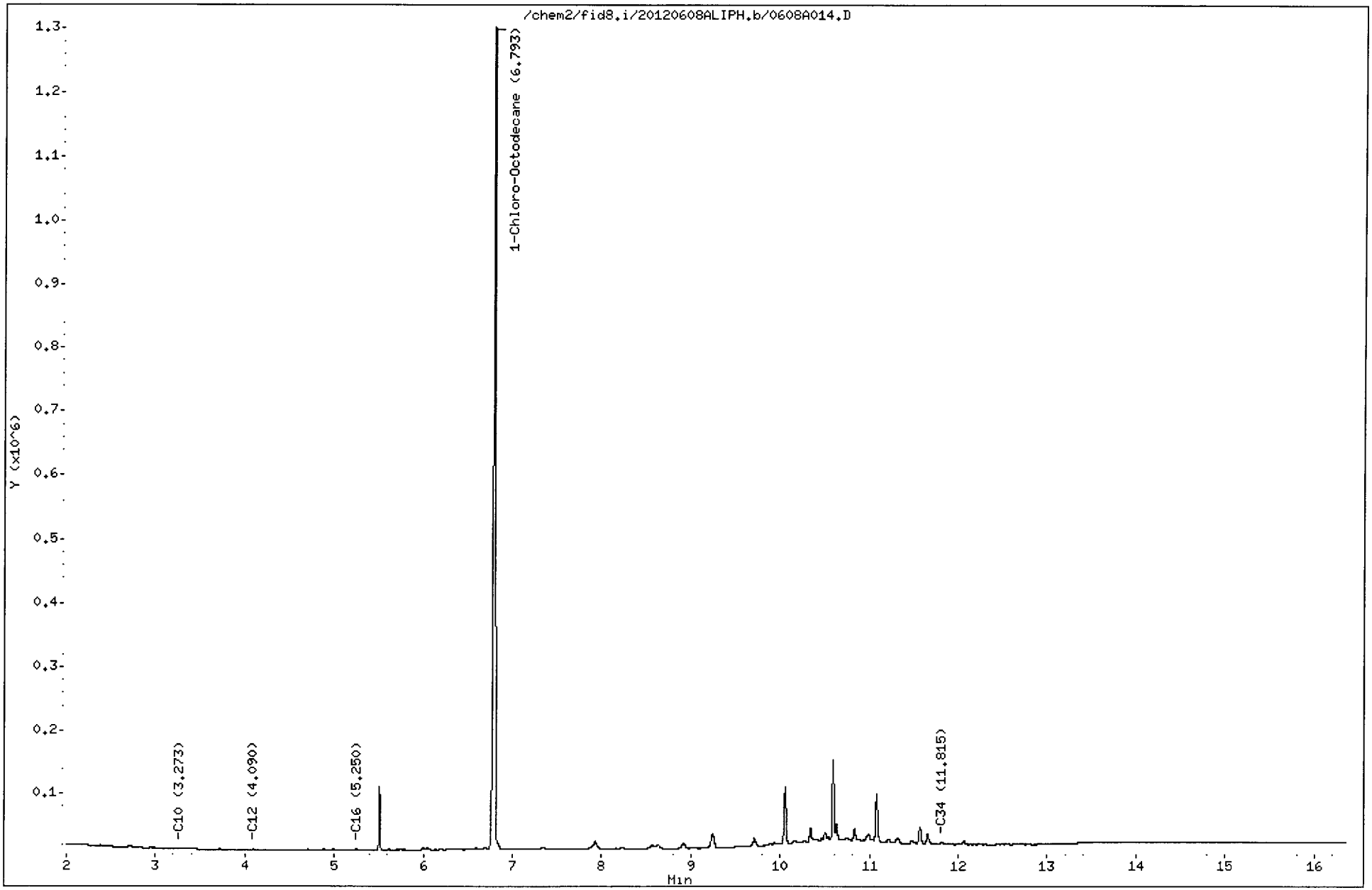
Column phase: ZB-5

Instrument: fid8.i

Operator: MH

Column diameter: 0.32






UW85:00128

Analytical Resources Inc.
WA. EPH Aliphatics Report

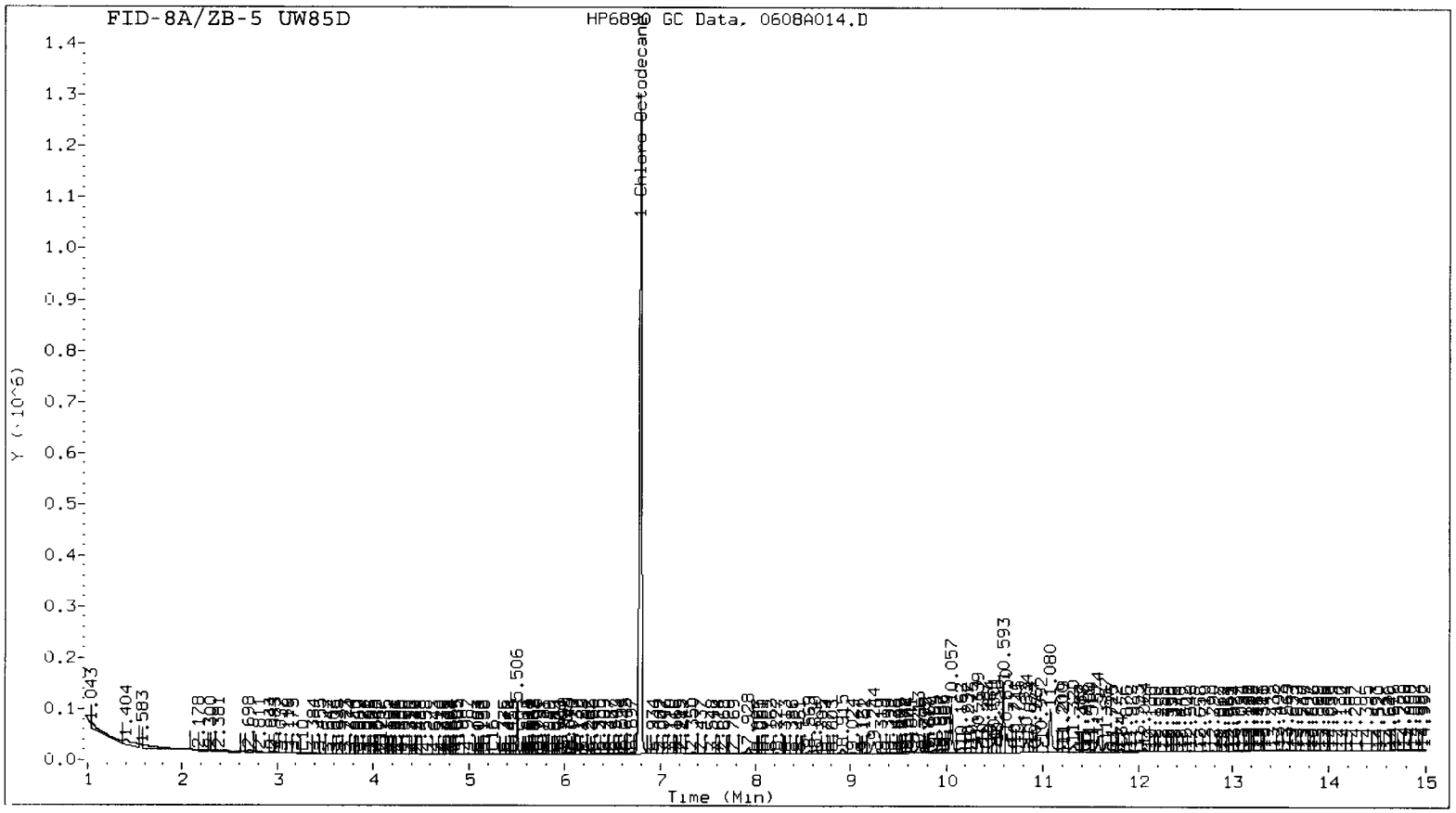
Data file: /chem2/fid8.i/20120608ALIPH.b/0608A014.D
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

ARI ID: UW85D
Client ID: MS006-SS-120515
Injection: 08-JUN-2012 17:14
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

| Quant Range | | Area | Conc | Time Range |
|---|---|---|---|---|
| C8-C10 | Aliph. | 385807 | 20 | (1.041 - 3.382) |
| C10-C12 | Aliph. | 8302 | 0 | (3.382 - 4.196) |
| C12-C16 | Aliph. | 34360 | 2 | (4.196 - 5.361) |
| C16-C21 | Aliph. | 141031 | 9 | (5.361 - 6.967) |
| C21-C34 | Aliph. | 1946995 | 114 | (6.967 - 11.938) |

Surrogate Rec: 83.0%



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608ALIPH.b/0608A015.D
Lab Smp Id: ALIPHATIC #2
Inj Date : 08-JUN-2012 17:40
Operator : MH Inst ID: fid8.i
Smp Info : ALIPHATIC #2
Misc Info :
Comment :
Method : /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Meth Date : 25-May-2012 10:32 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 13:46 Cal File: 0518A013.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: waliph.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | CONCENTRATIONS FINAL (ug/Kg) |
|---|---|---|---|---|---|---|---|
| 2 | C8 | 1.109 | 1.141 | -0.032 | 1801368 | 90.4305 | 90 430(M) |
| 3 | C10 | 3.273 | 3.282 | -0.009 | 1790761 | 94.3297 | 94.329 |
| 45 | C12 | 4 089 | 4.096 | -0.007 | 1668211 | 92.5724 | 92.572 |
| 46 | C16 | 5 251 | 5.261 | -0.010 | 1519155 | 89.4257 | 89.425 |
| $ 51 | 1-Chloro-Octodecane | 6.789 | 6.813 | -0.024 | 1911623 | 109.247 | 109.247 |
| 47 | C21 | 6.844 | 6.867 | -0.023 | 1774208 | 109.394 | 109.393 |
| 48 | C34 | 11.821 | 11.838 | -0.017 | 1706656 | 100.305 | 100.304 |

QC Flag Legend

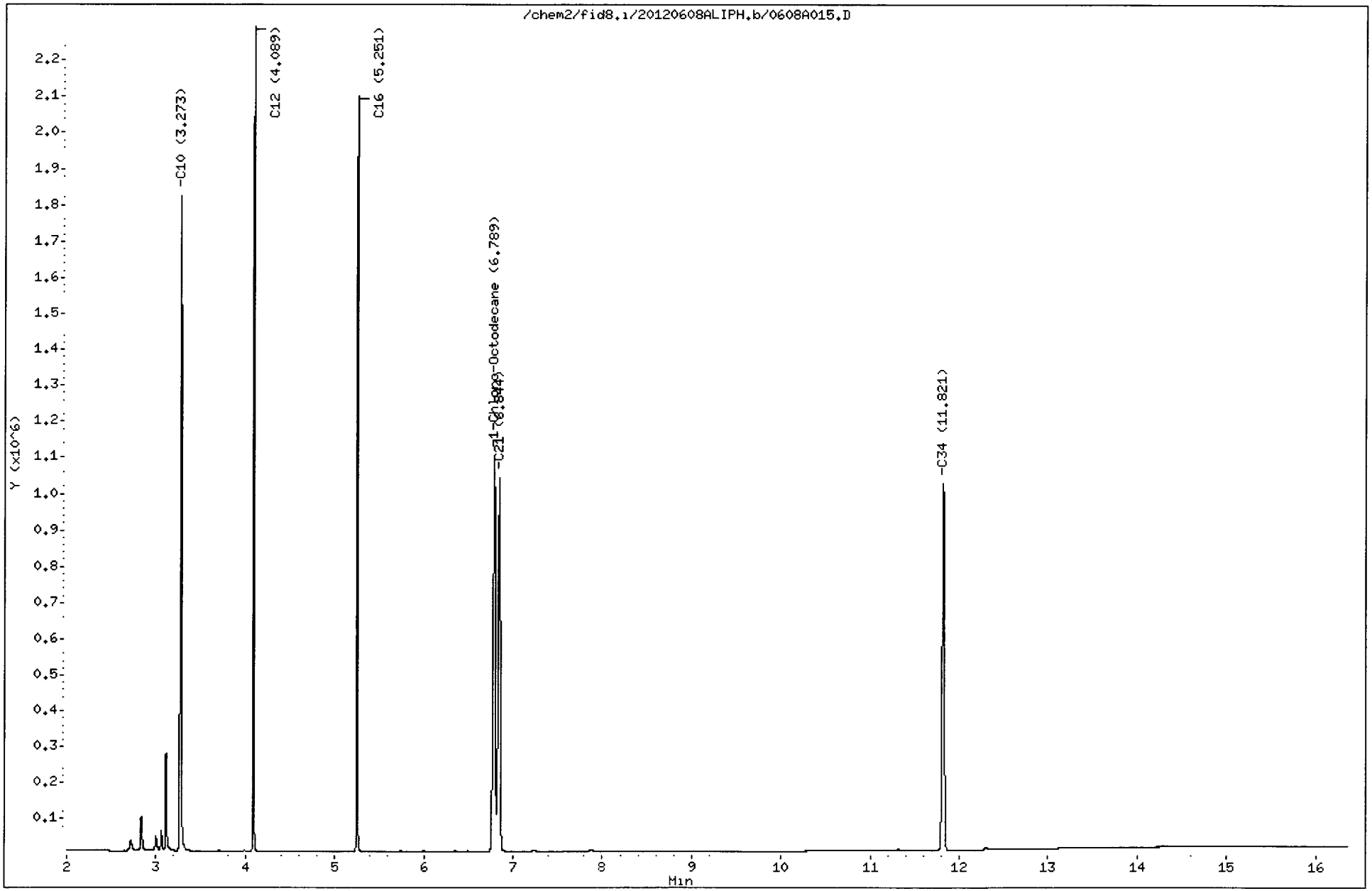
M - Compound response manually integrated.

Data File: /chem2/fid8.i/20120608ALIPH.b/0608A015.D
Date : 08-JUN-2012 17:40
Client ID:
Sample Info: ALIPHATIC #2

Column phase: ZB-5

Instrument: fid8.i

Operator: MH
Column diameter: 0.32




UW85 00131

Analytical Resources Inc.
WA. EPH Aliphatics Report

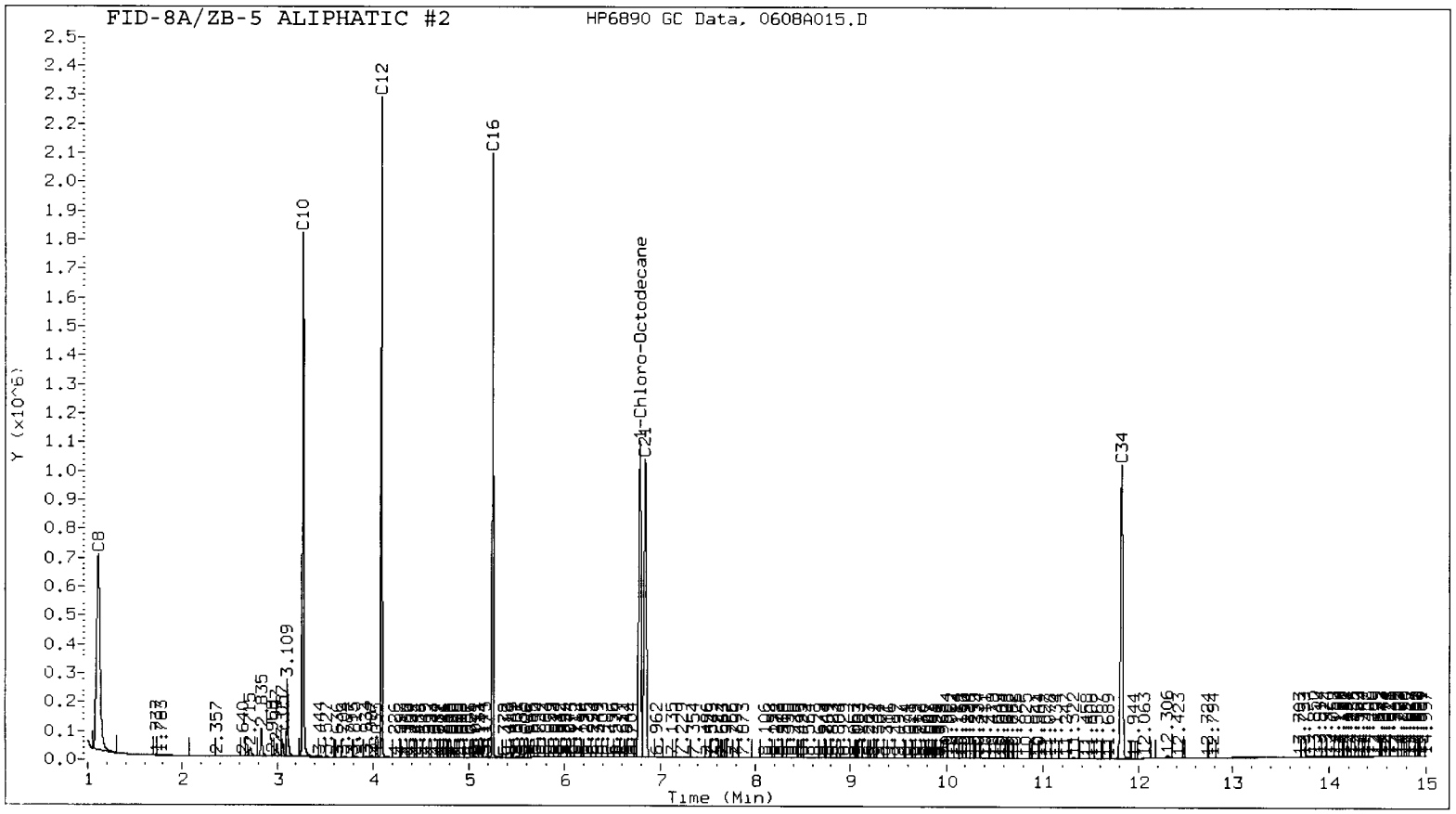
Data file: /chem2/fid8.i/20120608ALIPH.b/0608A015.D
Method: /chem2/fid8.i/20120608ALIPH.b/EPHAliph.m
Instrument: fid8.i
Operator: MH
Macro: ALIPH120912FID8

ARI ID: ALIPHATIC #2
Client ID:
Injection: 08-JUN-2012 17:40
Matrix: SOIL
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

| Quant Range | | Area | Conc | Time Range |
|---|---|---|---|---|
| C8-C10 | Aliph. | 4256414 | 219 | (1.041 - 3.382) |
| C10-C12 | Aliph. | 1680755 | 93 | (3.382 - 4.196) |
| C12-C16 | Aliph. | 1524004 | 90 | (4.196 - 5.361) |
| C16-C21 | Aliph. | 1795635 | 111 | (5.361 - 6.967) |
| C21-C34 | Aliph. | 1736617 | 102 | (6.967 - 11.938) |

Surrogate Rec: 72.8%




MANUAL INTEGRATION - Baseline Correction

Analyst: _____ Date: _____

MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A016.D
Lab Smp Id: AROM IB
Inj Date : 08-JUN-2012 18:05
Operator : MH Inst ID: fid8.i
Smp Info : AROM IB
Misc Info :
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13 Cal File: 0518A031.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

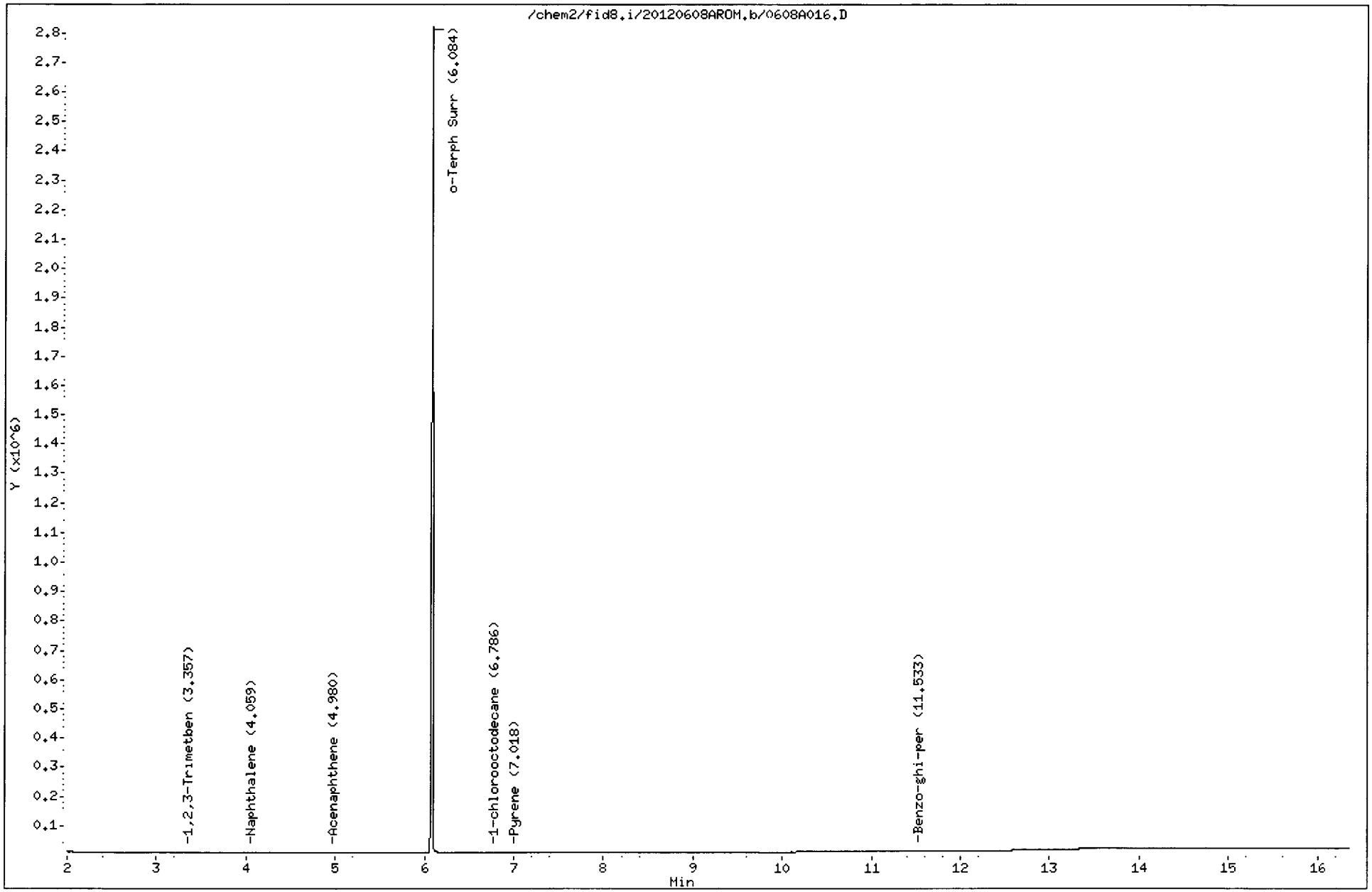
| | | | | | | CONCENTRATIONS | |
|---|---|---|---|---|---|---|---|
| | Compounds | RT | EXP RT | DLT RT | RESPONSE | ON-COLUMN (ng/mL) | FINAL (ug/Kg) |
| | 2 Toluene | Compound Not Detected. | | | | | |
| | 3 1,2,3-Trimetben | 3.357 | 3.387 | -0 030 | 48 | 0.00252 | 0.002 |
| | 4 Naphthalene | 4.059 | 4.063 | -0 004 | 92 | 0.00472 | 0.004 |
| | 7 Acenaphthene | 4.980 | 5.003 | -0.023 | 311 | 0.01646 | 0.016 |
| $ | 11 o-Terph Surr | 6.084 | 6.084 | 0.000 | 3031517 | 147.029 | 147.029 |
| | 75 1-chlorooctodecane | 6.786 | 6.782 | 0.004 | 1229 | | |
| | 13 Pyrene | 7 018 | 7.023 | -0.005 | 858 | 0.03839 | 0.038 |
| | 21 Benzo-ghi-per | 11.533 | 11.516 | 0.017 | 50 | 0.00203 | 0.002 |

Data File: /chem2/fid8.i/20120608AROM.b/0608A016.D
Date : 08-JUN-2012 18:05
Client ID:
Sample Info: AROM IB

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5




UW85:0019i

Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A016.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

ARI ID: AROM IB
Client ID:
Injection: 08-JUN-2012 18:05
Matrix: SOIL
Dilution Factor: 1

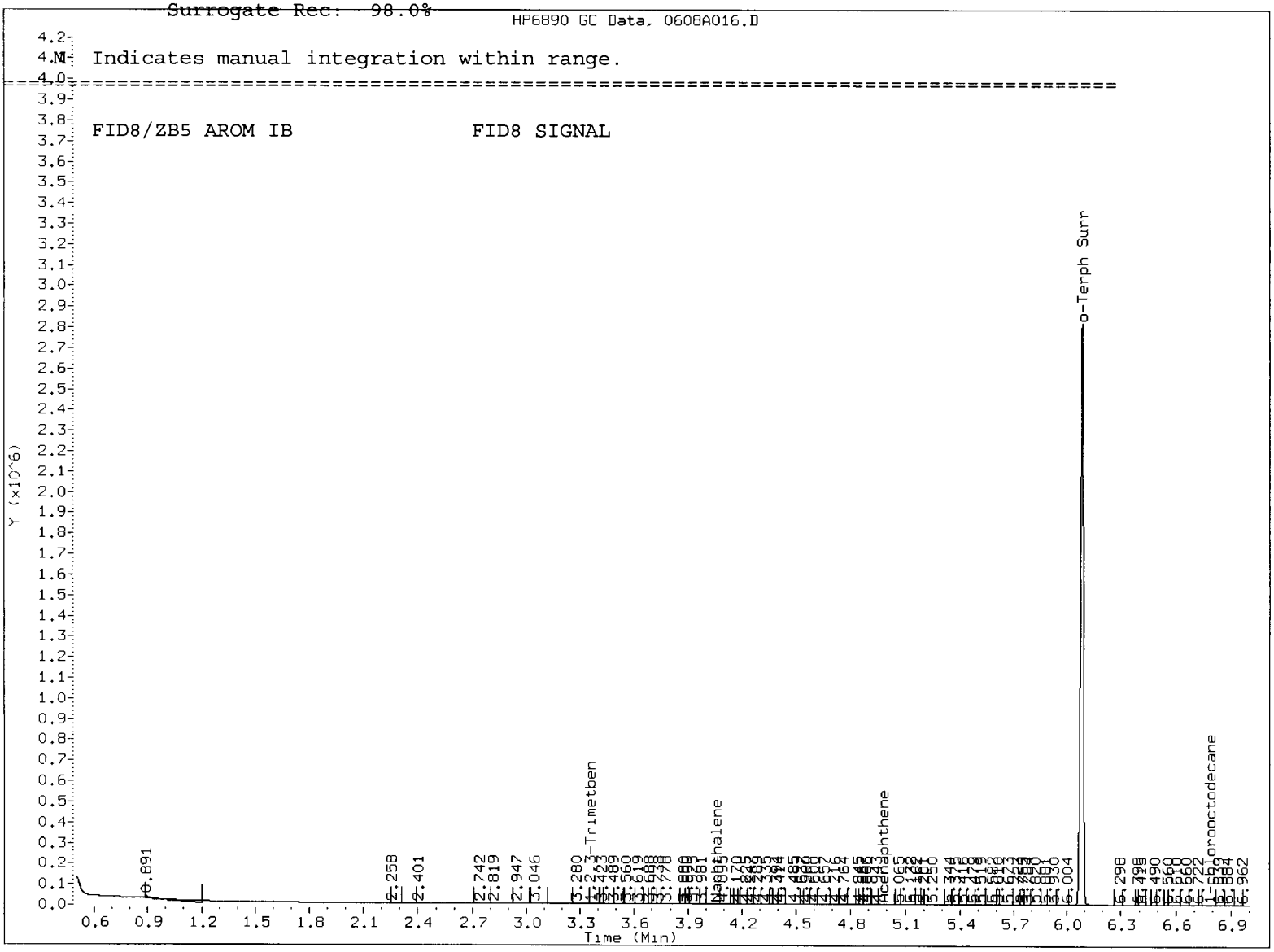
EPH-AROMATIC RESULTS

| Quant Range | | RF | Area | Conc | Time Range |
|---|---|---|---|---|---|
| C8-C10 | Arom. | 19994 | 71568 | 4 | (0.656 - 3.487) |
| C10-C12 | Arom. | 19472 | 755 | 0 | (3.487 - 4.163) |
| C12-C16 | Arom. | 18891 | 1422 | 0 | (4.163 - 5.103) |
| C16-C21 | Arom. | 22347 | 10513 | 0 | (5.103 - 7.123) |
| C21-C34 | Arom. | 24608 | 6781 | 0 | (7.123 - 11.616) |

Surrogate Rec: 98.0%

M Indicates manual integration within range.

FID8/ZB5 AROM IB FID8 SIGNAL



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A017.D
Lab Smp Id: AROMATIC #1
Inj Date : 08-JUN-2012 18:30
Operator : MH Inst ID: fid8.i
Smp Info : AROMATIC #1
Misc Info :
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13 Cal File: 0518A031.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

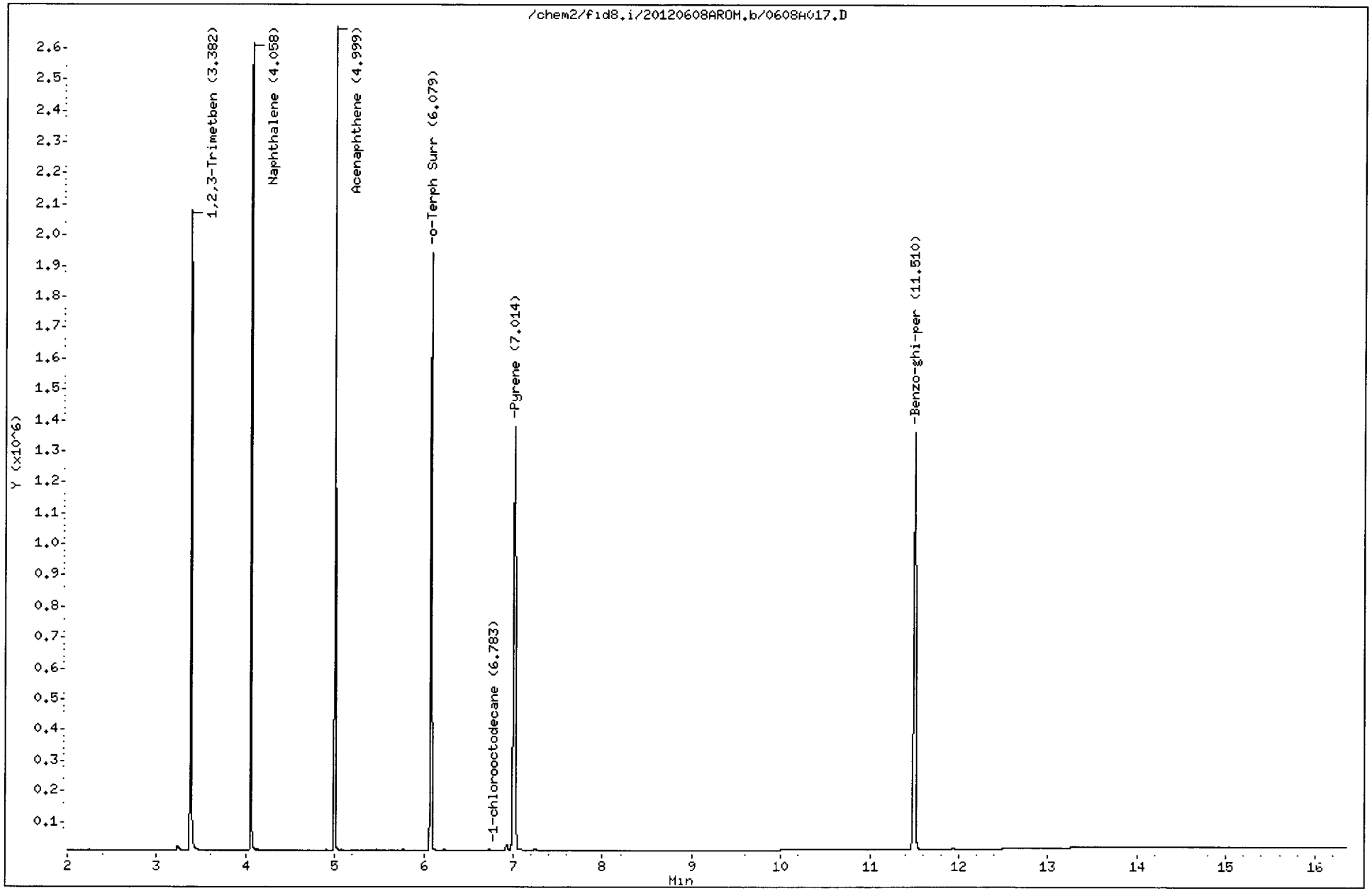
| | | | | | CONCENTRATIONS | |
|---|---|---|---|---|---|---|
| | | | | | ON-COLUMN | FINAL |
| Compounds | RT | EXP RT | DLT RT | RESPONSE | (ng/mL) | (ug/Kg) |
| 2 Toluene | 0.753 | 0.756 | -0.003 | 2015151 | 96.1140 | 96.114 |
| 3 1,2,3-Trimetben | 3.382 | 3.387 | -0.005 | 1842282 | 96.8511 | 96.851 |
| 4 Naphthalene | 4.058 | 4.063 | -0.005 | 1888526 | 96.9876 | 96.987 |
| 7 Acenaphthene | 4.999 | 5.003 | -0.004 | 1823678 | 96.5376 | 96.537 |
| $ 11 o-Terph Surr | 6.079 | 6.084 | -0.005 | 2009105 | 97.4419 | 97.441 |
| 75 1-chlorooctodecane | 6.783 | 6.782 | 0.001 | 1588 | | |
| 13 Pyrene | 7.014 | 7.023 | -0.009 | 2295519 | 102.720 | 102.719 |
| 21 Benzo-ghi-per | 11.510 | 11.516 | -0.006 | 2151806 | 87.4446 | 87.444 |

Data File: /chem2/fid8.i/20120608AROM.b/0608A017.D
Date : 08-JUN-2012 18:30
Client ID:
Sample Info: AROMATIC #1

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5




UW35.00137

Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A017.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

ARI ID: AROMATIC #1
Client ID:
Injection: 08-JUN-2012 18:30
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

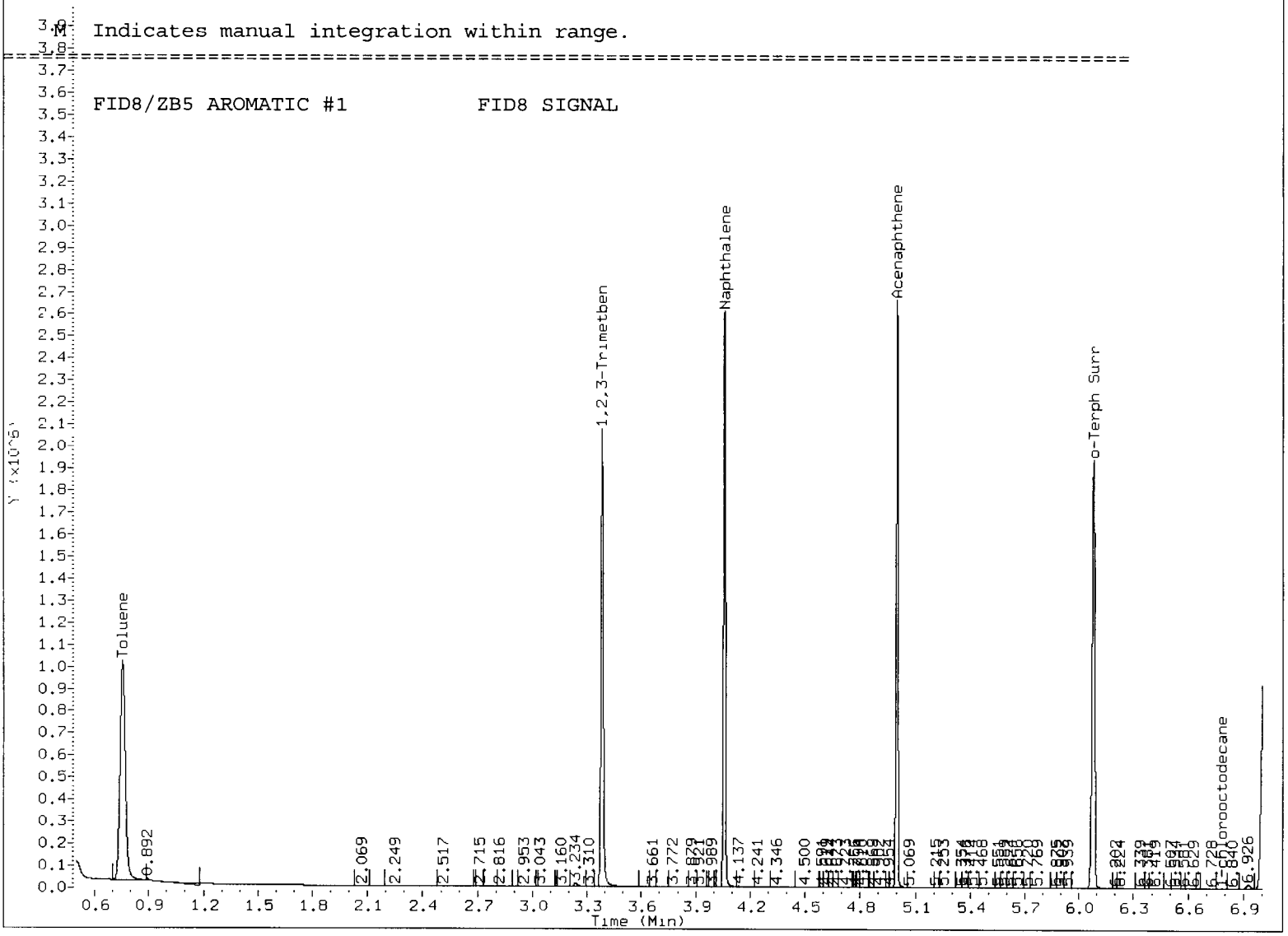
| Quant Range | | RF | Area | Conc | Time Range |
|---|---|---|---|---|---|
| C8-C10 | Arom. | 19994 | 3935024 | 197 | (0.656 - 3.487) |
| C10-C12 | Arom. | 19472 | 1896947 | 97 | (3.487 - 4.163) |
| C12-C16 | Arom. | 18891 | 1834604 | 97 | (4.163 - 5.103) |
| C16-C21 | Arom. | 22347 | 2347399 | 105 | (5.103 - 7.123) |
| C21-C34 | Arom. | 24608 | 2167219 | 88 | (7.123 - 11.616) |

Surrogate Rec: 65.0%

M Indicates manual integration within range.

HP6890 GC Data, 0608A017.D

FID8/ZB5 AROMATIC #1 FID8 SIGNAL



6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A018.D
Lab Smp Id: UW94MBS1 Client Smp ID: UW94MBS1
Inj Date : 08-JUN-2012 18:55
Operator : MH Inst ID: fid8.i
Smp Info : UW94MBS1
Misc Info : 12-10102
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13 Cal File: 0518A031.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

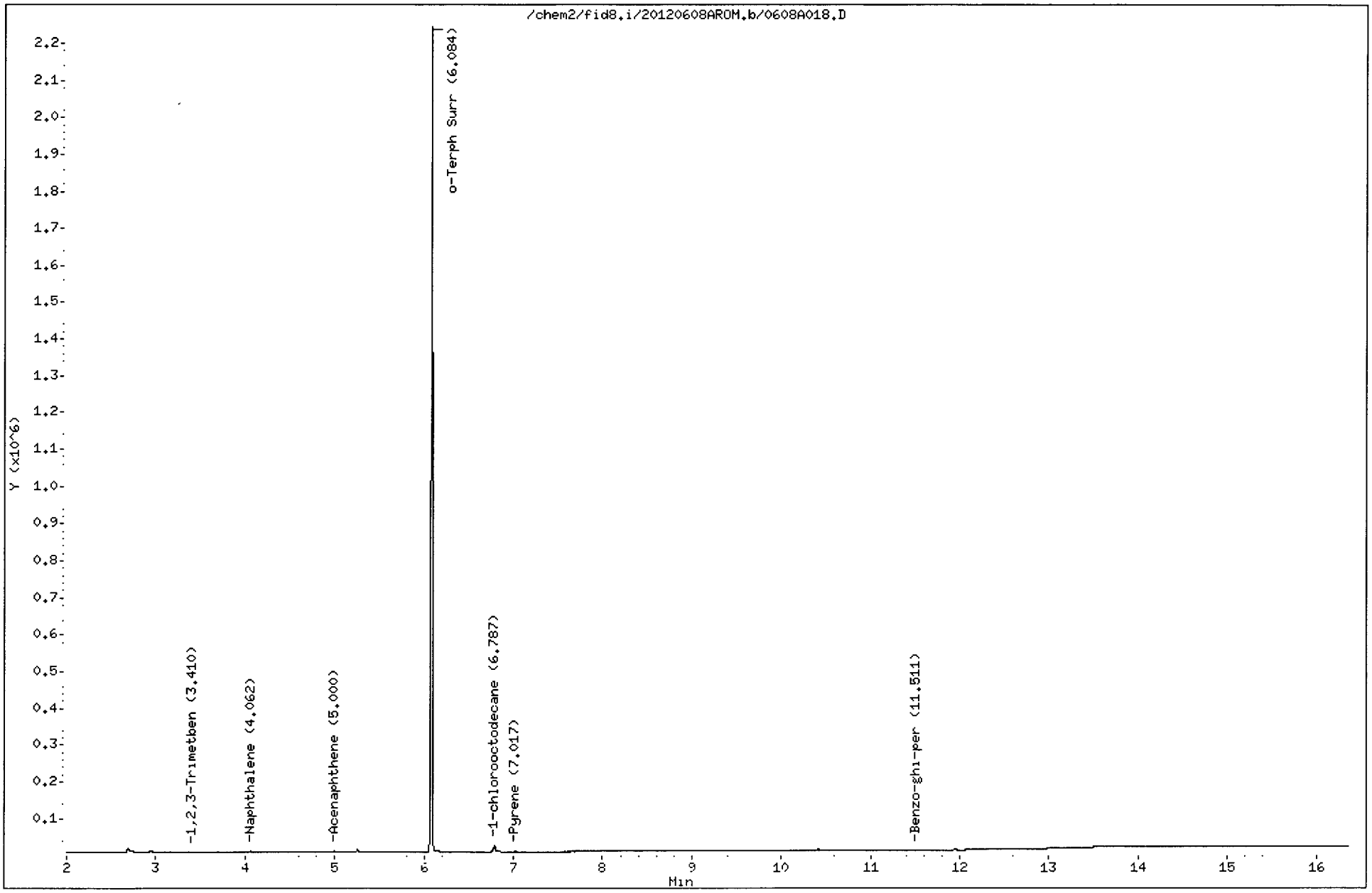
Cpnd Variable Local Compound Variable

| | Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | CONCENTRATIONS FINAL (ug/Kg) |
|---|---|---|---|---|---|---|---|
| 2 | Toluene | 0.785 | 0.756 | 0.029 | 35007 | 1.66968 | 1.669 |
| 3 | 1,2,3-Trimetben | 3.410 | 3.387 | 0.023 | 462 | 0.02429 | 0.024 |
| 4 | Naphthalene | 4.062 | 4.063 | -0.001 | 2068 | 0.10620 | 0.106 |
| 7 | Acenaphthene | 5.000 | 5.003 | -0.003 | 2110 | 0.11169 | 0.111 |
| $ 11 | o-Terph Surr | 6.084 | 6.084 | 0 000 | 2333649 | 113.182 | 113.182 |
| 75 | 1-chlorooctodecane | 6.787 | 6.782 | 0.005 | 26025 | | |
| 13 | Pyrene | 7 017 | 7.023 | -0.006 | 1427 | 0.06386 | 0.063 |
| 21 | Benzo-ghi-per | 11.511 | 11.516 | -0.005 | 329 | 0.01337 | 0.013 |

Data File: /chem2/fid8.i/20120608AROM.b/0608A018.D
Date : 08-JUN-2012 18:55
Client ID: UW94MBS1
Sample Info: UW94MBS1

Instrument: fid8.i

Operator: MH
Column phase: ZB-5
Column diameter: 0.32




UW85 : 00140

Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A018.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

ARI ID: UW94MBS1
Client ID: UW94MBS1
Injection: 08-JUN-2012 18:55
Matrix: SOIL
Dilution Factor: 1

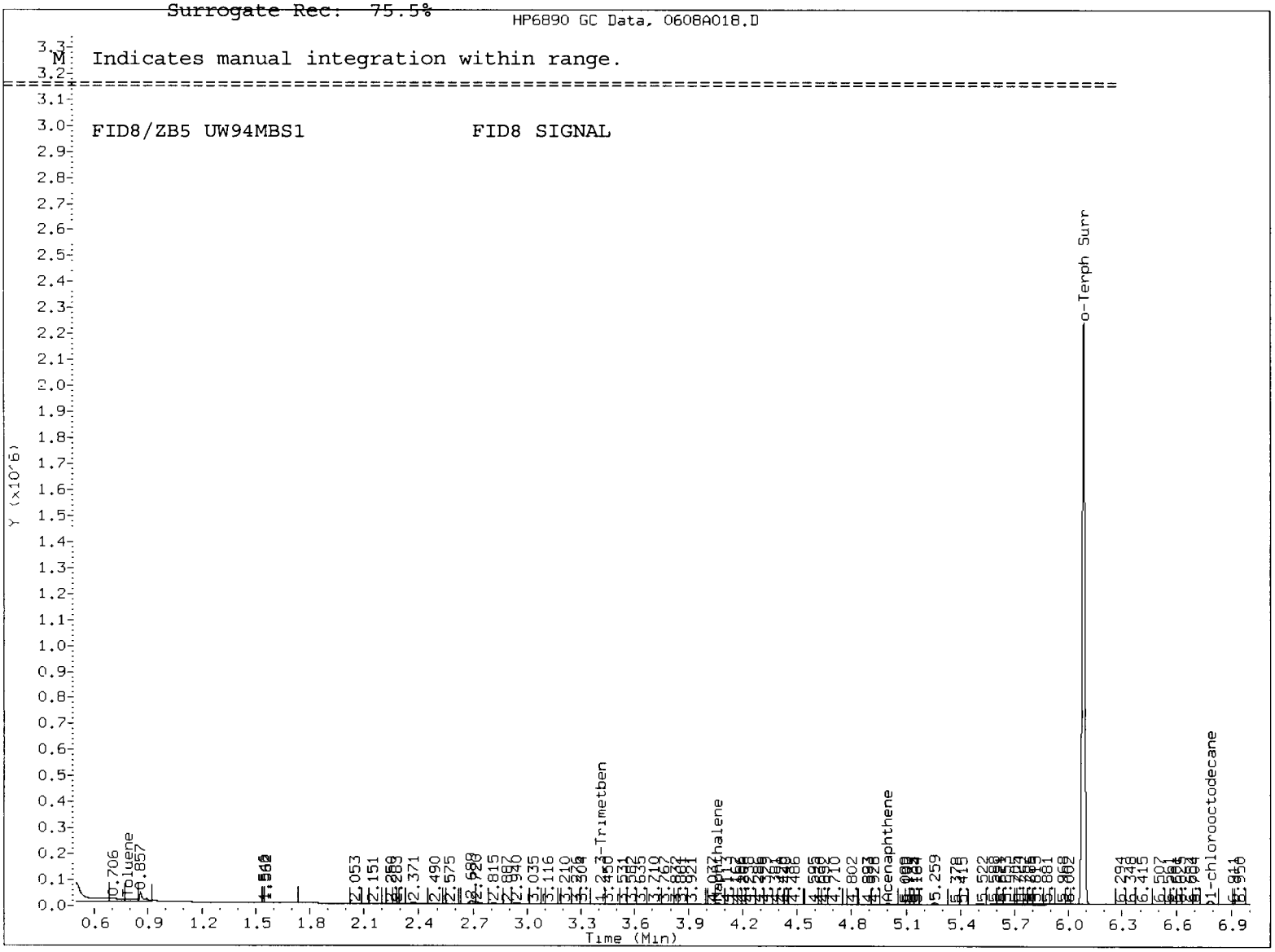
EPH-AROMATIC RESULTS

| Quant Range | | RF | Area | Conc | Time Range |
|---|---|---|---|---|---|
| C8-C10 | Arom. | 19994 | 187495 | 9 | (0.656 - 3.487) |
| C10-C12 | Arom. | 19472 | 5380 | 0 | (3.487 - 4.163) |
| C12-C16 | Arom. | 18891 | 4356 | 0 | (4.163 - 5.103) |
| C16-C21 | Arom. | 22347 | 45925 | 2 | (5.103 - 7.123) |
| C21-C34 | Arom. | 24608 | 14548 | 1 | (7.123 - 11.616) |

Surrogate Rec: 75.5%

M Indicates manual integration within range.

FID8/ZB5 UW94MBS1 FID8 SIGNAL



MH 6/11/12



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A019.D
Lab Smp Id: UW94LCSS1 Client Smp ID: UW94LCSS1
Inj Date : 08-JUN-2012 19:20
Operator : MH Inst ID: fid8.i
Smp Info : UW94LCSS1
Misc Info : 12-10102
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13 Cal File: 0518A031.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

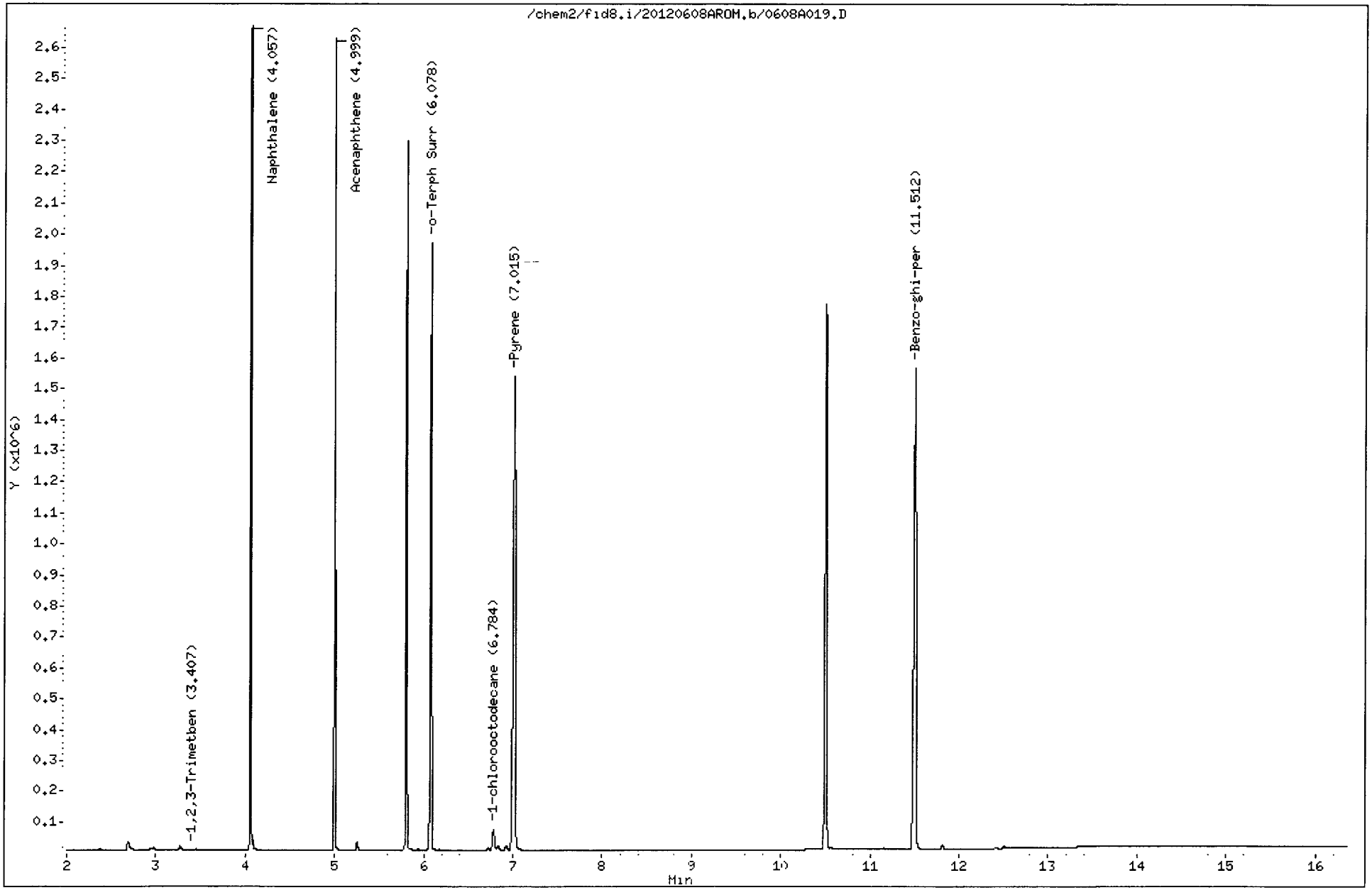
| | Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | CONCENTRATIONS FINAL (ug/Kg) |
|---|---|---|---|---|---|---|---|
| | ========== | == | ====== | ====== | ======== | ======= | ======= |
| 2 | Toluene | 0.717 | 0.756 | -0.039 | 20942 | 0.99884 | 0.998 |
| 3 | 1,2,3-Trimetben | 3.407 | 3.387 | 0.020 | 1078 | 0.05667 | 0.056 |
| 4 | Naphthalene | 4.057 | 4.063 | -0.006 | 1838269 | 94.4065 | 94.406 |
| 7 | Acenaphthene | 4 999 | 5.003 | -0.004 | 1810010 | 95.8141 | 95.814 |
| $ 11 | o-Terph Surr | 6.078 | 6.084 | -0.006 | 2120149 | 102 828 | 102.827 |
| 75 | 1-chlorooctodecane | 6.784 | 6.782 | 0.002 | 111554 | | |
| 13 | Pyrene | 7 015 | 7.023 | -0.008 | 2572117 | 115.097 | 115.097 |
| 21 | Benzo-ghi-per | 11 512 | 11.516 | -0.004 | 2725751 | 110.768 | 110.768 |

Data File: /chem2/fid8.i/20120608AROM.b/0608A019.D
Date : 08-JUN-2012 19:20
Client ID: UW94LCSS1
Sample Info: UW94LCSS1

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5




UW85:0013

Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A019.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

ARI ID: UW94LCSS1
Client ID: UW94LCSS1
Injection: 08-JUN-2012 19:20
Matrix: SOIL
Dilution Factor: 1

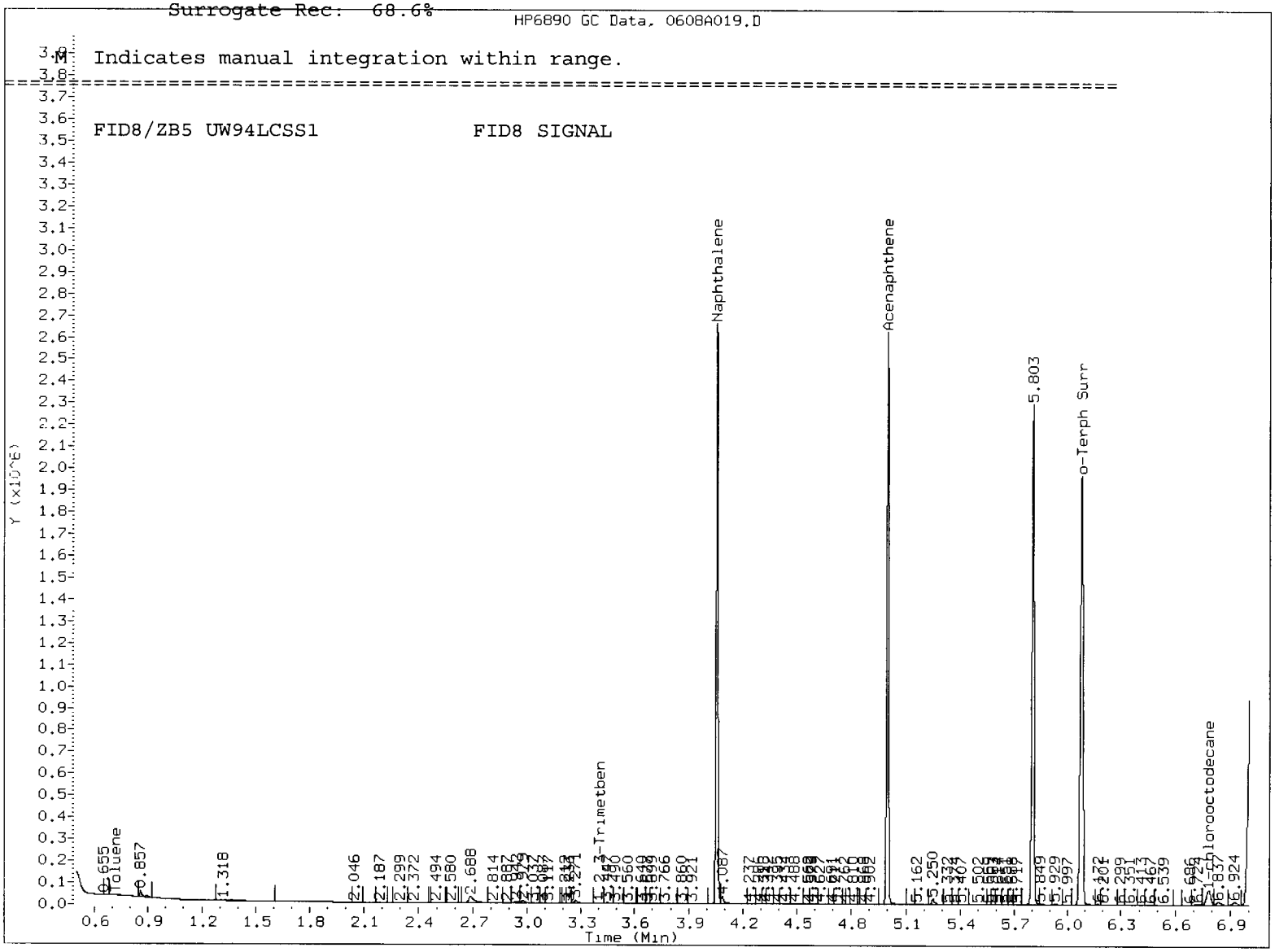
EPH-AROMATIC RESULTS

| Quant Range | | RF | Area | Conc | Time Range |
|---|---|---|---|---|---|
| C8-C10 | Arom. | 19994 | 159839 | 8 | (0.656 - 3.487) |
| C10-C12 | Arom. | 19472 | 1880884 | 97 | (3.487 - 4.163) |
| C12-C16 | Arom. | 18891 | 1819550 | 96 | (4.163 - 5.103) |
| C16-C21 | Arom. | 22347 | 4765652 | 213 | (5.103 - 7.123) |
| C21-C34 | Arom. | 24608 | 5150863 | 209 | (7.123 - 11.616) |

Surrogate Rec: 68.6%

M Indicates manual integration within range.

FID8/ZB5 UW94LCSS1 FID8 SIGNAL



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A020.D
Lab Smp Id: UW94LCSDS1 Client Smp ID: UW94LCSDS1
Inj Date : 08-JUN-2012 19:46
Operator : MH Inst ID: fid8.i
Smp Info : UW94LCSDS1
Misc Info : 12-10102
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13 Cal File: 0518A031.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | CONCENTRATIONS FINAL (ug/Kg) |
|---|---|---|---|---|---|---|---|
| 2 | Toluene | Compound Not Detected. | | | | | |
| 3 | 1,2,3-Trimetben | 3.391 | 3.387 | 0.004 | 171 | 0.00899 | 0.008 |
| 4 | Naphthalene | 4.056 | 4 063 | -0.007 | 1771985 | 91.0024 | 91.002 |
| 7 | Acenaphthene | 4.999 | 5 003 | -0.004 | 1771893 | 93.7963 | 93.796 |
| $ 11 | o-Terph Surr | 6.075 | 6.084 | -0.009 | 2199401 | 106.671 | 106.671 |
| 75 | 1-chlorooctodecane | 6.780 | 6 782 | -0.002 | 15591 | | |
| 13 | Pyrene | 7.013 | 7 023 | -0.010 | 2685829 | 120.186 | 120.185 |
| 21 | Benzo-ghi-per | 11.513 | 11 516 | -0.003 | 2775834 | 112 804 | 112.803 |

Data File: /chem2/fid8.i/20120608AROM.b/0608A020.D

Date : 08-JUN-2012 19:46

Client ID: UW94LCSDS1

Sample Info: UW94LCSDS1

Instrument: fid8.i

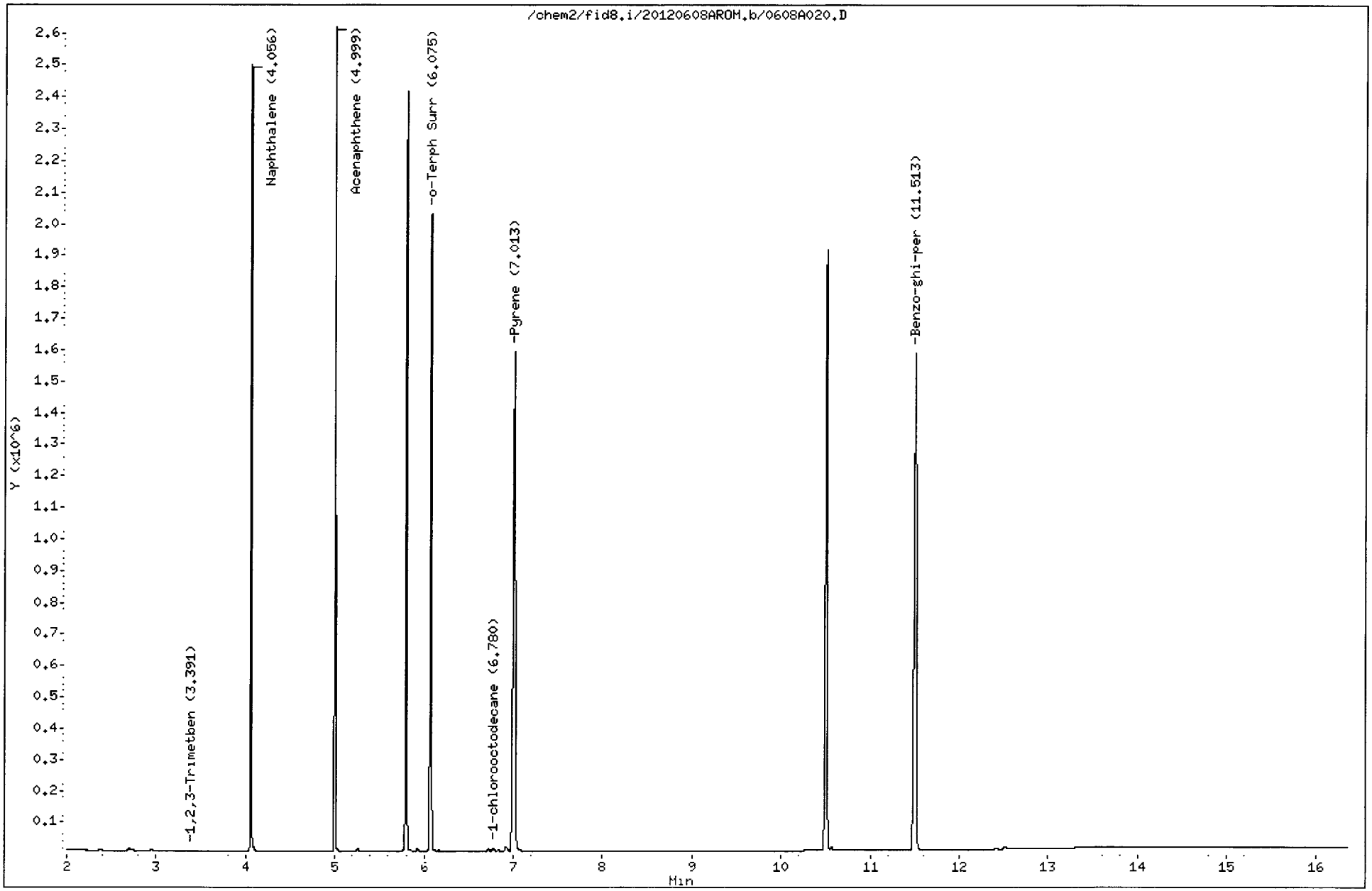
Operator: MH

Column phase: ZB-5

Column diameter: 0.32



UW85.00146



Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A020.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

ARI ID: UW94LCSDS1
Client ID: UW94LCSDS1
Injection: 08-JUN-2012 19:46
Matrix: SOIL
Dilution Factor: 1

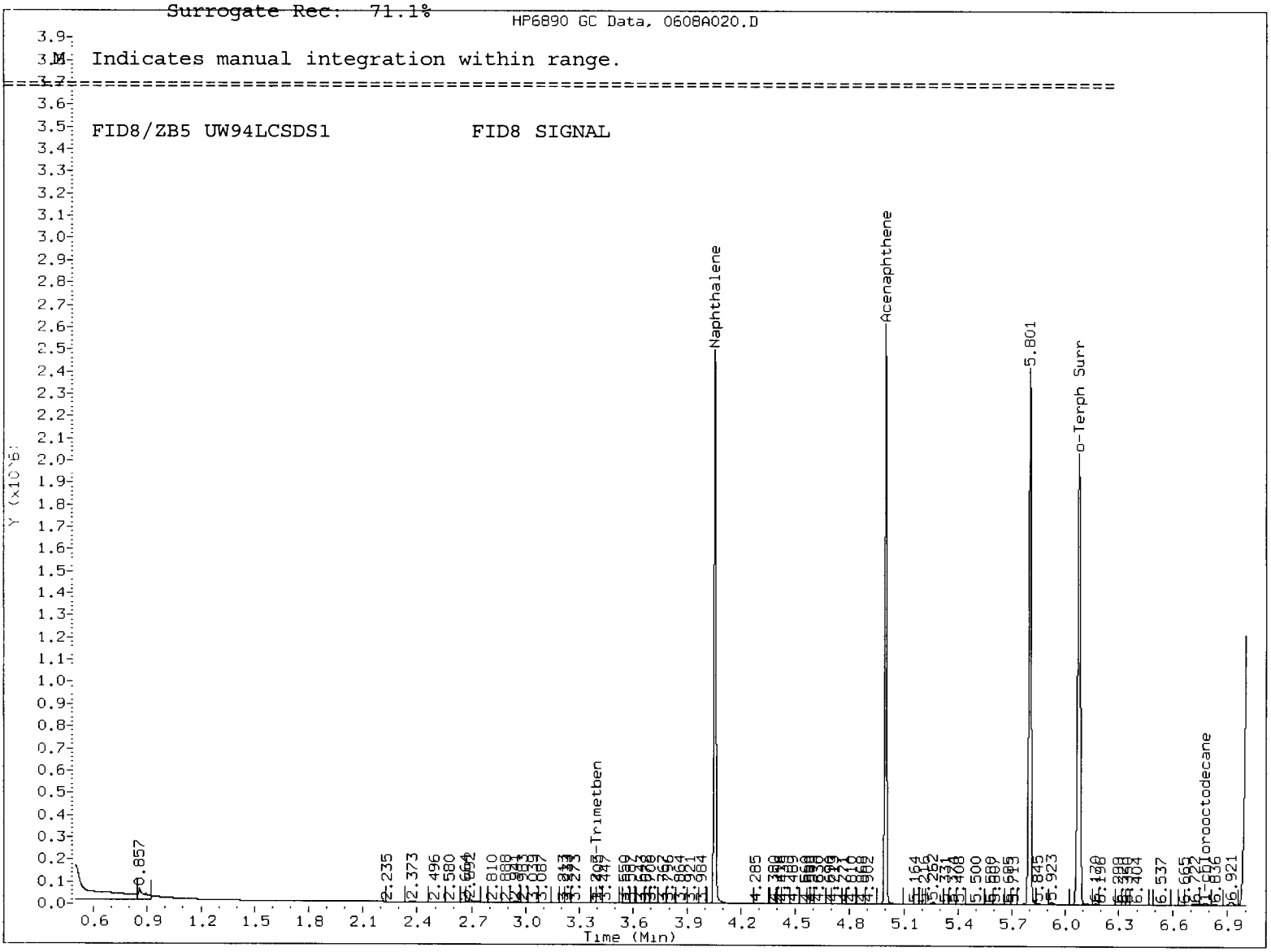
EPH-AROMATIC RESULTS

| Quant Range | | RF | Area | Conc | Time Range |
|---|---|---|---|---|---|
| C8-C10 | Arom. | 19994 | 179261 | 9 | (0.656 - 3.487) |
| C10-C12 | Arom. | 19472 | 1774645 | 91 | (3.487 - 4.163) |
| C12-C16 | Arom. | 18891 | 1775566 | 94 | (4.163 - 5.103) |
| C16-C21 | Arom. | 22347 | 4852571 | 217 | (5.103 - 7.123) |
| C21-C34 | Arom. | 24608 | 5450226 | 221 | (7.123 - 11.616) |

Surrogate Rec: 71.1%

M Indicates manual integration within range.

FID8/ZB5 UW94LCSDS1 FID8 SIGNAL



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A023.D
Lab Smp Id: UW85A  Client Smp ID: MS001-SS-120515
Inj Date : 08-JUN-2012 21:01
Operator : MH  Inst ID: fid8.i
Smp Info : UW85A
Misc Info : 12-10066
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah  Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13  Cal File: 0518A031.D
Als bottle: 21
Dil Factor: 1.00000
Integrator: Falcon  Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable  Local Compound Variable

| | | | | | CONCENTRATIONS | |
|---|---|---|---|---|---|---|
| | | | | | ON-COLUMN | FINAL |
| Compounds | RT | EXP RT | DLT RT | RESPONSE | (ng/mL) | (ug/kg) |
| 2 Toluene | 0.770 | 0.756 | 0.014 | 1206 | 0 05755 | 0.057(M) |
| 3 1,2,3-Trimetben | 3.386 | 3.387 | -0.001 | 334 | 0.01758 | 0 017 |
| 4 Naphthalene | 4.060 | 4.063 | -0.003 | 6380 | 0 32770 | 0 327 |
| 7 Acenaphthene | 4.998 | 5.003 | -0.005 | 4512 | 0 23889 | 0.238 |
| $ 11 o-Terph Surr | 6.080 | 6.084 | -0.004 | 2270982 | 110.143 | 110.143 |
| 75 1-chlorooctodecane | 6.766 | 6.782 | -0.016 | 26648 | | |
| 13 Pyrene | 7.005 | 7 023 | -0.018 | 25711 | 1.15055 | 1.150 |
| 21 Benzo-ghi-per | 11.496 | 11 516 | -0.020 | 19538 | 0.79399 | 0.793 |

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem2/fid8.i/20120608AROM.b/0608A023.D

Date : 08-JUN-2012 21:01

Client ID: MS001-SS-120515

Sample Info: UW85A

Column phase: ZB-5

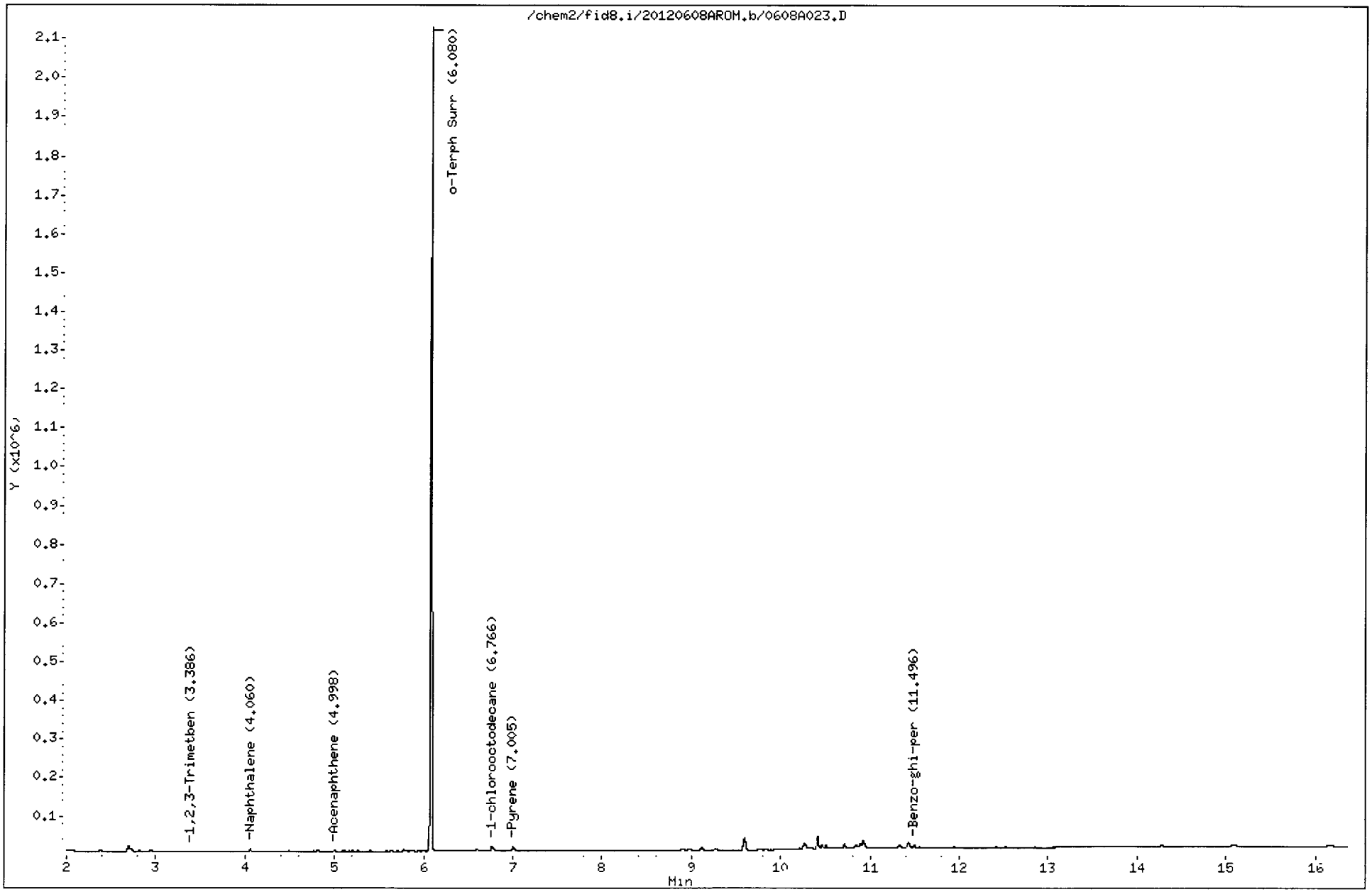
Instrument: fid8.i

Operator: MH

Column diameter: 0.32







Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A023.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

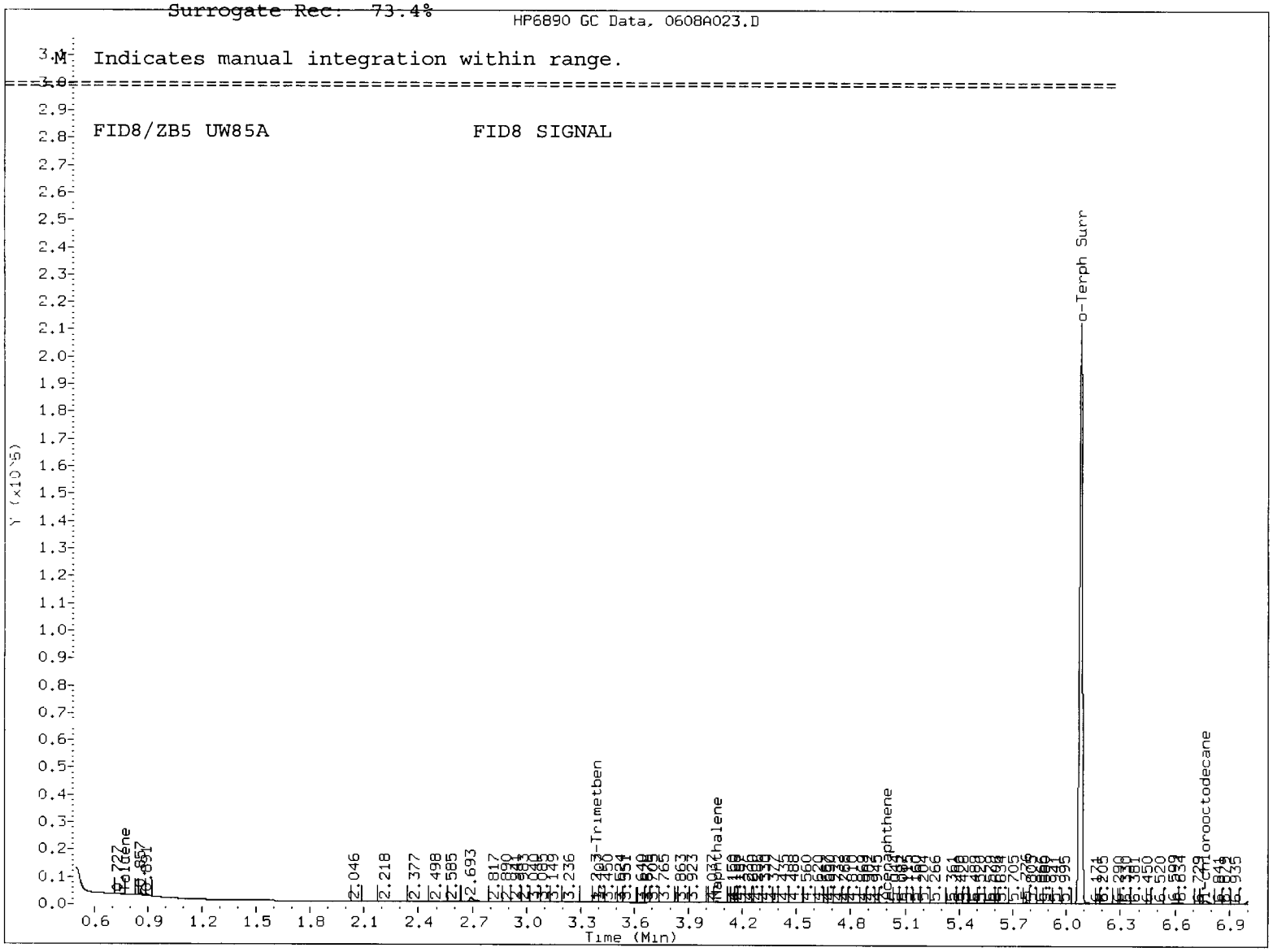
ARI ID: UW85A
Client ID: MS001-SS-120515
Injection: 08-JUN-2012 21:01
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

| Quant Range | | RF | Area | Conc | Time Range |
|---|---|---|---|---|---|
| C8-C10 | Arom. | 19994 | 71950 | 4 | (0.656 - 3.487) M |
| C10-C12 | Arom. | 19472 | 11028 | 1 | (3.487 - 4.163) |
| C12-C16 | Arom. | 18891 | 25613 | 1 | (4.163 - 5.103) |
| C16-C21 | Arom. | 22347 | 134260 | 6 | (5.103 - 7.123) |
| C21-C34 | Arom. | 24608 | 727597 | 30 | (7.123 - 11.616) |

Surrogate Rec: 73.4%

M Indicates manual integration within range.



MH 6/11/12



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A024.D
Lab Smp Id: UW85AMS Client Smp ID: MS001-SS-120515 MS
Inj Date : 08-JUN-2012 21:26
Operator : MH Inst ID: fid8.i
Smp Info : UW85AMS
Misc Info : 12-10066
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13 Cal File: 0518A031.D
Als bottle: 22 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|
| | 2 Toluene | 0.737 | 0.756 | -0.019 | 18679 | 0.89095 | 0.890 |
| | 3 1,2,3-Trimetben | 3.407 | 3 387 | 0.020 | 4187 | 0.22014 | 0 220 |
| | 4 Naphthalene | 4.057 | 4 063 | -0 006 | 1641403 | 84.2963 | 84.296 |
| | 7 Acenaphthene | 4.999 | 5.003 | -0.004 | 1804747 | 95.5355 | 95.535 |
| $ | 11 o-Terph Surr | 6.082 | 6 084 | -0 002 | 2270741 | 110.131 | 110.131 |
| | 75 1-chlorooctodecane | 6.783 | 6.782 | 0 001 | 35883 | | |
| | 13 Pyrene | 7.020 | 7 023 | -0 003 | 2727738 | 122.061 | 122.060 |
| | 21 Benzo-ghi-per | 11.517 | 11.516 | 0.001 | 2902975 | 117.971 | 117.970 |

Data File: /chem2/fid8.i/20120608AROM.b/0608A024.D

Date : 08-JUN-2012 21:26

Client ID: MS001-SS-120515 MS

Sample Info: UW85AMS

Column phase: ZB-5

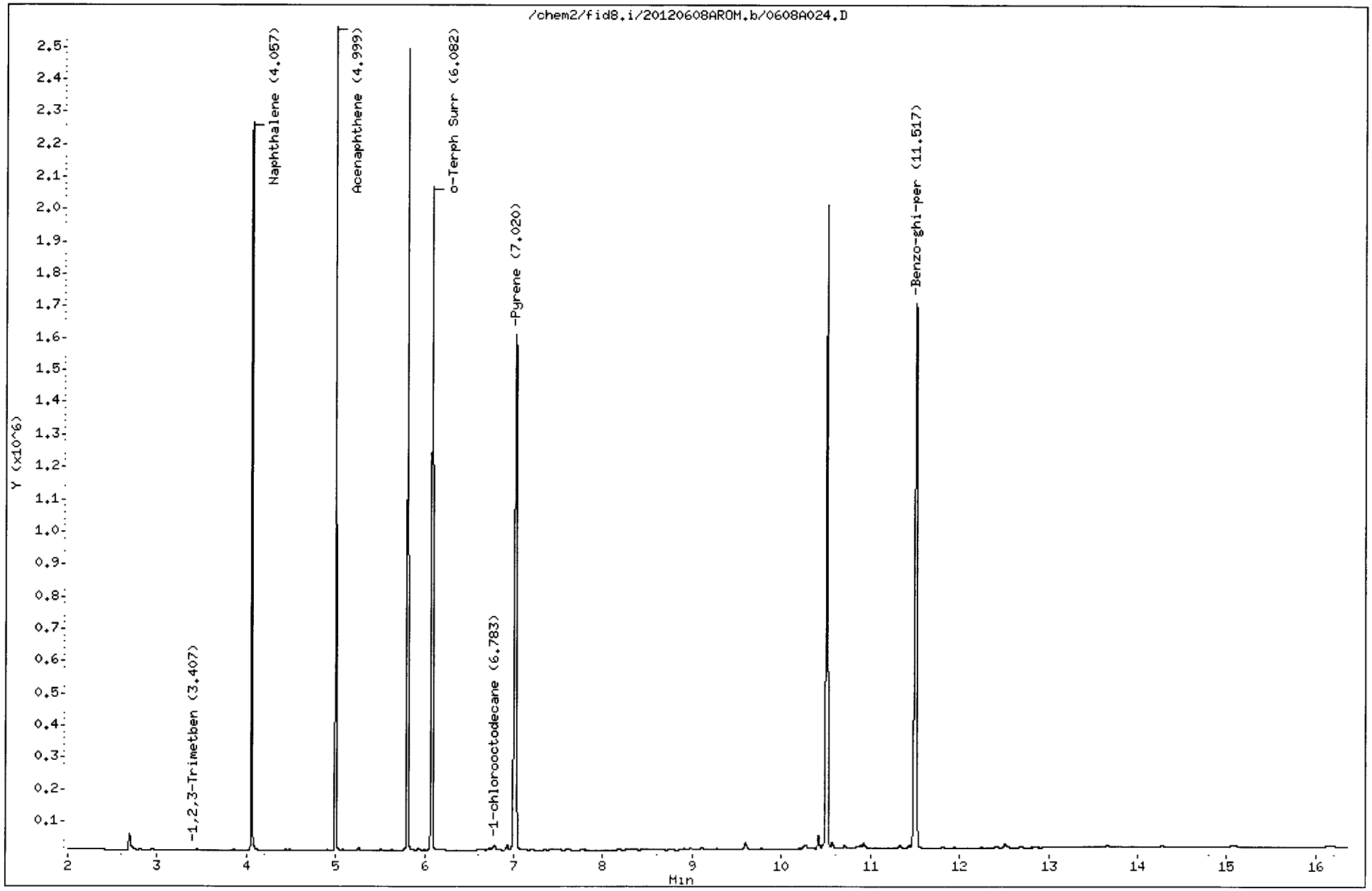
Instrument: fid8.i

Operator: MH

Column diameter: 0.32







Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A024.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

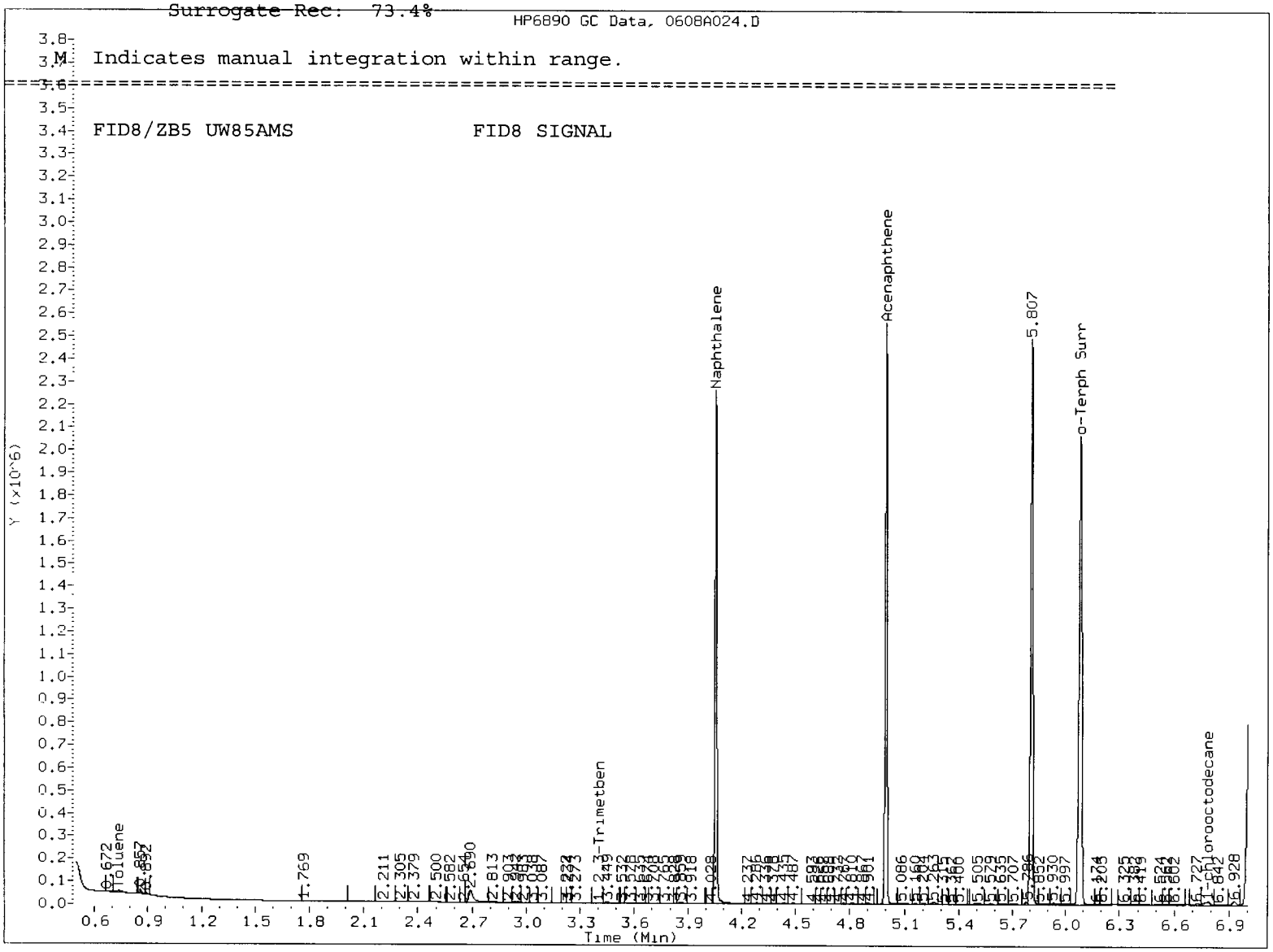
ARI ID: UW85AMS
Client ID: MS001-SS-120515 MS
Injection: 08-JUN-2012 21:26
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

| Quant Range | RF | Area | Conc | Time Range |
|---|---|---|---|---|
| C8-C10 Arom. | 19994 | 174288 | 9 | (0.656 - 3.487) M |
| C10-C12 Arom. | 19472 | 1662252 | 85 | (3.487 - 4.163) |
| C12-C16 Arom. | 18891 | 1846107 | 98 | (4.163 - 5.103) |
| C16-C21 Arom. | 22347 | 5041136 | 226 | (5.103 - 7.123) |
| C21-C34 Arom. | 24608 | 6310927 | 256 | (7.123 - 11.616) |

Surrogate Rec: 73.4%

M Indicates manual integration within range.



MH 6/11/12



Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A025.D
Lab Smp Id: UW85AMSD Client Smp ID: MS001-SS-120515 MSD
Inj Date : 08-JUN-2012 21:52
Operator : MH Inst ID: fid8.i
Smp Info : UW85AMSD
Misc Info : 12-10066
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13 Cal File: 0518A031.D
Als bottle: 23 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | | | | | CONCENTRATIONS | |
|---|---|---|---|---|---|---|
| | | | | | ON-COLUMN | FINAL |
| Compounds | RT | EXP RT | DLT RT | RESPONSE | (ng/mL) | (ug/kg) |
| 2 Toluene | 0.718 | 0.756 | -0.038 | 7275 | 0.34700 | 0.346 (M) |
| 3 1,2,3-Trimetben | 3.384 | 3.387 | -0.003 | 369 | 0.01940 | 0.019 |
| 4 Naphthalene | 4.056 | 4.063 | -0.007 | 1843495 | 94.6749 | 94.674 (M) |
| 7 Acenaphthene | 4.998 | 5.003 | -0.005 | 1779915 | 94.2210 | 94.220 (M) |
| $ 11 o-Terph Surr | 6.080 | 6.084 | -0.004 | 2163872 | 104 948 | 104.948 (M) |
| 75 1-chlorooctodecane | 6.769 | 6 782 | -0.013 | 23101 | | (M) |
| 13 Pyrene | 7.017 | 7.023 | -0.006 | 2674752 | 119.690 | 119.689 (M) |
| 21 Benzo-ghi-per | 11.514 | 11 516 | -0.002 | 2745377 | 111.566 | 111.566 (M) |

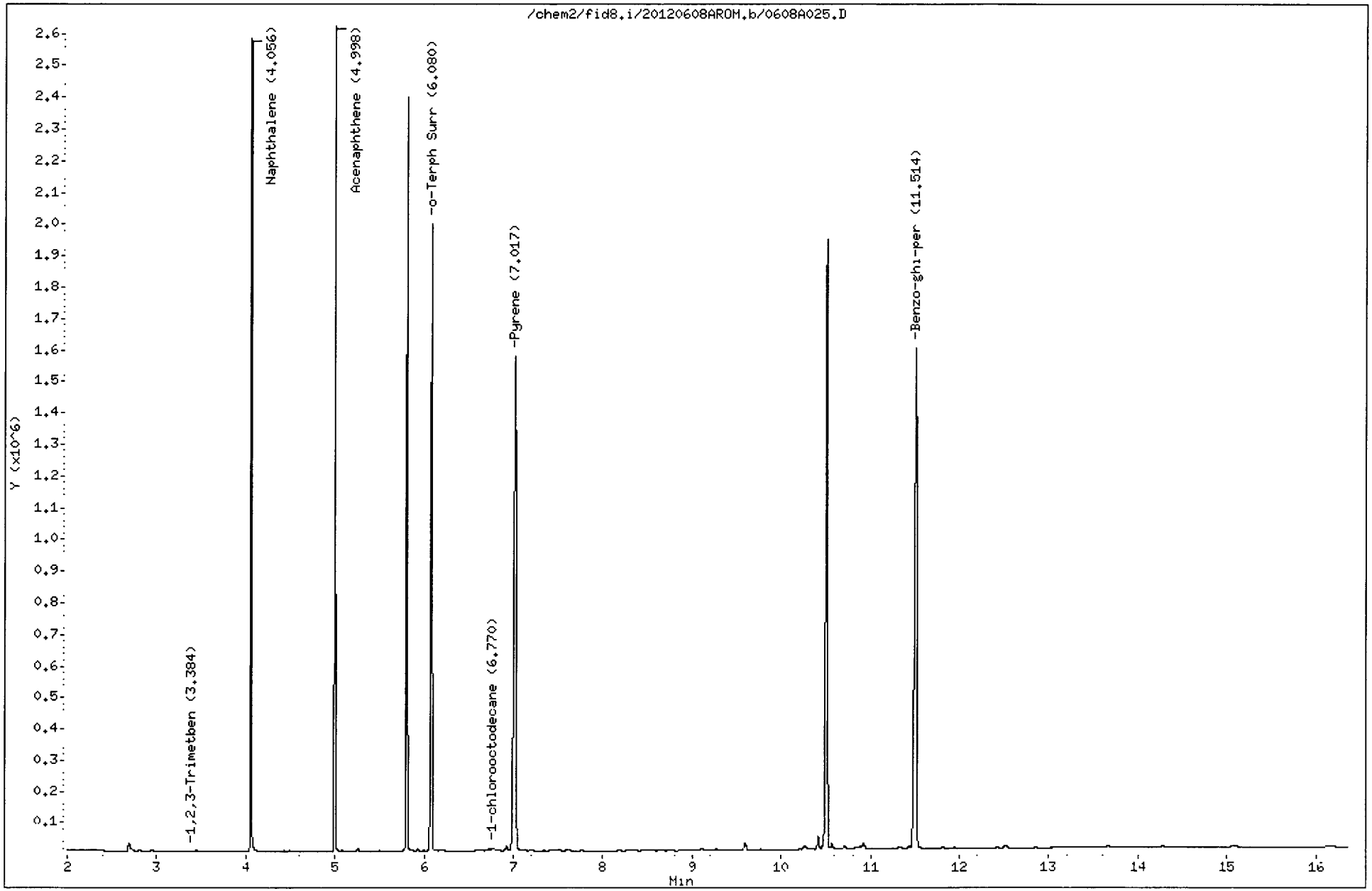
QC Flag Legend

M - Compound response manually integrated.

Data File: /chem2/fid8.i/20120608AROM.b/0608A025.D
Date : 08-JUN-2012 21:52
Client ID: MS001-SS-120515 MSD
Sample Info: UW85AMSD

Instrument: fid8.i
Operator: MH
Column diameter: 0.32

Column phase: ZB-5




UW85 : 00155

Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A025.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

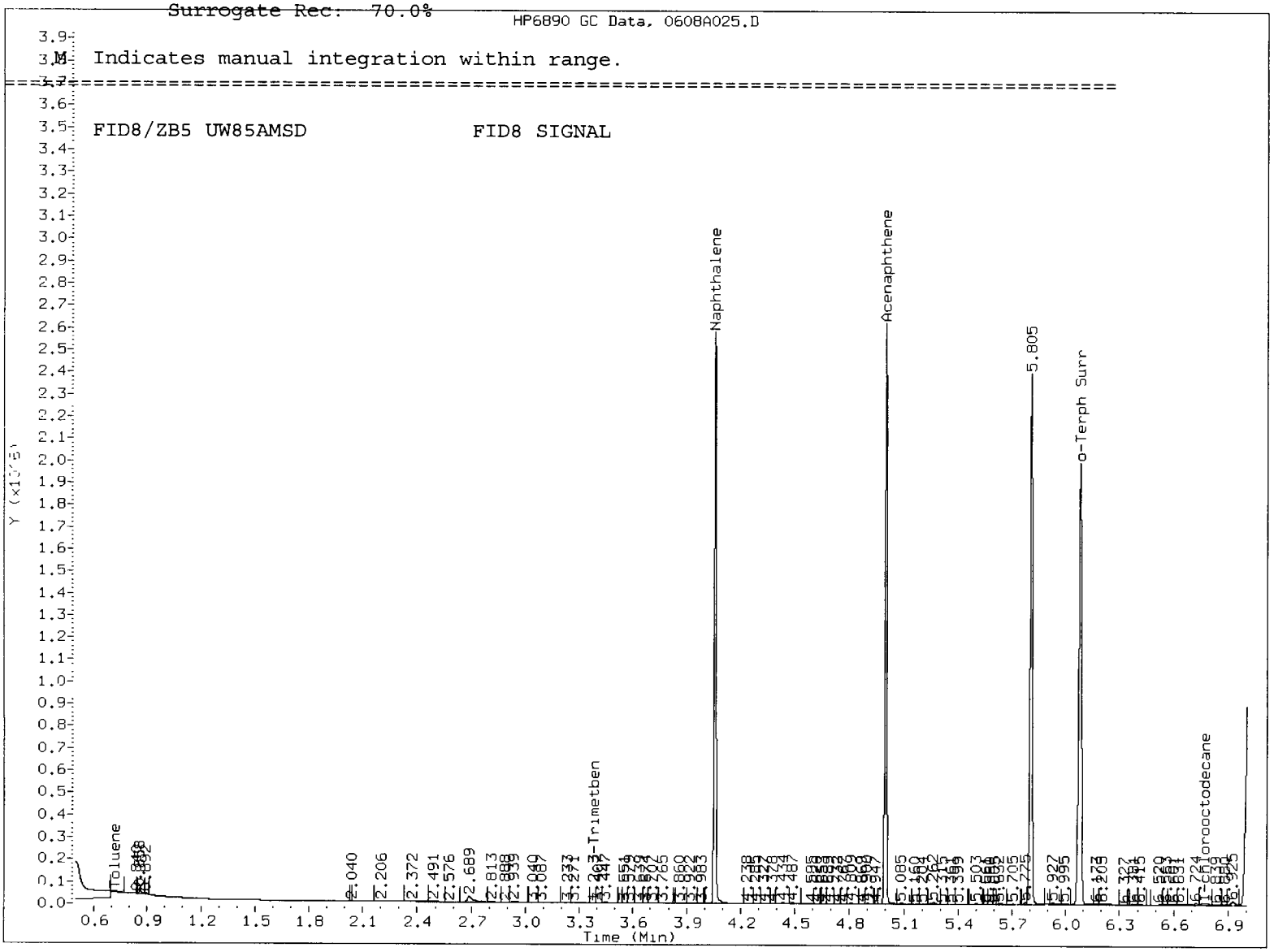
ARI ID: UW85AMSD
Client ID: MS001-SS-120515 MSD
Injection: 08-JUN-2012 21:52
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

| Quant Range | | RF | Area | Conc | Time Range |
|---|---|---|---|---|---|
| C8-C10 | Arom. | 19994 | 117032 | 6 | (0.656 - 3.487) M |
| C10-C12 | Arom. | 19472 | 1849253 | 95 | (3.487 - 4.163) |
| C12-C16 | Arom. | 18891 | 1807457 | 96 | (4.163 - 5.103) |
| C16-C21 | Arom. | 22347 | 4877425 | 218 | (5.103 - 7.123) |
| C21-C34 | Arom. | 24608 | 6008620 | 244 | (7.123 - 11.616) |

Surrogate Rec: 70.0%

M Indicates manual integration within range.



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A026.D
Lab Smp Id: UW85B Client Smp ID: MS002-SS-120515
Inj Date : 08-JUN-2012 22:17
Operator : MH Inst ID: fid8.i
Smp Info : UW85B
Misc Info : 12-10067
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13 Cal File: 0518A031.D
Als bottle: 24
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| | Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|
| 2 | Toluene | 0.738 | 0 756 | -0.018 | 10135 | 0.48340 | 0.483 |
| 3 | 1,2,3-Trimetben | 3.408 | 3.387 | 0.021 | 1153 | 0 06062 | 0.060(M) |
| 4 | Naphthalene | 4.060 | 4.063 | -0.003 | 5676 | 0.29153 | 0.291(M) |
| 7 | Acenaphthene | 4.997 | 5.003 | -0.006 | 7436 | 0.39363 | 0.393(M) |
| $ 11 | o-Terph Surr | 6.080 | 6.084 | -0 004 | 2321153 | 112.576 | 112 576(M) |
| 75 | 1-chlorooctodecane | 6 763 | 6.782 | -0.019 | 33812 | | (M) |
| 13 | Pyrene | 7.004 | 7.023 | -0.019 | 30495 | 1.36460 | 1 364(M) |
| 21 | Benzo-ghi-per | 11.497 | 11.516 | -0.019 | 30596 | 1.24339 | 1 243(M) |

QC Flag Legend

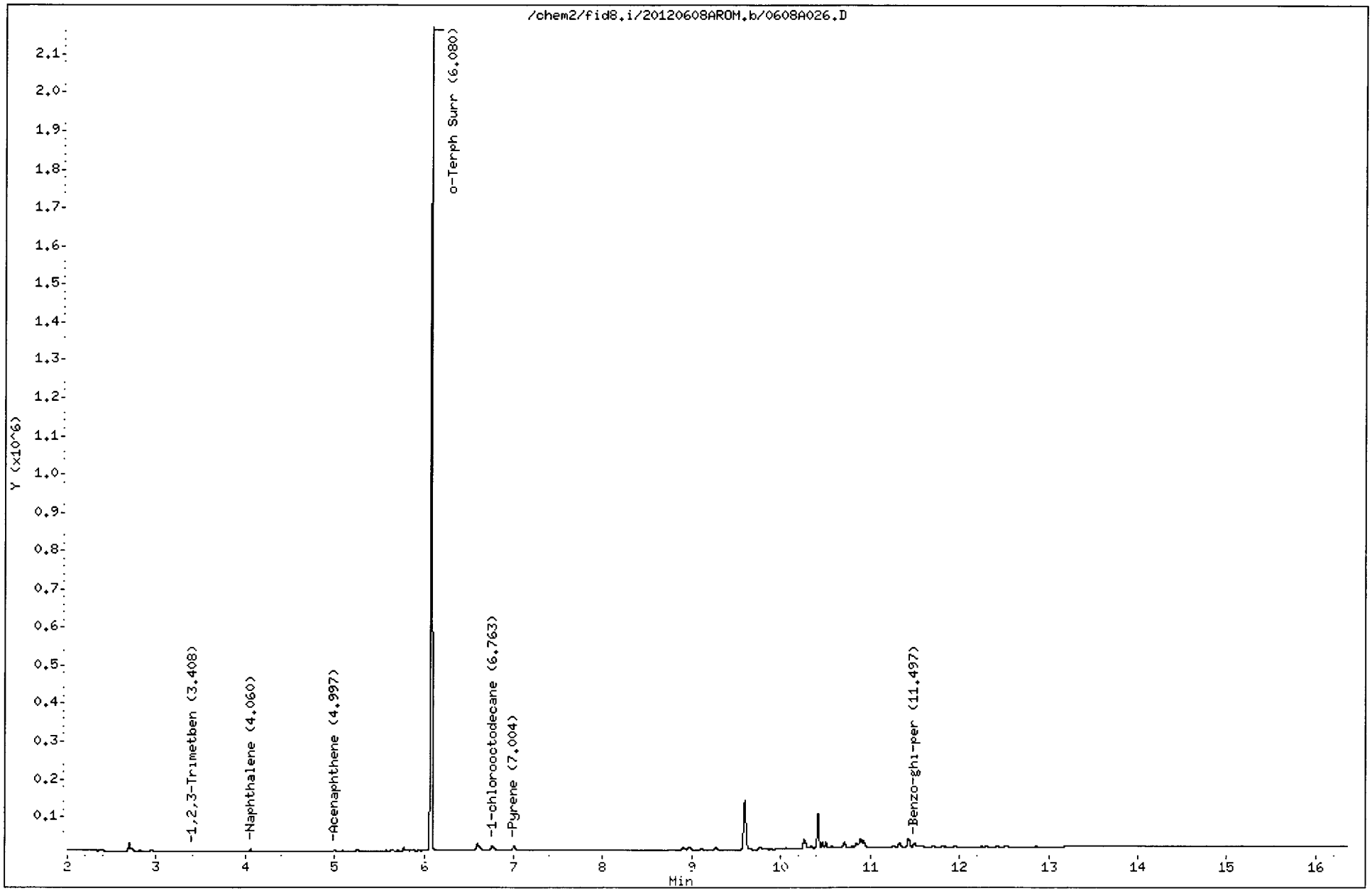
M - Compound response manually integrated.

Data File: /chem2/fid8.i/20120608AROM.b/0608A026.D
Date : 08-JUN-2012 22:17
Client ID: MS002-SS-120515
Sample Info: UW85B

Instrument: fid8.i
Operator: MH
Column diameter: 0.32

Column phase: ZB-5

UW85-00158



Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A026.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

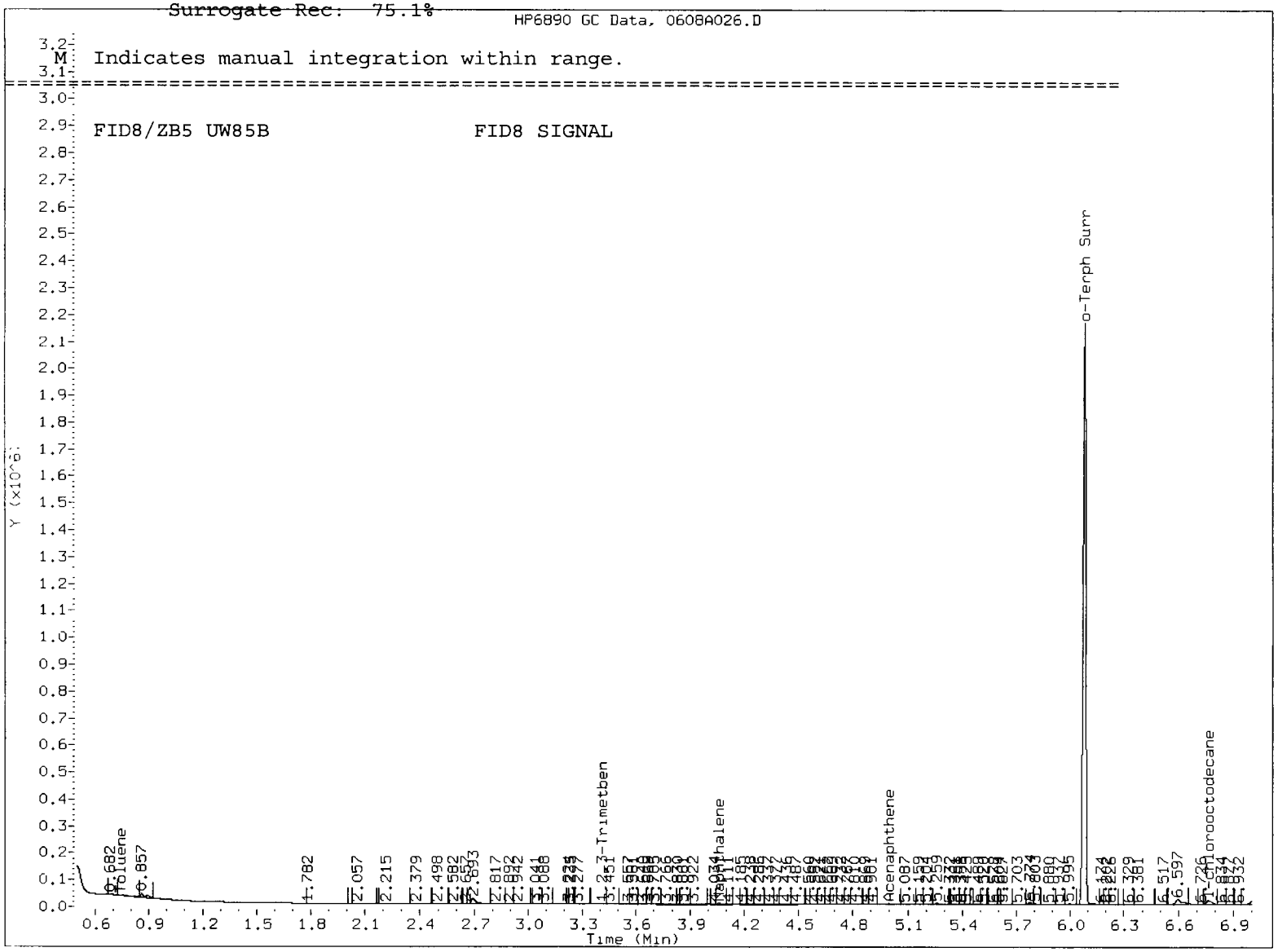
ARI ID: UW85B
Client ID: MS002-SS-120515
Injection: 08-JUN-2012 22:17
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

| Quant Range | | RF | Area | Conc | Time Range |
|---|---|---|---|---|---|
| C8-C10 | Arom. | 19994 | 96047 | 5 | (0.656 - 3.487) |
| C10-C12 | Arom. | 19472 | 13149 | 1 | (3.487 - 4.163) |
| C12-C16 | Arom. | 18891 | 33980 | 2 | (4.163 - 5.103) |
| C16-C21 | Arom. | 22347 | 222325 | 10 | (5.103 - 7.123) |
| C21-C34 | Arom. | 24608 | 1232662 | 50 | (7.123 - 11.616) |

Surrogate Rec: 75.1%

M Indicates manual integration within range.



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A027.D
Lab Smp Id: UW85C Client Smp ID: MS003-SS-120515
Inj Date : 08-JUN-2012 22:42
Operator : MH Inst ID: fid8.i
Smp Info : UW85C
Misc Info : 12-10068
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13 Cal File: 0518A031.D
Als bottle: 25
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

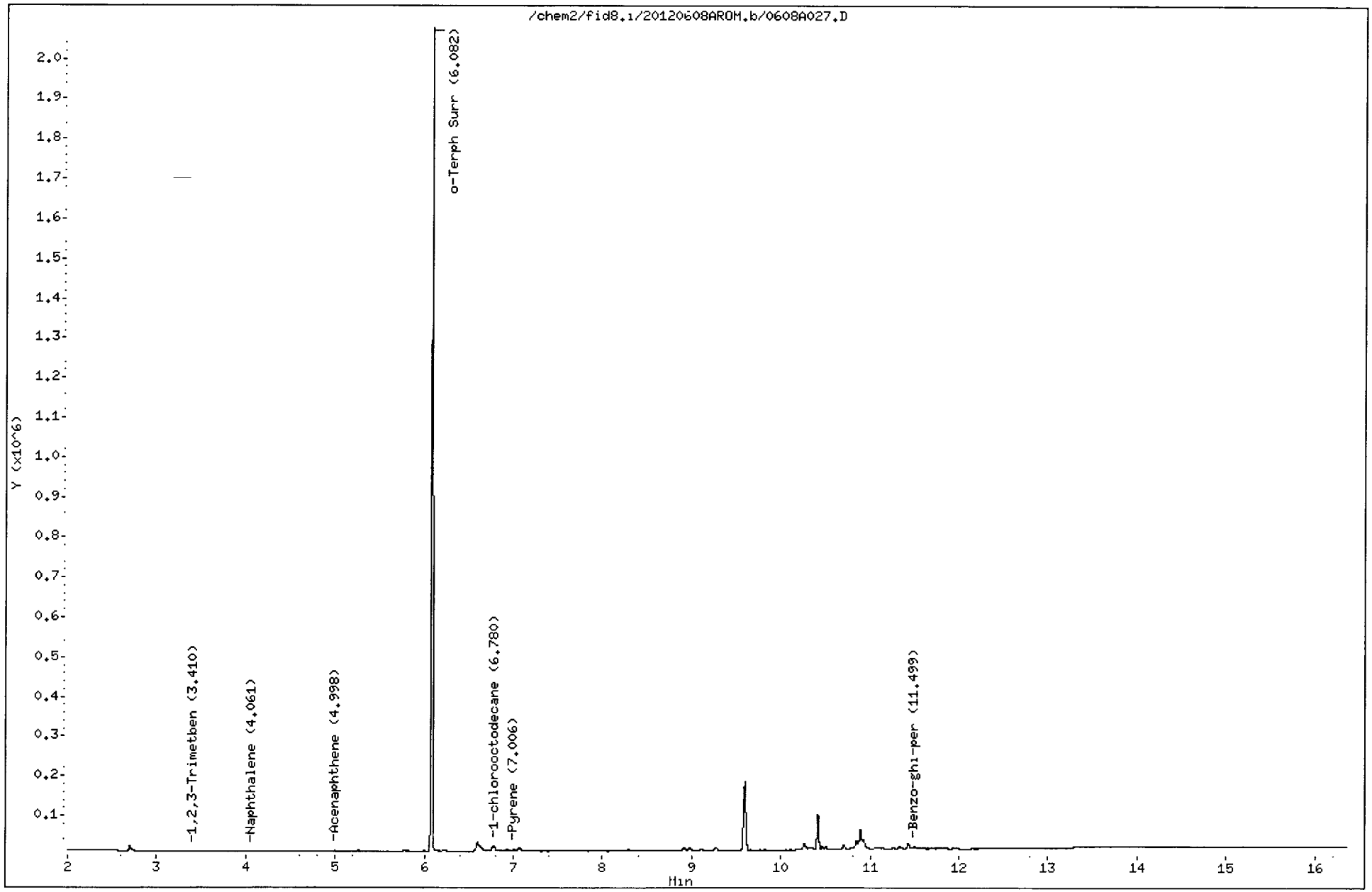
| | Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|---|
| 2 | Toluene | 0 738 | 0.756 | -0.018 | 2753 | 0.13134 | 0.131 |
| 3 | 1,2,3-Trimetben | 3.410 | 3.387 | 0.023 | 1213 | 0.06378 | 0.063 |
| 4 | Naphthalene | 4 061 | 4.063 | -0.002 | 2558 | 0.13141 | 0.131 |
| 7 | Acenaphthene | 4.998 | 5.003 | -0.005 | 4482 | 0.23730 | 0.237 |
| $ 11 | o-Terph Surr | 6 082 | 6.084 | -0.002 | 2233941 | 108.347 | 108.346 |
| 75 | 1-chlorooctodecane | 6.780 | 6.782 | -0 002 | 30279 | | |
| 13 | Pyrene | 7.006 | 7.023 | -0 017 | 14999 | 0.67118 | 0.671 |
| 21 | Benzo-ghi-per | 11.499 | 11.516 | -0 017 | 14689 | 0.59696 | 0.596 |

Data File: /chem2/fid8.i/20120608AROM.b/0608A027.D
Date : 08-JUN-2012 22:42
Client ID: MS003-SS-120515
Sample Info: UW85C

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5




UW85 00161

Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A027.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

ARI ID: UW85C
Client ID: MS003-SS-120515
Injection: 08-JUN-2012 22:42
Matrix: SOIL
Dilution Factor: 1

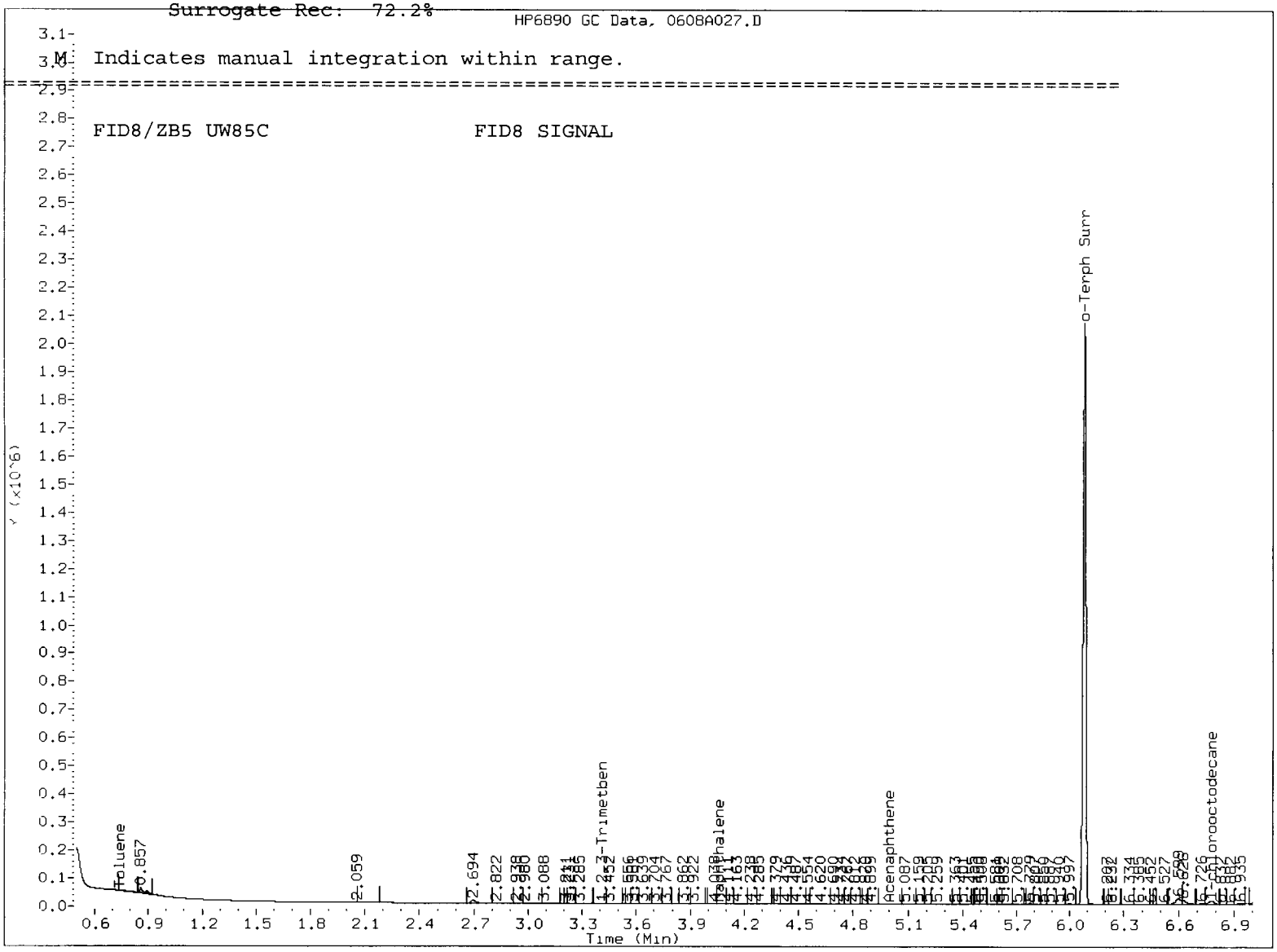
EPH-AROMATIC RESULTS

| Quant Range | RF | Area | Conc | Time Range |
|---|---|---|---|---|
| C8-C10 Arom. | 19994 | 66465 | 3 | (0.656 - 3.487) |
| C10-C12 Arom. | 19472 | 14273 | 1 | (3.487 - 4.163) |
| C12-C16 Arom. | 18891 | 18158 | 1 | (4.163 - 5.103) |
| C16-C21 Arom. | 22347 | 213374 | 10 | (5.103 - 7.123) |
| C21-C34 Arom. | 24608 | 1219926 | 50 | (7.123 - 11.616) |

Surrogate Rec: 72.2%

M Indicates manual integration within range.

FID8/ZB5 UW85C FID8 SIGNAL



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A028.D
Lab Smp Id: UW85D Client Smp ID: MS006-SS-120515
Inj Date : 08-JUN-2012 23:07
Operator : MH Inst ID: fid8.i
Smp Info : UW85D
Misc Info : 12-10069
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13 Cal File: 0518A031.D
Als bottle: 26
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

| Compounds | RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | CONCENTRATIONS FINAL (ug/kg) |
|---|---|---|---|---|---|---|
| 2 Toluene | 0.763 | 0.756 | 0 007 | 16155 | 0.77055 | 0.770(M) |
| 3 1,2,3-Trimetben | 3.383 | 3.387 | -0 004 | 653 | 0.03438 | 0.034 |
| 4 Naphthalene | 4.060 | 4.063 | -0.003 | 7808 | 0 40101 | 0 401 |
| 7 Acenaphthene | 4.998 | 5 003 | -0.005 | 2238 | 0.11850 | 0.118 |
| $ 11 o-Terph Surr | 6.078 | 6.084 | -0.006 | 2264597 | 109 833 | 109 833 |
| 75 1-chlorooctodecane | 6 780 | 6.782 | -0.002 | 31806 | | |
| 13 Pyrene | 7.004 | 7.023 | -0.019 | 19068 | 0.85328 | 0 853 |
| 21 Benzo-ghi-per | 11 493 | 11.516 | -0.023 | 15700 | 0.63805 | 0.638 |

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem2/fid8.i/20120608AROM.b/0608A028.D

Date : 08-JUN-2012 23:07

Client ID: MS006-SS-120515

Sample Info: UW85D

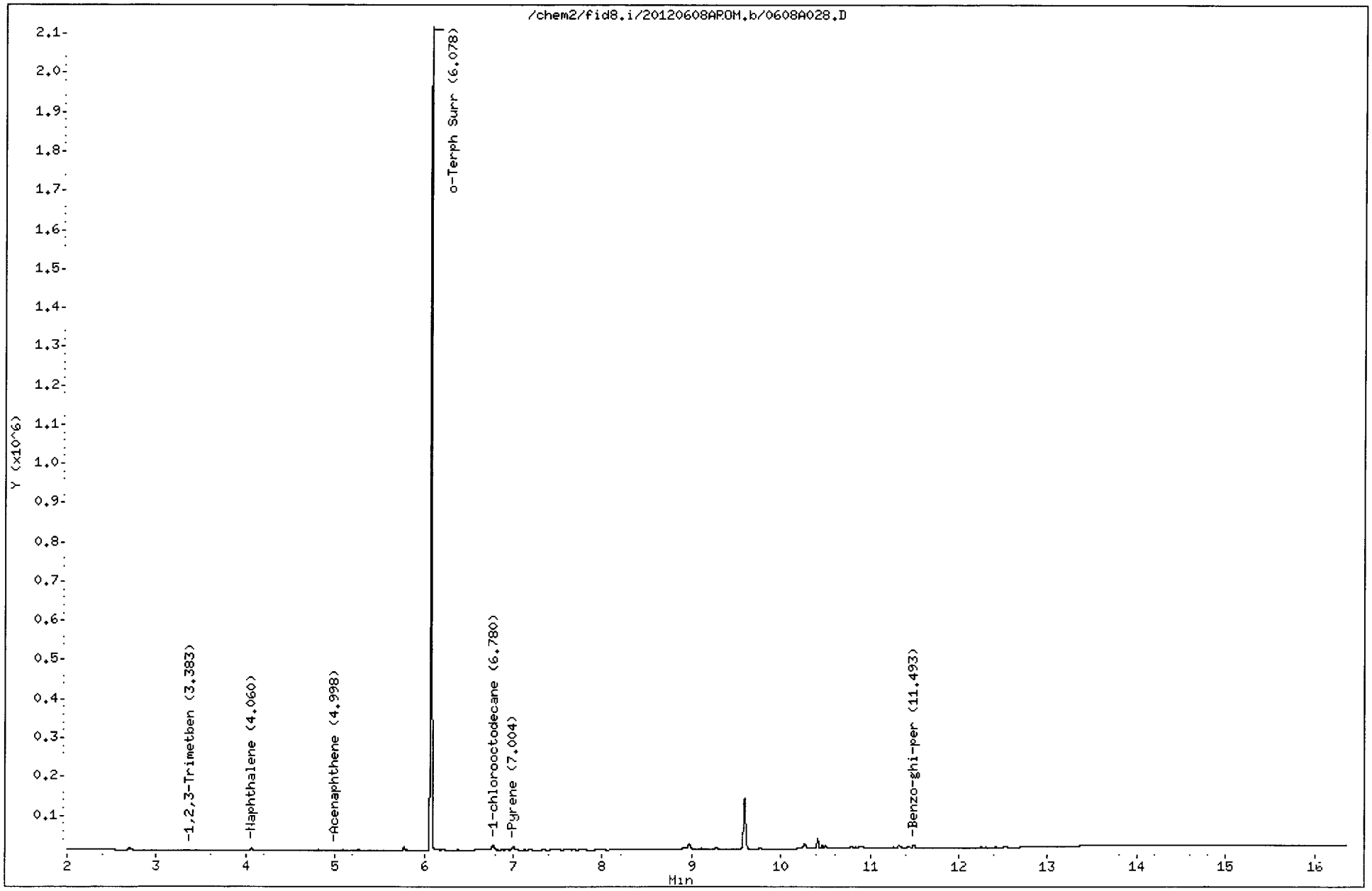
Column phase: ZB-5

Instrument: fid8.i

Operator: MH

Column diameter: 0.32






UW85 : 00164

Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A028.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

ARI ID: UW85D
Client ID: MS006-SS-120515
Injection: 08-JUN-2012 23:07
Matrix: SOIL
Dilution Factor: 1

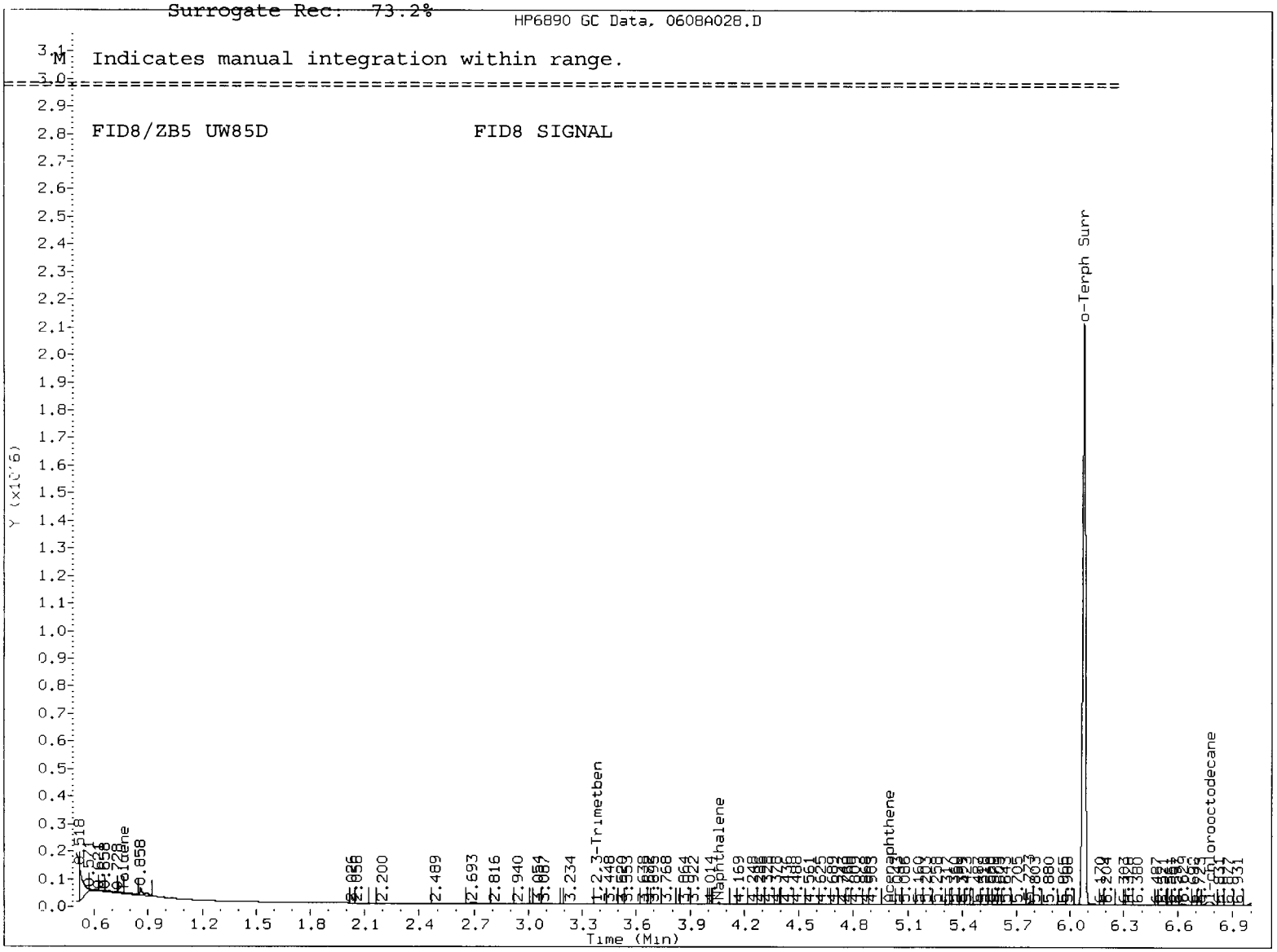
EPH-AROMATIC RESULTS

| | Quant Range | RF | Area | Conc | Time Range |
|---|---|---|---|---|---|
| C8-C10 | Arom. | 19994 | 121538 | 6 | (0.656 - 3.487) M |
| C10-C12 | Arom. | 19472 | 10369 | 1 | (3.487 - 4.163) |
| C12-C16 | Arom. | 18891 | 16291 | 1 | (4.163 - 5.103) |
| C16-C21 | Arom. | 22347 | 125577 | 6 | (5.103 - 7.123) |
| C21-C34 | Arom. | 24608 | 713881 | 29 | (7.123 - 11.616) |

Surrogate Rec: 73.2%

M Indicates manual integration within range.

FID8/ZB5 UW85D FID8 SIGNAL



MH 6/11/12

Analytical Resources, Inc.

Data file : /chem2/fid8.i/20120608AROM.b/0608A029.D
Lab Smp Id: AROMATIC #2
Inj Date : 08-JUN-2012 23:32
Operator : MH Inst ID: fid8.i
Smp Info : AROMATIC #2
Misc Info :
Comment :
Method : /chem2/fid8.i/20120608AROM.b/EPHArom.m
Meth Date : 25-May-2012 10:35 monicah Quant Type: ESTD
Cal Date : 18-MAY-2012 21:13 Cal File: 0518A031.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: warom.sub
Target Version: 3.50

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

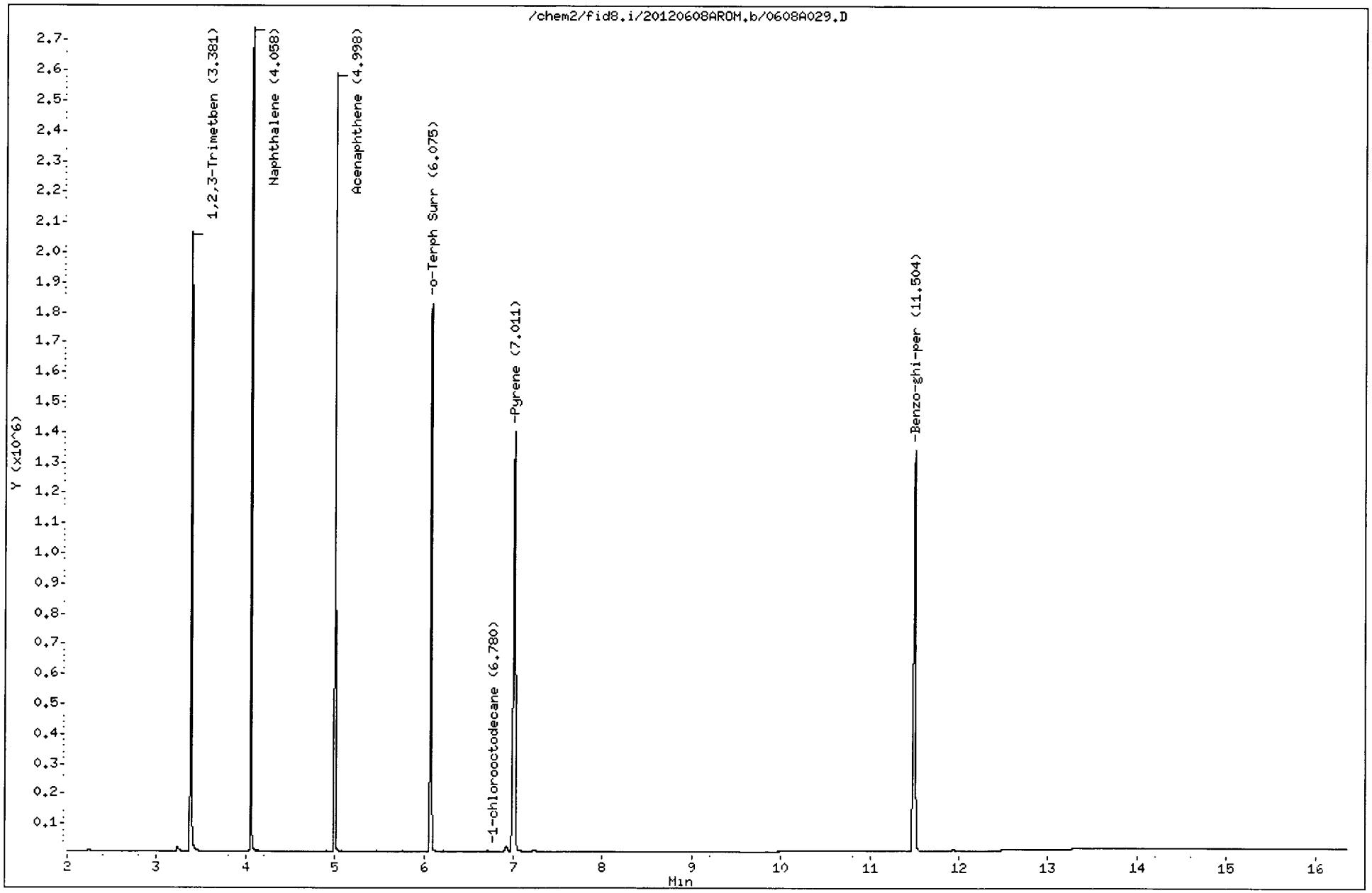
| | | | | | CONCENTRATIONS | |
|---|---|---|---|---|---|---|
| | | | | | ON-COLUMN | FINAL |
| Compounds | RT | EXP RT | DLT RT | RESPONSE | (ng/mL) | (ug/Kg) |
| 2 Toluene | 0.749 | 0.756 | -0 007 | 2069074 | 98 6859 | 98.685 |
| 3 1,2,3-Trimetben | 3.381 | 3.387 | -0 006 | 1861128 | 97 8419 | 97.841 |
| 4 Naphthalene | 4 058 | 4.063 | -0.005 | 1880475 | 96.5741 | 96.574 |
| 7 Acenaphthene | 4 998 | 5.003 | -0 005 | 1756844 | 92 9997 | 92.999 |
| $ 11 o-Terph Surr | 6.075 | 6 084 | -0.009 | 1920443 | 93.1418 | 93.141 |
| 75 1-chlorooctodecane | 6 780 | 6.782 | -0 002 | 1516 | | |
| 13 Pyrene | 7 011 | 7.023 | -0 012 | 2278416 | 101 955 | 101.954 |
| 21 Benzo-ghi-per | 11.504 | 11.516 | -0.012 | 2148472 | 87.3092 | 87.309 |

Data File: /chem2/fid8.i/20120608AROM.b/0608A029.D
Date : 08-JUN-2012 23:32
Client ID:
Sample Info: AROMATIC #2

Instrument: fid8.i

Operator: MH
Column diameter: 0.32

Column phase: ZB-5




UW85-00167

Analytical Resources Inc.
EPH Aromatics Report

Data file: /chem2/fid8.i/20120608AROM.b/0608A029.D
Method: /chem2/fid8.i/20120608AROM.b/EPHArom.m
Instrument: fid8.i
Operator: MH
Report Date: 06/11/2012
Macro: AROM120911FID8

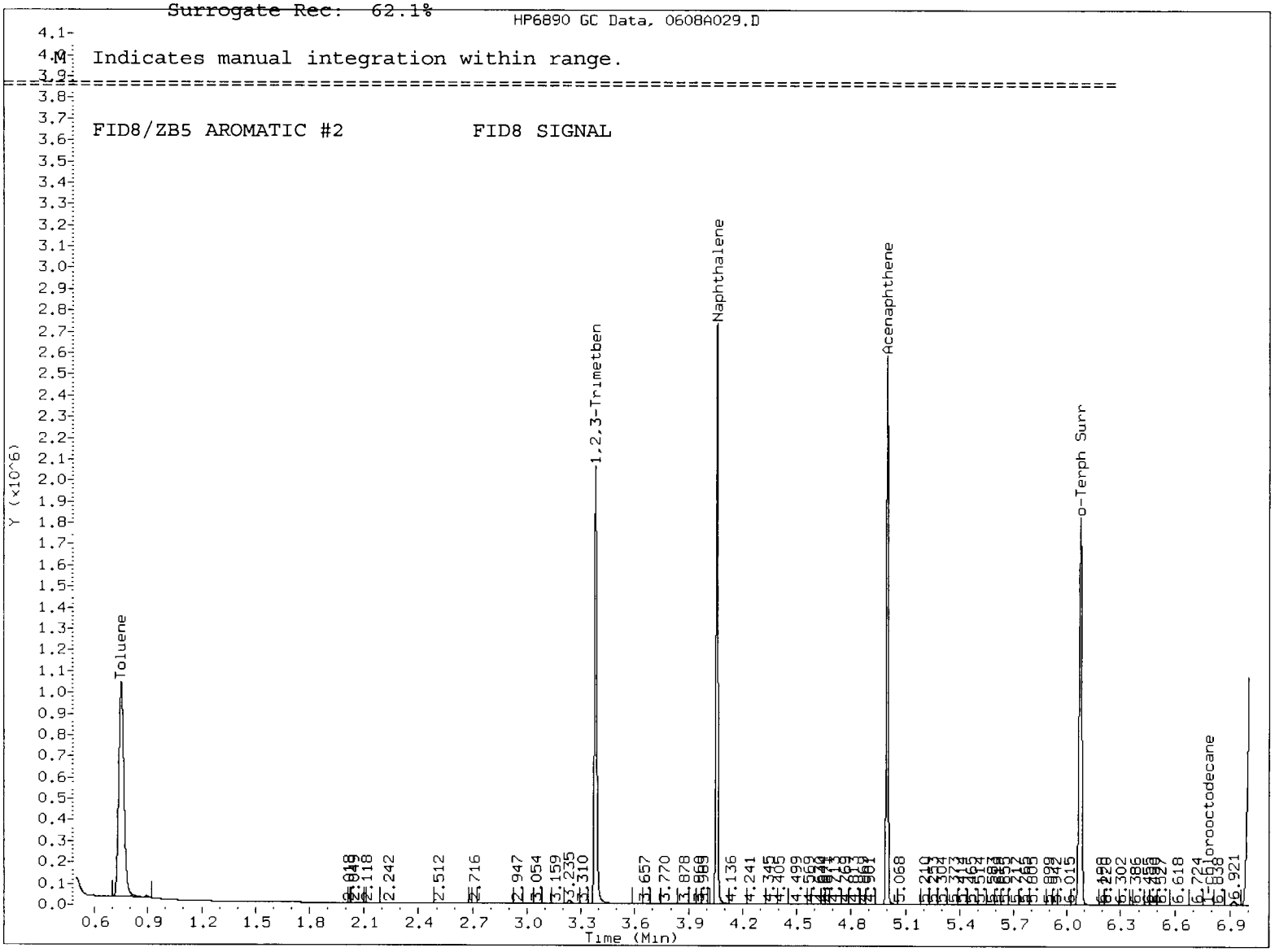
ARI ID: AROMATIC #2
Client ID:
Injection: 08-JUN-2012 23:32
Matrix: SOIL
Dilution Factor: 1

EPH-AROMATIC RESULTS

| Quant Range | | RF | Area | Conc | Time Range |
|---|---|---|---|---|---|
| C8-C10 | Arom. | 19994 | 3960436 | 198 | (0.656 - 3.487) |
| C10-C12 | Arom. | 19472 | 1888612 | 97 | (3.487 - 4.163) |
| C12-C16 | Arom. | 18891 | 1766993 | 94 | (4.163 - 5.103) |
| C16-C21 | Arom. | 22347 | 2329076 | 104 | (5.103 - 7.123) |
| C21-C34 | Arom. | 24608 | 2163696 | 88 | (7.123 - 11.616) |

Surrogate Rec: 62.1%

M Indicates manual integration within range.



# APPENDIX F

# UPLAND SOIL BORINGS AND TEST PIT LOGS

Description: Provides field observations, soil lithology, and sample locations for upland test pit and drilling activities. Some of these boring logs were used to develop site cross sections and determine extents of remedial action areas.

# SLR Sampling Event – May 2006

SLR
SLR International Corp
22122 20th Avenue SE
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

# BORING NUMBER GP-1



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/4/06 **COMPLETED** 5/4/06
**GROUND ELEVATION** ____ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 6.0 ft
**LOGGED BY** B. Johnson **CHECKED BY** ____
**AT END OF DRILLING** ---
**NOTES** ____
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | | | 0.3 0 to 0.25 feet: ASPHALT. | |
| | | GP | NS | GM | | 0.25 to 5.5 feet: SILTY GRAVEL (GM): light brown, fine to coarse gravel, some fines, trace fine to coarse sand, moist, no odor. | 1.0 |
| 5 | | GP | GP1-6* | ML | | 5.5 ▽ 5.5 to 8 feet: SILT with SAND (ML): dark brown, few fine sand, few organics (roots and wood pieces), moist to wet, hydrocarbon-like odor, visible sheen. 8.0 | 1.8 |
| 10 | | GP | GP1-10* GP1-GW* | SM | | 8 to 11 feet: SILTY SAND (SM): medium gray, fine to coarse sand, some fines, trace fine gravel, trace organics (roots), wet, hydrocarbon-like odor, visible product product (looks like creosote) on soil and acetate liner. 11.0 | 1.5 |
| | | | | SP | | 11 to 12 feet: SAND (SP): medium gray, fine to coarse sand, trace fines, wet, no odor. 12.0 | |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-2



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/4/06 **COMPLETED** 5/4/06
**GROUND ELEVATION** **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 5.0 ft
**LOGGED BY** B. Johnson **CHECKED BY**
**AT END OF DRILLING** —
**NOTES**
**AFTER DRILLING** —

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | | 0.3 0 to 0.25 feet: ASPHALT. | |
| | | GP | NS | SM | | 0.25 to 5 feet: SAND with SILT (SM): medium brown, fine to coarse sand, some fines, few fine to coarse gravel, moist to wet, no odor. | 2.1 |
| 5 | | | | | | 5.0 ▽ | |
| | | GP | GP2-5* GP2-GW* | SP | | 5 to 11.5 feet: SAND (SP): medium gray, fine to coarse sand, trace fines, wet, no odor. | 1.9 |
| 10 | | GP | NS | | | | 1.4 |
| | | | | | | 11.5 | |
| | | | | ML | | 11.6 11.5 to 11.6 feet: SILT (ML): medium gray, trace fine sand, moist, no odor. | |
| | | | | SP | | 12.0 11.6 to 12 feet: SAND (SP): medium gray, fine to coarse sand, trace fines, wet, no odor. | |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

ARCO #0855 FORMER NORD DOOR.GPJ GINT US.GDT 5/23/06

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Fax: 425.402.8488

# BORING NUMBER GP-3



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/4/06 **COMPLETED** 5/4/06
**GROUND ELEVATION** ____ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 5.5 ft
**LOGGED BY** B. Johnson **CHECKED BY** ____
**AT END OF DRILLING** ---
**NOTES** ____
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | 0.3 | 0 to 0.25 feet: ASPHALT. | |
| | | GP | NS | GM | | 0.25 to 2.5 feet: GRAVEL with SILT (GM): brown, fine to coarse gravel, some fines, trace fine sand, moist, no odor. | 1.7 |
| | | | | | 2.5 | 2.5 to 12 feet: SAND (SP): light brown to medium gray, fine to coarse sand, trace fines, moist to wet, strong solvent-like odor, visible sheen on soil. | |
| 5 | | GP | GP3-5.5<br>GP3-GW* | SP | | ▽ | <2,000 |
| 10 | | GP | GP3-9* | | | | <2,000 |
| | | | | | 12.0 | | |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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Fax: 425.402.8488

# BORING NUMBER GP-4



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/4/06 **COMPLETED** 5/4/06
**GROUND ELEVATION** **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 4.5 ft
**LOGGED BY** B. Johnson **CHECKED BY**
**AT END OF DRILLING** ---
**NOTES**
**AFTER DRILLING** —

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | | |
| | | HA | NS | CO | | 0.8 | 0 to 0.75 feet: CONCRETE. | 0.3 |
| | | HA | NS | SP | | 2.0 | 0.75 to 2 feet: SAND (SP): gray-brown to brown, fine to coarse sand, few organics (wood pieces), moist, no odor. | 0.3 |
| | | HA | NS | ML | | 2.5 | 2 to 2.5 feet: SILT (ML): gray, moist, no odor. | 0.3 |
| | | HA | NS | SM | | 4.0 | 2.5 to 4 feet: SILTY SAND (SM): brown to gray, fine to coarse sand, little fines, moist, no odor. | 0.3 |
| 5 | | HA | GP4-4.5* GP4-GW* | ML | | 4.5 | ▽ 4 to 4.5 feet: SILT (ML): dark brown, few fine to medium sand, trace orgainics (roots), moist, no odor. | 80 |
| | | HA | NS | SP | | 5.5 | 4.5 to 5.5 feet: SAND (SP): dark gray, fine to coarse sand, trace fines, wet, no odor. | 4 |

Boring completed at 6 feet.

Temporary well was installed with screen at depths from approximately 0.5 to 5.5 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
HA = Soil samples were collected by using a decontaminated 12-inch long, 4-inch diameter hand auger sampling device.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-5



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/4/06 **COMPLETED** 5/4/06
**GROUND ELEVATION** ____ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 6.5 ft
**LOGGED BY** B. Johnson **CHECKED BY** ____
**AT END OF DRILLING** ---
**NOTES** ____
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | 0.3 | 0 to 0.25 feet: ASPHALT. | |
| | | GP | NS | SP | | 0.25 to 3.5 feet: SAND (SP): medium gray, fine to coarse sand, few fine to coarse gravel, trace fines, moist, no odor. | 2.2 |
| | | | | | 3.5 | 3.5 to 6.5 feet: SILT (ML): gray, trace fine sand, trace organics (roots), moist, no odor. | |
| 5 | | GP | GP5-6.5* GP5-GW* | ML | 6.5 ▽ | | 2.3 |
| | | | | SP | | 6.5 to 12 feet: SAND (SP): dark gray, fine to coarse snad, trace fines, trace fine gravel, wet, slight solvent-like odor, no visible sheen. | |
| 10 | | GP | GP5-12* | | 12.0 | | 1.0 |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

ARCO #0855 FORMER NORD DOOR.GPJ GINT US.GDT 5/23/06

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# BORING NUMBER GP-6



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/2/06 **COMPLETED** 5/2/06
**GROUND ELEVATION** **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 5.0 ft
**LOGGED BY** B. Johnson **CHECKED BY**
**AT END OF DRILLING** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | CO | | 0 to 0.5 feet: CONCRETE. | |
| | | GP | NS | SP | | 0.5 to 8 feet: SAND (SP): light to dark brown and medium brown, trace fines, trace organics (wood pieces), mosit to wet, no odor. | 1.2 |
| 5 | | GP | GP6-5*<br>GP6-GW* | | | ▽ | 0.7 |
| | | | | | | 8.0 | |

Boring completed at 8 feet.

Temporary well was installed with screen at depths from approximately 3 to 8 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

SLR
SLR International Corp
22122 20th Avenue SE
Bothell, Washington 98021
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Fax: 425.402.8488

# BORING NUMBER GP-7



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/2/06 **COMPLETED** 5/2/06
**GROUND ELEVATION** **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 5.0 ft
**LOGGED BY** B. Johnson **CHECKED BY**
**AT END OF DRILLING** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | 0.3 | 0 to 0.25 feet: ASPHALT. | |
| | | | | GM | 1.0 | 0.25 to 1 feet: GRAVEL with SILT (GM): light brown, fine to coarse gravel, some fines, trace fine to coarse sand, moist, no odor. | |
| | | GP | NS | | | 1 to 8 feet: SAND (SP): light brown to black and gray, fine to coarse sand, trace fines, trace organics (wood pieces), moist to wet, no odor. | 0.8 |
| 5 | | | | SP | | ▽ | |
| | | GP | GP7-5*<br>GP7-GW* | | 8.0 | | 1.0 |

Boring completed at 8 feet.

Temporary well was installed with screen at depths from approximately 3 to 8 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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Telephone: 425.402.8800
Fax: 425.402.8488

# BORING NUMBER GP-8



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/2/06 **COMPLETED** 5/2/06
**GROUND ELEVATION** ___ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 5.0 ft
**LOGGED BY** B. Johnson **CHECKED BY** ___
**AT END OF DRILLING** ---
**NOTES** ___
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | | 0.3 0 to 0.25 feet: ASPHALT. | |
| | | GP | NS | GM | | 0.25 to 2 feet: GRAVEL with SILT (GM): light brown, fine to coarse gravel, some fines, trace fine to coarse sand, moist, no odor. | 1.3 |
| | | | | | | 2.0 | |
| | | | | SP | | 2 to 4.5 feet: SAND (SP): light brown, fine to coarse sand, trace fines, moist, no odor. | |
| | | | | | | 4.5 | |
| 5 | | | | ML | | 5.0 ▽ 4.5 to 5 feet: SILT (ML): dark gray, trace fine sand, trace organics (wood pieces), moist, no odor. | |
| | | GP | GP8-5* GP8-GW* | SP | | 5 to 8 feet: SAND (SP): light brown to dark gray, fine to coarse sand, trace fines, wet, no odor. | 0.5 |
| | | | | | | 8.0 | |

Boring completed at 8 feet.

Temporary well was installed with screen at depths from approximately 3 to 8 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-9



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/1/06 **COMPLETED** 5/1/06
**GROUND ELEVATION** ___ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 6.0 ft
**LOGGED BY** B. Johnson **CHECKED BY** ___
**AT END OF DRILLING** ---
**NOTES** ___
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | | 0.3 0 to 0.25 feet: ASPHALT. | |
| | | GP | NS | SM | | 0.25 to 5.5 feet: SAND with SILT (SM): light to dark brown, fine to coarse sand, little fines, moist, no odor. | 1.2 |
| 5 | | GP | GP9-6<br>GP9-GW* | SP | | 5.5<br>▽ 5.5 to 12 feet: SAND (SP): medium gray, fine to coarse sand, few fines, wet, hydrocarbon-like odor, visible product on acetate liner, sheen on soil. | 25.9 |
| 10 | | GP | GP9-12* | | | 12.0 | 26.3 |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-10



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/1/06 **COMPLETED** 5/1/06
**GROUND ELEVATION** ____ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 6.5 ft
**LOGGED BY** B. Johnson **CHECKED BY** ____
**AT END OF DRILLING** ---
**NOTES** ____
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | | 0.3 0 to 0.25 feet: ASPHALT. | |
| | | GP | GP10-3 | SM | | 0.25 to 5 feet: SAND with SILT (SM): light to dark brown, fine to coarse sand, few fines, few orgainc s (wood pieces), moist, no odor. | 4.9 |
| 5 | | | | | | 5.0 | |
| | | GP | GP10 -GW* | SP | | 5 to 9 feet: SAND (SP): light to dark gray, fine to coarse sand, trace fines, moist to wet, hydrocabon-like odor, sheen on soil. ▽ | 5.8 |
| | | | | | | 9.0 | |
| | | | | ML | | 9.5 9 to 9.5 feet: SILT (ML): medium gray, trace fine sand, wet, slight hydrocarbon-like odor. | |
| 10 | | GP | GP10-11* | SP | | 9.5 to 11.75 feet: SAND (SP): medium gray, fine to coarse sand, trace fines, wet, hydrocarbon-like odor, sheen on soil. | 28.3 |
| | | | | | | 11.8 | |
| | | | | ML | | 12.0 11.75 to 12 feet: SILT (ML): medium brown, trace organics (roots), wet, slight hydrocarbon-like odor. | |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-11



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/4/06 **COMPLETED** 5/4/06
**GROUND ELEVATION** **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 6.0 ft
**LOGGED BY** B. Johnson **CHECKED BY**
**AT END OF DRILLING** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | | | | |
| | | GP | NS | SP | | 0 to 3.5 feet: SAND with GRAVEL (SP): light brown to gray, fine to coarse sand, few fine to medium gravel, trace fines, trace organics (roots), moist, no odor. | 2.0 |
| | | | | | 3.5 | | |
| | | | | ML | | 3.5 to 6 feet: SILT (ML): brown to gray, trace fine sand, trace organics (wood pieces), moist, no odor. | |
| 5 | | GP | GP11-6* | | | | |
| | | | GP11 -GW* | | 6.0 ▽ | 6 to 10.5 feet: SAND (SP): dark gray, fine to coarse sand, trace silt, wet, strong hydrocarbon-like odor, visible product on acetate liner, sheen on soil. | 2.8 |
| | | | | SP | | | |
| 10 | | GP | GP11-12* | | | | 29.4 |
| | | | | | 10.5 | | |
| | | | | ML | | 10.5 to 12 feet: SILT (ML): gray with orange mottling, trace fine sand, trace organics (wood pieces), moist, strong hydrocarbon-like odor, no visible sheen. | |
| | | | | | 12.0 | | |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-12



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/2/06 **COMPLETED** 5/2/06
**GROUND ELEVATION** **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 7.0 ft
**LOGGED BY** B. Johnson **CHECKED BY**
**AT END OF DRILLING** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION |
|---|---|---|---|---|---|---|
| 0 | | | | AS | | 0 to 1 feet: ASPHALT. |
| 1.0 | | | | | | |
| | | GP | NS | CO | | 1 to 3 feet: CONCRETE. |
| 3.0 | | | | | | |
| | | | | | | 3 to 8 feet: SAND (SP): dark brown to gray, fine to coarse sand, trace silt, moist to wet, hydrocabon-like odor, sheen on soil. |
| 5 | | GP | GP12-8*<br>GP12 -GW* | SP | | ▽ |
| 8.0 | | | | | | |

Boring completed at 8 feet.

Temporary well was installed with screen at depths from approximately 3 to 8 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-13



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA

**DATE STARTED** 5/1/06 **COMPLETED** 5/1/06
**GROUND ELEVATION** **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 12.0 ft
**LOGGED BY** B. Johnson **CHECKED BY**
**AT END OF DRILLING** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | 0.5 | 0 to 0.5 feet: ASPHALT. | |
| | | GP | NS | SP | | 0.5 to 4 feet: SAND (SP): light to dark gray, fine to coarse sand, trace fines, trace fine to coarse gravel, trace organics (wood pieces), moist, no odor. | 0.7 |
| | | | | | 4.0 | | |
| 5 | | GP | NS | SM | | 4 to 16 feet: SILTY SAND (SM): light to dark brown and black, fine to coarse sand, some fines, trace organics (roots and wood pieces), moist to wet, no odor. | 0.9 |
| 10 | | GP | GP13 -11.5* GP13 -GW* | | | ▽ | 0.8 |
| 15 | | GP | NS | | | | 0.7 |
| | | | | | 16.0 | | |

Boring completed at 16 feet.

Temporary well was installed with screen at depths from approximately 11 to 16 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-14



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/1/06 **COMPLETED** 5/1/06
**GROUND ELEVATION** ___ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 8.0 ft
**LOGGED BY** B. Johnson **CHECKED BY** ___
**AT END OF DRILLING** ---
**NOTES** ___
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | 0.5 | 0 to 0.5 feet: ASPHALT. | |
| | | GP | NS | GM | 2.0 | 0.5 to 2 feet: GRAVEL with SILT (GM): light gray, fine to coarse gravel, some fines, trace fine to coarse sand, moist, no odor. | |
| | | | | SP | 6.0 | 2 to 6 feet: SAND (SP): light brown, fine to coarse sand, trace fines, trace fine gravel, moist, hydrocarbon-like odor, sheen on soil. | 0.8 |
| 5 | | GP | GP14-6* | ML | 7.0 | 6 to 7 feet: SILT (ML): light brown, trace organics (roots), moist, slight hydrocarbon-like odor. | 4.0 |
| | | | | SP | 8.0 ▽ | 7 to 8 feet: SAND (SP): light to dark brown, trace fines, trace organics (roots), wet, no odor. | |
| | | | | ML | 8.5 | 8 to 8.5 feet: SILT (ML): brown to gray, trace fine sand, moist, no odor. | |
| 10 | | GP | GP14 -GW* | SP | 12.0 | 8.5 to 12 feet: SAND (SP): light brown to gray, trace fines, trace organics, wet, hydrocarbon-like odor, visible product on acetate liner, sheen on soil. | 3.1 |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-15



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/1/06 **COMPLETED** 5/1/06
**GROUND ELEVATION** **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 7.0 ft
**LOGGED BY** B. Johnson **CHECKED BY**
**AT END OF DRILLING** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | | 0.3 0 to 0.25 feet: ASPHALT. | |
| | | GP | NS | SP | | 0.25 to 5.5 feet: SAND (SP): light to dark brown, fine to coarse sand, few fines, trace fine gravel, trace brick pieces, moist, no odor. | 0.3 |
| 5 | | | | | | 5.5 | |
| | | GP | GP15 -GW* | ML | | 6.0 5.5 to 6 feet: SILT (ML): dark brown, trace fine to coarse sand, moist, no odor. | 1.2 |
| | | | | SP | | 6 to 12 feet: SAND (SP): dark gray, fine to coarse sand, trace fines, moist to wet, slight hydrocarbon-like odor. ▽ | |
| 10 | | GP | GP15-10* | | | | 1.6 |
| | | | | | | 12.0 | |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-16



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/1/06 **COMPLETED** 5/1/06
**GROUND ELEVATION** ___ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 8.0 ft
**LOGGED BY** B. Johnson **CHECKED BY** ___
**AT END OF DRILLING** ---
**NOTES** ___
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | 0.3 | 0 to 0.25 feet: ASPHALT. | |
| | | GP | NS | SP | 1.0 | 0.25 to 1 feet: SAND with GRAVEL (SP): light brown, fine to coarse sand, some fine to coarse gravel, trace fines, moist, no odor. | 4.9 |
| | | | | SP | | 1 to 6 feet: SAND (SP): medium brown, fine to coarse sand, few fines, moist, no odor. | |
| 5 | | GP | GP16-8* | | 6.0 | | 4.2 |
| | | | | ML | | 6 to 8 feet: SILT (ML): medium brown, trace fine sand, trace organics, moist, no odor. | |
| | | | | | 8.0 ▽ | | |
| 10 | | GP | GP16 -GW* | SP | | 8 to 12 feet: SAND (SP): medium gray, fine to coarse sand, trace fines, trace fine to coarse gravel, wet, no odor. | 4.0 |
| | | | | | 12.0 | | |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-17



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/1/06 **COMPLETED** 5/1/06
**GROUND ELEVATION** **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 5.0 ft
**LOGGED BY** B. Johnson **CHECKED BY**
**AT END OF DRILLING** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | 0.5 | 0 to 0.5 feet: ASPHALT. | |
| | | GP | NS | GP | | 0.5 to 5 feet: GRAVEL with SILT (GM): light brown, fine to coarse gravel, some fines, trace fine to coarse sand, moist, no odor. | |
| 5 | | | | | 5.0 ▽ | | |
| | | GP | GP17-5* GP17 -GW* | SP | | 5 to 10 feet: SAND (SP): light brown to light gray, fine to coarse sand, few fines, trace fine to coarse gravel, wet, no odor. | 0.3 |
| 10 | | GP | NS | | 10.0 | | 0.4 |
| | | | | SM | 12.0 | 10 to 12 feet: SILTY SAND (SM): dark gray, fine to coarse sand, some fines, trace fine gravel, trace organics (roots), wet, no odor. | |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-18



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/1/06 **COMPLETED** 5/1/06
**GROUND ELEVATION** **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 8.0 ft
**LOGGED BY** B. Johnson **CHECKED BY**
**AT END OF DRILLING** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | 0.5 | 0 to 0.5 feet: ASPHALT. | |
| | | GP | NS | SP | 3.8 | 0.5 to 3.75 feet: SAND (SP): light to dark brown, fine to coarse sand, trace fines, moist, no odor. | 0.5 |
| 5 | | GP | GP18-8* | ML | 5.0 | 3.75 to 5 feet: SILT with SAND (ML): dark to medium brown, few fine to coarse sand, moist, no odor. | |
| | | | | SP | | 5 to 12 feet: SAND (SP): light to dark gray, fine to coarse sand, trace fines, trace organics, moist to wet | 0.7 |
| 10 | | GP | GP18 -GW* | | 12.0 | ▽ | 0.3 |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-19



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/1/06 **COMPLETED** 5/1/06
**GROUND ELEVATION** **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 10.0 ft
**LOGGED BY** B. Johnson **CHECKED BY**
**AT END OF DRILLING** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | | 0 to 0.5 feet: ASPHALT. | |
| | | | | SP | | 0.5 to 1 feet: SAND (SP): light brown, fine to coarse sand, trace fines, moist, no odor. | |
| | | GP | NS | ML | | 1 to 4 feet: SILT (ML): light gray, trace fine gravel, moist, no odor. | 0.5 |
| | | | | | | 4.0 | |
| 5 | | GP | NS | ML | | 4 to 10 feet: SANDY SILT (ML): light gray to light brown, some fine to coarse sand, trace fine to coarse gravel, moist to wet, no odor. | 1.0 |
| 10 | | GP | GP19-10* | | | 10.0 ▽ | 0.7 |
| | | | GP19 -GW* | SM | | 10 to 12 feet: SILTY SAND (SM): light to dark gray, fine to coarse sand, some fines, trace fine gravel, wet, no odor. | |
| | | | | | | 12.0 | |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-20



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/4/06 **COMPLETED** 5/4/06
**GROUND ELEVATION** ___ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 8.0 ft
**LOGGED BY** B. Johnson **CHECKED BY** ___
**AT END OF DRILLING** ---
**NOTES** ___
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | | 0.3 0 to 0.25 feet: ASPHALT. | |
| | | GP | NS | SP | | 0.25 to 3.75 feet: SAND with GRAVEL (SP): medium gray, fine to coarse sand, few fine to coarse gravel, trace fines, moist, no odor. 3.8 | 1.6 |
| 5 | | GP | NS | | | 3.75 to 7.75 feet: WOOD WASTE: light brown to black, saw-dust and wood pieces, trace silt, moist, no odor. 7.8 | 1.7 |
| | | | | ML | | 8.0 ▽ 7.75 to 8 feet: SILT (ML): dark brown, trace fine sand, moist, no odor. | |
| 10 | | GP | GP20-8* GP20 -GW* | SP | | 8 to 12 feet: SAND (SP): dark gray, fine to coarse sand, trace fines, wet, no odor. 12.0 | 2.1 |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-21



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/4/06 **COMPLETED** 5/4/06
**GROUND ELEVATION** **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 5.0 ft
**LOGGED BY** B. Johnson **CHECKED BY**
**AT END OF DRILLING** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | 0.3 | 0 to 0.25 feet: ASPHALT. | |
| | | GP | NS | SM | | 0.25 to 3 feet: SAND with SILT (SM): light brown to medium gray, fine to coarse sand, few fines, trace coarse gravel, trace orgaincs (wood pieces), moist, no odor. | 3.0 |
| | | | | | 3.0 | | |
| | | | | SP | | 3 to 8 feet: SAND (SP): medium gray, fine to coarse sand, trace fines, trace fine gravel, moist to wet, no odor. | |
| 5 | | GP | GP21-5* GP21 -GW* | | | ▽ | 2.4 |
| | | | | | 8.0 | | |

Boring completed at 8.5 feet.

Temporary well was installed with screen at depths from approximately 3 to 8 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-22



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/4/06 **COMPLETED** 5/4/06
**GROUND ELEVATION** **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 6.5 ft
**LOGGED BY** B. Johnson **CHECKED BY**
**AT END OF DRILLING** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | 0.3 | 0 to 0.25 feet: ASPHALT. | |
| | | GP | NS | GM | 2.0 | 0.25 to 2 feet: GRAVEL with SILT (GM): light brown, fine to coarse gravel, some fines, trace fine to coarse sand, moist, no odor. | 2.4 |
| | | | | SP | | 2 to 7.5 feet: SAND (SP): medium gray, fine to coarse sand, trace fines, trace coarse gravel, trace organics (wood pieces), moist to wet, no odor. | |
| 5 | | GP | GP22-6.5* GP22 -GW* | | ▽ | | 1.8 |
| | | | | | 7.5 | | |
| | | | | SM | 8.0 | 7.5 to 8 feet: SILTY SAND (SM): medium gray, fine to coarse sand, some fines, wet, no odor. | |

Boring completed at 8 feet.

Temporary well was installed with screen at depths from approximately 3 to 8 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-23



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/1/06 **COMPLETED** 5/1/06
**GROUND ELEVATION** _____ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 6.0 ft
**LOGGED BY** B. Johnson **CHECKED BY** _____
**AT END OF DRILLING** ---
**NOTES** _____
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | | 0.3 0 to 0.25 feet: ASPHALT. | |
| | | | | GM | | 0.25 to 2 feet: GRAVEL with SILT (GM): light brown, fine to coarse gravel, some fines, trace fine to coarse sand, moist, no odor. | |
| | | GP | NS | | | 2.0 | 0.4 |
| | | | | SP | | 2 to 10 feet: SAND (SP): light brown to light gray, fine to coarse sand, trace fines, trace fine gravel, moist to wet, no odor. | |
| 5 | | GP | GP23-6* GP23 -GW* | | | ▽ | 0.3 |
| 10 | | GP | NS | | | 10.0 | 0.3 |
| | | | | ML | | 10 to 12 feet: SILT (ML): medium to dark gray, trace organics (roots), moist, no odor. | |
| | | | | | | 12.0 | |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-24



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/3/06 **COMPLETED** 5/3/06
**GROUND ELEVATION** ___ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 6.0 ft
**LOGGED BY** B. Johnson **CHECKED BY** ___
**AT END OF DRILLING** ---
**NOTES** ___
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | 0.3 | 0 to 0.25 feet: ASPHALT. | |
| | | GP | NS | GM | | 0.25 to 8 feet: GRAVEL with SILT (GM): light brown to medium gray, fine to coarse gravel, some fines, trace fine to coarse sand, moist to wet, no odor. | 1.1 |
| 5 | | GP | GP24-6*<br>GP24-GW* | | ▽ | | 1.1 |
| | | | | | 8.0 | | |
| | | | | SP | | 8 to 10 feet: SAND (SP): medium gray, fine to coarse sand, trace fines, wet, no odor. | |
| 10 | | GP | NS | | 10.0 | | 1.0 |
| | | | | GM | | 10 to 12 feet: GRAVEL with SILT (GM): medium to dark gray, fine to coarse gravel, some fines, trace fine to coarse sand, trace organics (wood pieces), wet, no odor. | |
| | | | | | 12.0 | | |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-25



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/3/06 **COMPLETED** 5/3/06
**GROUND ELEVATION** ___ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 7.0 ft
**LOGGED BY** B. Johnson **CHECKED BY** ___
**AT END OF DRILLING** ---
**NOTES** ___
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | 0.3 | 0 to 0.25 feet: ASPHALT. | |
| | | | | GM | | 0.25 to 2 feet: GRAVEL with SILT (GM): medium gray to light brown, fine to coarse gravel, few fines, trace fine to coarse sand, moist, no odor. | |
| | | GP | NS | | 2.0 | 2 to 12 feet: SAND (SP): light brown to medium gray, fine to coarse sand, trace fines, trace organics (wood pieces), moist to wet, no odor. | 0.5 |
| 5 | | GP | GP25-7* GP25 -GW* | SP | | @ 5.5 to 5.6 feet: SILT (ML) interbed. ▽ | 0.7 |
| 10 | | GP | NS | | | @ 10 to 10.25 feet: SILT (ML) interbed. | 0.4 |
| | | | | | 12.0 | | |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-26



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/3/06 **COMPLETED** 5/3/06
**GROUND ELEVATION** ___ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 7.0 ft
**LOGGED BY** B. Johnson **CHECKED BY** ___
**AT END OF DRILLING** ---
**NOTES** ___
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | | 0.3 0 to 0.25 feet: ASPHALT. | |
| | | | | GM | | 0.5 0.25 to 0.5 feet: GRAVEL with SILT (GM): light brown, fine to coarse gravel, few fines, trace fine to coarse sand, moist, no odor. | |
| | | GP | NS | | | 0.5 to 12 feet: SAND (SP): light brown to medium gray, fine to coarse sand, trace fines, moist to wet, no odor. | 0.8 |
| 5 | | GP | GP26-7* GP26 -GW* | SP | | ▽ | 1.2 |
| 10 | | GP | NS | | | | 1.3 |
| | | | | | | 12.0 | |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-27



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/3/06 **COMPLETED** 5/3/06
**GROUND ELEVATION** ___ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 7.0 ft
**LOGGED BY** B. Johnson **CHECKED BY** ___
**AT END OF DRILLING** ---
**NOTES** ___
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | GP | GP27-2* | AS / GM | | 0.3 0 to 0.25 feet: ASPHALT.<br>0.5 0.25 to 0.5 feet: GRAVEL with SILT (GM): light brown, fine to coarse gravel, few fines, moist, no odor.<br>0.5 to 12 feet: SAND (SP): light brown to medium gray, fine to coarse sand, trace fines, trace organics (wood pieces), moist to wet, no odor. | 6.4 |
| 5 | | GP | GP27-7<br>GP27 -GW* | SP | | ▽ | 0.5 |
| 10 | | GP | NS | | | | 0.6 |
| | | | | | | 12.0 | |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-28



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/3/06 **COMPLETED** 5/3/06
**GROUND ELEVATION** ___ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 6.0 ft
**LOGGED BY** B. Johnson **CHECKED BY** ___
**AT END OF DRILLING** ---
**NOTES** ___
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | 0.3 | 0 to 0.25 feet: ASPHALT. | |
| | | | | GM | 1.5 | 0.25 to 1.5 feet: GRAVEL with SILT (GM): light brown, fine to coarse gravel, few fines, trace fine to coarse sand, moist, no odor. | |
| | | GP | NS | SP | | 1.5 to 12 feet: SAND (SP): light brown to medium gray, fine to coarse sand, trace fines, moist to wet, no odor. | 0.6 |
| 5 | | GP | GP28-6* GP28 -GW* | | ▽ | | 0.7 |
| 10 | | GP | NS | | 12.0 | | 0.6 |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-29



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/4/06 **COMPLETED** 5/4/06
**GROUND ELEVATION** ___ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 8.0 ft
**LOGGED BY** B. Johnson **CHECKED BY** ___
**AT END OF DRILLING** ---
**NOTES** ___
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | 0.5 | 0 to 0.5 feet: ASPHALT. | |
| | | GP | NS | SP | 3.5 | 0.5 to 3.5 feet: SAND with GRAVEL (SP): dark gray, fine to coarse sand, few fine to coarse gravel, few fines, moist, no odor. | 2.2 |
| 5 | | GP | GP29-8*<br>GP29-GW* | SP | 6.0 | 3.5 to 6 feet: SAND (SP): light gray, fine to coarse sand, trace fines, moist, no odor. | 1.3 |
| | | | | | 6.5 | 6 to 6.5 feet: WOOD DEBRIS: dark brown, moist, no odor. | |
| | | | | ML | 8.0 ▽ | 6.5 to 8 feet: SILT (ML): light to dark brown, trace fine sand, trace organics (roots), moist, no odor. | |
| 10 | | GP | NS | SP | 12.0 | 8 to 12 feet: SAND (SP): light to medium gray, fine to coarse sand, trace fines, trace medium to coarse gravel, wet, no odor.<br>@ 9 to 9.1 feet: SILT (ML) interbed.<br>@ 10 to 10.1 feet: WOOD DEBRIS, dark brown, wet, no odor. | 1.8 |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-30



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/3/06 **COMPLETED** 5/3/06
**GROUND ELEVATION** ___ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 7.0 ft
**LOGGED BY** B. Johnson **CHECKED BY** ___
**AT END OF DRILLING** ---
**NOTES** ___
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | 0.3 | 0 to 0.25 feet: ASPHALT. | |
| | | GP | NS | GM | | 0.25 to 3.5 feet: GRAVEL with SILT (GM): medium gray, fine to coarse gravel, few fines, trace coarse sand, moist, no odor. | 0.6 |
| | | | | | 3.5 | | |
| 5 | | GP | GP30-7* GP30 -GW* | SM | | 3.5 to 7 feet: SILTY SAND (SM): dark brown, fine to coarse sand, some fines, few organics (wood pieces), moist to wet, no odor. | 0.6 |
| | | | | | 7.0 ▽ | | |
| 10 | | GP | NS | SP | | 7 to 12 feet: SAND (SP): medium gray, fine to coarse sand, trace fines, wet, no odor. | 0.5 |
| | | | | | 12.0 | | |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-31



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/3/06 **COMPLETED** 5/3/06
**GROUND ELEVATION** ___ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 6.0 ft
**LOGGED BY** B. Johnson **CHECKED BY** ___
**AT END OF DRILLING** ---
**NOTES** ___
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | 0.5 | 0 to 0.5 feet: ASPHALT. | |
| | | GP | NS | SP | | 0.5 to 12 feet: SAND (SP): medium brown to medium gray, fine to coarse sand, trace fine to coarse gravel, trace fines, moist to wet, no odor. | 0.3 |
| 5 | | GP | GP31-6*<br>GP31-GW* | | | ▽ | 2.3 |
| 10 | | GP | NS | | 12.0 | | 0.7 |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-32



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/3/06 **COMPLETED** 5/3/06
**GROUND ELEVATION** ___ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 7.5 ft
**LOGGED BY** B. Johnson **CHECKED BY** ___
**AT END OF DRILLING** ---
**NOTES** ___
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | | 0.3 0 to 0.25 feet: ASPHALT. | |
| | | GP | GP32-2 | SM | | 0.25 to 4.5 feet: SILTY SAND (SM): light to dark brown, fine to coarse sand, some fines, few fine to coarse gravel, few orgainics (wood pieces), moist, no odor. | 19.6 |
| 5 | | GP | GP32-7.5<br>GP32 -GW* | ML | | 4.5 4.5 to 9.5 feet: SILT (ML): dark brown, trace fine to coarse sand, trace fine gravel, few organics (wood pieces and roots), moist to wet, no odor. ▽ | 6.7 |
| 10 | | GP | NS | SP | | 9.5 9.5 to 12 feet: SAND (SP): dark gray, fine to coarse sand, few fines, trace orgainics (wood pieces), wet, no odor. 12.0 | 2.9 |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-33



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/3/06 **COMPLETED** 5/3/06
**GROUND ELEVATION** **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 7.0 ft
**LOGGED BY** B. Johnson **CHECKED BY**
**AT END OF DRILLING** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | 0.3 | 0 to 0.25 feet: ASPHALT. | |
| | | GP | NS | GM | 0.8 | 0.25 to 0.75 feet: GRAVEL with SILT (GM): light brown, fine to coarse gravel, few fines, moist, no odor. | 0.8 |
| | | | | | | 0.75 to 12 feet: SAND (SP): light brown to medium gray, fine to coarse sand, trace fines, moist to wet, no odor. | |
| 5 | | GP | GP33-7* GP33 -GW* | SP | | ▽ | 1.0 |
| 10 | | GP | NS | | | | 1.1 |
| | | | | | 12.0 | | |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-34



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/3/06 **COMPLETED** 5/3/06
**GROUND ELEVATION** ___ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 3.0 ft
**LOGGED BY** B. Johnson **CHECKED BY** ___
**AT END OF DRILLING** ---
**NOTES** ___
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | 0.3 | 0 to 0.25 feet: ASPHALT. | |
| | | GP | GP34-3<br>GP34<br>-GW* | GM | | 0.25 to 3 feet: GRAVEL with SILT (GM): dark brown, fine to coarse gravel, some fines, trace fine sand, moist, no odor. | 0.9 |
| | | | | | 3.0 ▽ | | |
| | | | | SP | | 3 to 7 feet: SAND (SP): dark brown, fine to coarse sand, few fines, trace fine gravel, trace organics (wood pieces), moist to wet, no odor. | |
| 5 | | GP | GP34-8* | | 7.0 | | 1.1 |
| | | | | SM | 8.0 | 7 to 8 feet: SILTY SAND (SM): dark brown, fine to coarse sand, some fines, moist, no odor. | |
| | | | | SP | | 8 to 10.5 feet: SAND with GRAVEL (SP): dark brown, fine to coarse sand, some fine gravel, trace fines, wet, slight hydrocarbon-like odor. | |
| 10 | | GP | NS | | 10.5 | | 0.8 |
| | | | | ML | | 10.5 to 12 feet: SILT (ML): dark brown, trace fine sand, few organics (wood pieces), moist, no odor. | |
| | | | | | 12.0 | | |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-35



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/4/06 **COMPLETED** 5/4/06
**GROUND ELEVATION** **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 7.0 ft
**LOGGED BY** B. Johnson **CHECKED BY**
**AT END OF DRILLING** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | | 0 to 1 feet: ASPHALT. | |
| | | | | | | 1.0 | |
| | | GP | NS | SP | | 1 to 5 feet: SAND with GRAVEL (SP): light brown to medium gray, fine to coarse sand, few coarse gravel, trace fines, moist, no odor. | 2.8 |
| 5 | | | | | | 5.0 | |
| | | GP | GP35-7* GP35 -GW* | SP | | 5 to 12 feet: SAND (SP): light brown to dark gray, fine to coarse sand, trace coarse gravel, trace fines, moist to wet, no odor. ▽ | 2.1 |
| 10 | | GP | NS | | | | 0.9 |
| | | | | | | 12.0 | |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-36



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/3/06 **COMPLETED** 5/3/06
**GROUND ELEVATION** ___ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 6.0 ft
**LOGGED BY** B. Johnson **CHECKED BY** ___
**AT END OF DRILLING** ---
**NOTES** ___
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | | 0.3 0 to 0.25 feet: ASPHALT. | |
| | | GP | NS | | | 0.25 to 12 feet: SAND (SP): light brown to light gray, fine to coarse sand, trace fines, moist to wet, no odor. | 0.8 |
| 5 | | GP | GP36-6* GP36 -GW* | SP | | ▽ | 1.0 |
| 10 | | GP | NS | | | | 0.7 |
| | | | | | | 12.0 | |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-37



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/2/06 **COMPLETED** 5/2/06
**GROUND ELEVATION** ____ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 9.0 ft
**LOGGED BY** B. Johnson **CHECKED BY** ____
**AT END OF DRILLING** ---
**NOTES** ____
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | 0.3 | 0 to 0.25 feet: ASPHALT. | |
| | | GP | NS | GP | 1.0 | 0.25 to 1 feet: GRAVEL and SAND (GP): gray, fine to medium gravel, some fine to medium sand, moist, no odor. | 2.1 |
| | | | | | | 1 to12 feet: SAND (SP): light brown to gray, fine to coarse sand, trace fines, trace organics (shell fragments), moist to wet, no odor. | |
| 5 | | GP | NS | SP | | | 1.7 |
| | | | | | | @ 7 to 8 feet: SILT (ML) interbeds. | |
| | | | | | | ▽ | |
| 10 | | GP | GP37-8*<br>GP37 -GW* | | | | 1.6 |
| | | | | | 12.0 | | |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-38



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/2/06 **COMPLETED** 5/2/06
**GROUND ELEVATION** ___ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 9.0 ft
**LOGGED BY** B. Johnson **CHECKED BY** ___
**AT END OF DRILLING** ---
**NOTES** ___
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | 0.3 | 0 to 0.25 feet: ASPHALT. | |
| | | | | GP | | 0.25 to 1.5 feet: GRAVEL (GP): gray to brown, fine to medium gravel, few fine to medium sand, trace fines, moist, no odor. | |
| | | GP | NS | | 1.5 | 1.5 to 12 feet: SAND (SP): light brown to gray, fine to medium sand, trace fines, trace organics (shell fragments), moist to wet, no odor. | 1.8 |
| 5 | | GP | NS | SP | | | 2.6 |
| 10 | | GP | GP38-8* GP38 -GW* | | 12.0 | ▽ | 1.2 |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-39



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/2/06 **COMPLETED** 5/2/06
**GROUND ELEVATION** ___ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 9.5 ft
**LOGGED BY** B. Johnson **CHECKED BY** ___
**AT END OF DRILLING** ---
**NOTES** ___
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | 0.3 | 0 to 0.25 feet: ASPHALT. | |
| | | GP | NS | GP | | 0.25 to 3 feet: GRAVEL with SAND (GP): light brown, fine to medium gravel, fine to medium sand, trace fines, moist, no odor. | 1.7 |
| | | | | | 3.0 | | |
| | | | | SP | | 3 to 12 feet: SAND (SP): light brown to dark gray, fine to medium sand, trace fines, trace organics (shell fragments), moist to wet, no odor. | |
| 5 | | GP | NS | | | | 1.1 |
| | | | | | | ▽ | |
| 10 | | GP | GP39-9* GP39 -GW* | | | | 2.0 |
| | | | | | 12.0 | | |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-40



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/2/06 **COMPLETED** 5/2/06
**GROUND ELEVATION** ___ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 8.0 ft
**LOGGED BY** B. Johnson **CHECKED BY** ___
**AT END OF DRILLING** ---
**NOTES** ___
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | 0.3 | 0 to 0.25 feet: ASPHALT. | |
| | | | | GP | 1.0 | 0.25 to 1 feet: GRAVEL (GP): light brown to gray, fine to medium gravel, few fine to medium sand, trace fines, moist, no odor. | |
| | | GP | NS | SP | | 1 to 8.5 feet: SAND (SP): light brown to gray, fine to medium sand, trace fines, trace organics (shell fragments), moist to wet, no odor. | 1.1 |
| 5 | | GP | NS | | | ▽ | 2.5 |
| | | | | | 8.5 | | |
| | | | | GP | 9.0 | 8.5 to 9 feet: GRAVEL (GP): brown, fine to medium gravel, few fine to medium sand, few fines, wet, no odor. | |
| 10 | | GP | GP40-8* GP40 -GW* | SP | | 9 to 12 feet: SAND (SP): dark brown to dark gray, fine to coarse sand, trace fines, trace orgainics (shell fragments), wet, no odor. | 2.2 |
| | | | | | 12.0 | | |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-41



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/2/06 **COMPLETED** 5/2/06
**GROUND ELEVATION** --- **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 9.0 ft
**LOGGED BY** B. Johnson **CHECKED BY** ---
**AT END OF DRILLING** ---
**NOTES** ---
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | | 0.3 0 to 0.25 feet: ASPHALT. | |
| | | | | GP | | 1.0 0.25 to 1 feet: GRAVEL and SAND (GP): light gray, fine to medium gravel, some fine to coarse sand, few fines, moist, no odor. | |
| | | GP | NS | | | 1 to 13.5 feet: SAND with GRAVEL (SP): brown, fine to medium sand, fine to coarse gravel, few fines, trace organics (shell fragments), moist to wet, no odor. | 2.1 |
| 5 | | GP | NS | SP | | | 2.3 |
| 10 | | GP | GP41-8* GP41 -GW* | | | ▽ | 2.0 |
| | | GP | NS | | | 13.5 | 1.8 |
| | | | | SM | | 14.0 13.5 to 14 feet: SILTY SAND (SM): dark brown, fine to medium sand, some fines, wet, no odor. | |

Boring completed at 14 feet.

Temporary well was installed with screen at depths from approximately 9 to 14 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-42



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/2/06 **COMPLETED** 5/2/06
**GROUND ELEVATION** ___ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 9.0 ft
**LOGGED BY** B. Johnson **CHECKED BY** ___
**AT END OF DRILLING** ---
**NOTES** ___
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | | 0.3 0 to 0.25 feet: ASPHALT. | |
| | | | | GP | | 1.0 0.25 to 1 feet: GRAVEL with SAND (GP): gray to brown, fine to medium angular gravel, fine to medium sand, trace fines, moist, no odor. | |
| | | GP | NS | | | 1 to 12 feet: SAND (SP): light brown to gray, fine to medium sand, trace fines, trace organics (shell fragments), moist to wet, no odor. | 1.7 |
| 5 | | GP | NS | SP | | | 2.2 |
| 10 | | GP | GP42-8* GP42 -GW* | | | ▽ | 0.9 |
| | | | | | | 12.0 | |

Boring completed at 12 feet.

Temporary well was installed with screen at depths from approximately 7 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

# SLR Sampling Event – Sept 2006

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# BORING NUMBER GP-201



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 9/11/06 **COMPLETED** 9/11/06
**GROUND ELEVATION** _____ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Boart Longyear
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 5.0 ft
**LOGGED BY** K Saganski **CHECKED BY** _____
**AT END OF DRILLING** ---
**NOTES** _____
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION |
|---|---|---|---|---|---|---|
| 0 | | GP | NS | AS | | 0 to 0.75 feet: **ASPHALT.** |
| | | | | | 4.0 | |
| 5 | | | | GP | 5.0 ▽ | 4 to 5 feet: **Sandy GRAVEL (GP):** dark brown, fine to coarse subrounded gravel, some fine to medium sand, little silt, moist, no odors. |
| | | GP | GP201-4.5*<br>GP201-GW* | ML | | 5 to 10 feet: **Sandy SILT (ML):** dark brown, some fine to medium sand, wet, no odors. |
| 10 | | | | | 10.0 | |

Boring completed at 10 feet.

Temporary well was installed with screen at depths from approximately 4 to 8 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-202



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 9/11/06 **COMPLETED** 9/11/06
**GROUND ELEVATION** _____ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Boart Longyear
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 10.0 ft
**LOGGED BY** K Saganski **CHECKED BY** _____
**AT END OF DRILLING** ---
**NOTES** _____
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION |
|---|---|---|---|---|---|---|
| 0 | | | | | | |
| | | GP | NS | AS | | 0 to 2.5 feet: **ASPHALT.** |
| | | | | | 2.5 | |
| | | | | SM | | 2.5 to 5.5 feet: **Silty SAND (SM):** dark brown and grey, fine to coarse, some fines, moist to wet, no odors. |
| 5 | | | | | 5.5 | |
| | | GP | GP202-7.5*<br>GP202-GW* | ML | | 5.5 to 9 feet: **SILT (ML):** dark brown to black, wet, some organics, strong hydrocarbon-like odors, visible product. |
| | | | | | 9.0 | |
| | | | | ML | | 9 to 10 feet: **Silty SAND (SM):** brown, fine to medium, some fines, wet, strong hydrocoarbon-like odors, visible product. |
| 10 | | | | | 10.0 ▽ | |

Boring completed at 10 feet.

Temporary well was installed with screen at depths from approximately 5 to 10 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-203



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 9/11/06 **COMPLETED** 9/11/06
**GROUND ELEVATION** _____ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Boart Longyear
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 5.0 ft
**LOGGED BY** K Saganski **CHECKED BY** _____
**AT END OF DRILLING** ---
**NOTES** _____
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION |
|---|---|---|---|---|---|---|
| 0 | | GP | NS | AS | | 0 to 4 feet: **ASPHALT**. |
| | | | | | 4.0 | |
| 5 | | | | SP | | 4 to 5.5 feet: **SAND (SP):** dark brown, fine to coarse sand, moist to wet, strong hydrocarbon-like odors at 5 feet, visible product, some asphalt pieces. ▽ |
| | | | | | 5.5 | |
| | | | | ML | | 5.5 to 7.5 feet: **SILT (ML):** dark brown, some organics, wet, strong hydrocarbon-like odors. |
| | | GP | GP203-5.5* | | 7.5 | |
| | | | | SP | | 7.5 to 10 feet: **SAND (SP):** dark brown, fine to medium sand, some fines, wet, strong hydrocarbon-like odors, visible sheen on soil. |
| 10 | | | | | 10.0 | |

Boring completed at 10 feet.

Temporary well was installed with screen at depths from approximately 5 to 10 feet below ground surface.

## REMARKS

* = Soil sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-204



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 9/11/06 **COMPLETED** 9/11/06
**GROUND ELEVATION** _____ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Boart Longyear
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 5.5 ft
**LOGGED BY** K Saganski **CHECKED BY** _____
**AT END OF DRILLING** ---
**NOTES** _____
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION |
|---|---|---|---|---|---|---|
| 0 | | | | | | |
| | | GP | NS | AS | | 0 to 2.5 feet: **ASPHALT.** |
| | | | | | 2.5 | |
| | | | | SP | | 2.5 to 7.5 feet: **SAND (SP):** light brown, fine to medium, trace coarse sand, trace shell fragments, moist, no odors. |
| 5 | | | | | | ▽ 5.5 feet: Becomes dark brown and wet. |
| | | GP | GP204-7.5* | | | |
| | | | GP204-GW* | | 7.5 | |
| | | | | ML | | 7.5 to 9 feet: **SILT (ML):** dark brown, some organics, moist, no odors. |
| | | | | | 9.0 | |
| 10 | | | | SP | | 9 to 10 feet: **SAND (SP):** dark brown, fine to coarse, trace fines, wet, no odors. |
| | | | | | 10.0 | |

Boring completed at 10 feet.

Temporary well was installed with screen at depths from approximately 5 to 10 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-205



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 9/12/06 **COMPLETED** 9/12/06
**GROUND ELEVATION** _____ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Boart Longyear
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 4.0 ft
**LOGGED BY** K Saganski **CHECKED BY** _____
**AT END OF DRILLING** ---
**NOTES** _____
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | | MATERIAL DESCRIPTION |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | | 0.5 | 0 to 0.5 feet: **ASPHALT.** |
| | | | | GP | | 1.5 | 0.5 to 1.5 feet: **GRAVEL and SAND (GP):** brown, fine to coarse gravel, fine to coarse sand, little silt, dry to moist, no odors. |
| | | GP | GP205-3*<br>GP205-GW* | SP | | 6.0 | 1.5 to 5.5 feet: **SAND (SP):** dark brown, fine to coarse, few to some fines, trace fine to coarse gravel, moist to wet, no odors, few asphalt pieces. ▽ |
| 5 | | | | | | | |
| | | GP | NS | ML | | 9.0 | 6 to 9 feet: **SILT (ML):** brown, some organics, moist to wet, no odors. |
| 10 | | | | SP | | 10.0 | 9 to 10 feet: **SAND (SP):** dark gray-brown, fine to coarse, some fines, wet, no odors. |

Boring completed at 10 feet.

Temporary well was installed with screen at depths from approximately 9 to 14 feet below ground surface (bgs). The well screen was driven to 14 feet bgs and no soil samples were collected below 10 feet bgs.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-206



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 9/12/06 **COMPLETED** 9/12/06
**GROUND ELEVATION** _____ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Boart Longyear
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 5.5 ft
**LOGGED BY** K Saganski **CHECKED BY** _____
**AT END OF DRILLING** —
**NOTES** _____
**AFTER DRILLING** —

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION |
|---|---|---|---|---|---|---|
| 0 | | | | | | |
| | | GP | NS | AS | | 0 to 4.5 feet: **ASPHALT.** |
| 4.5 | | | | | | |
| 5 | | | | SP | | 4.5 to 8.5 feet: **Gravelly SAND (SP):** gray, fine to coarse sand, some fine to coarse gravel, little silt, moist, wet at 5.5 feet, no odors, few asphalt pieces. ▽ |
| | | GP | GP206-4.5*<br>GP206-8.5*<br>GP206-P* | | | |
| 9.0 | | | | | | 8.5 to 9 feet: **SAND (SP):** grey to dark brown, fine to medium, some fines, wet, strong hydrocarbon-like odors, visible product. |
| 10 | | | | ML | | 9 to 10 feet: **SILT (ML):** brown, moist to wet, strong hydrocarbon-like odors, some organics. |
| 10.0 | | | | | | |

Boring completed at 10 feet.

Temporary well was installed with screen at depths from approximately 8 to 10 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-207



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 9/12/06 **COMPLETED** 9/12/06
**GROUND ELEVATION** _____ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Boart Longyear
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 7.0 ft
**LOGGED BY** K Saganski **CHECKED BY** _____
**AT END OF DRILLING** —
**NOTES** _____
**AFTER DRILLING** —

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION |
|---|---|---|---|---|---|---|
| 0 | | | | | | |
| | | GP | GP207-3* | AS | | 0 to 1 feet: **ASPHALT**. |
| | | | | | 1.0 | |
| | | | | GP | | 1 to 3.5 feet: **SAND and GRAVEL (GP):** light grey, fine to coarse subrounded gravel, fine to coarse sand, little silt, moist, no odors. |
| | | | | | 3.5 | |
| 5 | | | | SP | | 3.5 to 9 feet: **SAND (SP):** dark brown, fine to medium sand, some fines, moist to wet, hydrocarbon-like odors at 8.8 feet, visible sheen on soil, trace shell fragments. |
| | | GP | GP207-9* | | | ▽ |
| | | | | | 9.0 | |
| 10 | | | | ML | | 9 to 10 feet: **SILT (ML):** dark brown, moist to wet, hydrocarbon-like odors, few organics. |
| | | | | | 10.0 | |
| | | GP | GP207-GW*<br>GP207-P* | SP | | 10 to 15 feet: **SAND (SP):** dark brown, fine to coarse, some fines, wet, strong hydrocarbon-like odors, visible product trace shell fragments. |
| 15 | | | | | 15.0 | |

Boring completed at 15 feet.

Temporary well was installed with screen at depths from approximately 10 to 12 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-208



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 9/12/06 **COMPLETED** 9/12/06
**GROUND ELEVATION** _____ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Boart Longyear
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 9.8 ft
**LOGGED BY** K Saganski **CHECKED BY** _____
**AT END OF DRILLING** —
**NOTES** _____
**AFTER DRILLING** —

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION |
|---|---|---|---|---|---|---|
| 0 | | | | AS | | 0 to 1 feet: **ASPHALT**. |
| | | | | | 1.0 | |
| | | GP | NS | GP | | 1 to 4.5 feet: **SAND and GRAVEL (GP):** grey, fine to coarse subrounded gravel, fine to coarse sand, little silt, moist, no odors. |
| | | | | | 4.5 | |
| 5 | | | | SP | | 4.5 to 6 feet: **SAND (SP):** brown, fine to medium sand, some fines, moist, strong hydrocarbon-like odors, visible product. |
| | | | | | 6.0 | |
| | | GP | NS | ML | | 6 to 9.8 feet: **SILT (ML):** brown, moist to wet, no odors, some organics. |
| 10 | | | | | 9.8 ▽ | |
| | | | | SP | 10.0 | 9.8 to 10 feet: **SAND (SP):** dark brown, fine to coarse, wet, hydrocarbon-like odors, visible sheen. |

Boring completed at 10 feet.

Temporary well was installed with screen at depths from approximately 10 to 12 feet below ground surface.

## REMARKS

* = Groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-209



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 9/12/06 **COMPLETED** 9/12/06
**GROUND ELEVATION** _____ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Boart Longyear
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 5.5 ft
**LOGGED BY** K Saganski **CHECKED BY** _____
**AT END OF DRILLING** ---
**NOTES** _____
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION |
|---|---|---|---|---|---|---|
| 0 | | | | | | |
| | | GP | GP209-3* | AS | | 0 to 2.5 feet: **ASPHALT**. |
| | | | | | 2.5 | |
| | | | | SP | | 2.5 to 7.5 feet: **SAND (SP):** light brown, fine to medium, trace coarse sand, moist, wet at 5.5 feet, no odors. |
| 5 | | | | | ▽ | |
| | | GP | GP209-GW* | | | |
| | | | | | 7.5 | |
| | | | | ML | | 7.5 to 9 feet: **SILT (ML):** dark brown, moist to wet, no odors, some organics. |
| | | | | | 9.0 | |
| 10 | | | | SP | | 9 to 10 feet: **SAND (SP):** dark brown, fine to medium, trace coarse sand, trace fines, wet, no odors. |
| | | | | | 10.0 | |

Boring completed at 10 feet.

Temporary well was installed with screen at depths from approximately 5 to 10 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-210



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 9/12/06 **COMPLETED** 9/12/06
**GROUND ELEVATION** _____ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Boart Longyear
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 6.0 ft
**LOGGED BY** K Saganski **CHECKED BY** _____
**AT END OF DRILLING** ---
**NOTES** _____
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION |
|---|---|---|---|---|---|---|
| 0 | | | | AS | | 0.3 0 to 0.25 feet: **ASPHALT.** |
| | | GP | GP210-4* | SP | | 0.25 to 4.5 feet: **SAND (SP):** light brown, fine to medium, trace coarse sand, moist, no odors. |
| 5 | | | | | | 4.5 |
| | | GP | GP210-GW* | SM | | 4.5 to 10 feet: **Silty SAND (SM):** brown to grey, fine to coarse, some fines, little fine to coarse subrounded gravel, moist to wet, no odors. ▽ |
| 10 | | | | | | 10.0 |

Boring completed at 10 feet.

Temporary well was installed with screen at depths from approximately 5 to 10 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-211



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 9/11/06 **COMPLETED** 9/11/06
**GROUND ELEVATION** _____ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Boart Longyear
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 5.5 ft
**LOGGED BY** K Saganski **CHECKED BY** _____
**AT END OF DRILLING** ---
**NOTES** _____
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION |
|---|---|---|---|---|---|---|
| 0 | | | | AS | | 0.3 0 to 0.25 feet: **ASPHALT.** |
| | | GP | GP211-3.5* | GP | | 0.25 to 5.5 feet: **SAND and GRAVEL (GP):** grey, fine to coarse subrounded gravel, fine to coarse sand, moist to wet, no odors. |
| 5 | | | | | | 5.5 ▽ |
| | | | | SM | | 6.0 5.5 to 6 feet: **Silty SAND (SM):** dark brown, fine to medium, some fines, wet, no odors. |
| | | GP | GP211-GW* | SP | | 6 to 10 feet: **SAND (SP):** dark brown, fine to medium, trace coarse sand, wet, no odors. |
| 10 | | | | | | 10.0 |

Boring completed at 10 feet.

Temporary well was installed with screen at depths from approximately 5 to 10 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-212



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 9/11/06 **COMPLETED** 9/11/06
**GROUND ELEVATION** _____ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Boart Longyear
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 5.0 ft
**LOGGED BY** K Saganski **CHECKED BY** _____
**AT END OF DRILLING** —
**NOTES** _____
**AFTER DRILLING** —

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION |
|---|---|---|---|---|---|---|
| 0 | | | | AS | | 0.3 0 to 0.25 feet: **ASPHALT.** |
| | | GP | GP212-3* | GP | | 0.25 to 4 feet: **SAND and GRAVEL (GP):** brown, fine to coarse gravel, some fine to coarse sand, few fines, moist, no odors. |
| | | | | | | 4.0 |
| 5 | | | | | | 4 to 5 feet: **WOOD.** 5.0 ▽ |
| | | GP | GP212-GW* | SP | | 5 to 7 feet: **SAND (SP):** dark brown, fine to medium, trace coarse sand, few fines, wet, no odors. |
| | | | | | | 7.0 |
| | | | | ML | | 7 to 8 feet: **SILT (ML):** dark brown, moist, no odors. |
| | | | | | | 8.0 |
| | | | | SP | | 8 to 10 feet: **SAND (SP):** dark brown, fine to coarse, trace silt, wet, no odors. |
| 10 | | | | | | 10.0 |

Boring completed at 10 feet.

Temporary well was installed with screen at depths from approximately 5 to 10 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-213



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 9/12/06 **COMPLETED** 9/12/06
**GROUND ELEVATION** _____ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Boart Longyear
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 2.5 ft
**LOGGED BY** K Saganski **CHECKED BY** _____
**AT END OF DRILLING** —
**NOTES** _____
**AFTER DRILLING** —

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | | MATERIAL DESCRIPTION |
|---|---|---|---|---|---|---|---|
| 0 | | | | AS | | 0.3 | 0 to 0.25 feet: **ASPHALT.** |
| | | | | GP | | 1.0 | 0.25 to 1 feet: **Sandy GRAVEL (GP):** brown, fine to coarse subrounded gravel, some fine to coarse sand, little silt, moist, no odors. |
| | | | | SP | | | 1 to 2.5 feet: **Gravelly SAND (SP):** dark brown, fine to coarse sand, some fine to coarse gravel, little silt, moist, no odors. |
| | | GP | GP213-3.5* | | | | ▽ 2.5 to 8 feet: **SAND (SP):** grey to dark grey, fine to medium, trace coarse sand, trace fines, wet, strong chemical odors. |
| 5 | | | | | | | |
| | | GP | GP213-P* | | | 8.0 | |
| | | | | ML | | 9.0 | 8 to 9 feet: **SILT (ML):** dark brown, trace fine sand, moist, chemical odors. |
| 10 | | | | SP | | 10.0 | 9 to 10 feet: **SAND (SP):** dark grey, fine to medium, trace coarse sand, some fines, wet, strong chemical odors, visible sheen, trace wood pieces. |

Boring completed at 10 feet.

Temporary well was installed with screen at depths from approximately 5 to 10 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

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# BORING NUMBER GP-214



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 9/12/06 **COMPLETED** 9/12/06
**GROUND ELEVATION** _____ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Boart Longyear
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 4.0 ft
**LOGGED BY** K Saganski **CHECKED BY** _____
**AT END OF DRILLING** ---
**NOTES** _____
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION |
|---|---|---|---|---|---|---|
| 0 | | | | AS | | 0.3 0 to 0.25 feet: **ASPHALT.** |
| | | GP | GP214-2.5* | SP | | 0.25 to 0.6 feet: **SAND (SP):** brown, fine to coarse, some fine to coarse gravel, little silt, moist, no odors.<br>0.6 to 3 feet: **SAND (SP):** light brown, fine to medium, trace coarse sand, moist, no odors. 3.0 |
| | | | | ML | | 3.5 3 to 3.5 feet: **SILT (ML):** brown to dark brown, moist, no odors, few glass and brick pieces. |
| 5 | | | | SP | | ▽ 3.5 to 6 feet: **SAND (SP):** brown, fine to coarse, trace fines, moist to wet, strong chemical odors at 5 feet. 6.0 |
| | | GP | GP214-6* | ML | | 6 to 7.5 feet: **SILT (ML):** brown, moist to wet, strong chemical odors, some organics. 7.5 |
| | | | GP214-GW* | SP | | 7.5 to 10 feet: **SAND (SP):** dark grey, fine to coarse, few fines, wet, strong chemical odors, trace organics. |
| 10 | | | | | | 10.0 |

Boring completed at 10 feet.

Temporary well was installed with screen at depths from approximately 5 to 10 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

SLR
SLR International Corp
22122 20th Avenue SE
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

# BORING NUMBER GP-215



**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00013
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 9/11/06 **COMPLETED** 9/11/06
**GROUND ELEVATION** _____ **HOLE SIZE** 3.25
**DRILLING CONTRACTOR** Boart Longyear
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 7.0 ft
**LOGGED BY** K Saganski **CHECKED BY** _____
**AT END OF DRILLING** —
**NOTES** _____
**AFTER DRILLING** —

| DEPTH (ft) | INTERVAL | TYPE | NAME | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION |
|---|---|---|---|---|---|---|
| 0 | | | | AS | | 0 to 0.5 feet: **ASPHALT.** |
| | | | | GP | | 0.5 to 0.8 feet: **Sandy GRAVEL (GP):** brown, fine to coarse gravel, fine to medium sand, little silt, moist, no odors. |
| | | GP | NS | SP | | 0.8 to 5 feet: **SAND (SP):** light brown, fine to medium, trace coarse sand, moist, no odors. |
| 5 | | | | | | 5.0 |
| | | | | ML | | 5 to 7 feet: **SILT (ML):** grey, wet, no odors, trace organics. |
| | | GP | GP215-4.5* | | | 7.0 ▽ 7 to 15 feet: **SAND (SP):** dark grey, fine to coarse, wet, strong chemical odors, visible sheen on soil. |
| 10 | | | | SP | | |
| | | GP | GP215-GW* | | | |
| 15 | | | | | | 15.0 |

Boring completed at 15 feet.

Temporary well was installed with screen at depths from approximately 8 to 13 feet below ground surface.

## REMARKS

* = Soil and groundwater sample was submitted for laboratory analysis.
PID = photoionization detector readings in parts per million (ppm).
GP = Soil samples were collected with Geoprobe by using a 4-foot long, 1.5-inch diameter closed-piston sampling device with new acetate liners.
NS = No sample collected.
▽ Water level at time of drilling.

# SLR Sampling Event – Oct 2006

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Project: Former Nord Door** | | | | | | | | | | **Boring/Well Name:** |
| **Boring Location:** | | | | | | | | **Job #: 008.0228.00013** | | |
| **Drilling Company: Cascade Drilling** | | | | | | | | **Logged by: Beau Johnson** | | MW-1 |
| **Equipment: HAS** | | | | | | | | **Start Date/Time: 10-2-06 @ 0810** | | |
| **Sampling Method: Split Spoon** | | | | | | | | **Finish Date/Time: 10-2-06** | | |
| **Hammer Weight: 300** | | | | | | | | **Monitoring Device: PID** | | |
| **Screened Interval (bgs): 5 - 15** | | | | | | | | **First Water (bgs): 7.5** | | |

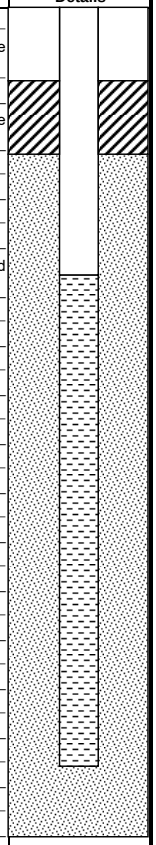
| Sample I.D. | Sample Interval | Recovery (%) | PID (ppm) | Blow Counts | Depth (feet bgs) | USCS Code | Graphic Log | | Lithologic Description | Well Construction Details |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 0 | AS | | 0-0.3 | Asphalt | Concrete |
| | | | | | | | | | | Bentonite |
| NS | | 85 | 0.6 | 21<br>21<br>21 | | ML | | 2.5 - 4 | Sandy SILT: Dark gray, fine to medium sand, trace fine to coarse gravel, moist, no odors. | |
| | | | | | 5 | | | | | Sand |
| MW1-6.5 @ 0840 | | 60 | 0.4 | 6<br>7<br>8 | | GP | | 5 - 6.5 | GRAVEL: dark gray, fine to coarse gravel, some fine to coarse sand and some fines, moist, no odors | |
| NS | | 90 | 0.3 | 6<br>15<br>6 | | ML | | 7.5 - 8.5 | Sandy SILT: dark gray, some fine to medium sand, trace fine to coarse gravel, wet, no odors | |
| | | | | | | AS | | 8.5 - 9 | Asphalt pieces | |
| | | | | | 10 | | | | | |
| NS | | 90 | 0.4 | 12<br>11<br>10 | | GP | | 10 - 13 | Sandy GRAVEL: dark gray, fine to coarse gravel, some fine to coarse sand, some fines, wet, no odors | |
| NS | | 90 | 0.3 | 6<br>15<br>7 | | ML | | 13 - 14 | Sandy SILT: dark gray, some fine to coarse sand, trace fine gravel, wet, no odors | |
| | | | | | 15 | | | | | |
| NS | | 85 | 0.3 | 8<br>25<br>25 | | ML | | 15 - 16 | Sandy SILT: dark gray, some fine to coarse sand, trace organics, wet, no odors | |
| | | | | | | SP | | 16- 16.5 | SAND: Gray, fine to coarse sand, few fines, wet, no odors | |
| | | | | | | | | | Well: 2" PVC<br>Screen: .010" | |
| | | | | | 20 | | | | | |

| | |
|---|---|
| **Depth of Boring (bgs): 16.5** | **Filter Pack: 3.5 - 16.5** |
| **Depth of Well (bgs): 15** | **Annulus Seal: 2 - 3.5** |
| | **Surface Seal: 0 - 2** |

| | | | |
|---|---|---|---|
| **Project: Former Nord Door** | | | **Boring/Well Name:** |
| **Boring Location:** | | **Job #: 008.0228.00013** | MW-2 |
| **Drilling Company: Cascade Drilling** | | **Logged by: Beau Johnson** | |
| **Equipment: HAS** | | **Start Date/Time: 10-2-06 @ 1018** | |
| **Sampling Method: Split Spoon** | | **Finish Date/Time: 10-2-06** | |
| **Hammer Weight: 300** | | **Monitoring Device: PID** | |
| **Screened Interval (bgs): 5 - 15** | | **First Water (bgs): 11** | |

| Sample I.D. | Sample Interval | Recovery (%) | PID (ppm) | Blow Counts | Depth (feet bgs) | USCS Code | Graphic Log | | Lithologic Description |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | 0 | AS | | 0-0.3 | Asphalt |
| | | | | | | GP | | 0.3 - 2.5 | GRAVEL: Brown, fine to coarse gravel, some fine to coarse sand, trace fines, moist, no odors |
| NS | | 50 | 2.4 | 50 for 6" | | SP | | 2.5 - 4 | SAND: Light brown, fine to coarse sand, few fines, trace fine to coarse gravel, moist, no odors. |
| | | | | | 5 | | | | |
| NS | | 60 | 2.3 | 7<br>8<br>7 | | SP | | 5 - 6.5 | SAND: Light gray, fine to coarse sand, trace fines, moist, no odors. |
| NS | | 90 | 1.1 | 6<br>8<br>8 | | SP | | 7.5 - 9.5 | SAND: Light gray, fine to coarse sand, trace fines, moist, no odors. |
| | | | | | 10 | | | | |
| MW2-10.5 @1050 | | 100 | 1.0 | 8<br>17<br>21 | | SP | | 10 - 11.5 | SAND: Light gray, fine to coarse sand, trace fines, moist, no odors, trace shell fragments, wet at 11'. |
| NS | | 100 | 0.9 | 5<br>25<br>50 | | SP | | 12.5 - 14 | SAND: Light gray, fine to coarse sand, trace fines, moist, no odors, trace shell fragments, wet. |
| | | | | | 15 | | | | |
| NS | | 100 | 0.9 | 4<br>5<br>10 | | SP | | 15 - 16.5 | SAND: Light gray, fine to coarse sand, trace fines, moist, no odors, trace shell fragments, wet. |
| | | | | | 20 | | | | |

**Well Construction Details**



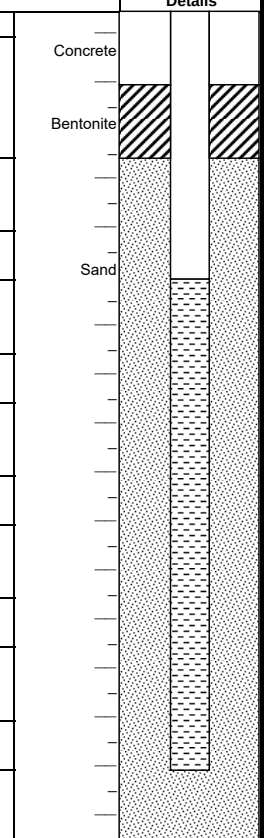

Well: 2" PVC
Screen: .010"

| | |
|---|---|
| **Depth of Boring (bgs): 16.5** | **Filter Pack: 3.5 - 15** |
| **Depth of Well (bgs): 15** | **Annulus Seal: 2 - 3.5** |
| | **Surface Seal: 0 - 2** |

| | | |
|---|---|---|
| **Project:** Former Nord Door | | **Boring/Well Name:** |
| **Boring Location:** | **Job #:** 008.0228.00013 | MW-3 |
| **Drilling Company:** Cascade Drilling | **Logged by:** Beau Johnson | |
| **Equipment:** HAS | **Start Date/Time:** 10-2-06 @ 1600 | |
| **Sampling Method:** Split Spoon | **Finish Date/Time:** 10-2-06 | |
| **Hammer Weight:** 300 | **Monitoring Device:** PID | |
| **Screened Interval (bgs):** 5 - 15 | **First Water (bgs):** 7 | |

| Sample I.D. | Sample Interval | Recovery (%) | PID (ppm) | Blow Counts | Depth (feet bgs) | USCS Code | Graphic Log | | Lithologic Description |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | 0 | AS | | 0 - 0.25 | Asphalt |
| | | | | | | GP | | 0.25 - 2.5 | Sandy GRAVEL: Light brown, fine to coarse gravel, fine to coarse sand, trace fines, moist, no odors |
| NS | | 100 | 2.9 | 5<br>5<br>1 | | SP | | 2.5 - 4 | SAND: Gray to brown, fine to coarse sand, trace fines, moist, no odors. |
| | | | | | 5 | | | | |
| MW3-6.5 @1620 | | 100 | 3 | 5<br>5<br>4 | | SP | | 5 - 6.5 | SAND: Gray to brown, fine to coarse sand, trace fines, moist, no odors. |
| NS | | 100 | 3.2 | 4<br>4<br>5 | | SP | | 7.5 - 9 | SAND: Gray, fine to coarse sand, trace fines, wet, no odors |
| | | | | | 10 | | | | |
| NS | | 100 | 2.8 | 3<br>7<br>11 | | SP | | 10 - 11.5 | SAND: Gray, fine to coarse sand, trace fines, wet, no odors. |
| NS | | 100 | 2.5 | 3<br>4<br>4 | | SP | | 12.5 - 14 | SAND: Gray, fine to coarse sand, trace fines, wet, no odors. Lense of SILT (ML) @ 13.25 to 13.5: gray, trace fine sand, wed, no odors |
| | | | | | 15 | | | | |
| NS | | 85 | 2.6 | 4<br>4<br>4 | | SP | | 15 - 16.5 | SAND: Gray, fine to coarse sand, trace fines, wet, no odors. |
| | | | | | 20 | | | | |

Well Construction Details



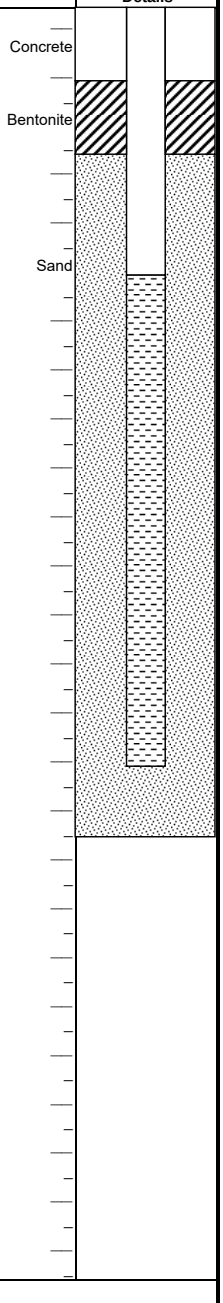

Well: 2" PVC
Screen: .010"

| | |
|---|---|
| **Depth of Boring (bgs):** 16.5 | **Filter Pack:** 3.5 - 16.5 |
| **Depth of Well (bgs):** 15 | **Annulus Seal:** 2 - 3.5 |
| | **Surface Seal:** 0 - 2 |

| | | | |
|---|---|---|---|
| **Project: Former Nord Door** | | | **Boring/Well Name:** |
| **Boring Location:** | | **Job #: 008.0228.00013** | MW-4 |
| **Drilling Company: Cascade Drilling** | | **Logged by: Beau Johnson** | |
| **Equipment: HAS** | | **Start Date/Time: 10-2-06 @ 1215** | |
| **Sampling Method: Split Spoon** | | **Finish Date/Time: 10-2-06** | |
| **Hammer Weight: 300** | | **Monitoring Device: PID** | |
| **Screened Interval (bgs): 5 - 15** | | **First Water (bgs): 7** | |

| Sample I.D. | Sample Interval | Recovery (%) | PID (ppm) | Blow Counts | Depth (feet bgs) | USCS Code | Graphic Log | | Lithologic Description |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | 0 | AS | | 0 - 0.25 | Asphalt |
| | | | | | | SP | | 0.25 - 4 | SAND: Gray, fine to coarse sand, trace fine to coarse gravel, trace fines, moist, no odors. |
| NS | | 85 | 2.2 | 14<br>11<br>11 | | | | | |
| | | | | | 5 | | | | |
| MW4-6.5 @1245 | | 100 | 1.9 | 4<br>4<br>5 | | SP | | 5 - 6.5 | SAND: Gray, fine to coarse sand, trace fine to coarse gravel, trace fines, moist, no odors. |
| NS | | 100 | 2 | 6<br>11<br>11 | | SP | | 7.5 - 9 | SAND: Gray, fine to coarse sand, no gravel, wet, turns to brown @ 8.25 feet, no odors. |
| | | | | | 10 | | | | |
| NS | | 100 | 2.2 | 15<br>18<br>10 | | SP | | 10 - 11.5 | SAND: Dark Gray, fine to coarse sand, trace fines, wet, no odors. |
| NS | | 100 | 1.9 | 5<br>6<br>8 | | SP | | 12.5 - 14 | SAND: Dark Gray, fine to coarse sand, trace fines, wet, no odors. |
| | | | | | 15 | | | | |
| NS | | 100 | 1.8 | 7<br>4<br>16 | | SP | | 15 - 16.5 | SAND: Dark Gray, fine to coarse sand, trace fines, wet, no odors. |
| | | | | | 20 | | | | |

**Well Construction Details**




| | |
|---|---|
| **Depth of Boring (bgs): 16.5** | **Filter Pack: 3.5 - 16.5** |
| **Depth of Well (bgs): 15** | **Annulus Seal: 2 - 3.5** |
| | **Surface Seal: 0 - 2** |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Project: Former Nord Door** | | | | | | | | | | **Boring/Well Name:** |
| **Boring Location:** | | | | | | | | **Job #: 008.0228.00013** | | |
| **Drilling Company: Cascade Drilling** | | | | | | | | **Logged by: Beau Johnson** | | MW-5 |
| **Equipment: HAS** | | | | | | | | **Start Date/Time: 10-2-06 @ 1405** | | |
| **Sampling Method: Split Spoon** | | | | | | | | **Finish Date/Time: 10-2-06** | | |
| **Hammer Weight: 300** | | | | | | | | **Monitoring Device: PID** | | |
| **Screened Interval (bgs): 5 - 15** | | | | | | | | **First Water (bgs): 9.5** | | |

| Sample I.D. | Sample Interval | Recovery (%) | PID (ppm) | Blow Counts | Depth (feet bgs) | USCS Code | Graphic Log | | Lithologic Description | Well Construction Details |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 0 | ML | | 0 - 0.25 | SILT: Dark brown, trace fine sand, moist, no odors, lots of organics. | Concrete |
| | | | | | | | | | | Bentonite |
| NS | | 80 | 3.2 | 4<br>5<br>4 | | GM | | 2.5 - 4 | Silty GRAVEL: Dark brown to black, fine to coarse gravel, some fines, trace coarse sand, moist, no odors, burnt wood pieces | |
| | | | | | 5 | | | | | Sand |
| NS | | 50 | 2.4 | 5<br>3<br>3 | | GM | | 5 - 6 | Silty GRAVEL: Dark brown to black, fine to coarse gravel, some fines, trace coarse sand, moist, no odors. | |
| | | | | | | ML | | 6 - 6.5 | Sandy SILT: Dark brown, some fine to med sand, moist, slight hydrocarbon-like. | |
| MW5-8.5 @1440 | | 100 | 4.9 | 1<br>4<br>7 | | ML | | 7.5 - 8.5 | SILT: Gray, trace fine sand, moist, hydrocarbon-like odors, trace organics | |
| | | | | | | SP | | 8.5 - 9 | SAND: Gray, fine to coarse sand, moist, hydrocarbon-like odors. | |
| | | | | | 10 | | | | | |
| NS | | 100 | 12.7 | 5<br>8<br>11 | | SP | | 10 - 11.5 | SAND: Dark Gray, fine to coarse sand, trace fines, wet, strong hydrocarbon-like odors, visible sheen on soil, a large wood piece. | |
| NS | | 100 | 5 | 17<br>25<br>40 | | SP | | 12.5 - 14 | SAND: Dark Gray, fine to coarse sand, trace fines, wet, strong hydrocarbon-like odors. | |
| | | | | | 15 | | | | | |
| NS | | 100 | 4.3 | 50 for 6" | | SP | | 15 - 16.5 | SAND: Dark Gray, fine to coarse sand, trace fines, wet, strong hydrocarbon-like odors. | |
| | | | | | 20 | | | | | |

Well: 2" PVC
Screen: .010"

| | |
|---|---|
| **Depth of Boring (bgs): 16.5** | **Filter Pack: 3.5 - 16.5** |
| **Depth of Well (bgs): 15** | **Annulus Seal: 2 - 3.5** |
| | **Surface Seal: 0 - 2** |

# SLR Sampling Event – May 2007

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Project: Former Nord Door** | | | | | | | | | **Boring/Well Name:** |
| **Boring Location:** | | | | | | | **Job #: 008.0228.00026** | | |
| **Drilling Company: Cascade Drilling** | | | | | | | **Logged by: Chris Kramer** | | MW-6 |
| **Equipment: HAS** | | | | | | | **Start Date/Time: 4-20-07 @ 1216** | | |
| **Sampling Method: Split Spoon** | | | | | | | **Finish Date/Time: 4-20-07** | | |
| **Hammer Weight: 300** | | | | | | | **Monitoring Device: PID** | | |
| **Screened Interval (bgs): 4 - 14** | | | | | | | **First Water (bgs): 8** | | |

| Sample I.D. | Sample Interval | Recovery (%) | PID (ppm) | Blow Counts | Depth (feet bgs) | USCS Code | Graphic Log | | Lithologic Description | Well Construction Details |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 0 | AS | | 0 - 0.25 | Asphalt | Concrete |
| | | | | | | | | | | Bentonite |
| NS | | 80 | 2 | 5<br>3<br>2 | | GP | | 3 - 5 | Sandy GRAVEL: Dark brown fine to coarse sand with gravel and cobbles, moist, no odor. | |
| | | | | | 5 | | | | | Sand |
| MW6-407-10 @1240 | | 50 | 2.2 | 7<br>5<br>3 | 10 | SP | | 8 - 10 | SAND: Dark brown to gray fine to coarse sand, moist to wet, no odors. | |
| | | | | | | | | | | |
| MW6-407-14 @1247 | | 65 | 2 | 4<br>6<br>4 | | SP | | 12 - 14 | Silty SAND: Gray fine to coarse sand, with gray silt, wet, no odors. | |
| | | | | | 15 | | | | Well: 2" PVC<br>Screen: .010" | |
| | | | | | 20 | | | | | |

| | |
|---|---|
| **Depth of Boring (bgs): 14** | **Filter Pack: 3.5 - 14** |
| **Depth of Well (bgs): 14** | **Annulus Seal: 2 - 3.5** |
| | **Surface Seal: 0 - 2** |

# SLR Sampling Event – May and June 2009

SLR
SLR International Corp
1800 Blankenship Rd; Suite 440
West Linn, Oregon 97068
Telephone: (503) 723-4423
Fax: (503) 723-4436

# BORING NUMBER GP-302



**CLIENT** JELD-WEN inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00037
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/21/09 **COMPLETED** 5/21/09
**GROUND ELEVATION** _____ **HOLE SIZE** 2
**DRILLING DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING DRILLING METHOD** Direct Push
**AT TIME OF DRILLING** 3.0 ft
**LOGGED BY** K Saganski **CHECKED BY** C. Kramer
**AT END OF** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | SAMPLE TYPE NUMBER | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|
| 0 | | | | Asphalt 1.0 | |
| | GP | ML | | Gravelly SILT: brown to black, fine to coarse gravel, few sand fine to medium-grained, moist 3.0 ▽ | 0.0 |
| | | ML | | SILT: brown to gray, few sand fine to medium-grained, moist 4.0 | |
| 5 | | ML | | Sandy SILT: gray, fine to medium-grained sand, trace fine gravel, wet 5.5 | |
| | GP | | | 5.8 Woody debris | 0.0 |
| | | ML | | SILT: gray, plastic, moist. Roots in silt from 5.8' to 6' 7.5 | |
| | | SP | | 8.0 SAND: gray, fine to medium-grained, few fines, wet | |
| | | | | Bottom of hole at 8.0 feet. | |

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West Linn, Oregon 97068
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Fax: (503) 723-4436

# BORING NUMBER GP-303



**CLIENT** JELD-WEN inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00037
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 6/1/09 **COMPLETED** 6/1/09
**GROUND ELEVATION** _____ **HOLE SIZE** 2
**DRILLING DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 7.0 ft
**LOGGED BY** K Saganski **CHECKED BY** C. Kramer
**AT END OF** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | SAMPLE TYPE NUMBER | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|
| 0 | | | | Asphalt and Gravel roadbase | |
| | | | | 1.0 | |
| | | SW | | SAND: gray, fine to coarse-grained with some fine to coarse gravel, little silt, few shells and glass, moist. Becomes fine-grained @ 5.5'. 3" lense of brick @ 6.3'. 2" lense of wood @ 6.5' | 0.2 |
| 5 | GP | | | | 0.1 |
| | | | | 7.0 ▽ | |
| | | SW | | SAND: dark brown, fine to coarse-grained, with some fine to coarse gravel, little silt, wet | |
| | | | | 9.0 | |
| 10 | | | | Woody debris | 0.0 |
| | | | | 12.0 | |
| | | | | Bottom of hole at 12.0 feet. | |

GENERAL BH / TP / WELL NORD DOOR.GPJ GINT US.GDT 6/23/09

SLR
SLR International Corp
1800 Blankenship Rd; Suite 440
West Linn, Oregon 97068
Telephone: (503) 723-4423
Fax: (503) 723-4436

# BORING NUMBER GP-304



**CLIENT** JELD-WEN inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00037
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 6/1/09 **COMPLETED** 6/1/09
**GROUND ELEVATION** _____ **HOLE SIZE** 2
**DRILLING DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 7.0 ft
**LOGGED BY** K Saganski **CHECKED BY** C. Kramer
**AT END OF** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | SAMPLE TYPE NUMBER | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|
| 0 | | | | 0.5 Asphalt and Gravel roadbase | |
| | | SP | | SAND: gray, fine-grained, some silt, moist | 0.0 |
| 5 | GP | | | 6.5 | 0.0 |
| | | ML | | 7.0 ▽ SILT: dark gray, little organics, moist | |
| | | SW | | SAND: gray, fine to coarse-grained, little silt, little gravel, fine to medium, wet | |
| 10 | | | | 10.0 | 0.1 |
| | | | | 10.5 Concrete and Asphalt: brown SAND fine to coarse-grained matrix, moist to dry | |
| | | | | Wood: with Sand and Silt, dark brown, moist | |
| | | | | 12.0 | |
| | | | | Bottom of hole at 12.0 feet. | |

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# BORING NUMBER GP-305



**CLIENT** JELD-WEN inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00037
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 6/1/09 **COMPLETED** 6/1/09
**GROUND ELEVATION** _____ **HOLE SIZE** 2
**DRILLING DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING DRILLING METHOD** Direct Push
**AT TIME OF DRILLING** 7.5 ft
**LOGGED BY** K Saganski **CHECKED BY** C. Kramer
**AT END OF** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | SAMPLE TYPE NUMBER | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|
| 0 | | | | Asphalt | |
| | | | | 1.5 | |
| | | SM | | Silty SAND: gray, fine-grained, with shells | 0.1 |
| | | | | 3.0 | |
| | | | | SAND: brown, fine to coarse-grained, trace silt, moist to wet. Becomes wet @ 7.5'. Wood in bottom of sampler | |
| 5 | GP | SW | | ▽ | 0.1 |
| 10 | | | | | 0 |
| | | | | 12.0 | |
| | | | | Bottom of hole at 12.0 feet. | |

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# BORING NUMBER GP-306



**CLIENT** JELD-WEN inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00037
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 6/1/09 **COMPLETED** 6/1/09
**GROUND ELEVATION** _____ **HOLE SIZE** 2
**DRILLING DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 8.0 ft
**LOGGED BY** K Saganski **CHECKED BY** C. Kramer
**AT END OF** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | SAMPLE TYPE NUMBER | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|
| 0 | | | | Asphalt and Gravel roadbase | |
| | | | | 1.0 | |
| | | SP | | Gravelly SAND: brown, fine to medium-grained, fine to coarse gravel, little silt, moist | 0.0 |
| 5 | | | | | |
| | GP | | | 6.0 | 0.0 |
| | | SW | | SAND: brown, fine to coarse-grained, trace silt, moist to wet | |
| | | | | ▽ | |
| 10 | | | | | 0.0 |
| | | | | 12.0 | |
| | | | | Bottom of hole at 12.0 feet. | |

GENERAL BH / TP / WELL NORD DOOR.GPJ GINT US.GDT 6/23/09

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# BORING NUMBER GP-307



**CLIENT** JELD-WEN inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00037
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/21/09 **COMPLETED** 5/21/09
**GROUND ELEVATION** _____ **HOLE SIZE** 2
**DRILLING DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING DRILLING METHOD** Direct Push
**AT TIME OF DRILLING** 4.0 ft
**LOGGED BY** K Saganski **CHECKED BY** C. Kramer
**AT END OF** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | SAMPLE TYPE NUMBER | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|
| 0 | GP | GW | | GRAVEL: with sand, brown to gray, fine to coarse, little fines, moist | |
| | | SP | | SAND: gray, fine to medium-grained, trace silt, moist | 0.0 |
| 1.5 | | | | | |
| 4.0 ▽ | | | | Wood: contains some plastic and plywood and a piece of screen | |
| 5 | | | | | 0.0 |
| 8.0 | | | | Bottom of hole at 8.0 feet. | |

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# BORING NUMBER GP-308



**CLIENT** JELD-WEN inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00037
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/21/09 **COMPLETED** 5/21/09
**GROUND ELEVATION** _____ **HOLE SIZE** 2
**DRILLING DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 4.0 ft
**LOGGED BY** C. Kramer **CHECKED BY** R. Frogner
**AT END OF** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | | |
| | | Soil | GP308-2 | 90 | GW | | 0.3 Asphalt<br>1.5 GRAVEL: dark brown to gray, fine to coarse, with Sand, moist<br>2.0 GRAVEL and SAND: light brown to brown, fine to coarse gravel, fine to coarse-grained sand, trace silt, moist<br>3.5 Sandy GRAVEL: gray, fine to coarse, trace silt, subangular to angular, fine to coarse-grained sand, moist | 0.0 |
| 5 | | | | 90 | GW | | SAND and GRAVEL: brown, organics, rounded gravel, some rust stains, fine-grained sand, little silt. Woody debris and plastic @ 7.5' to 8'<br>8.0 | 0.0 |

## WELL COMPLETION DETAILS:

## REMARKS

Boring abandoned with bentonite @ 8'

▽ Water level at time of drilling.

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# BORING NUMBER GP-309



**CLIENT** JELD-WEN inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00037
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/21/09 **COMPLETED** 5/21/09
**GROUND ELEVATION** _____ **HOLE SIZE** 2
**DRILLING DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING DRILLING METHOD** Direct Push
**AT TIME OF DRILLING** 6.0 ft
**LOGGED BY** C. Kramer **CHECKED BY** R. Frogner
**AT END OF** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | SAMPLE TYPE NUMBER | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|
| 0 | | GW | | 0.3 Asphalt<br>Sandy GRAVEL: dark brown, fine to coarse, 1 large gravel piece at 2.5', with little silt | 0.0 |
| | | SW | | 2.5<br>SAND: trace silt, few gravel, 3" silt lense @ 3.25'. Increasing coarseness and wet @ 6'. Becomes gray @ 6.5'. Clay in shoe | |
| 5 | GP | | | ▽ | 0.0 |
| | | | | 8.0<br>Bottom of hole at 8.0 feet. | |

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# BORING NUMBER GP-310



**CLIENT** JELD-WEN inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00037
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/22/09 **COMPLETED** 5/22/09
**GROUND ELEVATION** _____ **HOLE SIZE** 2
**DRILLING DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 5.0 ft
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**AT END OF** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | SAMPLE TYPE NUMBER | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|
| 0 | | | | 0.5 Concrete | |
| | | GP | | Sandy GRAVEL: gray, fine to medium, subangular to subrounded, some fine-grained sand, moist | 0.0 |
| | | | | 3.0 Sandy GRAVEL: gray, fine to coarse, subangular to subrounded, few fractured cobbles, moist. Becomes wet @ 5' | |
| 5 | | GW | | ▽ 5.5 | |
| | GP | | | Woody Debris, wet | 0.0 |
| | | | | 8.0 Sandy SILT: gray, some fine-grained sand, wet. Poor recovery from 8' to 10' | |
| 10 | | ML | | | 0.0 |
| | | | | 12.0 Bottom of hole at 12.0 feet. | |

GENERAL BH / TP / WELL NORD DOOR.GPJ GINT US.GDT 6/23/09

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# BORING NUMBER GP-311



**CLIENT** JELD-WEN inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00037
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/22/09 **COMPLETED** 5/22/09
**GROUND ELEVATION** _____ **HOLE SIZE** 2
**DRILLING DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 4.0 ft
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**AT END OF** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | SAMPLE TYPE NUMBER | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|
| 0 | GP | GP | | 0.5 Asphalt and Concrete<br>Sandy GRAVEL: brown, fine to medium, some fine-grained sand, moist. Becomes wet @ 4' | 0.0 |
| 5 | | | | 5.5 Woody Debris<br>7.0 | 0.0 |
| | | SP | | SAND: dark brown, fine-grained, few wood fragments, wet. Becomes fine to medium-grained @ 8.5'<br>9.0 | |
| 10 | | SP | | Gravelly SAND: dark brown, fine-grained, little fine gravel, few wood waste, wet<br>12.0 | 0.0 |
| | | | | Bottom of hole at 12.0 feet. | |

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# BORING NUMBER GP-312



**CLIENT** JELD-WEN inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00037
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/22/09 **COMPLETED** 5/22/09
**GROUND ELEVATION** _____ **HOLE SIZE** 2
**DRILLING DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 4.0 ft
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**AT END OF** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | SAMPLE TYPE NUMBER | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION |
|---|---|---|---|---|
| 0 | | | | |
| | GP | SP | | 0.5 Concrete<br>Gravelly SAND: gray, fine-grained, some fine to coarse gravel, moist. Becomes wet @ 4' ▽ |
| 5 | | | | 5.0 Woody Debris |
| | | | | 8.5 |
| 10 | | SP | | SAND: gray, fine-grained, few fine gravel, trace wood, wet |
| | | | | 12.0 Bottom of hole at 12.0 feet. |

GENERAL BH / TP / WELL NORD DOOR.GPJ GINT US.GDT 6/23/09

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# BORING NUMBER GP-334



**CLIENT** JELD-WEN inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00037
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/22/09 **COMPLETED** 5/22/09
**GROUND ELEVATION** _____ **HOLE SIZE** 2
**DRILLING DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 10.0 ft
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**AT END OF** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | SAMPLE TYPE NUMBER | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|
| 0 | GP | SP | | SAND: brown, fine-grained, trace sea shells, trace grass, roots, moist. No grass roots @ 0.5'. Woody debris @ 2.5' | 0.0 |
| 3.0 | | | | ASH: white to tan, few wood fragments, trace to fine gravel (pumice-like), moist | |
| 5 | | | | | 0.0 |
| 7.5 | | SM | | Silty SAND: brown, fine-grained, little silt, few fine gravel, few fine wood fragments, wood | |
| 8.5 | GP | SP | | SAND: brownish-gray, fine-grained, moist. Becomes wet @ 10' ▽ | |
| 10 | | | | | 0.0 |
| 12.0 | | | | Bottom of hole at 12.0 feet. | |

GENERAL BH / TP / WELL NORD DOOR.GPJ GINT US.GDT 6/23/09

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# BORING NUMBER GP-335



**CLIENT** JELD-WEN inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 008.0228.00037
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/22/09 **COMPLETED** 5/22/09
**GROUND ELEVATION** _____ **HOLE SIZE** 2
**DRILLING DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING DRILLING METHOD** Direct Push
▽ **AT TIME OF DRILLING** 10.0 ft
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**AT END OF** ---
**NOTES**
**AFTER DRILLING** ---

| DEPTH (ft) | SAMPLE TYPE NUMBER | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|
| 0 | | ML | | 0.5 SILT: brown, trace grass roots, moist | |
| | | SP | | SAND: brown, fine-grained, trace sea shell fragments, moist | 0.0 |
| 5 | GP | SM | | 5.0 Silty SAND: dark brown, fine to medium-grained, few fine gravels, trace wood waste, moist | 0.0 |
| | | | | 6.5 Woody Debris, moist | |
| | | SP | | 7.5 SAND: dark brown, fine-grained, moist | |
| 10 | GP | SP | | 8.5 SAND: grayish-brown, fine to medium-grained. Becomes wet @ 10' ▽ | 0.0 |
| | | | | 12.0 Bottom of hole at 12.0 feet. | |

GENERAL BH / TP / WELL NORD DOOR.GPJ GINT US.GDT 6/23/09

# SLR Sampling Event – May 2012

# BORING NUMBER 401-P



SLR International Corp
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 108.00228.00037
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/17/12 **COMPLETED** 5/17/12
**DRILLING METHOD** Direct Push
**DRILLING CONTRACTOR** ESN-NW
**GROUNDWATER ENCOUNTERED AT (feet):** 4.5
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**NOTES**

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|
| 0 | GB | 50 | MLG | | 0.5 Asphalt<br>Gravelly SILT: dark gray, some fine gravel, trace fine-grained sand, dry to damp, no odors or staining. At 2.0 feet: Hit a rock that obstructed recovery from 2 to 4 feet<br>3.0 | 0.0 |
| 5 | | 100 | SP | | SAND: dark gray, fine to medium-grained, trace fines, moist to wet, no odors or staining. At 4.5 feet: becomes wet<br>5.0<br>5.2 Wood debris: bark chips, wet, no odors | 0.0 |
| | | | ML | | 6.0 SILT: dark gray, trace wood debris, wet, no odors or staining | |
| | | | SP | | SAND: dark gray, fine to medium-grained, trace fines, wet, no odors or staining<br>8.0 | |
| | | | | | Bottom of boring at 8.0 feet. | |

**REMARKS**

# BORING NUMBER 402-P



SLR International Corp
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 108.00228.00037
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/17/12 **COMPLETED** 5/17/12
**DRILLING METHOD** Direct Push
**DRILLING CONTRACTOR** ESN-NW
**GROUNDWATER ENCOUNTERED AT (feet):** 3.5
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**NOTES**

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|
| 0 | | | | | 0.4 Asphalt | |
| | | | GP | | 1.0 Sandy GRAVEL: brown, fine to medium, little fine-grained sand, damp, no odors or staining | |
| | GB | 75 | SM | | Silty SAND: dark gray to black, fine-grained, little fines, few fine to medium gravel, moist to wet, no odors or staining. At 3.5 feet: becomes wet. | 0.0 |
| 5 | | | | | | |
| | | 80 | | | 6.0 | 0.0 |
| | | | CL | | 6.3 Wood debris: bark chips, no odor or staining | |
| | | | | | 8.0 CLAY: brown to gray, few wood chips from 6.3 to 7.0 feet, wet, no odors or staining | |
| | | | | | Bottom of boring at 8.0 feet. | |

**REMARKS**

PACIFIC RIM NORD - 400 SERIES.GPJ GINT US.GDT 12/23/13

# BORING NUMBER 403-P



SLR International Corp
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 108.00228.00037
**PROJECT LOCATION** Everett, WA
**DATE STARTED** 5/17/12 **COMPLETED** 5/17/12
**DRILLING METHOD** Direct Push
**DRILLING CONTRACTOR** ESN-NW
**GROUNDWATER ENCOUNTERED AT (feet):** 4.0
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**NOTES**

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|
| 0 | GB | 90 | MLG | | 0.5 Asphalt<br>Gravelly SILT: dark gray, some fine gravel, trace fine-grained sand, damp, no odors or staining | 0.0 |
| | | | | | 3.0<br>3.2 Asphalt | |
| 5 | | 0 | SP | | SAND: brown, fine to medium-grained, moist to wet, no odors or staining. At 4.0 feet: becomes wet. Sample entirely sloughed out of liner upon withdrawal. Sample appeared to be sand similar to above | 0.0 |
| | | | | | 8.0<br>Bottom of boring at 8.0 feet. | |

**REMARKS**

PACIFIC RIM NORD - 400 SERIES.GPJ GINT US.GDT 12/23/13

# SLR Sampling Event – March 2013

# BORING NUMBER GP-501



SLR
1800 Blankenship Road, Suite 440
West Linn, OR 97068
(503) 723-4423

**CLIENT** JELD-WEN, INC. **PROJECT NAME** Former Nord Door

**PROJECT NUMBER** 108.00228.00048 **PROJECT LOCATION** Everett, Washington

**DATE STARTED** 3/14/13 **COMPLETED** 3/14/13 **DRILLING METHOD** Direct Push

**DRILLING CONTRACTOR** ESN-NW **GROUNDWATER ENCOUNTERED AT (feet):** 3.5

**LOGGED BY** C. Lee **CHECKED BY** C. Kramer

**NOTES** Inside factory building, small room near loading dock

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|
| 0.0 | | | | | CONCRETE | 0 |
| | | | | | 1.0 | |
| | GB | 50 | SP | | Gravelly SAND, black, fine to medium-grained, few fines, gravel, damp, moderate chemical-like odor. | 1.6 |
| 2.5 | | 50 | | | 2.5 | 6.7 |
| | | | SP | | SAND, tan, fine to medium-grained, dry, somewhat cemented, moderate chemical-like odor. | |
| | | | | | 3.0 | |
| | GB | 50 | ML | | SILT, brown, moist, moderate chemical-like odor | 2.1 |
| | | | | | ▼ | |
| | | 60 | | | 4.5 | 1,620 |
| | | | SP | | SAND, gray, fine to medium-grained, wet, strong chemical-like odor. | |
| 5.0 | | | | | 5.0 | |
| | GB | 60 | | | WOOD DEBRIS, bark chips, wood fibers, wet, strong chemical-like odor. | 1,202 |
| | | | | | 5.7 | |
| | | | OL | | CLAY, brown, organic, few wood fibers, wet, strong chemical-like odor. | 41.6 |
| | | 60 | | | 7.0 | |
| | | | | | Bottom of boring at 7.0 feet. | |

Temporary Boring Abandoned with Bentonite

BASIC GEOPROBE TEMPLATE W/ RECOVERY NORD.GPJ GINT US.GDT 6/3/13

SLR
1800 Blankenship Road, Suite 440
West Linn, OR 97068
(503) 723-4423

# BORING NUMBER GP-502



**CLIENT** JELD-WEN, INC.
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** Everett, Washington
**DATE STARTED** 3/14/13 **COMPLETED** 3/14/13
**DRILLING METHOD** Direct Push
**DRILLING CONTRACTOR** ESN-NW
**GROUNDWATER ENCOUNTERED AT (feet):** 3.5
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**NOTES** Inside small room, west corner of factory building

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|
| 0.0 | | | | | CONCRETE | |
| | | 80 | | | 0.5 SAND, brown, fine to medium-grained, moist, no odors or staining, at 1.5 feet becomes fine-grained | 0 |
| | GB | 80 | SP | | | 0 |
| 2.5 | | 80 | | | 2.5 SILT, brown, moist, no odors or staining | 2.2 |
| | GB | 80 | ML | | 3.5 ▽ WOOD DEBRIS, bark chips, wood fibers, wet, hydrogen sulfide odor | 2.2 |
| | | 80 | | | | 2.5 |
| 5.0 | | | | | 5.0 SAND, gray, fine to medium-grained | |
| | GB | 80 | SP | | | 2.1 |
| | | 80 | | | 7.0 | 2.0 |
| | | | | | Bottom of boring at 7.0 feet. | |

Temporary Boring Abandoned with Bentonite

BASIC GEOPROBE TEMPLATE W/ RECOVERY NORD.GPJ GINT US.GDT 6/3/13

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1800 Blankenship Road, Suite 440
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# BORING NUMBER GP-503



**CLIENT** JELD-WEN, INC.
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** Everett, Washington
**DATE STARTED** 3/13/13 **COMPLETED** 3/13/13
**DRILLING METHOD** Direct Push
**DRILLING CONTRACTOR** ESN-NW
**GROUNDWATER ENCOUNTERED AT (feet):** 3.5
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**NOTES** Adjacent to railroad tracks, driveway into plant

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|
| 0.0 | | | | | ASPHALT | |
| | | 100 | | | 0.5 | |
| | | | GP | | Silty GRAVEL, brown to gray, medium to coarse-grained, little fines, damp, no odors or staining | |
| | GB | 100 | | | | |
| | | | | | 2.0 | |
| 2.5 | | 100 | | | Gravelly SAND, gray to dark gray, fine to medium-grained, some medium to coarse gravel, moist to wet, no odors or staining | |
| | GB | 100 | | | 3.6 ▼ at 3.5 feet: becomes wet, thin layer of white, friable material | |
| | | 100 | SP | | | |
| 5.0 | | | | | 5.1 at 5 feet: thin layer of bark chips | |
| | GB | 100 | | | | |
| | | | | | 6.1 at 6.0 feet: thin layer of plywood | |
| | | 100 | | | | |
| | | | | | 7.0 | |
| | | | | | Bottom of boring at 7.0 feet. | |

Temporary Boring Abandoned with Bentonite

BASIC GEOPROBE TEMPLATE W/ RECOVERY NORD.GPJ GINT US.GDT 6/3/13

SLR
1800 Blankenship Road, Suite 440
West Linn, OR 97068
(503) 723-4423

# BORING NUMBER GP-504



**CLIENT** JELD-WEN, INC.
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** Everett, Washington
**DATE STARTED** 3/13/13 **COMPLETED** 3/13/13
**DRILLING METHOD** Direct Push
**DRILLING CONTRACTOR** ESN-NW
**GROUNDWATER ENCOUNTERED AT (feet):** 4
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**NOTES** Near fire hydrant

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|
| 0.0 | | | | | ASPHALT | |
| | | 100 | | | 0.5 | |
| | | | SP | | GRAVELLY SAND, brown, fine to medium-grained, some fine to coarse gravel, damp, no odors or staining | |
| | GB | 100 | | | 1.5 | |
| | | | GP | | GRAVEL, gray, medium to coarse, few fine to medium-grained sand, damp to moist, no odors or staining | |
| 2.5 | | 100 | | | | |
| | GB | 100 | | | 3.5 | |
| | | | | | WOOD WASTE, brown, bark and sawdust, moist to wet, water at 4 feet, no odors or staining | |
| | | 100 | | | ▼ | |
| 5.0 | | | | | 5.0 | |
| | | | SM | | SAND, gray, fine to coarse-grained, wet, no odor or staining | |
| | GB | | | | 5.5 | |
| | | | CL | | CLAY, gray, few wood waste. wet, no odor, no staining | |
| | | | | | 7.0 | |
| | | | | | Bottom of boring at 7.0 feet. | |

Temporary Boring Abandoned with Bentonite

BASIC GEOPROBE TEMPLATE W/ RECOVERY NORD.GPJ GINT US.GDT 6/3/13

SLR
1800 Blankenship Road, Suite 440
West Linn, OR 97068
(503) 723-4423

# BORING NUMBER GP-505



**CLIENT** JELD-WEN, INC.
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** Everett, Washington
**DATE STARTED** 3/13/13 **COMPLETED** 3/13/13
**DRILLING METHOD** Direct Push
**DRILLING CONTRACTOR** ESN-NW
**GROUNDWATER ENCOUNTERED AT (feet):** 3.5
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**NOTES** North side of driveway

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|
| 0.0 | | | | | ASPHALT | |
| | | 100 | | | 0.5 | 0 |
| | | | GM | | Silty GRAVEL, brown, fine to medium. little fines, damp to moist, no odors or staining.<br>At 1.5 feet: pieces of wood (railroad ties), strong creosote-like odor | |
| | GB | 100 | | | | 0 |
| 2.5 | | 100 | | | 3.0 | 0 |
| | GB | 100 | | | SAND, gray, fine to medium-grained, moist to wet, no odors or staining.<br>At 5.5 feet: thin layer of wood waste | 0 |
| | | 100 | | | | 0 |
| 5.0 | | | SP | | | |
| | GB | 100 | | | | 0 |
| | | 100 | | | 7.0 | 0 |
| | | | | | Bottom of boring at 7.0 feet. | |

Temporary Boring Abandoned with Bentonite

BASIC GEOPROBE TEMPLATE W/ RECOVERY NORD.GPJ GINT US.GDT 6/3/13

SLR
1800 Blankenship Road, Suite 440
West Linn, OR 97068
(503) 723-4423

# BORING NUMBER GP-506



**CLIENT** JELD-WEN, INC.
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** Everett, Washington
**DATE STARTED** 3/13/13 **COMPLETED** 3/13/13
**DRILLING METHOD** Direct Push
**DRILLING CONTRACTOR** ESN-NW
**GROUNDWATER ENCOUNTERED AT (feet):** 3.5
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**NOTES** Entrance driveway, outside gate

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|
| 0.0 | | | | | | |
| | | 100 | | | ASPHALT | 0 |
| | | | | | 0.5 | |
| | | | | | GRAVEL, gray, medium to coarse, few fines, damp, no odors or staining | |
| | GB | 100 | GP | | | 0 |
| 2.5 | | 100 | | | 2.5 | 0 |
| | | | | | SAND, gray, fine to medium-grained, moist to wet, no odors or staining.<br>From 4.5-5.5 feet: trace fine gravel | |
| | GB | 100 | | | ▼ | 0 |
| | | 100 | SP | | | 0 |
| 5.0 | | | | | | |
| | GB | 100 | | | | 0 |
| | | 100 | | | | 0 |
| | | | | | 7.0 | |
| | | | | | Bottom of boring at 7.0 feet. | |

Temporary Boring Abandoned with Bentonite

BASIC GEOPROBE TEMPLATE W/ RECOVERY NORD.GPJ GINT US.GDT 6/3/13

SLR
1800 Blankenship Road, Suite 440
West Linn, OR 97068
(503) 723-4423

# BORING NUMBER GP-507



**CLIENT** JELD-WEN, INC.
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** Everett, Washington
**DATE STARTED** 3/13/13 **COMPLETED** 3/13/13
**DRILLING METHOD** Direct Push
**DRILLING CONTRACTOR** ESN-NW
**GROUNDWATER ENCOUNTERED AT (feet):** 3.5
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**NOTES** Loading dock area

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|
| 0.0 | | | | | ASPHALT | |
| | | 100 | | | 0.5 WOOD DEBRIS, brown to black, moist, strong creosote-like odor | 0 |
| | GB | 100 | GP | | 1.0 Sandy GRAVEL, dark gray to black, medium to coarse, some fine to coarse-grained sand, moist, strong creosote-like odor | 0 |
| 2.5 | | 100 | | | 2.5 SAND, gray, fine- to medium-grained, moist to wet, weak creosote-like odors. At 3.5 feet becomes wet | 0 |
| | GB | 100 | | | | 0 |
| | | 100 | SP | | | 0 |
| 5.0 | GB | 100 | | | | 0 |
| | | 100 | | | 7.0 | 0 |
| | | | | | Bottom of boring at 7.0 feet. | |

Temporary Boring Abandoned with Bentonite

BASIC GEOPROBE TEMPLATE W/ RECOVERY NORD.GPJ GINT US.GDT 6/3/13

SLR
1800 Blankenship Road, Suite 440
West Linn, OR 97068
(503) 723-4423

# BORING NUMBER GP-508



**CLIENT** JELD-WEN, INC. **PROJECT NAME** Former Nord Door

**PROJECT NUMBER** 108.00228.00048 **PROJECT LOCATION** Everett, Washington

**DATE STARTED** 3/13/13 **COMPLETED** 3/13/13 **DRILLING METHOD** Direct Push

**DRILLING CONTRACTOR** ESN-NW **GROUNDWATER ENCOUNTERED AT (feet):** 3.0

**LOGGED BY** C. Lee **CHECKED BY** C. Kramer

**NOTES** Inside building, outside first door on left near loading docks

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|
| 0.0 | | | | | CONCRETE | |
| | | | | | 0.3 | |
| | | 90 | GP | | Sandy GRAVEL, brown, fine to medium-grained, little fine-grained sand, dry, no odors or staining | 0 |
| | | | | | 1.0 | |
| | GB | 90 | | | SAND, dark brown, fine-grained, moist, no odors or staining<br>at 2.5 feet: becomes dark gray, wet | 0 |
| 2.5 | | 90 | | | | 0 |
| | GB | 90 | SP | | | 0 |
| | | 100 | | | | 0 |
| 5.0 | | | | | | |
| | | 100 | | | 5.5 | 0 |
| | | | | | ORAGNICS, black, wet, no odors or staining | |
| | | | | | 6.0 | |
| | | 100 | CL | | CLAY, dark brownish gray, wet, no odors or staining | 0 |
| | | | | | 7.0 | |
| | | | | | Bottom of boring at 7.0 feet. | |

Temporary Boring Abandoned with Bentonite

BASIC GEOPROBE TEMPLATE W/ RECOVERY NORD.GPJ GINT US.GDT 6/3/13

SLR
1800 Blankenship Road, Suite 440
West Linn, OR 97068
(503) 723-4423

# BORING NUMBER GP-509



**CLIENT** JELD-WEN, INC. **PROJECT NAME** Former Nord Door

**PROJECT NUMBER** 108.00228.00048 **PROJECT LOCATION** Everett, Washington

**DATE STARTED** 3/13/13 **COMPLETED** 3/13/13 **DRILLING METHOD** Direct Push

**DRILLING CONTRACTOR** ESN-NW **GROUNDWATER ENCOUNTERED AT (feet):** 3.0

**LOGGED BY** C. Lee **CHECKED BY** C. Kramer

**NOTES** Inside building, outside second and third doors on left

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|
| 0.0 | | | | | CONCRETE | |
| | | 90 | GP | | 0.3 GRAVEL, brown, fine, few fine-grained sand, damp, no odors or staining | 0 |
| | GB | 90 | SP | | 1.0 Gravelly SAND, brown, fine-grained, little fine gravel, damp, no odors or staining | 0 |
| 2.5 | | 90 | SM | | 2.0 Silty SAND, black, fine-grained, some fines, moist, no odors or staining | 0 |
| | GB | 90 | SP | | 3.0 SAND, grayish brown, fine-grained, moist to wet, no odors or staining<br>at 4.5 feet: silt lense, 0.2 feet thick | 0 |
| | | 100 | | | | 0 |
| 5.0 | GB | 100 | | | | 0 |
| | | 100 | | | 7.0 | 0 |
| | | | | | Bottom of boring at 7.0 feet. | |

Temporary Boring Abandoned with Bentonite

BASIC GEOPROBE TEMPLATE W/ RECOVERY NORD.GPJ GINT US.GDT 6/3/13

SLR
1800 Blankenship Road, Suite 440
West Linn, OR 97068
(503) 723-4423

# BORING NUMBER GP-510



**CLIENT** JELD-WEN, INC.
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** Everett, Washington
**DATE STARTED** 3/13/13 **COMPLETED** 3/13/13
**DRILLING METHOD** Direct Push
**DRILLING CONTRACTOR** ESN-NW
**GROUNDWATER ENCOUNTERED AT (feet):** 3.5
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**NOTES** Center of driveway into plant

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|
| 0.0 | | | | | ASPHALT | |
| | | 90 | | | 0.5 Gravelly SAND, light brown, fine-grained, some fine to coarse gravel, trace fines, damp to moist, slight oil-like odor, no staining | 0 |
| | GB | 90 | SP | | | 0 |
| 2.5 | | 90 | | | 3.0 | 0 |
| | GB | 90 | | | SAND, dark gray, fine to medium-grained, few fine gravel, moist to wet, slight oil-like odor, no staining | 0 |
| | | 90 | | | | 0 |
| 5.0 | GB | 90 | SP | | | 0 |
| | | 90 | | | 7.0 | 0 |
| | | | | | Bottom of boring at 7.0 feet. | |

Temporary Boring Abandoned with Bentonite

BASIC GEOPROBE TEMPLATE W/ RECOVERY NORD.GPJ GINT US.GDT 6/3/13

SLR
1800 Blankenship Road, Suite 440
West Linn, OR 97068
(503) 723-4423

# BORING NUMBER GP-511



**CLIENT** JELD-WEN, INC.
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** Everett, Washington
**DATE STARTED** 3/13/13 **COMPLETED** 3/13/13
**DRILLING METHOD** Direct Push
**DRILLING CONTRACTOR** ESN-NW
**GROUNDWATER ENCOUNTERED AT (feet):** 4
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**NOTES** North side of driveway near fence

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|
| 0.0 | | | | | ASPHALT | |
| | | 75 | | | 0.5<br>gravelly SAND, brown, fine-grained, little medium gravel, moist to wet, no odors or staining | 0 |
| | GB | 75 | | | at 4 feet: becomes wet | 0 |
| 2.5 | | 75 | SP | | | 0 |
| | GB | 75 | | | | 0 |
| | | 100 | | | 4.5<br>SAND, gray, fine to medium-grained, wet, no odors or staining | 0 |
| 5.0 | GB | 100 | SP | | | 0 |
| | | 100 | | | 7.0 | 0 |
| | | | | | Bottom of boring at 7.0 feet. | |

Temporary Boring Abandoned with Bentonite

BASIC GEOPROBE TEMPLATE W/ RECOVERY NORD.GPJ GINT US.GDT 6/3/13

# BORING NUMBER GP-512



SLR
1800 Blankenship Road, Suite 440
West Linn, OR 97068
(503) 723-4423

**CLIENT** JELD-WEN, INC. **PROJECT NAME** Former Nord Door

**PROJECT NUMBER** 108.00228.00048 **PROJECT LOCATION** Everett, Washington

**DATE STARTED** 3/14/13 **COMPLETED** 3/14/13 **DRILLING METHOD** Direct Push

**DRILLING CONTRACTOR** ESN-NW **GROUNDWATER ENCOUNTERED AT (feet):** 3.5

**LOGGED BY** C. Lee **CHECKED BY** C. Kramer

**NOTES** In grass north of driveway, outside fence

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|
| 0.0 | | | | | SOD | |
| | | 100 | ML | | 0.5 SILT, brown, few wood fibers and organics, moist, no odors or staining | 0 |
| | GB | 100 | | | 1.5 GRAVEL, brown, coarse, few fine-grained sand, trace fines, moist, no odors or staining | 0 |
| 2.5 | | 100 | GP | | | 0 |
| | GB | 100 | | | 3.5 ▽ | 0 |
| | | 100 | SP | | SAND, brown, fine- to medium-grained, wet, no odors or staining | 0 |
| 5.0 | | | | | 5.0 WOOD DEBRIS | |
| | GB | 100 | | | 5.5 SAND, gray, fine to medium-grained, wet, no odors or staining | 0 |
| | | 100 | SP | | | 0 |
| | | | | | 7.0 Bottom of boring at 7.0 feet. | |

Temporary Boring Abandoned with Bentonite

BASIC GEOPROBE TEMPLATE W/ RECOVERY NORD.GPJ GINT US.GDT 6/3/13

# SLR Sampling Event – Knoll Area – Nov 2013

# TEST PIT NUMBER TP-10



SLR International Corporation
1800 Blankenship Road, Suite 440
West Linn, OR 97068

**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** Everett, Washington
**DATE STARTED** 11/13/13 **COMPLETED** 11/13/13
**EXCAVATION METHOD** Excavator
**EXCAVATION CONTRACTOR** Wyser Construction
**GROUNDWATER ENCOUNTERED AT (feet):** NA
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**NOTES** Test Pits

| DEPTH (ft) | SAMPLE TYPE NUMBER | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|
| 0 | | | | SAND, light brown, fine-grained, trace shells, damp, no odors or staining | |
| 5 | GB | SP | | | 0 |
| | | | | 9.5 | |
| 10 | GB | SP | | SAND, dark gray, very fine-grained, trace shells, moist, no odors or staining (laminated texture) | 0 |
| | | | | 10.0 Bottom of boring at 10.0 feet. | |

## REMARKS

TP sample at 10' taken from directly above the native material, which is harder than the fill and has laminations.

BASIC GEOPROBE TEMPLATE NORD_TEST PITS.GPJ GINT US.GDT 12/27/13

# TEST PIT NUMBER TP-11



SLR International Corporation
1800 Blankenship Road, Suite 440
West Linn, OR 97068

**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** Everett, Washington
**DATE STARTED** 11/13/13 **COMPLETED** 11/13/13
**EXCAVATION METHOD** Excavator
**EXCAVATION CONTRACTOR** Wyser Construction
**GROUNDWATER ENCOUNTERED AT (feet):** 4
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**NOTES** Test Pits

| DEPTH (ft) | SAMPLE TYPE NUMBER | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|
| 0 | | | | | |
| | GB | OH | | Organic soil/roots | 0.6 |
| | | | | 1.0 | |
| | | SP | | SAND, light brown, fine-grained, damp, no odors or staining<br>-a tree branch was observed at 3 feet | |
| | | | | 2.0 | |
| | GB | | | SAND, gray, fine to medium-grained, damp to wet, no odors or staining | 0.6 |
| | | SP | | ▼ | |
| 5 | | | | 5.0 | |
| | | | | Bottom of boring at 5.0 feet. | |

## REMARKS

TP located at the bottom of a gully. Sampled TP at 2' directly above interface between native material and fill. Collected samples from sidewall.

BASIC GEOPROBE TEMPLATE NORD_TEST PITS.GPJ GINT US.GDT 12/27/13

# TEST PIT NUMBER TP-12



SLR International Corporation
1800 Blankenship Road, Suite 440
West Linn, OR 97068

**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** Everett, Washington
**DATE STARTED** 11/13/13 **COMPLETED** 11/13/13
**EXCAVATION METHOD** Excavator
**EXCAVATION CONTRACTOR** Wyser Construction
**GROUNDWATER ENCOUNTERED AT (feet):** NA
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**NOTES** Test Pits

| DEPTH (ft) | SAMPLE TYPE NUMBER | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|
| 0 | | | | SAND, light brown to dark gray, fine-grained, trace shells, damp, no odors or staining | |
| 5 | | SP | | | |
| | GB | | | | 0.2 |
| 10 | | | | | |
| | | | | 12.5 | |
| | GB | SP | | @ 12.5 feet: asphalt chunks<br>SAND, gray, very fine- grained, damp, no odors or staining | 0.2 |
| | | | | 14.0 | |
| | | | | Bottom of boring at 14.0 feet. | |

## REMARKS

No evidence of contamination.

BASIC GEOPROBE TEMPLATE NORD_TEST PITS.GPJ GINT US.GDT 12/27/13

# TEST PIT NUMBER TP-13



SLR International Corporation
1800 Blankenship Road, Suite 440
West Linn, OR 97068

**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** Everett, Washington
**DATE STARTED** 11/13/13 **COMPLETED** 11/13/13
**EXCAVATION METHOD** Excavator
**EXCAVATION CONTRACTOR** Wyser Construction
**GROUNDWATER ENCOUNTERED AT (feet):** NA
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**NOTES** Test Pits

| DEPTH (ft) | SAMPLE TYPE NUMBER | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|
| 0 | | | | SAND, brown, very fine to fine-grained, trace shells, damp, no odors or staining | |
| 5 | GB | SP | | | 0 |
| 10 | GB | | | | 0 |
| | | SP | | 13.5 SAND, gray, very fine-grained, trace shells, damp, no odors or staining 14.0 | |
| | | | | Bottom of boring at 14.0 feet. | |

## REMARKS

No evidence of contamination.

BASIC GEOPROBE TEMPLATE NORD_TEST PITS.GPJ GINT US.GDT 12/27/13

# TEST PIT NUMBER TP-14



SLR International Corporation
1800 Blankenship Road, Suite 440
West Linn, OR 97068

**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** Everett, Washington
**DATE STARTED** 11/14/13 **COMPLETED** 11/14/13
**EXCAVATION METHOD** Excavator
**EXCAVATION CONTRACTOR** Wyser Construction
**GROUNDWATER ENCOUNTERED AT (feet):** NA
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**NOTES** Test Pits

| DEPTH (ft) | SAMPLE TYPE NUMBER | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|
| 0 | | OH | | Organic soils and roots | |
| | | | | 1.0 | |
| | | SP | | SAND, light brown, very fine to fine-grained, trace shells, damp, no odors or staining | |
| 5 | | | | | |
| | GB | | | | 0 |
| 10 | | | | | |
| | GB | | | | 0 |
| | | | | 12.5 | |
| | | SP | | SAND, gray, very fine- grained, trace shells, laminated, damp, no odors or staining | |
| 15 | | | | 15.0 | |

Bottom of boring at 15.0 feet.

## REMARKS

Sampled from directly above contact with native material and fill and halfway between contact and surface.

BASIC GEOPROBE TEMPLATE NORD_TEST PITS.GPJ GINT US.GDT 12/27/13

# TEST PIT NUMBER TP-15



SLR International Corporation
1800 Blankenship Road, Suite 440
West Linn, OR 97068

**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** Everett, Washington
**DATE STARTED** 11/14/13 **COMPLETED** 11/14/13
**EXCAVATION METHOD** Excavator
**EXCAVATION CONTRACTOR** Wyser Construction
**GROUNDWATER ENCOUNTERED AT (feet):** NA
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**NOTES** Test Pits

| DEPTH (ft) | SAMPLE TYPE NUMBER | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|
| 0 | | SP | | SAND, light brown to brown, very fine to fine-grained, trace shells, damp, no odors or staining | |
| 5 | GB | | | | 0.2 |
| | | | | 9.0 | |
| | GB | SP | | SAND, gray, very fine to fine-grained, damp, trace shells and wood flakes, no odors or staining, contains balls of silt with laminated textures. | 0.2 |
| 10 | | | | 12.0 | |
| | | | | Bottom of boring at 12.0 feet. | |

## REMARKS

Sampled directly above contact with native material.

BASIC GEOPROBE TEMPLATE NORD_TEST PITS.GPJ GINT US.GDT 12/27/13

# TEST PIT NUMBER TP-16



SLR International Corporation
1800 Blankenship Road, Suite 440
West Linn, OR 97068

**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** Everett, Washington
**DATE STARTED** 11/14/13 **COMPLETED** 11/14/13
**EXCAVATION METHOD** Excavator
**EXCAVATION CONTRACTOR** Wyser Construction
**GROUNDWATER ENCOUNTERED AT (feet):** 8
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**NOTES** Test Pits

| DEPTH (ft) | SAMPLE TYPE NUMBER | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|
| 0 | | SP | | SAND, light brown, fine-grained, trace shells, damp, no odors or staining<br><br>@ 5.5 feet wood chips | |
| 6.0 | | SP | | SAND, gray, fine-grained, trace shells, no odors or staining | |
| 8.0 ▼ | | | | CONCRETE/ASPHALT<br>@8 feet there was a flat layer of sandy material that was very hard, may have been concrete. It was very hard to dig through and perfectly flat. On top of this pavement was a thin layer of wood chips with a strong sulfur odor. | |
| 9.0 | GB | SP | | Beneath the pavement was a thick layer of wood waste including chips, dimensional lumber, and pieces of logs and bark. The wood debris also contained a small amount of brick and concrete, metal and glass, with some of it appearing to have been burned. Some of the wood had a creosote-like odor. | 0.4 |
| 10 | GB | | | @ 12.0 feet: Becomes wet. The groundwater had a creosote-like odor and sheen. Collected sample of the soil at 11.5', right above the water. | 0.4 |
| 15 | | | | | |
| 15.0 | | | | Bottom of boring at 15.0 feet. | |

**REMARKS**

BASIC GEOPROBE TEMPLATE NORD_TEST PITS.GPJ GINT US.GDT 12/27/13

# TEST PIT NUMBER TP-17



SLR International Corporation
1800 Blankenship Road, Suite 440
West Linn, OR 97068

**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** Everett, Washington
**DATE STARTED** 11/14/13 **COMPLETED** 11/14/13
**EXCAVATION METHOD** Excavator
**EXCAVATION CONTRACTOR** Wyser Construction
**GROUNDWATER ENCOUNTERED AT (feet):** 14
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**NOTES** Test Pits

| DEPTH (ft) | SAMPLE TYPE NUMBER | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|
| 0 | | SP | | SAND, brown, very fine to fine-grained, trace shells, damp, no odors or staining | |
| 7.0 | | SP | | SAND, gray, fine-grained, trace shells, damp, no odors or staining | |
| 9.0 | GB | SP | | @ 9 feet: thin, hard layer of cemented soil | 0 |
| 10 | | | | SAND, dark brown to light brown, fine to medium-grained, some debris including wood, brick, and concrete; few metal scraps, damp, no odors or stainingg. Collected two samples from the zone of buried debris. No evidence of creosote or petroleum products in the TP. | |
| | | | | @14 feet: Becomes wet. Water at bottom does not exhibit a sheen or foam, as in TP-16. | |
| | GB | | | | 0 |
| 14.0 ▽ | | | | Bottom of boring at 14.0 feet. | |

## REMARKS

No evidence of buerned material in this TP.

BASIC GEOPROBE TEMPLATE NORD_TEST PITS.GPJ GINT US.GDT 12/27/13

# TEST PIT NUMBER TP-18



SLR International Corporation
1800 Blankenship Road, Suite 440
West Linn, OR 97068

**CLIENT** JELD-WEN, inc
**PROJECT NAME** Former Nord Door
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** Everett, Washington
**DATE STARTED** 11/14/13 **COMPLETED** 11/14/13
**EXCAVATION METHOD** Excavator
**EXCAVATION CONTRACTOR** Wyser Construction
**GROUNDWATER ENCOUNTERED AT (feet):**
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**NOTES** Test Pits

| DEPTH (ft) | SAMPLE TYPE NUMBER | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|
| 0 | | SP | | SAND, light brown, fine-grained, trace shells, damp, no odors or staining | |
| | | | | 8.0 | |
| | | | | CONCRETE/ASPHALT | |
| | | | | 9.0 | |
| 10 | | SP | | Wood debris, some fine-grained sand, few metal, brick and glass debris. Moist to wet. No odor or staining. The same material present in TP-16 is present except there was no evidence of creosote contamination. The wood appears to be remains of dimensional lumber and timbers and not sawdust or chips. | |
| | | | | 14.0 | |
| | | | | Bottom of boring at 14.0 feet. | |

## REMARKS

TP was excavated 30' West of TP-16 to delineate the horizontal extent of teh concrete pad and buried material. No samples were collected.

BASIC GEOPROBE TEMPLATE NORD_TEST PITS.GPJ GINT US.GDT 12/27/13

**SLR Sampling Event – December 2013**

# BORING NUMBER GP-605



SLR International Corporation
405 East 12450 South, Suite K
Draper, Utah 84020

**CLIENT** JELD-WEN, inc. **PROJECT NAME** Former Nord Door

**PROJECT NUMBER** 108.00228.00048 **PROJECT LOCATION** Former Nord Door Facility

**DATE STARTED** 12/18/13 **COMPLETED** 12/18/13 **DRILLING METHOD** Direct Push

**DRILLING CONTRACTOR** ESN-NW **GROUNDWATER ENCOUNTERED AT (feet):** 2.5

**LOGGED BY** C. Lee **CHECKED BY** M. Coracci

**NOTES** North of office building on front of plant, screened interval 30-35 feet

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|
| 0 | | | | | 0.5 SOD | |
| | | 50 | SP | | 1.5 SAND, dark brown, fine-grained, damp, no odors or staining | 0 |
| | | | CL | | 2.5 CLAY, red, damp, no odors or staining | |
| | | | SP | | SAND, brown, fine to medium-grained, few fines, wet, no odors or staining | |
| 5 | | 50 | | | @ 4.5 feet: moderate creosote odor | 2.1 |
| | | | | | 6.0 | |
| | | 90 | GP | | GRAVEL, gray, fine to medium, few fine to medium- grained sand, damp to wet, moderate to strong creosote-like odor | 6.3 |
| | | | | | @ 9.0 feet: becomes wet | |
| 10 | | 90 | | | @9.5 feet: creosote-like odor becomes strong, creosote coating on the soil | 9.1 |
| | | 95 | | | 11.0 | |
| | | | ML | | SILT, brown, trace organics, wet, moderate creosote-like odor | |
| | | | | | 13.0 | 2.1 |
| | GB | | SP | | SAND, gray, fine to medium-grained, fines, wet, moderate creosote like odor, crosote coating on the soil | |
| 15 | | | | | @15-20 feet: sample liner was stuck in sampler; hammer used to loosen sample liner from sampling rod | 2.0 |
| | | | | | @20-25 feet: sample liner was stuck again | |
| 20 | | | | | @30-35 feet: sample liner was stuck again | 2.4 |
| | | | | | | |
| | | | | | | 3.1 |
| 25 | | | | | | |
| | | | | | | 1.1 |
| | | | | | | 2.1 |
| 30 | | | | | | |
| | | | | | | 2.5 |
| | | | | | 34.5 | |
| 35 | GB | | ML | | 35.0 @ 35 feet: SILT, clean grey, no odor or staining | 11.0 |

Bottom of boring at 35.0 feet.

Notes

BASIC GEOPROBE TEMPLATE W/ RECOVERY NORD DOOR FACILITY.GPJ GINT US.GDT 2/10/14

# BORING NUMBER GP-606



SLR International Corporation
405 East 12450 South, Suite K
Draper, Utah 84020

**CLIENT** JELD-WEN, inc. **PROJECT NAME** Former Nord Door

**PROJECT NUMBER** 108.00228.00048 **PROJECT LOCATION** Former Nord Door Facility

**DATE STARTED** 12/18/13 **COMPLETED** 12/18/13 **DRILLING METHOD** Direct Push

**DRILLING CONTRACTOR** ESN-NW **GROUNDWATER ENCOUNTERED AT (feet):** 4

**LOGGED BY** C. Lee **CHECKED BY** M. Coracci

**NOTES** Near loading dock, screened interval 10-15 feet

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|
| 0 | | | | | 0.5 SOD | |
| | | | SM | | 1.5 silty SAND, brown, fine-grained, little fines, damp, no odors or staining | |
| | | | SP | | 2.5 gravelly SAND, dark brown, fine-grained, little fine gravel, trace fines, no odors or staining | |
| | | 80 | ML | | 3.0 SILT, beige, damp, no odors or staining | 0 |
| | | | MLS | | 4.0 sandy SILT, gray, little fine-grained sand, damp mottling, no odors or staining | |
| 5 | | | SP | | SAND, dark gray to gray, fine-grained, wet, no odors or staining | |
| | | 100 | | | 7.5 | 0 |
| | | | SM | | silty SAND, dark gray, fine- grained, little fines, wet, no odors or staining<br><br>@10-15 feet: sample liner was stuck in sampler; hammer used to loosen sample liner from sampling rod | |
| 10 | | | | | | 0 |
| 15 | GB | | | | 15.0 | |
| | | | | | Bottom of boring at 15.0 feet. | |

Notes

BASIC GEOPROBE TEMPLATE W/ RECOVERY NORD DOOR FACILITY.GPJ GINT US.GDT 2/10/14

# BORING NUMBER GP-607



SLR International Corporation
405 East 12450 South, Suite K
Draper, Utah 84020

**CLIENT** JELD-WEN, inc. **PROJECT NAME** Former Nord Door

**PROJECT NUMBER** 108.00228.00048 **PROJECT LOCATION** Former Nord Door Facility

**DATE STARTED** 12/18/13 **COMPLETED** 12/18/13 **DRILLING METHOD** Direct Push

**DRILLING CONTRACTOR** ESN-NW **GROUNDWATER ENCOUNTERED AT (feet):** 4.5

**LOGGED BY** C. Lee **CHECKED BY** M. Coracci

**NOTES** South of office building on front of plant, screened interval 20-25 feet

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|
| 0 | | | | | 0.4 ASPHALT<br>1.0 GRAVEL (pea gravel)<br>1.5 CONCRETE | |
| 5 | | 50 | SP | | 3.5 gravelly SAND, dark brown to brown, fine-grained, little fine gravel, damp to moist, no odors or staining<br>silty SAND, brown, fine-grained, little fines, moist to wet, no odors or staining | 0 |
| 10 | | 90 | | | @8.5 feet: strong creosote-like odor, sheen on soil, free product evident on soil and sample tube | 0.3 |
| 15 | | 90 | | | @13 feet: creosote-like odors became wek<br>@15-20 feet: sample liner was stuck in sampler and sample was beaten out with a hammer | 3.5 |
| 20 | | 90 | SM | | | 1.1 |
| 25 | GB | | | | 25.0 | 0.9<br>0.1<br>0 |
| | | | | | Bottom of boring at 25.0 feet. | |

Notes

BASIC GEOPROBE TEMPLATE W/ RECOVERY NORD DOOR FACILITY.GPJ GINT US.GDT 2/10/14

**SLR Geoprobe Soil and Groundwater Investigation – July 2015**

# WELL NUMBER GP-701



SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc.
**PROJECT NAME** Former E.A. Nord
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** 300 West Marine View Dr, Everett, WA
**DATE STARTED** 7/9/15 **COMPLETED** 7/9/15
**DRILLING METHOD** Direct Push
**DRILLING CONTRACTOR** Cascade Drilling
**GROUNDWATER ENCOUNTERED AT (feet):** 5.5
**LOGGED BY** P. LeDoux **CHECKED BY** C. Kramer
**NOTES** Temporary boring abandoned with bentonite

| DEPTH (ft) | SAMPLE NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|
| 0 | | | | | ASPHALT | | |
| | | | | | 1.5 | | |
| | | 60 | SP-SM | | SAND with gravel and silty fines, brown to gray, moist, fine sand, fine subangular gravel, no odor, no staining | 2.0 | |
| 5 | | | | | 4.5 | | |
| | | | | | SAND, little to no fines, well graded, grayish brown, moist to wet, no odor, no staining. Wood chips @ 9.5 ft | | |
| | | 89 | SP | | | 0.5 | |
| 10 | | | | | | | |
| | | | | | 11.5 | | |
| | | 95 | PT | | 12.5 PEAT, brown, wet, largely humus, some larger roots and wood | 3.0 | 1" PVC temporary well |
| | | | SP | | SAND, little to no fines, dark gray, wet, fine sand, no odor, no staining | | |
| 15 | | | | | | | |
| | | 85 | | | 18.0 | 0.6 | |
| | | | ML | | 18.5 SILT, trace organics, gray, no odor, no staining, wet | | |
| 20 | | | SP | | SAND, little to no fines, dark gray, wet, fine sand, no odor, no staining | | |
| | | 80 | | | | 1.5 | |
| 25 | | | | | | | |
| | | 90 | | | | 1.0 | |
| 30 | | | | | | | |
| | | 65 | | | | 1.0 | |
| 35 | | | | | 35.0 | | |

Bottom of boring at 35.0 feet.

**REMARKS**

# WELL NUMBER GP-702



SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc.
**PROJECT NAME** Former E.A. Nord
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** 300 West Marine View Dr, Everett, WA
**DATE STARTED** 7/9/15 **COMPLETED** 7/9/15
**DRILLING METHOD** Direct Push
**DRILLING CONTRACTOR** Cascade Drilling
**GROUNDWATER ENCOUNTERED AT (feet):** 5.0
**LOGGED BY** P. LeDoux **CHECKED BY** C. Kramer
**NOTES** Temporary boring abandoned with bentonite

| DEPTH (ft) | SAMPLE NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|
| 0 | | | | | ASPHALT | | |
| | | | | | 1.5 | | |
| | GP-702-4 | 90 | | | Gravelly SAND with silty fines, gray, moist to wet, fine sand, fine to coarse subangular gravel, no odor, no staining, small shell fragments @ 8 ft. Wet @ 5 ft. | 2.7 | |
| 5 | | | SP-SM | | | | |
| | | 70 | | | | 2.7 | |
| 10 | | | | | 9.5 | | |
| | | | PT | | PEAT, brown, moist, largely humus, some small roots, no odor, no staining | | |
| | | | | | 10.5 | | |
| | | 100 | SP | | SAND, little to no fines, dark gray, wet, fine sand, weak creosote odor, no staining | 4.8 | 1" PVC temporary well |
| 15 | | | | | 14.5 | | |
| | | | SP | | 15.0 SAND, visible product & strong creosote odor | | |
| | | 70 | | | SAND, no odor or visible product | 1.6 | |
| 20 | | | | | | | |
| | | 85 | | | | 1.6 | |
| 25 | | | SP | | | | |
| | | 70 | | | | 1.1 | |
| 30 | | | | | | | |
| | | 60 | | | | 0.8 | |
| 35 | | | | | 35.0 | | |

Bottom of boring at 35.0 feet.

**REMARKS**

# WELL NUMBER GP-703



SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc.
**PROJECT NAME** Former E.A. Nord
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** 300 West Marine View Dr, Everett, WA
**DATE STARTED** 7/21/15 **COMPLETED** 7/21/15
**DRILLING METHOD** Direct Push
**DRILLING CONTRACTOR** ESN-NW
**GROUNDWATER ENCOUNTERED AT (feet):** 7.5
**LOGGED BY** C. Lee **CHECKED BY** D. Bobosh
**NOTES** Temporary boring abandoned with bentonite

| DEPTH (ft) | SAMPLE NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|
| 0 | | 60 | | | 0.5 ASPHALT | 1.0 | |
| | | 60 | SM | | Silty SAND, gray, fine-grained, some fines, moist, no odors or staining | 0.9 | |
| | | 60 | | | | 0.0 | |
| | | 60 | | | 4.0 | 9.3 | |
| 5 | | 60 | SM | | Weak creosote-like odor | 11.0 | |
| | | 90 | | | | 13.1 | |
| | GP-703-8.5 | 90 | | | 6.5 | 224.1 | |
| | | 90 | SP | | SAND, gray, fine- to medium-grained, moist to wet, strong creosote-like odor, sheen on soil, free product. | 300.2 | |
| | | 90 | | | @ 7.5 ft becomes wet. 9.0 | 334.8 | |
| 10 | | 90 | ML | | SILT, brown, few wood debris, wet, strong creosote-like odor, free product. | 117.1 | |
| | | 100 | | | @ 10.5 ft: creosote-like odors become moderate, no free product | 98.1 | |
| | | 100 | | | @ 12.0 ft: creosote-like odors become weak 12.0 | 1.5 | |
| | | 100 | SP | | SAND, brownish gray, fine- to medium-grained, wet, moderate to weak creosote-like odors, slight sheen on soil | 2.8 | ← 1" PVC temporary well |
| | | 100 | | | 14.0 | 1.6 | |
| 15 | | 100 | ML | | 14.5 SILT, brown, wet, weak creosote-like odor. | 1.9 | |
| | | 60 | SP | | SAND, gray, very fine-grained, few fines, wet, weak creosote-like odor | 0.8 | |
| | | 60 | | | @ 16.5 ft: becomes fine- to medium- grained. | 0.0 | |
| | | 60 | | | | 0.1 | |
| | | 60 | | | | 0.0 | |
| 20 | | 60 | | | | 0.0 | |
| | | 60 | | | | 0.0 | |
| | | 60 | | | | 0.2 | |
| | | 60 | | | | 0.0 | |
| | | 60 | | | | 0.0 | |
| 25 | | 60 | | | 25.0 | 0.0 | |
| | | | | | NO RECOVERY, ESN damaged the last of their four samplers. Unable to continue sampling soil. Drilled down to 35.0 ft to set a temporary well and sample groundwater. | | |
| 30 | | | | | | | |
| 35 | | | | | 35.0 | | |

Bottom of boring at 35.0 feet.

**REMARKS**

# WELL NUMBER GP-704



SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc. **PROJECT NAME** Former E.A. Nord

**PROJECT NUMBER** 108.00228.00048 **PROJECT LOCATION** 300 West Marine View Dr, Everett, WA

**DATE STARTED** 7/21/15 **COMPLETED** 7/21/15 **DRILLING METHOD** Direct Push

**DRILLING CONTRACTOR** ESN-NW **GROUNDWATER ENCOUNTERED AT (feet):** 9.5

**LOGGED BY** C. Lee **CHECKED BY** D. Bobosh

**NOTES** Temporary boring abandoned with bentonite

| DEPTH (ft) | SAMPLE NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|
| 0 | | 80 | | | 0.5 ASPHALT | 0.0 | |
| | | 80 | SP | | Gravelly SAND, light brown, fine- to medium-grained, some fine gravel, moist, | 0.0 | |
| | | 80 | | | 2.0 no odors or staining | 0.0 | |
| | | 80 | | | SAND, fine- to medium-grained, few fine gravel, moist, no odors or staining. | 0.0 | |
| | | 80 | | | @ 3.5 ft: few fines, becomes brownish gray. | 0.0 | |
| 5 | | 80 | SP | | | 0.0 | |
| | | 90 | | | @ 4.5 ft: no fines, trace shells, weak creosote-like odor. | 0.0 | |
| | | 90 | | | @ 7.0 ft: creosote-like odor becomes moderate | 58.4 | |
| | | 90 | | | 8.0 | 150.5 | |
| | | 90 | | | SILT, brown, few wood debris, moist to wet, strong creosote-like odor. | 392.0 | |
| 10 | | 90 | ML | | ▼ @ 9.5 ft: becomes wet. | 379.5 | |
| | | 90 | | | | 497.6 | |
| | GP-704-13.5 | 90 | | | 12.0 | 342.1 | |
| | | 90 | SP | | SAND, dark gray, fine- to medium-grained, wet, strong creosote-like odor, sheen | 353.2 | |
| | | 90 | | | 13.5 on soil. | 460.1 | |
| | | 90 | ML | | 14.0 SILT, brown, wet, strong creosote-like odor, free product. | 121.1 | |
| 15 | | 90 | | | SAND, dark gray, fine- to medium-grained, wet, weak creosote-like odor. | 20.4 | |
| | | 90 | | | | 7.1 | |
| | | 90 | | | @ 26.0 ft: No creosote-like odor. | 5.0 | |
| | | 90 | | | | 6.3 | |
| | | 90 | | | | 4.0 | |
| 20 | | 90 | | | | 4.6 | |
| | | 90 | | | | 12.2 | |
| | | 90 | | | | 5.0 | |
| | | 90 | | | | 2.4 | |
| 25 | | 90 | SP | | | 3.0 | 1" PVC temporary well |
| | | 100 | | | | 0.0 | |
| | | 100 | | | | 0.31 | |
| | | 100 | | | | 0.0 | |
| | | 100 | | | | 0.0 | |
| 30 | | 100 | | | | 0.2 | |
| | | 100 | | | | 0.0 | |
| | | 100 | | | | 0.0 | |
| | | 100 | | | | 0.0 | |
| | | 100 | | | | 0.1 | |
| 35 | | 100 | | | 35.0 | 0.1 | |

## REMARKS

*(Continued Next Page)*

SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

# WELL NUMBER GP-704



**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc. **PROJECT NAME** Former E.A. Nord

**PROJECT NUMBER** 108.00228.00048 **PROJECT LOCATION** 300 West Marine View Dr, Everett, WA

| DEPTH (ft) | SAMPLE NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|
| 35 | | 100 | SP | | SAND, dark gray, fine- to medium-grained, wet | 9.1 | |
| | | 100 | | | @ 35.5 ft: Creosote-like odor becomes weak. | 10.2 | |
| | | 100 | | | | 8.8 | |
| | | 100 | | | @ 37.0 ft: Creosote-like odor becomes moderate. | 12.5 | |
| 40 | | 100 | | | @ 38.5 ft: Becomes fine-grained, trace fines. | 0.0 | |
| | | 100 | | | | 3.0 | |
| | | 100 | | | @ 42.0 ft: Few fines. | 1.2 | |
| | | 100 | | | | 1.5 | |
| | | 100 | | | | 27 | |
| 45 | | 100 | | | | 1.1 | |
| | | 80 | | | | 2.4 | |
| | | 80 | | | | 3.0 | |
| | | 80 | | | | 1.9 | |
| | | 80 | | | | 0.0 | |
| 50 | | 80 | | | | 0.0 | |
| | | 100 | | | | 0.0 | |
| | | 100 | | | | 4.0 | |
| | | 100 | | | | 3.9 | |
| | | 100 | | | | 10.1 | |
| 55 | | 100 | | | 55.0 | 6.0 | |
| | | | | | Bottom of boring at 55.0 feet. | | |

**REMARKS**

# WELL NUMBER GP-705



SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc.
**PROJECT NAME** Former E.A. Nord
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** 300 West Marine View Dr, Everett, WA
**DATE STARTED** 7/9/15 **COMPLETED** 7/9/15
**DRILLING METHOD** Direct Push
**DRILLING CONTRACTOR** Cascade Drilling
**GROUNDWATER ENCOUNTERED AT (feet):** 5.5
**LOGGED BY** P. LeDoux **CHECKED BY** C. Kramer
**NOTES** Temporary boring abandoned with bentonite

| DEPTH (ft) | SAMPLE NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|
| 0 | | | | | 1.0 ASPHALT | | 1" PVC temporary well |
| | GP-705-5 | 80 | SP | | SAND, little to no fines, gray, dry to moist, fine sand, cross-bedded, no odor, no staining, small shells and shell fragments throughout | 1.3 | |
| 5 | | | SP | | 5.0 SAND, little to no fines, moist to wet, gray, fine sand, no odor, no staining | | |
| | | 90 | PT | | 6.5 PEAT, brown, wet, largely humus, few small roots and wood chips | 0.6 | |
| | | | SP | | 8.0 SAND, little to no fines, gray, wet, fine sand, no odor, no staining | | |
| 10 | | | | | 10.0 | | |
| | | 100 | ML | | 10.5 SILT, light brown, wet, no odor, no staining | 2.4 | |
| | | | SP | | 11.0 SAND, little to no fines, dark gray, wet, fine sand, no odor, no staining | | |
| | | | | | Bottom of boring at 11.0 feet. | | |

**REMARKS**

# WELL NUMBER GP-706



SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc.
**PROJECT NAME** Former E.A. Nord
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** 300 West Marine View Dr, Everett, WA
**DATE STARTED** 7/8/15 **COMPLETED** 7/8/15
**DRILLING METHOD** Direct Push
**DRILLING CONTRACTOR** Cascade Drilling
**GROUNDWATER ENCOUNTERED AT (feet):** 5.0
**LOGGED BY** P. LeDoux **CHECKED BY** C. Kramer
**NOTES** Temporary boring abandoned with bentonite

| DEPTH (ft) | SAMPLE NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|
| 0 | | | | | 0.5 ASPHALT | | 1" PVC temporary well |
| | | 70 | SP-SM | | FILL sand with gravel and silty fines, dark brown, moist, fine sand, fine subangular gravel, no odor, no staining | 3.0 | |
| | | | | | 3.0 SAND, little to no fines, dark gray, moist to wet, fine sand, no odor, no staining, some wood chips and roots @ 6 ft | | |
| 5 | | | SP | | ▼ | 1.3 | |
| | | 85 | ML | | 7.0 SILT, gray, wet, trace organics (small roots) throughout, no staining, weak organic odor | 4.1 | |
| 10 | | | SP | | 8.5 SAND, little to no fines, dark gray, wet, fine sand, no odor, no staining | | |
| | | 100 | | | 11.0 | 3.5 | |
| | | | | | Bottom of boring at 11.0 feet. | | |

**REMARKS**

PACIFIC RIM FORMER EA NORD.GPJ GINT US.GDT 7/24/15

# WELL NUMBER GP-707



SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc.
**PROJECT NAME** Former E.A. Nord
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** 300 West Marine View Dr, Everett, WA
**DATE STARTED** 7/6/15 **COMPLETED** 7/6/15
**DRILLING METHOD** Direct Push
**DRILLING CONTRACTOR** Cascade Drilling
**GROUNDWATER ENCOUNTERED AT (feet):** 5.0
**LOGGED BY** P. LeDoux **CHECKED BY** C. Kramer
**NOTES** Temporary boring abandoned with bentonite

| DEPTH (ft) | SAMPLE NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|
| 0 | | | | | 0.5 ASPHALT | | |
| | GP-707-4 | 85 | SP-SM | | Gravelly SAND with silty fines, brownish-gray, dry to moist, fine sand, fine subangular gravel, no odor, no staining | 0.8 | 1" PVC temporary well |
| | | | | | 3.5 | | |
| 5 | | | SP-SM | | SAND with silty fines, gray, moist, gap-graded sand, no odor, no staining | 1.0 | |
| | | | | | 5.0 ▽ | | |
| | | | SP | | SAND, little to no fines, fine sand, wet, dark gray, weak organic odor, no staining | | |
| | | | | | 6.5 | | |
| | | | ML | | 7.5 SILT, brownish-gray, moist, weak organic odor, no staining, trace organics (small roots) | 1.2 | |
| | | 90 | SP | | SAND, little to no fines, dark gray, wet, fine to medium sand, weak organic odor, no staining | | |
| 10 | | | | | 9.5 | | |
| | | 100 | SP | | SAND, little to no fines, dark gray, wet, fine sand, weak organic odor, no staining | 0.9 | |
| | | | | | 11.0 | | |
| | | | | | Bottom of boring at 11.0 feet. | | |

**REMARKS**

PACIFIC RIM FORMER EA NORD.GPJ GINT US.GDT 7/24/15

# WELL NUMBER GP-708



SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc.
**PROJECT NAME** Former E.A. Nord
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** 300 West Marine View Dr, Everett, WA
**DATE STARTED** 7/8/15 **COMPLETED** 7/8/15
**DRILLING METHOD** Direct Push
**DRILLING CONTRACTOR** Cascade Drilling
**GROUNDWATER ENCOUNTERED AT (feet):** 5.0
**LOGGED BY** P. LeDoux **CHECKED BY** C. Kramer
**NOTES** Temporary boring abandoned with bentonite

| DEPTH (ft) | SAMPLE NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|
| 0 | | | | | 0.5 ASPHALT | | |
| | GP-708-GP-708-6 | 65 | SP-SM | | SAND with gravel and silty fines, brown, moist, fine sand, fine subangular gravel, weak creosote odor, no staining | | |
| | | | | | 3.5 | | |
| 5 | | | SP-SM | | SAND with silty fines, dark gray, moist, fine sand, weak creosote and organic odor, no staining | 1.5 | |
| | | 95 | SP | | 5.0 ▼ SAND, little to no fines, dark gray, wet, fine sand, strong creosote odor, visable product on grains | | |
| | | 95 | | | 7.0 | 139.2 | |
| | | | ML | | 7.5 SILT, gray, wet, trace organics (small roots), strong creosote odor, visable product | | |
| | | 95 | | | SAND, little to no fines, dark gray, wet, fine sand, moderate creosote odor, visable staining | 30.5 | |
| 10 | | | SP | | | | |
| | | 100 | | | | 45.3 | |
| | | | | | | | ← 1" PVC temporary well |
| | | 100 | | | 14.0 | 93.6 | |
| 15 | | | SP | | 14.5 SAND, staining (product) no longer present | | |
| | | | SP | | SAND | | |
| | | 62 | | | 16.5 | 6.4 | |
| | | | SP | | 17.0 SAND, weak creosote odor | | |
| | | | | | SAND | | |
| | | 62 | | | | 5.7 | |
| 20 | | | | | | | |
| | | 80 | | | | 11.9 | |
| | | 80 | | | | 7.7 | |
| 25 | | | | | | | |
| | | 60 | SP | | | 9.7 | |
| | | 60 | | | | 13.5 | |
| 30 | | | | | | | |
| | | 70 | | | | 10.4 | |
| | | 70 | | | | 7.7 | |
| 35 | | | | | 35.0 | | |

Bottom of boring at 35.0 feet.

**REMARKS**

# WELL NUMBER GP-709



SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc.
**PROJECT NAME** Former E.A. Nord
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** 300 West Marine View Dr, Everett, WA
**DATE STARTED** 7/7/15 **COMPLETED** 7/7/15
**DRILLING METHOD** Direct Push
**DRILLING CONTRACTOR** Cascade Drilling
**GROUNDWATER ENCOUNTERED AT (feet):** 5.5
**LOGGED BY** P. LeDoux **CHECKED BY** C. Kramer
**NOTES** Temporary boring abandoned with bentonite

| DEPTH (ft) | SAMPLE NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|
| 0 | | | | | 0.5 ASPHALT | | |
| | | 50 | SP | | SAND with gravel, little to no fines, moist, fine sand, fine subangular gravel, dark gray, weak creosote odor, no staining | 0.4 | |
| | | | | | 4.0 | | |
| 5 | GP-709-5 | | | | 5.0 CONCRETE (crushed), dry, moderate hydrocarbon odor, no staining | | |
| | | | | | SAND, little to no fines, black, wet, fine sand, moderate to strong creosote odor, | 28.5 | |
| | | 100 | SP | | black staining, trace organics (roots) throughout | 37.8 | |
| | | 100 | | | 9.0 | 46.6 | |
| 10 | | | ML | | Organic SILT, dark gray, wet, moderate creosote odor, light staining | | |
| | | 100 | | | 10.5 SAND, little to no fines, wet, black, fine sand, strong creosote odor, black staining | 33.6 | 1" PVC temporary well |
| | | 100 | | | | 47.7 | |
| 15 | | | | | | | |
| | | 90 | SP | | | 58.8 | |
| 20 | | | | | | | |
| | | 90 | | | | 67.3 | |
| 25 | | | | | | | |
| | | 90 | | | 27.0 | 64.0 | |
| | | | SP | | 28.0 SAND, product observed in water in core | | |
| | | 90 | | | SAND | 109 | |
| 30 | | | | | | | |
| | | 90 | SP | | | 84.9 | |
| | | 90 | | | | 126.1 | |
| 35 | | 90 | | | | 81.2 | |

## REMARKS

*(Continued Next Page)*

SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

# WELL NUMBER GP-709



**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc. **PROJECT NAME** Former E.A. Nord

**PROJECT NUMBER** 108.00228.00048 **PROJECT LOCATION** 300 West Marine View Dr, Everett, WA

| DEPTH (ft) | SAMPLE NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|
| 35 | | | | | SAND *(continued)* | | |
| | | 60 | SP | | | 94.1 | |
| | | 60 | | | | 124.4 | |
| 40 | | | | | | | |
| | GP-709-42 | 90 | | | | 210.8 | |
| | | 90 | | | 43.5 | 57.9 | |
| 45 | | | SM | | Silty SAND, dark gray, very fine sand, wet, strong creosote odor, no staining<br>45.0 | | |
| | | | | | Bottom of boring at 45.0 feet. | | |

**REMARKS**

# WELL NUMBER GP-710



SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc.
**PROJECT NAME** Former E.A. Nord
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** 300 West Marine View Dr, Everett, WA
**DATE STARTED** 7/8/15 **COMPLETED** 7/8/15
**DRILLING METHOD** Direct Push
**DRILLING CONTRACTOR** Cascade Drilling
**GROUNDWATER ENCOUNTERED AT (feet):** 4.5
**LOGGED BY** P. LeDoux **CHECKED BY** C. Kramer
**NOTES** Temporary boring abandoned with bentonite

| DEPTH (ft) | SAMPLE NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|
| 0 | | | | | 0.5 ASPHALT | | |
| | GP-710-4 | 70 | SP-SM | | 1.5 SAND with silty fines, dark brown, moist, fine sand, no odor, no staining | 9.7 | |
| | | | ML | | 2.5 Sandy SILT, gray, moist, no odor, no staining | | |
| | | | SP-SM | | SAND with silty fines, brown, moist, fine sand, no odor, no staining | | |
| 5 | | | | | 4.5 ▽ | 4.9 | |
| | | | SP | | 5.5 SAND, little to no fines, dark gray, wet, trace organics (small roots) throughout, weak organic odor, no staining | | |
| | | 95 | ML | | SILT, gray, wet, trace organics (small roots) throughout, weak organic odor, no staining | 12.1 | |
| | | | | | 7.5 | | |
| | | 95 | SP | | SAND with gravel, little to no fines, gap-graded sand, fine subangular gravel, dark gray, wet, weak creosote odor, no staining | 7.0 | |
| 10 | | 80 | | | | 10.7 | |
| | | | | | 12.5 | | |
| | | 80 | SP | | SAND, little to no fines, dark gray, wet, weak creosote odor, no staining | 8.2 | ← 1" PVC temporary well |
| 15 | | 95 | | | | 12.9 | |
| | | 95 | | | | 6.4 | |
| 20 | | 85 | | | | 8.1 | |
| | | | | | 23.0 | | |
| | | 85 | SP | | 24.0 SAND, creosote odor becomes moderate | 9.5 | |
| 25 | | 90 | | | SAND | 13.8 | |
| | | 90 | | | | 18.9 | |
| 30 | | 90 | SP | | | 10.5 | |
| | | 90 | | | | 41.9 | |
| 35 | | | | | | | |

**REMARKS**



*(Continued Next Page)*

SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

# WELL NUMBER GP-710



**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc. **PROJECT NAME** Former E.A. Nord

**PROJECT NUMBER** 108.00228.00048 **PROJECT LOCATION** 300 West Marine View Dr, Everett, WA

| DEPTH (ft) | SAMPLE NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|
| 35 | | | | | | | |
| | GP-710-35 | 60 | SP | | SAND *(continued)* | 18.7 | |
| | | 48 | | | | 20.4 | |
| 40 | | | | | 40.0 | | |
| | | | | | Bottom of boring at 40.0 feet. | | |

**REMARKS**

# WELL NUMBER GP-711



SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc.
**PROJECT NAME** Former E.A. Nord
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** 300 West Marine View Dr, Everett, WA
**DATE STARTED** 7/8/15 **COMPLETED** 7/8/15
**DRILLING METHOD** Direct Push
**DRILLING CONTRACTOR** Cascade Drilling
**GROUNDWATER ENCOUNTERED AT (feet):** 4
**LOGGED BY** P. LeDoux **CHECKED BY** C. Kramer
**NOTES** Temporary boring abandoned with bentonite

| DEPTH (ft) | SAMPLE NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|
| 0 | | | | | 0.5 ASPHALT | | |
| | GP-711-3 | 70 | | | FILL, sand with gravel and silty fines, dark brown, fine sand, fine subangular gravel, moist to wet, weak creosote odor, no staining | 12.9 | 1" PVC temporary well |
| 5 | GP-711-6 | 70 | | | 4.5 ▼ | 7.5 | |
| | | 90 | SP-SM | | SAND, little to no fines, dark gray, wet, fine sand, weak to moderate creosote odor, no staining | | |
| | | 90 | ML | | 6.0 SILT, gray, wet, trace organics (small roots) throughout, weak creosote odor, no staining | 49.2 | |
| 10 | | 90 | | | 8.5 SAND, little to no fines, dark gray, wet, fine sand, weak creosote odor, no staining | 20.2 | |
| | | 70 | SP | | | 9.8 | |
| 15 | | 70 | | | 15.0 | 10.5 | |
| | | | | | Bottom of boring at 15.0 feet. | | |

**REMARKS**

# WELL NUMBER GP-712



SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc.
**PROJECT NAME** Former E.A. Nord
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** 300 West Marine View Dr, Everett, WA
**DATE STARTED** 7/7/15 **COMPLETED** 7/7/15
**DRILLING METHOD** Direct Push
**DRILLING CONTRACTOR** Cascade Drilling
**GROUNDWATER ENCOUNTERED AT (feet):** 5.5
**LOGGED BY** P. LeDoux **CHECKED BY** C. Kramer
**NOTES** Temporary boring abandoned with bentonite

| DEPTH (ft) | SAMPLE NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|
| 0 | | | | | 0.5 ASPHALT | | |
| | | | SP-SM | | SAND with silty fines, brown, moist, fine sand, no odor, no staining 2.0 | | |
| | | 80 | ML | | SILT, trace organics (small roots), gray, moist, no odor, no staining 3.0 | 4.3 | |
| | | | SP | | SAND, little to no fines, brown, moist, fine sand, no odor, no staining 4.5 | | |
| 5 | GP-712-5 | | SP | | SAND, little to no fines, fine to medium sand, dark dray, moderate to strong creosote odor, moist to wet, small roots and wood chips throughout 7.0 | | |
| | GP-712-8 | 90 | | | SAND, free product visible | 607.7 | |
| 10 | | 90 | SP | | | | |
| | | 100 | | | 12.0 | 45.2 | |
| | | 100 | ML | | SILT, gray, trace organics (small roots), wet, weak creosote odor, no staining 13.0 | 9.2 | |
| 15 | | 100 | SP | | SAND, little to no fines, dark gray, fine to medium grained, wet, weak creosote odor, no staining 15.0 | 4.0 | |
| | | | | | Bottom of boring at 15.0 feet. | | |

1" PVC temporary well

**REMARKS**

# WELL NUMBER MW-7



SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc.
**PROJECT NAME** Former E.A. Nord
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** 300 West Marine View Dr, Everett, WA
**DATE STARTED** 8/14/15 **COMPLETED** 8/14/15
**DRILLING METHOD** Hollow Stem Auger
**DRILLING CONTRACTOR** Cascade Drilling
**GROUNDWATER ENCOUNTERED AT (feet):**
**LOGGED BY** H. Gosack **CHECKED BY** C. Kramer
**NOTES** Logged from HSA cuttings

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | BLOW COUNTS (N VALUE) | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | 0.3 ASPHALT and gravel base | | Cement Seal |
| | | | | SP | | Brown medium subrounded SAND, some fine to coarse gravel, trace silt, clay and coarse sand, no odor, no staining, moist | | Bentonite Seal |
| | | | | | | 3.0 Dark gray fine to medium subrounded sand, trace fine to medium subrounded gravel, trace silt, trace clay, trace coarse sand, moist to wet | | |
| 5 | | | | SP | | | | |
| 10 | | | | | | | | Screen with Filter Sand |
| | | | | | | 11.5 | | |
| | SS | 67 | 13 | SP | | Dark gray fine to medium SAND, rounded to subrounded, trace silt, clay, fine to medium gravel, coarse sand, moist to wet, slight petroleum odor | 0.0 | |
| | | | | SWG | | 12.8 13.0 Dark gray fine to medium gravelly SAND, trace silt, clay, coarse sand, wet | | |
| | | | | | | Bottom of hole at 13.0 feet. | | |

GENERAL BH / TP / WELL FORMER EA NORD.GPJ GINT US.GDT 9/3/15

# WELL NUMBER MW-8A



SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc.
**PROJECT NAME** Former E.A. Nord
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** 300 West Marine View Dr, Everett, WA
**DATE STARTED** 8/12/15 **COMPLETED** 8/12/15
**DRILLING METHOD** Hollow Stem Auger
**DRILLING CONTRACTOR** Cascade Drilling
**GROUNDWATER ENCOUNTERED AT (feet):**
**LOGGED BY** P. LeDoux **CHECKED BY** C. Kramer
**NOTES** Logged from HSA cuttings

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | BLOW COUNTS (N VALUE) | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | 0.5 ASPHALT<br>SANDS, moderate to strong creosote odor | | Cement Seal<br>Bentonite Seal |
| 5 | | | | SP | | | | |
| 10 | | | | | | | | Screen with Sand Filter |
| | SS | 80 | 13 | SP | | 11.5<br>SAND, dark gray no fines, moderate creosote odor, no staining<br>13.0 | 9.6 | |
| | | | | | | Bottom of hole at 13.0 feet. | | |

GENERAL BH / TP / WELL FORMER EA NORD.GPJ GINT US.GDT 9/3/15

# WELL NUMBER MW-8B



SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc. **PROJECT NAME** Former E.A. Nord

**PROJECT NUMBER** 108.00228.00048 **PROJECT LOCATION** 300 West Marine View Dr, Everett, WA

**DATE STARTED** 8/12/15 **COMPLETED** 8/12/15 **DRILLING METHOD** Hollow Stem Auger

**DRILLING CONTRACTOR** Cascade Drilling **GROUNDWATER ENCOUNTERED AT (feet):**

**LOGGED BY** P. LeDoux **CHECKED BY** C. Kramer

**NOTES** Logged from HSA cuttings

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | BLOW COUNTS (N VALUE) | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | Strong creosote odor, abundant treated wood | | Cement Seal |
| 8.0 | | | | | | | | |
| | | | | SP | | Strong creosote odor, SAND, visible free product | | Bentonite Seal |
| 22.0 | | | | | | | | |
| | | | | SP | | Moderate to strong odor, soupy, SAND | | |
| 29.0 | | | | | | | | |
| | | | | SP | | Weak odors, SAND | | |
| 35 | | | | | | | | |

GENERAL BH / TP / WELL FORMER EA NORD.GPJ GINT US.GDT 9/3/15

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SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

# WELL NUMBER MW-8B



**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc. **PROJECT NAME** Former E.A. Nord

**PROJECT NUMBER** 108.00228.00048 **PROJECT LOCATION** 300 West Marine View Dr, Everett, WA

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | BLOW COUNTS (N VALUE) | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|
| 35 | | | | | | | | |
| | | | | SP | | Weak odors, SAND *(continued)* | | |
| 40 | | | | | | 40.0 | | |
| | SS | 80 | 11 | SP | | SAND, gray, no fines, fine grained, wet, weak to strong creosote odor, visible product @ 41' to 41.5' | 21.9 | |
| | | | | | | 41.5 SAND | | |
| | | | | SP | | | | |
| 45 | | | | | | | | Screen with Sand Filter |
| | | | | | | 46.5 | | |
| | SS | 70 | 30 | SP | | SAND, gray, no fines, fine grained, weak creosote odor, no staining | 48.7 | |
| | | | | | | 48.0 SAND | | |
| 50 | | | | | | | | |
| | | | | SP | | | | Sump |
| | | | | | | 53.5 | | |
| | SS | 90 | 18 | SP | | SAND, gray, no fines, fine grained, wet, very weak odor, no staining | 0.1 | |
| 55 | | | | | | 55.0 | | |
| | | | | | | Bottom of hole at 55.0 feet. | | |

GENERAL BH / TP / WELL FORMER EA NORD.GPJ GINT US.GDT 9/3/15

# WELL NUMBER MW-9A



SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc.
**PROJECT NAME** Former E.A. Nord
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** 300 West Marine View Dr, Everett, WA
**DATE STARTED** 8/27/15 **COMPLETED** 8/27/15
**DRILLING METHOD** Hollow Stem Auger
**DRILLING CONTRACTOR** Cascade Drilling
**GROUNDWATER ENCOUNTERED AT (feet):**
**LOGGED BY** P. LeDoux **CHECKED BY** C. Kramer
**NOTES** Logged from HSA cuttings

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | BLOW COUNTS (N VALUE) | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | GPS | | 1.0 Sandy GRAVEL, fine to coarse grained and angular, some fine grained sand, dry, no odor, no staining | | Cement Seal |
| | | | | | | Gravelly SAND, fine sand, fine subrounded to rounded gravel, no odor, no staining, wood @ 5' | | Bentonite Seal |
| 5 | | | | SPG | | | | |
| 10 | | | | | | 11.5 | | Screen with Sand Filter |
| | SS | 75 | 16 | SP | | 13.0 SAND, dark gray, fine to medium grained, few organics, wet, no odor, no staining | 0.0 | |
| | | | | | | Bottom of hole at 13.0 feet. | | |

GENERAL BH / TP / WELL FORMER EA NORD.GPJ GINT US.GDT 9/3/15

# WELL NUMBER MW-9B



SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc. **PROJECT NAME** Former E.A. Nord

**PROJECT NUMBER** 108.00228.00048 **PROJECT LOCATION** 300 West Marine View Dr, Everett, WA

**DATE STARTED** 8/14/15 **COMPLETED** 8/14/15 **DRILLING METHOD** Hollow Stem Auger

**DRILLING CONTRACTOR** Cascade Drilling **GROUNDWATER ENCOUNTERED AT (feet):**

**LOGGED BY** H. Gosack **CHECKED BY** C. Kramer

**NOTES** Logged from HSA cuttings

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | BLOW COUNTS (N VALUE) | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | 0.5 Coarse GRAVEL, angular, moist (surface fill) | | |
| 5 | | | | SP | | Dark gray fine to medium SAND, rounded to subrounded, some silt, trace clay, sticky with slight petroleum odor, moist | | Cement Seal |
| 10 | | | | SP | | 10.0 Dark gray fine to medium SAND, rounded to subrounded, some silt, trace clay, sticky with slight petroleum odor, moist to wet | | Bentonite Seal |
| 15 | | | | SP | | 15.0 Dark gray fine to medium SAND, rounded to subrounded, some silt, trace clay, sticky with slight petroleum odor, wet | | |
| 20 | | | | SP | | | | |
| 25 | SS | 67 | 19 | SP | | 25.0 Dark gray fine to medium subrounded SAND, trace silt, clay, wet, no odor, heaving sands | 0.0 | |
| 30 | SS | 83 | 20 | SP | | | 0.0 | Screen with Sand Filter |
| 35 | | | | | | | | |

GENERAL BH / TP / WELL FORMER EA NORD.GPJ GINT US.GDT 9/3/15

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SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

# WELL NUMBER MW-9B



**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc. **PROJECT NAME** Former E.A. Nord

**PROJECT NUMBER** 108.00228.00048 **PROJECT LOCATION** 300 West Marine View Dr, Everett, WA

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | BLOW COUNTS (N VALUE) | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|
| 35 | | | | | | | | |
| | SS | 100 | 19 | SP | | 36.0 | 0.0 | |
| | | | | | | Bottom of hole at 36.0 feet. | | |

GENERAL BH / TP / WELL FORMER EA NORD.GPJ GINT US.GDT 9/3/15

# WELL NUMBER MW-10A



SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc.
**PROJECT NAME** Former E.A. Nord
**PROJECT NUMBER** 108.00228.00048
**PROJECT LOCATION** 300 West Marine View Dr, Everett, WA
**DATE STARTED** 8/13/15 **COMPLETED** 8/13/15
**DRILLING METHOD** Hollow Stem Auger
**DRILLING CONTRACTOR** Cascade Drilling
**GROUNDWATER ENCOUNTERED AT (feet):**
**LOGGED BY** P. LeDoux **CHECKED BY** C. Kramer
**NOTES** Logged from HSA cuttings

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | BLOW COUNTS (N VALUE) | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | Sandy GRAVEL, little silt, dry, light gray, fill | | Cement Seal |
| | | | | | | 1.5 | | Bentonite Seal |
| | | | | SP | | SAND, visible product pulled from auger @ 8' with moderate creosote odor | | |
| 5 | | | | | | | | |
| | | | | | | | | Screen with Filter Sand |
| 10 | | | | | | | | |
| | | | | | | 11.5 | | |
| | SS | 138 | 7 | SP | | SAND, dark gray, fine to medium grained, little organics, wet, strong creosote odor, visible product | 47.3 | |
| | | | | | | 13.0 | | |
| | | | | | | Bottom of hole at 13.0 feet. | | |

GENERAL BH / TP / WELL FORMER EA NORD.GPJ GINT US.GDT 9/3/15

# WELL NUMBER MW-10B



SLR International Corporation
1800 Blankenship Rd; Suite 440
West Linn, OR 97068

**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc. **PROJECT NAME** Former E.A. Nord

**PROJECT NUMBER** 108.00228.00048 **PROJECT LOCATION** 300 West Marine View Dr, Everett, WA

**DATE STARTED** 8/13/15 **COMPLETED** 8/13/15 **DRILLING METHOD** Hollow Stem Auger

**DRILLING CONTRACTOR** Cascade Drilling **GROUNDWATER ENCOUNTERED AT (feet):**

**LOGGED BY** P. LeDoux **CHECKED BY** C. Kramer

**NOTES** Logged from HSA cuttings

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | BLOW COUNTS (N VALUE) | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | Sandy GRAVEL, little silt, dry, fill | | Cement Seal |
| | | | | | | 1.5 | | |
| | | | | SM | | Weak to moderate creosote odor in silty SAND, black, abundant organics | | |
| 5 | | | | | | | | |
| 10 | | | | | | 12.0 | | |
| | | | | SP | | SANDS, moderate to strong creosote odor | | Bentonite Seal |
| 15 | | | | | | | | |
| | | | | | | 19.0 | | |
| 20 | | | | SP | | Product being pulled to surface by auger @ 20', strong odor | | |
| | | | | | | 25.0 | | |
| 25 | SS | 60 | 50 | SP | | SAND, dark gray, fine medium grained, little organics, weak creosote odor, no staining, wet | 3.6 | |
| | | | | | | 26.5 | | |
| | | | | SP | | SAND | | |
| 30 | | | | | | 30.0 | | |
| | SS | 55 | 23 | SP | | SAND, dark gray, fine to medium grained, no fines, wet, very weak creosote odor, no staining | 0.3 | Screen with Filter Sand |
| | | | | | | 31.5 | | |
| | | | | SP | | SAND | | |
| 35 | SS | 75 | 18 | SP | | 34.5 | 0.0 | |

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GENERAL BH / TP / WELL FORMER EA NORD.GPJ GINT US.GDT 9/3/15

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# WELL NUMBER MW-10B



**CLIENT** E.A. Nord, Inc, as and through its successor, JELD-WEN, inc. **PROJECT NAME** Former E.A. Nord

**PROJECT NUMBER** 108.00228.00048 **PROJECT LOCATION** 300 West Marine View Dr, Everett, WA

| DEPTH (ft) | SAMPLE TYPE NUMBER | RECOVERY % | BLOW COUNTS (N VALUE) | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|
| 35 | | | | SP | | 36.0 SAND, dark gray, fine to medium grained, no fines, wet, no dor, no staining *(continued)* | | |
| | | | | | | Bottom of hole at 36.0 feet. | | |

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# WELL NUMBER MW-11A



**CLIENT** JELD-WEN, Inc.
**PROJECT NAME** Former E.A. Nord Door, Inc.
**PROJECT NUMBER** 108.00228.00059
**PROJECT LOCATION** 300 West Marine View Drive, Everett, WA
**DATE STARTED** 4/25/19 **COMPLETED** 4/29/19
**GROUND ELEVATION** 12.39 ft **HOLE SIZE** 4" - diameter
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
**AT TIME OF DRILLING** 5.5 ft
**LOGGED BY** S. Losleben **CHECKED BY** C. Kramer
**AFTER DRILLING** N/A
**NOTES**

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | 0.3 **ASPHALT PAVEMENT** 12.1 | | Concrete |
| | | Direct Push | | 80 | SW | | **SAND**, gray, fine to coarse grained, moist, no odor | 0.1 | Hydrated bentonite chips |
| 5 | | | | | | | | 0.0 | 2-inch sch 40 PVC riser |
| | | | GP-MW-11-SS* | | | | 5.5 ▼ 6.9 **SAND**, gray, fine to medium grained, wet, no odor | | #10/20 silica sand |
| | | | | | SP | | 7.0 5.4 | 0.0 | |
| | | Direct Push | | 100 | ML | | **SILT**, brown-gray with some mottling, trace organic debris, moist, no odor | | 0.01" slot screen |
| 10 | | | | | | | 8.0 4.4 | | |
| | | | | | SP | | **SAND**, gray, fine to medium grained, trace fine gravel, wet, no odor | 0.0 | |
| | | Direct Push | | 100 | | | | 0.6 | |
| | | | | | | | 13.0 -0.6 | | End cap |

## WELL COMPLETION DETAILS:

0.0 to 1.0 feet: Concrete.
1.0 to 2.5 feet: Hydrated bentonite chips.
2.5 to 13.0 feet: 10x20 silica sand pack.

## REMARKS

Boring continued to 40.0 feet bgs. (description included in boring log for MW-11B)
Monitoring well installed adjacent to Geoprobe boring with a hollow stem auger. Lithology descriptions based on Geoprobe borings.
NT = Not tested
PID = Photoionization detector readings in parts per million (ppm).
Geoprobe = Soil samples collected as a continuous core within a 5-foot acetate liner.
* = Soil sample consisted of composite sample fronm 0-12 feet bgs.

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CONTINENTAL-UNITED MODIFIED WELL LOG NORD DOOR.GPJ GINT US.GDT 5/20/19

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# WELL NUMBER MW-11A



**CLIENT** JELD-WEN, Inc.
**PROJECT NAME** Former E.A. Nord Door, Inc.
**PROJECT NUMBER** 108.00228.00059
**PROJECT LOCATION** 300 West Marine View Drive, Everett, WA
**DATE STARTED** 4/25/19 **COMPLETED** 4/29/19
**GROUND ELEVATION** 12.39 ft **HOLE SIZE** 4" - diameter
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▼ **AT TIME OF DRILLING** 5.5 ft
**LOGGED BY** S. Losleben **CHECKED BY** C. Kramer
**AFTER DRILLING** N/A
**NOTES**

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|

0.0 to 3.0 feet: 2"-diameter, flush-threaded Sch. 40 PVC riser.
3.0 to 12.8 feet: 2"-diameter, flush-threaded Sch. 40 PVC 0.010-slotted well screen.
12.8 to 13.0 feet: 2"-diameter, flush-threaded Sch. 40 PVC cap.

## REMARKS

Boring continued to 40.0 feet bgs. (description included in boring log for MW-11B)
Monitoring well installed adjacent to Geoprobe boring with a hollow stem auger. Lithology descriptions based on Geoprobe borings.
NT = Not tested
PID = Photoionization detector readings in parts per million (ppm).
Geoprobe = Soil samples collected as a continuous core within a 5-foot acetate liner.
* = Soil sample consisted of composite sample fronm 0-12 feet bgs.

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# WELL NUMBER MW-11B



**CLIENT** JELD-WEN, Inc.
**PROJECT NAME** Former E.A. Nord Door, Inc.
**PROJECT NUMBER** 108.00228.00059
**PROJECT LOCATION** 300 West Marine View Drive, Everett, WA
**DATE STARTED** 4/25/19 **COMPLETED** 4/29/19
**GROUND ELEVATION** 12.39 ft **HOLE SIZE** 4" - diameter
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
**AT TIME OF DRILLING** 5.5 ft
**LOGGED BY** S. Losleben **CHECKED BY** C. Kramer
**AFTER DRILLING** N/A
**NOTES**

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | 0.3 **ASPHALT PAVEMENT** 12.1 | | |
| | | Direct Push | | 80 | SW | | **SAND**, gray, fine to coarse grained, moist, no odor | 0.1 | Concrete |
| 5 | | | | | | | | 0.0 | |
| | | | | | | | 5.5 ▼ 6.9 | | |
| | | Direct Push | | 100 | SP | | **SAND**, gray, fine to medium grained, wet, no odor | 0.0 | |
| | | | | | ML | | 7.0 5.4 **SILT**, brown-gray with some mottling, trace organic debris, moist, no odor | | |
| 10 | | | | | | | 8.0 4.4 | | |
| | | Direct Push | | 100 | SP | | **SAND**, gray, fine to medium grained, trace fine gravel, wet, no odor | 0.0 | |
| | | | | | | | | 0.6 | |
| | | | | | | | 13.0 -0.6 | | |
| | | | | | ML | | **SILT**, gray, wet, no odor | 0.3 | |
| | | | | | | | 14.0 -1.6 | | |
| 15 | | | | | SP | | **SAND**, gray, fine to medium grained, trace fine gravel, wet, no odor | | |

## REMARKS

Boring completed at 40.0 feet bgs.
Monitoring well installed adjacent to Geoprobe boring with a hollow stem auger. Lithology descriptions based on Geoprobe borings.
NT = Not tested
PID = Photoionization detector readings in parts per million (ppm).
Geoprobe = Soil samples collected as a continuous core within a 5-foot acetate liner.

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# WELL NUMBER MW-11B



**CLIENT** JELD-WEN, Inc.
**PROJECT NAME** Former E.A. Nord Door, Inc.
**PROJECT NUMBER** 108.00228.00059
**PROJECT LOCATION** 300 West Marine View Drive, Everett, WA
**DATE STARTED** 4/25/19 **COMPLETED** 4/29/19
**GROUND ELEVATION** 12.39 ft **HOLE SIZE** 4" - diameter
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
**AT TIME OF DRILLING** 5.5 ft
**LOGGED BY** S. Losleben **CHECKED BY** C. Kramer
**AFTER DRILLING** N/A
**NOTES**

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| 15 | | | | | | | **SAND**, gray, fine to medium grained, trace fine gravel, wet, no odor *(continued)* | | |
| 20 | | Direct Push | | 100 | | | | 0.2<br>0.0 | Hydrated bentonite chips |
| 25 | | Direct Push | | 90 | SP | | | 0.0<br>0.2 | |
| 30 | | Direct Push | | 100 | | | | 0.1<br>0.0 | 2-inch sch 40 PVC riser |

## REMARKS

Boring completed at 40.0 feet bgs.
Monitoring well installed adjacent to Geoprobe boring with a hollow stem auger. Lithology descriptions based on Geoprobe borings.
NT = Not tested
PID = Photoionization detector readings in parts per million (ppm).
Geoprobe = Soil samples collected as a continuous core within a 5-foot acetate liner.

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# WELL NUMBER MW-11B



**CLIENT** JELD-WEN, Inc.
**PROJECT NAME** Former E.A. Nord Door, Inc.
**PROJECT NUMBER** 108.00228.00059
**PROJECT LOCATION** 300 West Marine View Drive, Everett, WA
**DATE STARTED** 4/25/19 **COMPLETED** 4/29/19
**GROUND ELEVATION** 12.39 ft **HOLE SIZE** 4" - diameter
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
**AT TIME OF DRILLING** 5.5 ft
**LOGGED BY** S. Losleben **CHECKED BY** C. Kramer
**AFTER DRILLING** N/A
**NOTES**

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| 30 | | | | | | | | | |
| | | Direct Push | | 100 | SP | | **SAND**, gray, fine to medium grained, trace fine gravel, wet, no odor *(continued)* | 0.2 | |
| 35 | | | | | | | | 0.1 | #10/20 silica sand; 0.01" slot screen |
| | | Direct Push | | 100 | | | | 0.1 | |
| | | | | | | | 38.5 -26.1 | | |
| | | | | | SM | | **SILTY SAND with GRAVEL**, gray, fine grained, little silt, few fine gravel, wet, no odor | 0.0 | |
| 40 | | | | | | | 40.0 -27.6 | | 2-inch sch 40 PVC sump; End cap |

## WELL COMPLETION DETAILS:

0.0 to 2.0 feet: Concrete.
2.0 to 28.0 feet: Hydrated bentonite chips.
28.0 to 41.5 feet: 10x20 silica sand pack.

0.0 to 29.5 feet: 2"-diameter, flush-threaded Sch. 40 PVC riser.
29.5 to 39.5 feet: 2"-diameter, flush-threaded Sch. 40 PVC 0.010-slotted well screen.
39.5 to 41.3 feet: 2"-diameter, flush-threaded Sch. 40 PVC sump.
41.3 to 41.5 feet: 2"-diameter, flush-threaded Sch. 40 PVC cap.

## REMARKS

Boring completed at 40.0 feet bgs.
Monitoring well installed adjacent to Geoprobe boring with a hollow stem auger. Lithology descriptions based on Geoprobe borings.
NT = Not tested
PID = Photoionization detector readings in parts per million (ppm).
Geoprobe = Soil samples collected as a continuous core within a 5-foot acetate liner.

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# WELL NUMBER MW-12



**CLIENT** JELD-WEN, Inc.
**PROJECT NAME** Former E.A. Nord Door, Inc.
**PROJECT NUMBER** 108.00228.00059
**PROJECT LOCATION** 300 West Marine View Drive, Everett, WA
**DATE STARTED** 4/25/19 **COMPLETED** 4/30/19
**GROUND ELEVATION** 29.66 ft **HOLE SIZE** 4" - diameter
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
**AT TIME OF DRILLING** 19.0 ft
**LOGGED BY** S. Losleben **CHECKED BY** C. Kramer
**AFTER DRILLING** N/A
**NOTES**

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | | SM | | 0.5 **ORGANIC SILTY SAND** dark brown, fine grained, some silty fines, trace fine gravel, trace root debris, moist, no odor | | Concrete |
| | | Direct Push | | 40 | | | 29.2 **SAND**, brown-gray, fine grained, abundant shell fragments, moist, no odor | NT | |
| 5 | | | | | | | | 0.1 | |
| | | Direct Push | GP-MW-12-SS* | 50 | SP | | | NT | Hydrated bentonite chips |
| 10 | | | | | | | | 0.0 | |
| | | Direct Push | | 100 | | | @ 12.5 feet bgs: Becomes dark gray | 0.4 | |
| 15 | | | | | | | | 0.7 | 2-inch sch 40 PVC riser |

## REMARKS

Boring completed at 25.0 feet bgs.
Monitoring well installed adjacent to Geoprobe boring with a hollow stem auger. Lithology descriptions based on Geoprobe borings.
NT = Not tested
PID = Photoionization detector readings in parts per million (ppm).
Geoprobe = Soil samples collected as a continuous core within a 5-foot acetate liner.
* = Soil sample consisted of composite sample fronm 0-12 feet bgs.

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# WELL NUMBER MW-12



**CLIENT** JELD-WEN, Inc.
**PROJECT NAME** Former E.A. Nord Door, Inc.
**PROJECT NUMBER** 108.00228.00059
**PROJECT LOCATION** 300 West Marine View Drive, Everett, WA
**DATE STARTED** 4/25/19 **COMPLETED** 4/30/19
**GROUND ELEVATION** 29.66 ft **HOLE SIZE** 4" - diameter
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
**AT TIME OF DRILLING** 19.0 ft
**LOGGED BY** S. Losleben **CHECKED BY** C. Kramer
**AFTER DRILLING** N/A
**NOTES**

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| 15 | | | | | | | | | |
| | | Direct Push | | 100 | SP | | **SAND**, brown-gray, fine grained, abundant shell fragments, moist, no odor *(continued)* | 1.5 | |
| | | | | | SP | | 17.0 — 12.7 **SAND**, black-gray, fine to coarse grained, trace fine to coarse gravel, moist, no odor | | |
| | | | | | | | 18.5 — 11.2 **ROCK FRAGMENTS**, gray and dark gray, pulverized rock debris | 2.9 | |
| 20 | | | | | | | 19.5 — 10.2 **SANDY SILT**, gray, some fine sand, trace native wood debris | | 0.01" slot screen |
| | | Direct Push | | 100 | ML | | | 0.4 | #10/20 silica sand |
| | | | | | | | 23.0 — 6.7 **SAND**, black-gray, fine to coarse grained, few silty fines, abundant decomposing native wood and organic debris, wet, organic-like odor | 18.9 | |
| 25 | | | | | SP | | 25.0 — 4.7 | | End cap |

## WELL COMPLETION DETAILS:

0.0 to 1.5 feet: Concrete.
1.5 to 14.0 feet: Hydrated bentonite chips.
14.0 to 25.0 feet: 10x20 silica sand pack.

0.0 to 15.0 feet: 2"-diameter, flush-threaded Sch. 40 PVC riser.
15.0 to 24.8 feet: 2"-diameter, flush-threaded Sch. 40 PVC 0.010-slotted well screen.
24.8 to 25.0 feet: 2"-diameter, flush-threaded Sch. 40 PVC cap.

## REMARKS

Boring completed at 25.0 feet bgs.
Monitoring well installed adjacent to Geoprobe boring with a hollow stem auger. Lithology descriptions based on Geoprobe borings.
NT = Not tested
PID = Photoionization detector readings in parts per million (ppm).
Geoprobe = Soil samples collected as a continuous core within a 5-foot acetate liner.
* = Soil sample consisted of composite sample fronm 0-12 feet bgs.

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# WELL NUMBER MW-13



**CLIENT** JELD-WEN, Inc.
**PROJECT NAME** Former E.A. Nord Door, Inc.
**PROJECT NUMBER** 108.00228.00059
**PROJECT LOCATION** 300 West Marine View Drive, Everett, WA
**DATE STARTED** 4/25/19 **COMPLETED** 4/30/19
**GROUND ELEVATION** 28.68 ft **HOLE SIZE** 4" - diameter
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
**AT TIME OF DRILLING** 18.0 ft
**LOGGED BY** S. Losleben **CHECKED BY** C. Kramer
**AFTER DRILLING** N/A
**NOTES**

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | | SM | | 0.3 **ORGANIC SILTY SAND**, dark brown, fine grained, some silty fines, some organics, moist, no odor — 28.4 | | Concrete |
| 5 | | Direct Push | | 40 | | | **SAND**, brown-gray, fine grained, abundant shell fragments, trace native wood debris, moist, no odor | NT<br>0.0 | |
| 10 | | Direct Push | GP-MW-13-SS* | 80 | SP | | @ 10.0 feet bgs: Becomes dark gray | 0.0<br>0.0 | Hydrated bentonite chips |
| 15 | | Direct Push | | 80 | | | | 0.5<br>3.8 | 2-inch sch 40 PVC riser |

## REMARKS

Boring completed at 25.0 feet bgs.
Monitoring well installed adjacent to Geoprobe boring with a hollow stem auger. Lithology descriptions based on Geoprobe borings.
NT = Not tested
PID = Photoionization detector readings in parts per million (ppm).
Geoprobe = Soil samples collected as a continuous core within a 5-foot acetate liner.
* = Soil sample consisted of composite sample fronm 0-12 feet bgs.

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CONTINENTAL-UNITED MODIFIED WELL LOG NORD DOOR.GPJ GINT US.GDT 5/20/19

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# WELL NUMBER MW-13



**CLIENT** JELD-WEN, Inc.
**PROJECT NAME** Former E.A. Nord Door, Inc.
**PROJECT NUMBER** 108.00228.00059
**PROJECT LOCATION** 300 West Marine View Drive, Everett, WA
**DATE STARTED** 4/25/19 **COMPLETED** 4/30/19
**GROUND ELEVATION** 28.68 ft **HOLE SIZE** 4" - diameter
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
**AT TIME OF DRILLING** 18.0 ft
**LOGGED BY** S. Losleben **CHECKED BY** C. Kramer
**AFTER DRILLING** N/A
**NOTES**

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| 15 | | | | | | | **SAND**, brown-gray, fine grained, abundant shell fragments, trace native wood debris, moist, no odor *(continued)* | NT | |
| | | Direct Push | | 50 | SP | | @ 18.0 feet bgs: Becomes wet | 1.5 | |
| 20 | | | | | | | 19.8 — 8.9 **SAND**, black-gray, fine to coarse grained, trace silt, abundant decomposing native wood debris, wet, no odor | | 0.01" slot screen |
| | | Direct Push | | 10 | SP | | | NT | #10/20 silica sand |
| 25 | | | | | | | 25.0 — 3.7 | 1.0 | End cap |

## WELL COMPLETION DETAILS:

0.0 to 1.5 feet: Concrete.
1.5 to 13.5 feet: Hydrated bentonite chips.
13.5 to 24.5 feet: 10x20 silica sand pack.

0.0 to 14.5 feet: 2"-diameter, flush-threaded Sch. 40 PVC riser.
14.5 to 24.3 feet: 2"-diameter, flush-threaded Sch. 40 PVC 0.010-slotted well screen.
24.3 to 24.5 feet: 2"-diameter, flush-threaded Sch. 40 PVC cap.

## REMARKS

Boring completed at 25.0 feet bgs.
Monitoring well installed adjacent to Geoprobe boring with a hollow stem auger. Lithology descriptions based on Geoprobe borings.
NT = Not tested
PID = Photoionization detector readings in parts per million (ppm).
Geoprobe = Soil samples collected as a continuous core within a 5-foot acetate liner.
* = Soil sample consisted of composite sample fronm 0-12 feet bgs.

CONTINENTAL-UNITED MODIFIED WELL LOG NORD DOOR.GPJ GINT US.GDT 5/20/19

SLR
22118 20th Ave. SE, Suite G-202
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

# WELL NUMBER MW-14



**CLIENT** JELD-WEN, Inc.
**PROJECT NAME** Former E.A. Nord Door, Inc.
**PROJECT NUMBER** 108.00228.00059
**PROJECT LOCATION** 300 West Marine View Drive, Everett, WA
**DATE STARTED** 4/25/19 **COMPLETED** 5/1/19
**GROUND ELEVATION** 26.68 ft **HOLE SIZE** 4" - diameter
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▼ **AT TIME OF DRILLING** 14.0 ft
**LOGGED BY** S. Losleben **CHECKED BY** C. Kramer
**AFTER DRILLING** N/A
**NOTES**

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | | SM | | 0.5 **ORGANIC SILTY SAND**, dark brown, fine grained, some silty fines, some organics, moist, no odor 26.2 | 0.0 | Concrete |
| 5 | | Direct Push | | 75 | | | **SAND**, brown-gray, fine grained, abundant shell fragments, moist, no odor | 0.5 | |
| 10 | | Direct Push | GP-MW-14-SS* | 75 | SP | | | 0.3<br>0.2 | Hydrated bentonite chips |
| 15 | | Direct Push | | 95 | | | ▼ @ 14.0 feet bgs: becomes wet | 0.5<br>0.3 | 2-inch sch 40 PVC riser |

## REMARKS

Boring completed at 25.0 feet bgs.
Monitoring well installed adjacent to Geoprobe boring with a hollow stem auger. Lithology descriptions based on Geoprobe borings.
NT = Not tested
PID = Photoionization detector readings in parts per million (ppm).
Geoprobe = Soil samples collected as a continuous core within a 5-foot acetate liner.
* = Soil sample consisted of composite sample fronm 0-12 feet bgs.

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CONTINENTAL-UNITED MODIFIED WELL LOG NORD DOOR.GPJ GINT US.GDT 5/20/19

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# WELL NUMBER MW-14



**CLIENT** JELD-WEN, Inc.
**PROJECT NAME** Former E.A. Nord Door, Inc.
**PROJECT NUMBER** 108.00228.00059
**PROJECT LOCATION** 300 West Marine View Drive, Everett, WA
**DATE STARTED** 4/25/19 **COMPLETED** 5/1/19
**GROUND ELEVATION** 26.68 ft **HOLE SIZE** 4" - diameter
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
**AT TIME OF DRILLING** 14.0 ft
**LOGGED BY** S. Losleben **CHECKED BY** C. Kramer
**AFTER DRILLING** N/A
**NOTES**

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| 15 | | | | | SP | | **SAND**, brown-gray, fine grained, abundant shell fragments, moist, no odor *(continued)* | 3.0 | #10/20 silica sand |
| | | Direct Push | | 90 | SP | | 17.0 — 9.7 **SAND with GRAVEL**, dark gray, coarse grained, few fine to coarse gravel, wet, no odor | | 0.01" slot screen |
| 20 | | | | | GP | | 18.5 — 8.2 **GRAVEL**, black, orange, tan, fine to coarse grained, vesicular, wet, no odor, slag-like fill material | 0.9 | |
| | | Direct Push | | 95 | | | 21.5 — 5.2 **WOOD**, dark brown-black, solid and fragmented native wood debris | 0.8 | End cap |
| 25 | | | | | SP | | 23.5 — 3.2 **SAND interbedded with SILT**, gray, fine grained, few 4-inch silt lenses, moist, no odor | 0.8 | |
| | | | | | | | 25.0 — 1.7 | | |

## WELL COMPLETION DETAILS:

0.0 to 2.0 feet: Concrete.
2.0 to 12.0 feet: Hydrated bentonite chips.
12.0 to 23.0 feet: 10x20 silica sand pack.

0.0 to 13.0 feet: 2"-diameter, flush-threaded Sch. 40 PVC riser.
13.0 to 22.8 feet: 2"-diameter, flush-threaded Sch. 40 PVC 0.010-slotted well screen.
22.8 to 23.0 feet: 2"-diameter, flush-threaded Sch. 40 PVC cap.

## REMARKS

Boring completed at 25.0 feet bgs.
Monitoring well installed adjacent to Geoprobe boring with a hollow stem auger. Lithology descriptions based on Geoprobe borings.
NT = Not tested
PID = Photoionization detector readings in parts per million (ppm).
Geoprobe = Soil samples collected as a continuous core within a 5-foot acetate liner.
* = Soil sample consisted of composite sample fronm 0-12 feet bgs.

CONTINENTAL-UNITED MODIFIED WELL LOG NORD DOOR.GPJ GINT US.GDT 5/20/19

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# WELL NUMBER MW-15



**CLIENT** JELD-WEN, Inc.
**PROJECT NAME** Former E.A. Nord Door, Inc.
**PROJECT NUMBER** 108.00228.00059
**PROJECT LOCATION** 300 West Marine View Drive, Everett, WA
**DATE STARTED** 4/26/19 **COMPLETED** 4/29/19
**GROUND ELEVATION** 12.24 ft **HOLE SIZE** 4" - diameter
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▼ **AT TIME OF DRILLING** 6.0 ft
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**AFTER DRILLING** N/A
**NOTES**

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | 0.3 **ASPHALT PAVEMENT** 11.9 | | Concrete |
| | | Direct Push | | 70 | SP | | **GRAVELLY SAND**, brown, fine grained, some fine to medium gravel, moist, no odor, no staining | 0.0 | |
| | | | | | | | | 0.1 | Hydrated bentonite chips |
| | | | | | | | 3.0 9.2 | 0.4 | 2-inch sch 40 PVC riser |
| 5 | | | | | | | **SAND**, dark gray, fine grained, few wood fragments, moist, no odor, no staining | 0.3 | |
| | | Direct Push | SB-MW-15-SS* | 80 | SP | | ▼ @ 6.0 feet: Becomes wet | 0.0 | #10/20 silica sand |
| | | | | | | | | 0.0 | |
| | | | | | | | | 0.0 | 0.01" slot screen |
| 10 | | | | | | | | 0.0 | |
| | | | | | | | 10.5 1.7 | | |
| | | | | | ML | | **SILT**, dark gray, trace wood debris, wet, no odor, no staining | 0.0 | |
| | | | | | | | 11.3 1.0 | | |
| | | Direct Push | | 100 | SP | | **SAND**, dark gray, fine grained, wet, no odor, no staining | 0.0 | |
| | | | | | | | | 0.0 | |
| | | | | | | | | 0.0 | End cap |
| 15 | | | | | | | 15.0 -2.8 | 0.0 | |

## REMARKS

Boring completed at 15.0 feet bgs.
Monitoring well installed adjacent to Geoprobe boring with a hollow stem auger. Lithology descriptions based on Geoprobe borings.
NT = Not tested
PID = Photoionization detector readings in parts per million (ppm).
Geoprobe = Soil samples collected as a continuous core within a 5-foot acetate liner.
* = Soil sample consisted of composite sample fronm 0-12 feet bgs.

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CONTINENTAL-UNITED MODIFIED WELL LOG NORD DOOR.GPJ GINT US.GDT 5/20/19

SLR
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Fax: 425.402.8488

# WELL NUMBER MW-15



**CLIENT** JELD-WEN, Inc.
**PROJECT NAME** Former E.A. Nord Door, Inc.
**PROJECT NUMBER** 108.00228.00059
**PROJECT LOCATION** 300 West Marine View Drive, Everett, WA
**DATE STARTED** 4/26/19 **COMPLETED** 4/29/19
**GROUND ELEVATION** 12.24 ft **HOLE SIZE** 4" - diameter
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▼ **AT TIME OF DRILLING** 6.0 ft
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**AFTER DRILLING** N/A
**NOTES**

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|

## WELL COMPLETION DETAILS:

0.0 to 1.0 feet: Concrete.
1.0 to 2.5 feet: Hydrated bentonite chips.
2.5 to 13.0 feet: 10x20 silica sand pack.

0.0 to 3.0 feet: 2"-diameter, flush-threaded Sch. 40 PVC riser.
3.0 to 12.8 feet: 2"-diameter, flush-threaded Sch. 40 PVC 0.010-slotted well screen.
12.8 to 13.0 feet: 2"-diameter, flush-threaded Sch. 40 PVC cap.

## REMARKS

Boring completed at 15.0 feet bgs.
Monitoring well installed adjacent to Geoprobe boring with a hollow stem auger. Lithology descriptions based on Geoprobe borings.
NT = Not tested
PID = Photoionization detector readings in parts per million (ppm).
Geoprobe = Soil samples collected as a continuous core within a 5-foot acetate liner.
* = Soil sample consisted of composite sample fronm 0-12 feet bgs.

CONTINENTAL-UNITED MODIFIED WELL LOG NORD DOOR.GPJ GINT US.GDT 5/20/19

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# WELL NUMBER MW-16



**CLIENT** JELD-WEN, Inc.
**PROJECT NAME** Former E.A. Nord Door, Inc.
**PROJECT NUMBER** 108.00228.00059
**PROJECT LOCATION** 300 West Marine View Drive, Everett, WA
**DATE STARTED** 4/26/19 **COMPLETED** 4/29/19
**GROUND ELEVATION** 12.89 ft **HOLE SIZE** 4" - diameter
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
**AT TIME OF DRILLING** 5.5 ft
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**AFTER DRILLING** N/A
**NOTES**

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | 0.2 **ASPHALT PAVEMENT** 12.7 | | Concrete |
| | | Direct Push | | 80 | GP | | **GRAVEL**, gray, fine to coarse grained, few fine grained sand, moist, no odor, no staining | 0.5 | |
| | | | | | | | 2.0 10.9 | | Hydrated bentonite chips |
| | | | | | SP | | **SAND with GRAVEL**, gray-brown, fine grained, few fine gravel, moist, no odor, no staining | 1.5 | |
| | | | | | | | 3.5 9.4 | 0.7 | 2-inch sch 40 PVC riser |
| | | | | | GP | | **GRAVEL**, gray, fine to coarse grained, few fine grained sand, few silty fines, moist, no odor, no staining | | |
| | | | | | | | 4.3 8.6 | 0.4 | |
| 5 | | | | | SP | | **SAND with GRAVEL**, black, coarse grained, few fine gravel, moist, no odor, no staining | | |
| | | | | | | | 5.0 7.9 | 0.3 | |
| | | | | | SM | | **SILTY SAND with GRAVEL**, gray, fine grained, some silty fines, few coarse gravel, moist, no odor<br>@ 5.5 feet bgs: Becomes wet | 0.0 | #10/20 silica sand |
| | | Direct Push | GP-MW-16-SS* | 20 | | | | | 0.01" slot screen |
| 10 | | | | | | | | | |
| | | Direct Push | | 90 | SP | | 11.0 1.9 **SAND**, gray, fine grained, few silty fines, few wood debris, wet, no odor, no staining | 0.0 | |
| | | | | | | | 12.0 0.9 | | |
| | | | | | ML | | **SILT**, red-brown, few wood fragments, moist, no odor, no staining | 0.0 | |
| | | | | | | | 13.5 -0.6 | | End cap |
| | | | | | SP | | **SAND**, gray, fine grained, wet, no odor, no staing | 0.0 | |
| 15 | | | | | | | 15.0 -2.1 | | |

## REMARKS

Boring completed at 15.0 feet bgs.
Monitoring well installed adjacent to Geoprobe boring with a hollow stem auger. Lithology descriptions based on Geoprobe borings.
NT = Not tested
PID = Photoionization detector readings in parts per million (ppm).
Geoprobe = Soil samples collected as a continuous core within a 5-foot acetate liner.
* = Soil sample consisted of composite sample fronm 0-12 feet bgs.

CONTINENTAL-UNITED MODIFIED WELL LOG NORD DOOR.GPJ GINT US.GDT 5/20/19

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# WELL NUMBER MW-16



**CLIENT** JELD-WEN, Inc.
**PROJECT NAME** Former E.A. Nord Door, Inc.
**PROJECT NUMBER** 108.00228.00059
**PROJECT LOCATION** 300 West Marine View Drive, Everett, WA
**DATE STARTED** 4/26/19 **COMPLETED** 4/29/19
**GROUND ELEVATION** 12.89 ft **HOLE SIZE** 4" - diameter
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▼ **AT TIME OF DRILLING** 5.5 ft
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**AFTER DRILLING** N/A
**NOTES**

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|

## WELL COMPLETION DETAILS:

0.0 to 1.0 feet: Concrete.
1.0 to 2.5 feet: Hydrated bentonite chips.
2.5 to 13.0 feet: 10x20 silica sand pack.

0.0 to 3.0 feet: 2"-diameter, flush-threaded Sch. 40 PVC riser.
3.0 to 12.8 feet: 2"-diameter, flush-threaded Sch. 40 PVC 0.010-slotted well screen.
12.8 to 13.0 feet: 2"-diameter, flush-threaded Sch. 40 PVC cap.

## REMARKS

Boring completed at 15.0 feet bgs.
Monitoring well installed adjacent to Geoprobe boring with a hollow stem auger. Lithology descriptions based on Geoprobe borings.
NT = Not tested
PID = Photoionization detector readings in parts per million (ppm).
Geoprobe = Soil samples collected as a continuous core within a 5-foot acetate liner.
* = Soil sample consisted of composite sample fronm 0-12 feet bgs.

CONTINENTAL-UNITED MODIFIED WELL LOG NORD DOOR.GPJ GINT US.GDT 5/20/19

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Fax: 425.402.8488

# WELL NUMBER MW-17



**CLIENT** JELD-WEN, Inc.
**PROJECT NAME** Former E.A. Nord Door, Inc.
**PROJECT NUMBER** 108.00228.00059
**PROJECT LOCATION** 300 West Marine View Drive, Everett, WA
**DATE STARTED** 4/26/19 **COMPLETED** 4/30/19
**GROUND ELEVATION** 12.61 ft **HOLE SIZE** 4" - diameter
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
**AT TIME OF DRILLING** 7.5 ft
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**AFTER DRILLING** N/A
**NOTES**

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | 0.3 **ASPHALT PAVEMENT** 12.3 | | Concrete |
| | | | | | GP | | **SANDY GRAVEL**, brown, medium to coarse grained, little fine sand, moist, no odor, no staining | | |
| | | | | | | | 1.5 11.1 | 0.2 | Hydrated bentonite chips |
| | | Direct Push | | 75 | | | **SAND**, brown, fine grained, moist, no odor, no staining | | 2-inch sch 40 PVC riser |
| 5 | | | | | SP | | | 0.1 | |
| | | | GP-MW-17-SS* | | | | | | #10/20 silica sand |
| | | Direct Push | | 100 | | | @ 7.5 feet bgs: Becomes wet | 0.0 | |
| | | | | | | | 8.0 4.6 | | 0.01" slot screen |
| | | | | | ML | | 8.5 **SILT**, dark gray, wet, no odor, no staining 4.1 | 0.0 | |
| | | | | | SM | | 9.0 **SILTY SAND**, dark gray, fine grained, some silty fines, few wood debris, wet, no odor, no staining 3.6 | | |
| 10 | | | | | | | **SAND**, dark gray, fine grained, wet, no odor, no staining | | |
| | | Direct Push | | 100 | SP | | | 0.0 | |
| 15 | | | | | | | 15.0 -2.4 | 0.0 | End cap |

## REMARKS

Boring completed at 15.0 feet bgs.
Monitoring well installed adjacent to Geoprobe boring with a hollow stem auger. Lithology descriptions based on Geoprobe borings.
NT = Not tested
PID = Photoionization detector readings in parts per million (ppm).
Geoprobe = Soil samples collected as a continuous core within a 5-foot acetate liner.
* = Soil sample consisted of composite sample fronm 0-12 feet bgs.

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CONTINENTAL-UNITED MODIFIED WELL LOG NORD DOOR.GPJ GINT US.GDT 5/20/19

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# WELL NUMBER MW-17



**CLIENT** JELD-WEN, Inc.
**PROJECT NAME** Former E.A. Nord Door, Inc.
**PROJECT NUMBER** 108.00228.00059
**PROJECT LOCATION** 300 West Marine View Drive, Everett, WA
**DATE STARTED** 4/26/19 **COMPLETED** 4/30/19
**GROUND ELEVATION** 12.61 ft **HOLE SIZE** 4" - diameter
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▼ **AT TIME OF DRILLING** 7.5 ft
**LOGGED BY** C. Lee **CHECKED BY** C. Kramer
**AFTER DRILLING** N/A
**NOTES**

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|

## WELL COMPLETION DETAILS:

0.0 to 1.0 feet: Concrete.
1.0 to 2.5 feet: Hydrated bentonite chips.
2.5 to 13.0 feet: 10x20 silica sand pack.

0.0 to 3.0 feet: 2"-diameter, flush-threaded Sch. 40 PVC riser.
3.0 to 12.8 feet: 2"-diameter, flush-threaded Sch. 40 PVC 0.010-slotted well screen.
12.8 to 13.0 feet: 2"-diameter, flush-threaded Sch. 40 PVC cap.

## REMARKS

Boring completed at 15.0 feet bgs.
Monitoring well installed adjacent to Geoprobe boring with a hollow stem auger. Lithology descriptions based on Geoprobe borings.
NT = Not tested
PID = Photoionization detector readings in parts per million (ppm).
Geoprobe = Soil samples collected as a continuous core within a 5-foot acetate liner.
* = Soil sample consisted of composite sample fronm 0-12 feet bgs.

CONTINENTAL-UNITED MODIFIED WELL LOG NORD DOOR.GPJ GINT US.GDT 5/20/19

SLR
22118 20th Ave. SE, Suite G-202
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# BORING NUMBER GP-801



**CLIENT** JELD-WEN, Inc.
**PROJECT NAME** Former E.A. Nord Door, Inc.
**PROJECT NUMBER** 108.00228.00059
**PROJECT LOCATION** 300 West Marine View Drive, Everett, WA
**DATE STARTED** 4/26/19 **COMPLETED** 4/26/19
**GROUND ELEVATION** _____ **HOLE SIZE** 4" - diameter
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▼ **AT TIME OF DRILLING** 5.0 ft
**LOGGED BY** S. Losleben **CHECKED BY** C. Kramer
**AFTER DRILLING** N/A
**NOTES**

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | 0.3 **ASPHALT PAVEMENT** | |
| | | | | | SP | | **SAND**, gray-brown, fine to coarse grained, trace fine gravel, moist, no odor | NT |
| | | Direct Push | | 40 | | | 2.5 | |
| | | | | | SM | | **SILTY SAND**, gray, fine to medium grained, little silty fines, trace fine gravel, moist, no odor | 2.4 |
| 5 | | | | | | | ▽ @ 5.0 feet bgs: Becomes wet | |
| | | | GP-801-SS* | | | | 6.5 | NT |
| | | Direct Push | | 50 | | | **WOOD**, dark brown-black, solid and fragmented native wood debris 7.0 | |
| | | | | | | | **SAND**, dark gray, fine to medium grained, wet, no odor | 0.2 |
| 10 | | | | | SP | | | |
| | | Direct Push | | 100 | | | | 0.0 |
| 15 | | | | | | | 15.0 | 0.0 |

## REMARKS

Boring completed at 15.0 feet bgs.
Temporary monitoring well installed and sampled.
NT = Not tested
PID = Photoionization detector readings in parts per million (ppm).
Geoprobe = Soil samples collected as a continuous core within a 5-foot acetate liner.
* = Soil sample consisted of composite sample fronm 0-12 feet bgs.
▽ Water level at time of drilling.

SLR SB LOG (LARGE FOOTER) NORD DOOR.GPJ GINT US.GDT 5/22/19

SLR
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# BORING NUMBER GP-802



**CLIENT** JELD-WEN, Inc.
**PROJECT NAME** Former E.A. Nord Door, Inc.
**PROJECT NUMBER** 108.00228.00059
**PROJECT LOCATION** 300 West Marine View Drive, Everett, WA
**DATE STARTED** 4/26/19 **COMPLETED** 4/26/19
**GROUND ELEVATION** _____ **HOLE SIZE** 4" - diameter
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
▼ **AT TIME OF DRILLING** 6.0 ft
**LOGGED BY** S. Losleben **CHECKED BY** C. Kramer
**AFTER DRILLING** N/A
**NOTES**

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | PID (ppm) |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | 0.3 **CRUSHED ROCK**, gray, crushed 1-inch minus, trace aspahlt fragments | |
| | | | | | SP | | **GRAVELLY SAND**, light orange-brown, medium to coarse grained, some fine gravel, trace silt, moist, no odor | 0.2 |
| | | | | | | | 3.5 | |
| | | Hand Auger | | 100 | SP | | **SAND**, light brown, fine grained, trace silt, moist, no odor | 0.1 |
| | | | | | | | 4.5 | |
| 5 | | | GP-802-SS* | | | | **SAND**, gray, fine to medium grained, moist, no odor | |
| | | | | | | | ▽ @ 6.0 feet bgs: Becomes wet | 0.0 |
| | | Direct Push | | 100 | SP | | | 0.1 |
| 10 | | | | | | | | |
| | | Direct Push | | 80 | | | | 0.0 |
| | | | | | | | 13.0 | |
| | | | | | SP | | **SAND**, dark gray, fine grained, wet, no odor | 0.0 |
| 15 | | | | | | | 15.0 | |

## REMARKS

Boring completed at 15.0 feet bgs.
Temporary monitoring well installed and sampled.
NT = Not tested
PID = Photoionization detector readings in parts per million (ppm).
Geoprobe = Soil samples collected as a continuous core within a 5-foot acetate line

▽ Water level at time of drilling.

SLR SB LOG (LARGE FOOTER) NORD DOOR.GPJ GINT US.GDT 5/22/19

# WELL NUMBER MW-18



SLR
22118 20th Ave SE, Suite G202
Bothell, Washington 98021
Telephone: 425.402.8800

**CLIENT** JELD-WEN, Inc.
**PROJECT NAME** Former E.A. Nord Door, Inc.
**PROJECT NUMBER** 108.00228.00059
**PROJECT LOCATION** 300 West Marine View Drive, Everett, WA
**DATE STARTED** 9/27/19 **COMPLETED** 9/27/19
**GROUND ELEVATION** 16.35 ft **HOLE SIZE** 4" - diameter
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
**GROUNDWATER DEPTH AT TIME OF DRILLING:** 8.5 ft / Elev 7.9 ft
**LOGGED BY** S. Losleben **CHECKED BY** C. Kramer
**NOTES**

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | **SAND**, light brown to brown, fine grained, trace shell fragments, moist, no odors, no staining | Concrete |
| | | | | | | | | Hydrated bentonite chips |
| 5 | | | | | SP | | | 2-inch sch 40 PVC riser |
| | | | | 0 | | | | |
| | | | | | | | ▽ @ 8.5 feet: Becomes wet | #10/20 silica sand |
| | | | | | | | 9.0 — **SAND**, gray, fine grained, trace shell fragments and wood debris, trace silt laminations, moist, no odors, no staining — 7.4 | |
| 10 | | | | | | | | 0.01" slot screen |
| | | | | | SP | | | |
| 15 | | | | | | | 15.0 | 1.4 End cap |

## REMARKS

Boring completed at 15.0 feet bgs.
Monitoring well installed adjacent to Geoprobe boring with a hollow stem auger. Lithology descriptions based on nearby TP-15 and GP-601.
PID = Photoionization detector readings in parts per million (ppm).

▽ Water level at time of drilling.

SLR MW LOG NORD DOOR.GPJ GINT US.GDT 2/7/20

*(Continued Next Page)*

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Bothell, Washington 98021
Telephone: 425.402.8800

# WELL NUMBER MW-18



**CLIENT** JELD-WEN, Inc. **PROJECT NAME** Former E.A. Nord Door, Inc.

**PROJECT NUMBER** 108.00228.00059 **PROJECT LOCATION** 300 West Marine View Drive, Everett, WA

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|

## WELL COMPLETION DETAILS:

0.0 to 2.0 feet: Concrete.
2.0 to 4.5 feet: Hydrated bentonite chips.
4.5 to 15.0 feet: 10x20 silica sand pack.

0.0 to 5.0 feet: 2"-diameter, flush-threaded Sch. 40 PVC riser.
5.0 to 14.8 feet: 2"-diameter, flush-threaded Sch. 40 PVC 0.010-slotted well screen.
14.8 to 15.0 feet: 2"-diameter, flush-threaded Sch. 40 PVC cap.

## REMARKS

Boring completed at 15.0 feet bgs.
Monitoring well installed adjacent to Geoprobe boring with a hollow stem auger. Lithology descriptions based on nearby TP-15 and GP-601.
PID = Photoionization detector readings in parts per million (ppm).

▽ Water level at time of drilling.

# WELL NUMBER MW-19



SLR
22118 20th Ave SE, Suite G202
Bothell, Washington 98021
Telephone: 425.402.8800

**CLIENT** JELD-WEN, Inc.
**PROJECT NAME** Former E.A. Nord Door, Inc.
**PROJECT NUMBER** 108.00228.00059
**PROJECT LOCATION** 300 West Marine View Drive, Everett, WA
**DATE STARTED** 9/27/19 **COMPLETED** 9/27/19
**GROUND ELEVATION** 11.87 ft **HOLE SIZE** 4" - diameter
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
**GROUNDWATER DEPTH AT TIME OF DRILLING:** 5.0 ft / Elev 6.9 ft
**LOGGED BY** S. Losleben **CHECKED BY** C. Kramer
**NOTES**

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | 0.3 **ASPHALT PAVEMENT** 11.6 | Concrete |
| | | | | | SP | | **SAND**, gray-brown, fine to coarse grained, trace fine gravel, moist, no odor | Hydrated bentonite chips |
| | | | | | | | 2.5 9.4 | |
| | | | | | SM | | **SILTY SAND**, gray, fine to medium grained, little silty fines, trace fine gravel, moist, no odor | 2-inch sch 40 PVC riser |
| 5 | | | | | | | ▽ @ 5.0 feet bgs: Becomes wet | |
| | | | | | | | 6.5 5.4 | |
| | | | | | | | 7.0 **WOOD**, dark brown-black, solid and fragmented native wood debris 4.9 | |
| | | | | 0 | | | **SAND**, dark gray, fine to medium grained, wet, no odor | 0.01" slot screen #10/20 silica sand |
| 10 | | | | | SP | | | |
| 15 | | | | | | | 15.0 -3.1 | End cap |

## REMARKS

Boring completed at 15.0 feet bgs.
Monitoring well installed adjacent to Geoprobe boring with a hollow stem auger. Lithology descriptions based on nearby GP-801.
PID = Photoionization detector readings in parts per million (ppm).

▽ Water level at time of drilling.

SLR MW LOG NORD DOOR.GPJ GINT US.GDT 2/7/20

*(Continued Next Page)*

22118 20th Ave SE, Suite G202
Bothell, Washington 98021
Telephone: 425.402.8800

# WELL NUMBER MW-19



**CLIENT** JELD-WEN, Inc. **PROJECT NAME** Former E.A. Nord Door, Inc.

**PROJECT NUMBER** 108.00228.00059 **PROJECT LOCATION** 300 West Marine View Drive, Everett, WA

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|

## WELL COMPLETION DETAILS:

0.0 to 1.5 feet: Concrete.
1.5 to 3.0 feet: Hydrated bentonite chips.
3.0 to 15.0 feet: 10x20 silica sand pack.

0.0 to 4.0 feet: 2"-diameter, flush-threaded Sch. 40 PVC riser.
4.0 to 13.8 feet: 2"-diameter, flush-threaded Sch. 40 PVC 0.010-slotted well screen.
13.8 to 14.0 feet: 2"-diameter, flush-threaded Sch. 40 PVC cap.

## REMARKS

Boring completed at 15.0 feet bgs.
Monitoring well installed adjacent to Geoprobe boring with a hollow stem auger. Lithology descriptions based on nearby GP-801.
PID = Photoionization detector readings in parts per million (ppm).

▽ Water level at time of drilling.

SLR MW LOG NORD DOOR.GPJ GINT US.GDT 2/7/20

# WELL NUMBER MW-20



SLR
22118 20th Ave SE, Suite G202
Bothell, Washington 98021
Telephone: 425.402.8800

**CLIENT** JELD-WEN, Inc.
**PROJECT NAME** Former E.A. Nord Door, Inc.
**PROJECT NUMBER** 108.00228.00059
**PROJECT LOCATION** 300 West Marine View Drive, Everett, WA
**DATE STARTED** 9/27/19 **COMPLETED** 9/27/19
**GROUND ELEVATION** 12.23 ft **HOLE SIZE** 4" - diameter
**DRILLING CONTRACTOR** Cascade Drilling
**GROUND WATER LEVELS:**
**DRILLING METHOD** Direct Push
**GROUNDWATER DEPTH AT TIME OF DRILLING:** 6.5 ft / Elev 5.7 ft
**LOGGED BY** S. Losleben **CHECKED BY** C. Kramer
**NOTES**

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | 0.3 **ASPHALT** | 12.0 | Concrete |
| | | | | | GP | | **SANDY GRAVEL with SILT**, brown, fine to coarse grained, some fine to coarse sand, few silt, moist, no odor | | Hydrated bentonite chips |
| | | | | | | | 4.0 **WOOD DEBRIS** | 8.2 | |
| 5 | | | | | | | 5.0 | 7.2 | 2-inch sch 40 PVC riser |
| | | | | | SP | | **SAND**, dark brown, fine to medium grained, few silt, moist, no odor | | |
| | | | | | | | ▽ @ 6.5 feet: Becomes wet | | |
| | | | | | | | 7.0 | 5.2 | |
| | | | | 0 | ML | | **SILT**, dark brown, fine grained, moist, no odor | | |
| | | | | | | | 8.0 | 4.2 | #10/20 silica sand |
| 10 | | | | | SP | | **SAND**, dark brown, fine to coarse grained, trace silt, wet, no odor | | 0.01" slot screen |
| 15 | | | | | | | 15.0 | -2.8 | End cap |

## REMARKS

Boring completed at 15.0 feet bgs.
Monitoring well installed adjacent to Geoprobe boring with a hollow stem auger. Lithology descriptions based on nearby GP-212.
PID = Photoionization detector readings in parts per million (ppm).

▽ Water level at time of drilling.



*(Continued Next Page)*

SLR
22118 20th Ave SE, Suite G202
Bothell, Washington 98021
Telephone: 425.402.8800

# WELL NUMBER MW-20



**CLIENT** JELD-WEN, Inc. **PROJECT NAME** Former E.A. Nord Door, Inc.

**PROJECT NUMBER** 108.00228.00059 **PROJECT LOCATION** 300 West Marine View Drive, Everett, WA

| DEPTH (ft) | INTERVAL | TYPE | NAME | RECOVERY % | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|

## WELL COMPLETION DETAILS:

0.0 to 1.5 feet: Concrete.
1.5 to 4.0 feet: Hydrated bentonite chips.
4.0 to 15.0 feet: 10x20 silica sand pack.

0.0 to 5.0 feet: 2"-diameter, flush-threaded Sch. 40 PVC riser.
5.0 to 14.8 feet: 2"-diameter, flush-threaded Sch. 40 PVC 0.010-slotted well screen.
14.8 to 15.0 feet: 2"-diameter, flush-threaded Sch. 40 PVC cap.

## REMARKS

Boring completed at 15.0 feet bgs.
Monitoring well installed adjacent to Geoprobe boring with a hollow stem auger. Lithology descriptions based on nearby GP-212.
PID = Photoionization detector readings in parts per million (ppm).

▽ Water level at time of drilling.

# APPENDIX G

# QUARTERLY GROUNDWATER MONITORING SUMMARY

Description: Provides analytical summary tables for quarterly groundwater monitoring events conducted between 2015 to 2020 including groundwater elevation measurements, example groundwater flow contours, and laboratory results.

**Table AG-1: Groundwater Elevations**
**Quarterly Groundwater Monitoring Summary Tables**

| Monitoring Well (TOC Elevation) | Date | Depth to Water (Feet Below TOC) | Groundwater Elevation (Feet Above MSL) |
|---|---|---|---|
| MW-1 (12.55[A]) | 9/9/2015 | 6.11 | 6.33 |
| | 12/11/2015 | 2.14 | 10.30 |
| | 10/6/2016 | 6.38 | 6.06 |
| | 1/30/2017 | 4.35 | 8.09 |
| | 4/25/2017 | 4.07 | 8.37 |
| | 6/28/2017 | 5.11 | 7.33 |
| | 10/23/2017 | 5.72 | 6.72 |
| | 1/15/2018 | 3.15 | 9.29 |
| | 4/10/2018 | 3.21 | 9.34 |
| | 7/9/2018 | 5.61 | 6.94 |
| | 10/24/2018 | 5.84 | 6.71 |
| | 1/17/2019 | 3.73 | 8.82 |
| | 4/15/2019 | 4.30 | 8.25 |
| | 7/30/2019 | 6.03 | 6.52 |
| MW-2 (12.64) | 9/10/2015 | 8.91 | 3.73 |
| | 12/11/2015 | 5.07 | 7.57 |
| | 3/29/2016 | 5.61 | 7.03 |
| | 10/6/2016 | 7.00 | 5.64 |
| | 1/30/2017 | 6.59 | 6.05 |
| | 4/25/2017 | 7.55 | 5.09 |
| | 6/28/2017 | 6.41 | 6.23 |
| | 10/23/2017 | 7.09 | 5.55 |
| | 1/15/2018 | 6.40 | 6.24 |
| | 4/10/2018 | 7.17 | 5.47 |
| | 7/9/2018 | 9.12 | 3.52 |
| | 10/24/2018 | 6.82 | 5.82 |
| | 1/17/2019 | 6.25 | 6.39 |
| | 4/15/2019 | 7.46 | 5.18 |
| | 7/30/2019 | 9.20 | 3.44 |
| MW-3 (11.45) | 12/11/2015 | 3.21 | 8.24 |
| | 3/29/2016 | 3.32 | 8.13 |
| | 10/6/2016 | 5.57 | 5.88 |
| | 1/30/2017 | 5.04 | 6.41 |
| | 4/25/2017 | 5.87 | 5.58 |
| | 6/28/2017 | 5.00 | 6.45 |
| | 10/23/2017 | 4.50 | 6.95 |
| | 1/15/2018 | 5.02 | 6.43 |
| | 4/10/2018 | 5.79 | 5.66 |
| | 7/9/2018 | 6.79 | 4.66 |
| | 10/24/2018 | 7.70 | 3.75 |
| | 1/17/2019 | 4.98 | 6.47 |
| | 4/15/2019 | 6.00 | 5.45 |
| | 7/30/2019 | 6.75 | 4.70 |

**Table AG-1: Groundwater Elevations**
**Quarterly Groundwater Monitoring Summary Tables**

| Monitoring Well (TOC Elevation) | Date | Depth to Water (Feet Below TOC) | Groundwater Elevation (Feet Above MSL) |
|---|---|---|---|
| MW-4 (12.26) | 9/9/2015 | 5.41 | 6.85 |
| | 12/11/2015 | 3.61 | 8.65 |
| | 3/28/2016 | 3.98 | 8.28 |
| | 10/6/2016 | 5.61 | 6.65 |
| | 1/30/2017 | 4.53 | 7.73 |
| | 4/25/2017 | 4.28 | 7.98 |
| | 6/28/2017 | 5.07 | 7.19 |
| | 10/23/2017 | 5.24 | 7.02 |
| | 1/15/2018 | 4.00 | 8.26 |
| | 4/10/2018 | 4.06 | 8.20 |
| | 7/9/2018 | 5.31 | 6.95 |
| | 10/24/2018 | 5.73 | 6.53 |
| | 1/17/2019 | 4.56 | 7.70 |
| | 4/15/2019 | 4.71 | 7.55 |
| | 7/30/2019 | 5.71 | 6.55 |
| MW-5 (11.87) | 9/9/2015 | 4.24 | 7.63 |
| | 12/11/2015 | 2.31 | 9.56 |
| | 3/29/2016 | 2.27 | 9.60 |
| | 10/6/2016 | 4.33 | 7.54 |
| | 1/30/2017 | 3.32 | 8.55 |
| | 4/25/2017 | 3.12 | 8.75 |
| | 6/28/2017 | 3.87 | 8.00 |
| | 10/23/2017 | 4.04 | 7.83 |
| | 1/15/2018 | 2.75 | 9.12 |
| | 4/10/2018 | 2.79 | 9.08 |
| | 7/9/2018 | 4.07 | 7.80 |
| | 10/24/2018 | 4.42 | 7.45 |
| | 1/17/2019 | 3.45 | 8.42 |
| | 4/15/2019 | 3.55 | 8.32 |
| | 7/30/2019 | 5.55 | 6.32 |
| MW-6 (12.31) | 9/9/2015 | 4.78 | 7.53 |
| | 12/11/2015 | 3.03 | 9.28 |
| | 3/29/2016 | 3.38 | 8.93 |
| | 10/6/2016 | 5.22 | 7.09 |
| | 1/30/2017 | 4.23 | 8.08 |
| | 4/25/2017 | 4.11 | 8.20 |
| | 6/28/2017 | 4.49 | 7.82 |
| | 10/23/2017 | 4.53 | 7.78 |
| | 1/15/2018 | 3.82 | 8.49 |
| | 4/10/2018 | 3.63 | 8.68 |
| | 7/9/2018 | 5.08 | 7.23 |
| | 10/24/2018 | 5.43 | 6.88 |
| | 1/17/2019 | 4.46 | 7.85 |
| | 4/15/2019 | 4.82 | 7.49 |
| | 7/30/2019 | 5.61 | 6.70 |

**Table AG-1: Groundwater Elevations**
**Quarterly Groundwater Monitoring Summary Tables**

| Monitoring Well (TOC Elevation) | Date | Depth to Water (Feet Below TOC) | Groundwater Elevation (Feet Above MSL) |
|---|---|---|---|
| MW-7 (12.53) | 9/9/2015 | 5.26 | 7.27 |
| | 12/11/2015 | 1.63 | 10.90 |
| | 3/28/2016 | 1.72 | 10.81 |
| | 10/6/2016 | 4.70 | 7.83 |
| | 1/30/2017 | 3.77 | 8.76 |
| | 4/25/2017 | 3.20 | 9.33 |
| | 6/28/2017 | 4.63 | 7.90 |
| | 10/23/2017 | 3.76 | 8.77 |
| | 1/15/2018 | 2.55 | 9.98 |
| | 4/10/2018 | 1.96 | 10.57 |
| | 7/9/2018 | 5.11 | 7.42 |
| | 10/24/2018 | 5.68 | 6.85 |
| | 1/17/2019 | 4.04 | 8.49 |
| | 4/15/2019 | 4.54 | 7.99 |
| | 7/30/2019 | 5.55 | 6.98 |
| MW-8A (11.45) | 9/9/2015 | 3.76 | 7.69 |
| | 12/11/2015 | 2.00 | 9.45 |
| | 3/28/2016 | 1.82 | 9.63 |
| | 10/6/2016 | 4.05 | 7.40 |
| | 1/30/2017 | 3.05 | 8.40 |
| | 4/25/2017 | 2.84 | 8.61 |
| | 6/28/2017 | 3.45 | 8.00 |
| | 10/23/2017 | 3.93 | 7.52 |
| | 1/15/2018 | 2.46 | 8.99 |
| | 4/10/2018 | 2.56 | 8.89 |
| | 7/9/2018 | 3.69 | 7.76 |
| | 10/24/2018 | 4.18 | 7.27 |
| | 1/17/2019 | 3.06 | 8.39 |
| | 4/15/2019 | 3.34 | 8.11 |
| | 7/30/2019 | 4.13 | 7.32 |
| MW-8B (11.48) | 9/9/2015 | 3.98 | 7.50 |
| | 12/11/2015 | 2.29 | 9.19 |
| | 3/28/2016 | 1.82 | 9.66 |
| | 10/6/2016 | 4.12 | 7.36 |
| | 1/30/2017 | 3.21 | 8.27 |
| | 4/25/2017 | 2.96 | 8.52 |
| | 6/28/2017 | 3.51 | 7.97 |
| | 10/23/2017 | 3.92 | 7.56 |
| | 1/15/2018 | 2.63 | 8.85 |
| | 4/10/2018 | 2.38 | 9.10 |
| | 7/9/2018 | 3.80 | 7.68 |
| | 10/24/2018 | 4.15 | 7.33 |
| | 1/17/2019 | 3.10 | 8.38 |
| | 4/15/2019 | 3.38 | 8.10 |
| | 7/30/2019 | 4.12 | 7.36 |

**Table AG-1: Groundwater Elevations**
**Quarterly Groundwater Monitoring Summary Tables**

| Monitoring Well (TOC Elevation) | Date | Depth to Water (Feet Below TOC) | Groundwater Elevation (Feet Above MSL) |
|---|---|---|---|
| MW-9A (11.57) | 9/10/2015 | 3.94 | 7.63 |
| | 12/11/2015 | 1.80 | 9.77 |
| | 3/29/2016 | 2.04 | 9.53 |
| | 10/6/2016 | 3.85 | 7.72 |
| | 1/30/2017 | 2.99 | 8.58 |
| | 4/25/2017 | 2.80 | 8.77 |
| | 6/28/2017 | 3.37 | 8.20 |
| | 10/23/2017 | 3.75 | 7.82 |
| | 1/15/2018 | 2.20 | 9.37 |
| | 4/10/2018 | 2.25 | 9.32 |
| | 7/9/2018 | 3.65 | 7.92 |
| | 10/24/2018 | 4.03 | 7.54 |
| | 1/17/2019 | 2.94 | 8.63 |
| | 4/15/2019 | 3.11 | 8.46 |
| | 7/30/2019 | 4.01 | 7.56 |
| MW-9B (11.52) | 9/10/2015 | 3.11 | 8.41 |
| | 12/11/2015 | 2.09 | 9.43 |
| | 3/29/2016 | 2.17 | 9.35 |
| | 10/6/2016 | 3.87 | 7.65 |
| | 1/30/2017 | 2.95 | 8.57 |
| | 4/25/2017 | 2.86 | 8.66 |
| | 6/28/2017 | 3.32 | 8.20 |
| | 10/23/2017 | 3.71 | 7.81 |
| | 1/15/2018 | 2.49 | 9.03 |
| | 4/10/2018 | 2.41 | 9.11 |
| | 7/9/2018 | 3.62 | 7.90 |
| | 10/24/2018 | 3.97 | 7.55 |
| | 1/17/2019 | 2.93 | 8.59 |
| | 4/15/2019 | 3.24 | 8.28 |
| | 7/30/2019 | 3.92 | 7.60 |
| MW-10A (10.71) | 9/10/2015 | 3.24 | 7.47 |
| | 12/11/2015 | 1.31 | 9.40 |
| | 3/29/2016 | 1.96 | 8.75 |
| | 10/6/2016 | 3.13 | 7.58 |
| | 1/30/2017 | 2.21 | 8.50 |
| | 4/25/2017 | 2.02 | 8.69 |
| | 6/28/2017 | 2.57 | 8.14 |
| | 10/23/2017 | 2.97 | 7.74 |
| | 1/15/2018 | 1.57 | 9.14 |
| | 4/10/2018 | 1.51 | 9.20 |
| | 7/9/2018 | 2.53 | 8.18 |
| | 10/24/2018 | 3.16 | 7.55 |
| | 1/17/2019 | 2.11 | 8.60 |
| | 4/15/2019 | 2.03 | 8.68 |
| | 7/30/2019 | 3.15 | 7.56 |

**Table AG-1: Groundwater Elevations**
**Quarterly Groundwater Monitoring Summary Tables**

| Monitoring Well (TOC Elevation) | Date | Depth to Water (Feet Below TOC) | Groundwater Elevation (Feet Above MSL) |
|---|---|---|---|
| MW-10B (10.72) | 9/10/2015 | 3.56 | 7.16 |
| | 12/11/2015 | 1.43 | 9.29 |
| | 3/29/2016 | 1.98 | 8.74 |
| | 10/6/2016 | 3.05 | 7.67 |
| | 1/30/2017 | 2.19 | 8.53 |
| | 4/25/2017 | 2.04 | 8.68 |
| | 6/28/2017 | 2.51 | 8.21 |
| | 10/23/2017 | 2.90 | 7.82 |
| | 1/15/2018 | 1.74 | 8.98 |
| | 4/10/2018 | 1.83 | 8.89 |
| | 7/9/2018 | 2.76 | 7.96 |
| | 10/24/2018 | 3.10 | 7.62 |
| | 1/17/2019 | 2.12 | 8.60 |
| | 4/15/2019 | 2.39 | 8.33 |
| | 7/30/2019 | 2.09 | 8.63 |
| MW-11A (11.91) | 7/30/2019 | 4.99 | 6.92 |
| | 7/30/2019 | 4.48 | 7.49 |
| MW-12 (29.34) | 7/30/2019 | 21.90 | 7.44 |
| | 2/18/2020 | 20.73 | 8.61 |
| MW-13 (28.27) | 7/30/2019 | 20.95 | 7.32 |
| | 2/18/2020 | 20.03 | 8.24 |
| MW-14 (26.37) | 7/30/2019 | 18.92 | 7.45 |
| | 2/18/2020 | 18.20 | 8.17 |
| MW-15 (11.85) | 7/30/2019 | 5.74 | 6.11 |
| | 7/30/2019 | 6.85 | 5.65 |
| MW-17 (12.20) | 7/30/2019 | 6.36 | 5.84 |
| | 2/18/2020 | 7.35 | 8.52 |

Notes

Top of Casing (TOC) elevations surveyed by W&H Pacific in November 2006 and Signature Surveying & Mapping in October 2015 and July 2019

A - MW-1 casing re-surveyed by Signature Surveying & Mapping in April 2018 and May 2019. Revised elevation is presented in column 1 and used to calculate groundwater elevation beginning with April 2018 event.

**Table AG-2: Water Quality Parameters**
**Quarterly Groundwater Monitoring Summary Tables**

| Sample ID | Sample Date | Temperature (°C) | Conductivity (mS/cm) | TDS (g/L) | TDS (mg/L) | DO (mg/L) | pH | ORP (mV) | Salinity |
|---|---|---|---|---|---|---|---|---|---|
| MW-1 | 9/9/2015 | 22.00 | 0.909 | 0.591 | 591 | 0.18 | 7.56 | -101.2 | -- |
| | 12/10/2015 | 13.24 | 0.721 | 0.469 | 469 | 0.18 | 11.38 | -210.1 | -- |
| | 6/23/2016 | 16.66 | 0.849 | 0.551 | 551 | 0.64 | 6.99 | -163.2 | -- |
| | 1/30/2017 | 10.11 | 0.635 | 0.412 | 412 | 0.2 | 7.63 | -138.7 | -- |
| | 6/28/2017 | 17.14 | 0.932 | 0.605 | 605 | 0.17 | 6.88 | -82.1 | -- |
| | 1/15/2018 | 11.83 | 0.773 | 0.509 | 509 | 0.31 | 7.51 | -182 | -- |
| | 7/10/2018 | 17.88 | 0.138 | 0.09 | 90 | 0.19 | 7.09 | -137.2 | -- |
| | 1/17/2019 | 11.71 | 0.802 | 0.522 | 522 | 0.41 | 7.53 | -184.1 | -- |
| | 7/31/2019 | 18.64 | 0.648 | -- | -- | 0.86 | 7.11 | -98.3 | 0.35 |
| | 2/18/2020 | 11.02 | 0.763 | 0.492 | 492 | 0.18 | 7.68 | 27.6 | -- |
| MW-2 | 9/10/2015 | 16.59 | 11.87 | 7.716 | 7,716 | 3.19 | 7.47 | -6.2 | -- |
| | 12/11/2015 | 9.08 | 7.058 | 4.588 | 4,588 | 9.84 | 11.58 | -41.3 | -- |
| | 3/29/2016 | 10.15 | 8.185 | 5.325 | 5,325 | 5.3 | 6.34 | -66 | -- |
| | 7/30/2019 | 15.73 | 8.301 | -- | -- | 3.61 | 7.4 | 10.3 | 5.64 |
| MW-3 | 12/11/2015 | 12.83 | 4.444 | 2.889 | 2,889 | 0.24 | 12.13 | -100.7 | -- |
| | 3/29/2016 | 11.13 | 2.256 | 1.467 | 1,467 | 0.46 | 6.57 | -130.9 | -- |
| | 1/30/2017 | 10.33 | 4.567 | 2.97 | 2,970 | 0.22 | 7.08 | -113.5 | -- |
| | 6/28/2017 | 16.04 | 1.448 | 0.941 | 941 | 0.21 | 6.82 | -106 | -- |
| | 1/15/2018 | 11.24 | 1.773 | 0.152 | 152 | 0.64 | 7.15 | -158.2 | -- |
| | 7/9/2018 | 16.54 | 0.358 | 0.232 | 232 | 0.42 | 7.09 | -131.8 | -- |
| | 1/17/2019 | 10.20 | 4.356 | 2.829 | 2,829 | 2.16 | 7.23 | -73 | -- |
| | 7/31/2019 | 18.32 | 1.321 | -- | -- | 1.41 | 6.94 | -207.7 | 0.8 |
| | 2/18/2020 | 10.97 | 1.139 | 0.725 | 725 | 0.63 | 7.35 | 80.2 | -- |
| MW-4 | 9/9/2015 | 17.69 | 0.129 | 0.084 | 84 | 0.86 | 6.94 | -60.2 | -- |
| | 12/10/2015 | 11.39 | 0.097 | 0.064 | 64 | 5.51 | 9.4 | -109 | -- |
| | 3/28/2016 | 10.03 | 0.124 | 0.081 | 81 | 7.44 | 5.52 | -26.2 | -- |
| | 6/23/2016 | 14.82 | 0.143 | 0.093 | 93 | 4.33 | 6.39 | -44.4 | -- |
| | 1/31/2017 | 8.58 | 0.101 | 0.066 | 66 | 9.26 | 6.93 | 91.6 | -- |
| | 6/28/2017 | 15.8 | 0.137 | 0.089 | 89 | 4.5 | 6.48 | -47.5 | -- |
| | 1/15/2018 | 9.40 | 0.098 | 0.64 | 640 | 11.22 | 6.76 | 181.2 | -- |
| | 7/9/2018 | 16.07 | 0.026 | 0.017 | 17 | 4.25 | 6.65 | 35 | -- |
| | 1/17/2019 | 10.67 | 0.096 | 0.062 | 62 | 7.37 | 7.38 | 31.1 | -- |
| | 7/30/2019 | 16.89 | 0.067 | -- | -- | 2.06 | 6.47 | 60.5 | 0.04 |
| MW-5 | 9/9/2015 | 20.72 | 0.848 | 0.551 | 551 | 0.18 | 6.79 | -34.4 | -- |
| | 12/11/2015 | 11.28 | 0.507 | 0.33 | 330 | 0.3 | 10.75 | -30.1 | -- |
| | 3/29/2016 | 12.20 | 1.114 | 0.724 | 724 | 0.44 | 5.64 | -1.3 | -- |
| | 6/23/2016 | 14.21 | 0.947 | 0.615 | 615 | 0.59 | 7.54 | -201.6 | -- |
| | 10/6/2016 | 15.24 | 1.129 | 0.732 | 732 | 0.49 | 6.99 | -1.2 | -- |
| | 1/31/2017 | 9.97 | 0.978 | 0.635 | 635 | 0.27 | 6.79 | -16.6 | -- |
| | 4/25/2017 | 11.28 | 1.087 | 0.707 | 707 | 0.32 | 6.41 | 48.2 | -- |
| | 6/29/2017 | 13.67 | 0.899 | 0.584 | 584 | 0.32 | 9.26 | -46.5 | -- |
| | 10/23/2017 | 16.23 | 0.677 | 0.438 | 438 | 1.07 | -- | 29.6 | -- |
| | 1/15/2018 | 10.06 | 1.101 | 0.715 | 715 | 0.61 | 6.62 | 41.9 | -- |
| | 4/10/2018 | 11.07 | 0.781 | 0.509 | 509 | 0.47 | 6.65 | 38.9 | -- |
| | 7/9/2018 | 14.64 | 0.205 | 0.133 | 133 | 0.58 | 6.8 | -87.9 | -- |
| | 10/24/2018 | 14.58 | 1.178 | 0.764 | 764 | 2.69 | 6.6 | -17.5 | -- |
| | 1/17/2019 | 12.70 | 0.583 | 0.379 | 379 | 0.51 | 6.63 | -102.2 | -- |
| | 4/15/2019 | 10.04 | 0.694 | 0.451 | 451 | 1.18 | 6.67 | -53.9 | -- |
| | 7/30/2019 | 15.07 | 0.633 | -- | -- | 0.82 | 6.73 | -139.1 | 0.37 |

**Table AG-2: Water Quality Parameters**
**Quarterly Groundwater Monitoring Summary Tables**

| Sample ID | Sample Date | Temperature (°C) | Conductivity (mS/cm) | TDS (g/L) | TDS (mg/L) | DO (mg/L) | pH | ORP (mV) | Salinity |
|---|---|---|---|---|---|---|---|---|---|
| MW-6 | 9/9/2015 | 19.06 | 33.86 | 22.01 | 22,010 | 0.71 | 5.71 | 10.5 | -- |
| | 12/10/2015 | 11.31 | 9.373 | 6.091 | 6,091 | 0.2 | 9.48 | -122.8 | -- |
| | 3/29/2016 | 10.30 | 1.382 | 0.898 | 898 | 0.83 | 6.31 | -40.1 | -- |
| | 6/23/2016 | 16.33 | 8.51 | 5.531 | 5,531 | 0.76 | 6.09 | -44.9 | -- |
| | 1/31/2017 | 7.88 | 4.274 | 2.774 | 2,774 | 0.43 | 6.53 | 69.2 | -- |
| | 6/29/2017 | 16.76 | 3.19 | 2.075 | 2,075 | 0.31 | 5.65 | 20.5 | -- |
| | 1/15/2018 | 9.47 | 3.814 | 2.53 | 2,530 | 0.54 | 7.38 | -50.2 | -- |
| | 7/10/2018 | 16.84 | 0.551 | 0.358 | 358 | 0.32 | 5.99 | -22.5 | -- |
| | 1/17/2019 | 9.42 | 23.91 | 15.49 | 15,490 | 0.52 | 6.4 | 37 | -- |
| | 7/31/2019 | 17.29 | 12.23 | -- | -- | 1.6 | 6.18 | 77.7 | 8.56-8.27 |
| | 2/19/2020 | 8.81 | 14.76 | 9.529 | 9,529 | 0.55 | 7.05 | 95.4 | -- |
| MW-7 | 9/9/2015 | 18.54 | 0.592 | 0.385 | 385 | 0.29 | 6.86 | -111.3 | -- |
| | 12/10/2015 | 8.31 | 0.183 | 0.118 | 118 | 3.46 | 8.8 | -109.7 | -- |
| | 3/26/2016 | 10.27 | 0.218 | 0.141 | 141 | 0.87 | 6.14 | -62.1 | -- |
| | 6/24/2016 | 17.32 | 0.333 | 0.217 | 217 | 0.48 | 6.53 | -79.2 | -- |
| | 1/31/2017 | 5.84 | 0.301 | 0.196 | 196 | 0.87 | 6.23 | 138.2 | -- |
| | 6/29/2017 | 17.70 | 0.242 | 0.157 | 157 | 0.17 | 6.46 | -28.3 | -- |
| | 1/15/2018 | 7.81 | 0.102 | 0.066 | 66 | 9.9 | 6.42 | 101.4 | -- |
| | 7/10/2018 | 16.76 | 0.069 | 0.045 | 45 | 0.26 | 6.33 | -74.6 | -- |
| | 1/17/2019 | 10.52 | 0.296 | 0.193 | 193 | 0.4 | 6.41 | -24.6 | -- |
| | 7/30/2019 | 19.03 | 0.271 | -- | -- | 1 | 6.26 | 38.7 | 0.15 |
| | 2/19/2020 | 9.01 | 0.153 | 0.1 | 100 | 7.94 | 6.83 | 23.5 | -- |
| MW-8A | 9/9/2015 | 17.43 | 1.697 | 1.103 | 1,103 | 0.26 | 6.83 | -134.2 | -- |
| | 12/11/2015 | 12.44 | 0.968 | 0.629 | 629 | 0.44 | 12.01 | -87.4 | -- |
| | 3/28/2016 | 10.87 | 1.198 | 0.779 | 779 | 1.63 | 6.38 | -95.4 | -- |
| | 6/24/2016 | 14.62 | 1.539 | 1 | 1,000 | 0.54 | 7.24 | -149.9 | -- |
| | 10/6/2016 | 15.53 | 1.535 | 0.998 | 998 | 0.33 | 9.31 | -43.9 | -- |
| | 1/31/2017 | 10.99 | 1.344 | 0.874 | 874 | 0.29 | 6.64 | -92.4 | -- |
| | 4/25/2017 | 11.92 | 1.369 | 0.89 | 890 | 0.26 | 6.65 | -89.3 | -- |
| | 6/28/2017 | 13.49 | 1.509 | 0.981 | 981 | 0.2 | 5.93 | -72.4 | -- |
| | 10/23/2017 | 14.91 | 1.391 | 0.905 | 905 | 0.69 | -- | -72.1 | -- |
| | 1/16/2018 | 11.97 | 1.189 | 0.773 | 773 | 0.43 | 6.55 | -94.2 | -- |
| | 4/10/2018 | 11.45 | 1.1 | 0.715 | 715 | 0.25 | 6.66 | -117.3 | -- |
| | 7/9/2018 | 14.95 | 0.311 | 0.202 | 202 | 0.44 | 6.55 | -137.4 | -- |
| | 10/24/2018 | 15.11 | 1.359 | 0.886 | 886 | 3.31 | 6.65 | -104.1 | -- |
| | 1/17/2019 | 12.95 | 1.297 | 0.843 | 843 | 0.39 | 6.71 | -111.9 | -- |
| | 4/15/2019 | 10.55 | 1.37 | 0.891 | 891 | 0.89 | 6.5 | -41 | -- |
| | 7/30/2019 | 14.87 | 1.045 | -- | -- | 1.65 | 6.45 | -102.3 | 0.65 |
| | 2/19/2020 | 11.49 | 0.21 | 0.787 | 787 | 0.39 | 6.91 | 19.9 | -- |

**Table AG-2: Water Quality Parameters**
**Quarterly Groundwater Monitoring Summary Tables**

| Sample ID | Sample Date | Temperature (°C) | Conductivity (mS/cm) | TDS (g/L) | TDS (mg/L) | DO (mg/L) | pH | ORP (mV) | Salinity |
|---|---|---|---|---|---|---|---|---|---|
| MW-8B | 9/9/2015 | 14.97 | 1.635 | 1.063 | 1,063 | 0.23 | 8.41 | -118.5 | -- |
| | 12/11/2015 | 13.15 | 0.974 | 0.633 | 633 | 0.5 | 12.01 | -61.3 | -- |
| | 3/26/2016 | 11.96 | 1.588 | 1.032 | 1,032 | 0.5 | 6.64 | -113 | -- |
| | 6/24/2016 | 14.33 | 1.011 | 0.656 | 656 | 0.56 | 7.66 | -187.2 | -- |
| | 10/6/2016 | 14.67 | 0.689 | 0.448 | 448 | 0.19 | 9.89 | -43.4 | -- |
| | 1/31/2017 | 12.29 | 0.716 | 0.465 | 465 | 0.35 | 7.39 | -97.8 | -- |
| | 4/25/2017 | 13.18 | 0.988 | 0.643 | 643 | 0.27 | 7.42 | -112.5 | -- |
| | 6/28/2017 | 13.78 | 0.869 | 0.565 | 565 | 0.22 | 7.24 | -90.8 | -- |
| | 10/23/2017 | 13.98 | 0.628 | 0.401 | 401 | 0.48 | -- | -84.9 | -- |
| | 1/16/2018 | 12.65 | 0.954 | 0.62 | 620 | 0.49 | 7.79 | -175.7 | -- |
| | 4/10/2018 | 13.09 | 1.03 | 0.67 | 670 | 0.25 | 7.38 | -143.8 | -- |
| | 7/9/2018 | 14.18 | 0.185 | 0.12 | 120 | 0.22 | 7.47 | -135.5 | -- |
| | 10/24/2018 | 13.92 | 0.632 | 0.41 | 410 | 0.69 | 7.54 | -74 | -- |
| | 1/17/2019 | 13.22 | 0.833 | 0.542 | 542 | 0.16 | 8.76 | -204.1 | -- |
| | 4/15/2019 | 11.60 | 0.881 | 0.567 | 567 | 0.77 | 9.25 | -125.5 | -- |
| MW-9A | 9/10/2015 | 19.61 | 19.68 | 12.79 | 12,790 | 0.3 | 6.72 | -69.9 | -- |
| | 12/10/2015 | 10.66 | 2.811 | 1.83 | 1,830 | 1.31 | 9.28 | -144.1 | -- |
| | 3/29/2016 | 11.44 | 0.842 | 0.547 | 547 | 0.41 | 5.8 | -36.1 | -- |
| | 6/24/2016 | 15.15 | 10.39 | 6.743 | 6,743 | 0.39 | 7 | -132.9 | -- |
| | 1/30/2017 | 8.84 | 1.152 | 0.749 | 749 | 0.25 | 6.55 | -67.4 | -- |
| | 6/29/2017 | 15.81 | 6.55 | 4.259 | 4,259 | 0.2 | 5.72 | -33.8 | -- |
| | 1/15/2018 | 10.69 | 0.814 | 0.551 | 551 | 0.51 | 6.43 | -55.1 | -- |
| | 7/10/2018 | 14.85 | 0.816 | 0.532 | 532 | 0.3 | 6.32 | -74.6 | -- |
| | 1/17/2019 | 10.62 | 3.46 | 2.249 | 2,249 | 0.41 | 6.55 | -73.2 | -- |
| | 7/31/2019 | 15.74 | 1.674 | -- | -- | 1.43 | 6.58 | -141.2 | 0.37 |
| MW-9B | 9/10/2015 | 15.11 | 0.515 | 0.335 | 335 | 0.18 | 7.75 | -6.4 | -- |
| | 12/10/2015 | 12.07 | 3.131 | 2.036 | 2,036 | 0.19 | 10.36 | -159.4 | -- |
| | 3/29/2016 | 12.64 | 2.183 | 1.421 | 1,421 | 0.4 | 6.48 | -58.7 | -- |
| | 6/24/2016 | 14.05 | 0.451 | 0.293 | 293 | 0.56 | 7.61 | -143.4 | -- |
| | 1/30/2017 | 12.36 | 0.385 | 0.25 | 250 | 0.22 | 8.28 | -61.2 | -- |
| | 6/29/2017 | 14.11 | 0.408 | 0.265 | 265 | 0.15 | 10.14 | -63.1 | -- |
| | 1/15/2018 | 13.17 | 0.399 | 0.259 | 259 | 0.18 | 7.96 | -124.1 | -- |
| | 7/10/2018 | 14.16 | 0.089 | 0.058 | 58 | 0.13 | 7.8 | -148.8 | -- |
| | 1/17/2019 | 12.65 | 0.371 | 0.242 | 242 | 0.61 | 7.79 | -67.4 | -- |
| | 7/31/2019 | 15.33 | 0.26 | -- | -- | 1.81 | 7.74 | -128.4 | 0.17 |
| | 2/18/2020 | 12.46 | 0.366 | 0.238 | 238 | 0.28 | 8.1 | 64.1 | -- |

**Table AG-2: Water Quality Parameters**
**Quarterly Groundwater Monitoring Summary Tables**

| Sample ID | Sample Date | Temperature (°C) | Conductivity (mS/cm) | TDS (g/L) | TDS (mg/L) | DO (mg/L) | pH | ORP (mV) | Salinity |
|---|---|---|---|---|---|---|---|---|---|
| MW-10A | 9/10/2015 | 17.83 | 0.808 | 0.525 | 525 | 0.22 | 6.72 | -75 | -- |
| | 12/11/2015 | 10.53 | 0.291 | 0.189 | 189 | 0.28 | 11.2 | -41.8 | -- |
| | 3/29/2016 | 12.40 | 1.164 | 0.757 | 757 | 0.37 | 5.88 | -47 | -- |
| | 6/24/2016 | 14.16 | 0.7 | 0.455 | 455 | 0.56 | 7.06 | -173 | -- |
| | 10/6/2016 | 16.54 | 0.976 | 0.634 | 634 | 0.3 | 9.55 | -47.4 | -- |
| | 1/30/2017 | 10.94 | 0.96 | 0.624 | 624 | 0.24 | 6.42 | -70.9 | -- |
| | 4/25/2017 | 12.33 | 0.586 | 0.381 | 381 | 0.21 | 6.43 | -68.4 | -- |
| | 6/28/2017 | 14.04 | 1.001 | 0.651 | 651 | 0.26 | 5.48 | -19.9 | -- |
| | 10/23/2017 | 16.41 | 0.866 | 0.563 | 563 | 0.47 | -- | -40.3 | -- |
| | 1/15/2018 | 10.97 | 0.363 | 0.236 | 236 | 0.35 | 6.36 | -112.1 | -- |
| | 4/10/2018 | 12.29 | 0.112 | 0.074 | 74 | 0.94 | 6.41 | 27.6 | -- |
| | 7/10/2018 | 14.22 | 0.178 | 0.115 | 115 | 0.3 | 6.2 | -64.9 | -- |
| | 10/24/2018 | 15.42 | 1.0 | 0.647 | 647 | 2.59 | 6.19 | -59.8 | -- |
| | 1/17/2019 | 11.75 | 0.936 | 0.609 | 609 | 0.51 | 6.29 | -97.5 | -- |
| | 4/15/2019 | 10.09 | 0.732 | 0.481 | 481 | 1.1 | 6.36 | -15.4 | -- |
| | 7/31/2019 | 16.28 | 0.928 | -- | -- | 2.57 | 6.15 | -132.1 | 0.54 |
| | 2/18/2020 | 9.42 | 0.459 | 0.297 | 297 | 0.68 | 6.45 | 49.2 | -- |
| MW-10B | 9/10/2015 | 15.31 | 0.355 | 0.231 | 231 | 0.26 | 8.02 | -28.2 | -- |
| | 12/11/2015 | 12.41 | 0.249 | 0.163 | 163 | 0.11 | 12.04 | -67.1 | -- |
| | 3/29/2016 | 13.28 | 0.316 | 0.205 | 205 | 0.26 | 5.98 | -23.8 | -- |
| | 6/24/2016 | 13.69 | 0.31 | 0.201 | 201 | 0.35 | 7.3 | -131.6 | -- |
| | 10/6/2016 | 15.25 | 0.298 | 0.193 | 193 | 0.38 | 9.06 | 16.4 | -- |
| | 1/30/2017 | 11.93 | 0.281 | 0.183 | 183 | 0.24 | 8.37 | -21.2 | -- |
| | 4/25/2017 | 12.87 | 0.307 | 0.2 | 200 | 0.24 | 7.9 | -62.4 | -- |
| | 6/28/2017 | 13.75 | 0.289 | 0.188 | 188 | 0.2 | 7.32 | 51 | -- |
| | 10/23/2017 | 13.98 | 0.305 | 0.198 | 198 | 0.27 | -- | 19.8 | -- |
| | 1/15/2018 | 12.75 | 0.304 | 0.198 | 198 | 0.25 | 8.14 | -147.1 | -- |
| | 4/10/2018 | 12.96 | 0.306 | 0.198 | 198 | 0.12 | 8.11 | -96.1 | -- |
| | 7/10/2018 | 14.03 | 0.066 | 0.043 | 43 | 0.44 | 7.61 | -15.1 | -- |
| | 10/24/2018 | 14.13 | 0.306 | 0.194 | 194 | 1.09 | 7.8 | 14.4 | -- |
| | 1/17/2019 | 12.37 | 0.295 | 0.192 | 192 | 0.23 | 8.01 | -130.4 | -- |
| | 4/15/2019 | 11.31 | 0.302 | 0.197 | 197 | 0.78 | 7.95 | -102 | -- |

**Table AG-2: Water Quality Parameters**
**Quarterly Groundwater Monitoring Summary Tables**

| Sample ID | Sample Date | Temperature (°C) | Conductivity (mS/cm) | TDS (g/L) | TDS (mg/L) | DO (mg/L) | pH | ORP (mV) | Salinity |
|---|---|---|---|---|---|---|---|---|---|
| **MW-11A** | 7/30/2019 | 17.93 | 0.537 | -- | -- | 0.75 | 6.89 | -138.2 | 0.3 |
| | 2/19/2020 | 10.28 | 0.64 | 0.416 | 416 | 0.49 | 7 | 19.4 | -- |
| **MW-12** | 8/1/2019 | 12.46 | 1.716 | -- | -- | 0.61 | 11.76 | -457.9 | 1.26 |
| | 2/19/2020 | 10.77 | 1.848 | 1.201 | 1,201 | 0.53 | 7.59 | 28.9 | -- |
| **MW-13** | 8/1/2019 | 12.34 | 2.64 | -- | -- | 0.79 | 7.86 | -267.1 | 1.84 |
| | 2/19/2020 | 11.16 | 4.889 | 3.188 | 3,188 | 0.28 | 8.66 | 43 | -- |
| **MW-14** | 8/1/2019 | 12.63 | 4.704 | -- | -- | 1.51 | 7.52 | -126 | 3.32 |
| | 2/19/2020 | 11.64 | 8.592 | 5.58 | 5,580 | 0.14 | 7.61 | 34.1 | -- |
| **MW-15** | 7/31/2019 | 19.26 | 11.45 | -- | -- | 0.96 | 6.5 | -368.1 | 7.43 |
| **MW-16** | 7/31/2019 | 18.29 | 0.599 | -- | -- | 1.46 | 6.98 | -191.3 | 0.38 |
| **MW-17** | 7/30/2019 | 16.43 | 0.464 | -- | -- | 0.8 | 6.6 | -70 | 0.28 |
| | 2/19/2020 | 14.16 | 0.591 | 0.385 | 385 | 0.4 | 7.08 | 10.6 | -- |
| **MW-18** | 2/18/2020 | 12.34 | 1.377 | 0.895 | 895 | 0.24 | 7.89 | 70 | -- |
| **MW-19** | 2/18/2020 | 9.43 | 0.786 | 0.51 | 510 | 0.54 | 6.19 | 30.9 | -- |

Notes

MW indicates Monitoring Well

TDS indicates Total Dissolved Solids

mS/cm indicates millisiemens per centimeter

-- indicates no collected measurement

# Table AG-3: Total Petroleum Hydrocarbons (TPH)
# Quarterly Groundwater Monitoring Summary Tables

| Sample Location | Sample Label | Sample Date | Total Petroleum Hydrocarbons [A] (µg/L) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | TPH-Gx Gasoline Range | | TPH-Dx Diesel Range | | TPH-Dx Heavy Oil Range | |
| | | | Value | Qual | Value | Qual | Value | Qual |
| **SLR Groundwater Monitoring Well Sampling** | | | | | | | | |
| **MW-1** | MW-1-GW | 9/9/2015 | **45** | J | **301** | | **218** | J |
| | MW-1-1215 | 12/10/2015 | **40** | J | **333** | | **386** | |
| | -- [C] | -- | **-** | | -- | | -- | |
| | MW1-062316 | 6/23/2016 | **-** | | **267** | | **341** | |
| | MW1-0117 | 1/30/2017 | **-** | | **255** | | **342** | J |
| | MW-1-0617 | 6/28/2017 | **-** | | **356** | | **412** | |
| | MW-1-0118 | 1/15/2018 | **-** | | **153** | J | **146** | J |
| | MW-1-0718 | 7/10/2018 | **-** | | **265** | | **369** | |
| | MW-1-0119 | 1/17/2019 | **-** | | **222** | | **234** | J |
| **MW-2** | MW-2-GW | 9/10/2015 | **58** | J | <100 | | <250 | |
| | MW-2-121115 | 12/11/2015 | <100 | | <100 | | <250 | |
| | MW2-032916 | 3/29/2016 | - | | <100 | | <250 | |
| | MW-2-0719 | 7/31/2019 | - | | <200 | | **243** | J |
| **MW-3** | -- [B] | -- | **-** | | -- | | -- | |
| | MW-3-121115 | 12/11/2015 | <100 | | **87** | J | **85** | J |
| | MW3-032916 | 3/29/2016 | - | | **37** | J | <250 | |
| | -- [D] | -- | - | | **--** | | -- | |
| | MW-3-0117 | 1/30/2017 | - | | <250 | | <500 | |
| | MW-3-0617 | 6/28/2017 | - | | **125** | J | **164** | J |
| | MW-3-0118 | 1/15/2018 | - | | **163** | J | **451** | |
| | MW-3-0718 | 7/9/2018 | - | | **132** | J | **123** | J |
| | MW-3-0119 | 1/17/2019 | - | | <200 | | <250 | |
| **MW-4** | MW-4-GW | 9/9/2015 | **44** | J | <100 | | <250 | |
| | MW-4-1215 | 12/10/2015 | <100 | | **37** | J | <250 | |
| | MW4-032816 | 3/28/2016 | - | | <100 | | <250 | |
| | MW-4-0617 | 6/28/2017 | - | | <200 | | <250 | |
| | MW-4-0118 | 1/15/2018 | - | | **68** | J | **262** | |
| | MW-4-0718 | 7/9/2018 | - | | <200 | | <250 | |
| | MW-4-0119 | 1/17/2019 | - | | **259** | | <250 | |

## Table AG-3: Total Petroleum Hydrocarbons (TPH)
## Quarterly Groundwater Monitoring Summary Tables

| Sample Location | Sample Label | Sample Date | Total Petroleum Hydrocarbons [A] (µg/L) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | TPH-Gx Gasoline Range | | TPH-Dx Diesel Range | | TPH-Dx Heavy Oil Range | |
| | | | Value | Qual | Value | Qual | Value | Qual |
| **SLR Groundwater Monitoring Well Sampling** | | | | | | | | |
| **MW-5** | MW-5-GW | 9/9/2015 | **69** | J | **423** | | **173** | J |
| | MW-5-121115 | 12/11/2015 | **42** | J | **385** | | **294** | |
| | MW5-032816 | 3/29/2016 | - | | **189** | | <250 | |
| | MW5-062316 | 6/23/2016 | - | | **1,340** | | **186** | J |
| | MW-5-1016 | 10/6/2016 | - | | **2,380** | | **168** | J |
| | MW-5-0117 | 1/30/2017 | - | | **848** | | **565** | |
| | MW-5-0417 | 4/25/2017 | - | | **363** | | **310** | |
| | MW-5-0617 | 6/29/2017 | - | | **1,860** | | **207** | J |
| | MW-5-1017 | 10/23/2017 | - | | **1,310** | | **519** | |
| | MW-5-0118 | 1/15/2018 | - | | **568** | | **433** | |
| | MW-5-0418 | 4/10/2018 | - | | **435** | | **270** | |
| | MW-5-0718 | 7/9/2018 | - | | **1,250** | | **222** | J |
| | MW-5-1018 | 10/24/2018 | - | | **1,340** | | **149** | J |
| | MW-5-0119 | 1/17/2019 | - | | **1,070** | | **280** | |
| | MW-5-0419 | 4/15/2019 | - | | **560** | | **179** | J |
| **MW-6** | MW-6-GW | 9/9/2015 | **38** | J | <100 | | <250 | |
| | MW-6-1215 | 12/10/2015 | <100 | | **62** | J | **93** | J |
| | MW6-032916 | 3/29/2016 | - | | **62** | J | <250 | |
| | MW6-062316 | 6/23/2016 | - | | <100 | | <250 | |
| | MW-6-0117 | 1/31/2017 | - | | <250 | | **173** | J |
| | MW-6-0617 | 6/29/2017 | - | | <200 | | **87** | J |
| | MW-6-0118 | 1/15/2018 | - | | <200 | | **95** | J |
| | MW-6-0718 | 7/10/2018 | - | | <200 | | <250 | |
| | MW-6-0119 | 1/17/2019 | - | | <200 | | <250 | |
| **MW-7** | MW-7-GW | 9/9/2015 | **37** | J | **80** | J | <250 | |
| | MW-7-1215 | 12/10/2015 | <100 | | **69** | J | **88** | J |
| | MW7-032816 | 3/28/2816 | - | | <100 | | <250 | |
| | MW7-062416 | 6/24/2016 | - | | **96** | J | <250 | |
| | MW-7-0117 | 1/31/2017 | - | | **96** | J | **180** | J |
| | MW-7-0617 | 6/29/2017 | - | | **217** | | **242** | J |
| | MW-7-0118 | 1/15/2018 | - | | <200 | | **92** | J |
| | MW-7-0718 | 7/10/2018 | - | | <200 | | **109** | J |
| | MW-7-0119 | 1/17/2019 | - | | **122** | J | **99** | J |

## Table AG-3: Total Petroleum Hydrocarbons (TPH)
## Quarterly Groundwater Monitoring Summary Tables

| Sample Location | Sample Label | Sample Date | Total Petroleum Hydrocarbons [A] (µg/L) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | TPH-Gx Gasoline Range | | TPH-Dx Diesel Range | | TPH-Dx Heavy Oil Range | |
| | | | Value | Qual | Value | Qual | Value | Qual |
| **SLR Groundwater Monitoring Well Sampling** | | | | | | | | |
| **MW-8A** | MW-8A-GW | 9/9/2015 | **2,760** | | **31,700** | | **2,360** | J |
| | MW-8A-121115 | 12/11/2015 | **2,090** | | **32,100** | | <12,500 | |
| | MW8A-032816 | 3/28/2016 | - | | **32,000** | | **2,650** | J |
| | MW8A-062416 | 6/24/2016 | - | | **12,000** | | <1,250 | |
| | MW-8A-1016 | 10/6/2016 | - | | **60,300** | | **4,890** | J |
| | MW-8A-0117 | 1/31/2017 | - | | **59,200** | | **11,200** | |
| | MW-8A-0417 | 4/25/2017 | - | | **43,800** | | **7,120** | |
| | MW-8A-0617 | 6/28/2017 | - | | **64,500** | | **9,090** | |
| | MW-8A-1017 | 10/23/2017 | - | | **68,900** | | <12,500 | |
| | MW-8A-0118 | 1/16/2018 | - | | **32,700** | | **3,450** | J |
| | MW-8A-0418 | 4/10/2018 | - | | **52,900** | | **8,060** | |
| | MW-8A-0718 | 7/9/2018 | - | | **49,900** | | **5,060** | |
| | MW-8A-1018 | 10/24/2018 | - | | **119,000** | | **22,800** | |
| | MW-8A-0119 | 1/17/2019 | - | | **51,100** | | **4,420** | |
| | MW-8A-0419 | 4/15/2019 | - | | **46,900** | | **4,660** | J |
| **MW-8B** | MW-8B-GW | 9/9/2015 | **3,160** | | **24,100** | | <5,000 | |
| | MW-8B-121115 | 12/11/2015 | **2,000** | | **131,000** | | **20,100** | J |
| | MW8B-032816 | 3/28/2016 | - | | **52,000** | | <4,120 | |
| | MW8B-062416 | 6/24/2016 | - | | **23,400** | | **1,410** | |
| | MW-8B-1016 | 10/6/2016 | - | | **55,700** | | <8,250 | |
| | MW-8B-0117 | 1/31/2017 | - | | **59,500** | | **4,650** | |
| | MW-8B-0417 | 4/25/2017 | - | | **68,000** | | **3,520** | |
| | MW-8B-0617 | 6/28/2017 | - | | **95,400** | | **14,000** | |
| | MW-8B-1017 | 10/23/2017 | - | | **70,400** | | <12,500 | |
| | MW-8B-0118 | 1/16/2018 | - | | **38,300** | | **2,090** | J |
| | MW-8B-0418 | 4/10/2018 | - | | **68,200** | | **2,470** | J |
| | MW-8B-0718 | 7/9/2018 | - | | **225,000** | | **50,000** | |
| | MW-8B-1018 | 10/24/2018 | - | | **57,300** | | **2,990** | |
| | MW-8B-0119 | 1/17/2019 | - | | **108,000** | | **17,100** | |
| | MW-8B-0419 | 4/15/2019 | - | | **52,700** | | **6,900** | |

## Table AG-3: Total Petroleum Hydrocarbons (TPH)
## Quarterly Groundwater Monitoring Summary Tables

| Sample Location | Sample Label | Sample Date | Total Petroleum Hydrocarbons [A] (µg/L) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | TPH-Gx Gasoline Range | | TPH-Dx Diesel Range | | TPH-Dx Heavy Oil Range | |
| | | | Value | Qual | Value | Qual | Value | Qual |
| **SLR Groundwater Monitoring Well Sampling** | | | | | | | | |
| **MW-9A** | MW-9A-GW | 9/10/2015 | **221** | | **154** | | **92** | J |
| | MW-9A-1215 | 12/10/2015 | <100 | | **138** | | **157** | J |
| | MW9A-032916 | 3/29/2016 | - | | **44** | J | <250 | |
| | MW9A-062416 | 6/24/2016 | - | | **68** | J | <250 | |
| | MW-9A-0117 | 1/30/2017 | - | | **106** | J | <500 | |
| | MW-9A-0617 | 6/29/2017 | - | | **104** | J | **90** | J |
| | MW-9A-0118 | 1/15/2018 | - | | <200 | | **94** | J |
| | MW-9A-0718 | 7/10/2018 | - | | **72** | J | **102** | J |
| | MW-9A-0119 | 1/17/2019 | - | | **77** | J | <250 | |
| **MW-9B** | MW-9B-GW | 9/10/2015 | **34** | J | <100 | | <250 | |
| | MW-9B-1215 | 12/10/2015 | <100 | | <100 | | <250 | |
| | MW9B-032916 | 3/29/2016 | - | | <100 | | <250 | |
| | MW9B-062416 | 6/24/2016 | - | | <100 | | <250 | |
| | MW-9B-0117 | 1/30/2017 | - | | <250 | | <500 | |
| | MW-9B-0617 | 6/29/2017 | - | | <200 | | <250 | |
| | MW-9B-0118 | 1/15/2018 | - | | <200 | | <250 | |
| | MW-9B-0718 | 7/10/2018 | - | | <200 | | <250 | |
| | MW-9B-0119 | 1/17/2019 | - | | <200 | | <250 | |
| **MW-10A** | MW-10A-GW | 9/10/2015 | **2,590** | | **14,700** | | <5,000 | |
| | MW-10A-121115 | 12/11/2015 | **2,890** | | **8,620** | | **1,610** | |
| | MW10A-032916 | 3/29/2016 | **-** | | **9,980** | | **1,590** | |
| | MW10A-062416 | 6/24/2016 | **-** | | **66,900** | | **33,200** | |
| | MW10A-013017 | 1/30/2017 | **-** | | **11,000** | | **1,930** | J |
| | MW10A-0417 | 4/25/2017 | **-** | | **8,820** | | **589** | J |
| | MW-10A-0617 | 6/28/2017 | **-** | | **17,800** | | **1,800** | J |
| | MW-10A-1017 | 10/23/2017 | **-** | | **29,400** | | **2,430** | |
| | MW-10A-0118 | 1/15/2018 | **-** | | **7,970** | | **1,850** | |
| | MW-10A-0418 | 4/10/2018 | **-** | | **14,700** | | **3,530** | |
| | MW-10A-0718 | 7/10/2018 | **-** | | **30,500** | | **3,510** | |
| | MW-10A-1018 | 10/24/2018 | **-** | | **35,200** | | **3,790** | |
| | MW-10A-0119 | 1/17/2019 | **-** | | **16,700** | | **2,720** | |
| | MW-10A-0419 | 4/15/2019 | **-** | | **8,830** | | **1,930** | |

## Table AG-3: Total Petroleum Hydrocarbons (TPH)
## Quarterly Groundwater Monitoring Summary Tables

| Sample Location | Sample Label | Sample Date | Total Petroleum Hydrocarbons [A] (µg/L) | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | TPH-Gx Gasoline Range | | TPH-Dx Diesel Range | | TPH-Dx Heavy Oil Range | |
| | | | Value | Qual | Value | Qual | Value | Qual |
| **SLR Groundwater Monitoring Well Sampling** | | | | | | | | |
| **MW-10B** | MW-10B-GW | 9/10/2015 | **300** | | **1,410** | | <250 | |
| | MW-10B-121115 | 12/11/2015 | **189** | | **809** | | <250 | |
| | MW10B-032916 | 3/29/2016 | - | | **457** | | <250 | |
| | MW10B-062416 | 6/24/2016 | - | | **518** | | **234** | J |
| | MW-10B-1016 | 10/6/2016 | - | | **294** | | <165 | |
| | MW-10B-0117 | 1/30/2017 | - | | **332** | | <500 | |
| | MW-10B-0417 | 4/25/2017 | - | | **222** | | <250 | |
| | MW-10B-0617 | 6/28/2017 | - | | **259** | | <250 | |
| | MW-10B-1017 | 10/23/2017 | - | | **192** | J | <250 | |
| | MW-10B-0118 | 1/15/2018 | - | | **139** | J | <250 | |
| | MW-10B-0418 | 4/10/2018 | - | | **140** | J | <250 | |
| | MW-10B-0718 | 7/10/2018 | - | | **66** | J | <250 | |
| | MW-10B-1018 | 10/24/2018 | - | | **298** | | <250 | |
| | MW-10B-0119 | 1/17/2019 | - | | **91** | J | <250 | |
| | MW-10B-0419 | 4/15/2019 | - | | **76** | J | <250 | |
| **MW-11A** | MW-11A-0719 | 7/30/2019 | - | | **584** | | **176** | J |
| | MW-11A-0220 | 2/19/2020 | - | | <200 | | <250 | |
| **MW-17** | MW-17-0719 | 7/30/2019 | - | | **251** | | **119** | J |

Notes
Bold indicates detected at or above the practical quantitation limit (PQL)
<2.0 indicates not detected above the laboratory PQL of 2.0 micrograms per liter (µg/L)
A - Total Petroleum Hydrocarbons (TPH) per NWTPH-Gx and NWTPH-Dx methodologies

Laboratory Qualifiers
J - The identification of the analyte is acceptable; the reported value is an estimate.

**Table AG-4: Carcinogenic Polynuclear Aromatic Hydrocarbons (cPAHs)**
**Quarterly Groundwater Monitoring Summary Tables**

| Sample Location | Sample Label | Sample Date | Polynuclear Aromatic Compounds (PAHs) [A] (µg/L) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Carcinogenic PAHs | | | | | | | | | | | | | | cPAH TEQ [B] | |
| | | | Benzo(a) anthracene | | Benzo(a) pyrene | | Benzo(b) fluoranthene | | Benzo(k) fluoranthene | | Chrysene | | Dibenzo(a,h) anthracene | | Indeno (1,2,3-cd) pyrene | | U = 0 | U = 1/2 |
| | | | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | | |
| MW-1 | MW-1-GW | 9/9/2015 | **0.009** | J | <0.05 | | **0.003** | J | <0.05 | | <0.05 | | <0.05 | | <0.05 | | **0.001** | **0.034** |
| | MW-1-1215 | 12/10/2015 | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | ND | **0.038** |
| | MW-1-0719 | 7/31/2019 | **0.019** | | **0.017** | | **0.019** | | **0.019** | | **0.021** | | **0.016** | | **0.018** | | **0.026** | **0.026** |
| MW-2 | MW-2-GW | 9/10/2015 | **0.008** | J | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | **0.001** | **0.036** |
| | MW-2-121115 | 12/11/2015 | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | ND | **0.038** |
| | MW2-032916 | 3/29/2016 | **0.009** | J | <0.05 | | **0.003** | J | <0.05 | | <0.05 | | <0.05 | | <0.05 | | **0.001** | **0.034** |
| | MW-2-0719 | 7/30/2019 | <0.01 | | <0.01 | | **0.0008** | J | <0.01 | | **0.001** | J | <0.01 | | <0.01 | | **0.0001** | **0.0071** |
| MW-3 | MW-3-121115 | 12/11/2015 | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | ND | **0.038** |
| | MW3-032916 | 3/29/2016 | **0.013** | J | <0.05 | | **0.005** | J | <0.05 | | <0.05 | | <0.05 | | <0.05 | | **0.002** | **0.034** |
| | MW-3-0719 | 7/31/2019 | **0.002** | J | **0.003** | J | **0.003** | J | <0.01 | | **0.004** | J | <0.01 | | **0.002** | J | **0.005** | **0.005** |
| MW-4 | MW-4-GW | 9/9/2015 | **0.008** | J | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | **0.001** | **0.036** |
| | MW-4-1215 | 12/10/2015 | **0.005** | J | <0.05 | | **0.01** | J | <0.05 | | <0.05 | | <0.05 | | <0.05 | | **0.002** | **0.034** |
| | MW4-032816 | 3/28/2016 | <0.05 | | <0.05 | | **0.002** | J | <0.05 | | <0.05 | | <0.05 | | <0.05 | | **0.0002** | **0.035** |
| | MW4-062316 | 6/23/2016 | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | ND | **0.038** |
| | MW-4-0719 | 7/30/2019 | **0.001** | J | <0.01 | | **0.001** | J | <0.01 | | **0.002** | J | <0.01 | | <0.01 | | **0.0002** | **0.007** |
| MW-5 | MW-5-GW | 9/9/2015 | **0.36** | | **0.17** | | **0.20** | | **0.093** | | **1.0** | | **0.049** | J | **0.095** | | **0.26** | **0.26** |
| | MW-5-121115 | 12/11/2015 | **0.077** | | **0.033** | J | **0.041** | J | **0.0156** | J | **0.054** | | **0.012** | J | **0.015** | J | **0.050** | **0.050** |
| | MW5-032816 | 3/29/2016 | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | ND | **0.038** |
| | MW5-062316 | 6/23/2016 | **1.8** | | **0.90** | | **1.1** | | **0.32** | | **1.1** | | **0.095** | J | **0.26** | | **1.3** | **1.3** |
| | MW5-0117 | 1/30/2017 | **23** | | **13** | | **17** | | **7.0** | | **19** | | <0.05 | | **4.8** | | **18** | **18** |
| | MW-5-0617 | 6/29/2017 | **0.60** | | **0.18** | | **0.29** | | **0.070** | B | **0.31** | | **0.019** | J,B | **0.058** | | **0.29** | **0.29** |
| | MW-5-0118 | 1/15/2018 | **2.3** | | **1.4** | | **1.9** | | **0.60** | | **1.3** | | **0.18** | | **0.50** | | **1.9** | **1.9** |
| | MW-5-0718 | 7/9/2018 | **1.0** | | **0.46** | | **0.68** | | **0.18** | | **0.57** | | **0.054** | | **0.16** | | **0.65** | **0.65** |
| | MW-5-0119 | 1/17/2019 | **3.4** | | **1.9** | | **2.6** | | **0.72** | | **2.3** | | **0.22** | | **0.74** | | **2.7** | **2.7** |
| MW-6 | MW-6-GW | 9/9/2015 | **0.007** | J | <0.05 | | **0.002** | J | <0.05 | | <0.05 | | <0.05 | | <0.05 | | **0.001** | **0.034** |
| | MW-6-1215 | 12/10/2015 | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | ND | **0.038** |
| | MW6-032916 | 3/29/2016 | **0.012** | J | <0.05 | | **0.006** | J | <0.05 | | <0.05 | | <0.05 | | <0.05 | | **0.002** | **0.035** |
| | MW6-062316 | 6/23/2016 | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | ND | **0.038** |
| | MW-6-0117 | 1/31/2017 | <0.05 | | <0.05 | | **0.008** | J | <0.05 | | <0.05 | | <0.05 | | <0.05 | | **0.001** | **0.071** |
| | MW-6-0617 | 6/29/2017 | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | ND | **0.038** |
| | MW-6-0118 | 1/15/2018 | <0.095 | | <0.095 | | **0.006** | J,B | <0.095 | | <0.095 | | <0.095 | | <0.095 | | **0.001** | **0.068** |
| | MW-6-0718 | 7/10/2018 | **0.27** | | **0.12** | | **0.18** | | **0.060** | | **0.24** | | **0.009** | J | **0.029** | | **0.17** | **0.17** |
| | MW-6-0119 | 1/17/2019 | <0.0041 | | <0.0116 | | **0.005** | J,B | <0.0136 | | <0.0108 | | <0.00396 | | <0.0148 | | **0.001** | **0.008** |
| | MW-6-0719 | 7/31/2019 | **0.005** | J | **0.005** | J | **0.006** | J | **0.005** | J | **0.006** | J | **0.004** | J | **0.005** | J | **0.008** | **0.008** |

**Table AG-4: Carcinogenic Polynuclear Aromatic Hydrocarbons (cPAHs)**
**Quarterly Groundwater Monitoring Summary Tables**

| Sample Location | Sample Label | Sample Date | Polynuclear Aromatic Compounds (PAHs) [A] (µg/L) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Carcinogenic PAHs | | | | | | | | | | | | | | cPAH TEQ [B] | |
| | | | Benzo(a) anthracene | | Benzo(a) pyrene | | Benzo(b) fluoranthene | | Benzo(k) fluoranthene | | Chrysene | | Dibenzo(a,h) anthracene | | Indeno (1,2,3-cd) pyrene | | U = 0 | U = 1/2 |
| | | | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | | |
| MW-7 | MW-7-GW | 9/9/2015 | **0.013** | J | <0.05 | | **0.003** | J | <0.05 | | <0.05 | | <0.05 | | <0.05 | | **0.002** | **0.034** |
| | MW-7-1215 | 12/10/2015 | **0.00999** | J | <0.05 | | **0.007** | J | <0.05 | | <0.05 | | <0.05 | | <0.05 | | **0.002** | **0.034** |
| | MW7-032816 | 3/28/2016 | **0.009** | J | <0.05 | | **0.004** | J | <0.05 | | <0.05 | | <0.05 | | <0.05 | | **0.001** | **0.034** |
| | MW7-062416 | 6/24/2016 | <0.05 | | <0.05 | | **0.003** | J,B | <0.05 | | <0.05 | | <0.05 | | <0.05 | | **0.0003** | **0.036** |
| | MW-7-0117 | 1/31/2017 | <0.05 | | <0.05 | | **0.003** | J | <0.05 | | <0.05 | | <0.05 | | <0.05 | | **0.0003** | **0.036** |
| | MW-7-0617 | 6/29/2017 | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | ND | **0.038** |
| | MW-7-0118 | 1/15/2018 | <0.05 | | <0.05 | | **0.005** | J,B | <0.05 | | <0.05 | | <0.05 | | <0.05 | | **0.0005** | **0.036** |
| | MW-7-0718 | 7/10/2018 | **0.047** | J | **0.022** | J | **0.029** | J | <0.05 | | **0.052** | | <0.05 | | <0.05 | | **0.03** | **0.04** |
| | MW-7-0119 | 1/17/2019 | **0.029** | J | **0.014** | J | **0.020** | J,B | <0.0136 | | **0.019** | J | <0.00394 | | <0.0148 | | **0.02** | **0.02** |
| | MW-7-0719 | 7/30/2019 | **0.001** | J | **<0.01** | | **0.001** | J | <0.01 | | **0.002** | J | <0.01 | | <0.01 | | **0.0002** | **0.007** |
| MW-8A | MW-8A-GW | 9/9/2015 | **7.9** | | **4.9** | | **5.4** | | **2.1** | J | **9.9** | | **0.63** | J | **1.5** | J | **6.7** | **6.7** |
| | MW-8A-121115 | 12/11/2015 | **6.6** | | **4.2** | | **5.0** | | **2.2** | | **6.2** | | **0.627** | | **1.5** | | **5.9** | **5.9** |
| | MW8A-032816 | 3/28/2016 | **3.0** | **J** | <5.0 | | **1.7** | **J** | <5.0 | | **1.9** | **J** | <5.0 | | <5.0 | | **0.49** | **3.7** |
| | MW8A-062416 | 6/24/2016 | **17** | | **9.3** | | **13** | | **5.4** | | **14** | | **1.0** | J | **2.7** | J | **13** | **13** |
| | MW-8A-1016 | 10/6/2016 | **8.0** | | **6.4** | | **7.5** | | **3.0** | | **10** | | **0.956** | J | **2.0** | | **8.6** | **8.6** |
| | MW-8A-0117 | 1/31/2017 | **2,020** | | **1,110** | | **1,580** | | **533** | | **1,300** | | **21** | | **426** | | **1,581** | **1,581** |
| | MW-8A-0417 | 4/25/2017 | **71** | | **37** | | **54** | | **19** | | **45** | | **6.6** | | **14** | | **54** | **54** |
| | MW-8A-0467 | 6/28/2017 | **5.1** | | **2.7** | | **3.6** | | **1.4** | | **4.7** | | **0.51** | | **0.99** | | **3.9** | **3.9** |
| | MW-8A-1017 | 10/23/2017 | **4.3** | | **2.2** | | **3.1** | | **0.87** | | **3.1** | | <0.1 | | **0.67** | | **3.1** | **3.1** |
| | MW-8A-0118 | 1/16/2018 | **9.0** | | **1.1** | | **6.6** | | **2.7** | | **7.1** | | **1.4** | | **1.7** | | **3.3** | **3.3** |
| | MW-8A-0418 | 4/10/2018 | **204** | | **97** | | **147** | | **39** | | **127** | | **20** | | **42** | | **143** | **143** |
| | MW-8A-0718 | 7/9/2018 | **11** | | **5.4** | | **7.5** | | **2.8** | | **10** | | **0.85** | | **1.9** | | **7.9** | **7.9** |
| | MW-8A-1018 | 10/24/2018 | **357** | | **160** | | **243** | | **78** | | **199** | | **23** | | **61** | | **238** | **238** |
| | MW-8A-0119 | 1/17/2019 | **28** | | **15** | | **22** | | **5.1** | | **18** | | **1.8** | | **6.3** | | **21** | **21** |
| | MW-8A-0419 | 4/15/2019 | **4.3** | | **2.4** | | **3.5** | | **1.2** | | **3.4** | | **0.42** | | **0.90** | | **3.5** | **3.5** |
| MW-8B | MW-8B-GW | 9/9/2015 | **7.3** | | **3.2** | J | **4.1** | J | **1.6** | J | **5.3** | | <5 | | <5 | | **4.6** | **5.1** |
| | MW-8B-121115 | 12/11/2015 | **1,830** | | **998** | | **1,320** | | **463** | | **1,460** | | **128** | | **300** | | **1,417** | **1,417** |
| | MW8B-032816 | 3/28/2016 | **232** | | **131** | | **202** | | **51** | | **191** | | <1.0 | | **45** | | **186** | **186** |
| | MW8B-062416 | 6/24/2016 | **3.3** | | **2.0** | J | **2.6** | | **1.0** | J | **2.3** | | <2 | | <2 | | **2.7** | **2.9** |
| | MW-8B-1016 | 10/6/2016 | **13** | J | **9.5** | J | **10** | J | <25 | | **14** | J | <25 | | <25 | | **12** | **16** |
| | MW-8B-0117 | 1/31/2017 | **24** | | **13** | | **17** | | **6.7** | | **19** | | <0.1 | | **5.1** | | **18** | **18** |
| | MW-8B-0417 | 4/25/2017 | **19** | | **11** | | **13** | | **6.5** | | **17** | | <0.05 | | **4.5** | | **15** | **15** |
| | MW-8B-0617 | 6/28/2017 | **28** | | **15** | | **25** | | **7.0** | | **21** | | **2.1** | | **5.6** | | **22** | **22** |
| | MW-8B-1017 | 10/23/2017 | **8.6** | J | **5.6** | J | **7.6** | J | **5.0** | J | **7.9** | J | **2.1** | J | <10 | | **8.0** | **8.5** |
| | MW-8B-0118 | 1/16/2018 | **16** | | **9.0** | | **13** | | **3.8** | | **13** | | **1.5** | | **3.7** | | **13** | **13** |
| | MW-8B-0418 | 4/10/2018 | **52** | | **31** | | **44** | | **16** | | **44** | | **6.3** | | **13** | | **44** | **44** |
| | MW-8B-0718 | 7/9/2018 | **19** | | **10** | | **15** | | **3.8** | | **17** | | **1.7** | | **3.7** | | **14** | **14** |
| | MW-8B-1018 | 10/24/2018 | **61** | | **28** | | **43** | | **12** | | **52** | | **3.5** | | **9.1** | | **41** | **41** |
| | MW-8B-0119 | 1/17/2019 | **109** | | **61** | | **80** | | **30** | | **84** | | **7.8** | | **23.7** | | **87** | **87** |
| | MW-8B-0419 | 4/15/2019 | **19** | | **11** | | **17** | | **4.2** | | **15** | | **1.0** | | **3.1** | | **16** | **16** |

**Table AG-4: Carcinogenic Polynuclear Aromatic Hydrocarbons (cPAHs)**
**Quarterly Groundwater Monitoring Summary Tables**

| Sample Location | Sample Label | Sample Date | Polynuclear Aromatic Compounds (PAHs) [A] (µg/L) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Carcinogenic PAHs | | | | | | | | | | | | | | cPAH TEQ [B] | |
| | | | Benzo(a) anthracene | | Benzo(a) pyrene | | Benzo(b) fluoranthene | | Benzo(k) fluoranthene | | Chrysene | | Dibenzo(a,h) anthracene | | Indeno (1,2,3-cd) pyrene | | U = 0 | U = 1/2 |
| | | | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | | |
| MW-9A | MW-9A-GW | 9/10/2015 | **0.040** | J | <0.05 | | **0.012** | J | <0.05 | | **0.023** | J | <0.05 | | <0.05 | | **0.005** | **0.038** |
| | MW-9A-1215 | 12/10/2015 | **0.034** | J | **0.024** | J | **0.036** | J | <0.05 | | **0.043** | J | <0.05 | | <0.05 | | **0.031** | **0.038** |
| | MW9A-032916 | 3/29/2016 | **0.026** | J | **0.0126** | J | **0.020** | J | <0.05 | | **0.019** | J | <0.05 | | <0.05 | | **0.017** | **0.025** |
| | MW9A-062416 | 6/24/2016 | **0.031** | J,B | <0.05 | | **0.009** | J,B | <0.05 | | **0.018** | J | <0.05 | | <0.05 | | **0.004** | **0.037** |
| | MW-9A-0117 | 1/30/2017 | **0.060** | | **0.0306** | J | **0.047** | J | **0.0155** | J | **0.061** | | <0.05 | | **0.017** | J | **0.045** | **0.048** |
| | MW-9A-0617 | 6/29/2017 | **0.032** | J,B | **0.061** | B | **0.011** | J,B | <0.05 | | **0.020** | J,B | <0.05 | | <0.05 | | **0.065** | **0.073** |
| | MW-9A-0118 | 1/15/2018 | **0.236** | | **0.044** | J | **0.069** | | **0.0258** | J | **0.147** | | **0.005** | J | <0.05 | | **0.14** | **0.14** |
| | MW-9A-0718 | 7/10/2018 | **0.039** | J | <0.05 | | **0.015** | J | <0.05 | | **0.021** | J | <0.05 | | <0.05 | | **0.01** | **0.04** |
| | MW-9A-0119 | 1/17/2019 | **0.053** | | **0.018** | J | **0.025** | J,B | <0.0136 | | **0.039** | J | <0.00396 | | <0.0148 | | **0.03** | **0.03** |
| | MW-9A-0719 | 7/31/2019 | **0.014** | | **0.003** | J | **0.004** | J | <0.01 | | **0.015** | | <0.01 | | **0.001** | J | **0.005** | **0.006** |
| MW-9B | MW-9B-GW | 9/10/2015 | **0.036** | J | **0.018** | J | **0.024** | J | <0.05 | | **0.032** | J | <0.05 | | <0.05 | | **0.026** | **0.028** |
| | MW-9B-1215 | 12/10/2015 | **0.011** | J | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | **0.001** | **0.036** |
| | MW9B-032916 | 3/29/2016 | **0.011** | J | <0.05 | | **0.004** | J | <0.05 | | <0.05 | | <0.05 | | <0.05 | | **0.002** | **0.034** |
| | MW9B-062416 | 6/24/2016 | **0.011** | J,B | <0.05 | | **0.004** | J,B | <0.05 | | <0.05 | | <0.05 | | <0.05 | | **0.002** | **0.034** |
| | MW-9B-0117 | 1/30/2017 | <0.05 | | <0.05 | | **0.007** | J | <0.05 | | **0.012** | J | <0.05 | | <0.05 | | **0.001** | **0.036** |
| | MW-9B-0617 | 6/29/2017 | **0.008** | J,B | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | <0.05 | | **0.001** | **0.036** |
| | MW-9B-0118 | 1/15/2018 | **0.051** | | **0.012** | J | **0.018** | J,B | <0.05 | | **0.028** | J | **0.005** | J,B | <0.05 | | **0.020** | **0.025** |
| | MW-9B-0718 | 7/10/2018 | **0.041** | J | <0.05 | | **0.019** | J | <0.05 | | **0.028** | J | <0.05 | | <0.05 | | **0.01** | **0.04** |
| | MW-9B-0119 | 1/17/2019 | **0.023** | J | <0.0116 | | **0.012** | J,B | <0.0136 | | **0.013** | J | <0.00396 | | <0.0148 | | **0.004** | **0.01** |
| | MW-9B-0719 | 7/31/2019 | **0.024** | | **0.016** | | **0.015** | | **0.009** | J | **0.024** | | **0.003** | J | **0.007** | J | **0.022** | **0.022** |
| MW-10A | MW-10A-GW | 9/10/2015 | **11** | | **6.8** | | **8.5** | | **2.6** | | **8.1** | | **0.87** | | **2.2** | | **9.4** | **9.4** |
| | MW-10A-121115 | 12/11/2015 | **37** | | **22** | | **29** | | **8.7** | | **26** | | **2.4** | | **6.4** | | **30** | **30** |
| | MW10A-032916 | 3/29/2016 | **1,060** | | **601** | | **723** | | **296** | | **822** | | **70** | | **181** | | **842** | **842** |
| | MW10A-062416 | 6/24/2016 | **31** | | **20** | | **26** | | **12** | | **28** | | **1.9** | J | **5.7** | | **28** | **28** |
| | MW10A-0117 | 1/30/2017 | **35** | | **14** | J | **26** | | **13** | J | **34** | | <25 | | <25 | | **22** | **25** |
| | MW-10A-0617 | 6/28/2017 | **11** | | **5.2** | | **7.9** | | **2.5** | | **6.9** | | **0.66** | | **1.9** | | **7.7** | **7.7** |
| | MW-10A-0118 | 1/15/2018 | **28** | | **15** | | **21** | | **6.7** | | **20** | | **1.8** | | **4.7** | | **21** | **21** |
| | MW-10A-0718 | 7/10/2018 | **84** | | **45** | | **58** | | **24** | | **62** | | **6.1** | | **16** | | **64** | **64** |
| | MW-10A-0119 | 1/17/2019 | **1,050** | | **531** | | **707** | | **202** | | **756** | | **65** | | **221** | | **763** | **763** |

**Table AG-4: Carcinogenic Polynuclear Aromatic Hydrocarbons (cPAHs)**
**Quarterly Groundwater Monitoring Summary Tables**

| Sample Location | Sample Label | Sample Date | Polynuclear Aromatic Compounds (PAHs) [A] (µg/L) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Carcinogenic PAHs | | | | | | | | | | | | | | cPAH TEQ [B] | |
| | | | Benzo(a) anthracene | | Benzo(a) pyrene | | Benzo(b) fluoranthene | | Benzo(k) fluoranthene | | Chrysene | | Dibenzo(a,h) anthracene | | Indeno (1,2,3-cd) pyrene | | U = 0 | U = 1/2 |
| | | | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | | |
| MW-10B | MW-10B-GW | 9/10/2015 | **1.0** | | **0.25** | | **0.30** | | **0.12** | | **0.58** | | <0.05 | | **0.055** | | **0.40** | **0.41** |
| | MW-10B-121115 | 12/11/2015 | **0.57** | | **0.095** | | **0.12** | | **0.047** | J | **0.34** | | <0.05 | | **0.021** | J | **0.17** | **0.18** |
| | MW10B-032916 | 3/29/2016 | **0.58** | | **0.090** | | **0.13** | | **0.0662** | | **0.26** | | <0.05 | | **0.028** | J | **0.17** | **0.18** |
| | MW10B-062416 | 6/24/2016 | **0.63** | | **0.056** | | **0.10** | | **0.0366** | J | **0.25** | | <0.05 | | <0.05 | | **0.13** | **0.14** |
| | MW10B-0117 | 1/30/2017 | **1.7** | | **0.62** | | **0.88** | | **0.33** | | **1.2** | | <0.05 | | **0.21** | | **0.95** | **0.95** |
| | MW-10B-0617 | 6/28/2017 | **0.66** | | **0.090** | B | **0.18** | B | **0.0627** | B | **0.35** | | <0.05 | | **0.023** | J | **0.19** | **0.19** |
| | MW-10B-0118 | 1/15/2018 | **0.91** | | **0.23** | | **0.36** | | **0.12** | | **0.63** | | **0.029** | J | **0.073** | | **0.39** | **0.39** |
| | MW-10B-0718 | 7/10/2018 | **0.29** | | **0.064** | | **0.11** | | **0.041** | J | **0.16** | | <0.05 | | **0.017** | J | **0.11** | **0.11** |
| | MW-10B-0119 | 1/17/2019 | **0.19** | | **0.22** | | **0.29** | | **0.098** | | **0.28** | | **0.019** | J | **0.086** | | **0.29** | **0.29** |
| **MW-11A** | MW-11A-0719 | 7/30/2019 | **0.004** | J | **0.004** | J | **0.005** | J | **0.004** | J | **0.005** | J | **0.004** | J | **0.004** | J | **0.006** | **0.006** |
| **MW-13** | MW-13-0719 | 8/1/2019 | **0.007** | J | **0.006** | J | **0.006** | J | **0.006** | J | **0.009** | J | **0.005** | J | **0.005** | J | **0.009** | **0.009** |
| **MW-15** | MW-15-0719 | 7/31/2019 | <0.01 | | <0.01 | | <0.01 | | <0.01 | | **0.001** | J | <0.01 | | <0.01 | | **0.00001** | **0.008** |

Notes
Bold indicates detected at or above the practical quantitation limit (PQL)
<2.0 indicates not detected above the laboratory PQL of 2.0 micrograms per liter (µg/L)
A - Carcinogenic Polynuclear Aromatic Hydrocarbons (cPAHs) EPA 8270-SIM Method (8270-LL method beginning with July 2019)
B - Toxic equivalent quotient (TEQ) values using a value of 0 for non-detect results (U=0) or using a value of 1/2 detection limit for non-detect results (U=1/2)

Laboratory Qualifiers
B - The same analyte is found in the associated blank.
J - The identification of the analyte is acceptable; the reported value is an estimate.

**Table AG-5: Volatile Organic Compounds (VOCs)**
**Quarterly Groundwater Monitoring Summary Tables**

| Sample Location | Sample Label | Sample Date | Volatile Organic Compounds (VOCs) [A] (µg/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Benzene | | Ethylbenzene | | Naphthalene | | Toluene | | 1,2,4-Trimethyl benzene | | Xylenes | |
| | | | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual |
| **SLR Monitoring Well Sampling Event** | | | | | | | | | | | | | | |
| **MW-1** | MW-1-GW | 9/9/2015 | <0.50 | | <0.50 | | <0.50 | | <0.50 | | <0.50 | | <1.5 | |
| | MW-1-1215 | 12/10/2015 | <1 | | <1 | | <5 | | <5 | | <1 | | <3 | |
| **MW-2** | MW-2-GW | 9/10/2015 | <0.50 | | <0.50 | | <0.50 | | <0.50 | | <0.50 | | <1.5 | |
| | MW-2-121115 | 12/11/2015 | <1 | | <1 | | **1.1** | J | <5 | | <1 | | <3 | |
| **MW-3** | -- [B] | -- | -- | | -- | | -- | | -- | | -- | | -- | |
| | MW-3-121115 | 12/11/2015 | <1 | | <1 | | <5 | | <5 | | <1 | | <3 | |
| **MW-4** | MW-4-GW | 9/9/2015 | <0.50 | | <0.50 | | <0.50 | | <0.50 | | <0.50 | | <1.5 | |
| | MW-4-1215 | 12/10/2015 | <1 | | <1 | | <5 | | <5 | | <1 | | <3 | |
| | MW4-062316 | 6/23/2016 | -- | | -- | | <0.25 | | -- | | -- | | -- | |
| **MW-5** | MW-5-GW | 9/9/2015 | **0.55** | | <0.50 | | **153** | | <0.50 | | **0.71** | | <1.5 | |
| | MW-5-121115 | 12/11/2015 | <1 | | <1 | | **21** | | <5 | | <1 | | <3 | |
| | MW5-062316 | 6/23/2016 | <1 | | -- | | **300** | | -- | | -- | | -- | |
| | MW5-0117 | 1/30/2017 | <1 | | -- | | **81** | | -- | | -- | | -- | |
| | MW-5-0617 | 6/29/2017 | **0.20** | J | -- | | **1,110** | J0 | -- | | -- | | -- | |
| | MW-5-0118 | 1/15/2018 | **0.61** | | -- | | **47** | | -- | | -- | | -- | |
| | MW-5-0718 | 7/9/2018 | <0.50 | | -- | | **312** | | -- | | -- | | -- | |
| | MW-5-0119 | 1/17/2019 | <0.50 | | -- | | **44** | | -- | | -- | | -- | |
| **MW-6** | MW-6-GW | 9/9/2015 | <0.50 | | <0.50 | | <0.50 | | <0.50 | | <0.50 | | <1.5 | |
| | MW-6-1215 | 12/10/2015 | <1 | | <1 | | <5 | | <5 | | <1 | | <3 | |
| | MW6-02316 | 6/23/2016 | <1 | | -- | | **0.0199** | J | -- | | -- | | -- | |
| **MW-7** | MW-7-GW | 9/9/2015 | <0.50 | | <0.50 | | <0.50 | | <0.50 | | <0.50 | | <1.5 | |
| | MW-7-1215 | 12/10/2015 | <1 | | <1 | | <5 | | <5 | | <1 | | <3 | |
| | MW7-062416 | 6/24/2016 | <1 | | -- | | **3.82** | | -- | | -- | | -- | |
| **MW-8A** | MW-8A-GW | 9/9/2015 | **36** | | **40** | | **11,600** | | **73** | | **38** | | **110** | |
| | MW-8A-121115 | 12/11/2015 | **14** | | **28** | | **11,700** | | **35** | | **38** | | **81** | |
| | MW8A-062416 | 6/24/2016 | **43** | | -- | | **11,000** | | -- | | -- | | -- | |
| | MW-8A-1016 | 10/6/2016 | **62** | | -- | | **10,500** | | -- | | -- | | -- | |
| | MW-8A-0117 | 1/31/2017 | <250 | | -- | | **12,700** | | -- | | -- | | -- | |
| | MW-8A-0417 | 4/25/2017 | **22** | | -- | | **11,900** | | -- | | -- | | -- | |
| | MW-8A-0617 | 6/28/2017 | **36** | J | -- | | **12,900** | | -- | | -- | | -- | |
| | MW-8A-1017 | 10/23/2017 | **137** | | -- | | **14,000** | | -- | | -- | | -- | |
| | MW-8A-0118 | 1/16/2018 | <125 | | -- | | **14,100** | | -- | | -- | | -- | |
| | MW-8A-0418 | 4/10/2018 | <125 | | -- | | **11,500** | | -- | | -- | | -- | |
| | MW-8A-0718 | 7/9/2018 | **38** | | -- | | **14,000** | | -- | | -- | | -- | |
| | MW-8A-1018 | 10/24/2018 | **160** | | -- | | **14,400** | | -- | | -- | | -- | |
| | MW-8A-0119 | 1/17/2019 | **90** | | -- | | **12,000** | | -- | | -- | | -- | |
| | MW-8A-0419 | 4/15/2019 | **45** | | -- | | **12,000** | | -- | | -- | | -- | |
| **MW-8B** | MW-8B-GW | 9/9/2015 | **98** | | **59** | | **11,000** | | **154** | | **37** | | **133** | |
| | MW-8B-121115 | 12/11/2015 | **125** | | **62** | | **10,700** | | **169** | | **30** | | **132** | |
| | MW8B-062416 | 6/24/2016 | **99** | | -- | | **8,650** | | -- | | -- | | -- | |
| | MW-8B-1016 | 10/6/2016 | **109** | | -- | | **11,900** | | -- | | -- | | -- | |
| | MW-8B-0117 | 1/31/2017 | **111** | | -- | | **12,600** | | -- | | -- | | -- | |
| | MW-8B-0417 | 4/25/2017 | **99** | | -- | | **10,100** | J0 | -- | | -- | | -- | |
| | MW-8B-0617 | 6/28/2017 | **107** | | -- | | **12,400** | J0 | -- | | -- | | -- | |
| | MW-8B-1017 | 10/23/2017 | **119** | | -- | | **13,700** | | -- | | -- | | -- | |
| | MW-8B-0118 | 1/16/2018 | **101** | J | -- | | **13,100** | | -- | | -- | | -- | |
| | MW-8B-0418 | 4/10/2018 | **116** | J | -- | | **11,800** | | -- | | -- | | -- | |
| | MW-8B-0718 | 7/9/2018 | **113** | | -- | | **14,900** | | -- | | -- | | -- | |
| | MW-8B-1018 | 10/24/2018 | **109** | | -- | | **15,900** | | -- | | -- | | -- | |
| | MW-8B-0119 | 1/17/2019 | **123** | | -- | | **12,800** | | -- | | -- | | -- | |
| | MW-8B-0419 | 4/15/2019 | **119** | | -- | | **12,900** | | -- | | -- | | -- | |
| **MW-9A** | MW-9A-GW | 9/10/2015 | <0.50 | | <0.50 | | **4.5** | | <0.50 | | **0.36** | J | <1.5 | |
| | MW-9A-1215 | 12/10/2015 | <1 | | <1 | | <5 | | <5 | | <1 | | <3 | |
| | MW9A-062416 | 6/24/2016 | <1 | | -- | | **0.079** | J | -- | | -- | | -- | |

**Table AG-5: Volatile Organic Compounds (VOCs)**
**Quarterly Groundwater Monitoring Summary Tables**

| Sample Location | Sample Label | Sample Date | Volatile Organic Compounds (VOCs) [A] (µg/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Benzene | | Ethylbenzene | | Naphthalene | | Toluene | | 1,2,4-Trimethyl benzene | | Xylenes | |
| | | | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual |
| MW-9B | MW-9B-GW | 9/10/2015 | <0.50 | | <0.50 | | **0.81** | | <0.50 | | <0.50 | | <1.5 | |
| | MW-9B-1215 | 12/10/2015 | <1 | | <1 | | <5 | | <5 | | <1 | | <3 | |
| | MW9B-062416 | 6/24/2016 | <1 | | -- | | **0.071** | J | -- | | -- | | -- | |
| MW-10A | MW-10A-GW | 9/10/2015 | **50** | | **88** | | **8,030** | | **126** | | **38** | | **140** | |
| | MW-10A-121115 | 12/11/2015 | **1.9** | J | **15** | | **2,590** | | **9** | J | **13** | | **24** | |
| | MW10A-062416 | 6/24/2016 | **18** | | -- | | **5,730** | | -- | | -- | | -- | |
| | MW10A-0117 | 1/30/2017 | **11** | | -- | | **3,800** | | -- | | -- | | -- | |
| | MW10A-0617 | 6/28/2017 | **25** | | -- | | **5,530** | J0 | -- | | -- | | -- | |
| | MW10A-0118 | 1/15/2018 | **3.9** | J | | | **3,240** | | -- | | -- | | -- | |
| | MW10A-0718 | 7/10/2018 | **69** | | | | **8,480** | | -- | | -- | | -- | |
| | MW10A-0119 | 1/17/2019 | **13** | | | | **9,990** | | -- | | -- | | -- | |
| MW-10B | MW-10B-GW | 9/10/2015 | <0.50 | | **1.6** | | **548** | | **1.3** | | **2.8** | | **3.3** | |
| | MW-10B-121115 | 12/11/2015 | <1 | | <1 | | **137** | | <5 | | **0.52** | J | <3 | |
| | MW10B-062416 | 6/24/2016 | <1 | | -- | | **17** | | -- | | -- | | -- | |
| | MW10B-0117 | 1/30/2017 | <1 | | -- | | **315** | | -- | | -- | | -- | |
| | MW10B-0617 | 6/28/2017 | <12.5 | | -- | | **1,880** | J0 | -- | | -- | | -- | |
| | MW10B-0118 | 1/15/2018 | <0.50 | | -- | | **12** | | -- | | -- | | -- | |
| | MW10B-0718 | 7/10/2018 | <0.50 | | -- | | **142** | | -- | | -- | | -- | |
| | MW10B-0119 | 1/17/2019 | <0.50 | | -- | | **3.4** | | -- | | -- | | -- | |

Notes:
-- indicates Not Sampled or Not Analyzed for specific constituent
**BOLD** = Analytes detected at or above the practical quantitation limit (PQL)
<50 indicates not detected above the laboratory PQL of 50 µg/L (micrograms per Liter)
A - Select Volatile Organic Compounds (VOCs) per EPA Method 8260C
B - Monitoring Well MW-3 was not located during September 2015 sampling event

Laboratory Qualifiers
J - (EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.
J0 - Calibration verification outside of acceptance limits. Result is estimated.

**Table AG-6: Polychlorinated Biphenyls (PCBs)**
**Quarterly Groundwater Monitoring Summary Tables**

| Lab Sample ID | | | L1124839-01 | | L1124839-02 | | L1124839-03 | | L1124839-04 | | L1124839-05 | | L1124839-06 | | L1124839-07 | | L1124839-08 | | L1124839-09 | | L1124839-10 | | L1124839-11 | | L1124839-12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Field Sample ID | | | MW-1-0719 | | MW-2-0719 | | MW-3-0719 | | MW-4-0719 | | MW-5-0719 | | MW-6-0719 | | MW-7-0719 | | MW-8A-0719 | | MW-9A-0719 | | MW-10A-0719 | | MW-11A-0719 | | MW-12-0719 | |
| Date Collected | | | 7/31/2019 | | 7/31/2019 | | 7/31/2019 | | 7/31/2019 | | 07/30/2019 | | 07/31/2019 | | 07/30/2019 | | 07/30/2019 | | 07/31/2019 | | 07/31/2019 | | 07/30/2019 | | 08/01/2019 | |
| Method | Analyte | Units | Result | Qual | Result | Qual | Result | Qual | Result | Qual | Result | Qual | Result | Qual | Result | Qual | Result | Qual | Result | Qual | Result | Qual | Result | Qual | Result | Qual |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1668A | Total PCBs [B] | pg/L | ***150*** | *J* | **116** | *J* | **784** | *J* | **186** | *J* | **126** | *J* | **115** | *J* | **388** | *J* | **826** | *J* | **195** | *J* | **3,520** | *J* | **176** | *J* | **5,270** | |
| 1668A | TEQ: ND=0 | pg/L | ND | | ND | | ND | | ND | | ND | | ND | | ND | | **2.5** | | ***0.0003*** | | **1.1** | | ND | | **0.18** | |
| 1668A | TEQ: ND=1/2DL | pg/L | **0.099** | | **0.095** | | **0.12** | | **0.13** | | **0.14** | | **0.14** | | **0.17** | | **2.5** | | **0.16** | | **1.1** | | **0.104** | | **0.18** | |

| Lab Sample ID | | | L1124839-13 | | L1124839-14 | | L1096002-08 | | L1096002-06 | | L1124839-15 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Field Sample ID | | | MW-13-0719 | | MW-14-0719 | | MW-15-0719 | | MW-16-0719 | | MW-17-0719 | |
| Date Collected | | | 08/01/2019 | | 08/01/2019 | | 7/31/2019 | | 7/31/2019 | | 07/30/2019 | |
| Method | Analyte | Units | Result | Qual | Result | Qual | Result | Qual | Result | Qual | Result | Qual |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | | | | | | | |
| 1668A | Total PCBs [B] | pg/L | **5,980** | | **10,200** | | **222** | *J* | **238** | *J* | **181** | *J* |
| 1668A | TEQ: ND=0 | pg/L | **0.15** | | **0.16** | | ND | | ND | | ND | |
| 1668A | TEQ: ND=1/2DL | pg/L | **0.15** | | **0.16** | | **0.17** | | **0.096** | | **0.067** | |

Notes

Bold indicates detected at or above the practical quantitation limit (PQL)

<2.0 indicates not detected above the laboratory PQL of 2.0 picograms per liter (pg/L)

A - Preliminary Cleanup Levels (PCLs) developed in June 2016 (revised April 2019, as applicable)

B - Total PCBs is sum of 209 PCB Congeners

Laboratory Qualifiers

J - The reported result is an estimate.

## Table AG-7: Metals
## Quarterly Groundwater Monitoring Summary Tables

| Sample Location | Sample Label | Sample Date | Metals [A] (ug/L) | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Antimony | | Arsenic | | Beryllium | | Cadmium | | Chromium [B] | | Copper | | Lead | | Nickel | | Selenium | | Silver | | Thallium | | Zinc | | Mercury | |
| | | | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual |
| **SLR Monitoring Well Sampling Event** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **MW-1** | MW-1-0719 | 7/31/2019 | <2.0 | | **3.0** | | <2.0 | | <1.0 | | <2.0 | | **0.85** | J | **0.98** | J | <2.0 | | <2.0 | | <2.0 | | <2.0 | | **3.1** | J | <0.20 | |
| **MW-2** | MW-2-0719 | 7/30/2019 | <2.0 | | **2.3** | | <2.0 | | <1.0 | | **0.78** | J | **0.89** | J | <2.0 | | **0.57** | J | <2.0 | | <2.0 | | <2.0 | | <25 | | <0.20 | |
| **MW-3** | MW-3-0719 | 7/31/2019 | <2.0 | | <2.0 | | <2.0 | | <1.0 | | **1.1** | J | <5.0 | | <2.0 | | <2.0 | | <2.0 | | <2.0 | | <2.0 | | <25 | | <0.20 | |
| **MW-4** | MW-4-0719 | 7/30/2019 | <2.0 | | **0.82** | J | <2.0 | | <1.0 | | <2.0 | | **0.62** | J | <2.0 | | **1.2** | J | **0.42** | J | <2.0 | | <2.0 | | <25 | | <0.20 | |
| **MW-5** | MW-5-0719 | 7/30/2019 | <2.0 | | **0.29** | J | <2.0 | | <1.0 | | **13** | | **2.5** | J | <2.0 | | **0.84** | J | <2.0 | | <2.0 | | <2.0 | | <25 | | <0.20 | |
| **MW-6** | MW-6-0719 | 7/31/2019 | <2.0 | | **2.5** | | <2.0 | | <1.0 | | <2.0 | | **0.65** | J | **0.48** | J | **78** | | <2.0 | | <2.0 | | <2.0 | | **20** | J | <0.20 | |
| | MW-6-0220 | 2/19/2020 | <10 | | <10 | | <2.0 | | <2.0 | | <10 | | <10 | | **5.16** | | **43** | | <10 | | <5 | | **7.86** | **J** | <50 | | <0.20 | |
| | MW-6-0220 [d] | 2/19/2020 | <10 | | <10 | | <2.0 | | **0.776** | J | <10 | | **11** | | <5 | | **44** | | <10 | | <5 | | <10 | | **10** | J | <0.20 | |
| **MW-7** | MW-7-0719 | 7/30/2019 | <2.0 | | **14** | | <2.0 | | <1.0 | | **0.79** | J | **0.70** | J | <2.0 | | **6.6** | | <2.0 | | <2.0 | | <2.0 | | **7.3** | J | <0.20 | |
| | MW-7-0220 | 2/19/2020 | <10 | | <10 | | <2.0 | | <2.0 | | <10 | | <10 | | **3.92** | J | **5.7** | J | <10 | | <5 | | <10 | | **6.6** | J | <0.20 | |
| | MW-7-0220 [d] | 2/19/2020 | <10 | | <10 | | <2.0 | | <2.0 | | <10 | | **11** | | <5 | | **4.9** | J | <10 | | <5 | | <10 | | **10.6** | J | <0.20 | |
| **MW-8A** | MW-8A-0719 | 7/30/2019 | **5.6** | | **14** | | <2.0 | | <1.0 | | **9.7** | | **2.2** | J | **0.61** | J | **2.4** | | **0.39** | J | <2.0 | | <2.0 | | <25 | | <0.20 | |
| **MW-9A** | MW-9A-0719 | 7/31/2019 | <2.0 | | **0.25** | J | <2.0 | | <1.0 | | **5.0** | | **0.98** | J | <2.0 | | <2.0 | | <2.0 | | <2.0 | | <2.0 | | <25 | | <0.20 | |
| **MW-10A** | MW-10A-0719 | 7/31/2019 | <2.0 | | **5.0** | | <2.0 | | <1.0 | | **3.5** | | **5.4** | | **0.76** | J | **1.8** | J | <2.0 | | <2.0 | | <2.0 | | **4.8** | J | <0.20 | |
| **MW-11A** | MW-11A-0519 | 5/3/2019 | <2.0 | | **6.0** | J6 | <2.0 | | <1.0 | | **21** | J6 O1 | **6.3** | B O1 | **1.0** | J | **4.2** | | **0.49** | J | <2.0 | | <2.0 | | **6.9** | B J O1 | <0.20 | |
| | MW-11A-0719 | 7/30/2019 | <2.0 | | **4.6** | | <2.0 | | <1.0 | | **22** | | **2.9** | J | **0.36** | J | **1.1** | J | <2.0 | | <2.0 | | <2.0 | | <25 | | <0.20 | |
| **MW-12** | MW-12-0519 | 5/3/2019 | **6.6** | | **19** | | <2.0 | | <1.0 | | 4.8 | | **7.3** | B | **11** | | **7.7** | | <2.0 | | <2.0 | | <2.0 | | **28** | B | <0.20 | |
| | MW-12-0719 | 8/1/2019 | **0.9** | J | **2.9** | | <2.0 | | <1.0 | | <2.0 | | <5.0 | | <2.0 | | **2.3** | | <2.0 | | <2.0 | | <2.0 | | <25 | | **0.12** | J |
| **MW-13** | MW-13-0519 | 5/3/2019 | **2.1** | | **4.4** | | <2.0 | | <1.0 | | **2.5** | | **46** | | **24** | | **3.0** | | **0.68** | B J | <2.0 | | <2.0 | | **20** | B J | **0.066** | J |
| | MW-13-0719 | 8/1/2019 | <2.0 | | **0.81** | J | <2.0 | | <1.0 | | **1.2** | J | **1.1** | J | **0.92** | J | **0.45** | J | <2.0 | | <2.0 | | <2.0 | | <25 | | <0.20 | |
| **MW-14** | MW-14-0519 | 5/3/2019 | <2.0 | | **17** | | <2.0 | | <1.0 | | **3.6** | | **7.4** | B | **2.1** | | **2.9** | | **0.41** | B J | <2.0 | | <2.0 | | **9.3** | B J | <0.20 | |
| | MW-14-0719 | 8/1/2019 | <2.0 | | **4.0** | | <2.0 | | <1.0 | | **1.0** | J | **1.0** | J | **0.59** | J | **1.0** | J | <2.0 | | <2.0 | | <2.0 | | <25 | | <0.20 | |
| **MW-15** | MW-15-0519 | 5/3/2019 | <2.0 | | **0.59** | | <2.0 | | <1.0 | | **1.3** | | **1.2** | | <2.0 | | <2.0 | | <2.0 | | <2.0 | | <2.0 | | <25 | | <0.2 | |
| **MW-16** | MW-16-0519 | 5/3/2019 | <2.0 | | **3.0** | | <2.0 | | <1.0 | | **1.2** | | **3.5** | | **1.8** | | **1.3** | | <2.0 | | <2.0 | | <2.0 | | **4.0** | | <0.2 | |
| **MW-17** | MW-17-0519 | 5/3/2019 | <2.0 | | **44** | | <2.0 | | <1.0 | | **6.4** | | **2.3** | B J | **0.91** | J | **2.1** | | **0.39** | B J | <2.0 | | <2.0 | | **3.8** | B J | <0.20 | |
| | MW-17-0719 | 7/30/2019 | <2.0 | | **77** | | <2.0 | | <1.0 | | <2.0 | | <5.0 | | <2.0 | | <2.0 | | <2.0 | | <2.0 | | <2.0 | | <25 | | <0.20 | |

Notes
Bold indicates detected at or above the practical quantitation limit (PQL)
<2.0 indicates not detected above the laboratory PQL of 2.0 micrograms per liter (µg/L)
A - Metals per EPA 6020B/7470A Methods
B - Chromium results and PCL are for Total Chromium
d - Analyzed for dissolved metals

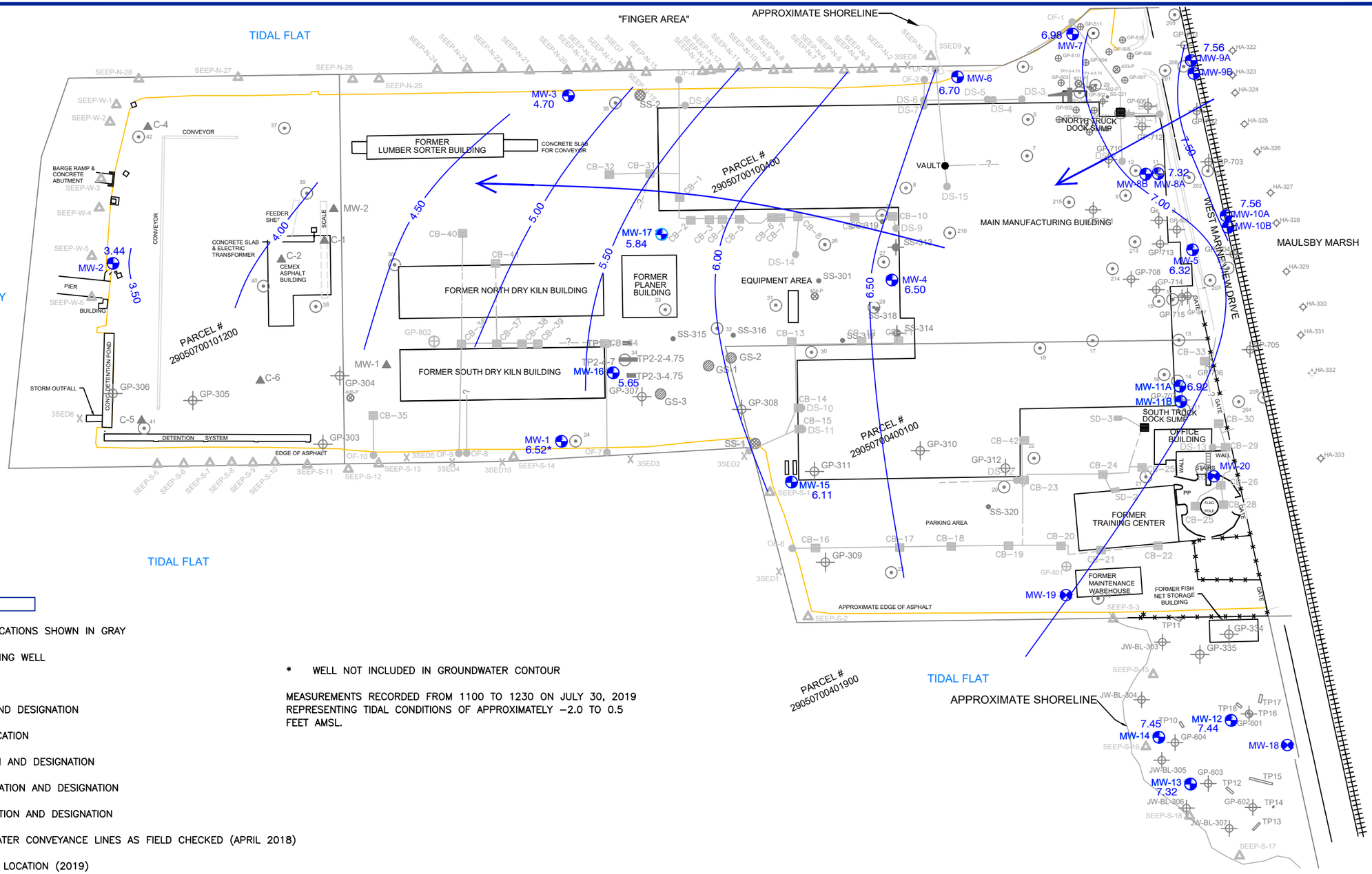
Laboratory Qualifiers
B - The same analyte is found in the associated blank.
J - The identification of the analyte is acceptable; the reported value is an estimate.
J6 - The sample matrix interfered with the ability to make any accurate determination; spike value is low.
O1 - The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

**Table AG-8: Dioxin/Furan**
**Quarterly Groundwater Monitoring Summary Tables**

| Sample Location | Sample Label | Sample Date | Dioxins and Furans (pg/L) [A] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2,3,7,8-Tetra CDD | | 1,2,3,7,8-Penta CDD | | 1,2,3,4,7,8-Hexa CDD | | 1,2,3,6,7,8-Hexa CDD | | 1,2,3,7,8,9-Hexa CDD | | 1,2,3,4,6,7,8-Hepta CDD | | Octa CDD | | 2,3,7,8-Tetra CDF D | | 1,2,3,7,8-Penta CDF | | 2,3,4,7,8-Penta CDF | | 1,2,3,4,7,8-Hexa CDF | | 1,2,3,6,7,8-Hexa CDF | | 2,3,4,6,7,8-Hexa CDF | | 1,2,3,7,8,9-Hexa CDF | | 1,2,3,4,6,7,8-Hepta CDF | | 1,2,3,4,7,8,9-Hepta CDF | | Octa CDF | | U = 0 [B] | U = 0.5 [B] |
| | | | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Qual | Value | Value |
| **SLR Monitoring Well Sampling Event** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **MW-1** | MW-1-0719 | 7/31/2009 | <3.68 | | <3.38 | | <4.92 | | <5.22 | | <5.16 | | <6.57 | | *<38.7* | J,B | <2.68 | | <2.77 | | <2.82 | | <4.96 | | <4.95 | | <5.08 | | <5.3 | | <7.48 | | <7.72 | | *<4.38* | J,B | *ND* | **6.03** |
| **MW-4** | MW-4-0719 | 7/30/2019 | <5.33 | | <5.66 | | <7.56 | | <7.61 | | <7.92 | | <6.33 | | *<40.9* | J,B | <3.45 | | <4.1 | | <4.46 | | <5.16 | | <5.4 | | <5.59 | | <6.06 | | <7.75 | | <6.68 | | *<10.8* | J,B | *ND* | **8.78** |
| **MW-6** | MW6-1215 | 12/10/2015 | <1.28 | | <1.74 | | <1.51 | | <1.52 | | <1.57 | | <2.52 | | **23** | J | <1.39 | | <1.03 | | <1.07 | | <0.922 | | <0.958 | | <1.07 | | <1.42 | | <1.34 | | <2.04 | | <6.59 | | **0.007** | **2.24** |
| | MW6-062316 | 6/23/2016 | <0.80 | | <0.82 | | <1.1 | | <1.1 | | <1.1 | | <1.6 | | <1.7 | | <0.60 | | <0.88 | | <0.86 | | <0.65 | | <0.65 | | <0.66 | | <0.79 | | <1.1 | | <1.5 | | <1.3 | | ND | **1.31** |
| | MW-6-0117 | 1/31/2017 | <1.1 | | <2.0 | | <1.3 | | <1.32 | | <1.4 | | <1.49 | | **8.9** | J | <1.11 | | <0.88 | | <0.90 | | <0.71 | | <0.72 | | <0.77 | | <1.0 | | <0.60 | | <0.80 | | <2.7 | | **0.003** | **2.13** |
| | MW-6-0617 | 6/29/2017 | <2.1 | | <1.9 | | <2.1 | | <2.1 | | <2.0 | | <1.5 | | <4.2 | | <1.4 | | <1.0 | | <1.1 | | <1.3 | | <1.3 | | <1.3 | | <1.5 | | <0.92 | | <0.90 | | <4.3 | | ND | **2.48** |
| | MW-6-0118 | 1/15/2018 | <1.6 | | <0.90 | | <0.69 | | <0.74 | | <0.70 | | <0.63 | | <3.9 | | <1.1 | | <0.57 | | <0.55 | | <0.51 | | <0.54 | | <0.57 | | <0.57 | | <0.37 | | <0.41 | | <1.6 | | ND | **1.47** |
| | MW-6-0718 | 7/10/2018 | <2.1 | | <2.46 | | <1.99 | | <2.17 | | <2.04 | | <1.16 | | **9.30** | EMPC,J | <2.16 | | <1.4 | | <1.28 | | <1.5 | | <1.51 | | <1.5 | | <1.69 | | <1.07 | | <1.03 | | <2.88 | | **0.009** | **2.77** |
| | MW-6-0119 | 1/17/2019 | <1.73 | | <1.91 | | <1.59 | | <1.58 | | <1.48 | | **2.78** | J, B | <4.15 | | <1.34 | | <1.05 | | <1.02 | | <1.58 | | <1.53 | | <1.48 | | <1.55 | | <0.755 | | <0.964 | | <2.43 | | **0.028** | **2.27** |
| **MW-7** | MW7-1215 | 12/10/2015 | <2.17 | | <2.87 | | **3.6** | EMPC,J | **20** | | **7.7** | EMPC,J | **566** | | **4,830** | | <2.23 | | <1.73 | | <1.9 | | **3.3** | J | **2.6** | J | **3.9** | J | <2.83 | | **73** | | <3.77 | | **182** | | **12** | **15** |
| | MW7-062416 | 6/24/2016 | <1.2 | | <1.1 | | <1.4 | | <1.4 | | <1.4 | | **7.6** | | **66** | | <0.51 | | <0.98 | | <0.95 | | <1.1 | | <1.1 | | <1.1 | | <1.4 | | <0.81 | 1 | <0.96 | | <2.0 | 1 | **0.10** | **1.88** |
| | MW-7-0117 | 1/31/2017 | <4.77 | | <5.85 | | <4.0 | | <4.05 | | <4.23 | | **37** | | **261** | EMPC | <3.61 | | <3.95 | | <3.7 | | <2.61 | | <2.41 | | <2.64 | | <3.27 | | <2.7 | | <3.27 | | <10.7 | | **0.45** | **7.74** |
| | MW-7-0617 | 6/29/2017 | <1.9 | | <1.6 | | <1.5 | | <1.6 | | <1.5 | | **13** | J,B | **104** | | <1.3 | | <1.4 | | <1.5 | | <0.96 | | <0.97 | | <0.96 | | <1.1 | | <1.3 | | <1.2 | | <3.5 | | **0.23** | **2.47** |
| | MW-7-0118 | 1/15/2018 | <1.6 | | <1.6 | | <1.4 | | <1.3 | | <1.3 | | **80** | | **665** | | <1.3 | | <1.3 | | <1.3 | | <0.68 | | <0.71 | | <0.75 | | <0.81 | | **11** | J | <0.58 | | **16** | EMPC,J | **1.59** | **3.53** |
| | MW-7-0718 | 7/10/2018 | <3.17 | | <2.66 | | <1.49 | | <1.68 | | <1.56 | | **17.3** | J | **149** | | <2.09 | | <1.33 | | <1.15 | | <1.25 | | <1.38 | | <1.29 | | <1.51 | | **2.88** | J | <1.01 | | **8.3** | J | **0.36** | **3.55** |
| | MW-7-0119 | 1/17/2019 | <1.63 | | <1.64 | | <1.78 | | <1.85 | | <1.62 | | **43.3** | | **353** | | <1.18 | | <0.99 | | <0.96 | | <1.46 | | <1.45 | | <1.43 | | <1.39 | | **6.52** | J | <0.884 | | **13.8** | J | **0.87** | **2.97** |
| **MW-8A** | MW8A-062416 | 6/24/2016 | <0.84 | | <1.2 | | <1.4 | | 1.2 | | <1.1 | | **2.1** | | **8.1** | | <1.1 | | <1.2 | | <1.2 | | <1.2 | | <1.0 | | <1.2 | | <1.4 | | <1.6 | 1 | <1.4 | | **3.4** | | **0.024** | **1.74** |
| | MW-8A-0617 | 6/28/2017 | <1.2 | | <2.2 | | <2.2 | | <1.8 | | 3.82 | EMPC,J | **5.7** | J,B | **33** | EMPC,J | <1.8 | | <2.1 | | <1.9 | | <1.3 | | <1.5 | | <2.0 | | <1.5 | | **2.5** | J | 1.78 | EMPC,J | <2.3 | | **0.082** | **2.69** |
| | MW-8A-0718 | 7/9/2018 | <3.86 | | <4.45 | | <2.54 | | <2.36 | | <2.8 | | <2.47 | | **36** | J | <3.35 | | <2.15 | | <2.13 | | <1.6 | | <1.61 | | <1.89 | | <2.13 | | <1.12 | | <1.2 | | **6.29** | | **0.036** | **4.61** |
| **MW-9A** | MW9A-1215 | 12/10/2015 | <2.09 | | <3.31 | | <2.72 | | <2.83 | | <2.62 | | **5.7** | EMPC,J | **29** | | <2.1 | | <1.44 | | <1.51 | | <1.74 | | <1.85 | | <1.81 | | <2.51 | | **1.6** | EMPC,J | <3.54 | | <9.78 | | **0.081** | **3.95** |
| | MW9A-062416 | 6/24/2016 | <0.97 | | <1.4 | | <1.2 | | <1.2 | | <1.2 | | <1.2 | | **3.8** | | <0.48 | | <1.0 | | <0.98 | | <0.72 | | <0.72 | | <0.73 | | <0.87 | | <1.2 | | <1.5 | | <1.1 | | **0.001** | **1.72** |
| | MW-9A-0617 | 6/29/2017 | <1.4 | | <1.5 | | <1.4 | | <1.4 | | <1.3 | | <1.3 | | <5.6 | | <0.94 | | <1.2 | | <1.2 | | <0.92 | | <0.86 | | <0.90 | | <1.0 | | <0.93 | | <0.93 | | <3.4 | | ND | **1.83** |
| | MW-9A-0718 | 7/10/2018 | <1.99 | | <1.41 | | <1.33 | | <1.44 | | <1.37 | | 2.3 | J | <2.39 | | <1.16 | | <0.919 | | <0.842 | | <0.785 | | <0.753 | | <0.813 | | <0.975 | | <0.764 | | <0.888 | | <2.04 | | **0.023** | **2.05** |
| **MW-15** | MW-15-0719 | 7/31/2019 | <5.11 | | <4.51 | | <6.8 | | <6.07 | | <6.73 | | <7.93 | | *<30.3* | J,B | <4.2 | | <2.91 | | <3.53 | | <4.06 | | <3.86 | | <4.71 | | <4.71 | | <4.94 | | <4.35 | | <5 | | *ND* | **7.53** |
| **MW-16** | MW-16-0719 | 7/31/2019 | <5.01 | | <5.31 | | <4.9 | | <5.28 | | <4.88 | | <7.36 | | *<28.1* | J,B | <3.63 | | <3.48 | | <3.4 | | <4.24 | | <4.01 | | <4.06 | | <4.43 | | <4.86 | | <4.6 | | <4.6 | | *ND* | **7.59** |

Notes
Bold indicates detected at or above the practical quantitation limit (PQL)
<2.0 indicates not detected above the laboratory PQL of 2.0 micrograms per liter (µg/L)
Values in italics indicate presented value different than lab report following Level IV Data Validations
A - Dioxins and Furans per EPA 1613 Method
B - Toxic equivalent quotient (TEQ) values using a value of 0 for non-detect results (U=0) or using a value of 1/2 detection limit for non-detect results (U=1/2)

Laboratory Qualifiers
EMPC - Represents an Estimated Maximum Possible Concentration. EMPC's arise in cases where the signal/noise ratio is not sufficient for peak identification (the determined io-abundance ratio is outside the allowed theoretical range), or where thise is a co-eluting interference
J - Indicates that the analyte has a concentration below the reporting limit (lowest point of calibration curve)
B - The analyte was found in the method blank, at a concentration that was at least 10% of the concentration of the sample.




TIDAL FLAT

LEGEND

OTHER FORMER RI SAMPLING LOCATIONS SHOWN IN GRAY

MW-1 — EXISTING MONITORING WELL

SCE INVESTIGATION AREAS:

SEEP-N-3 — SEEP LOCATION AND DESIGNATION

SEEP-N-2 — SEEP SAMPLE LOCATION

OF-1 — OUTFALL LOCATION AND DESIGNATION

CB—1 — CATCH BASIN LOCATION AND DESIGNATION

DS-1 — DOWNSPOUT LOCATION AND DESIGNATION

EXISTING STORMWATER CONVEYANCE LINES AS FIELD CHECKED (APRIL 2018)

MW-11 — MONITORING WELL LOCATION (2019)

#.# — GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)

ESTIMATED GROUNDWATER CONTOUR

ESTIMATED GROUNDWATER FLOW DIRECTION

* WELL NOT INCLUDED IN GROUNDWATER CONTOUR

MEASUREMENTS RECORDED FROM 1100 TO 1230 ON JULY 30, 2019 REPRESENTING TIDAL CONDITIONS OF APPROXIMATELY −2.0 TO 0.5 FEET AMSL.

NOTES

THE BUILDINGS, SURFACE UTILITIES, EDGE OF PAVEMENT, AND APPROXIMATE SHORELINE SHOWN ON THIS MAP ARE BASED ON A 2006 SURVEY PERFORMED BY WH PACIFIC.

FORMER E.A. NORD SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
2020 REVISED RI/FS REPORT (APPENDIX G)

Drawing
EXAMPLE ESTIMATED GROUNDWATER FLOW AND GRADIENT IN SHALLOW ZONE

| | | | |
|---|---|---|---|
| Date | May 2019 | Scale | AS SHOWN |
| File Name | SW_SITE PLAN_NORD_2 | Project No. | 108.00228.00059 |

Fig. No. AG-1

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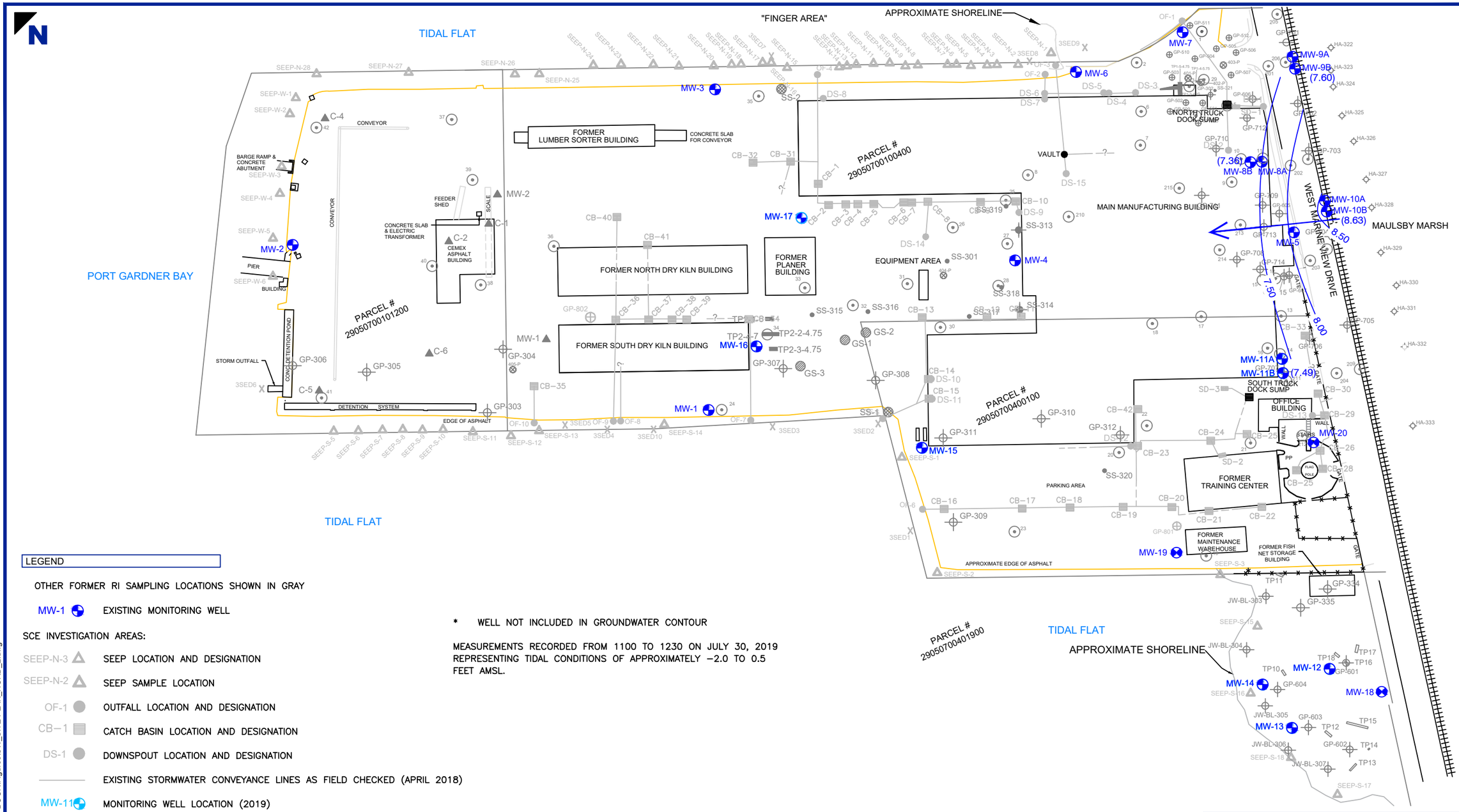


TIDAL FLAT

LEGEND

OTHER FORMER RI SAMPLING LOCATIONS SHOWN IN GRAY

MW-1 EXISTING MONITORING WELL

SCE INVESTIGATION AREAS:

SEEP-N-3 SEEP LOCATION AND DESIGNATION

SEEP-N-2 SEEP SAMPLE LOCATION

OF-1 OUTFALL LOCATION AND DESIGNATION

CB—1 CATCH BASIN LOCATION AND DESIGNATION

DS-1 DOWNSPOUT LOCATION AND DESIGNATION

EXISTING STORMWATER CONVEYANCE LINES AS FIELD CHECKED (APRIL 2018)

MW-11 MONITORING WELL LOCATION (2019)

#.# GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)

ESTIMATED GROUNDWATER CONTOUR

ESTIMATED GROUNDWATER FLOW DIRECTION

* WELL NOT INCLUDED IN GROUNDWATER CONTOUR

MEASUREMENTS RECORDED FROM 1100 TO 1230 ON JULY 30, 2019 REPRESENTING TIDAL CONDITIONS OF APPROXIMATELY −2.0 TO 0.5 FEET AMSL.

NOTES

THE BUILDINGS, SURFACE UTILITIES, EDGE OF PAVEMENT, AND APPROXIMATE SHORELINE SHOWN ON THIS MAP ARE BASED ON A 2006 SURVEY PERFORMED BY WH PACIFIC.

FORMER E.A. NORD SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
2020 REVISED RI/FS REPORT (APPENDIX G)

Drawing
EXAMPLE ESTIMATED GROUNDWATER FLOW AND GRADIENT IN SHALLOW ZONE

| | | | |
|---|---|---|---|
| Date | May 2019 | Scale | AS SHOWN |
| File Name | SW_SITE PLAN_NORD_2 | Project No. | 108.00228.00059 |

Fig. No. AG-2

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# APPENDIX H

# DATA TABLES AND SPME RESULTS

(TABLES 1 THROUGH 4; SURFACE, SUBSURFACE CHEM, SIEVING, TISSUE)

Description: Provides tabulated summaries of all marine data collected as part of the RI, and the SPME Results Memorandum.

# Table H-1
## Surface Sediment Results

| Task | | | | | Baywood | Baywood | Baywood | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | BW-03 | BW-03 | BW-11 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED10 |
| Sample ID | | | | | BW-03-SS-090602 | BW-53-SS-090602 | BW-11-SS-090602 | 3SED1-A | 3SED1-B | 3SED1-C | 3SED2-A | 3SED10-A |
| Sample Date | | | | | 6/2/2009 | 6/2/2009 | 6/2/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | FD | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303268 | 1303268 | 1303114 | -122.213139 | -122.213139 | -122.213139 | -122.213139 | -122.214142 |
| Y | | | | | 373754 | 373754 | 374189 | 48.014366 | 48.014366 | 48.014366 | 48.014366 | 48.015575 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | | | |
| Total organic carbon | | | | | **1.19** | **1.61** | **1.52** | **2.2** | **3.06** | **2.3** | **2.12** | **0.713** |
| Moisture, percent | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Solids | | | | | **47.9** | **48.1** | **44.9** | **56.5** | **55.5** | **56.5** | **81.4** | **86.2** |
| Total solids (preserved) | | | | | **43.5** | **44.7** | **41.5** | **61.6** | **57.5** | **51.3** | **81.4** | **85.4** |
| Total volatile solids | | | | | **7.1** | **7.16** | **8.73** | **6.34** | **6.14** | **5.72** | **2.09** | **1.69** |
| **Conventional Parameters (mg/kg)** | | | | | | | | | | | | |
| Ammonia as nitrogen | | | | | **5.88** | **6.2** | **13.6** | **5.03** | **8.48** | **8.15** | **1.44** | **0.5** |
| Black carbon | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Sulfide | | | | | **606000** | **1740000** | **1360000** | **54.3** | **48.8** | **7.77** | **492** | 1.16 U |
| **Grain Size (pct)** | | | | | | | | | | | | |
| Cobbles | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Gravel | | | | | 0.1 U | **0.2** | **0.5** | **14.8** | **5.7** | **15.5** | **41** | **50.1** |
| Sand | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Sand, very coarse | | | | | **1.4** | **1.6** | **1.4** | **5.7** | **4.3** | **4.3** | **8.4** | **7** |
| Sand, coarse | | | | | **1.2** | **1** | **1.4** | **7.3** | **5.2** | **5.9** | **16.6** | **14.8** |
| Sand, medium | | | | | **1.1** | **0.7** | **1.4** | **11.4** | **6.4** | **8.2** | **21.3** | **16.6** |
| Sand, fine | | | | | **0.7** | **0.5** | **1.3** | **5.9** | **4.5** | **4.9** | **7.4** | **6.3** |
| Sand, very fine | | | | | **1** | **0.9** | **2.8** | **3.3** | **3.6** | **4.1** | **1.5** | **1.1** |
| Silt | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Silt, coarse | | | | | **6.5** | **12.7** | **21** | **8.7** | **11.7** | **10** | **0.2** | **1.7** |
| Silt, medium | | | | | **26.8** | **22.3** | **22.8** | **13.4** | **20.3** | **17** | **0.7** | **0.5** |
| Silt, fine | | | | | **26.3** | **25.9** | **21.3** | **12** | **14.9** | **12.2** | **1** | **0.6** |
| Silt, very fine | | | | | **14.8** | **15.2** | **12.5** | **9.9** | **8.2** | **6** | **0.6** | **0.5** |
| Total fines (Reported, not calculated) | | | | | -- | -- | -- | -- | -- | -- | **3.8** | -- |
| Clay | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Clay, coarse | | | | | **7.3** | **6.4** | **5** | **0.1** | **4.7** | **3.4** | **0.4** | **0.4** |
| Clay, medium | | | | | **5.6** | **5** | **3.2** | **3.1** | **4.2** | **3.4** | **0.4** | **0.2** |
| Clay, fine | | | | | **7.4** | **7.7** | **5.6** | **4.5** | **6.4** | **5.1** | **0.5** | **0.3** |
| **Metals (mg/kg)** | | | | | | | | | | | | |
| Antimony | | | | | 10 UJ | 10 UJ | 10 UJ | -- | -- | -- | -- | -- |
| Arsenic | 57 | 93 | 57 | 93 | **20** | **20** | **20** | **16** | **16** | **15** | **9** | **13** |
| Cadmium | 5.1 | 6.7 | 5.1 | 6.7 | 0.4 U | 0.4 U | 0.4 U | 0.3 U | 0.3 U | 0.4 U | 0.2 U | 0.2 U |
| Chromium | 260 | 270 | 260 | 270 | **63** | **69** | **61** | **41.2** | **46.5** | **41.8** | **28.4** | **28.5** |
| Copper | 390 | 390 | 390 | 390 | **67.9** | **72.6** | **65.7** | **43.7** | **48.1** | **46.8** | **18.4** | **20.5** |
| Lead | 450 | 530 | 450 | 530 | **12** | **13** | **11** | **10** | **11** | **10** | **6** | **9** |
| Mercury | 0.41 | 0.59 | 0.41 | 0.59 | **0.1** | **0.1** | **0.11** | **0.08** | **0.09** | **0.08** | 0.02 U | 0.03 U |
| Nickel | | | | | **51** | **56** | **51** | -- | -- | -- | -- | -- |
| Silver | 6.1 | 6.1 | 6.1 | 6.1 | 0.6 U | 0.6 U | 0.7 U | 0.5 U | 0.5 U | 0.5 U | 0.4 U | 0.3 U |
| Zinc | 410 | 960 | 410 | 960 | **94 J** | **104 J** | **88 J** | **74** | **80** | **73** | **45** | **46** |
| **Volatile Organics (mg/kg-OC)** | | | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | 0.08319 U | 0.06025 U | 0.06447 U | -- | -- | -- | -- | -- |
| **Volatile Organics (µg/kg)** | | | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | 0.99 U | 0.97 U | 0.98 U | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | Baywood | Baywood | Baywood | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | BW-03 | BW-03 | BW-11 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED10 |
| Sample ID | | | | | BW-03-SS-090602 | BW-53-SS-090602 | BW-11-SS-090602 | 3SED1-A | 3SED1-B | 3SED1-C | 3SED2-A | 3SED10-A |
| Sample Date | | | | | 6/2/2009 | 6/2/2009 | 6/2/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | FD | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303268 | 1303268 | 1303114 | -122.213139 | -122.213139 | -122.213139 | -122.213139 | -122.214142 |
| Y | SMS_Marine_ | SMS_Marine_ | AET_Marine_ | AET_Marine_ | 373754 | 373754 | 374189 | 48.014366 | 48.014366 | 48.014366 | 48.014366 | 48.015575 |
| Analyte | SCO_SCUMII | CSL_SCUMII | SCO_SCUMII | CSL_SCUMII | | | | | | | | |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | 0.5126 U | 0.3789 U | 0.3947 U | 0.818 U | 0.588 U | 0.783 U | 0.849 U | 0.8555 U |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | 0.5126 U | 0.3789 U | 0.3947 U | 0.818 U | 0.588 U | 0.783 U | 0.849 U | 0.8555 U |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | 0.5126 U | 0.3789 U | 0.3947 U | 0.818 U | 0.588 U | 0.783 U | 0.849 U | 0.8555 U |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | **2.689** | **1.366** | **2.237** | **2.545 J** | **2.908** | **4** | **6.132** | **2.525 J** |
| Butylbenzyl phthalate | 4.9 | 64 | | | 1.261 U | 0.932 U | **2.171 J** | 2.091 U | 1.471 U | **3.739** | 2.17 U | 2.104 U |
| Diethyl phthalate | 61 | 110 | | | 1.681 U | 1.18 U | 1.316 U | 2.682 U | 1.928 U | 2.87 U | 2.736 U | 2.665 U |
| Dimethyl phthalate | 53 | 53 | | | 1.681 U | 1.18 U | 1.316 U | 2.682 U | 1.928 U | 2.87 U | 2.736 U | 2.665 U |
| Di-n-butyl phthalate | 220 | 1700 | | | 1.681 U | 1.18 U | 1.316 U | 2.682 U | 1.928 U | 2.87 U | 2.736 U | 2.665 U |
| Di-n-octyl phthalate | 58 | 4500 | | | 1.681 U | 1.18 U | 1.316 U | 2.682 U | 1.928 U | 2.87 U | 2.736 U | 2.665 U |
| Hexachlorobenzene | 0.38 | 2.3 | | | 0.08319 U | 0.06025 U | **0.0658** | 0.818 U | 0.588 U | 0.783 U | 0.849 U | 0.8555 U |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | 0.818 U | 0.588 U | 0.783 U | 0.849 U | 0.8555 U |
| n-Nitrosodiphenylamine | 11 | 11 | | | 0.5126 U | 0.3789 U | 0.3947 U | 0.818 U | 0.588 U | 0.783 U | 0.849 U | 0.8555 U |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | 6.1 U | 6.1 U | 6 U | 18 U | 18 U | 18 U | 18 U | 6.1 U |
| 1,2-Dichlorobenzene | | | 35 | 50 | 6.1 U | 6.1 U | 6 U | 18 U | 18 U | 18 U | 18 U | 6.1 U |
| 1,3-Dichlorobenzene | | | | | 20 U | 19 U | 20 U | 18 U | 18 U | 18 U | 18 U | 6.1 U |
| 1,4-Dichlorobenzene | | | 110 | 110 | 6.1 U | 6.1 U | 6 U | 18 U | 18 U | 18 U | 18 U | 6.1 U |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | 6.1 UJ | 6.1 UJ | 6 UJ | 18 U | 18 U | 18 U | 18 U | 6.1 U |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | 6.1 U | 6.1 U | 6 U | 18 U | 18 U | 18 U | 18 U | 6.1 U |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | 20 U | 19 U | **18 J** | 59 U | 59 U | 66 U | 58 U | 19 U |
| Benzoic acid | 650 | 650 | 650 | 650 | 200 U | 190 U | 200 U | 590 U | 590 U | 660 U | 580 U | 190 U |
| Benzyl alcohol | 57 | 73 | 57 | 73 | 31 UJ | 30 UJ | 30 UJ | 59 U | 59 U | 66 U | 58 U | 19 U |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | **32** | **22** | **34** | **56 J** | **89** | **92** | **130** | **18 J** |
| Butylbenzyl phthalate | | | 63 | 900 | 15 U | 15 U | **33 J** | 46 U | 45 U | **86** | 46 U | 15 U |
| Diethyl phthalate | | | 200 | 1200 | 20 U | 19 U | 20 U | 59 U | 59 U | 66 U | 58 U | 19 U |
| Dimethyl phthalate | | | 71 | 160 | 20 U | 19 U | 20 U | 59 U | 59 U | 66 U | 58 U | 19 U |
| Di-n-butyl phthalate | | | 1400 | 1400 | 20 U | 19 U | 20 U | 59 U | 59 U | 66 U | 58 U | 19 U |
| Di-n-octyl phthalate | | | 6200 | 6200 | 20 U | 19 U | 20 U | 59 U | 59 U | 66 U | 58 U | 19 U |
| Hexachlorobenzene | | | 22 | 70 | 0.99 U | 0.97 U | **1** | 18 U | 18 U | 18 U | 18 U | 6.1 U |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | 18 U | 18 U | 18 U | 18 U | 6.1 U |
| Hexachloroethane | | | | | -- | -- | -- | 59 U | 59 U | 66 U | 58 U | 19 U |
| n-Nitrosodiphenylamine | | | 28 | 40 | 6.1 U | 6.1 U | 6 U | 18 U | 18 U | 18 U | 18 U | 6.1 U |
| Pentachlorophenol | 360 | 690 | 360 | 690 | 31 U | 30 U | 30 U | 92 U | 90 U | 90 U | 92 U | 30 U |
| Phenol | 420 | 1200 | 420 | 1200 | 20 U | 19 U | 20 U | 59 U | 59 U | 66 U | 58 U | 19 U |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | 1.681 U | 1.18 U | 1.316 U | 2.682 U | 1.928 U | 2.87 U | 2.736 U | **4.488** |
| Acenaphthene | 16 | 57 | | | 1.681 U | 1.18 U | 1.316 U | 2.682 U | 1.928 U | 2.87 U | 2.736 U | **18.233** |
| Acenaphthylene | 66 | 66 | | | 1.681 U | 1.18 U | 1.316 U | 2.682 U | 1.928 U | 2.87 U | 2.736 U | **4.348** |
| Anthracene | 220 | 1200 | | | **1.008 J** | **0.683 J** | **0.987 J** | 2.682 U | 1.928 U | 2.87 U | **2.5 J** | **8.555** |
| Benzo(a)anthracene | 110 | 270 | | | **2.185** | **1.491** | **3.158 J** | 2.682 U | **1.013 J** | **1.739 J** | 2.736 U | **18.233** |
| Benzo(a)pyrene | 99 | 210 | | | **1.933** | **1.118 J** | **1.842** | 2.682 U | **1.013 J** | **2.348 J** | 2.736 U | **10.799** |
| Benzo(g,h,i)perylene | 31 | 78 | | | 1.681 UJ | 1.18 UJ | 1.316 UJ | 2.682 U | **1.013 J** | **1.565 J** | 2.736 U | **2.945** |
| Chrysene | 110 | 460 | | | **4.706** | **3.602** | **7.237 J** | **1.636 J** | **1.765 J** | **3.348** | **1.934 J** | **42.076** |

# Table H-1
## Surface Sediment Results

| Task | | | | | Baywood | Baywood | Baywood | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | BW-03 | BW-03 | BW-11 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED10 |
| Sample ID | | | | | BW-03-SS-090602 | BW-53-SS-090602 | BW-11-SS-090602 | 3SED1-A | 3SED1-B | 3SED1-C | 3SED2-A | 3SED10-A |
| Sample Date | | | | | 6/2/2009 | 6/2/2009 | 6/2/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | FD | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303268 | 1303268 | 1303114 | -122.213139 | -122.213139 | -122.213139 | -122.213139 | -122.214142 |
| Y | | | | | 373754 | 373754 | 374189 | 48.014366 | 48.014366 | 48.014366 | 48.014366 | 48.015575 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | | |
| Dibenzo(a,h)anthracene | 12 | 33 | | | 0.5126 UJ | 0.3789 UJ | 0.3947 UJ | 0.818 U | 0.588 U | 0.783 U | 0.849 U | 0.8555 U |
| Dibenzofuran | 15 | 58 | | | 1.681 U | 1.18 U | 1.316 U | 2.682 U | 1.928 U | 2.87 U | 2.736 U | **28.05** |
| Fluoranthene | 160 | 1200 | | | **7.395** | **4.099** | **11.842** | 2.682 U | **2.418** | **3.13** | **1.981 J** | **182.328** |
| Fluorene | 23 | 79 | | | 1.681 U | 1.18 U | 1.316 U | 2.682 U | 1.928 U | 2.87 U | 2.736 U | **32.258** |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | 1.681 U | 1.18 U | 1.316 U | 2.682 U | 1.928 U | 2.87 U | 2.736 U | **2.945** |
| Naphthalene | 99 | 170 | | | 1.681 U | 1.18 U | 1.316 U | 2.682 U | 1.928 U | 2.87 U | 2.736 U | **2.945** |
| Phenanthrene | 100 | 480 | | | **1.681** | **0.932 J** | **1.842** | 2.682 U | **1.078 J** | 2.87 U | 2.736 U | **252.454** |
| Pyrene | 1000 | 1400 | | | **4.034** | **2.236** | **4.276 J** | 2.682 U | **1.732 J** | **2.261 J** | **2.783** | **154.278** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | **2.955462 J** | **1.79441 J** | **2.993421 J** | **3.85273 J** | **1.56667 J** | **3.29435 J** | **3.93443 J** | **19.314165** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | **2.845798 J** | **1.71646 J** | **2.907895 J** | **1.93455 J** | **1.44085 J** | **3.11174 J** | **1.97689 J** | **19.271388** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | **2.736134 J** | **1.638509 J** | **2.822368 J** | **0.01636 J** | **1.31503 J** | **2.92913 J** | **0.01934 J** | **19.228612** |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | **5.378 J** | **3.354 J** | **5.921 J** | 2.682 U | **1.83 J** | **3.739 J** | 2.736 U | **58.906** |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | **25.6303 J** | **15.9006 J** | **34.2763 J** | **1.636 J** | **10.784 J** | **18.13 J** | **6.698 J** | **472.5105** |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | **2.689 J** | **1.615 J** | **2.829 J** | 2.682 U | **1.078 J** | 2.87 U | **2.5 J** | **318.794** |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | | | |
| 1-Methylnaphthalene | | | | | 20 U | 19 U | 20 U | 59 U | 59 U | 66 U | 58 U | **30** |
| 2-Methylnaphthalene | | | 670 | 670 | 20 U | 19 U | 20 U | 59 U | 59 U | 66 U | 58 U | **32** |
| Acenaphthene | | | 500 | 500 | 20 U | 19 U | 20 U | 59 U | 59 U | 66 U | 58 U | **130** |
| Acenaphthylene | | | 1300 | 1300 | 20 U | 19 U | 20 U | 59 U | 59 U | 66 U | 58 U | **31** |
| Anthracene | | | 960 | 960 | **12 J** | **11 J** | **15 J** | 59 U | 59 U | 66 U | **53 J** | **61** |
| Benzo(a)anthracene | | | 1300 | 1600 | **26** | **24** | **48 J** | 59 U | **31 J** | **40 J** | 58 U | **130** |
| Benzo(a)pyrene | | | 1600 | 1600 | **23** | **18 J** | **28** | 59 U | **31 J** | **54 J** | 58 U | **77** |
| Benzo(b)fluoranthene | | | | | **32 J** | **27 J** | **45 J** | 59 U | **28 J** | **43 J** | 58 U | **210** |
| Benzo(g,h,i)perylene | | | 670 | 720 | 20 UJ | 19 UJ | 20 UJ | 59 U | **31 J** | **36 J** | 58 U | **21** |
| Benzo(k)fluoranthene | | | | | **32 J** | **27 J** | **45 J** | 59 U | **28 J** | **43 J** | 58 U | **210** |
| Chrysene | | | 1400 | 2800 | **56** | **58** | **110 J** | **36 J** | **54 J** | **77** | **41 J** | **300** |
| Dibenzo(a,h)anthracene | | | 230 | 230 | 6.1 UJ | 6.1 UJ | 6 UJ | 18 U | 18 U | 18 U | 18 U | 6.1 U |
| Dibenzofuran | | | 540 | 540 | 20 U | 19 U | 20 U | 59 U | 59 U | 66 U | 58 U | **200** |
| Fluoranthene | | | 1700 | 2500 | **88** | **66** | **180** | 59 U | **74** | **72** | **42 J** | **1300** |
| Fluorene | | | 540 | 540 | 20 U | 19 U | 20 U | 59 U | 59 U | 66 U | 58 U | **230** |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | 20 U | 19 U | 20 U | 59 U | 59 U | 66 U | 58 U | **21** |
| Naphthalene | | | 2100 | 2100 | 20 U | 19 U | 20 U | 59 U | 59 U | 66 U | 58 U | **21** |
| Phenanthrene | | | 1500 | 1500 | **20** | **15 J** | **28** | 59 U | **33 J** | 66 U | 58 U | **1800** |
| Pyrene | | | 2600 | 3300 | **48** | **36** | **65 J** | 59 U | **53 J** | **52 J** | **59** | **1100** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | **35.17 J** | **28.89 J** | **45.5 J** | **84.76 J** | **47.94 J** | **75.77 J** | **83.41 J** | **137.71** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | **33.865 J** | **27.635 J** | **44.2 J** | **42.56 J** | **44.09 J** | **71.57 J** | **41.91 J** | **137.405** |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | **64 J** | **54 J** | **90 J** | 59 U | **56 J** | **86 J** | 58 U | **420** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | **32.56 J** | **26.38 J** | **42.9 J** | **0.36 J** | **40.24 J** | **67.37 J** | **0.41 J** | **137.1** |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | **305 J** | **256 J** | **521 J** | **36 J** | **330 J** | **417 J** | **142 J** | **3369** |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | **32 J** | **26 J** | **43 J** | 59 U | **33 J** | 66 U | **53 J** | **2273** |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **0.312 J** | **0.183 J** | **0.223 J** | **0.496** | 0.499 U | **0.476** | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **1.07 J** | **0.684 J** | **0.801 J** | **1.82** | **1.97** | **1.56** | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **1.49 J** | **1.56 J** | **1.38 J** | **2.73** | **3.32** | **3** | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | Baywood | Baywood | Baywood | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | BW-03 | BW-03 | BW-11 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED10 |
| Sample ID | | | | | BW-03-SS-090602 | BW-53-SS-090602 | BW-11-SS-090602 | 3SED1-A | 3SED1-B | 3SED1-C | 3SED2-A | 3SED10-A |
| Sample Date | | | | | 6/2/2009 | 6/2/2009 | 6/2/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | FD | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303268 | 1303268 | 1303114 | -122.213139 | -122.213139 | -122.213139 | -122.213139 | -122.214142 |
| Y | | | | | 373754 | 373754 | 374189 | 48.014366 | 48.014366 | 48.014366 | 48.014366 | 48.015575 |
| **Analyte** | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **8.2** | **6.76** | **5.08** | **30.7** | **29.4** | **23.2** | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **3.78** | **2.86** | **2.82** | **9.93** | **11.4** | **9.04** | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **130** | **93.5** | **89.8** | **738** | **620** | **583** | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | **1160** | **734** | **731** | **5050** | **5130** | **5030** | -- | -- |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **12.6 J** | **11.8 J** | **22.8 J** | -- | -- | -- | -- | -- |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **13.7 J** | **10.9 J** | **21.6 J** | -- | -- | -- | -- | -- |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **67.9 J** | **54.2 J** | **57.2** | -- | -- | -- | -- | -- |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **300** | **218** | **272** | -- | -- | -- | -- | -- |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | **1.22** | **1.03** | **1.16** | **2.79** | **2.87** | **2.56** | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **0.474 J** | **0.408 J** | **0.402 J** | **2.76** | **2.19** | **1.94** | -- | -- |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **1.05 J** | **0.824 J** | **0.928 J** | **3.56** | **3.09** | **2.65** | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **1.26 J** | **0.86 J** | **0.821 J** | **10.6** | **8.35** | **7.82** | -- | -- |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **1.09 J** | **0.778 J** | **0.693 J** | **4.31** | **3.66** | **3.25** | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | **0.336 J** | **0.357 J** | **0.275 J** | **0.38** | 0.363 U | **0.297** | -- | -- |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **1.76 J** | **1.31 J** | **1.12 J** | **2.91** | **2.91** | **2.87** | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | **27.9** | **17.3** | **12.2** | **109** | 91.2 U | **87.8** | -- | -- |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | **1.43 J** | **0.952 J** | **0.763 J** | **8.24** | **6.9** | **6.44** | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | **64.8** | **35.6** | **33.3** | **328** | **249** | **215** | -- | -- |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | **14.7 J** | **11.3 J** | **13.3 J** | -- | -- | -- | -- | -- |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | **14.5 J** | **8.99 J** | **9.3 J** | -- | -- | -- | -- | -- |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | **37.3 J** | **26.2 J** | **19.5 J** | -- | -- | -- | -- | -- |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | **90.3 J** | **52 J** | **37.9** | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | **5.22428 J** | **3.87688 J** | **4.14076 J** | **14.6467** | **13.9152** | **12.1996** | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | **3.84688 J** | **2.91058 J** | **2.92186 J** | **10.413** | **10.0022** | **8.882** | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | **5.58556 J** | **4.02634 J** | **3.90628 J** | **20.0676** | **18.4837** | **16.4388** | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | **5.22428 J** | **3.87688 J** | **4.14076 J** | **14.6467** | **13.19155** | **12.1996** | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | **3.84688 J** | **2.91058 J** | **2.92186 J** | **10.413** | **9.27855** | **8.882** | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | **5.58556 J** | **4.02634 J** | **3.90628 J** | **20.0676** | **17.76005** | **16.4388** | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | **5.22428 J** | **3.87688 J** | **4.14076 J** | **14.6467** | **12.4679** | **12.1996** | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | **3.84688 J** | **2.91058 J** | **2.92186 J** | **10.413** | **8.5549** | **8.882** | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | **5.58556 J** | **4.02634 J** | **3.90628 J** | **20.0676** | **17.0364** | **16.4388** | -- | -- |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | 0.8235 U | 0.6087 U | 0.6447 U | **0.3409** | **0.4804** | **0.3609** | 0.184 U | 0.547 U |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | | | |
| Aroclor 1016 | | | | | 9.8 U | 9.8 U | 9.8 U | 3.9 U | 3.9 U | 4 U | 3.9 U | 3.9 U |
| Aroclor 1221 | | | | | 9.8 U | 9.8 U | 9.8 U | 3.9 U | 3.9 U | 4 U | 3.9 U | 3.9 U |
| Aroclor 1232 | | | | | 9.8 U | 9.8 U | 9.8 U | 3.9 U | 3.9 U | 4 U | 3.9 U | 3.9 U |
| Aroclor 1242 | | | | | 9.8 U | 9.8 U | 9.8 U | 3.9 U | 3.9 U | 4 U | 3.9 U | 3.9 U |
| Aroclor 1248 | | | | | 9.8 U | 9.8 U | 9.8 U | 3.9 U | 3.9 U | 4 U | 3.9 U | 3.9 U |
| Aroclor 1254 | | | | | 9.8 U | 9.8 U | 9.8 U | **7.5** | **9.4** | **8.3** | 3.9 U | 3.9 U |
| Aroclor 1260 | | | | | 9.8 U | 9.8 U | 9.8 U | 3.9 U | **5.3** | 4 U | 3.9 U | 3.9 U |
| Aroclor 1262 | | | | | 9.8 U | 9.8 U | 9.8 U | -- | -- | -- | -- | -- |
| Aroclor 1268 | | | | | 9.8 U | 9.8 U | 9.8 U | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | 9.8 U | 9.8 U | 9.8 U | **7.5** | **14.7** | **8.3** | 3.9 U | 3.9 U |

# Table H-1
## Surface Sediment Results

| Task | | | | | Baywood | Baywood | Baywood | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | BW-03 | BW-03 | BW-11 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED10 |
| Sample ID | | | | | BW-03-SS-090602 | BW-53-SS-090602 | BW-11-SS-090602 | 3SED1-A | 3SED1-B | 3SED1-C | 3SED2-A | 3SED10-A |
| Sample Date | | | | | 6/2/2009 | 6/2/2009 | 6/2/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | FD | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303268 | 1303268 | 1303114 | -122.213139 | -122.213139 | -122.213139 | -122.213139 | -122.214142 |
| Y | | | | | 373754 | 373754 | 374189 | 48.014366 | 48.014366 | 48.014366 | 48.014366 | 48.015575 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (ng/kg)** | | | | | | | | | | | | |
| PCB-001 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-002 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-003 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-004 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-005 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-006 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-007 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-008 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-009 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-010 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-011 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-012/013 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-014 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-015 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-016 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-017 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-018/030 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-019 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-020/028 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-021/033 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-022 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-023 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-024 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-025 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-026/029 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-027 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-031 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-032 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-034 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-035 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | Baywood | Baywood | Baywood | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | BW-03 | BW-03 | BW-11 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED10 |
| Sample ID | | | | | BW-03-SS-090602 | BW-53-SS-090602 | BW-11-SS-090602 | 3SED1-A | 3SED1-B | 3SED1-C | 3SED2-A | 3SED10-A |
| Sample Date | | | | | 6/2/2009 | 6/2/2009 | 6/2/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | FD | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303268 | 1303268 | 1303114 | -122.213139 | -122.213139 | -122.213139 | -122.213139 | -122.214142 |
| Y | | | | | 373754 | 373754 | 374189 | 48.014366 | 48.014366 | 48.014366 | 48.014366 | 48.015575 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | | |
| PCB-036 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-037 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-038 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-039 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-040/071 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-041 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-042 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-043 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-044/047/065 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-045 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-046 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-048 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-049/069 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-050/053 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-051 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-052 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-054 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-055 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-056 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-057 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-058 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-059/062/075 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-060 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-061/070/074/076 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-063 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-064 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-066 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-067 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-068 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-072 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-073 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-077 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-078 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-079 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-080 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-081 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-082 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-083 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-084 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-085/116 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/109/119/125 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-088 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-089 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | Baywood | Baywood | Baywood | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | BW-03 | BW-03 | BW-11 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED10 |
| Sample ID | | | | | BW-03-SS-090602 | BW-53-SS-090602 | BW-11-SS-090602 | 3SED1-A | 3SED1-B | 3SED1-C | 3SED2-A | 3SED10-A |
| Sample Date | | | | | 6/2/2009 | 6/2/2009 | 6/2/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | FD | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303268 | 1303268 | 1303114 | -122.213139 | -122.213139 | -122.213139 | -122.213139 | -122.214142 |
| Y | | | | | 373754 | 373754 | 374189 | 48.014366 | 48.014366 | 48.014366 | 48.014366 | 48.015575 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | | |
| PCB-090/101/113 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-091 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-092 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-093/100 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-094 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-095 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-096 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-098 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-099 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-102 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-103 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-104 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-105 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-106 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-107 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-107/124 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-108/124 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-109 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-110 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-111 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-112 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-114 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-115 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-117 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-118 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-120 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-121 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-122 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-123 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-126 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-127 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-128/166 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-129/138/163 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-130 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-131 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-132 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-133 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-134 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-135/151 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-136 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-137 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-139/140 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-141 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-142 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | Baywood | Baywood | Baywood | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | BW-03 | BW-03 | BW-11 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED10 |
| Sample ID | | | | | BW-03-SS-090602 | BW-53-SS-090602 | BW-11-SS-090602 | 3SED1-A | 3SED1-B | 3SED1-C | 3SED2-A | 3SED10-A |
| Sample Date | | | | | 6/2/2009 | 6/2/2009 | 6/2/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | FD | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303268 | 1303268 | 1303114 | -122.213139 | -122.213139 | -122.213139 | -122.213139 | -122.214142 |
| Y | | | | | 373754 | 373754 | 374189 | 48.014366 | 48.014366 | 48.014366 | 48.014366 | 48.015575 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | | |
| PCB-143 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-144 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-145 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-146 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-147/149 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-148 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-150 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-152 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-153/168 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-154 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-155 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-156/157 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-158 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-159 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-160 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-161 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-162 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-164 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-165 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-167 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-169 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-170 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-171/173 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-172 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-174 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-175 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-176 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-177 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-178 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-179 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-180/193 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-181 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-182 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-183 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-184 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-185 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-186 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-187 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-188 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-189 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-190 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-191 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-192 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-194 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | Baywood | Baywood | Baywood | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | BW-03 | BW-03 | BW-11 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED10 |
| Sample ID | | | | | BW-03-SS-090602 | BW-53-SS-090602 | BW-11-SS-090602 | 3SED1-A | 3SED1-B | 3SED1-C | 3SED2-A | 3SED10-A |
| Sample Date | | | | | 6/2/2009 | 6/2/2009 | 6/2/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | FD | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303268 | 1303268 | 1303114 | -122.213139 | -122.213139 | -122.213139 | -122.213139 | -122.214142 |
| Y | | | | | 373754 | 373754 | 374189 | 48.014366 | 48.014366 | 48.014366 | 48.014366 | 48.015575 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| PCB-195 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-196 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-197 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-198/199 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-200 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-201 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-202 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-203 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-204 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-205 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-206 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-207 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-208 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-209 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Total Petroleum Hydrocarbons (mg/kg)** | | | | | | | | | | | | |
| Diesel range hydrocarbons | | | | | **10** | **12** | **15** | -- | -- | -- | -- | -- |
| Motor oil range hydrocarbons | | | | | **54** | **70** | **79** | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **0.0004390151261 J** | **0.0002408 J** | **0.0002724184211 J** | **0.000665759** | **0.000454745** | **0.000530417** | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **0.0003232672269 J** | **0.0001807813665 J** | **0.0001922276316 J** | **0.000473318** | **0.000326869** | **0.000386174** | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **0.0004693747899 J** | **0.0002500832298 J** | **0.0002569921053 J** | **0.000912164** | **0.000604042** | **0.00071473** | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **0.0004390151261 J** | **0.0002408 J** | **0.0002724184211 J** | **0.000665759** | **0.000431096** | **0.000530417** | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **0.0003232672269 J** | **0.0001807813665 J** | **0.0001922276316 J** | **0.000473318** | **0.000303221** | **0.000386174** | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | **0.0004693747899 J** | **0.0002500832298 J** | **0.0002569921053 J** | **0.000912164** | **0.000580394** | **0.00071473** | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | **0.0004390151261 J** | **0.0002408 J** | **0.0002724184211 J** | **0.000665759** | **0.000407448** | **0.000530417** | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | **0.0003232672269 J** | **0.0001807813665 J** | **0.0001922276316 J** | **0.000473318** | **0.000279572** | **0.000386174** | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | **0.0004693747899 J** | **0.0002500832298 J** | **0.0002569921053 J** | **0.000912164** | **0.000556745** | **0.00071473** | -- | -- |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **5.22428 J** | **3.87688 J** | **4.14076 J** | **14.6467** | **13.9152** | **12.1996** | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **3.84688 J** | **2.91058 J** | **2.92186 J** | **10.413** | **10.0022** | **8.882** | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **5.58556 J** | **4.02634 J** | **3.90628 J** | **20.0676** | **18.4837** | **16.4388** | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **5.22428 J** | **3.87688 J** | **4.14076 J** | **14.6467** | **13.19155** | **12.1996** | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **3.84688 J** | **2.91058 J** | **2.92186 J** | **10.413** | **9.27855** | **8.882** | -- | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | Baywood | Baywood | Baywood | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | BW-03 | BW-03 | BW-11 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED1 | FS2757-3SED10 |
| Sample ID | | | | | BW-03-SS-090602 | BW-53-SS-090602 | BW-11-SS-090602 | 3SED1-A | 3SED1-B | 3SED1-C | 3SED2-A | 3SED10-A |
| Sample Date | | | | | 6/2/2009 | 6/2/2009 | 6/2/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | FD | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303268 | 1303268 | 1303114 | -122.213139 | -122.213139 | -122.213139 | -122.213139 | -122.214142 |
| Y | | | | | 373754 | 373754 | 374189 | 48.014366 | 48.014366 | 48.014366 | 48.014366 | 48.015575 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | 5.58556 J | 4.02634 J | 3.90628 J | 20.0676 | 17.76005 | 16.4388 | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | 5.22428 J | 3.87688 J | 4.14076 J | 14.6467 | 12.4679 | 12.1996 | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | 3.84688 J | 2.91058 J | 2.92186 J | 10.413 | 8.5549 | 8.882 | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | 5.58556 J | 4.02634 J | 3.90628 J | 20.0676 | 17.0364 | 16.4388 | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED10 | FS2757-3SED10 | FS2757-3SED11 | FS2757-3SED11 | FS2757-3SED12 | FS2757-3SED12 | FS2757-3SED2 | FS2757-3SED2 |
| Sample ID | | | | | 3SED10-B | 3SED10-C | 3SED11-A | 3SED11-B | 3SED12-A | 3SED12-B | 3SED2-B | 3SED2-C |
| Sample Date | | | | | 6/5/2009 | 6/5/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.214142 | -122.214142 | -122.2125 | -122.2125 | -122.21213 | -122.21213 | -122.212828 | -122.212828 |
| Y | SMS_Marine_ | SMS_Marine_ | AET_Marine_ | AET_Marine_ | 48.015575 | 48.015575 | 48.01249 | 48.01249 | 48.01274 | 48.01274 | 48.014696 | 48.014696 |
| Analyte | SCO_SCUMII | CSL_SCUMII | SCO_SCUMII | CSL_SCUMII | | | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | | | |
| Total organic carbon | | | | | **0.952** | **1.83** | **1.12** | **1.03** | **0.814** | **1.45** | **3.25** | **5.41** |
| Moisture, percent | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Solids | | | | | **54.2** | **62.3** | **64.4** | **62.9** | **68** | **59.3** | **68.8** | **61.9** |
| Total solids (preserved) | | | | | **51.3** | **58.6** | **64.5** | **60.6** | **61.5** | **60.9** | **55.6** | **55** |
| Total volatile solids | | | | | **7.77** | **7.14** | **3.23** | **4.08** | **2.91** | **4.44** | **4.94** | **9.87** |
| **Conventional Parameters (mg/kg)** | | | | | | | | | | | | |
| Ammonia as nitrogen | | | | | **20.9** | **2.57** | **5.96** | **6.89** | **9.94** | **7.19** | **9.51** | **5.95** |
| Black carbon | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Sulfide | | | | | **29.6** | **7.75** | **13.4** | **21** | **74.1** | **173** | **250** | **462** |
| **Grain Size (pct)** | | | | | | | | | | | | |
| Cobbles | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Gravel | | | | | **2.2** | **14** | **0.8** | **1.9** | **0.3** | **0.1** | **5.8** | **6.2** |
| Sand | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Sand, very coarse | | | | | **2.5** | **5.9** | **0.2** | **0.4** | **0.3** | **0.7** | **5.3** | **5.1** |
| Sand, coarse | | | | | **2.5** | **3.2** | **0.7** | **0.6** | **0.5** | **0.7** | **11.4** | **9.4** |
| Sand, medium | | | | | **3** | **6.1** | **1.5** | **1.4** | **1.2** | **1.1** | **24.4** | **16.6** |
| Sand, fine | | | | | **3.9** | **6** | **9.7** | **8.8** | **7.7** | **5.4** | **16.4** | **10.7** |
| Sand, very fine | | | | | **6.9** | **6.3** | **31.5** | **24.1** | **32.7** | **19.5** | **8.6** | **6.2** |
| Silt | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Silt, coarse | | | | | **16.4** | **13.5** | **22.9** | **24.3** | **25.6** | **26** | **7** | **8.5** |
| Silt, medium | | | | | **21.6** | **14.6** | **14** | **15.5** | **13.1** | **21** | **5.9** | **11.2** |
| Silt, fine | | | | | **14.5** | **10.1** | **7.8** | **9.2** | **8.1** | **11.5** | **5.8** | **9.7** |
| Silt, very fine | | | | | **10.2** | **6.9** | **3.2** | **4.9** | **3.4** | **4.7** | **3** | **5.6** |
| Total fines (Reported, not calculated) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Clay | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Clay, coarse | | | | | **6** | **4.1** | **2.2** | **2.4** | **2** | **2.6** | -- | **3.1** |
| Clay, medium | | | | | **3.3** | **3.3** | **2.2** | **2.5** | **2.1** | **2.8** | **1.7** | **3** |
| Clay, fine | | | | | **6.9** | **6** | **3.3** | **4** | **3.1** | **4** | **2.6** | **4.6** |
| **Metals (mg/kg)** | | | | | | | | | | | | |
| Antimony | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Arsenic | 57 | 93 | 57 | 93 | **21** | **40** | **11** | **12** | **12** | **13** | **15** | **15** |
| Cadmium | 5.1 | 6.7 | 5.1 | 6.7 | 0.4 U | 0.8 U | 0.3 U | 0.3 U | 0.3 U | 0.3 U | 0.3 U | 0.3 U |
| Chromium | 260 | 270 | 260 | 270 | **54.7** | **66** | **36.8** | **43** | **37.2** | **42** | **41** | **46.4** |
| Copper | 390 | 390 | 390 | 390 | **61.9** | **89.7** | **30.1** | **37.3** | **29** | **37.4** | **38.9** | **54** |
| Lead | 450 | 530 | 450 | 530 | **15** | **31** | **7** | **8** | **8** | **8** | **15** | **17** |
| Mercury | 0.41 | 0.59 | 0.41 | 0.59 | **0.09** | **0.11** | **0.05** | **0.06** | **0.05** | **0.06** | **0.05** | **0.07** |
| Nickel | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Silver | 6.1 | 6.1 | 6.1 | 6.1 | 0.5 U | 1 U | 0.4 U | 0.5 U | 0.4 U | 0.5 U | 0.5 U | **1** |
| Zinc | 410 | 960 | 410 | 960 | **98** | **119** | **55** | **65** | **54** | **64** | **74** | **117** |
| **Volatile Organics (mg/kg-OC)** | | | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (µg/kg)** | | | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED10 | FS2757-3SED10 | FS2757-3SED11 | FS2757-3SED11 | FS2757-3SED12 | FS2757-3SED12 | FS2757-3SED2 | FS2757-3SED2 |
| Sample ID | | | | | 3SED10-B | 3SED10-C | 3SED11-A | 3SED11-B | 3SED12-A | 3SED12-B | 3SED2-B | 3SED2-C |
| Sample Date | | | | | 6/5/2009 | 6/5/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.214142 | -122.214142 | -122.2125 | -122.2125 | -122.21213 | -122.21213 | -122.212828 | -122.212828 |
| Y | SMS_Marine_ | SMS_Marine_ | AET_Marine_ | AET_Marine_ | 48.015575 | 48.015575 | 48.01249 | 48.01249 | 48.01274 | 48.01274 | 48.014696 | 48.014696 |
| Analyte | SCO_SCUMII | CSL_SCUMII | SCO_SCUMII | CSL_SCUMII | | | | | | | | |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | 0.63 U | 0.3333 U | 0.536 U | 0.583 U | 0.7494 U | 0.4207 U | 0.554 U | 0.351 U |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | 0.63 U | 0.3333 U | 0.536 U | 0.583 U | 0.7494 U | 0.4207 U | 0.554 U | 0.351 U |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | 0.63 U | 0.3333 U | 0.536 U | 0.583 U | 0.7494 U | 0.4207 U | 0.554 U | 0.351 U |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | **3.782** | **2.568** | **1.071 J** | **1.456 J** | **1.597 J** | **0.897 J** | **3.077** | **11.46** |
| Butylbenzyl phthalate | 4.9 | 64 | | | 1.576 U | 0.82 U | 1.339 U | 1.456 U | 1.843 U | 1.034 U | 1.415 U | 0.869 U |
| Diethyl phthalate | 61 | 110 | | | **1.996 J** | 1.093 U | 1.786 U | 1.942 U | 2.457 U | 1.379 U | 1.785 U | 1.091 U |
| Dimethyl phthalate | 53 | 53 | | | 2.101 U | 1.093 U | 1.786 U | 1.942 U | 2.457 U | 1.379 U | 1.785 U | 1.091 U |
| Di-n-butyl phthalate | 220 | 1700 | | | 2.101 U | 1.093 U | 1.786 U | 1.942 U | 2.457 U | 1.379 U | 1.785 U | 1.091 U |
| Di-n-octyl phthalate | 58 | 4500 | | | 2.101 U | 1.093 U | 1.786 U | 1.942 U | 2.457 U | 1.379 U | 1.785 U | 1.091 U |
| Hexachlorobenzene | 0.38 | 2.3 | | | 0.63 U | 0.3333 U | 0.536 U | 0.583 U | 0.7494 U | 0.4207 U | 0.585 U | 0.1072 U |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | 0.63 U | 0.3333 U | 0.536 U | 0.583 U | 0.7494 U | 0.4207 U | 0.554 U | 0.351 U |
| n-Nitrosodiphenylamine | 11 | 11 | | | 0.63 U | 0.3333 U | 0.536 U | 0.583 U | 0.7494 U | 0.4207 U | 1.477 U | 0.351 U |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | 6 U | 6.1 U | 6 U | 6 U | 6.1 U | 6.1 U | 18 U | 19 U |
| 1,2-Dichlorobenzene | | | 35 | 50 | 6 U | 6.1 U | 6 U | 6 U | 6.1 U | 6.1 U | 18 U | 19 U |
| 1,3-Dichlorobenzene | | | | | 6 U | 6.1 U | 6 U | 6 U | 6.1 U | 6.1 U | 18 U | 19 U |
| 1,4-Dichlorobenzene | | | 110 | 110 | 6 U | 6.1 U | 6 U | 6 U | 6.1 U | 6.1 U | 18 U | 19 U |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | 6 U | 6.1 U | 6 U | 6 U | 6.1 U | 6.1 U | 18 U | 19 U |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | 6 U | 6.1 U | 6 U | 6 U | 6.1 U | 6.1 U | 18 U | 19 U |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | **14 J** | **18 J** | 20 U | 20 U | 20 U | 20 U | 58 U | 59 U |
| Benzoic acid | 650 | 650 | 650 | 650 | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 580 U | 590 U |
| Benzyl alcohol | 57 | 73 | 57 | 73 | 20 U | 30 U | 20 U | 20 U | 20 U | 20 U | 58 U | 59 U |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | **36** | **47** | **12 J** | **15 J** | **13 J** | **13 J** | **100** | **620** |
| Butylbenzyl phthalate | | | 63 | 900 | 15 U | 15 U | 15 U | 15 U | 15 U | 15 U | 46 U | 47 U |
| Diethyl phthalate | | | 200 | 1200 | **19 J** | 20 U | 20 U | 20 U | 20 U | 20 U | 58 U | 59 U |
| Dimethyl phthalate | | | 71 | 160 | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 58 U | 59 U |
| Di-n-butyl phthalate | | | 1400 | 1400 | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 58 U | 59 U |
| Di-n-octyl phthalate | | | 6200 | 6200 | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 58 U | 59 U |
| Hexachlorobenzene | | | 22 | 70 | 6 U | 6.1 U | 6 U | 6 U | 6.1 U | 6.1 U | 19 U | 5.8 U |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | 6 U | 6.1 U | 6 U | 6 U | 6.1 U | 6.1 U | 18 U | 19 U |
| Hexachloroethane | | | | | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 58 U | 59 U |
| n-Nitrosodiphenylamine | | | 28 | 40 | 6 U | 6.1 U | 6 U | 6 U | 6.1 U | 6.1 U | 48 U | 19 U |
| Pentachlorophenol | 360 | 690 | 360 | 690 | 30 U | 30 U | 30 U | 30 U | 30 U | 31 U | 93 U | 93 U |
| Phenol | 420 | 1200 | 420 | 1200 | 20 U | 20 U | **14 J** | 20 U | 20 U | 20 U | 58 U | 59 U |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | 2.101 U | **0.601 J** | 1.786 U | 1.942 U | 2.457 U | 1.379 U | 1.785 U | 1.091 U |
| Acenaphthene | 16 | 57 | | | 2.101 U | 1.093 U | 1.786 U | 1.942 U | 2.457 U | 1.379 U | 1.785 U | 1.091 U |
| Acenaphthylene | 66 | 66 | | | **1.155 J** | 1.093 U | 1.786 U | 1.942 U | 2.457 U | 1.379 U | 1.785 U | 1.091 U |
| Anthracene | 220 | 1200 | | | **3.676** | **1.967** | 1.786 U | 1.942 U | 2.457 U | 1.379 U | **6.154** | **2.218** |
| Benzo(a)anthracene | 110 | 270 | | | **9.979** | **4.754** | 1.786 U | **1.845 J** | 2.457 U | **0.828 J** | **1.785** | **0.628 J** |
| Benzo(a)pyrene | 99 | 210 | | | **6.303** | **1.803** | 1.786 U | **2.039** | 2.457 U | **0.828 J** | **2.338** | **0.906 J** |
| Benzo(g,h,i)perylene | 31 | 78 | | | **1.891 J** | **1.53** | 1.786 U | **1.165 J** | 2.457 U | 1.379 U | **1.6 J** | **0.721 J** |
| Chrysene | 110 | 460 | | | **24.16** | **24.044** | **1.429 J** | **3.01** | **1.843 J** | **1.586** | **3.015** | **1.22** |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED10 | FS2757-3SED10 | FS2757-3SED11 | FS2757-3SED11 | FS2757-3SED12 | FS2757-3SED12 | FS2757-3SED2 | FS2757-3SED2 |
| Sample ID | | | | | 3SED10-B | 3SED10-C | 3SED11-A | 3SED11-B | 3SED12-A | 3SED12-B | 3SED2-B | 3SED2-C |
| Sample Date | | | | | 6/5/2009 | 6/5/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.214142 | -122.214142 | -122.2125 | -122.2125 | -122.21213 | -122.21213 | -122.212828 | -122.212828 |
| Y | | | | | 48.015575 | 48.015575 | 48.01249 | 48.01249 | 48.01274 | 48.01274 | 48.014696 | 48.014696 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | | |
| Dibenzo(a,h)anthracene | 12 | 33 | | | 2.101 U | 1.093 U | 0.536 U | 0.583 U | 0.8231 U | **0.4207** | 1.785 U | 0.351 U |
| Dibenzofuran | 15 | 58 | | | 2.101 U | 1.093 U | 1.786 U | 1.942 U | 2.457 U | 1.379 U | 1.785 U | 1.091 U |
| Fluoranthene | 160 | 1200 | | | **68.277** | **10.929** | **1.607 J** | **5.146** | **1.843 J** | **2** | **4.308** | **2.033** |
| Fluorene | 23 | 79 | | | **1.366 J** | **0.656 J** | 1.786 U | 1.942 U | 2.457 U | 1.379 U | 1.785 U | 1.091 U |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | **2.206** | **1.913** | 1.786 U | **1.068 J** | 2.457 U | 1.379 U | **1.323 J** | **0.555 J** |
| Naphthalene | 99 | 170 | | | 2.101 U | 1.093 U | 1.786 U | 1.942 U | 2.457 U | 1.379 U | 1.785 U | 1.091 U |
| Phenanthrene | 100 | 480 | | | **10.084** | **1.803** | 1.786 U | **2.136** | 2.457 U | 1.379 U | **3.077** | **1.553** |
| Pyrene | 1000 | 1400 | | | **38.866** | **9.836** | **1.161 J** | **3.204** | **1.351 J** | **1.31 J** | **2.923** | **1.275** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | **10.4937** | **6.20765** | **2.56786 J** | **2.82621 J** | **3.540541 J** | **1.29931 J** | **3.264 J** | **1.23031 J** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | **10.38866** | **6.15301** | **1.29107 J** | **2.79709 J** | **1.779484 J** | **1.230345 J** | **3.17477 J** | **1.21275 J** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | **10.28361** | **6.09836** | **0.01429 J** | **2.76796 J** | **0.018428 J** | **1.161379 J** | **3.08554 J** | **1.19519 J** |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | **25.21** | **33.88** | 1.786 U | **4.078** | 2.457 U | **1.931 J** | **4.062** | **1.59 J** |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | **176.891 J** | **88.689** | **4.196 J** | **21.553 J** | **5.0369 J** | **8.9034 J** | **21.354 J** | **8.928 J** |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | **16.282 J** | **4.426 J** | 1.786 U | **2.136** | 2.457 U | 1.379 U | **9.231** | **3.771** |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | | | |
| 1-Methylnaphthalene | | | | | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 58 U | 59 U |
| 2-Methylnaphthalene | | | 670 | 670 | 20 U | **11 J** | 20 U | 20 U | 20 U | 20 U | 58 U | 59 U |
| Acenaphthene | | | 500 | 500 | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 58 U | 59 U |
| Acenaphthylene | | | 1300 | 1300 | **11 J** | 20 U | 20 U | 20 U | 20 U | 20 U | 58 U | 59 U |
| Anthracene | | | 960 | 960 | **35** | **36** | 20 U | 20 U | 20 U | 20 U | **200** | **120** |
| Benzo(a)anthracene | | | 1300 | 1600 | **95** | **87** | 20 U | **19 J** | 20 U | **12 J** | **58** | **34 J** |
| Benzo(a)pyrene | | | 1600 | 1600 | **60** | **33** | 20 U | **21** | 20 U | **12 J** | **76** | **49 J** |
| Benzo(b)fluoranthene | | | | | **120** | **310** | 20 U | **21** | 20 U | **14 J** | **66** | **43 J** |
| Benzo(g,h,i)perylene | | | 670 | 720 | **18 J** | **28** | 20 U | **12 J** | 20 U | 20 U | **52 J** | **39 J** |
| Benzo(k)fluoranthene | | | | | **120** | **310** | 20 U | **21** | 20 U | **14 J** | **66** | **43 J** |
| Chrysene | | | 1400 | 2800 | **230** | **440** | **16 J** | **31** | **15 J** | **23** | **98** | **66** |
| Dibenzo(a,h)anthracene | | | 230 | 230 | 20 U | 20 U | 6 U | 6 U | 6.7 U | **6.1** | 58 U | 19 U |
| Dibenzofuran | | | 540 | 540 | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 58 U | 59 U |
| Fluoranthene | | | 1700 | 2500 | **650** | **200** | **18 J** | **53** | **15 J** | **29** | **140** | **110** |
| Fluorene | | | 540 | 540 | **13 J** | **12 J** | 20 U | 20 U | 20 U | 20 U | 58 U | 59 U |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | **21** | **35** | 20 U | **11 J** | 20 U | 20 U | **43 J** | **30 J** |
| Naphthalene | | | 2100 | 2100 | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 58 U | 59 U |
| Phenanthrene | | | 1500 | 1500 | **96** | **33** | 20 U | **22** | 20 U | 20 U | **100** | **84** |
| Pyrene | | | 2600 | 3300 | **370** | **180** | **13 J** | **33** | **11 J** | **19 J** | **95** | **69** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | **99.9** | **113.6** | **28.76 J** | **29.11 J** | **28.82 J** | **18.84 J** | **106.08 J** | **66.56 J** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | **98.9** | **112.6** | **14.46 J** | **28.81 J** | **14.485 J** | **17.84 J** | **103.18 J** | **65.61 J** |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | **240** | **620** | 20 U | **42** | 20 U | **28 J** | **132** | **86 J** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | **97.9** | **111.6** | **0.16 J** | **28.51 J** | **0.15 J** | **16.84 J** | **100.28 J** | **64.66 J** |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | **1684 J** | **1623** | **47 J** | **222 J** | **41 J** | **129.1 J** | **694 J** | **483 J** |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | **155 J** | **81 J** | 20 U | **22** | 20 U | 20 U | **300** | **204** |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED10 | FS2757-3SED10 | FS2757-3SED11 | FS2757-3SED11 | FS2757-3SED12 | FS2757-3SED12 | FS2757-3SED2 | FS2757-3SED2 |
| Sample ID | | | | | 3SED10-B | 3SED10-C | 3SED11-A | 3SED11-B | 3SED12-A | 3SED12-B | 3SED2-B | 3SED2-C |
| Sample Date | | | | | 6/5/2009 | 6/5/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.214142 | -122.214142 | -122.2125 | -122.2125 | -122.21213 | -122.21213 | -122.212828 | -122.212828 |
| Y | | | | | 48.015575 | 48.015575 | 48.01249 | 48.01249 | 48.01274 | 48.01274 | 48.014696 | 48.014696 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | 0.4097 U | **0.5847** | **12.321** | **8.932** | **169.533** | **3.379** | **0.1446** | **0.342** |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | | | |
| Aroclor 1016 | | | | | 3.9 U | 3.9 U | 12 U | 25 U | 60 U | 27 U | 3.9 U | 3.9 U |
| Aroclor 1221 | | | | | 3.9 U | 3.9 U | 12 U | 25 U | 60 U | 27 U | 3.9 U | 3.9 U |
| Aroclor 1232 | | | | | 3.9 U | 3.9 U | 12 U | 25 U | 60 U | 27 U | 3.9 U | 3.9 U |
| Aroclor 1242 | | | | | 3.9 U | 3.9 U | 12 U | 25 U | 60 U | 27 U | 3.9 U | 3.9 U |
| Aroclor 1248 | | | | | 3.9 U | 3.9 U | 12 U | 25 U | 60 U | 27 U | 3.9 U | **12** |
| Aroclor 1254 | | | | | 3.9 U | **4.5** | **99** | **92** | **990** | **49** | **4.7** | **6.5** |
| Aroclor 1260 | | | | | 3.9 U | **6.2** | **39** | 25 U | **390** | 27 U | 3.9 U | 3.9 U |
| Aroclor 1262 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1268 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | 3.9 U | **10.7** | **138** | **92** | **1380** | **49** | **4.7** | **18.5** |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED10 | FS2757-3SED10 | FS2757-3SED11 | FS2757-3SED11 | FS2757-3SED12 | FS2757-3SED12 | FS2757-3SED2 | FS2757-3SED2 |
| Sample ID | | | | | 3SED10-B | 3SED10-C | 3SED11-A | 3SED11-B | 3SED12-A | 3SED12-B | 3SED2-B | 3SED2-C |
| Sample Date | | | | | 6/5/2009 | 6/5/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.214142 | -122.214142 | -122.2125 | -122.2125 | -122.21213 | -122.21213 | -122.212828 | -122.212828 |
| Y | SMS_Marine_ | SMS_Marine_ | AET_Marine_ | AET_Marine_ | 48.015575 | 48.015575 | 48.01249 | 48.01249 | 48.01274 | 48.01274 | 48.014696 | 48.014696 |
| Analyte | SCO_SCUMII | CSL_SCUMII | SCO_SCUMII | CSL_SCUMII | | | | | | | | |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (ng/kg)** | | | | | | | | | | | | |
| PCB-001 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-002 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-003 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-004 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-005 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-006 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-007 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-008 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-009 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-010 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-011 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-012/013 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-014 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-015 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-016 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-017 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-018/030 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-019 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-020/028 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-021/033 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-022 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-023 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-024 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-025 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-026/029 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-027 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-031 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-032 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-034 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-035 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED10 | FS2757-3SED10 | FS2757-3SED11 | FS2757-3SED11 | FS2757-3SED12 | FS2757-3SED12 | FS2757-3SED2 | FS2757-3SED2 |
| Sample ID | | | | | 3SED10-B | 3SED10-C | 3SED11-A | 3SED11-B | 3SED12-A | 3SED12-B | 3SED2-B | 3SED2-C |
| Sample Date | | | | | 6/5/2009 | 6/5/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.214142 | -122.214142 | -122.2125 | -122.2125 | -122.21213 | -122.21213 | -122.212828 | -122.212828 |
| Y | | | | | 48.015575 | 48.015575 | 48.01249 | 48.01249 | 48.01274 | 48.01274 | 48.014696 | 48.014696 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| PCB-036 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-037 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-038 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-039 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-040/071 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-041 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-042 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-043 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-044/047/065 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-045 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-046 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-048 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-049/069 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-050/053 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-051 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-052 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-054 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-055 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-056 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-057 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-058 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-059/062/075 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-060 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-061/070/074/076 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-063 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-064 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-066 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-067 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-068 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-072 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-073 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-077 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-078 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-079 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-080 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-081 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-082 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-083 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-084 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-085/116 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/109/119/125 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-088 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-089 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED10 | FS2757-3SED10 | FS2757-3SED11 | FS2757-3SED11 | FS2757-3SED12 | FS2757-3SED12 | FS2757-3SED2 | FS2757-3SED2 |
| Sample ID | | | | | 3SED10-B | 3SED10-C | 3SED11-A | 3SED11-B | 3SED12-A | 3SED12-B | 3SED2-B | 3SED2-C |
| Sample Date | | | | | 6/5/2009 | 6/5/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.214142 | -122.214142 | -122.2125 | -122.2125 | -122.21213 | -122.21213 | -122.212828 | -122.212828 |
| Y | | | | | 48.015575 | 48.015575 | 48.01249 | 48.01249 | 48.01274 | 48.01274 | 48.014696 | 48.014696 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | | |
| PCB-090/101/113 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-091 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-092 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-093/100 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-094 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-095 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-096 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-098 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-099 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-102 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-103 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-104 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-105 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-106 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-107 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-107/124 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-108/124 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-109 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-110 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-111 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-112 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-114 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-115 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-117 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-118 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-120 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-121 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-122 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-123 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-126 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-127 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-128/166 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-129/138/163 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-130 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-131 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-132 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-133 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-134 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-135/151 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-136 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-137 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-139/140 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-141 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-142 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED10 | FS2757-3SED10 | FS2757-3SED11 | FS2757-3SED11 | FS2757-3SED12 | FS2757-3SED12 | FS2757-3SED2 | FS2757-3SED2 |
| Sample ID | | | | | 3SED10-B | 3SED10-C | 3SED11-A | 3SED11-B | 3SED12-A | 3SED12-B | 3SED2-B | 3SED2-C |
| Sample Date | | | | | 6/5/2009 | 6/5/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.214142 | -122.214142 | -122.2125 | -122.2125 | -122.21213 | -122.21213 | -122.212828 | -122.212828 |
| Y | | | | | 48.015575 | 48.015575 | 48.01249 | 48.01249 | 48.01274 | 48.01274 | 48.014696 | 48.014696 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | | |
| PCB-143 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-144 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-145 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-146 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-147/149 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-148 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-150 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-152 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-153/168 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-154 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-155 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-156/157 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-158 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-159 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-160 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-161 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-162 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-164 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-165 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-167 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-169 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-170 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-171/173 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-172 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-174 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-175 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-176 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-177 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-178 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-179 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-180/193 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-181 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-182 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-183 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-184 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-185 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-186 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-187 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-188 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-189 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-190 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-191 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-192 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-194 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED10 | FS2757-3SED10 | FS2757-3SED11 | FS2757-3SED11 | FS2757-3SED12 | FS2757-3SED12 | FS2757-3SED2 | FS2757-3SED2 |
| Sample ID | | | | | 3SED10-B | 3SED10-C | 3SED11-A | 3SED11-B | 3SED12-A | 3SED12-B | 3SED2-B | 3SED2-C |
| Sample Date | | | | | 6/5/2009 | 6/5/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.214142 | -122.214142 | -122.2125 | -122.2125 | -122.21213 | -122.21213 | -122.212828 | -122.212828 |
| Y | | | | | 48.015575 | 48.015575 | 48.01249 | 48.01249 | 48.01274 | 48.01274 | 48.014696 | 48.014696 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| PCB-195 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-196 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-197 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-198/199 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-200 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-201 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-202 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-203 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-204 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-205 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-206 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-207 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-208 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-209 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Total Petroleum Hydrocarbons (mg/kg)** | | | | | | | | | | | | |
| Diesel range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Motor oil range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED10 | FS2757-3SED10 | FS2757-3SED11 | FS2757-3SED11 | FS2757-3SED12 | FS2757-3SED12 | FS2757-3SED2 | FS2757-3SED2 |
| Sample ID | | | | | 3SED10-B | 3SED10-C | 3SED11-A | 3SED11-B | 3SED12-A | 3SED12-B | 3SED2-B | 3SED2-C |
| Sample Date | | | | | 6/5/2009 | 6/5/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 | 6/3/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.214142 | -122.214142 | -122.2125 | -122.2125 | -122.21213 | -122.21213 | -122.212828 | -122.212828 |
| Y | | | | | 48.015575 | 48.015575 | 48.01249 | 48.01249 | 48.01274 | 48.01274 | 48.014696 | 48.014696 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED3 | FS2757-3SED3 | FS2757-3SED3 | FS2757-3SED4 | FS2757-3SED4 | FS2757-3SED4 | FS2757-3SED5 | FS2757-3SED5 |
| Sample ID | | | | | 3SED3-A | 3SED3-B | 3SED3-C | 3SED4-A | 3SED4-B | 3SED4-C | 3SED5-A | 3SED5-B |
| Sample Date | | | | | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/5/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.213567 | -122.213567 | -122.213567 | -122.214406 | -122.214406 | -122.214406 | -122.214718 | -122.214718 |
| Y | SMS_Marine_ | SMS_Marine_ | AET_Marine_ | AET_Marine_ | 48.015214 | 48.015214 | 48.015214 | 48.01574 | 48.01574 | 48.01574 | 48.016007 | 48.016007 |
| Analyte | SCO_SCUMII | CSL_SCUMII | SCO_SCUMII | CSL_SCUMII | | | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | | | |
| Total organic carbon | | | | | **6.65** | **2.06** | **2.91** | **1.56** | **0.74** | **1.17** | **4.92** | **1.01** |
| Moisture, percent | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Solids | | | | | **79.5** | **54.2** | **52.8** | **78.8** | **74** | **72.7** | **82.5** | **68.7** |
| Total solids (preserved) | | | | | **80.7** | **53.7** | **58.5** | **79.6** | **74.3** | **71.1** | **83.3** | **72** |
| Total volatile solids | | | | | **3.23** | **6.04** | **7.48** | **1.71** | **1.99** | **2.37** | **3.21** | **3.97** |
| **Conventional Parameters (mg/kg)** | | | | | | | | | | | | |
| Ammonia as nitrogen | | | | | **0.48** | **4.95** | **9.4** | **5.09** | **6.93** | **6.96** | **0.8** | **4.01** |
| Black carbon | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Sulfide | | | | | **3.39** | **59.2** | **67.5** | 1.44 U | 1.45 U | **42.9** | 1.22 U | **163** |
| **Grain Size (pct)** | | | | | | | | | | | | |
| Cobbles | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Gravel | | | | | **59.7** | **6.4** | **27.3** | **43.9** | **10.9** | **2** | **39.1** | **22** |
| Sand | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Sand, very coarse | | | | | **7.1** | **4.6** | **8.2** | **5.9** | **7** | **4.6** | **10.1** | **5.8** |
| Sand, coarse | | | | | **7.6** | **5.4** | **7.5** | **13.2** | **20.3** | **17** | **16.8** | **6.2** |
| Sand, medium | | | | | **7** | **5.3** | **6.9** | **21.5** | **30.2** | **29.3** | **18.2** | **9.2** |
| Sand, fine | | | | | **3.4** | **4.1** | **3.9** | **8.2** | **13.8** | **15.1** | **7.3** | **5.2** |
| Sand, very fine | | | | | **1.8** | **3.9** | **2.6** | **1.8** | **3** | **5.1** | **1.8** | **6.5** |
| Silt | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Silt, coarse | | | | | **1.6** | **7.2** | **3.6** | **0.7** | **1.9** | **6.8** | **3.1** | **19** |
| Silt, medium | | | | | **2.8** | **18.3** | **11.8** | **1.2** | **4.5** | **6.8** | **0.9** | **10.4** |
| Silt, fine | | | | | **2.7** | **17.4** | **10.5** | **1** | **2.7** | **4.6** | **0.8** | **5.7** |
| Silt, very fine | | | | | **2.2** | **9.7** | **7** | **0.8** | **1.9** | **2.9** | **0.5** | **3.2** |
| Total fines (Reported, not calculated) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Clay | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Clay, coarse | | | | | **1.6** | **6.4** | **4** | **0.5** | **1** | **1.8** | **0.5** | **1.8** |
| Clay, medium | | | | | **1.1** | **4.2** | **2.3** | **0.6** | **1.2** | **1.3** | **0.3** | **1.7** |
| Clay, fine | | | | | **1.3** | **7.3** | **4.5** | **0.8** | **1.7** | **2.6** | **0.6** | **3.5** |
| **Metals (mg/kg)** | | | | | | | | | | | | |
| Antimony | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Arsenic | 57 | 93 | 57 | 93 | **13** | **20** | 40 U | **10** | **11** | **14** | **10** | **16** |
| Cadmium | 5.1 | 6.7 | 5.1 | 6.7 | 0.3 U | 0.4 U | 2 U | 0.2 U | 0.3 U | 0.3 U | 0.2 U | 0.3 U |
| Chromium | 260 | 270 | 260 | 270 | **28.6** | **52** | **88** | **19.6** | **33.8** | **34.9** | **26.6** | **39.8** |
| Copper | 390 | 390 | 390 | 390 | **48.8** | **59.9** | **155** | **27.5** | **19** | **28.4** | **19.5** | **31.5** |
| Lead | 450 | 530 | 450 | 530 | **13** | **12** | 20 U | **8** | **5** | **9** | **12** | **5** |
| Mercury | 0.41 | 0.59 | 0.41 | 0.59 | **0.06** | **0.09** | **0.07** | 0.02 U | 0.03 U | **0.04** | 0.03 U | **0.05** |
| Nickel | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Silver | 6.1 | 6.1 | 6.1 | 6.1 | 0.4 U | 0.6 U | 3 U | 0.4 U | 0.4 U | 0.4 U | 0.4 U | 0.4 U |
| Zinc | 410 | 960 | 410 | 960 | **102** | **95** | **65** | **33** | **46** | **60** | **55** | **55** |
| **Volatile Organics (mg/kg-OC)** | | | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (µg/kg)** | | | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED3 | FS2757-3SED3 | FS2757-3SED3 | FS2757-3SED4 | FS2757-3SED4 | FS2757-3SED4 | FS2757-3SED5 | FS2757-3SED5 |
| Sample ID | | | | | 3SED3-A | 3SED3-B | 3SED3-C | 3SED4-A | 3SED4-B | 3SED4-C | 3SED5-A | 3SED5-B |
| Sample Date | | | | | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/5/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.213567 | -122.213567 | -122.213567 | -122.214406 | -122.214406 | -122.214406 | -122.214718 | -122.214718 |
| Y | | | | | 48.015214 | 48.015214 | 48.015214 | 48.01574 | 48.01574 | 48.01574 | 48.016007 | 48.016007 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | 0.0872 U | 0.2961 U | 0.206 U | 0.385 U | 0.8243 U | 0.513 U | 0.1199 U | 0.604 U |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | 0.0872 U | 0.2961 U | 0.206 U | 0.385 U | 0.8243 U | 0.513 U | 0.1199 U | 0.604 U |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | 0.0872 U | 0.2961 U | 0.206 U | 0.385 U | 0.8243 U | 0.513 U | 0.1199 U | 0.604 U |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | **0.752 J** | **3.689 J** | **2.955** | **0.962 J** | **2.838** | **2.222** | **11.789** | **4.059** |
| Butylbenzyl phthalate | 4.9 | 64 | | | 0.211 U | **1.359** | 0.515 U | 0.962 U | 2.027 U | 1.282 U | **1.402 J** | 1.485 U |
| Diethyl phthalate | 61 | 110 | | | 1.053 U | 3.835 U | 2.543 U | 1.218 U | 2.568 U | 1.709 U | 1.667 U | **4.158** |
| Dimethyl phthalate | 53 | 53 | | | 1.053 U | 3.835 U | 2.543 U | 1.218 U | 2.568 U | 1.709 U | 1.667 U | 1.881 U |
| Di-n-butyl phthalate | 220 | 1700 | | | 1.053 U | 3.835 U | 2.543 U | 1.218 U | 2.568 U | 1.709 U | 1.667 U | **1.386 J** |
| Di-n-octyl phthalate | 58 | 4500 | | | 1.053 U | 3.835 U | 2.543 U | 1.218 U | 2.568 U | 1.709 U | 1.667 U | 1.881 U |
| Hexachlorobenzene | 0.38 | 2.3 | | | 0.0917 U | 0.291 U | 0.206 U | 0.385 U | 0.8243 U | 0.513 U | 0.1199 U | 0.604 U |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | 0.0872 U | 0.2961 U | 0.206 U | 0.385 U | 0.8243 U | 0.513 U | 0.1199 U | 0.604 U |
| n-Nitrosodiphenylamine | 11 | 11 | | | 0.0872 U | 0.2961 U | 0.206 U | 0.385 U | 0.8243 U | 0.513 U | 0.1199 U | 0.604 U |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | 5.8 U | 6.1 U | 6 U | 6 U | 6.1 U | 6 U | 5.9 U | 6.1 U |
| 1,2-Dichlorobenzene | | | 35 | 50 | 5.8 U | 6.1 U | 6 U | 6 U | 6.1 U | 6 U | 5.9 U | 6.1 U |
| 1,3-Dichlorobenzene | | | | | 5.8 U | 6.1 U | 6 U | 6 U | 6.1 U | 6 U | 5.9 U | 6.1 U |
| 1,4-Dichlorobenzene | | | 110 | 110 | 5.8 U | 6.1 U | 6 U | 6 U | 6.1 U | 6 U | 5.9 U | 6.1 U |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | 5.8 U | 6.1 U | 6 U | 6 U | 6.1 U | 6 U | 5.9 U | 6.1 U |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | 5.8 U | 6.1 U | 6 U | 6 U | 6.1 U | 6 U | 5.9 U | 6.1 U |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | 70 U | 79 U | 74 U | **34** | **18 J** | **16 J** | 82 U | 19 U |
| Benzoic acid | 650 | 650 | 650 | 650 | 700 U | 790 U | 740 U | 190 U | 190 U | 200 U | 820 U | 190 U |
| Benzyl alcohol | 57 | 73 | 57 | 73 | 29 U | 30 U | 30 U | 19 U | 19 U | 30 U | 30 U | 30 U |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | **50 J** | **76 J** | **86** | **15 J** | **21** | **26** | **580** | **41** |
| Butylbenzyl phthalate | | | 63 | 900 | 14 U | **28** | 15 U | 15 U | 15 U | 15 U | **69 J** | 15 U |
| Diethyl phthalate | | | 200 | 1200 | 70 U | 79 U | 74 U | 19 U | 19 U | 20 U | 82 U | **42** |
| Dimethyl phthalate | | | 71 | 160 | 70 U | 79 U | 74 U | 19 U | 19 U | 20 U | 82 U | 19 U |
| Di-n-butyl phthalate | | | 1400 | 1400 | 70 U | 79 U | 74 U | 19 U | 19 U | 20 U | 82 U | **14 J** |
| Di-n-octyl phthalate | | | 6200 | 6200 | 70 U | 79 U | 74 U | 19 U | 19 U | 20 U | 82 U | 19 U |
| Hexachlorobenzene | | | 22 | 70 | 6.1 U | 6 U | 6 U | 6 U | 6.1 U | 6 U | 5.9 U | 6.1 U |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | 5.8 U | 6.1 U | 6 U | 6 U | 6.1 U | 6 U | 5.9 U | 6.1 U |
| Hexachloroethane | | | | | 70 U | 79 U | 74 U | 19 U | 19 U | 20 U | 82 U | 19 U |
| n-Nitrosodiphenylamine | | | 28 | 40 | 5.8 U | 6.1 U | 6 U | 6 U | 6.1 U | 6 U | 5.9 U | 6.1 U |
| Pentachlorophenol | 360 | 690 | 360 | 690 | **100** | 30 U | 30 U | 30 U | 30 U | 30 U | **79** | 30 U |
| Phenol | 420 | 1200 | 420 | 1200 | 70 U | 79 U | 74 U | **41** | **61** | **30** | 82 U | 19 U |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | 1.053 U | 3.835 U | 2.543 U | 1.218 U | 2.568 U | 1.709 U | 1.667 U | 1.881 U |
| Acenaphthene | 16 | 57 | | | 1.053 U | 3.835 U | 2.543 U | 1.218 U | 2.568 U | 1.709 U | 1.667 U | 1.881 U |
| Acenaphthylene | 66 | 66 | | | 1.053 U | 3.835 U | 2.543 U | 1.218 U | 2.568 U | 1.709 U | 1.667 U | 1.881 U |
| Anthracene | 220 | 1200 | | | 1.053 U | 3.835 U | 2.543 U | 1.218 U | **1.892 J** | **1.368 J** | 1.667 U | 1.881 U |
| Benzo(a)anthracene | 110 | 270 | | | 1.053 U | 3.835 U | 2.543 U | 1.218 U | **3.514** | **4.957** | 1.667 U | **2.376** |
| Benzo(a)pyrene | 99 | 210 | | | 1.053 U | 3.835 U | 2.543 U | **0.897 J** | **2.838** | **2.65** | 1.667 U | **1.98** |
| Benzo(g,h,i)perylene | 31 | 78 | | | **0.992 J** | 3.835 U | 2.543 U | **0.769 J** | **2.297 J** | **1.538 J** | 1.667 U | **0.9802 J** |
| Chrysene | 110 | 460 | | | 1.053 U | **2.816 J** | **1.615 J** | **3.013** | **6.081** | **9.402** | 1.667 U | **4.851** |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED3 | FS2757-3SED3 | FS2757-3SED3 | FS2757-3SED4 | FS2757-3SED4 | FS2757-3SED4 | FS2757-3SED5 | FS2757-3SED5 |
| Sample ID | | | | | 3SED3-A | 3SED3-B | 3SED3-C | 3SED4-A | 3SED4-B | 3SED4-C | 3SED5-A | 3SED5-B |
| Sample Date | | | | | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/5/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.213567 | -122.213567 | -122.213567 | -122.214406 | -122.214406 | -122.214406 | -122.214718 | -122.214718 |
| Y | | | | | 48.015214 | 48.015214 | 48.015214 | 48.01574 | 48.01574 | 48.01574 | 48.016007 | 48.016007 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | | |
| Dibenzo(a,h)anthracene | 12 | 33 | | | **0.211** | **0.291** | **0.268** | 0.385 U | 0.8243 U | 0.513 U | 1.667 U | 0.604 U |
| Dibenzofuran | 15 | 58 | | | 1.053 U | 3.835 U | 2.543 U | 1.218 U | 2.568 U | 1.709 U | 1.667 U | 1.881 U |
| Fluoranthene | 160 | 1200 | | | 1.053 U | **3.204 J** | **1.649 J** | **3.269** | **9.595** | **25.641** | 1.667 U | **12.871** |
| Fluorene | 23 | 79 | | | 1.053 U | 3.835 U | 2.543 U | 1.218 U | 2.568 U | **0.855 J** | 1.667 U | 1.881 U |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | 1.053 U | 3.835 U | 2.543 U | 1.218 U | **1.486 J** | **1.282 J** | 1.667 U | 1.881 U |
| Naphthalene | 99 | 170 | | | 1.053 U | 3.835 U | 2.543 U | 1.218 U | 2.568 U | 1.709 U | 1.667 U | 1.881 U |
| Phenanthrene | 100 | 480 | | | 1.053 U | 3.835 U | 2.543 U | **0.833 J** | **2.838** | **10.256** | 1.667 U | **2.178** |
| Pyrene | 1000 | 1400 | | | 1.053 U | **2.67 J** | **1.409 J** | **2.051** | **7.297** | **15.385** | **0.854 J** | **7.129** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | **1.50526** | **5.42621 J** | **3.603093 J** | **1.51731 J** | **4.12973 J** | **4.34188 J** | 1.66667 U | **3.089109** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | **0.76316** | **2.74175 J** | **1.823024 J** | **1.37628 J** | **4.088514 J** | **4.31624 J** | 1.66667 U | **2.964851** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | **0.02105** | **0.05728 J** | **0.042955 J** | **1.23526 J** | **4.047297 J** | **4.2906 J** | 1.66667 U | **2.840594** |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | 1.053 U | 3.835 U | 2.543 U | **3.077** | **6.486** | **9.231** | 1.667 U | **5.743** |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | **1.203 J** | **8.981 J** | **4.9416 J** | **13.077 J** | **39.5946 J** | **70.085 J** | **0.854 J** | **35.9307 J** |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | 1.053 U | 3.835 U | 2.543 U | **0.833 J** | **4.73 J** | **12.479 J** | 1.667 U | **2.178** |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | | | |
| 1-Methylnaphthalene | | | | | 70 U | 79 U | 74 U | 19 U | 19 U | 20 U | 82 U | 19 U |
| 2-Methylnaphthalene | | | 670 | 670 | 70 U | 79 U | 74 U | 19 U | 19 U | 20 U | 82 U | 19 U |
| Acenaphthene | | | 500 | 500 | 70 U | 79 U | 74 U | 19 U | 19 U | 20 U | 82 U | 19 U |
| Acenaphthylene | | | 1300 | 1300 | 70 U | 79 U | 74 U | 19 U | 19 U | 20 U | 82 U | 19 U |
| Anthracene | | | 960 | 960 | 70 U | 79 U | 74 U | 19 U | **14 J** | **16 J** | 82 U | 19 U |
| Benzo(a)anthracene | | | 1300 | 1600 | 70 U | 79 U | 74 U | 19 U | **26** | **58** | 82 U | **24** |
| Benzo(a)pyrene | | | 1600 | 1600 | 70 U | 79 U | 74 U | **14 J** | **21** | **31** | 82 U | **20** |
| Benzo(b)fluoranthene | | | | | 70 U | 79 U | 74 U | **24** | **24** | **54** | 82 U | **29** |
| Benzo(g,h,i)perylene | | | 670 | 720 | **66 J** | 79 U | 74 U | **12 J** | **17 J** | **18 J** | 82 U | **9.9 J** |
| Benzo(k)fluoranthene | | | | | 70 U | 79 U | 74 U | **24** | **24** | **54** | 82 U | **29** |
| Chrysene | | | 1400 | 2800 | 70 U | **58 J** | **47 J** | **47** | **45** | **110** | 82 U | **49** |
| Dibenzo(a,h)anthracene | | | 230 | 230 | **14** | **6** | **7.8** | 6 U | 6.1 U | 6 U | 82 U | 6.1 U |
| Dibenzofuran | | | 540 | 540 | 70 U | 79 U | 74 U | 19 U | 19 U | 20 U | 82 U | 19 U |
| Fluoranthene | | | 1700 | 2500 | 70 U | **66 J** | **48 J** | **51** | **71** | **300** | 82 U | **130** |
| Fluorene | | | 540 | 540 | 70 U | 79 U | 74 U | 19 U | 19 U | **10 J** | 82 U | 19 U |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | 70 U | 79 U | 74 U | 19 U | **11 J** | **15 J** | 82 U | 19 U |
| Naphthalene | | | 2100 | 2100 | 70 U | 79 U | 74 U | 19 U | 19 U | 20 U | 82 U | 19 U |
| Phenanthrene | | | 1500 | 1500 | 70 U | 79 U | 74 U | **13 J** | **21** | **120** | 82 U | **22** |
| Pyrene | | | 2600 | 3300 | 70 U | **55 J** | **41 J** | **32** | **54** | **180** | **42 J** | **72** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | **100.1** | **111.78 J** | **104.85 J** | **23.67 J** | **30.56 J** | **50.8 J** | 82 U | **31.2** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | **50.75** | **56.48 J** | **53.05 J** | **21.47 J** | **30.255 J** | **50.5 J** | 82 U | **29.945** |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | 70 U | 79 U | 74 U | **48** | **48** | **108** | 82 U | **58** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | **1.4** | **1.18 J** | **1.25 J** | **19.27 J** | **29.95 J** | **50.2 J** | 82 U | **28.69** |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | **80 J** | **185 J** | **143.8 J** | **204 J** | **293 J** | **820 J** | **42 J** | **362.9 J** |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | 70 U | 79 U | 74 U | **13 J** | **35 J** | **146 J** | 82 U | **22** |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED3 | FS2757-3SED3 | FS2757-3SED3 | FS2757-3SED4 | FS2757-3SED4 | FS2757-3SED4 | FS2757-3SED5 | FS2757-3SED5 |
| Sample ID | | | | | 3SED3-A | 3SED3-B | 3SED3-C | 3SED4-A | 3SED4-B | 3SED4-C | 3SED5-A | 3SED5-B |
| Sample Date | | | | | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/5/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.213567 | -122.213567 | -122.213567 | -122.214406 | -122.214406 | -122.214406 | -122.214718 | -122.214718 |
| Y | SMS_Marine_ | SMS_Marine_ | AET_Marine_ | AET_Marine_ | 48.015214 | 48.015214 | 48.015214 | 48.01574 | 48.01574 | 48.01574 | 48.016007 | 48.016007 |
| Analyte | SCO_SCUMII | CSL_SCUMII | SCO_SCUMII | CSL_SCUMII | | | | | | | | |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | **0.1098** | **0.5534** | **0.1443** | **0.3269** | 0.527 U | 0.3333 U | **0.0833** | 0.3861 U |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | | | |
| Aroclor 1016 | | | | | 4 U | 4 U | 3.9 U | 3.8 U | 3.9 U | 3.9 U | 3.9 U | 3.9 U |
| Aroclor 1221 | | | | | 4 U | 4 U | 3.9 U | 3.8 U | 3.9 U | 3.9 U | 3.9 U | 3.9 U |
| Aroclor 1232 | | | | | 4 U | 4 U | 3.9 U | 3.8 U | 3.9 U | 3.9 U | 3.9 U | 3.9 U |
| Aroclor 1242 | | | | | 4 U | 4 U | 3.9 U | 3.8 U | 3.9 U | 3.9 U | 3.9 U | 3.9 U |
| Aroclor 1248 | | | | | 4 U | 4 U | 3.9 U | 3.8 U | 3.9 U | 3.9 U | 3.9 U | 3.9 U |
| Aroclor 1254 | | | | | 4 U | **4.4** | **4.2** | 3.8 U | 3.9 U | 3.9 U | 3.9 U | 3.9 U |
| Aroclor 1260 | | | | | **7.3** | **7** | 3.9 U | **5.1** | 3.9 U | 3.9 U | **4.1** | 3.9 U |
| Aroclor 1262 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1268 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | **7.3** | **11.4** | **4.2** | **5.1** | 3.9 U | 3.9 U | **4.1** | 3.9 U |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED3 | FS2757-3SED3 | FS2757-3SED3 | FS2757-3SED4 | FS2757-3SED4 | FS2757-3SED4 | FS2757-3SED5 | FS2757-3SED5 |
| Sample ID | | | | | 3SED3-A | 3SED3-B | 3SED3-C | 3SED4-A | 3SED4-B | 3SED4-C | 3SED5-A | 3SED5-B |
| Sample Date | | | | | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/5/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.213567 | -122.213567 | -122.213567 | -122.214406 | -122.214406 | -122.214406 | -122.214718 | -122.214718 |
| Y | | | | | 48.015214 | 48.015214 | 48.015214 | 48.01574 | 48.01574 | 48.01574 | 48.016007 | 48.016007 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | | |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (ng/kg)** | | | | | | | | | | | | |
| PCB-001 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-002 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-003 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-004 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-005 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-006 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-007 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-008 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-009 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-010 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-011 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-012/013 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-014 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-015 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-016 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-017 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-018/030 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-019 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-020/028 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-021/033 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-022 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-023 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-024 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-025 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-026/029 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-027 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-031 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-032 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-034 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-035 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED3 | FS2757-3SED3 | FS2757-3SED3 | FS2757-3SED4 | FS2757-3SED4 | FS2757-3SED4 | FS2757-3SED5 | FS2757-3SED5 |
| Sample ID | | | | | 3SED3-A | 3SED3-B | 3SED3-C | 3SED4-A | 3SED4-B | 3SED4-C | 3SED5-A | 3SED5-B |
| Sample Date | | | | | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/5/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.213567 | -122.213567 | -122.213567 | -122.214406 | -122.214406 | -122.214406 | -122.214718 | -122.214718 |
| Y | | | | | 48.015214 | 48.015214 | 48.015214 | 48.01574 | 48.01574 | 48.01574 | 48.016007 | 48.016007 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | | |
| PCB-036 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-037 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-038 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-039 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-040/071 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-041 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-042 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-043 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-044/047/065 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-045 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-046 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-048 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-049/069 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-050/053 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-051 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-052 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-054 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-055 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-056 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-057 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-058 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-059/062/075 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-060 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-061/070/074/076 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-063 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-064 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-066 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-067 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-068 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-072 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-073 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-077 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-078 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-079 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-080 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-081 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-082 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-083 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-084 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-085/116 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/109/119/125 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-088 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-089 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED3 | FS2757-3SED3 | FS2757-3SED3 | FS2757-3SED4 | FS2757-3SED4 | FS2757-3SED4 | FS2757-3SED5 | FS2757-3SED5 |
| Sample ID | | | | | 3SED3-A | 3SED3-B | 3SED3-C | 3SED4-A | 3SED4-B | 3SED4-C | 3SED5-A | 3SED5-B |
| Sample Date | | | | | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/5/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.213567 | -122.213567 | -122.213567 | -122.214406 | -122.214406 | -122.214406 | -122.214718 | -122.214718 |
| Y | | | | | 48.015214 | 48.015214 | 48.015214 | 48.01574 | 48.01574 | 48.01574 | 48.016007 | 48.016007 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| PCB-090/101/113 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-091 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-092 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-093/100 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-094 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-095 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-096 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-098 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-099 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-102 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-103 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-104 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-105 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-106 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-107 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-107/124 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-108/124 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-109 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-110 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-111 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-112 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-114 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-115 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-117 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-118 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-120 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-121 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-122 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-123 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-126 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-127 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-128/166 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-129/138/163 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-130 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-131 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-132 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-133 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-134 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-135/151 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-136 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-137 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-139/140 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-141 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-142 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED3 | FS2757-3SED3 | FS2757-3SED3 | FS2757-3SED4 | FS2757-3SED4 | FS2757-3SED4 | FS2757-3SED5 | FS2757-3SED5 |
| Sample ID | | | | | 3SED3-A | 3SED3-B | 3SED3-C | 3SED4-A | 3SED4-B | 3SED4-C | 3SED5-A | 3SED5-B |
| Sample Date | | | | | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/5/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.213567 | -122.213567 | -122.213567 | -122.214406 | -122.214406 | -122.214406 | -122.214718 | -122.214718 |
| Y | | | | | 48.015214 | 48.015214 | 48.015214 | 48.01574 | 48.01574 | 48.01574 | 48.016007 | 48.016007 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| PCB-143 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-144 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-145 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-146 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-147/149 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-148 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-150 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-152 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-153/168 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-154 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-155 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-156/157 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-158 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-159 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-160 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-161 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-162 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-164 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-165 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-167 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-169 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-170 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-171/173 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-172 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-174 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-175 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-176 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-177 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-178 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-179 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-180/193 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-181 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-182 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-183 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-184 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-185 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-186 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-187 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-188 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-189 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-190 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-191 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-192 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-194 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED3 | FS2757-3SED3 | FS2757-3SED3 | FS2757-3SED4 | FS2757-3SED4 | FS2757-3SED4 | FS2757-3SED5 | FS2757-3SED5 |
| Sample ID | | | | | 3SED3-A | 3SED3-B | 3SED3-C | 3SED4-A | 3SED4-B | 3SED4-C | 3SED5-A | 3SED5-B |
| Sample Date | | | | | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/5/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.213567 | -122.213567 | -122.213567 | -122.214406 | -122.214406 | -122.214406 | -122.214718 | -122.214718 |
| Y | | | | | 48.015214 | 48.015214 | 48.015214 | 48.01574 | 48.01574 | 48.01574 | 48.016007 | 48.016007 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| PCB-195 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-196 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-197 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-198/199 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-200 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-201 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-202 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-203 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-204 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-205 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-206 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-207 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-208 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-209 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Total Petroleum Hydrocarbons (mg/kg)** | | | | | | | | | | | | |
| Diesel range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Motor oil range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED3 | FS2757-3SED3 | FS2757-3SED3 | FS2757-3SED4 | FS2757-3SED4 | FS2757-3SED4 | FS2757-3SED5 | FS2757-3SED5 |
| Sample ID | | | | | 3SED3-A | 3SED3-B | 3SED3-C | 3SED4-A | 3SED4-B | 3SED4-C | 3SED5-A | 3SED5-B |
| Sample Date | | | | | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/5/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.213567 | -122.213567 | -122.213567 | -122.214406 | -122.214406 | -122.214406 | -122.214718 | -122.214718 |
| Y | SMS_Marine_ | SMS_Marine_ | AET_Marine_ | AET_Marine_ | 48.015214 | 48.015214 | 48.015214 | 48.01574 | 48.01574 | 48.01574 | 48.016007 | 48.016007 |
| Analyte | SCO_SCUMII | CSL_SCUMII | SCO_SCUMII | CSL_SCUMII | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED5 | FS2757-3SED6 | FS2757-3SED6 | FS2757-3SED6 | FS2757-3SED7 | FS2757-3SED7 | FS2757-3SED7 | FS2757-3SED8 |
| Sample ID | | | | | 3SED5-C | 3SED6-A | 3SED6-B | 3SED6-C | 3SED7-A | 3SED7-B | 3SED7-C | 3SED8-A |
| Sample Date | | | | | 6/5/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.214718 | -122.216064 | -122.216064 | -122.216064 | -122.211212 | -122.211212 | -122.211212 | -122.210042 |
| Y | SMS_Marine_ | SMS_Marine_ | AET_Marine_ | AET_Marine_ | 48.016007 | 48.017134 | 48.017134 | 48.017134 | 48.01625 | 48.01625 | 48.01625 | 48.015442 |
| Analyte | SCO_SCUMII | CSL_SCUMII | SCO_SCUMII | CSL_SCUMII | | | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | | | |
| Total organic carbon | | | | | **1.29** | **0.922** | **0.289** | **0.686** | **2.2** | **2.51** | **2.66** | **4.88** |
| Moisture, percent | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Solids | | | | | **60.4** | **78.1** | **87.8** | **84.2** | **82.4** | **51** | **54.2** | **62.3** |
| Total solids (preserved) | | | | | **61** | **79.1** | **82.4** | **77** | **69.5** | **49** | **49.9** | **57.1** |
| Total volatile solids | | | | | **4.5** | **2.71** | **3.21** | **3.5** | **3.59** | **8.24** | **6.87** | **6.67** |
| **Conventional Parameters (mg/kg)** | | | | | | | | | | | | |
| Ammonia as nitrogen | | | | | **4.25** | **1.08** | **0.11** | **0.17** | **2.82** | **2.82** | **6.23** | **2.13** |
| Black carbon | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Sulfide | | | | | **12.4** | 1.28 U | 1.11 U | 1.36 U | **29.2** | **82.1** | **51.8** | **132** |
| **Grain Size (pct)** | | | | | | | | | | | | |
| Cobbles | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Gravel | | | | | **6.1** | **64.1** | **65.6** | **69.9** | **51.4** | **1.6** | **2.3** | **13.4** |
| Sand | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Sand, very coarse | | | | | **3.1** | **8** | **5.5** | **6.3** | **7.9** | **2.9** | **3** | **7** |
| Sand, coarse | | | | | **5.4** | **9.6** | **7.5** | **7.7** | **8.4** | **2.6** | **2.9** | **11.7** |
| Sand, medium | | | | | **11.3** | **11.1** | **9.2** | **8** | **11.4** | **5.3** | **3.7** | **18.5** |
| Sand, fine | | | | | **8.5** | **3.2** | **2.2** | **1.9** | **4.8** | **4.1** | **3** | **6.9** |
| Sand, very fine | | | | | **10.3** | **1** | **1.2** | **1.3** | **0.9** | **2.2** | **1.8** | **1.6** |
| Silt | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Silt, coarse | | | | | **22** | -- | **4.7** | **1** | **4** | **10.2** | **5.3** | **3** |
| Silt, medium | | | | | **13.1** | -- | **1** | **0.9** | **2.9** | **20.5** | **22.5** | **8** |
| Silt, fine | | | | | **7.3** | -- | **0.8** | **0.8** | **3.2** | **18.8** | **21.7** | **9.8** |
| Silt, very fine | | | | | **4.1** | -- | **0.7** | **0.6** | **1.7** | **12.2** | **12.8** | **8.2** |
| Total fines (Reported, not calculated) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Clay | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Clay, coarse | | | | | **2.3** | -- | **0.6** | **0.5** | **1.4** | **6.6** | **6.4** | **4.4** |
| Clay, medium | | | | | **2.1** | -- | **0.4** | **0.4** | **0.8** | **5** | **6.3** | **2.7** |
| Clay, fine | | | | | **4.3** | -- | **0.7** | **0.6** | **1.3** | **8.1** | **8.2** | **4.8** |
| **Metals (mg/kg)** | | | | | | | | | | | | |
| Antimony | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Arsenic | 57 | 93 | 57 | 93 | **18** | 20 U | **20** | **8** | **13** | **20** | **30** | **17** |
| Cadmium | 5.1 | 6.7 | 5.1 | 6.7 | 0.3 U | 0.6 U | 0.6 U | 0.2 U | 0.3 U | 0.4 U | 0.4 U | 0.3 U |
| Chromium | 260 | 270 | 260 | 270 | **42.4** | **29** | **34** | **13.3** | **34.3** | **60** | **64** | **66.3** |
| Copper | 390 | 390 | 390 | 390 | **34.2** | **64.9** | **58.4** | **36.2** | **61.7** | **94.9** | **77.6** | **47.6** |
| Lead | 450 | 530 | 450 | 530 | **7** | 6 U | 6 U | 2 U | **10** | **17** | **15** | **21** |
| Mercury | 0.41 | 0.59 | 0.41 | 0.59 | **0.05** | 0.02 U | 0.02 U | 0.02 U | **0.04** | **0.11** | **0.11** | **0.1** |
| Nickel | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Silver | 6.1 | 6.1 | 6.1 | 6.1 | 0.5 U | 0.9 U | 0.9 U | 0.4 U | 0.4 U | 0.6 U | 0.6 U | 0.5 U |
| Zinc | 410 | 960 | 410 | 960 | **60** | **121** | **60** | **23** | **84** | **121** | **119** | **94** |
| **Volatile Organics (mg/kg-OC)** | | | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (µg/kg)** | | | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | JeldWenAODE5095 FS2757-3SED5 3SED5-C 6/5/2009 0 - 10 cm N SE -122.214718 48.016007 | JeldWenAODE5095 FS2757-3SED6 3SED6-A 6/4/2009 0 - 10 cm N SE -122.216064 48.017134 | JeldWenAODE5095 FS2757-3SED6 3SED6-B 6/4/2009 0 - 10 cm N SE -122.216064 48.017134 | JeldWenAODE5095 FS2757-3SED6 3SED6-C 6/4/2009 0 - 10 cm N SE -122.216064 48.017134 | JeldWenAODE5095 FS2757-3SED7 3SED7-A 6/4/2009 0 - 10 cm N SE -122.211212 48.01625 | JeldWenAODE5095 FS2757-3SED7 3SED7-B 6/4/2009 0 - 10 cm N SE -122.211212 48.01625 | JeldWenAODE5095 FS2757-3SED7 3SED7-C 6/4/2009 0 - 10 cm N SE -122.211212 48.01625 | JeldWenAODE5095 FS2757-3SED8 3SED8-A 6/5/2009 0 - 10 cm N SE -122.210042 48.015442 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | 0.4806 U | 0.651 U | 2.0415 U | 0.875 U | 0.2636 U | 0.243 U | 0.2293 U | 0.123 U |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | 0.4806 U | 0.651 U | 2.0415 U | 0.875 U | 0.2636 U | 0.243 U | 0.2293 U | 0.123 U |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | 0.4806 U | 0.651 U | 2.0415 U | 0.875 U | 0.2636 U | 0.243 U | 0.2293 U | 0.123 U |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | **4.651** | 2.061 U | 6.92 U | 2.77 U | **4.455** | **5.578** | **3.759** | **3.074** |
| Butylbenzyl phthalate | 4.9 | 64 | | | 1.163 U | 1.627 U | 5.19 U | 2.187 U | **0.773** | 0.598 U | 0.752 U | 0.41 U |
| Diethyl phthalate | 61 | 110 | | | 1.55 U | 2.061 U | 6.92 U | 2.77 U | 2.818 U | 0.797 U | 0.752 U | 0.41 U |
| Dimethyl phthalate | 53 | 53 | | | 1.55 U | 2.061 U | 6.92 U | 2.77 U | 2.818 U | 0.797 U | 0.752 U | 0.41 U |
| Di-n-butyl phthalate | 220 | 1700 | | | 1.55 U | 2.061 U | 6.92 U | 2.77 U | 2.818 U | 0.797 U | **0.489 J** | **0.717** |
| Di-n-octyl phthalate | 58 | 4500 | | | 1.55 U | 2.061 U | 6.92 U | 2.77 U | 2.818 U | 0.797 U | 0.752 U | 0.41 U |
| Hexachlorobenzene | 0.38 | 2.3 | | | 0.4806 U | 0.651 U | 2.0415 U | **6.851** | 0.2636 U | 0.243 U | 0.2293 U | 0.123 U |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | 0.4806 U | 0.651 U | 2.0415 U | 0.875 U | 0.2636 U | 0.243 U | 0.2293 U | 0.123 U |
| n-Nitrosodiphenylamine | 11 | 11 | | | 0.4806 U | 0.651 U | 2.0415 U | 0.875 U | 0.2636 U | 0.243 U | 0.2293 U | 0.123 U |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | 6.2 U | 6 U | 5.9 U | 6 U | 5.8 U | 6.1 U | 6.1 U | 6 U |
| 1,2-Dichlorobenzene | | | 35 | 50 | 6.2 U | 6 U | 5.9 U | 6 U | 5.8 U | 6.1 U | 6.1 U | 6 U |
| 1,3-Dichlorobenzene | | | | | 6.2 U | 6 U | 5.9 U | 6 U | 5.8 U | 6.1 U | 6.1 U | 6 U |
| 1,4-Dichlorobenzene | | | 110 | 110 | 6.2 U | 6 U | 5.9 U | 6 U | 5.8 U | 6.1 U | 6.1 U | 6 U |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | 6.2 U | 6 U | 5.9 U | 6 U | 5.8 U | 6.1 U | 6.1 U | 6 U |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | 6.2 U | 6 U | 5.9 U | 6 U | 5.8 U | 6.1 U | 6.1 U | 6 U |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | 20 U | 19 U | 20 U | 19 U | 62 U | 20 U | 20 U | 20 U |
| Benzoic acid | 650 | 650 | 650 | 650 | 200 U | 190 U | 200 U | 190 U | 620 U | 200 U | 200 U | 200 U |
| Benzyl alcohol | 57 | 73 | 57 | 73 | 20 U | 19 U | 20 U | 19 U | 29 U | 20 U | 20 U | 20 U |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | **60** | 19 U | 20 U | 19 U | **98** | **140** | **100** | **150** |
| Butylbenzyl phthalate | | | 63 | 900 | 15 U | 15 U | 15 U | 15 U | **17** | 15 U | 20 U | 20 U |
| Diethyl phthalate | | | 200 | 1200 | 20 U | 19 U | 20 U | 19 U | 62 U | 20 U | 20 U | 20 U |
| Dimethyl phthalate | | | 71 | 160 | 20 U | 19 U | 20 U | 19 U | 62 U | 20 U | 20 U | 20 U |
| Di-n-butyl phthalate | | | 1400 | 1400 | 20 U | 19 U | 20 U | 19 U | 62 U | 20 U | **13 J** | **35** |
| Di-n-octyl phthalate | | | 6200 | 6200 | 20 U | 19 U | 20 U | 19 U | 62 U | 20 U | 20 U | 20 U |
| Hexachlorobenzene | | | 22 | 70 | 6.2 U | 6 U | 5.9 U | **47** | 5.8 U | 6.1 U | 6.1 U | 6 U |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | 6.2 U | 6 U | 5.9 U | 6 U | 5.8 U | 6.1 U | 6.1 U | 6 U |
| Hexachloroethane | | | | | 20 U | 19 U | 20 U | 19 U | 62 U | 20 U | 20 U | 20 U |
| n-Nitrosodiphenylamine | | | 28 | 40 | 6.2 U | 6 U | 5.9 U | 6 U | 5.8 U | 6.1 U | 6.1 U | 6 U |
| Pentachlorophenol | 360 | 690 | 360 | 690 | 31 U | 30 U | 30 U | 30 U | 29 U | 31 U | 30 U | **48 J** |
| Phenol | 420 | 1200 | 420 | 1200 | 20 U | 19 U | 20 U | 19 U | 62 U | 20 U | 20 U | 20 U |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | 1.55 U | 2.061 U | 6.92 U | 2.77 U | 2.818 U | 0.797 U | 0.752 U | **0.307 J** |
| Acenaphthene | 16 | 57 | | | 1.55 U | 2.061 U | 6.92 U | 2.77 U | 2.818 U | 0.797 U | 0.752 U | **0.43** |
| Acenaphthylene | 66 | 66 | | | 1.55 U | 2.061 U | 6.92 U | 2.77 U | 2.818 U | 0.797 U | 0.752 U | 0.41 U |
| Anthracene | 220 | 1200 | | | **1.085 J** | 2.061 U | 6.92 U | 2.77 U | 2.818 U | 0.797 U | **1.053** | **3.689** |
| Benzo(a)anthracene | 110 | 270 | | | **3.178** | 2.061 U | 6.92 U | 2.77 U | 2.818 U | **2.43** | **2.97** | **4.918** |
| Benzo(a)pyrene | 99 | 210 | | | **2.713** | 2.061 U | 6.92 U | 2.77 U | 2.818 U | **1.833** | **2.368** | **6.557** |
| Benzo(g,h,i)perylene | 31 | 78 | | | **0.93 J** | 2.061 U | 6.92 U | 2.77 U | **2.091 J** | **1.315** | **1.353** | **2.869** |
| Chrysene | 110 | 460 | | | **6.977** | 2.061 U | 6.92 U | **1.603 J** | **3.182** | **5.179** | **7.143** | **9.426** |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED5 | FS2757-3SED6 | FS2757-3SED6 | FS2757-3SED6 | FS2757-3SED7 | FS2757-3SED7 | FS2757-3SED7 | FS2757-3SED8 |
| Sample ID | | | | | 3SED5-C | 3SED6-A | 3SED6-B | 3SED6-C | 3SED7-A | 3SED7-B | 3SED7-C | 3SED8-A |
| Sample Date | | | | | 6/5/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.214718 | -122.216064 | -122.216064 | -122.216064 | -122.211212 | -122.211212 | -122.211212 | -122.210042 |
| Y | | | | | 48.016007 | 48.017134 | 48.017134 | 48.017134 | 48.01625 | 48.01625 | 48.01625 | 48.015442 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | | |
| Dibenzo(a,h)anthracene | 12 | 33 | | | 1.55 U | 0.651 U | 2.0415 U | 0.875 U | **0.409** | 0.243 U | **0.414 J** | **1.086** |
| Dibenzofuran | 15 | 58 | | | 1.55 U | 2.061 U | 6.92 U | 2.77 U | 2.818 U | 0.797 U | 0.752 U | **0.43** |
| Fluoranthene | 160 | 1200 | | | **30.233** | 2.061 U | 6.92 U | **1.458 J** | **4.455** | **6.375** | **7.143** | **10.246** |
| Fluorene | 23 | 79 | | | 1.55 U | 2.061 U | 6.92 U | 2.77 U | 2.818 U | 0.797 U | 0.752 U | **0.758** |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | 1.55 U | 2.061 U | 6.92 U | 2.77 U | 2.818 U | **1.036** | **1.165** | **2.664** |
| Naphthalene | 99 | 170 | | | 1.55 U | 2.061 U | 6.92 U | 2.77 U | 2.818 U | 0.797 U | 0.752 U | **0.533** |
| Phenanthrene | 100 | 480 | | | **7.597** | 2.061 U | 6.92 U | 2.77 U | **4.545** | **2.191** | **2.744** | **5.123** |
| Pyrene | 1000 | 1400 | | | **17.829** | 2.061 U | 6.92 U | 2.77 U | **3.227** | **4.382** | **5.263** | **8.607** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | **4.17054** | 2.06074 U | 6.920415 U | **3.98105 J** | **3.78182 J** | **2.757371** | **3.46617 J** | **8.78893** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | **4.0155** | 2.06074 U | 6.920415 U | **1.99854 J** | **2.09091 J** | **2.745219** | **3.46617 J** | **8.78893** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | **3.86047** | 2.06074 U | 6.920415 U | **0.01603 J** | **0.4 J** | **2.733068** | **3.46617 J** | **8.78893** |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | **7.597** | 2.061 U | 6.92 U | 2.77 U | **3.273 J** | **5.02** | **5.714** | **12.705** |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | **69.457 J** | 2.061 U | 6.9204 U | **3.061 J** | **16.636 J** | **27.5697** | **33.534 J** | **59.078** |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | **8.682 J** | 2.061 U | 6.92 U | 2.77 U | **4.545** | **2.191** | **3.797** | **10.533** |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | | | |
| 1-Methylnaphthalene | | | | | 20 U | 19 U | 20 U | 19 U | 62 U | 20 U | 20 U | 20 U |
| 2-Methylnaphthalene | | | 670 | 670 | 20 U | 19 U | 20 U | 19 U | 62 U | 20 U | 20 U | **15 J** |
| Acenaphthene | | | 500 | 500 | 20 U | 19 U | 20 U | 19 U | 62 U | 20 U | 20 U | **21** |
| Acenaphthylene | | | 1300 | 1300 | 20 U | 19 U | 20 U | 19 U | 62 U | 20 U | 20 U | 20 U |
| Anthracene | | | 960 | 960 | **14 J** | 19 U | 20 U | 19 U | 62 U | 20 U | **28** | **180** |
| Benzo(a)anthracene | | | 1300 | 1600 | **41** | 19 U | 20 U | 19 U | 62 U | **61** | **79** | **240** |
| Benzo(a)pyrene | | | 1600 | 1600 | **35** | 19 U | 20 U | 19 U | 62 U | **46** | **63** | **320** |
| Benzo(b)fluoranthene | | | | | **49** | 19 U | 20 U | 19 U | **36 J** | **63** | **76** | **310** |
| Benzo(g,h,i)perylene | | | 670 | 720 | **12 J** | 19 U | 20 U | 19 U | **46 J** | **33** | **36** | **140** |
| Benzo(k)fluoranthene | | | | | **49** | 19 U | 20 U | 19 U | **36 J** | **63** | **76** | **310** |
| Chrysene | | | 1400 | 2800 | **90** | 19 U | 20 U | **11 J** | **70** | **130** | **190** | **460** |
| Dibenzo(a,h)anthracene | | | 230 | 230 | 20 U | 6 U | 5.9 U | 6 U | **9** | 6.1 U | **11 J** | **53** |
| Dibenzofuran | | | 540 | 540 | 20 U | 19 U | 20 U | 19 U | 62 U | 20 U | 20 U | **21** |
| Fluoranthene | | | 1700 | 2500 | **390** | 19 U | 20 U | **10 J** | **98** | **160** | **190** | **500** |
| Fluorene | | | 540 | 540 | 20 U | 19 U | 20 U | 19 U | 62 U | 20 U | 20 U | **37** |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | 20 U | 19 U | 20 U | 19 U | 62 U | **26** | **31** | **130** |
| Naphthalene | | | 2100 | 2100 | 20 U | 19 U | 20 U | 19 U | 62 U | 20 U | 20 U | **26** |
| Phenanthrene | | | 1500 | 1500 | **98** | 19 U | 20 U | 19 U | **100** | **55** | **73** | **250** |
| Pyrene | | | 2600 | 3300 | **230** | 19 U | 20 U | 19 U | **71** | **110** | **140** | **420** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | **53.8** | 19 U | 20 U | **27.31 J** | **83.2 J** | **69.21** | **92.2 J** | **428.9** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | **51.8** | 19 U | 20 U | **13.71 J** | **46 J** | **68.905** | **92.2 J** | **428.9** |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | **98** | 19 U | 20 U | 19 U | **72 J** | **126** | **152** | **620** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | **49.8** | 19 U | 20 U | **0.11 J** | **8.8 J** | **68.6** | **92.2 J** | **428.9** |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | **896 J** | 19 U | 20 U | **21 J** | **366 J** | **692** | **892 J** | **2883** |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | **112 J** | 19 U | 20 U | 19 U | **100** | **55** | **101** | **514** |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | -- | -- | 0.616 U | **0.582** | **0.683** | **0.737 J** |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | -- | -- | **5.35** | **2.85** | **4.03** | **6.33 J** |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | **8.15** | **3.87** | **8.28** | **13.2** |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED5 | FS2757-3SED6 | FS2757-3SED6 | FS2757-3SED6 | FS2757-3SED7 | FS2757-3SED7 | FS2757-3SED7 | FS2757-3SED8 |
| Sample ID | | | | | 3SED5-C | 3SED6-A | 3SED6-B | 3SED6-C | 3SED7-A | 3SED7-B | 3SED7-C | 3SED8-A |
| Sample Date | | | | | 6/5/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.214718 | -122.216064 | -122.216064 | -122.216064 | -122.211212 | -122.211212 | -122.211212 | -122.210042 |
| Y | | | | | 48.016007 | 48.017134 | 48.017134 | 48.017134 | 48.01625 | 48.01625 | 48.01625 | 48.015442 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | **89.5** | **98.2** | **85.4** | **118** |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | **34.4** | **36.6** | **31.1** | **40.7** |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | -- | -- | **1400** | **850** | **2060** | **2670** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | -- | -- | -- | -- | **9900** | **5230** | **16200** | **21700** |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | -- | -- | **2.58** | **2.23** | **2.65** | **5.89** |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | **2.18** | **1.01** | **1.53** | **6.17 J** |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | **2.82** | **1.44** | **2.06** | **8.1 J** |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | **9.63** | **4.85** | **9.17** | **29.2** |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | **7.47** | **4.03** | **6.72** | **17.8** |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | **0.532** | **0.251** | **0.411** | **1.31 J** |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | **6.86** | **4.44** | **6.95** | **13.2** |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | **201** | **139** | **232** | **476** |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | **10.1** | **6.42** | **11.9** | **29.2** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | -- | -- | -- | -- | **304** | **207** | **411** | **1050** |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | **23.3071** | **16.2435** | **22.4392** | **43.732 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | **19.9086** | **11.802** | **19.7422** | **36.055 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | **41.9618** | **30.9267** | **48.4673** | **72.1891 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | **22.9991** | **16.2435** | **22.4392** | **43.732 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | **19.6006** | **11.802** | **19.7422** | **36.055 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | **41.6538** | **30.9267** | **48.4673** | **72.1891 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | **22.6911** | **16.2435** | **22.4392** | **43.732 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | **19.2926** | **11.802** | **19.7422** | **36.055 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | **41.3458** | **30.9267** | **48.4673** | **72.1891 J** |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | 0.31 U | 0.4121 U | 1.3495 U | 0.5685 U | 0.1773 U | **0.1793** | **0.2406** | **1.2172** |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | | | |
| Aroclor 1016 | | | | | 4 U | 3.8 U | 3.9 U | 3.9 U | 3.9 U | 3.9 U | 3.9 U | 4 U |
| Aroclor 1221 | | | | | 4 U | 3.8 U | 3.9 U | 3.9 U | 3.9 U | 3.9 U | 3.9 U | 4 U |
| Aroclor 1232 | | | | | 4 U | 3.8 U | 3.9 U | 3.9 U | 3.9 U | 3.9 U | 3.9 U | 4 U |
| Aroclor 1242 | | | | | 4 U | 3.8 U | 3.9 U | 3.9 U | 3.9 U | **4.5** | **6.4** | 4 U |
| Aroclor 1248 | | | | | 4 U | 3.8 U | 3.9 U | 3.9 U | 3.9 U | 3.9 U | 3.9 U | **15** |
| Aroclor 1254 | | | | | 4 U | 3.8 U | 3.9 U | 3.9 U | 3.9 U | 3.9 U | 3.9 U | **35** |
| Aroclor 1260 | | | | | 4 U | 3.8 U | 3.9 U | 3.9 U | 3.9 U | 3.9 U | 3.9 U | **9.4** |
| Aroclor 1262 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1268 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | 4 U | 3.8 U | 3.9 U | 3.9 U | 3.9 U | **4.5** | **6.4** | **59.4** |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED5 | FS2757-3SED6 | FS2757-3SED6 | FS2757-3SED6 | FS2757-3SED7 | FS2757-3SED7 | FS2757-3SED7 | FS2757-3SED8 |
| Sample ID | | | | | 3SED5-C | 3SED6-A | 3SED6-B | 3SED6-C | 3SED7-A | 3SED7-B | 3SED7-C | 3SED8-A |
| Sample Date | | | | | 6/5/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.214718 | -122.216064 | -122.216064 | -122.216064 | -122.211212 | -122.211212 | -122.211212 | -122.210042 |
| Y | | | | | 48.016007 | 48.017134 | 48.017134 | 48.017134 | 48.01625 | 48.01625 | 48.01625 | 48.015442 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | | |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (ng/kg)** | | | | | | | | | | | | |
| PCB-001 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-002 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-003 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-004 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-005 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-006 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-007 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-008 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-009 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-010 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-011 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-012/013 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-014 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-015 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-016 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-017 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-018/030 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-019 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-020/028 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-021/033 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-022 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-023 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-024 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-025 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-026/029 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-027 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-031 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-032 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-034 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-035 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED5 | FS2757-3SED6 | FS2757-3SED6 | FS2757-3SED6 | FS2757-3SED7 | FS2757-3SED7 | FS2757-3SED7 | FS2757-3SED8 |
| Sample ID | | | | | 3SED5-C | 3SED6-A | 3SED6-B | 3SED6-C | 3SED7-A | 3SED7-B | 3SED7-C | 3SED8-A |
| Sample Date | | | | | 6/5/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.214718 | -122.216064 | -122.216064 | -122.216064 | -122.211212 | -122.211212 | -122.211212 | -122.210042 |
| Y | | | | | 48.016007 | 48.017134 | 48.017134 | 48.017134 | 48.01625 | 48.01625 | 48.01625 | 48.015442 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| PCB-036 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-037 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-038 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-039 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-040/071 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-041 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-042 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-043 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-044/047/065 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-045 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-046 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-048 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-049/069 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-050/053 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-051 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-052 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-054 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-055 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-056 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-057 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-058 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-059/062/075 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-060 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-061/070/074/076 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-063 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-064 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-066 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-067 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-068 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-072 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-073 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-077 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-078 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-079 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-080 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-081 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-082 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-083 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-084 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-085/116 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/109/119/125 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-088 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-089 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED5 | FS2757-3SED6 | FS2757-3SED6 | FS2757-3SED6 | FS2757-3SED7 | FS2757-3SED7 | FS2757-3SED7 | FS2757-3SED8 |
| Sample ID | | | | | 3SED5-C | 3SED6-A | 3SED6-B | 3SED6-C | 3SED7-A | 3SED7-B | 3SED7-C | 3SED8-A |
| Sample Date | | | | | 6/5/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.214718 | -122.216064 | -122.216064 | -122.216064 | -122.211212 | -122.211212 | -122.211212 | -122.210042 |
| Y | | | | | 48.016007 | 48.017134 | 48.017134 | 48.017134 | 48.01625 | 48.01625 | 48.01625 | 48.015442 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | | |
| PCB-090/101/113 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-091 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-092 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-093/100 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-094 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-095 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-096 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-098 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-099 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-102 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-103 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-104 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-105 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-106 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-107 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-107/124 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-108/124 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-109 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-110 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-111 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-112 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-114 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-115 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-117 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-118 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-120 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-121 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-122 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-123 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-126 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-127 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-128/166 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-129/138/163 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-130 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-131 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-132 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-133 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-134 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-135/151 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-136 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-137 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-139/140 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-141 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-142 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED5 | FS2757-3SED6 | FS2757-3SED6 | FS2757-3SED6 | FS2757-3SED7 | FS2757-3SED7 | FS2757-3SED7 | FS2757-3SED8 |
| Sample ID | | | | | 3SED5-C | 3SED6-A | 3SED6-B | 3SED6-C | 3SED7-A | 3SED7-B | 3SED7-C | 3SED8-A |
| Sample Date | | | | | 6/5/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.214718 | -122.216064 | -122.216064 | -122.216064 | -122.211212 | -122.211212 | -122.211212 | -122.210042 |
| Y | | | | | 48.016007 | 48.017134 | 48.017134 | 48.017134 | 48.01625 | 48.01625 | 48.01625 | 48.015442 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | | |
| PCB-143 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-144 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-145 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-146 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-147/149 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-148 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-150 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-152 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-153/168 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-154 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-155 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-156/157 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-158 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-159 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-160 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-161 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-162 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-164 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-165 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-167 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-169 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-170 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-171/173 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-172 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-174 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-175 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-176 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-177 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-178 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-179 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-180/193 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-181 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-182 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-183 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-184 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-185 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-186 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-187 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-188 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-189 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-190 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-191 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-192 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-194 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED5 | FS2757-3SED6 | FS2757-3SED6 | FS2757-3SED6 | FS2757-3SED7 | FS2757-3SED7 | FS2757-3SED7 | FS2757-3SED8 |
| Sample ID | | | | | 3SED5-C | 3SED6-A | 3SED6-B | 3SED6-C | 3SED7-A | 3SED7-B | 3SED7-C | 3SED8-A |
| Sample Date | | | | | 6/5/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.214718 | -122.216064 | -122.216064 | -122.216064 | -122.211212 | -122.211212 | -122.211212 | -122.210042 |
| Y | | | | | 48.016007 | 48.017134 | 48.017134 | 48.017134 | 48.01625 | 48.01625 | 48.01625 | 48.015442 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| PCB-195 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-196 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-197 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-198/199 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-200 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-201 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-202 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-203 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-204 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-205 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-206 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-207 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-208 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-209 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Total Petroleum Hydrocarbons (mg/kg)** | | | | | | | | | | | | |
| Diesel range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Motor oil range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | -- | -- | -- | -- | **0.001059414** | **0.000647151** | **0.000843579** | **0.000896147541 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | -- | -- | -- | -- | **0.000904936** | **0.000470199** | **0.000742188** | **0.0007388319672 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | -- | -- | -- | -- | **0.001907355** | **0.001232139** | **0.001822079** | **0.0014792848361 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | **0.001045414** | **0.000647151** | **0.000843579** | **0.000896147541 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | **0.000890936** | **0.000470199** | **0.000742188** | **0.0007388319672 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | **0.001893355** | **0.001232139** | **0.001822079** | **0.0014792848361 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | -- | -- | -- | -- | **0.001031414** | **0.000647151** | **0.000843579** | **0.000896147541 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | -- | -- | -- | -- | **0.000876936** | **0.000470199** | **0.000742188** | **0.0007388319672 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | -- | -- | -- | -- | **0.001879355** | **0.001232139** | **0.001822079** | **0.0014792848361 J** |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | -- | -- | -- | -- | **23.3071** | **16.2435** | **22.4392** | **43.732 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | -- | -- | -- | -- | **19.9086** | **11.802** | **19.7422** | **36.055 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | -- | -- | -- | -- | **41.9618** | **30.9267** | **48.4673** | **72.1891 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | **22.9991** | **16.2435** | **22.4392** | **43.732 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | **19.6006** | **11.802** | **19.7422** | **36.055 J** |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED5 | FS2757-3SED6 | FS2757-3SED6 | FS2757-3SED6 | FS2757-3SED7 | FS2757-3SED7 | FS2757-3SED7 | FS2757-3SED8 |
| Sample ID | | | | | 3SED5-C | 3SED6-A | 3SED6-B | 3SED6-C | 3SED7-A | 3SED7-B | 3SED7-C | 3SED8-A |
| Sample Date | | | | | 6/5/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 6/5/2009 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.214718 | -122.216064 | -122.216064 | -122.216064 | -122.211212 | -122.211212 | -122.211212 | -122.210042 |
| Y | SMS_Marine_ | SMS_Marine_ | AET_Marine_ | AET_Marine_ | 48.016007 | 48.017134 | 48.017134 | 48.017134 | 48.01625 | 48.01625 | 48.01625 | 48.015442 |
| Analyte | SCO_SCUMII | CSL_SCUMII | SCO_SCUMII | CSL_SCUMII | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | 41.6538 | 30.9267 | 48.4673 | 72.1891 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | -- | -- | -- | -- | 22.6911 | 16.2435 | 22.4392 | 43.732 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | -- | -- | -- | -- | 19.2926 | 11.802 | 19.7422 | 36.055 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | -- | -- | -- | -- | 41.3458 | 30.9267 | 48.4673 | 72.1891 J |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED8 | FS2757-3SED8 | FS2757-3SED9 | FS2757-3SED9 | FS2757-3SED9 | JW-EA01-Composite | JW-EA01-SS01 |
| Sample ID | | | | | 3SED8-B | 3SED8-C | 3SED9-A | 3SED9-B | 3SED9-C | JW-EA01-COMP-120507 | JW-EA01-SS01-120507 |
| Sample Date | | | | | 6/5/2009 | 6/5/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.210042 | -122.210042 | -122.209852 | -122.209852 | -122.209852 | 1303385.74 | 1303506.424 |
| Y | | | | | 48.015442 | 48.015442 | 48.015392 | 48.015392 | 48.015392 | 373575.7223 | 373444.722 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | | |
| Total organic carbon | | | | | **4.14** | **3.98** | **1.37** | **1.24** | **3.98** | **2.8** | **2.9** |
| Moisture, percent | | | | | -- | -- | -- | -- | -- | **55.9** | **59.3** |
| Total Solids | | | | | **40** | **48.3** | **46.1** | **50.6** | **56** | **47** | **38** |
| Total solids (preserved) | | | | | **38.4** | **48.1** | **43.8** | **56.4** | **47.8** | -- | -- |
| Total volatile solids | | | | | **10.53** | **8.45** | **9.36** | **7.39** | **6.29** | -- | -- |
| **Conventional Parameters (mg/kg)** | | | | | | | | | | | |
| Ammonia as nitrogen | | | | | **10.5** | **7.81** | **11.3** | **6.26** | **6.88** | -- | -- |
| Black carbon | | | | | -- | -- | -- | -- | -- | **1700** | **1900** |
| Sulfide | | | | | **97.9** | **221** | **324** | **162** | **328** | -- | -- |
| **Grain Size (pct)** | | | | | | | | | | | |
| Cobbles | | | | | -- | -- | -- | -- | -- | 0 U | 0 U |
| Gravel | | | | | **0.4** | **2.2** | **0.6** | **20.6** | **2.3** | **12** | **0.9** |
| Sand | | | | | -- | -- | -- | -- | -- | **9.5** | **3.7** |
| Sand, very coarse | | | | | **0.2** | **3.1** | **1.8** | **2.7** | **2.3** | -- | -- |
| Sand, coarse | | | | | **0.3** | **6.9** | **1.5** | **3.2** | **5.8** | -- | -- |
| Sand, medium | | | | | **0.3** | **9.1** | **2.6** | **3.8** | **9.1** | -- | -- |
| Sand, fine | | | | | **0.3** | **3.7** | **2.3** | **1.9** | **3.1** | -- | -- |
| Sand, very fine | | | | | **0.5** | **1.2** | **1.6** | **1.3** | **1.4** | -- | -- |
| Silt | | | | | -- | -- | -- | -- | -- | **70** | **85** |
| Silt, coarse | | | | | **5.1** | **4.5** | **4.7** | **6.5** | **4.8** | -- | -- |
| Silt, medium | | | | | **27** | **17.2** | **16.7** | **11.6** | **15.4** | -- | -- |
| Silt, fine | | | | | **28.8** | **20.8** | **25.6** | **21.1** | **23.3** | -- | -- |
| Silt, very fine | | | | | **16.4** | **12.6** | **23.6** | **16.5** | **20.6** | -- | -- |
| Total fines (Reported, not calculated) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Clay | | | | | -- | -- | -- | -- | -- | **9.3** | **10** |
| Clay, coarse | | | | | **5.8** | **5.6** | **7.7** | **4.7** | **6.5** | -- | -- |
| Clay, medium | | | | | **4.8** | **4.7** | **3.6** | **2.1** | **1.2** | -- | -- |
| Clay, fine | | | | | **10** | **8.5** | **7.6** | **4** | **4.3** | -- | -- |
| **Metals (mg/kg)** | | | | | | | | | | | |
| Antimony | | | | | -- | -- | -- | -- | -- | -- | -- |
| Arsenic | 57 | 93 | 57 | 93 | **20** | **20** | **30** | **20** | **22** | -- | -- |
| Cadmium | 5.1 | 6.7 | 5.1 | 6.7 | 0.4 U | 0.4 U | 0.4 U | 0.4 U | 0.4 U | -- | -- |
| Chromium | 260 | 270 | 260 | 270 | **55** | **66** | **71** | **62** | **54.6** | -- | -- |
| Copper | 390 | 390 | 390 | 390 | **55.1** | **63.2** | **69.4** | **61.7** | **53** | -- | -- |
| Lead | 450 | 530 | 450 | 530 | **10** | **13** | **16** | **13** | **13** | -- | -- |
| Mercury | 0.41 | 0.59 | 0.41 | 0.59 | **0.1** | **0.11** | **0.11** | **0.1** | **0.09** | -- | -- |
| Nickel | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silver | 6.1 | 6.1 | 6.1 | 6.1 | 0.7 U | 0.6 U | 0.6 U | 0.6 U | 0.5 U | -- | -- |
| Zinc | 410 | 960 | 410 | 960 | **214** | **98** | **120** | **104** | **102** | -- | -- |
| **Volatile Organics (mg/kg-OC)** | | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (µg/kg)** | | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED8 | FS2757-3SED8 | FS2757-3SED9 | FS2757-3SED9 | FS2757-3SED9 | JW-EA01-Composite | JW-EA01-SS01 |
| Sample ID | | | | | 3SED8-B | 3SED8-C | 3SED9-A | 3SED9-B | 3SED9-C | JW-EA01-COMP-120507 | JW-EA01-SS01-120507 |
| Sample Date | | | | | 6/5/2009 | 6/5/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.210042 | -122.210042 | -122.209852 | -122.209852 | -122.209852 | 1303385.74 | 1303506.424 |
| Y | | | | | 48.015442 | 48.015442 | 48.015392 | 48.015392 | 48.015392 | 373575.7223 | 373444.722 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | 0.1473 U | 0.1558 U | 0.4453 U | 0.4919 U | 0.1533 U | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | 0.1473 U | 0.1558 U | 0.4453 U | 0.4919 U | 0.1533 U | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | 0.1473 U | 0.1558 U | 0.4453 U | 0.4919 U | 0.1533 U | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | **1.111** | **1.683** | **11.679** | **9.677** | **1.256** | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | 0.362 U | 0.377 U | 1.46 U | **3.871 J** | 0.503 U | -- | -- |
| Diethyl phthalate | 61 | 110 | | | 0.483 U | 0.503 U | 1.46 U | 4.758 U | 0.503 U | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | 0.483 U | 0.503 U | 1.46 U | 4.758 U | 0.503 U | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | 0.483 U | 0.503 U | 1.46 U | 4.758 U | 0.503 U | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | 0.483 U | 0.503 U | 1.46 U | 4.758 U | 0.503 U | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | 0.1473 U | 0.1558 U | 0.4526 U | 0.4919 U | 0.1533 U | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | 0.1473 U | 0.1558 U | 0.4526 U | 0.4919 U | 0.1533 U | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | 0.1473 U | 0.1558 U | 0.4526 U | 0.4919 U | 0.1533 U | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | 6.1 U | 6.2 U | 6.1 U | 6.1 U | 6.1 U | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | 6.1 U | 6.2 U | 6.1 U | 6.1 U | 6.1 U | -- | -- |
| 1,3-Dichlorobenzene | | | | | 6.1 U | 6.2 U | 6.1 U | 6.1 U | 6.1 U | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | 6.1 U | 6.2 U | 6.1 U | 6.1 U | 6.1 U | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | 6.1 U | 6.2 U | 6.1 U | 6.1 U | 6.1 U | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | 6.1 U | 6.2 U | 6.2 U | 6.1 U | 6.1 U | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | 20 U | 20 U | 20 U | 59 U | 20 U | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | 200 U | 200 U | **820** | 590 U | 200 U | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | 20 U | 20 U | 31 U | 30 U | 20 U | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | **46** | **67** | **160** | **120** | **50** | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | 15 U | 15 U | 20 U | **48 J** | 20 U | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | 20 U | 20 U | 20 U | 59 U | 20 U | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | 20 U | 20 U | 20 U | 59 U | 20 U | -- | -- |
| Di-n-butyl phthalate | | | 1400 | 1400 | 20 U | 20 U | 20 U | 59 U | 20 U | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | 20 U | 20 U | 20 U | 59 U | 20 U | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | 6.1 U | 6.2 U | 6.2 U | 6.1 U | 6.1 U | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | 6.1 U | 6.2 U | 6.2 U | 6.1 U | 6.1 U | -- | -- |
| Hexachloroethane | | | | | 20 U | 20 U | 20 U | 59 U | 20 U | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | 6.1 U | 6.2 U | 6.2 U | 6.1 U | 6.1 U | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | 31 U | 31 U | 31 U | **42** | 30 U | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | 20 U | 20 U | 20 U | 59 U | 20 U | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | 0.483 U | 0.503 U | 1.46 U | 4.758 U | 0.503 U | 0.0393 UJ | -- |
| Acenaphthene | 16 | 57 | | | **0.386 J** | **0.302 J** | **1.314 J** | 4.758 U | 0.503 U | **0.0393 J** | -- |
| Acenaphthylene | 66 | 66 | | | 0.483 U | **0.302 J** | **1.387 J** | 4.758 U | **0.2437 J** | **0.0464 J** | -- |
| Anthracene | 220 | 1200 | | | **0.918** | **1.658** | **4.453** | **4.919** | **0.528** | **0.1464 J** | -- |
| Benzo(a)anthracene | 110 | 270 | | | **4.831** | **6.281** | **11.679** | **20.968** | **1.985** | **0.35 J** | -- |
| Benzo(a)pyrene | 99 | 210 | | | **3.382** | **4.523** | **6.861** | **10.484** | **1.683** | **0.2321 J** | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | **1.377** | **1.734** | **3.869** | **5.403** | **0.879** | **0.1107 J** | -- |
| Chrysene | 110 | 460 | | | **9.179** | **11.558** | **19.708** | **31.452** | **3.266** | **0.786 J** | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED8 | FS2757-3SED8 | FS2757-3SED9 | FS2757-3SED9 | FS2757-3SED9 | JW-EA01-Composite | JW-EA01-SS01 |
| Sample ID | | | | | 3SED8-B | 3SED8-C | 3SED9-A | 3SED9-B | 3SED9-C | JW-EA01-COMP-120507 | JW-EA01-SS01-120507 |
| Sample Date | | | | | 6/5/2009 | 6/5/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.210042 | -122.210042 | -122.209852 | -122.209852 | -122.209852 | 1303385.74 | 1303506.424 |
| Y | | | | | 48.015442 | 48.015442 | 48.015392 | 48.015392 | 48.015392 | 373575.7223 | 373444.722 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Dibenzo(a,h)anthracene | 12 | 33 | | | **0.556** | **0.879** | **1.314 J** | 1.452 U | **0.1533 J** | **0.03107 J** | -- |
| Dibenzofuran | 15 | 58 | | | 0.483 U | **0.302 J** | **1.168 J** | 4.758 U | 0.503 U | -- | -- |
| Fluoranthene | 160 | 1200 | | | **16.667** | **16.08** | **38.686** | **56.452** | **4.774** | **0.536 J** | -- |
| Fluorene | 23 | 79 | | | **0.386 J** | **0.477 J** | **1.825** | 4.758 U | 0.503 U | **0.0536 J** | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | **1.304** | **1.734** | **3.358** | **4.677 J** | **0.879** | **0.1464 J** | -- |
| Naphthalene | 99 | 170 | | | 0.483 U | **0.302 J** | 1.46 U | 4.758 U | 0.503 U | **0.02429 J** | -- |
| Phenanthrene | 100 | 480 | | | **2.343** | **3.518** | **13.139** | **11.29** | **1.03** | **0.1679 J** | -- |
| Pyrene | 1000 | 1400 | | | **10.87** | **11.055** | **23.358** | **37.903** | **3.518** | **0.5 J** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | **5.01208** | **6.63317** | **10.59124 J** | **16.57258 J** | **2.374623 J** | **0.35525 J** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | **5.01208** | **6.63317** | **10.59124 J** | **16.5 J** | **2.374623 J** | **0.35525 J** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | **5.01208** | **6.63317** | **10.59124 J** | **16.42742 J** | **2.374623 J** | **0.35525 J** | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | **8.696** | **11.055** | **18.978** | **30.645** | **3.568** | **0.625 J** | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | **56.86** | **64.899** | **127.81 J** | **197.984 J** | **20.706 J** | **3.31679 J** | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | **4.034 J** | **6.558 J** | **22.117 J** | **16.21** | **1.8015 J** | **0.47786 J** | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | | |
| 1-Methylnaphthalene | | | | | 20 U | 20 U | 20 U | 59 U | 20 U | 1.1 UJ | -- |
| 2-Methylnaphthalene | | | 670 | 670 | 20 U | 20 U | 20 U | 59 U | 20 U | 1.1 UJ | -- |
| Acenaphthene | | | 500 | 500 | **16 J** | **12 J** | **18 J** | 59 U | 20 U | **1.1 J** | -- |
| Acenaphthylene | | | 1300 | 1300 | 20 U | **12 J** | **19 J** | 59 U | **9.7 J** | **1.3 J** | -- |
| Anthracene | | | 960 | 960 | **38** | **66** | **61** | **61** | **21** | **4.1 J** | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | **200** | **250** | **160** | **260** | **79** | **9.8 J** | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | **140** | **180** | **94** | **130** | **67** | **6.5 J** | -- |
| Benzo(b)fluoranthene | | | | | **180** | **220** | **130** | **190** | **71** | **12 J** | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | **57** | **69** | **53** | **67** | **35** | **3.1 J** | -- |
| Benzo(k)fluoranthene | | | | | **180** | **220** | **130** | **190** | **71** | **5.5 J** | -- |
| Chrysene | | | 1400 | 2800 | **380** | **460** | **270** | **390** | **130** | **22 J** | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | **23** | **35** | **18 J** | 18 U | **6.1 J** | **0.87 J** | -- |
| Dibenzofuran | | | 540 | 540 | 20 U | **12 J** | **16 J** | 59 U | 20 U | -- | -- |
| Fluoranthene | | | 1700 | 2500 | **690** | **640** | **530** | **700** | **190** | **15 J** | -- |
| Fluorene | | | 540 | 540 | **16 J** | **19 J** | **25** | 59 U | 20 U | **1.5 J** | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | **54** | **69** | **46** | **58 J** | **35** | **4.1 J** | -- |
| Naphthalene | | | 2100 | 2100 | 20 U | **12 J** | 20 U | 59 U | 20 U | **0.68 J** | -- |
| Phenanthrene | | | 1500 | 1500 | **97** | **140** | **180** | **140** | **41** | **4.7 J** | -- |
| Pyrene | | | 2600 | 3300 | **450** | **440** | **320** | **470** | **140** | **14 J** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | **207.5** | **264** | **145.1 J** | **205.5 J** | **94.51 J** | **9.947 J** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | **207.5** | **264** | **145.1 J** | **204.6 J** | **94.51 J** | **9.947 J** | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | **360** | **440** | **260** | **380** | **142** | **17.5 J** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | **207.5** | **264** | **145.1 J** | **203.7 J** | **94.51 J** | **9.947 J** | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | **2354** | **2583** | **1751 J** | **2455 J** | **824.1 J** | **92.87 J** | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | **167 J** | **261 J** | **303 J** | **201** | **71.7 J** | **13.38 J** | -- |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | 0.471 U | **0.428 J** | **0.421 J** | **0.354 J** | **0.416 J** | -- | 0.256 U |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **5.78 J** | **2.72 J** | **3.21 J** | **2.42 J** | **2.94 J** | -- | 1.07 U |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **24.3** | **5.72 J** | **7.07 J** | **5.46 J** | **7.63 J** | -- | 2.18 U |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED8 | FS2757-3SED8 | FS2757-3SED9 | FS2757-3SED9 | FS2757-3SED9 | JW-EA01-Composite | JW-EA01-SS01 |
| Sample ID | | | | | 3SED8-B | 3SED8-C | 3SED9-A | 3SED9-B | 3SED9-C | JW-EA01-COMP-120507 | JW-EA01-SS01-120507 |
| Sample Date | | | | | 6/5/2009 | 6/5/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.210042 | -122.210042 | -122.209852 | -122.209852 | -122.209852 | 1303385.74 | 1303506.424 |
| Y | | | | | 48.015442 | 48.015442 | 48.015392 | 48.015392 | 48.015392 | 373575.7223 | 373444.722 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **126** | **89.9** | **40.7** | **43.5** | **42.9** | -- | **14.4** |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **83.8** | **21.3** | **19.7** | **16.5** | **20.6** | -- | **4.49 J** |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **7750** | **2400** | **1060** | **1130** | **1090** | -- | **246** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | **125000** | **18400** | **7570** | **8550** | **9670** | -- | **2570** |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | -- | -- | -- | -- | **6.47 J** |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | -- | -- | -- | -- | **4.23 J** |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | **83.9 J** |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | -- | -- | -- | -- | **503** |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | **2.81** | **2.51** | **2.39** | **2.38** | **2.21** | -- | **0.709 J** |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **3.53 J** | **2.17 J** | **1.68 J** | **1.75 J** | **1.5 J** | -- | 0.745 U |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **4.21 J** | **2.82 J** | **2.36 J** | **2.7 J** | **2.08 J** | -- | 1.26 U |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **34.1** | **15.5** | **9.1 J** | **11.3** | **8.56 J** | -- | 2.14 U |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **29.9** | **10.8** | **7.16 J** | **7.23 J** | **6.87 J** | -- | 2 U |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | **1.05 J** | **0.649 J** | **0.352 J** | **0.381 J** | **0.349 J** | -- | 0.552 U |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **21.5** | **9.64 J** | **4.84 J** | **5.26 J** | **4.25 J** | -- | **3.16 J** |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | **1500** | **750** | **238** | **297** | 244 U | -- | **50.1** |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | **66.2** | **36.2** | **14.4** | **14.8** | **13.5** | -- | **3.55 J** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | **6230** | **2680** | **642** | **892** | **680** | -- | **143** |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | -- | -- | -- | -- | **5.95 J** |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | **16 J** |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | **67.1 J** |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | **147** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | **69.669 J** | **28.0389 J** | **17.8299 J** | **17.9963 J** | **17.3694 J** | -- | **5.9105 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | **68.111 J** | **24.7929 J** | **15.7039 J** | **15.2698 J** | **15.7344 J** | -- | **5.1466 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | **172.4969 J** | **57.847 J** | **29.1082 J** | **30.0882 J** | **29.9419 J** | -- | **8.49985 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | **69.4335 J** | **28.0389 J** | **17.8299 J** | **17.9963 J** | **16.1494 J** | -- | **4.29115 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | **67.8755 J** | **24.7929 J** | **15.7039 J** | **15.2698 J** | **14.5144 J** | -- | **3.370375 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | **172.2614 J** | **57.847 J** | **29.1082 J** | **30.0882 J** | **28.7219 J** | -- | **7.293075 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | **69.198 J** | **28.0389 J** | **17.8299 J** | **17.9963 J** | **14.9294 J** | -- | **2.6718 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | **67.64 J** | **24.7929 J** | **15.7039 J** | **15.2698 J** | **13.2944 J** | -- | **1.59415 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | **172.0259 J** | **57.847 J** | **29.1082 J** | **30.0882 J** | **27.5019 J** | -- | **6.0863 J** |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | **0.242** | **0.4975** | **3.9124** | **3.0645** | **0.7839** | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | | |
| Aroclor 1016 | | | | | 4 U | 3.9 U | 3.9 U | 3.9 U | 3.9 U | -- | -- |
| Aroclor 1221 | | | | | 4 U | 3.9 U | 3.9 U | 3.9 U | 3.9 U | -- | -- |
| Aroclor 1232 | | | | | 4 U | 3.9 U | 3.9 U | 3.9 U | 3.9 U | -- | -- |
| Aroclor 1242 | | | | | **10** | **9.8** | **37** | **38** | **26** | -- | -- |
| Aroclor 1248 | | | | | 4 U | 3.9 U | 3.9 U | 3.9 U | 3.9 U | -- | -- |
| Aroclor 1254 | | | | | 4 U | **10** | **8.9** | 3.9 U | **5.2** | -- | -- |
| Aroclor 1260 | | | | | 4 U | 3.9 U | **7.7** | 3.9 U | 3.9 U | -- | -- |
| Aroclor 1262 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1268 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | **10** | **19.8** | **53.6** | **38** | **31.2** | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED8 | FS2757-3SED8 | FS2757-3SED9 | FS2757-3SED9 | FS2757-3SED9 | JW-EA01-Composite | JW-EA01-SS01 |
| Sample ID | | | | | 3SED8-B | 3SED8-C | 3SED9-A | 3SED9-B | 3SED9-C | JW-EA01-COMP-120507 | JW-EA01-SS01-120507 |
| Sample Date | | | | | 6/5/2009 | 6/5/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.210042 | -122.210042 | -122.209852 | -122.209852 | -122.209852 | 1303385.74 | 1303506.424 |
| Y | SMS_Marine_ | SMS_Marine_ | AET_Marine_ | AET_Marine_ | 48.015442 | 48.015442 | 48.015392 | 48.015392 | 48.015392 | 373575.7223 | 373444.722 |
| Analyte | SCO_SCUMII | CSL_SCUMII | SCO_SCUMII | CSL_SCUMII | | | | | | | |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | **0.50039775 J** | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | **0.499372554 J** | -- |
| Total PCB Congener (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | **0.498347357 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | **2.657106429E-05 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | **2.56553571E-07 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | **3.99207857E-06 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | **2.321131429E-05 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | **1.985156429E-05 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | **1.82583929E-07 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | **1.08614286E-07 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | **2.22545357E-06 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | **4.5882857E-07 J** | -- |
| **PCB Congeners (ng/kg)** | | | | | | | | | | | |
| PCB-001 | | | | | -- | -- | -- | -- | -- | **7.87 J** | -- |
| PCB-002 | | | | | -- | -- | -- | -- | -- | **2.39** | -- |
| PCB-003 | | | | | -- | -- | -- | -- | -- | **9.4 J** | -- |
| PCB-004 | | | | | -- | -- | -- | -- | -- | **54.7** | -- |
| PCB-005 | | | | | -- | -- | -- | -- | -- | 1.79 U | -- |
| PCB-006 | | | | | -- | -- | -- | -- | -- | **21.5** | -- |
| PCB-007 | | | | | -- | -- | -- | -- | -- | **3.65** | -- |
| PCB-008 | | | | | -- | -- | -- | -- | -- | **99.3** | -- |
| PCB-009 | | | | | -- | -- | -- | -- | -- | **6.21** | -- |
| PCB-010 | | | | | -- | -- | -- | -- | -- | **2.77 J** | -- |
| PCB-011 | | | | | -- | -- | -- | -- | -- | 27.8 U | -- |
| PCB-012/013 | | | | | -- | -- | -- | -- | -- | **18.3** | -- |
| PCB-014 | | | | | -- | -- | -- | -- | -- | 1.5 U | -- |
| PCB-015 | | | | | -- | -- | -- | -- | -- | **200** | -- |
| PCB-016 | | | | | -- | -- | -- | -- | -- | **194** | -- |
| PCB-017 | | | | | -- | -- | -- | -- | -- | **183** | -- |
| PCB-018/030 | | | | | -- | -- | -- | -- | -- | **278** | -- |
| PCB-019 | | | | | -- | -- | -- | -- | -- | **49.3** | -- |
| PCB-020/028 | | | | | -- | -- | -- | -- | -- | **1010** | -- |
| PCB-021/033 | | | | | -- | -- | -- | -- | -- | **224** | -- |
| PCB-022 | | | | | -- | -- | -- | -- | -- | **327** | -- |
| PCB-023 | | | | | -- | -- | -- | -- | -- | 1.15 U | -- |
| PCB-024 | | | | | -- | -- | -- | -- | -- | **7.39** | -- |
| PCB-025 | | | | | -- | -- | -- | -- | -- | **62.6** | -- |
| PCB-026/029 | | | | | -- | -- | -- | -- | -- | **119** | -- |
| PCB-027 | | | | | -- | -- | -- | -- | -- | **40.8** | -- |
| PCB-031 | | | | | -- | -- | -- | -- | -- | **689** | -- |
| PCB-032 | | | | | -- | -- | -- | -- | -- | **138** | -- |
| PCB-034 | | | | | -- | -- | -- | -- | -- | **2.19** | -- |
| PCB-035 | | | | | -- | -- | -- | -- | -- | **12.2** | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED8 | FS2757-3SED8 | FS2757-3SED9 | FS2757-3SED9 | FS2757-3SED9 | JW-EA01-Composite | JW-EA01-SS01 |
| Sample ID | | | | | 3SED8-B | 3SED8-C | 3SED9-A | 3SED9-B | 3SED9-C | JW-EA01-COMP-120507 | JW-EA01-SS01-120507 |
| Sample Date | | | | | 6/5/2009 | 6/5/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.210042 | -122.210042 | -122.209852 | -122.209852 | -122.209852 | 1303385.74 | 1303506.424 |
| Y | | | | | 48.015442 | 48.015442 | 48.015392 | 48.015392 | 48.015392 | 373575.7223 | 373444.722 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | |
| PCB-036 | | | | | -- | -- | -- | -- | -- | 1.12 U | -- |
| PCB-037 | | | | | -- | -- | -- | -- | -- | **307** | -- |
| PCB-038 | | | | | -- | -- | -- | -- | -- | 1.21 U | -- |
| PCB-039 | | | | | -- | -- | -- | -- | -- | **5.4** | -- |
| PCB-040/071 | | | | | -- | -- | -- | -- | -- | **424** | -- |
| PCB-041 | | | | | -- | -- | -- | -- | -- | **114** | -- |
| PCB-042 | | | | | -- | -- | -- | -- | -- | **294** | -- |
| PCB-043 | | | | | -- | -- | -- | -- | -- | **45.1** | -- |
| PCB-044/047/065 | | | | | -- | -- | -- | -- | -- | **930** | -- |
| PCB-045 | | | | | -- | -- | -- | -- | -- | **163** | -- |
| PCB-046 | | | | | -- | -- | -- | -- | -- | **58.4** | -- |
| PCB-048 | | | | | -- | -- | -- | -- | -- | **218** | -- |
| PCB-049/069 | | | | | -- | -- | -- | -- | -- | **540** | -- |
| PCB-050/053 | | | | | -- | -- | -- | -- | -- | **130** | -- |
| PCB-051 | | | | | -- | -- | -- | -- | -- | **30.3** | -- |
| PCB-052 | | | | | -- | -- | -- | -- | -- | **838** | -- |
| PCB-054 | | | | | -- | -- | -- | -- | -- | **1.8 J** | -- |
| PCB-055 | | | | | -- | -- | -- | -- | -- | 1.11 U | -- |
| PCB-056 | | | | | -- | -- | -- | -- | -- | **59** | -- |
| PCB-057 | | | | | -- | -- | -- | -- | -- | 1.12 U | -- |
| PCB-058 | | | | | -- | -- | -- | -- | -- | 1.09 U | -- |
| PCB-059/062/075 | | | | | -- | -- | -- | -- | -- | **102** | -- |
| PCB-060 | | | | | -- | -- | -- | -- | -- | **26.6** | -- |
| PCB-061/070/074/076 | | | | | -- | -- | -- | -- | -- | **563** | -- |
| PCB-063 | | | | | -- | -- | -- | -- | -- | **18.7** | -- |
| PCB-064 | | | | | -- | -- | -- | -- | -- | **388** | -- |
| PCB-066 | | | | | -- | -- | -- | -- | -- | **283** | -- |
| PCB-067 | | | | | -- | -- | -- | -- | -- | **19.9** | -- |
| PCB-068 | | | | | -- | -- | -- | -- | -- | **1.96 J** | -- |
| PCB-072 | | | | | -- | -- | -- | -- | -- | **4.61** | -- |
| PCB-073 | | | | | -- | -- | -- | -- | -- | 0.862 U | -- |
| PCB-077 | | | | | -- | -- | -- | -- | -- | **10.8** | -- |
| PCB-078 | | | | | -- | -- | -- | -- | -- | 1.22 U | -- |
| PCB-079 | | | | | -- | -- | -- | -- | -- | **2.41** | -- |
| PCB-080 | | | | | -- | -- | -- | -- | -- | 1 U | -- |
| PCB-081 | | | | | -- | -- | -- | -- | -- | 1.17 U | -- |
| PCB-082 | | | | | -- | -- | -- | -- | -- | **29.8** | -- |
| PCB-083 | | | | | -- | -- | -- | -- | -- | **15.8** | -- |
| PCB-084 | | | | | -- | -- | -- | -- | -- | **92.3** | -- |
| PCB-085/116 | | | | | -- | -- | -- | -- | -- | **47.4** | -- |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/109/119/125 | | | | | -- | -- | -- | -- | -- | **177** | -- |
| PCB-088 | | | | | -- | -- | -- | -- | -- | 0.968 U | -- |
| PCB-089 | | | | | -- | -- | -- | -- | -- | **5.08** | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED8 | FS2757-3SED8 | FS2757-3SED9 | FS2757-3SED9 | FS2757-3SED9 | JW-EA01-Composite | JW-EA01-SS01 |
| Sample ID | | | | | 3SED8-B | 3SED8-C | 3SED9-A | 3SED9-B | 3SED9-C | JW-EA01-COMP-120507 | JW-EA01-SS01-120507 |
| Sample Date | | | | | 6/5/2009 | 6/5/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.210042 | -122.210042 | -122.209852 | -122.209852 | -122.209852 | 1303385.74 | 1303506.424 |
| Y | | | | | 48.015442 | 48.015442 | 48.015392 | 48.015392 | 48.015392 | 373575.7223 | 373444.722 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | |
| PCB-090/101/113 | | | | | -- | -- | -- | -- | -- | **290** | -- |
| PCB-091 | | | | | -- | -- | -- | -- | -- | **70.7** | -- |
| PCB-092 | | | | | -- | -- | -- | -- | -- | **67.9** | -- |
| PCB-093/100 | | | | | -- | -- | -- | -- | -- | 0.896 U | -- |
| PCB-094 | | | | | -- | -- | -- | -- | -- | **3.37** | -- |
| PCB-095 | | | | | -- | -- | -- | -- | -- | **229** | -- |
| PCB-096 | | | | | -- | -- | -- | -- | -- | **8.42** | -- |
| PCB-098 | | | | | -- | -- | -- | -- | -- | **25.2** | -- |
| PCB-099 | | | | | -- | -- | -- | -- | -- | **175** | -- |
| PCB-102 | | | | | -- | -- | -- | -- | -- | **6.37** | -- |
| PCB-103 | | | | | -- | -- | -- | -- | -- | **4.18** | -- |
| PCB-104 | | | | | -- | -- | -- | -- | -- | 0.31 U | -- |
| PCB-105 | | | | | -- | -- | -- | -- | -- | **84.2** | -- |
| PCB-106 | | | | | -- | -- | -- | -- | -- | 0.797 U | -- |
| PCB-107 | | | | | -- | -- | -- | -- | -- | **19** | -- |
| PCB-107/124 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-108/124 | | | | | -- | -- | -- | -- | -- | **11.1** | -- |
| PCB-109 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-110 | | | | | -- | -- | -- | -- | -- | **383** | -- |
| PCB-111 | | | | | -- | -- | -- | -- | -- | 0.705 U | -- |
| PCB-112 | | | | | -- | -- | -- | -- | -- | 0.676 U | -- |
| PCB-114 | | | | | -- | -- | -- | -- | -- | **4.06** | -- |
| PCB-115 | | | | | -- | -- | -- | -- | -- | 0.692 U | -- |
| PCB-117 | | | | | -- | -- | -- | -- | -- | **8.1** | -- |
| PCB-118 | | | | | -- | -- | -- | -- | -- | **235** | -- |
| PCB-120 | | | | | -- | -- | -- | -- | -- | 0.661 U | -- |
| PCB-121 | | | | | -- | -- | -- | -- | -- | 0.656 U | -- |
| PCB-122 | | | | | -- | -- | -- | -- | -- | **3.1** | -- |
| PCB-123 | | | | | -- | -- | -- | -- | -- | **5.5** | -- |
| PCB-126 | | | | | -- | -- | -- | -- | -- | 0.702 U | -- |
| PCB-127 | | | | | -- | -- | -- | -- | -- | 0.94 U | -- |
| PCB-128/166 | | | | | -- | -- | -- | -- | -- | **83.3 J** | -- |
| PCB-129/138/163 | | | | | -- | -- | -- | -- | -- | **438 J** | -- |
| PCB-130 | | | | | -- | -- | -- | -- | -- | **28.6 J** | -- |
| PCB-131 | | | | | -- | -- | -- | -- | -- | **5.34 J** | -- |
| PCB-132 | | | | | -- | -- | -- | -- | -- | **119 J** | -- |
| PCB-133 | | | | | -- | -- | -- | -- | -- | **7.08 J** | -- |
| PCB-134 | | | | | -- | -- | -- | -- | -- | **18.9 J** | -- |
| PCB-135/151 | | | | | -- | -- | -- | -- | -- | **115 J** | -- |
| PCB-136 | | | | | -- | -- | -- | -- | -- | **42.7 J** | -- |
| PCB-137 | | | | | -- | -- | -- | -- | -- | **21 J** | -- |
| PCB-139/140 | | | | | -- | -- | -- | -- | -- | **8.38 J** | -- |
| PCB-141 | | | | | -- | -- | -- | -- | -- | **52.5 J** | -- |
| PCB-142 | | | | | -- | -- | -- | -- | -- | 0.469 UJ | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED8 | FS2757-3SED8 | FS2757-3SED9 | FS2757-3SED9 | FS2757-3SED9 | JW-EA01-Composite | JW-EA01-SS01 |
| Sample ID | | | | | 3SED8-B | 3SED8-C | 3SED9-A | 3SED9-B | 3SED9-C | JW-EA01-COMP-120507 | JW-EA01-SS01-120507 |
| Sample Date | | | | | 6/5/2009 | 6/5/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.210042 | -122.210042 | -122.209852 | -122.209852 | -122.209852 | 1303385.74 | 1303506.424 |
| Y | | | | | 48.015442 | 48.015442 | 48.015392 | 48.015392 | 48.015392 | 373575.7223 | 373444.722 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | |
| PCB-143 | | | | | -- | -- | -- | -- | -- | 0.432 UJ | -- |
| PCB-144 | | | | | -- | -- | -- | -- | -- | **15.2 J** | -- |
| PCB-145 | | | | | -- | -- | -- | -- | -- | 0.299 UJ | -- |
| PCB-146 | | | | | -- | -- | -- | -- | -- | **57 J** | -- |
| PCB-147/149 | | | | | -- | -- | -- | -- | -- | **271 J** | -- |
| PCB-148 | | | | | -- | -- | -- | -- | -- | 0.397 UJ | -- |
| PCB-150 | | | | | -- | -- | -- | -- | -- | **0.841 J** | -- |
| PCB-152 | | | | | -- | -- | -- | -- | -- | 0.281 UJ | -- |
| PCB-153/168 | | | | | -- | -- | -- | -- | -- | **318 J** | -- |
| PCB-154 | | | | | -- | -- | -- | -- | -- | 0.357 UJ | -- |
| PCB-155 | | | | | -- | -- | -- | -- | -- | 0.28 U | -- |
| PCB-156/157 | | | | | -- | -- | -- | -- | -- | **44.2** | -- |
| PCB-158 | | | | | -- | -- | -- | -- | -- | **42.4 J** | -- |
| PCB-159 | | | | | -- | -- | -- | -- | -- | **2.79 J** | -- |
| PCB-160 | | | | | -- | -- | -- | -- | -- | 0.346 UJ | -- |
| PCB-161 | | | | | -- | -- | -- | -- | -- | 0.318 UJ | -- |
| PCB-162 | | | | | -- | -- | -- | -- | -- | **1.99 J** | -- |
| PCB-164 | | | | | -- | -- | -- | -- | -- | **26.6 J** | -- |
| PCB-165 | | | | | -- | -- | -- | -- | -- | 0.354 UJ | -- |
| PCB-167 | | | | | -- | -- | -- | -- | -- | **15.8 J** | -- |
| PCB-169 | | | | | -- | -- | -- | -- | -- | 0.946 U | -- |
| PCB-170 | | | | | -- | -- | -- | -- | -- | **78.3** | -- |
| PCB-171/173 | | | | | -- | -- | -- | -- | -- | **26.3** | -- |
| PCB-172 | | | | | -- | -- | -- | -- | -- | **13.8** | -- |
| PCB-174 | | | | | -- | -- | -- | -- | -- | **72.3** | -- |
| PCB-175 | | | | | -- | -- | -- | -- | -- | **3.51** | -- |
| PCB-176 | | | | | -- | -- | -- | -- | -- | **9.01** | -- |
| PCB-177 | | | | | -- | -- | -- | -- | -- | **56.9** | -- |
| PCB-178 | | | | | -- | -- | -- | -- | -- | **19.1** | -- |
| PCB-179 | | | | | -- | -- | -- | -- | -- | **34.5** | -- |
| PCB-180/193 | | | | | -- | -- | -- | -- | -- | **164** | -- |
| PCB-181 | | | | | -- | -- | -- | -- | -- | **0.956 J** | -- |
| PCB-182 | | | | | -- | -- | -- | -- | -- | 0.593 U | -- |
| PCB-183 | | | | | -- | -- | -- | -- | -- | **47.1** | -- |
| PCB-184 | | | | | -- | -- | -- | -- | -- | 0.342 U | -- |
| PCB-185 | | | | | -- | -- | -- | -- | -- | **5.11** | -- |
| PCB-186 | | | | | -- | -- | -- | -- | -- | 0.331 U | -- |
| PCB-187 | | | | | -- | -- | -- | -- | -- | **70** | -- |
| PCB-188 | | | | | -- | -- | -- | -- | -- | 0.347 U | -- |
| PCB-189 | | | | | -- | -- | -- | -- | -- | **3.48** | -- |
| PCB-190 | | | | | -- | -- | -- | -- | -- | **14.9** | -- |
| PCB-191 | | | | | -- | -- | -- | -- | -- | **3.05** | -- |
| PCB-192 | | | | | -- | -- | -- | -- | -- | 0.512 U | -- |
| PCB-194 | | | | | -- | -- | -- | -- | -- | **44.6** | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED8 | FS2757-3SED8 | FS2757-3SED9 | FS2757-3SED9 | FS2757-3SED9 | JW-EA01-Composite | JW-EA01-SS01 |
| Sample ID | | | | | 3SED8-B | 3SED8-C | 3SED9-A | 3SED9-B | 3SED9-C | JW-EA01-COMP-120507 | JW-EA01-SS01-120507 |
| Sample Date | | | | | 6/5/2009 | 6/5/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.210042 | -122.210042 | -122.209852 | -122.209852 | -122.209852 | 1303385.74 | 1303506.424 |
| Y | | | | | 48.015442 | 48.015442 | 48.015392 | 48.015392 | 48.015392 | 373575.7223 | 373444.722 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | |
| PCB-195 | | | | | -- | -- | -- | -- | -- | **17.3** | -- |
| PCB-196 | | | | | -- | -- | -- | -- | -- | **22** | -- |
| PCB-197 | | | | | -- | -- | -- | -- | -- | **0.719 J** | -- |
| PCB-198/199 | | | | | -- | -- | -- | -- | -- | **52** | -- |
| PCB-200 | | | | | -- | -- | -- | -- | -- | **2.34** | -- |
| PCB-201 | | | | | -- | -- | -- | -- | -- | **4.65 J** | -- |
| PCB-202 | | | | | -- | -- | -- | -- | -- | **11.7** | -- |
| PCB-203 | | | | | -- | -- | -- | -- | -- | **31.3** | -- |
| PCB-204 | | | | | -- | -- | -- | -- | -- | 0.662 U | -- |
| PCB-205 | | | | | -- | -- | -- | -- | -- | **2.04 J** | -- |
| PCB-206 | | | | | -- | -- | -- | -- | -- | **28.4** | -- |
| PCB-207 | | | | | -- | -- | -- | -- | -- | **2.8** | -- |
| PCB-208 | | | | | -- | -- | -- | -- | -- | **7.81** | -- |
| PCB-209 | | | | | -- | -- | -- | -- | -- | **26** | -- |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | **14011.137 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | **0.7439898 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | **0.0071835 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | **0.1117782 J** | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | **13982.431 J** | -- |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | -- | -- | -- | -- | -- | **13953.726 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | **0.6499168 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | **0.5558438 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | **0.00511235 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | **0.0030412 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | **0.0623127 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | **0.0128472 J** | -- |
| **Total Petroleum Hydrocarbons (mg/kg)** | | | | | | | | | | | |
| Diesel range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- | -- |
| Motor oil range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **0.001682826087 J** | **0.0007044949749 J** | **0.0013014525547 J** | **0.0014513145161 J** | **0.0004364170854 J** | **2.657106429E-05 J** | **0.0002038103448 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **0.0016451932367 J** | **0.0006229371859 J** | **0.001146270073 J** | **0.0012314354839 J** | **0.0003953366834 J** | **2.56553571E-07 J** | **0.0001774689655 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **0.0041665917874 J** | **0.0014534422111 J** | **0.0021246861314 J** | **0.0024264677419 J** | **0.0007523090452 J** | **3.99207857E-06 J** | **0.0002930982759 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **0.0016771376812 J** | **0.0007044949749 J** | **0.0013014525547 J** | **0.0014513145161 J** | **0.0004057638191 J** | **2.321131429E-05 J** | **0.0001479706897 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **0.0016395048309 J** | **0.0006229371859 J** | **0.001146270073 J** | **0.0012314354839 J** | **0.0003646834171 J** | **1.82583929E-07 J** | **0.0001162198276 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | **0.0041609033816 J** | **0.0014534422111 J** | **0.0021246861314 J** | **0.0024264677419 J** | **0.0007216557789 J** | **2.22545357E-06 J** | **0.0002514853448 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | **0.0016714492754 J** | **0.0007044949749 J** | **0.0013014525547 J** | **0.0014513145161 J** | **0.0003751105528 J** | **1.985156429E-05 J** | **9.21310345E-05 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | **0.0016338164251 J** | **0.0006229371859 J** | **0.001146270073 J** | **0.0012314354839 J** | **0.0003340301508 J** | **1.08614286E-07 J** | **5.49706897E-05 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | **0.0041552149758 J** | **0.0014534422111 J** | **0.0021246861314 J** | **0.0024264677419 J** | **0.0006910025126 J** | **4.5882857E-07 J** | **0.0002098724138 J** |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **69.669 J** | **28.0389 J** | **17.8299 J** | **17.9963 J** | **17.3694 J** | **0.7439898 J** | **5.9105 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **68.111 J** | **24.7929 J** | **15.7039 J** | **15.2698 J** | **15.7344 J** | **0.0071835 J** | **5.1466 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **172.4969 J** | **57.847 J** | **29.1082 J** | **30.0882 J** | **29.9419 J** | **0.1117782 J** | **8.49985 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **69.4335 J** | **28.0389 J** | **17.8299 J** | **17.9963 J** | **16.1494 J** | **0.6499168 J** | **4.29115 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **67.8755 J** | **24.7929 J** | **15.7039 J** | **15.2698 J** | **14.5144 J** | **0.00511235 J** | **3.370375 J** |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenAODE5095 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | FS2757-3SED8 | FS2757-3SED8 | FS2757-3SED9 | FS2757-3SED9 | FS2757-3SED9 | JW-EA01-Composite | JW-EA01-SS01 |
| Sample ID | | | | | 3SED8-B | 3SED8-C | 3SED9-A | 3SED9-B | 3SED9-C | JW-EA01-COMP-120507 | JW-EA01-SS01-120507 |
| Sample Date | | | | | 6/5/2009 | 6/5/2009 | 6/4/2009 | 6/4/2009 | 6/4/2009 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | -122.210042 | -122.210042 | -122.209852 | -122.209852 | -122.209852 | 1303385.74 | 1303506.424 |
| Y | SMS_Marine_ | SMS_Marine_ | AET_Marine_ | AET_Marine_ | 48.015442 | 48.015442 | 48.015392 | 48.015392 | 48.015392 | 373575.7223 | 373444.722 |
| Analyte | SCO_SCUMII | CSL_SCUMII | SCO_SCUMII | CSL_SCUMII | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | 172.2614 J | 57.847 J | 29.1082 J | 30.0882 J | 28.7219 J | 0.0623127 J | 7.293075 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | 69.198 J | 28.0389 J | 17.8299 J | 17.9963 J | 14.9294 J | 0.5558438 J | 2.6718 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | 67.64 J | 24.7929 J | 15.7039 J | 15.2698 J | 13.2944 J | 0.0030412 J | 1.59415 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | 172.0259 J | 57.847 J | 29.1082 J | 30.0882 J | 27.5019 J | 0.0128472 J | 6.0863 J |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA01-SS01 | JW-EA01-SS02 | JW-EA01-SS03 | JW-EA01-SS04 | JW-EA02-Composite | JW-EA02-SS05 |
| Sample ID | | | | | JW-EA01-SS51-120507 | JW-EA01-SS02-120507 | JW-EA01-SS03-120507 | JW-EA01-SS04-120507 | JW-EA02-COMP-120507 | JW-EA02-SS05-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | FD | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303506.424 | 1303409.991 | 1303319.104 | 1303273.179 | 1303152.198 | 1303192.48 |
| Y | | | | | 373444.722 | 373521.54 | 373607.887 | 373706.237 | 373883.5081 | 373760.134 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | |
| Total organic carbon | | | | | -- | **3.9** | **1.9** | **2.7** | **2.8** | **2.6** |
| Moisture, percent | | | | | **59.3** | **57** | **41.7** | **50.9** | **55.2** | -- |
| Total Solids | | | | | -- | **47** | **59** | **49** | **43** | -- |
| Total solids (preserved) | | | | | -- | -- | -- | -- | -- | -- |
| Total volatile solids | | | | | -- | -- | -- | -- | -- | -- |
| **Conventional Parameters (mg/kg)** | | | | | | | | | | |
| Ammonia as nitrogen | | | | | -- | -- | -- | -- | -- | -- |
| Black carbon | | | | | -- | **1900** | **2100** | **1700** | **1700** | -- |
| Sulfide | | | | | -- | -- | -- | -- | -- | -- |
| **Grain Size (pct)** | | | | | | | | | | |
| Cobbles | | | | | -- | 0 U | 0 U | 0 U | 0 U | -- |
| Gravel | | | | | -- | **6.7** | **33** | **0.3** | **0.5** | -- |
| Sand | | | | | -- | **14** | **20** | **3** | **7.2** | -- |
| Sand, very coarse | | | | | -- | -- | -- | -- | -- | -- |
| Sand, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Sand, medium | | | | | -- | -- | -- | -- | -- | -- |
| Sand, fine | | | | | -- | -- | -- | -- | -- | -- |
| Sand, very fine | | | | | -- | -- | -- | -- | -- | -- |
| Silt | | | | | -- | **70** | **39** | **82** | **79** | -- |
| Silt, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Silt, medium | | | | | -- | -- | -- | -- | -- | -- |
| Silt, fine | | | | | -- | -- | -- | -- | -- | -- |
| Silt, very fine | | | | | -- | -- | -- | -- | -- | -- |
| Total fines (Reported, not calculated) | | | | | -- | -- | -- | -- | -- | -- |
| Clay | | | | | -- | **9** | **8.8** | **15** | **13** | -- |
| Clay, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Clay, medium | | | | | -- | -- | -- | -- | -- | -- |
| Clay, fine | | | | | -- | -- | -- | -- | -- | -- |
| **Metals (mg/kg)** | | | | | | | | | | |
| Antimony | | | | | -- | -- | -- | -- | -- | -- |
| Arsenic | 57 | 93 | 57 | 93 | -- | -- | -- | -- | -- | -- |
| Cadmium | 5.1 | 6.7 | 5.1 | 6.7 | -- | -- | -- | -- | -- | -- |
| Chromium | 260 | 270 | 260 | 270 | -- | -- | -- | -- | -- | -- |
| Copper | 390 | 390 | 390 | 390 | -- | -- | -- | -- | -- | -- |
| Lead | 450 | 530 | 450 | 530 | -- | -- | -- | -- | -- | -- |
| Mercury | 0.41 | 0.59 | 0.41 | 0.59 | -- | -- | -- | -- | -- | -- |
| Nickel | | | | | -- | -- | -- | -- | -- | -- |
| Silver | 6.1 | 6.1 | 6.1 | 6.1 | -- | -- | -- | -- | -- | -- |
| Zinc | 410 | 960 | 410 | 960 | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (mg/kg-OC)** | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (µg/kg)** | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA01-SS01 | JW-EA01-SS02 | JW-EA01-SS03 | JW-EA01-SS04 | JW-EA02-Composite | JW-EA02-SS05 |
| Sample ID | | | | | JW-EA01-SS51-120507 | JW-EA01-SS02-120507 | JW-EA01-SS03-120507 | JW-EA01-SS04-120507 | JW-EA02-COMP-120507 | JW-EA02-SS05-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | FD | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303506.424 | 1303409.991 | 1303319.104 | 1303273.179 | 1303152.198 | 1303192.48 |
| Y | | | | | 373444.722 | 373521.54 | 373607.887 | 373706.237 | 373883.5081 | 373760.134 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | -- | -- | -- |
| 1,3-Dichlorobenzene | | | | | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | -- | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | -- | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | | | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | -- | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | -- | -- | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | -- | -- | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | -- | -- | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- | -- | -- | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA01-SS01 | JW-EA01-SS02 | JW-EA01-SS03 | JW-EA01-SS04 | JW-EA02-Composite | JW-EA02-SS05 |
| Sample ID | | | | | JW-EA01-SS51-120507 | JW-EA01-SS02-120507 | JW-EA01-SS03-120507 | JW-EA01-SS04-120507 | JW-EA02-COMP-120507 | JW-EA02-SS05-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | FD | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303506.424 | 1303409.991 | 1303319.104 | 1303273.179 | 1303152.198 | 1303192.48 |
| Y | | | | | 373444.722 | 373521.54 | 373607.887 | 373706.237 | 373883.5081 | 373760.134 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | -- | -- | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | -- | -- | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- | -- | -- | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | -- | -- | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | |
| 1-Methylnaphthalene | | | | | -- | -- | -- | -- | -- | -- |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | -- | -- | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | -- | -- | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | -- | -- | -- |
| Benzo(b)fluoranthene | | | | | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | -- | -- | -- |
| Benzo(k)fluoranthene | | | | | -- | -- | -- | -- | -- | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | -- | -- | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | -- | -- | -- |
| Fluorene | | | 540 | 540 | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | -- | -- | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | -- | -- | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | -- | -- | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **0.32 J** | **0.835 J** | **0.341 J** | 0.201 U | 0.102 U | **0.419 J** |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | 1.33 U | 1.37 U | 1.32 U | 0.765 U | **0.586 J** | **1.51 J** |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **4.72 J** | **2.8 J** | **2.86 J** | 1.73 U | **1.11 J** | **3.1** |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA01-SS01 | JW-EA01-SS02 | JW-EA01-SS03 | JW-EA01-SS04 | JW-EA02-Composite | JW-EA02-SS05 |
| Sample ID | | | | | JW-EA01-SS51-120507 | JW-EA01-SS02-120507 | JW-EA01-SS03-120507 | JW-EA01-SS04-120507 | JW-EA02-COMP-120507 | JW-EA02-SS05-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | FD | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303506.424 | 1303409.991 | 1303319.104 | 1303273.179 | 1303152.198 | 1303192.48 |
| Y | | | | | 373444.722 | 373521.54 | 373607.887 | 373706.237 | 373883.5081 | 373760.134 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **16.3 J** | **33.8** | **12.1 J** | **10.6** | **6.37** | **18.5** |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **8.37 J** | **6.1** | **5.25 J** | **3.98 J** | **2.32 J** | **7.64** |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **341** | **230** | **204** | **121** | **99.7** | **335** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | **3110** | **1970** | **1830** | **1050** | **944** | **3550** |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **13.4 J** | **13.2 J** | **9.52 J** | **12.1 J** | **4.64 J** | **21.4 J** |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **12.3 J** | **14.5 J** | **9.24 J** | **11.2 J** | **5.14 J** | **19.8 J** |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **123 J** | **138 J** | **75.9 J** | **77 J** | **39 J** | **148** |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **728** | **506** | **426** | **286** | **224** | **723** |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | **1.19 J** | **1.44** | **0.921** | **1.47 J** | **0.589 J** | **1.21 J** |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | 0.322 U | 0.767 U | 0.671 U | 0.35 U | 0.168 U | **0.813 J** |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | 1.81 U | **2.22 J** | 1.49 U | 0.941 U | **1.17 J** | **1.79 J** |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **3.06 J** | **3.27 J** | **2.53 J** | 1.59 U | **1.6 J** | **2.79** |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **2.6 J** | 2.32 U | 1.88 U | 1.38 U | **1.56 J** | **2.48** |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | 1.4 U | 0.188 U | 0.715 U | 0.579 U | 0.577 U | 0.14 U |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **4.1 J** | **3.92 J** | **2.97 J** | 1.6 U | **2.4 J** | **3.81** |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | **65.1** | **50** | **40.9** | **25.7** | **27.8** | **62.7** |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | **3.83 J** | 2.67 U | 2.27 U | 1.85 U | **1.46 J** | **3.37** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | **194** | **119** | **104** | **60.7** | **58.7** | **150** |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | **17.8 J** | **19.4 J** | **13.9 J** | **12.5 J** | **7.39 J** | **18.8 J** |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | **24.6 J** | **30.6 J** | **22.6 J** | **11.8 J** | **16** | **25.6** |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | **93.5** | **91.4 J** | **69 J** | **42.7 J** | **49.6** | **87.1 J** |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | **196** | **141 J** | **115 J** | **73.4 J** | **76.3 J** | **201** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | **8.3949 J** | **8.9651 J** | **6.5667 J** | **5.02497 J** | **3.92127 J** | **8.402 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | **7.714 J** | **7.15975 J** | **5.7277 J** | **3.56077 J** | **3.05902 J** | **7.02425 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | **11.46716 J** | **11.73121 J** | **8.10263 J** | **5.37041 J** | **4.28705 J** | **11.57809 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | **6.7388 J** | **8.103 J** | **4.98705 J** | **3.74402 J** | **3.83302 J** | **8.395 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | **6.51845 J** | **6.316825 J** | **4.537325 J** | **2.13457 J** | **2.97497 J** | **7.01725 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | **10.45583 J** | **10.895955 J** | **7.067965 J** | **4.38781 J** | **4.20468 J** | **11.57109 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | **5.0827 J** | **7.2409 J** | **3.4074 J** | **2.46307 J** | **3.74477 J** | **8.388 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | **5.3229 J** | **5.4739 J** | **3.34695 J** | **0.70837 J** | **2.89092 J** | **7.01025 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | **9.4445 J** | **10.0607 J** | **6.0333 J** | **3.40521 J** | **4.12231 J** | **11.56409 J** |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1262 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1268 | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA01-SS01 | JW-EA01-SS02 | JW-EA01-SS03 | JW-EA01-SS04 | JW-EA02-Composite | JW-EA02-SS05 |
| Sample ID | | | | | JW-EA01-SS51-120507 | JW-EA01-SS02-120507 | JW-EA01-SS03-120507 | JW-EA01-SS04-120507 | JW-EA02-COMP-120507 | JW-EA02-SS05-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | FD | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303506.424 | 1303409.991 | 1303319.104 | 1303273.179 | 1303152.198 | 1303192.48 |
| Y | | | | | 373444.722 | 373521.54 | 373607.887 | 373706.237 | 373883.5081 | 373760.134 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | **0.264403571 J** | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | **0.263207768 J** | -- |
| Total PCB Congener (U = 0) | 12 | 65 | | | -- | -- | -- | -- | **0.262011964 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | **2.102848214E-05 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | **3.07453571E-07 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | **5.15662143E-06 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | **2.002869643E-05 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | **1.902891071E-05 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | **3.01821429E-07 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | **2.96189286E-07 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | **4.73152143E-06 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | **4.30642143E-06 J** | -- |
| **PCB Congeners (ng/kg)** | | | | | | | | | | |
| PCB-001 | | | | | -- | -- | -- | -- | **6.31** | -- |
| PCB-002 | | | | | -- | -- | -- | -- | **5.83** | -- |
| PCB-003 | | | | | -- | -- | -- | -- | **7.82** | -- |
| PCB-004 | | | | | -- | -- | -- | -- | **20.5 J** | -- |
| PCB-005 | | | | | -- | -- | -- | -- | **1.12 J** | -- |
| PCB-006 | | | | | -- | -- | -- | -- | **10.8 J** | -- |
| PCB-007 | | | | | -- | -- | -- | -- | **1.83 J** | -- |
| PCB-008 | | | | | -- | -- | -- | -- | **55.1 J** | -- |
| PCB-009 | | | | | -- | -- | -- | -- | **3.21 J** | -- |
| PCB-010 | | | | | -- | -- | -- | -- | **1.37 J** | -- |
| PCB-011 | | | | | -- | -- | -- | -- | 40.7 UJ | -- |
| PCB-012/013 | | | | | -- | -- | -- | -- | **9.44 J** | -- |
| PCB-014 | | | | | -- | -- | -- | -- | 2.21 UJ | -- |
| PCB-015 | | | | | -- | -- | -- | -- | **97.5 J** | -- |
| PCB-016 | | | | | -- | -- | -- | -- | **82.8** | -- |
| PCB-017 | | | | | -- | -- | -- | -- | **80.8** | -- |
| PCB-018/030 | | | | | -- | -- | -- | -- | **125** | -- |
| PCB-019 | | | | | -- | -- | -- | -- | **15.4** | -- |
| PCB-020/028 | | | | | -- | -- | -- | -- | **418** | -- |
| PCB-021/033 | | | | | -- | -- | -- | -- | **98.6** | -- |
| PCB-022 | | | | | -- | -- | -- | -- | **135** | -- |
| PCB-023 | | | | | -- | -- | -- | -- | 1.28 U | -- |
| PCB-024 | | | | | -- | -- | -- | -- | **3.34** | -- |
| PCB-025 | | | | | -- | -- | -- | -- | **24.8** | -- |
| PCB-026/029 | | | | | -- | -- | -- | -- | **47** | -- |
| PCB-027 | | | | | -- | -- | -- | -- | **15.8** | -- |
| PCB-031 | | | | | -- | -- | -- | -- | **280** | -- |
| PCB-032 | | | | | -- | -- | -- | -- | **56.7** | -- |
| PCB-034 | | | | | -- | -- | -- | -- | 1.34 U | -- |
| PCB-035 | | | | | -- | -- | -- | -- | **6.23 J** | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA01-SS01 | JW-EA01-SS02 | JW-EA01-SS03 | JW-EA01-SS04 | JW-EA02-Composite | JW-EA02-SS05 |
| Sample ID | | | | | JW-EA01-SS51-120507 | JW-EA01-SS02-120507 | JW-EA01-SS03-120507 | JW-EA01-SS04-120507 | JW-EA02-COMP-120507 | JW-EA02-SS05-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | FD | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303506.424 | 1303409.991 | 1303319.104 | 1303273.179 | 1303152.198 | 1303192.48 |
| Y | | | | | 373444.722 | 373521.54 | 373607.887 | 373706.237 | 373883.5081 | 373760.134 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-036 | | | | | -- | -- | -- | -- | 1.33 U | -- |
| PCB-037 | | | | | -- | -- | -- | -- | **129** | -- |
| PCB-038 | | | | | -- | -- | -- | -- | 1.43 U | -- |
| PCB-039 | | | | | -- | -- | -- | -- | 1.28 U | -- |
| PCB-040/071 | | | | | -- | -- | -- | -- | **109 J** | -- |
| PCB-041 | | | | | -- | -- | -- | -- | **28.9 J** | -- |
| PCB-042 | | | | | -- | -- | -- | -- | **71.9 J** | -- |
| PCB-043 | | | | | -- | -- | -- | -- | **10.9 J** | -- |
| PCB-044/047/065 | | | | | -- | -- | -- | -- | **259 J** | -- |
| PCB-045 | | | | | -- | -- | -- | -- | **36.8 J** | -- |
| PCB-046 | | | | | -- | -- | -- | -- | **14.8 J** | -- |
| PCB-048 | | | | | -- | -- | -- | -- | **56.6 J** | -- |
| PCB-049/069 | | | | | -- | -- | -- | -- | **150 J** | -- |
| PCB-050/053 | | | | | -- | -- | -- | -- | **30.7 J** | -- |
| PCB-051 | | | | | -- | -- | -- | -- | **9.75 J** | -- |
| PCB-052 | | | | | -- | -- | -- | -- | **277 J** | -- |
| PCB-054 | | | | | -- | -- | -- | -- | **0.827 J** | -- |
| PCB-055 | | | | | -- | -- | -- | -- | **2.13 J** | -- |
| PCB-056 | | | | | -- | -- | -- | -- | **39.9 J** | -- |
| PCB-057 | | | | | -- | -- | -- | -- | **1.69 J** | -- |
| PCB-058 | | | | | -- | -- | -- | -- | 0.627 UJ | -- |
| PCB-059/062/075 | | | | | -- | -- | -- | -- | **24.9 J** | -- |
| PCB-060 | | | | | -- | -- | -- | -- | **17.9 J** | -- |
| PCB-061/070/074/076 | | | | | -- | -- | -- | -- | **304 J** | -- |
| PCB-063 | | | | | -- | -- | -- | -- | **7.83 J** | -- |
| PCB-064 | | | | | -- | -- | -- | -- | **106 J** | -- |
| PCB-066 | | | | | -- | -- | -- | -- | **148 J** | -- |
| PCB-067 | | | | | -- | -- | -- | -- | **9.25 J** | -- |
| PCB-068 | | | | | -- | -- | -- | -- | **1.53 J** | -- |
| PCB-072 | | | | | -- | -- | -- | -- | **2.64 J** | -- |
| PCB-073 | | | | | -- | -- | -- | -- | **0.695 J** | -- |
| PCB-077 | | | | | -- | -- | -- | -- | **8.16 J** | -- |
| PCB-078 | | | | | -- | -- | -- | -- | 0.656 UJ | -- |
| PCB-079 | | | | | -- | -- | -- | -- | **2.72 J** | -- |
| PCB-080 | | | | | -- | -- | -- | -- | 0.559 UJ | -- |
| PCB-081 | | | | | -- | -- | -- | -- | 0.552 UJ | -- |
| PCB-082 | | | | | -- | -- | -- | -- | **28.5** | -- |
| PCB-083 | | | | | -- | -- | -- | -- | **15.7** | -- |
| PCB-084 | | | | | -- | -- | -- | -- | **64** | -- |
| PCB-085/116 | | | | | -- | -- | -- | -- | **37.9** | -- |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/109/119/125 | | | | | -- | -- | -- | -- | **163** | -- |
| PCB-088 | | | | | -- | -- | -- | -- | 0.805 U | -- |
| PCB-089 | | | | | -- | -- | -- | -- | **2.48 J** | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA01-SS01 | JW-EA01-SS02 | JW-EA01-SS03 | JW-EA01-SS04 | JW-EA02-Composite | JW-EA02-SS05 |
| Sample ID | | | | | JW-EA01-SS51-120507 | JW-EA01-SS02-120507 | JW-EA01-SS03-120507 | JW-EA01-SS04-120507 | JW-EA02-COMP-120507 | JW-EA02-SS05-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | FD | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303506.424 | 1303409.991 | 1303319.104 | 1303273.179 | 1303152.198 | 1303192.48 |
| Y | | | | | 373444.722 | 373521.54 | 373607.887 | 373706.237 | 373883.5081 | 373760.134 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-090/101/113 | | | | | -- | -- | -- | -- | **254** | -- |
| PCB-091 | | | | | -- | -- | -- | -- | **36.4** | -- |
| PCB-092 | | | | | -- | -- | -- | -- | **48.6** | -- |
| PCB-093/100 | | | | | -- | -- | -- | -- | **3.37** | -- |
| PCB-094 | | | | | -- | -- | -- | -- | **1.66 J** | -- |
| PCB-095 | | | | | -- | -- | -- | -- | **233** | -- |
| PCB-096 | | | | | -- | -- | -- | -- | **3.83** | -- |
| PCB-098 | | | | | -- | -- | -- | -- | 0.802 U | -- |
| PCB-099 | | | | | -- | -- | -- | -- | **135** | -- |
| PCB-102 | | | | | -- | -- | -- | -- | **8.36** | -- |
| PCB-103 | | | | | -- | -- | -- | -- | **2.28 J** | -- |
| PCB-104 | | | | | -- | -- | -- | -- | 0.491 U | -- |
| PCB-105 | | | | | -- | -- | -- | -- | **99.2** | -- |
| PCB-106 | | | | | -- | -- | -- | -- | 0.579 U | -- |
| PCB-107 | | | | | -- | -- | -- | -- | **19.7** | -- |
| PCB-107/124 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-108/124 | | | | | -- | -- | -- | -- | **10.9** | -- |
| PCB-109 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-110 | | | | | -- | -- | -- | -- | **326** | -- |
| PCB-111 | | | | | -- | -- | -- | -- | 0.537 U | -- |
| PCB-112 | | | | | -- | -- | -- | -- | 0.566 U | -- |
| PCB-114 | | | | | -- | -- | -- | -- | **5.51** | -- |
| PCB-115 | | | | | -- | -- | -- | -- | **7.46** | -- |
| PCB-117 | | | | | -- | -- | -- | -- | **6.5** | -- |
| PCB-118 | | | | | -- | -- | -- | -- | **253** | -- |
| PCB-120 | | | | | -- | -- | -- | -- | 0.544 U | -- |
| PCB-121 | | | | | -- | -- | -- | -- | 0.539 U | -- |
| PCB-122 | | | | | -- | -- | -- | -- | **3.52** | -- |
| PCB-123 | | | | | -- | -- | -- | -- | **5.42** | -- |
| PCB-126 | | | | | -- | -- | -- | -- | **1.07 J** | -- |
| PCB-127 | | | | | -- | -- | -- | -- | 0.584 U | -- |
| PCB-128/166 | | | | | -- | -- | -- | -- | **60.2** | -- |
| PCB-129/138/163 | | | | | -- | -- | -- | -- | **408** | -- |
| PCB-130 | | | | | -- | -- | -- | -- | **27.7** | -- |
| PCB-131 | | | | | -- | -- | -- | -- | **5.29 J** | -- |
| PCB-132 | | | | | -- | -- | -- | -- | **117** | -- |
| PCB-133 | | | | | -- | -- | -- | -- | **5.87** | -- |
| PCB-134 | | | | | -- | -- | -- | -- | **22.2** | -- |
| PCB-135/151 | | | | | -- | -- | -- | -- | **90.8** | -- |
| PCB-136 | | | | | -- | -- | -- | -- | **36.4** | -- |
| PCB-137 | | | | | -- | -- | -- | -- | **19** | -- |
| PCB-139/140 | | | | | -- | -- | -- | -- | **7.34** | -- |
| PCB-141 | | | | | -- | -- | -- | -- | **51.3** | -- |
| PCB-142 | | | | | -- | -- | -- | -- | 0.556 U | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA01-SS01 | JW-EA01-SS02 | JW-EA01-SS03 | JW-EA01-SS04 | JW-EA02-Composite | JW-EA02-SS05 |
| Sample ID | | | | | JW-EA01-SS51-120507 | JW-EA01-SS02-120507 | JW-EA01-SS03-120507 | JW-EA01-SS04-120507 | JW-EA02-COMP-120507 | JW-EA02-SS05-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | FD | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303506.424 | 1303409.991 | 1303319.104 | 1303273.179 | 1303152.198 | 1303192.48 |
| Y | | | | | 373444.722 | 373521.54 | 373607.887 | 373706.237 | 373883.5081 | 373760.134 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-143 | | | | | -- | -- | -- | -- | 0.531 U | -- |
| PCB-144 | | | | | -- | -- | -- | -- | **12.1** | -- |
| PCB-145 | | | | | -- | -- | -- | -- | 0.399 U | -- |
| PCB-146 | | | | | -- | -- | -- | -- | **56.1** | -- |
| PCB-147/149 | | | | | -- | -- | -- | -- | **234** | -- |
| PCB-148 | | | | | -- | -- | -- | -- | 0.518 U | -- |
| PCB-150 | | | | | -- | -- | -- | -- | 0.378 U | -- |
| PCB-152 | | | | | -- | -- | -- | -- | 0.383 U | -- |
| PCB-153/168 | | | | | -- | -- | -- | -- | **281** | -- |
| PCB-154 | | | | | -- | -- | -- | -- | **4.67** | -- |
| PCB-155 | | | | | -- | -- | -- | -- | 0.36 U | -- |
| PCB-156/157 | | | | | -- | -- | -- | -- | **45.9** | -- |
| PCB-158 | | | | | -- | -- | -- | -- | **38.4** | -- |
| PCB-159 | | | | | -- | -- | -- | -- | 0.616 U | -- |
| PCB-160 | | | | | -- | -- | -- | -- | 0.436 U | -- |
| PCB-161 | | | | | -- | -- | -- | -- | 0.41 U | -- |
| PCB-162 | | | | | -- | -- | -- | -- | **1.28 J** | -- |
| PCB-164 | | | | | -- | -- | -- | -- | **23.9** | -- |
| PCB-165 | | | | | -- | -- | -- | -- | 0.447 U | -- |
| PCB-167 | | | | | -- | -- | -- | -- | **14.2** | -- |
| PCB-169 | | | | | -- | -- | -- | -- | 0.788 U | -- |
| PCB-170 | | | | | -- | -- | -- | -- | **36.4 J** | -- |
| PCB-171/173 | | | | | -- | -- | -- | -- | **18.8 J** | -- |
| PCB-172 | | | | | -- | -- | -- | -- | **5.75 J** | -- |
| PCB-174 | | | | | -- | -- | -- | -- | **49.6 J** | -- |
| PCB-175 | | | | | -- | -- | -- | -- | **2.71 J** | -- |
| PCB-176 | | | | | -- | -- | -- | -- | **5.41 J** | -- |
| PCB-177 | | | | | -- | -- | -- | -- | **38.7 J** | -- |
| PCB-178 | | | | | -- | -- | -- | -- | **9.97 J** | -- |
| PCB-179 | | | | | -- | -- | -- | -- | **21.1 J** | -- |
| PCB-180/193 | | | | | -- | -- | -- | -- | **70.6 J** | -- |
| PCB-181 | | | | | -- | -- | -- | -- | 0.917 UJ | -- |
| PCB-182 | | | | | -- | -- | -- | -- | 0.844 UJ | -- |
| PCB-183 | | | | | -- | -- | -- | -- | **32.2 J** | -- |
| PCB-184 | | | | | -- | -- | -- | -- | 0.297 UJ | -- |
| PCB-185 | | | | | -- | -- | -- | -- | **2.72 J** | -- |
| PCB-186 | | | | | -- | -- | -- | -- | 0.281 UJ | -- |
| PCB-187 | | | | | -- | -- | -- | -- | **73.9 J** | -- |
| PCB-188 | | | | | -- | -- | -- | -- | 0.289 U | -- |
| PCB-189 | | | | | -- | -- | -- | -- | **2.23 J** | -- |
| PCB-190 | | | | | -- | -- | -- | -- | **9.58 J** | -- |
| PCB-191 | | | | | -- | -- | -- | -- | **2.05 J** | -- |
| PCB-192 | | | | | -- | -- | -- | -- | 0.667 UJ | -- |
| PCB-194 | | | | | -- | -- | -- | -- | **21.9** | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA01-SS01 | JW-EA01-SS02 | JW-EA01-SS03 | JW-EA01-SS04 | JW-EA02-Composite | JW-EA02-SS05 |
| Sample ID | | | | | JW-EA01-SS51-120507 | JW-EA01-SS02-120507 | JW-EA01-SS03-120507 | JW-EA01-SS04-120507 | JW-EA02-COMP-120507 | JW-EA02-SS05-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | FD | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303506.424 | 1303409.991 | 1303319.104 | 1303273.179 | 1303152.198 | 1303192.48 |
| Y | | | | | 373444.722 | 373521.54 | 373607.887 | 373706.237 | 373883.5081 | 373760.134 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| PCB-195 | | | | | -- | -- | -- | -- | **8.87** | -- |
| PCB-196 | | | | | -- | -- | -- | -- | **13.3** | -- |
| PCB-197 | | | | | -- | -- | -- | -- | **0.673 J** | -- |
| PCB-198/199 | | | | | -- | -- | -- | -- | **32.6** | -- |
| PCB-200 | | | | | -- | -- | -- | -- | **2.26 J** | -- |
| PCB-201 | | | | | -- | -- | -- | -- | **3.62** | -- |
| PCB-202 | | | | | -- | -- | -- | -- | **7.61** | -- |
| PCB-203 | | | | | -- | -- | -- | -- | **19.5** | -- |
| PCB-204 | | | | | -- | -- | -- | -- | 0.437 U | -- |
| PCB-205 | | | | | -- | -- | -- | -- | **1.02 J** | -- |
| PCB-206 | | | | | -- | -- | -- | -- | **16.3** | -- |
| PCB-207 | | | | | -- | -- | -- | -- | **1.83** | -- |
| PCB-208 | | | | | -- | -- | -- | -- | **3.88 J** | -- |
| PCB-209 | | | | | -- | -- | -- | -- | **9.42** | -- |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | **7403.3 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | **0.5887975 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | **0.0086087 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | **0.1443854 J** | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | **7369.817 J** | -- |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | -- | -- | -- | -- | **7336.335 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | **0.5608035 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | **0.5328095 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | **0.008451 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | **0.0082933 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | **0.1324826 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | **0.1205798 J** | -- |
| **Total Petroleum Hydrocarbons (mg/kg)** | | | | | | | | | | |
| Diesel range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- |
| Motor oil range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | -- | **0.000229874359 J** | **0.0003456157895 J** | **0.00018611 J** | **0.00016107383929 J** | **0.0003231538462 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | -- | **0.0001835833333 J** | **0.0003014578947 J** | **0.0001318803704 J** | **0.000109558167857 J** | **0.0002701634615 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | -- | **0.0003008002564 J** | **0.0004264542105 J** | **0.0001989040741 J** | **0.00015826555 J** | **0.0004453111538 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | -- | **0.0002077692308 J** | **0.0002624763158 J** | **0.0001386674074 J** | **0.00015692226786 J** | **0.0003228846154 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | -- | **0.0001619698718 J** | **0.0002388065789 J** | **7.90581481E-05 J** | **0.00010655075 J** | **0.0002698942308 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | -- | **0.0002793834615 J** | **0.0003719981579 J** | **0.0001625114815 J** | **0.00015489866429 J** | **0.0004450419231 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | -- | **0.0001856641026 J** | **0.0001793368421 J** | **9.12248148E-05 J** | **0.00015277069643 J** | **0.0003226153846 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | -- | **0.0001403564103 J** | **0.0001761552632 J** | **2.62359259E-05 J** | **0.000103543332143 J** | **0.000269625 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | -- | **0.0002579666667 J** | **0.0003175421053 J** | **0.0001261188889 J** | **0.00015153177857 J** | **0.0004447726923 J** |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **8.3949 J** | **8.9651 J** | **6.5667 J** | **5.02497 J** | **4.5100675 J** | **8.402 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **7.714 J** | **7.15975 J** | **5.7277 J** | **3.56077 J** | **3.0676287 J** | **7.02425 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **11.46716 J** | **11.73121 J** | **8.10263 J** | **5.37041 J** | **4.4314354 J** | **11.57809 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **6.7388 J** | **8.103 J** | **4.98705 J** | **3.74402 J** | **4.3938235 J** | **8.395 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **6.51845 J** | **6.316825 J** | **4.537325 J** | **2.13457 J** | **2.983421 J** | **7.01725 J** |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA01-SS01 | JW-EA01-SS02 | JW-EA01-SS03 | JW-EA01-SS04 | JW-EA02-Composite | JW-EA02-SS05 |
| Sample ID | | | | | JW-EA01-SS51-120507 | JW-EA01-SS02-120507 | JW-EA01-SS03-120507 | JW-EA01-SS04-120507 | JW-EA02-COMP-120507 | JW-EA02-SS05-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | FD | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303506.424 | 1303409.991 | 1303319.104 | 1303273.179 | 1303152.198 | 1303192.48 |
| Y | | | | | 373444.722 | 373521.54 | 373607.887 | 373706.237 | 373883.5081 | 373760.134 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | 10.45583 J | 10.895955 J | 7.067965 J | 4.38781 J | 4.3371626 J | 11.57109 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | 5.0827 J | 7.2409 J | 3.4074 J | 2.46307 J | 4.2775795 J | 8.388 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | 5.3229 J | 5.4739 J | 3.34695 J | 0.70837 J | 2.8992133 J | 7.01025 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | 9.4445 J | 10.0607 J | 6.0333 J | 3.40521 J | 4.2428898 J | 11.56409 J |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA02-SS06 | JW-EA02-SS07 | JW-EA03-Composite | JW-EA03-SS11 | JW-EA03-SS12 | JW-EA04-Composite |
| Sample ID | | | | | JW-EA02-SS06-120507 | JW-EA02-SS07-120507 | JW-EA03-COMP-120507 | JW-EA03-SS11-120507 | JW-EA03-SS12-120507 | JW-EA04-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303249.289 | 1303062.26 | 1302934.298 | 1302837.626 | 1302909.704 | 1302713.435 |
| Y | | | | | 373823.672 | 373892.073 | 374111.0185 | 374136.978 | 374200.801 | 374337.4266 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | |
| Total organic carbon | | | | | **2.6** | **2.1 J** | **2.5** | **2.1 J** | **2.2 J** | **1.7** |
| Moisture, percent | | | | | -- | -- | **55.4** | -- | -- | **39.9** |
| Total Solids | | | | | -- | **46 J** | **43** | **47 J** | **45 J** | **65** |
| Total solids (preserved) | | | | | -- | -- | -- | -- | -- | -- |
| Total volatile solids | | | | | -- | -- | -- | -- | -- | -- |
| **Conventional Parameters (mg/kg)** | | | | | | | | | | |
| Ammonia as nitrogen | | | | | -- | -- | -- | -- | -- | -- |
| Black carbon | | | | | -- | -- | **1500** | -- | -- | **1300** |
| Sulfide | | | | | -- | -- | -- | -- | -- | -- |
| **Grain Size (pct)** | | | | | | | | | | |
| Cobbles | | | | | -- | -- | 0 U | -- | -- | 0 U |
| Gravel | | | | | -- | -- | **0.4** | -- | -- | **3.9** |
| Sand | | | | | -- | -- | **12** | -- | -- | **52** |
| Sand, very coarse | | | | | -- | -- | -- | -- | -- | -- |
| Sand, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Sand, medium | | | | | -- | -- | -- | -- | -- | -- |
| Sand, fine | | | | | -- | -- | -- | -- | -- | -- |
| Sand, very fine | | | | | -- | -- | -- | -- | -- | -- |
| Sand, fine | | | | | -- | -- | -- | -- | -- | -- |
| Sand, very fine | | | | | -- | -- | -- | -- | -- | -- |
| Silt | | | | | -- | -- | **73** | -- | -- | **35** |
| Silt, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Silt, medium | | | | | -- | -- | -- | -- | -- | -- |
| Silt, fine | | | | | -- | -- | -- | -- | -- | -- |
| Silt, very fine | | | | | -- | -- | -- | -- | -- | -- |
| Total fines (Reported, not calculated) | | | | | -- | -- | -- | -- | -- | -- |
| Clay | | | | | -- | -- | **14** | -- | -- | **9.3** |
| Clay, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Clay, medium | | | | | -- | -- | -- | -- | -- | -- |
| Clay, fine | | | | | -- | -- | -- | -- | -- | -- |
| **Metals (mg/kg)** | | | | | | | | | | |
| Antimony | | | | | -- | -- | -- | -- | -- | -- |
| Arsenic | 57 | 93 | 57 | 93 | -- | -- | -- | -- | -- | -- |
| Cadmium | 5.1 | 6.7 | 5.1 | 6.7 | -- | -- | -- | -- | -- | -- |
| Chromium | 260 | 270 | 260 | 270 | -- | -- | -- | -- | -- | -- |
| Copper | 390 | 390 | 390 | 390 | -- | -- | -- | -- | -- | -- |
| Lead | 450 | 530 | 450 | 530 | -- | -- | -- | -- | -- | -- |
| Mercury | 0.41 | 0.59 | 0.41 | 0.59 | -- | -- | -- | -- | -- | -- |
| Nickel | | | | | -- | -- | -- | -- | -- | -- |
| Silver | 6.1 | 6.1 | 6.1 | 6.1 | -- | -- | -- | -- | -- | -- |
| Zinc | 410 | 960 | 410 | 960 | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (mg/kg-OC)** | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (µg/kg)** | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA02-SS06 | JW-EA02-SS07 | JW-EA03-Composite | JW-EA03-SS11 | JW-EA03-SS12 | JW-EA04-Composite |
| Sample ID | | | | | JW-EA02-SS06-120507 | JW-EA02-SS07-120507 | JW-EA03-COMP-120507 | JW-EA03-SS11-120507 | JW-EA03-SS12-120507 | JW-EA04-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303249.289 | 1303062.26 | 1302934.298 | 1302837.626 | 1302909.704 | 1302713.435 |
| Y | | | | | 373823.672 | 373892.073 | 374111.0185 | 374136.978 | 374200.801 | 374337.4266 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | -- | -- | -- |
| 1,3-Dichlorobenzene | | | | | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | -- | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | -- | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | | | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | -- | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | -- | -- | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | -- | -- | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | -- | -- | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- | -- | -- | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA02-SS06 | JW-EA02-SS07 | JW-EA03-Composite | JW-EA03-SS11 | JW-EA03-SS12 | JW-EA04-Composite |
| Sample ID | | | | | JW-EA02-SS06-120507 | JW-EA02-SS07-120507 | JW-EA03-COMP-120507 | JW-EA03-SS11-120507 | JW-EA03-SS12-120507 | JW-EA04-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303249.289 | 1303062.26 | 1302934.298 | 1302837.626 | 1302909.704 | 1302713.435 |
| Y | | | | | 373823.672 | 373892.073 | 374111.0185 | 374136.978 | 374200.801 | 374337.4266 |
| **Analyte** | **SMS_Marine_SCO_SCUMII** | **SMS_Marine_CSL_SCUMII** | **AET_Marine_SCO_SCUMII** | **AET_Marine_CSL_SCUMII** | | | | | | |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | -- | -- | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | -- | -- | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- | -- | -- | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | -- | -- | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | |
| 1-Methylnaphthalene | | | | | -- | -- | -- | -- | -- | -- |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | -- | -- | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | -- | -- | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | -- | -- | -- |
| Benzo(b)fluoranthene | | | | | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | -- | -- | -- |
| Benzo(k)fluoranthene | | | | | -- | -- | -- | -- | -- | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | -- | -- | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | -- | -- | -- |
| Fluorene | | | 540 | 540 | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | -- | -- | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | -- | -- | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | -- | -- | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **0.205 J** | 0.234 U | 0.251 U | 0.2738 U | 0.3413 U | 0.0734 U |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **0.76 J** | **1.2 J** | 0.168 U | **1.04 J** | **0.762 J** | **0.674 J** |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **1.51 J** | **2.69 J** | 0.451 U | **1.85 J** | **0.824 J** | **0.932 J** |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA02-SS06 | JW-EA02-SS07 | JW-EA03-Composite | JW-EA03-SS11 | JW-EA03-SS12 | JW-EA04-Composite |
| Sample ID | | | | | JW-EA02-SS06-120507 | JW-EA02-SS07-120507 | JW-EA03-COMP-120507 | JW-EA03-SS11-120507 | JW-EA03-SS12-120507 | JW-EA04-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303249.289 | 1303062.26 | 1302934.298 | 1302837.626 | 1302909.704 | 1302713.435 |
| Y | | | | | 373823.672 | 373892.073 | 374111.0185 | 374136.978 | 374200.801 | 374337.4266 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **7.4** | **30.4** | **1.59 J** | **9.89** | **3.91 J** | **7.63** |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **3.65** | **7.15** | 0.92 U | **4.08** | **2.44 J** | **2.82 J** |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **106** | **482** | **22.6** | **113** | **71.4** | **78.6** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | **899** | **3610** | **160** | **823** | **609** | **665** |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **15.4 J** | **19.6 J** | **1.18 J** | **12.6 J** | **11.7** | **3.34 J** |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **12.4 J** | **15.1 J** | 0.168 U | **14.5 J** | **11.8 J** | **4.34 J** |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **65** | **148** | **11.5** | **103** | **45.5 J** | **37.9 J** |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **246** | **861** | **68.3** | **242** | **188** | **153** |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | **1.22 J** | **1.32** | **0.177 J** | **1.04** | **0.974** | **0.441 J** |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **0.44 J** | **0.924 J** | 0.234 U | **0.595 J** | **0.367 J** | **0.455 J** |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **0.924 J** | **5.55** | 0.347 U | **1.39 J** | **0.733 J** | **0.865 J** |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **1.34 J** | **11.2** | 0.677 U | **1.48 J** | **0.879 J** | **1.26 J** |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **1.19 J** | **5.19** | 0.596 U | **1.91 J** | **0.742 J** | **1.38 J** |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | 0.0996 U | 0.4716 U | 0.201 U | 0.3159 U | 0.2098 U | 0.539 U |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **1.62 J** | **7.39** | 0.628 U | **3.11 J** | **1.03 J** | **2.48 J** |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | **30.5** | **99.3** | **7.48** | **35.2** | **12.6** | **29.4** |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | **1.25 J** | **6.6** | 0.214 U | **2.13 J** | **0.841 J** | **1.48 J** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | **54.6** | **230** | **13.3** | **52.6** | **36.6** | **65.5** |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | **13.3 J** | **14.9 J** | **0.654 J** | **13 J** | **8.94 J** | **6.36 J** |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | **13.4 J** | **46.1 J** | **3.04 J** | **23.4 J** | **8.71 J** | **15.8 J** |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | **35** | **155 J** | **14 J** | **59.6 J** | **19.3 J** | **48.9** |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | **77.3** | **321** | **17.4** | **94.3** | **42** | **73.6** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | **4.61132 J** | **13.90006 J** | **1.42392 J** | **5.65815 J** | **3.72775 J** | **3.53015 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | **3.31932 J** | **10.39186 J** | **1.19072 J** | **4.4107 J** | **2.5688 J** | **2.82155 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | **4.72194 J** | **16.73888 J** | **1.40905 J** | **5.88222 J** | **3.47718 J** | **4.0827 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | **4.60634 J** | **13.75948 J** | **0.865775 J** | **5.505455 J** | **3.54661 J** | **3.4665 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | **3.31434 J** | **10.25128 J** | **0.6651 J** | **4.258005 J** | **2.38766 J** | **2.7579 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | **4.71696 J** | **16.5983 J** | **0.96927 J** | **5.729525 J** | **3.29604 J** | **4.01905 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | **4.60136 J** | **13.6189 J** | **0.30763 J** | **5.35276 J** | **3.36547 J** | **3.40285 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | **3.30936 J** | **10.1107 J** | **0.13948 J** | **4.10531 J** | **2.20652 J** | **2.69425 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | **4.71198 J** | **16.45772 J** | **0.52949 J** | **5.57683 J** | **3.1149 J** | **3.9554 J** |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1262 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1268 | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA02-SS06 | JW-EA02-SS07 | JW-EA03-Composite | JW-EA03-SS11 | JW-EA03-SS12 | JW-EA04-Composite |
| Sample ID | | | | | JW-EA02-SS06-120507 | JW-EA02-SS07-120507 | JW-EA03-COMP-120507 | JW-EA03-SS11-120507 | JW-EA03-SS12-120507 | JW-EA04-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303249.289 | 1303062.26 | 1302934.298 | 1302837.626 | 1302909.704 | 1302713.435 |
| Y | | | | | 373823.672 | 373892.073 | 374111.0185 | 374136.978 | 374200.801 | 374337.4266 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | -- | -- | **0.06018744 J** | -- | -- | **0.259357647 J** |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | **0.05902618 J** | -- | -- | **0.258001588 J** |
| Total PCB Congener (U = 0) | 12 | 65 | | | -- | -- | **0.05786492 J** | -- | -- | **0.256645529 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | **7.2017912E-06 J** | -- | -- | **3.062398824E-05 J** |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | **9.85276E-08 J** | -- | -- | **3.0535E-07 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | **2.0203176E-06 J** | -- | -- | **5.20720588E-06 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | **5.5648912E-06 J** | -- | -- | **2.961725294E-05 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | **3.9279912E-06 J** | -- | -- | **2.861051765E-05 J** |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | **6.17726E-08 J** | -- | -- | **2.99351471E-07 J** |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | **2.50176E-08 J** | -- | -- | **2.93352941E-07 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | **1.0663116E-06 J** | -- | -- | **4.56101471E-06 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | **1.123056E-07 J** | -- | -- | **3.91482353E-06 J** |
| **PCB Congeners (ng/kg)** | | | | | | | | | | |
| PCB-001 | | | | | -- | -- | 2.08 UJ | -- | -- | **6.12** |
| PCB-002 | | | | | -- | -- | **1.6 J** | -- | -- | **3.36** |
| PCB-003 | | | | | -- | -- | **2.49** | -- | -- | **6.19** |
| PCB-004 | | | | | -- | -- | **5.24 J** | -- | -- | **13.7 J** |
| PCB-005 | | | | | -- | -- | 2.14 UJ | -- | -- | 1.83 UJ |
| PCB-006 | | | | | -- | -- | **2.13 J** | -- | -- | **8.01 J** |
| PCB-007 | | | | | -- | -- | 2.03 UJ | -- | -- | **1.19 J** |
| PCB-008 | | | | | -- | -- | **11.3 J** | -- | -- | **37.8 J** |
| PCB-009 | | | | | -- | -- | 2.29 UJ | -- | -- | **2.17 J** |
| PCB-010 | | | | | -- | -- | 2.39 UJ | -- | -- | 2.39 UJ |
| PCB-011 | | | | | -- | -- | 20.9 UJ | -- | -- | 23.7 UJ |
| PCB-012/013 | | | | | -- | -- | **2.03 J** | -- | -- | **4.49 J** |
| PCB-014 | | | | | -- | -- | 1.84 UJ | -- | -- | 1.55 UJ |
| PCB-015 | | | | | -- | -- | **12.5 J** | -- | -- | **43.7 J** |
| PCB-016 | | | | | -- | -- | **12.4** | -- | -- | **46.1** |
| PCB-017 | | | | | -- | -- | **12.2** | -- | -- | **43.6** |
| PCB-018/030 | | | | | -- | -- | **20.3** | -- | -- | **78.1** |
| PCB-019 | | | | | -- | -- | **1.94** | -- | -- | **7.77** |
| PCB-020/028 | | | | | -- | -- | **42.5** | -- | -- | **185** |
| PCB-021/033 | | | | | -- | -- | **14.5** | -- | -- | **64.1** |
| PCB-022 | | | | | -- | -- | **14.5** | -- | -- | **62.6** |
| PCB-023 | | | | | -- | -- | 0.764 U | -- | -- | 1.2 U |
| PCB-024 | | | | | -- | -- | 0.88 U | -- | -- | 0.839 U |
| PCB-025 | | | | | -- | -- | **2.82** | -- | -- | **11.7** |
| PCB-026/029 | | | | | -- | -- | **5.94** | -- | -- | **23.1** |
| PCB-027 | | | | | -- | -- | **2.1 J** | -- | -- | **7.87** |
| PCB-031 | | | | | -- | -- | **31.7** | -- | -- | **134** |
| PCB-032 | | | | | -- | -- | **8.26** | -- | -- | **32.2** |
| PCB-034 | | | | | -- | -- | 0.8 U | -- | -- | 1.26 U |
| PCB-035 | | | | | -- | -- | 0.854 U | -- | -- | **3.3** |

# Table H-1
## Surface Sediment Results

| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | JeldWenMarineMay2012 JW-EA02-SS06 JW-EA02-SS06-120507 5/7/2012 0 - 10 cm N SE 1303249.289 373823.672 | JeldWenMarineMay2012 JW-EA02-SS07 JW-EA02-SS07-120507 5/7/2012 0 - 10 cm N SE 1303062.26 373892.073 | JeldWenMarineMay2012 JW-EA03-Composite JW-EA03-COMP-120507 5/7/2012 0 - 10 cm N SE 1302934.298 374111.0185 | JeldWenMarineMay2012 JW-EA03-SS11 JW-EA03-SS11-120507 5/7/2012 0 - 10 cm N SE 1302837.626 374136.978 | JeldWenMarineMay2012 JW-EA03-SS12 JW-EA03-SS12-120507 5/7/2012 0 - 10 cm N SE 1302909.704 374200.801 | JeldWenMarineMay2012 JW-EA04-Composite JW-EA04-COMP-120507 5/7/2012 0 - 10 cm N SE 1302713.435 374337.4266 |
|---|---|---|---|---|---|---|---|---|---|---|
| PCB-036 | | | | | -- | -- | 0.785 U | -- | -- | 1.25 U |
| PCB-037 | | | | | -- | -- | **14.3** | -- | -- | **54.4** |
| PCB-038 | | | | | -- | -- | 0.851 U | -- | -- | 1.34 U |
| PCB-039 | | | | | -- | -- | 0.758 U | -- | -- | 1.21 U |
| PCB-040/071 | | | | | -- | -- | **11.8 J** | -- | -- | **60.4 J** |
| PCB-041 | | | | | -- | -- | **2.92 J** | -- | -- | **15.4 J** |
| PCB-042 | | | | | -- | -- | **7.38 J** | -- | -- | **38.4 J** |
| PCB-043 | | | | | -- | -- | **0.8 J** | -- | -- | **5.24 J** |
| PCB-044/047/065 | | | | | -- | -- | **27 J** | -- | -- | **136 J** |
| PCB-045 | | | | | -- | -- | **3.71 J** | -- | -- | **19.4 J** |
| PCB-046 | | | | | -- | -- | **1.61 J** | -- | -- | **7.64 J** |
| PCB-048 | | | | | -- | -- | **5.45 J** | -- | -- | **30 J** |
| PCB-049/069 | | | | | -- | -- | **15.6 J** | -- | -- | **81.9 J** |
| PCB-050/053 | | | | | -- | -- | **3.03 J** | -- | -- | **17 J** |
| PCB-051 | | | | | -- | -- | **0.989 J** | -- | -- | **4.47 J** |
| PCB-052 | | | | | -- | -- | **30.6 J** | -- | -- | **152 J** |
| PCB-054 | | | | | -- | -- | 0.208 U | -- | -- | 0.276 U |
| PCB-055 | | | | | -- | -- | 0.531 UJ | -- | -- | **1.68 J** |
| PCB-056 | | | | | -- | -- | **7.89 J** | -- | -- | **36.1 J** |
| PCB-057 | | | | | -- | -- | 0.521 UJ | -- | -- | **0.854 J** |
| PCB-058 | | | | | -- | -- | 0.522 UJ | -- | -- | **0.518 J** |
| PCB-059/062/075 | | | | | -- | -- | **2.53 J** | -- | -- | **12.9 J** |
| PCB-060 | | | | | -- | -- | **3.41 J** | -- | -- | **14.4 J** |
| PCB-061/070/074/076 | | | | | -- | -- | **45.3 J** | -- | -- | **190 J** |
| PCB-063 | | | | | -- | -- | **1 J** | -- | -- | **4.77 J** |
| PCB-064 | | | | | -- | -- | **11.2 J** | -- | -- | **54.9 J** |
| PCB-066 | | | | | -- | -- | **22.6 J** | -- | -- | **103 J** |
| PCB-067 | | | | | -- | -- | **1.42 J** | -- | -- | **5.64 J** |
| PCB-068 | | | | | -- | -- | 0.468 UJ | -- | -- | **1.01 J** |
| PCB-072 | | | | | -- | -- | 0.488 UJ | -- | -- | **1.74 J** |
| PCB-073 | | | | | -- | -- | 0.143 UJ | -- | -- | **0.422 J** |
| PCB-077 | | | | | -- | -- | **1.89 J** | -- | -- | **8.36 J** |
| PCB-078 | | | | | -- | -- | 0.601 UJ | -- | -- | 0.398 UJ |
| PCB-079 | | | | | -- | -- | 0.496 UJ | -- | -- | **1.63 J** |
| PCB-080 | | | | | -- | -- | 0.465 UJ | -- | -- | 0.339 UJ |
| PCB-081 | | | | | -- | -- | 0.501 UJ | -- | -- | 0.335 UJ |
| PCB-082 | | | | | -- | -- | **5.68** | -- | -- | **18.6** |
| PCB-083 | | | | | -- | -- | **3.29** | -- | -- | **9.32** |
| PCB-084 | | | | | -- | -- | **12.3** | -- | -- | **38.7** |
| PCB-085/116 | | | | | -- | -- | **7.09** | -- | -- | **24.3** |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/109/119/125 | | | | | -- | -- | **33.6** | -- | -- | **102** |
| PCB-088 | | | | | -- | -- | 0.4 U | -- | -- | 0.378 U |
| PCB-089 | | | | | -- | -- | 0.399 U | -- | -- | **1.65 J** |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA02-SS06 | JW-EA02-SS07 | JW-EA03-Composite | JW-EA03-SS11 | JW-EA03-SS12 | JW-EA04-Composite |
| Sample ID | | | | | JW-EA02-SS06-120507 | JW-EA02-SS07-120507 | JW-EA03-COMP-120507 | JW-EA03-SS11-120507 | JW-EA03-SS12-120507 | JW-EA04-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303249.289 | 1303062.26 | 1302934.298 | 1302837.626 | 1302909.704 | 1302713.435 |
| Y | | | | | 373823.672 | 373892.073 | 374111.0185 | 374136.978 | 374200.801 | 374337.4266 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-090/101/113 | | | | | -- | -- | **52.5** | -- | -- | **160** |
| PCB-091 | | | | | -- | -- | **5.9** | -- | -- | **20.9** |
| PCB-092 | | | | | -- | -- | **10.5** | -- | -- | **32.4** |
| PCB-093/100 | | | | | -- | -- | 0.356 U | -- | -- | **1.92 J** |
| PCB-094 | | | | | -- | -- | 0.39 U | -- | -- | **1.1** |
| PCB-095 | | | | | -- | -- | **37.3** | -- | -- | **131** |
| PCB-096 | | | | | -- | -- | 0.231 U | -- | -- | **1.99** |
| PCB-098 | | | | | -- | -- | 0.411 U | -- | -- | 0.377 U |
| PCB-099 | | | | | -- | -- | **28.1** | -- | -- | **95.4** |
| PCB-102 | | | | | -- | -- | **1.43 J** | -- | -- | **5.06** |
| PCB-103 | | | | | -- | -- | **0.616 J** | -- | -- | **1.69 J** |
| PCB-104 | | | | | -- | -- | 0.235 U | -- | -- | 0.256 U |
| PCB-105 | | | | | -- | -- | **20.5** | -- | -- | **59.8** |
| PCB-106 | | | | | -- | -- | 0.315 U | -- | -- | 0.272 U |
| PCB-107 | | | | | -- | -- | **4.14** | -- | -- | **14.2** |
| PCB-107/124 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-108/124 | | | | | -- | -- | **2.06 J** | -- | -- | **5.82** |
| PCB-109 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-110 | | | | | -- | -- | **62.2** | -- | -- | **209** |
| PCB-111 | | | | | -- | -- | 0.284 U | -- | -- | 0.252 U |
| PCB-112 | | | | | -- | -- | 0.285 U | -- | -- | 0.266 U |
| PCB-114 | | | | | -- | -- | **1.02 J** | -- | -- | **3.12** |
| PCB-115 | | | | | -- | -- | **1.09 J** | -- | -- | **2.03** |
| PCB-117 | | | | | -- | -- | **2.69** | -- | -- | **3.6** |
| PCB-118 | | | | | -- | -- | **51.5** | -- | -- | **151** |
| PCB-120 | | | | | -- | -- | 0.283 U | -- | -- | **1.31** |
| PCB-121 | | | | | -- | -- | 0.277 U | -- | -- | 0.253 U |
| PCB-122 | | | | | -- | -- | 0.343 U | -- | -- | **2.04** |
| PCB-123 | | | | | -- | -- | **0.9 J** | -- | -- | **2.81** |
| PCB-126 | | | | | -- | -- | 0.312 UJ | -- | -- | **0.583 J** |
| PCB-127 | | | | | -- | -- | 0.33 U | -- | -- | 0.272 U |
| PCB-128/166 | | | | | -- | -- | **12.5 J** | -- | -- | **29.8** |
| PCB-129/138/163 | | | | | -- | -- | **106 J** | -- | -- | **230** |
| PCB-130 | | | | | -- | -- | **7.84 J** | -- | -- | **15.7** |
| PCB-131 | | | | | -- | -- | **1.32 J** | -- | -- | **2.72 J** |
| PCB-132 | | | | | -- | -- | **30.8 J** | -- | -- | **66.3** |
| PCB-133 | | | | | -- | -- | **1.86 J** | -- | -- | **5.01** |
| PCB-134 | | | | | -- | -- | **5.32 J** | -- | -- | **12.4** |
| PCB-135/151 | | | | | -- | -- | **26 J** | -- | -- | **64.8** |
| PCB-136 | | | | | -- | -- | **9.45 J** | -- | -- | **21.2** |
| PCB-137 | | | | | -- | -- | **5.32 J** | -- | -- | **8.32** |
| PCB-139/140 | | | | | -- | -- | **1.83 J** | -- | -- | **4.48** |
| PCB-141 | | | | | -- | -- | **15.4 J** | -- | -- | **31.4** |
| PCB-142 | | | | | -- | -- | 0.36 UJ | -- | -- | 0.282 U |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA02-SS06 | JW-EA02-SS07 | JW-EA03-Composite | JW-EA03-SS11 | JW-EA03-SS12 | JW-EA04-Composite |
| Sample ID | | | | | JW-EA02-SS06-120507 | JW-EA02-SS07-120507 | JW-EA03-COMP-120507 | JW-EA03-SS11-120507 | JW-EA03-SS12-120507 | JW-EA04-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303249.289 | 1303062.26 | 1302934.298 | 1302837.626 | 1302909.704 | 1302713.435 |
| Y | | | | | 373823.672 | 373892.073 | 374111.0185 | 374136.978 | 374200.801 | 374337.4266 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-143 | | | | | -- | -- | 0.336 UJ | -- | -- | **0.391 J** |
| PCB-144 | | | | | -- | -- | **3.75 J** | -- | -- | **8.17** |
| PCB-145 | | | | | -- | -- | 0.234 UJ | -- | -- | 0.202 U |
| PCB-146 | | | | | -- | -- | **17.4 J** | -- | -- | **42.4** |
| PCB-147/149 | | | | | -- | -- | **64.4 J** | -- | -- | **157** |
| PCB-148 | | | | | -- | -- | 0.309 UJ | -- | -- | **0.955 J** |
| PCB-150 | | | | | -- | -- | 0.218 UJ | -- | -- | 0.191 U |
| PCB-152 | | | | | -- | -- | 0.224 UJ | -- | -- | 0.194 U |
| PCB-153/168 | | | | | -- | -- | **74.1 J** | -- | -- | **181** |
| PCB-154 | | | | | -- | -- | **1.16 J** | -- | -- | **4.19 J** |
| PCB-155 | | | | | -- | -- | 0.211 U | -- | -- | 0.182 U |
| PCB-156/157 | | | | | -- | -- | **9.89** | -- | -- | **21.6** |
| PCB-158 | | | | | -- | -- | **10.3 J** | -- | -- | **20.7** |
| PCB-159 | | | | | -- | -- | 0.47 UJ | -- | -- | 0.409 U |
| PCB-160 | | | | | -- | -- | 0.26 UJ | -- | -- | 0.221 U |
| PCB-161 | | | | | -- | -- | 0.254 UJ | -- | -- | 0.208 U |
| PCB-162 | | | | | -- | -- | 0.442 UJ | -- | -- | **0.799 J** |
| PCB-164 | | | | | -- | -- | **6.45 J** | -- | -- | **15** |
| PCB-165 | | | | | -- | -- | 0.284 UJ | -- | -- | 0.227 U |
| PCB-167 | | | | | -- | -- | **2.97 J** | -- | -- | **7.28** |
| PCB-169 | | | | | -- | -- | 0.545 U | -- | -- | 0.729 U |
| PCB-170 | | | | | -- | -- | **10.4 J** | -- | -- | **23.6 J** |
| PCB-171/173 | | | | | -- | -- | **4.83 J** | -- | -- | **13 J** |
| PCB-172 | | | | | -- | -- | **1.73 J** | -- | -- | **4.54 J** |
| PCB-174 | | | | | -- | -- | **17 J** | -- | -- | **41.3 J** |
| PCB-175 | | | | | -- | -- | 0.549 UJ | -- | -- | **1.61 J** |
| PCB-176 | | | | | -- | -- | **1.89 J** | -- | -- | **5.03 J** |
| PCB-177 | | | | | -- | -- | **10 J** | -- | -- | **30.5 J** |
| PCB-178 | | | | | -- | -- | **4.62 J** | -- | -- | **10.2 J** |
| PCB-179 | | | | | -- | -- | **8.28 J** | -- | -- | **17.5 J** |
| PCB-180/193 | | | | | -- | -- | **26.6 J** | -- | -- | **55.2 J** |
| PCB-181 | | | | | -- | -- | 0.564 UJ | -- | -- | 0.67 UJ |
| PCB-182 | | | | | -- | -- | 0.518 UJ | -- | -- | 0.617 UJ |
| PCB-183 | | | | | -- | -- | **9.09 J** | -- | -- | **25.7 J** |
| PCB-184 | | | | | -- | -- | 0.215 UJ | -- | -- | 0.262 UJ |
| PCB-185 | | | | | -- | -- | **1.22 J** | -- | -- | **3.98 J** |
| PCB-186 | | | | | -- | -- | 0.207 UJ | -- | -- | 0.247 UJ |
| PCB-187 | | | | | -- | -- | **24.4 J** | -- | -- | **62.6 J** |
| PCB-188 | | | | | -- | -- | 0.203 U | -- | -- | 0.255 U |
| PCB-189 | | | | | -- | -- | **0.508 J** | -- | -- | **1.59 J** |
| PCB-190 | | | | | -- | -- | **2.57 J** | -- | -- | **6.87 J** |
| PCB-191 | | | | | -- | -- | 0.392 UJ | -- | -- | **1.47 J** |
| PCB-192 | | | | | -- | -- | 0.396 UJ | -- | -- | 0.526 UJ |
| PCB-194 | | | | | -- | -- | **17.7** | -- | -- | **17.8** |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA02-SS06 | JW-EA02-SS07 | JW-EA03-Composite | JW-EA03-SS11 | JW-EA03-SS12 | JW-EA04-Composite |
| Sample ID | | | | | JW-EA02-SS06-120507 | JW-EA02-SS07-120507 | JW-EA03-COMP-120507 | JW-EA03-SS11-120507 | JW-EA03-SS12-120507 | JW-EA04-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303249.289 | 1303062.26 | 1302934.298 | 1302837.626 | 1302909.704 | 1302713.435 |
| Y | | | | | 373823.672 | 373892.073 | 374111.0185 | 374136.978 | 374200.801 | 374337.4266 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| PCB-195 | | | | | -- | -- | **4.61** | -- | -- | **6.95** |
| PCB-196 | | | | | -- | -- | **6.53 J** | -- | -- | **10.8** |
| PCB-197 | | | | | -- | -- | 0.473 U | -- | -- | **0.437 J** |
| PCB-198/199 | | | | | -- | -- | **27.1** | -- | -- | **27.6** |
| PCB-200 | | | | | -- | -- | **1.65** | -- | -- | **2.67** |
| PCB-201 | | | | | -- | -- | **2.2 J** | -- | -- | **2.58 J** |
| PCB-202 | | | | | -- | -- | **6.42** | -- | -- | **5.7** |
| PCB-203 | | | | | -- | -- | **16** | -- | -- | **16.6** |
| PCB-204 | | | | | -- | -- | 0.55 U | -- | -- | 0.441 U |
| PCB-205 | | | | | -- | -- | 0.692 U | -- | -- | **0.755 J** |
| PCB-206 | | | | | -- | -- | **29** | -- | -- | **13.3** |
| PCB-207 | | | | | -- | -- | **2.36** | -- | -- | **1.54** |
| PCB-208 | | | | | -- | -- | **7.47** | -- | -- | **4.24** |
| PCB-209 | | | | | -- | -- | **15.1** | -- | -- | **8.01** |
| Total PCB Congener (U = limit) | | | | | -- | -- | **1504.686 J** | -- | -- | **4409.08 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | **0.18004478 J** | -- | -- | **0.5206078 J** |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | **0.00246319 J** | -- | -- | **0.00519095 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | **0.05050794 J** | -- | -- | **0.0885225 J** |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | **1475.654 J** | -- | -- | **4386.027 J** |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | -- | -- | **1446.623 J** | -- | -- | **4362.974 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | **0.13912228 J** | -- | -- | **0.5034933 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | **0.09819978 J** | -- | -- | **0.4863788 J** |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | **0.001544315 J** | -- | -- | **0.005088975 J** |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | **0.00062544 J** | -- | -- | **0.004987 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | **0.02665779 J** | -- | -- | **0.07753725 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | **0.00280764 J** | -- | -- | **0.066552 J** |
| **Total Petroleum Hydrocarbons (mg/kg)** | | | | | | | | | | |
| Diesel range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- |
| Motor oil range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **0.00017735846154 J** | **0.00066190761905 J** | **6.41585912E-05 J** | **0.00026943571429 J** | **0.00016944318182 J** | **0.000238279870588 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **0.00012766615385 J** | **0.00049485047619 J** | **4.77273276E-05 J** | **0.00021003333333 J** | **0.00011676363636 J** | **0.0001662788794118 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **0.00018161307692 J** | **0.00079708952381 J** | **5.83823176E-05 J** | **0.00028010571429 J** | **0.00015805363636 J** | **0.000245366029412 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **0.00017716692308 J** | **0.00065521333333 J** | **4.01958912E-05 J** | **0.00026216452381 J** | **0.00016120954545 J** | **0.000233529017647 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **0.00012747461538 J** | **0.00048815619048 J** | **2.66657726E-05 J** | **0.00020276214286 J** | **0.00010853 J** | **0.0001625287632353 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | **0.00018142153846 J** | **0.0007903952381 J** | **3.98371116E-05 J** | **0.00027283452381 J** | **0.00014982 J** | **0.000240975720588 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | **0.00017697538462 J** | **0.00064851904762 J** | **1.62331912E-05 J** | **0.00025489333333 J** | **0.00015297590909 J** | **0.000228778164706 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | **0.00012728307692 J** | **0.00048146190476 J** | **5.6042176E-06 J** | **0.00019549095238 J** | **0.00010029636364 J** | **0.0001587786470588 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | **0.00018123 J** | **0.00078370095238 J** | **2.12919056E-05 J** | **0.00026556333333 J** | **0.00014158636364 J** | **0.000236585411765 J** |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **4.61132 J** | **13.90006 J** | **1.60396478 J** | **5.65815 J** | **3.72775 J** | **4.0507578 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **3.31932 J** | **10.39186 J** | **1.19318319 J** | **4.4107 J** | **2.5688 J** | **2.82674095 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **4.72194 J** | **16.73888 J** | **1.45955794 J** | **5.88222 J** | **3.47718 J** | **4.1712225 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **4.60634 J** | **13.75948 J** | **1.00489728 J** | **5.505455 J** | **3.54661 J** | **3.9699933 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **3.31434 J** | **10.25128 J** | **0.666644315 J** | **4.258005 J** | **2.38766 J** | **2.762988975 J** |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA02-SS06 | JW-EA02-SS07 | JW-EA03-Composite | JW-EA03-SS11 | JW-EA03-SS12 | JW-EA04-Composite |
| Sample ID | | | | | JW-EA02-SS06-120507 | JW-EA02-SS07-120507 | JW-EA03-COMP-120507 | JW-EA03-SS11-120507 | JW-EA03-SS12-120507 | JW-EA04-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303249.289 | 1303062.26 | 1302934.298 | 1302837.626 | 1302909.704 | 1302713.435 |
| Y | | | | | 373823.672 | 373892.073 | 374111.0185 | 374136.978 | 374200.801 | 374337.4266 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | 4.71696 J | 16.5983 J | 0.99592779 J | 5.729525 J | 3.29604 J | 4.09658725 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | 4.60136 J | 13.6189 J | 0.40582978 J | 5.35276 J | 3.36547 J | 3.8892288 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | 3.30936 J | 10.1107 J | 0.14010544 J | 4.10531 J | 2.20652 J | 2.699237 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | 4.71198 J | 16.45772 J | 0.53229764 J | 5.57683 J | 3.1149 J | 4.021952 J |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA04-SS13 | JW-EA04-SS14 | JW-EA04-SS15 | JW-EA04-SS16 | JW-EA05-Composite | JW-EA06-Composite |
| Sample ID | | | | | JW-EA04-SS13-120507 | JW-EA04-SS14-120507 | JW-EA04-SS15-120507 | JW-EA04-SS16-120507 | JW-EA05-COMP-120509 | JW-EA06-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/9/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302745.312 | 1302814.858 | 1302600.971 | 1302680.315 | 1301980.701 | 1302273.819 |
| Y | | | | | 374232.964 | 374304.79 | 374376.376 | 374451.6 | 374112.4298 | 373506.9506 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | |
| Total organic carbon | | | | | **1.9** | **1.9** | **1.3** | **1.8** | **0.74** | **1.9** |
| Moisture, percent | | | | | -- | -- | -- | -- | **33.7** | **41.8** |
| Total Solids | | | | | -- | -- | -- | -- | **67** | **54** |
| Total solids (preserved) | | | | | -- | -- | -- | -- | -- | -- |
| Total volatile solids | | | | | -- | -- | -- | -- | -- | -- |
| **Conventional Parameters (mg/kg)** | | | | | | | | | | |
| Ammonia as nitrogen | | | | | -- | -- | -- | -- | -- | -- |
| Black carbon | | | | | -- | -- | -- | -- | **1500** | **1200** |
| Sulfide | | | | | -- | -- | -- | -- | -- | -- |
| **Grain Size (pct)** | | | | | | | | | | |
| Cobbles | | | | | -- | -- | -- | -- | 0 U | 0 U |
| Gravel | | | | | -- | -- | -- | -- | **13** | **0.1** |
| Sand | | | | | -- | -- | -- | -- | **77** | **51** |
| Sand, very coarse | | | | | -- | -- | -- | -- | -- | -- |
| Sand, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Sand, medium | | | | | -- | -- | -- | -- | -- | -- |
| Sand, fine | | | | | -- | -- | -- | -- | -- | -- |
| Sand, very fine | | | | | -- | -- | -- | -- | -- | -- |
| Sand, fine | | | | | -- | -- | -- | -- | -- | -- |
| Sand, very fine | | | | | -- | -- | -- | -- | -- | -- |
| Silt | | | | | -- | -- | -- | -- | **7.5** | **42** |
| Silt, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Silt, medium | | | | | -- | -- | -- | -- | -- | -- |
| Silt, fine | | | | | -- | -- | -- | -- | -- | -- |
| Silt, very fine | | | | | -- | -- | -- | -- | -- | -- |
| Total fines (Reported, not calculated) | | | | | -- | -- | -- | -- | -- | -- |
| Clay | | | | | -- | -- | -- | -- | **2.6** | **7.4** |
| Clay, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Clay, medium | | | | | -- | -- | -- | -- | -- | -- |
| Clay, fine | | | | | -- | -- | -- | -- | -- | -- |
| **Metals (mg/kg)** | | | | | | | | | | |
| Antimony | | | | | -- | -- | -- | -- | -- | -- |
| Arsenic | 57 | 93 | 57 | 93 | -- | -- | -- | -- | -- | -- |
| Cadmium | 5.1 | 6.7 | 5.1 | 6.7 | -- | -- | -- | -- | -- | -- |
| Chromium | 260 | 270 | 260 | 270 | -- | -- | -- | -- | -- | -- |
| Copper | 390 | 390 | 390 | 390 | -- | -- | -- | -- | -- | -- |
| Lead | 450 | 530 | 450 | 530 | -- | -- | -- | -- | -- | -- |
| Mercury | 0.41 | 0.59 | 0.41 | 0.59 | -- | -- | -- | -- | -- | -- |
| Nickel | | | | | -- | -- | -- | -- | -- | -- |
| Silver | 6.1 | 6.1 | 6.1 | 6.1 | -- | -- | -- | -- | -- | -- |
| Zinc | 410 | 960 | 410 | 960 | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (mg/kg-OC)** | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (µg/kg)** | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA04-SS13 | JW-EA04-SS14 | JW-EA04-SS15 | JW-EA04-SS16 | JW-EA05-Composite | JW-EA06-Composite |
| Sample ID | | | | | JW-EA04-SS13-120507 | JW-EA04-SS14-120507 | JW-EA04-SS15-120507 | JW-EA04-SS16-120507 | JW-EA05-COMP-120509 | JW-EA06-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/9/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302745.312 | 1302814.858 | 1302600.971 | 1302680.315 | 1301980.701 | 1302273.819 |
| Y | | | | | 374232.964 | 374304.79 | 374376.376 | 374451.6 | 374112.4298 | 373506.9506 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | -- | -- | -- |
| 1,3-Dichlorobenzene | | | | | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | -- | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | -- | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | | | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | -- | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | -- | -- | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | -- | -- | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | -- | -- | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- | -- | -- | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA04-SS13 | JW-EA04-SS14 | JW-EA04-SS15 | JW-EA04-SS16 | JW-EA05-Composite | JW-EA06-Composite |
| Sample ID | | | | | JW-EA04-SS13-120507 | JW-EA04-SS14-120507 | JW-EA04-SS15-120507 | JW-EA04-SS16-120507 | JW-EA05-COMP-120509 | JW-EA06-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/9/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302745.312 | 1302814.858 | 1302600.971 | 1302680.315 | 1301980.701 | 1302273.819 |
| Y | | | | | 374232.964 | 374304.79 | 374376.376 | 374451.6 | 374112.4298 | 373506.9506 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | -- | -- | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | -- | -- | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- | -- | -- | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | -- | -- | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | |
| 1-Methylnaphthalene | | | | | -- | -- | -- | -- | -- | -- |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | -- | -- | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | -- | -- | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | -- | -- | -- |
| Benzo(b)fluoranthene | | | | | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | -- | -- | -- |
| Benzo(k)fluoranthene | | | | | -- | -- | -- | -- | -- | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | -- | -- | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | -- | -- | -- |
| Fluorene | | | 540 | 540 | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | -- | -- | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | -- | -- | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | -- | -- | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **0.257 J** | **0.137 J** | **0.121 J** | **0.133 J** | 0.122 U | 0.0753 U |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **2.61** | **0.431 J** | **0.708 J** | **0.318 J** | 0.0648 U | **0.499 J** |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **4.82** | **0.714 J** | **1.2 J** | **0.66 J** | 0.139 U | 0.174 U |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA04-SS13 | JW-EA04-SS14 | JW-EA04-SS15 | JW-EA04-SS16 | JW-EA05-Composite | JW-EA06-Composite |
| Sample ID | | | | | JW-EA04-SS13-120507 | JW-EA04-SS14-120507 | JW-EA04-SS15-120507 | JW-EA04-SS16-120507 | JW-EA05-COMP-120509 | JW-EA06-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/9/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302745.312 | 1302814.858 | 1302600.971 | 1302680.315 | 1301980.701 | 1302273.819 |
| Y | | | | | 374232.964 | 374304.79 | 374376.376 | 374451.6 | 374112.4298 | 373506.9506 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **33.8** | **2.93** | **6.78** | **2.28 J** | 0.569 UJ | **42** |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **12** | **1.62 J** | **3** | **1.48 J** | 0.462 UJ | **13.6** |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **359** | **38.2** | **85** | **37.4** | **12** | **279** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | **2820** | **333** | **704** | **356** | **122** | **778** |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **10.6 J** | **8.42 J** | **7.61 J** | **10.5 J** | **2.02 J** | **5.25 J** |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **17.3 J** | **6.79** | **8.16 J** | **7.82 J** | 0.0648 U | **6.51 J** |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **169** | **28.9** | **47.2 J** | **28.5** | 4.77 UJ | **255 J** |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **666** | **103** | **178** | **110** | **26** | **594** |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | **1.68 J** | **0.732 J** | **0.904 J** | **1.1 J** | 0.0773 U | **0.471 J** |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **1.15 J** | **0.214 J** | **0.292 J** | **0.206 J** | 0.101 U | **0.373 J** |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **3.25** | **0.536 J** | **0.935 J** | **0.535 J** | 0.058 U | **0.86 J** |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **5.57** | **0.612 J** | **1.24 J** | **0.439 J** | 0.206 U | **2.3 J** |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **6.47** | **0.44 J** | **1.02 J** | **0.307 J** | 0.155 U | **1.48 J** |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | 0.23 U | 0.052 U | 0.152 U | 0.0452 U | 0.0952 U | **1.13 J** |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **9.74** | **0.623 J** | **1.92 J** | **0.5 J** | 0.182 U | **3.76** |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | **137** | **8.43** | **26.3** | **6.49** | **2.22 J** | **106** |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | **6.63** | **0.549 J** | **1.34 J** | **0.385 J** | 0.153 U | **2.81** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | **268** | **17.4** | **49.9** | **17.5** | **10.7** | **84** |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | **23.2 J** | **8.84 J** | **9.87 J** | **7.49 J** | 0.0773 U | **6.87 J** |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | **66.3** | **6.28 J** | **14.5 J** | **5.69 J** | 0.788 U | **13.4 J** |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | **224 J** | **14 J** | **44.7** | **9.61 J** | 3.14 U | **104 J** |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | **395** | **24.1 J** | **75.9** | **19.4** | **7.01** | **292** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | **13.9961 J** | **2.42013 J** | **3.99499 J** | **2.58302 J** | **0.50386 J** | **6.0516 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | **11.8066 J** | **1.62153 J** | **2.92409 J** | **1.42402 J** | **0.417345 J** | **4.0098 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | **17.2602 J** | **2.08443 J** | **4.09243 J** | **1.8536 J** | **0.57932 J** | **11.47169 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | **13.9846 J** | **2.41753 J** | **3.98739 J** | **2.58076 J** | **0.275665 J** | **6.0096 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | **11.7951 J** | **1.61893 J** | **2.91649 J** | **1.42176 J** | **0.2324075 J** | **3.92865 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | **17.2487 J** | **2.08183 J** | **4.08483 J** | **1.85134 J** | **0.380665 J** | **11.42534 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | **13.9731 J** | **2.41493 J** | **3.97979 J** | **2.5785 J** | **0.04747 J** | **5.9676 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | **11.7836 J** | **1.61633 J** | **2.90889 J** | **1.4195 J** | **0.04747 J** | **3.8475 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | **17.2372 J** | **2.07923 J** | **4.07723 J** | **1.84908 J** | **0.18201 J** | **11.37899 J** |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1262 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1268 | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
| Location ID | | | | | JW-EA04-SS13 | JW-EA04-SS14 | JW-EA04-SS15 | JW-EA04-SS16 | JW-EA05-Composite | JW-EA06-Composite |
| Sample ID | | | | | JW-EA04-SS13-120507 | JW-EA04-SS14-120507 | JW-EA04-SS15-120507 | JW-EA04-SS16-120507 | JW-EA05-COMP-120509 | JW-EA06-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/9/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302745.312 | 1302814.858 | 1302600.971 | 1302680.315 | 1301980.701 | 1302273.819 |
| Y | | | | | 374232.964 | 374304.79 | 374376.376 | 374451.6 | 374112.4298 | 373506.9506 |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | **0.087229054 J** | **0.1643423947 J** |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | **0.084215 J** | **0.1631081447 J** |
| Total PCB Congener (U = 0) | 12 | 65 | | | -- | -- | -- | -- | **0.081200946 J** | **0.1618738947 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | **2.257912703E-05 J** | **3.355841053E-05 J** |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | **2.41954054E-07 J** | **2.74389474E-07 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | **4.47371081E-06 J** | **3.90998947E-06 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | **1.686022162E-05 J** | **3.355043684E-05 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | **1.114131622E-05 J** | **3.354246316E-05 J** |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | **1.44522297E-07 J** | **2.7399079E-07 J** |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | **4.7090541E-08 J** | **2.73592105E-07 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | **2.3233973E-06 J** | **3.67077895E-06 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | **1.7308378E-07 J** | **3.43156842E-06 J** |
| **PCB Congeners (ng/kg)** | | | | | | | | | | |
| PCB-001 | | | | | -- | -- | -- | -- | **2.63 J** | **10.2** |
| PCB-002 | | | | | -- | -- | -- | -- | **0.63 J** | **4.78** |
| PCB-003 | | | | | -- | -- | -- | -- | **2.02 J** | **9.67** |
| PCB-004 | | | | | -- | -- | -- | -- | **3.33** | **9.49 J** |
| PCB-005 | | | | | -- | -- | -- | -- | 1.47 U | 0.783 UJ |
| PCB-006 | | | | | -- | -- | -- | -- | **1.24 J** | **5.11 J** |
| PCB-007 | | | | | -- | -- | -- | -- | 1.39 U | **1 J** |
| PCB-008 | | | | | -- | -- | -- | -- | **5.26** | **25.4 J** |
| PCB-009 | | | | | -- | -- | -- | -- | 1.61 U | **1.31 J** |
| PCB-010 | | | | | -- | -- | -- | -- | 1.8 U | 0.821 UJ |
| PCB-011 | | | | | -- | -- | -- | -- | 6.56 U | 39.3 UJ |
| PCB-012/013 | | | | | -- | -- | -- | -- | 1.42 U | **3.37 J** |
| PCB-014 | | | | | -- | -- | -- | -- | 1.23 U | 0.674 UJ |
| PCB-015 | | | | | -- | -- | -- | -- | **5.44** | **21.6 J** |
| PCB-016 | | | | | -- | -- | -- | -- | **4.11** | **20.4** |
| PCB-017 | | | | | -- | -- | -- | -- | **4.65** | **22.1** |
| PCB-018/030 | | | | | -- | -- | -- | -- | **7.71** | **45.4** |
| PCB-019 | | | | | -- | -- | -- | -- | 1.16 U | **3.17** |
| PCB-020/028 | | | | | -- | -- | -- | -- | **16.3** | **91.5** |
| PCB-021/033 | | | | | -- | -- | -- | -- | **5.95** | **36** |
| PCB-022 | | | | | -- | -- | -- | -- | **5.09** | **26.9** |
| PCB-023 | | | | | -- | -- | -- | -- | 0.739 U | 0.353 U |
| PCB-024 | | | | | -- | -- | -- | -- | 0.759 U | **0.721 J** |
| PCB-025 | | | | | -- | -- | -- | -- | **1.52** | **5.95** |
| PCB-026/029 | | | | | -- | -- | -- | -- | **2.49 J** | **11.5** |
| PCB-027 | | | | | -- | -- | -- | -- | **0.753 J** | **3.68** |
| PCB-031 | | | | | -- | -- | -- | -- | **11.4** | **70.3** |
| PCB-032 | | | | | -- | -- | -- | -- | **3.7** | **16.4** |
| PCB-034 | | | | | -- | -- | -- | -- | 0.764 U | 0.37 U |
| PCB-035 | | | | | -- | -- | -- | -- | 0.782 U | **1.94 J** |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA04-SS13 | JW-EA04-SS14 | JW-EA04-SS15 | JW-EA04-SS16 | JW-EA05-Composite | JW-EA06-Composite |
| Sample ID | | | | | JW-EA04-SS13-120507 | JW-EA04-SS14-120507 | JW-EA04-SS15-120507 | JW-EA04-SS16-120507 | JW-EA05-COMP-120509 | JW-EA06-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/9/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302745.312 | 1302814.858 | 1302600.971 | 1302680.315 | 1301980.701 | 1302273.819 |
| Y | | | | | 374232.964 | 374304.79 | 374376.376 | 374451.6 | 374112.4298 | 373506.9506 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| PCB-036 | | | | | -- | -- | -- | -- | 0.716 U | 0.363 U |
| PCB-037 | | | | | -- | -- | -- | -- | **7.11** | **30.8** |
| PCB-038 | | | | | -- | -- | -- | -- | 0.773 U | 0.394 U |
| PCB-039 | | | | | -- | -- | -- | -- | 0.691 U | 0.35 U |
| PCB-040/071 | | | | | -- | -- | -- | -- | **6.92 J** | **25.6 J** |
| PCB-041 | | | | | -- | -- | -- | -- | **1.32 J** | **4.49 J** |
| PCB-042 | | | | | -- | -- | -- | -- | **4.19 J** | **15.1 J** |
| PCB-043 | | | | | -- | -- | -- | -- | 0.62 UJ | **1.69 J** |
| PCB-044/047/065 | | | | | -- | -- | -- | -- | **15 J** | **59.4 J** |
| PCB-045 | | | | | -- | -- | -- | -- | **1.81 J** | **5.8 J** |
| PCB-046 | | | | | -- | -- | -- | -- | **0.663 J** | **2.41 J** |
| PCB-048 | | | | | -- | -- | -- | -- | **2.53 J** | **10.2 J** |
| PCB-049/069 | | | | | -- | -- | -- | -- | **10.1 J** | **37 J** |
| PCB-050/053 | | | | | -- | -- | -- | -- | **2.23 J** | **5.55 J** |
| PCB-051 | | | | | -- | -- | -- | -- | **0.776 J** | **1.76 J** |
| PCB-052 | | | | | -- | -- | -- | -- | **18.1 J** | **77.7 J** |
| PCB-054 | | | | | -- | -- | -- | -- | 0.463 U | 0.0717 U |
| PCB-055 | | | | | -- | -- | -- | -- | 0.591 UJ | **1.46 J** |
| PCB-056 | | | | | -- | -- | -- | -- | **7.12 J** | **44.3 J** |
| PCB-057 | | | | | -- | -- | -- | -- | 0.594 UJ | **0.336 J** |
| PCB-058 | | | | | -- | -- | -- | -- | 0.578 UJ | **0.374 J** |
| PCB-059/062/075 | | | | | -- | -- | -- | -- | **1.24 J** | **4.38 J** |
| PCB-060 | | | | | -- | -- | -- | -- | **3.06 J** | **20.9 J** |
| PCB-061/070/074/076 | | | | | -- | -- | -- | -- | **26.9 J** | **175 J** |
| PCB-063 | | | | | -- | -- | -- | -- | 0.548 UJ | **3.54 J** |
| PCB-064 | | | | | -- | -- | -- | -- | **6.27 J** | **22.9 J** |
| PCB-066 | | | | | -- | -- | -- | -- | **16.2 J** | **105 J** |
| PCB-067 | | | | | -- | -- | -- | -- | 0.555 UJ | **3.52 J** |
| PCB-068 | | | | | -- | -- | -- | -- | 0.533 UJ | **0.82 J** |
| PCB-072 | | | | | -- | -- | -- | -- | 0.565 UJ | **1.33 J** |
| PCB-073 | | | | | -- | -- | -- | -- | 0.43 UJ | **0.122 J** |
| PCB-077 | | | | | -- | -- | -- | -- | **1.62 J** | **10.8 J** |
| PCB-078 | | | | | -- | -- | -- | -- | 0.646 UJ | 0.148 UJ |
| PCB-079 | | | | | -- | -- | -- | -- | 0.522 UJ | **1.17 J** |
| PCB-080 | | | | | -- | -- | -- | -- | 0.531 UJ | 0.115 UJ |
| PCB-081 | | | | | -- | -- | -- | -- | 0.62 UJ | **0.311 J** |
| PCB-082 | | | | | -- | -- | -- | -- | **2.83** | **15.3** |
| PCB-083 | | | | | -- | -- | -- | -- | **1.48** | **7.01** |
| PCB-084 | | | | | -- | -- | -- | -- | **6.19** | **27.4** |
| PCB-085/116 | | | | | -- | -- | -- | -- | **4.71** | **19.5** |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/109/119/125 | | | | | -- | -- | -- | -- | **15.9** | **82.8** |
| PCB-088 | | | | | -- | -- | -- | -- | 0.456 U | 0.127 U |
| PCB-089 | | | | | -- | -- | -- | -- | 0.469 U | **1.24** |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA04-SS13 | JW-EA04-SS14 | JW-EA04-SS15 | JW-EA04-SS16 | JW-EA05-Composite | JW-EA06-Composite |
| Sample ID | | | | | JW-EA04-SS13-120507 | JW-EA04-SS14-120507 | JW-EA04-SS15-120507 | JW-EA04-SS16-120507 | JW-EA05-COMP-120509 | JW-EA06-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/9/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302745.312 | 1302814.858 | 1302600.971 | 1302680.315 | 1301980.701 | 1302273.819 |
| Y | | | | | 374232.964 | 374304.79 | 374376.376 | 374451.6 | 374112.4298 | 373506.9506 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-090/101/113 | | | | | -- | -- | -- | -- | **24.5** | **132** |
| PCB-091 | | | | | -- | -- | -- | -- | **3.06** | **13.7** |
| PCB-092 | | | | | -- | -- | -- | -- | **4.82** | **23.7** |
| PCB-093/100 | | | | | -- | -- | -- | -- | 0.423 U | **1.11 J** |
| PCB-094 | | | | | -- | -- | -- | -- | 0.452 U | **0.464 J** |
| PCB-095 | | | | | -- | -- | -- | -- | **11.8** | **74.4** |
| PCB-096 | | | | | -- | -- | -- | -- | 0.222 U | **0.795 J** |
| PCB-098 | | | | | -- | -- | -- | -- | **0.828 J** | 0.13 U |
| PCB-099 | | | | | -- | -- | -- | -- | **14.4** | **76.6** |
| PCB-102 | | | | | -- | -- | -- | -- | **0.286 J** | **2.81** |
| PCB-103 | | | | | -- | -- | -- | -- | 0.392 U | **1.28** |
| PCB-104 | | | | | -- | -- | -- | -- | 0.212 U | 0.0742 U |
| PCB-105 | | | | | -- | -- | -- | -- | **9.2** | **52.9** |
| PCB-106 | | | | | -- | -- | -- | -- | 0.376 U | 0.0998 U |
| PCB-107 | | | | | -- | -- | -- | -- | **2.16** | **10.8** |
| PCB-107/124 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-108/124 | | | | | -- | -- | -- | -- | **1.08 J** | **4.62** |
| PCB-109 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-110 | | | | | -- | -- | -- | -- | **30.9** | **153** |
| PCB-111 | | | | | -- | -- | -- | -- | 0.333 U | 0.09 U |
| PCB-112 | | | | | -- | -- | -- | -- | 0.319 U | **0.128 J** |
| PCB-114 | | | | | -- | -- | -- | -- | 0.288 U | **2.47** |
| PCB-115 | | | | | -- | -- | -- | -- | 0.327 U | **1.7** |
| PCB-117 | | | | | -- | -- | -- | -- | 0.345 U | **3.33** |
| PCB-118 | | | | | -- | -- | -- | -- | **23.7** | **136** |
| PCB-120 | | | | | -- | -- | -- | -- | 0.312 U | **0.745 J** |
| PCB-121 | | | | | -- | -- | -- | -- | 0.31 U | 0.0875 U |
| PCB-122 | | | | | -- | -- | -- | -- | 0.329 U | **1.67** |
| PCB-123 | | | | | -- | -- | -- | -- | **0.423 J** | **2.18** |
| PCB-126 | | | | | -- | -- | -- | -- | 0.223 U | **0.575 J** |
| PCB-127 | | | | | -- | -- | -- | -- | 0.455 U | 0.113 U |
| PCB-128/166 | | | | | -- | -- | -- | -- | **4.62 J** | **22.2 J** |
| PCB-129/138/163 | | | | | -- | -- | -- | -- | **32.2 J** | **197 J** |
| PCB-130 | | | | | -- | -- | -- | -- | **2.42 J** | **12.5 J** |
| PCB-131 | | | | | -- | -- | -- | -- | 0.342 UJ | **1.97 J** |
| PCB-132 | | | | | -- | -- | -- | -- | **10.6 J** | **49.1 J** |
| PCB-133 | | | | | -- | -- | -- | -- | **0.811 J** | **3.53 J** |
| PCB-134 | | | | | -- | -- | -- | -- | **1.52 J** | **8.4 J** |
| PCB-135/151 | | | | | -- | -- | -- | -- | **10.7 J** | **47.2 J** |
| PCB-136 | | | | | -- | -- | -- | -- | **3.36 J** | **16.4 J** |
| PCB-137 | | | | | -- | -- | -- | -- | **1.8 J** | **6.89 J** |
| PCB-139/140 | | | | | -- | -- | -- | -- | 0.301 UJ | **2.94 J** |
| PCB-141 | | | | | -- | -- | -- | -- | **5.37 J** | **26.3 J** |
| PCB-142 | | | | | -- | -- | -- | -- | 0.342 UJ | 0.11 UJ |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA04-SS13 | JW-EA04-SS14 | JW-EA04-SS15 | JW-EA04-SS16 | JW-EA05-Composite | JW-EA06-Composite |
| Sample ID | | | | | JW-EA04-SS13-120507 | JW-EA04-SS14-120507 | JW-EA04-SS15-120507 | JW-EA04-SS16-120507 | JW-EA05-COMP-120509 | JW-EA06-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/9/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302745.312 | 1302814.858 | 1302600.971 | 1302680.315 | 1301980.701 | 1302273.819 |
| Y | | | | | 374232.964 | 374304.79 | 374376.376 | 374451.6 | 374112.4298 | 373506.9506 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-143 | | | | | -- | -- | -- | -- | 0.314 UJ | **0.437 J** |
| PCB-144 | | | | | -- | -- | -- | -- | **1.51 J** | **6.39 J** |
| PCB-145 | | | | | -- | -- | -- | -- | 0.217 UJ | 0.0717 UJ |
| PCB-146 | | | | | -- | -- | -- | -- | **7.04 J** | **32.4 J** |
| PCB-147/149 | | | | | -- | -- | -- | -- | **25.2 J** | **122 J** |
| PCB-148 | | | | | -- | -- | -- | -- | 0.289 UJ | **0.456 J** |
| PCB-150 | | | | | -- | -- | -- | -- | 0.21 UJ | 0.0669 UJ |
| PCB-152 | | | | | -- | -- | -- | -- | 0.205 UJ | 0.0686 UJ |
| PCB-153/168 | | | | | -- | -- | -- | -- | **30.8 J** | **146 J** |
| PCB-154 | | | | | -- | -- | -- | -- | 0.26 UJ | **3.24 J** |
| PCB-155 | | | | | -- | -- | -- | -- | 0.204 U | 0.0646 U |
| PCB-156/157 | | | | | -- | -- | -- | -- | **2.72 J** | **17.2 J** |
| PCB-158 | | | | | -- | -- | -- | -- | **3.46 J** | **16.2 J** |
| PCB-159 | | | | | -- | -- | -- | -- | 0.239 UJ | 0.249 UJ |
| PCB-160 | | | | | -- | -- | -- | -- | 0.252 UJ | 0.0797 UJ |
| PCB-161 | | | | | -- | -- | -- | -- | 0.232 UJ | 0.0779 UJ |
| PCB-162 | | | | | -- | -- | -- | -- | 0.255 UJ | **0.482 J** |
| PCB-164 | | | | | -- | -- | -- | -- | **2.27 J** | **10.8 J** |
| PCB-165 | | | | | -- | -- | -- | -- | 0.258 UJ | 0.0868 UJ |
| PCB-167 | | | | | -- | -- | -- | -- | **1.03 J** | **5.6 J** |
| PCB-169 | | | | | -- | -- | -- | -- | 0.311 U | 0.303 U |
| PCB-170 | | | | | -- | -- | -- | -- | **5.27** | **20.5 J** |
| PCB-171/173 | | | | | -- | -- | -- | -- | **1.65 J** | **9.97 J** |
| PCB-172 | | | | | -- | -- | -- | -- | **1.03 J** | **1.73 J** |
| PCB-174 | | | | | -- | -- | -- | -- | **6.66** | **33.4 J** |
| PCB-175 | | | | | -- | -- | -- | -- | 0.372 U | **1.33 J** |
| PCB-176 | | | | | -- | -- | -- | -- | **0.867 J** | **3.97 J** |
| PCB-177 | | | | | -- | -- | -- | -- | **4.47** | **23.2 J** |
| PCB-178 | | | | | -- | -- | -- | -- | **1.78** | **8.63 J** |
| PCB-179 | | | | | -- | -- | -- | -- | **3.27** | **15.4 J** |
| PCB-180/193 | | | | | -- | -- | -- | -- | **14.1** | **50 J** |
| PCB-181 | | | | | -- | -- | -- | -- | 0.351 U | 0.218 UJ |
| PCB-182 | | | | | -- | -- | -- | -- | 0.336 U | 0.201 UJ |
| PCB-183 | | | | | -- | -- | -- | -- | **3.92** | **21.1 J** |
| PCB-184 | | | | | -- | -- | -- | -- | 0.161 U | 0.0996 UJ |
| PCB-185 | | | | | -- | -- | -- | -- | **0.558 J** | 0.22 UJ |
| PCB-186 | | | | | -- | -- | -- | -- | 0.156 U | 0.0956 UJ |
| PCB-187 | | | | | -- | -- | -- | -- | **8.18** | **47.5 J** |
| PCB-188 | | | | | -- | -- | -- | -- | 0.163 U | 0.0939 U |
| PCB-189 | | | | | -- | -- | -- | -- | **0.221 J** | **1.2 J** |
| PCB-190 | | | | | -- | -- | -- | -- | **1.02 J** | **4.8 J** |
| PCB-191 | | | | | -- | -- | -- | -- | 0.291 U | **1 J** |
| PCB-192 | | | | | -- | -- | -- | -- | 0.295 U | 0.154 UJ |
| PCB-194 | | | | | -- | -- | -- | -- | **4.11** | **18.8** |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA04-SS13 | JW-EA04-SS14 | JW-EA04-SS15 | JW-EA04-SS16 | JW-EA05-Composite | JW-EA06-Composite |
| Sample ID | | | | | JW-EA04-SS13-120507 | JW-EA04-SS14-120507 | JW-EA04-SS15-120507 | JW-EA04-SS16-120507 | JW-EA05-COMP-120509 | JW-EA06-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/9/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302745.312 | 1302814.858 | 1302600.971 | 1302680.315 | 1301980.701 | 1302273.819 |
| Y | | | | | 374232.964 | 374304.79 | 374376.376 | 374451.6 | 374112.4298 | 373506.9506 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-195 | | | | | -- | -- | -- | -- | **1.4 J** | **6.83** |
| PCB-196 | | | | | -- | -- | -- | -- | **1.64 J** | **8.36** |
| PCB-197 | | | | | -- | -- | -- | -- | 0.31 U | **0.429 J** |
| PCB-198/199 | | | | | -- | -- | -- | -- | **5.34** | **21.9** |
| PCB-200 | | | | | -- | -- | -- | -- | 0.341 U | **2.31** |
| PCB-201 | | | | | -- | -- | -- | -- | **0.441 J** | **2.49** |
| PCB-202 | | | | | -- | -- | -- | -- | **1.31 J** | **5.52** |
| PCB-203 | | | | | -- | -- | -- | -- | **3.11** | **12.5** |
| PCB-204 | | | | | -- | -- | -- | -- | 0.353 U | 0.177 U |
| PCB-205 | | | | | -- | -- | -- | -- | 0.59 U | **0.669 J** |
| PCB-206 | | | | | -- | -- | -- | -- | **3.98** | **11.7** |
| PCB-207 | | | | | -- | -- | -- | -- | 0.755 U | **1.34** |
| PCB-208 | | | | | -- | -- | -- | -- | **1.17 J** | **3.51** |
| PCB-209 | | | | | -- | -- | -- | -- | **2.31** | **8** |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | **645.495 J** | **3122.5055 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | **0.16708554 J** | **0.6376098 J** |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | **0.00179046 J** | **0.0052134 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | **0.03310546 J** | **0.0742898 J** |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | **623.191 J** | **3099.0548 J** |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | -- | -- | -- | -- | **600.887 J** | **3075.604 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | **0.12476564 J** | **0.6374583 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | **0.08244574 J** | **0.6373068 J** |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | **0.001069465 J** | **0.005205825 J** |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | **0.00034847 J** | **0.00519825 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | **0.01719314 J** | **0.0697448 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | **0.00128082 J** | **0.0651998 J** |
| **Total Petroleum Hydrocarbons (mg/kg)** | | | | | | | | | | |
| Diesel range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- |
| Motor oil range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **0.0007366368421 J** | **0.00012737526316 J** | **0.0003073069231 J** | **0.00014350111111 J** | **9.0668316216E-05 J** | **0.000352063673684 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **0.0006214 J** | **8.534368421E-05 J** | **0.00022493 J** | **7.911222222E-05 J** | **5.6639927027E-05 J** | **0.0002113164947368 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **0.0009084315789 J** | **0.00010970684211 J** | **0.0003148023077 J** | **0.00010297777778 J** | **8.2760197297E-05 J** | **0.000607683147368 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **0.0007360315789 J** | **0.00012723842105 J** | **0.0003067223077 J** | **0.00014337555556 J** | **5.4112248649E-05 J** | **0.000349845173684 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **0.0006207947368 J** | **8.520684211E-05 J** | **0.0002243453846 J** | **7.898666667E-05 J** | **3.15509412162E-05 J** | **0.0002070450434211 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | **0.0009078263158 J** | **0.00010957 J** | **0.0003142176923 J** | **0.00010285222222 J** | **5.3764613514E-05 J** | **0.000605004463158 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | **0.0007354263158 J** | **0.00012710157895 J** | **0.0003061376923 J** | **0.00014325 J** | **1.7556181081E-05 J** | **0.000347626673684 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | **0.0006201894737 J** | **8.507E-05 J** | **0.0002237607692 J** | **7.886111111E-05 J** | **6.4619554054E-06 J** | **0.0002027735921053 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | **0.0009072210526 J** | **0.00010943315789 J** | **0.0003136330769 J** | **0.00010272666667 J** | **2.476902973E-05 J** | **0.000602325778947 J** |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **13.9961 J** | **2.42013 J** | **3.99499 J** | **2.58302 J** | **0.67094554 J** | **6.6892098 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **11.8066 J** | **1.62153 J** | **2.92409 J** | **1.42402 J** | **0.41913546 J** | **4.0150134 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **17.2602 J** | **2.08443 J** | **4.09243 J** | **1.8536 J** | **0.61242546 J** | **11.5459798 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **13.9846 J** | **2.41753 J** | **3.98739 J** | **2.58076 J** | **0.40043064 J** | **6.6470583 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **11.7951 J** | **1.61893 J** | **2.91649 J** | **1.42176 J** | **0.233476965 J** | **3.933855825 J** |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA04-SS13 | JW-EA04-SS14 | JW-EA04-SS15 | JW-EA04-SS16 | JW-EA05-Composite | JW-EA06-Composite |
| Sample ID | | | | | JW-EA04-SS13-120507 | JW-EA04-SS14-120507 | JW-EA04-SS15-120507 | JW-EA04-SS16-120507 | JW-EA05-COMP-120509 | JW-EA06-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/9/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302745.312 | 1302814.858 | 1302600.971 | 1302680.315 | 1301980.701 | 1302273.819 |
| Y | | | | | 374232.964 | 374304.79 | 374376.376 | 374451.6 | 374112.4298 | 373506.9506 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | 17.2487 J | 2.08183 J | 4.08483 J | 1.85134 J | 0.39785814 J | 11.4950848 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | 13.9731 J | 2.41493 J | 3.97979 J | 2.5785 J | 0.12991574 J | 6.6049068 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | 11.7836 J | 1.61633 J | 2.90889 J | 1.4195 J | 0.04781847 J | 3.85269825 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | 17.2372 J | 2.07923 J | 4.07723 J | 1.84908 J | 0.18329082 J | 11.4441898 J |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA06-SS21 | JW-EA06-SS22 | JW-EA06-SS23 | JW-EA06-SS24 | JW-EA07-Composite | JW-EA07-SS25 |
| Sample ID | | | | | JW-EA06-SS21-120507 | JW-EA06-SS22-120507 | JW-EA06-SS23-120507 | JW-EA06-SS24-120507 | JW-EA07-COMP-120507 | JW-EA07-SS25-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302291.162 | 1302142.585 | 1302394.161 | 1302257.349 | 1302472.205 | 1302470.095 |
| Y | | | | | 373634.381 | 373480.992 | 373524.961 | 373379.028 | 373308.1375 | 373436.105 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | |
| Total organic carbon | | | | | **2.9** | **1.3** | **2.6** | **1.1** | **3.1** | **2.1** |
| Moisture, percent | | | | | -- | -- | -- | -- | **41.7** | -- |
| Total Solids | | | | | -- | -- | -- | -- | **59** | -- |
| Total solids (preserved) | | | | | -- | -- | -- | -- | -- | -- |
| Total volatile solids | | | | | -- | -- | -- | -- | -- | -- |
| **Conventional Parameters (mg/kg)** | | | | | | | | | | |
| Ammonia as nitrogen | | | | | -- | -- | -- | -- | -- | -- |
| Black carbon | | | | | -- | -- | -- | -- | **1600** | -- |
| Sulfide | | | | | -- | -- | -- | -- | -- | -- |
| **Grain Size (pct)** | | | | | | | | | | |
| Cobbles | | | | | -- | -- | -- | -- | 0 U | -- |
| Gravel | | | | | -- | -- | -- | -- | **8.2** | -- |
| Sand | | | | | -- | -- | -- | -- | **29** | -- |
| Sand, very coarse | | | | | -- | -- | -- | -- | -- | -- |
| Sand, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Sand, medium | | | | | -- | -- | -- | -- | -- | -- |
| Sand, fine | | | | | -- | -- | -- | -- | -- | -- |
| Sand, very fine | | | | | -- | -- | -- | -- | -- | -- |
| Sand, fine | | | | | -- | -- | -- | -- | -- | -- |
| Sand, very fine | | | | | -- | -- | -- | -- | -- | -- |
| Silt | | | | | -- | -- | -- | -- | **51** | -- |
| Silt, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Silt, medium | | | | | -- | -- | -- | -- | -- | -- |
| Silt, fine | | | | | -- | -- | -- | -- | -- | -- |
| Silt, very fine | | | | | -- | -- | -- | -- | -- | -- |
| Total fines (Reported, not calculated) | | | | | -- | -- | -- | -- | -- | -- |
| Clay | | | | | -- | -- | -- | -- | **12** | -- |
| Clay, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Clay, medium | | | | | -- | -- | -- | -- | -- | -- |
| Clay, fine | | | | | -- | -- | -- | -- | -- | -- |
| **Metals (mg/kg)** | | | | | | | | | | |
| Antimony | | | | | -- | -- | -- | -- | -- | -- |
| Arsenic | 57 | 93 | 57 | 93 | -- | -- | -- | -- | -- | -- |
| Cadmium | 5.1 | 6.7 | 5.1 | 6.7 | -- | -- | -- | -- | -- | -- |
| Chromium | 260 | 270 | 260 | 270 | -- | -- | -- | -- | -- | -- |
| Copper | 390 | 390 | 390 | 390 | -- | -- | -- | -- | -- | -- |
| Lead | 450 | 530 | 450 | 530 | -- | -- | -- | -- | -- | -- |
| Mercury | 0.41 | 0.59 | 0.41 | 0.59 | -- | -- | -- | -- | -- | -- |
| Nickel | | | | | -- | -- | -- | -- | -- | -- |
| Silver | 6.1 | 6.1 | 6.1 | 6.1 | -- | -- | -- | -- | -- | -- |
| Zinc | 410 | 960 | 410 | 960 | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (mg/kg-OC)** | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (µg/kg)** | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA06-SS21 | JW-EA06-SS22 | JW-EA06-SS23 | JW-EA06-SS24 | JW-EA07-Composite | JW-EA07-SS25 |
| Sample ID | | | | | JW-EA06-SS21-120507 | JW-EA06-SS22-120507 | JW-EA06-SS23-120507 | JW-EA06-SS24-120507 | JW-EA07-COMP-120507 | JW-EA07-SS25-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302291.162 | 1302142.585 | 1302394.161 | 1302257.349 | 1302472.205 | 1302470.095 |
| Y | | | | | 373634.381 | 373480.992 | 373524.961 | 373379.028 | 373308.1375 | 373436.105 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | -- | -- | -- |
| 1,3-Dichlorobenzene | | | | | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | -- | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | -- | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | | | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | -- | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | -- | -- | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | -- | -- | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | -- | -- | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- | -- | -- | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA06-SS21 | JW-EA06-SS22 | JW-EA06-SS23 | JW-EA06-SS24 | JW-EA07-Composite | JW-EA07-SS25 |
| Sample ID | | | | | JW-EA06-SS21-120507 | JW-EA06-SS22-120507 | JW-EA06-SS23-120507 | JW-EA06-SS24-120507 | JW-EA07-COMP-120507 | JW-EA07-SS25-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302291.162 | 1302142.585 | 1302394.161 | 1302257.349 | 1302472.205 | 1302470.095 |
| Y | | | | | 373634.381 | 373480.992 | 373524.961 | 373379.028 | 373308.1375 | 373436.105 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | -- | -- | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | -- | -- | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- | -- | -- | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | -- | -- | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | |
| 1-Methylnaphthalene | | | | | -- | -- | -- | -- | -- | -- |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | -- | -- | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | -- | -- | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | -- | -- | -- |
| Benzo(b)fluoranthene | | | | | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | -- | -- | -- |
| Benzo(k)fluoranthene | | | | | -- | -- | -- | -- | -- | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | -- | -- | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | -- | -- | -- |
| Fluorene | | | 540 | 540 | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | -- | -- | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | -- | -- | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | -- | -- | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **0.522** | **0.136 J** | **0.299 J** | **0.101 J** | **0.31 J** | **0.287 J** |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **1.91 J** | **0.245 J** | **1.83 J** | **0.394 J** | 0.865 U | **0.841 J** |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **2.88** | **0.541 J** | **5.35** | **0.605 J** | 0.375 U | **1.66 J** |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA06-SS21 | JW-EA06-SS22 | JW-EA06-SS23 | JW-EA06-SS24 | JW-EA07-Composite | JW-EA07-SS25 |
| Sample ID | | | | | JW-EA06-SS21-120507 | JW-EA06-SS22-120507 | JW-EA06-SS23-120507 | JW-EA06-SS24-120507 | JW-EA07-COMP-120507 | JW-EA07-SS25-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302291.162 | 1302142.585 | 1302394.161 | 1302257.349 | 1302472.205 | 1302470.095 |
| Y | | | | | 373634.381 | 373480.992 | 373524.961 | 373379.028 | 373308.1375 | 373436.105 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **20.9** | **2.22 J** | **401** | **3.11** | **73.6 J** | **32.7** |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **14.2** | **1.31 J** | **124** | **1.42 J** | **27.1 J** | **12.4** |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **226** | **42.3** | **2650 J** | **50.5** | **584** | **231** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | **2340** | **488** | **5940 J** | **329** | **1350** | **883** |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **24.3** | **7.96 J** | **19.9 J** | **5.95 J** | **18.9 J** | **29.1 J** |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **22.8** | **6.22 J** | **30.6** | **6.01 J** | **19.5 J** | **20 J** |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **173** | **23.7** | **2760** | **39.9** | **546 J** | **238** |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **546** | **98.7** | **5760** | **152** | **1260** | **515** |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | **1.75 J** | **1.01 J** | **1.47 J** | **1.29 J** | **1.43** | **1.63 J** |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **0.468 J** | **0.176 J** | **0.981 J** | **0.248 J** | 0.908 U | **0.633 J** |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **1.14 J** | **0.455 J** | **3.22** | **0.513 J** | 1.61 U | **1.26 J** |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **1.59 J** | **0.46 J** | **6.5** | **0.453 J** | 1.8 U | **1.5 J** |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **1.15 J** | **0.428 J** | **4.93** | **0.3 J** | 1.29 U | **1.34 J** |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | 0.117 U | 0.139 U | 0.219 U | 0.0794 U | 1.09 U | 0.121 U |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **1.72 J** | **0.517 J** | **13.5** | **0.538 J** | **3.44** | **2.3 J** |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | **29.4** | **7** | **334** | **7.27** | **71.3** | **40.7** |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | **1.2 J** | **0.511 J** | **10.3** | **0.29 J** | 2.3 U | **1.52 J** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | **43.9** | **18.1** | **302** | **10.6** | **92.4** | **50.4** |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | **15.7 J** | **8.55 J** | **19.2** | **9.62 J** | **25.8 J** | **21.1 J** |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | **14.6 J** | **4.83 J** | **44.1** | **5.82 J** | **25.3 J** | **16.7 J** |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | **40.7 J** | **10.5 J** | **347 J** | **11.5 J** | **91.1 J** | **52.1 J** |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | **84.8** | **21.7 J** | **996** | **21.2 J** | **198** | **112** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | **8.36989 J** | **2.36627 J** | **32.8267 J** | **2.82325 J** | **9.99679 J** | **7.00394 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | **6.13199 J** | **1.29602 J** | **21.01865 J** | **1.4733 J** | **5.51764 J** | **4.42479 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | **10.49991 J** | **1.83522 J** | **90.63693 J** | **2.11836 J** | **19.70646 J** | **9.90231 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | **8.36404 J** | **2.35932 J** | **32.81575 J** | **2.81928 J** | **8.484015 J** | **6.99789 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | **6.12614 J** | **1.28907 J** | **21.0077 J** | **1.46933 J** | **4.34569 J** | **4.41874 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | **10.49406 J** | **1.82827 J** | **90.62598 J** | **2.11439 J** | **18.77959 J** | **9.89626 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | **8.35819 J** | **2.35237 J** | **32.8048 J** | **2.81531 J** | **6.97124 J** | **6.99184 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | **6.12029 J** | **1.28212 J** | **20.99675 J** | **1.46536 J** | **3.17374 J** | **4.41269 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | **10.48821 J** | **1.82132 J** | **90.61503 J** | **2.11042 J** | **17.85272 J** | **9.89021 J** |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1262 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1268 | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
| Location ID | | | | | JW-EA06-SS21 | JW-EA06-SS22 | JW-EA06-SS23 | JW-EA06-SS24 | JW-EA07-Composite | JW-EA07-SS25 |
| Sample ID | | | | | JW-EA06-SS21-120507 | JW-EA06-SS22-120507 | JW-EA06-SS23-120507 | JW-EA06-SS24-120507 | JW-EA07-COMP-120507 | JW-EA07-SS25-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302291.162 | 1302142.585 | 1302394.161 | 1302257.349 | 1302472.205 | 1302470.095 |
| Y | | | | | 373634.381 | 373480.992 | 373524.961 | 373379.028 | 373308.1375 | 373436.105 |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | **0.426948516 J** | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | **0.426214581 J** | -- |
| Total PCB Congener (U = 0) | 12 | 65 | | | -- | -- | -- | -- | **0.425480645 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | **5.33450774E-05 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | **6.4603871E-07 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | **9.1956194E-06 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | **5.06826581E-05 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | **4.80202387E-05 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | **6.3195E-07 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | **6.1786129E-07 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | **8.6699419E-06 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | **8.1442645E-06 J** | -- |
| **PCB Congeners (ng/kg)** | | | | | | | | | | |
| PCB-001 | | | | | -- | -- | -- | -- | **15.4 J** | -- |
| PCB-002 | | | | | -- | -- | -- | -- | **5.3** | -- |
| PCB-003 | | | | | -- | -- | -- | -- | **15.7 J** | -- |
| PCB-004 | | | | | -- | -- | -- | -- | **12.7** | -- |
| PCB-005 | | | | | -- | -- | -- | -- | 2.23 U | -- |
| PCB-006 | | | | | -- | -- | -- | -- | **7.11 J** | -- |
| PCB-007 | | | | | -- | -- | -- | -- | 2.1 U | -- |
| PCB-008 | | | | | -- | -- | -- | -- | **33.1** | -- |
| PCB-009 | | | | | -- | -- | -- | -- | 2.43 U | -- |
| PCB-010 | | | | | -- | -- | -- | -- | 2.47 U | -- |
| PCB-011 | | | | | -- | -- | -- | -- | **51.3** | -- |
| PCB-012/013 | | | | | -- | -- | -- | -- | **5.39** | -- |
| PCB-014 | | | | | -- | -- | -- | -- | 1.86 U | -- |
| PCB-015 | | | | | -- | -- | -- | -- | **32.2** | -- |
| PCB-016 | | | | | -- | -- | -- | -- | **28.4** | -- |
| PCB-017 | | | | | -- | -- | -- | -- | **31.4** | -- |
| PCB-018/030 | | | | | -- | -- | -- | -- | **61.3** | -- |
| PCB-019 | | | | | -- | -- | -- | -- | **4.66** | -- |
| PCB-020/028 | | | | | -- | -- | -- | -- | **152** | -- |
| PCB-021/033 | | | | | -- | -- | -- | -- | **61.5** | -- |
| PCB-022 | | | | | -- | -- | -- | -- | **46.6** | -- |
| PCB-023 | | | | | -- | -- | -- | -- | 1.23 U | -- |
| PCB-024 | | | | | -- | -- | -- | -- | 1.35 U | -- |
| PCB-025 | | | | | -- | -- | -- | -- | **10** | -- |
| PCB-026/029 | | | | | -- | -- | -- | -- | **19.6** | -- |
| PCB-027 | | | | | -- | -- | -- | -- | **4.49** | -- |
| PCB-031 | | | | | -- | -- | -- | -- | **120** | -- |
| PCB-032 | | | | | -- | -- | -- | -- | **26.7** | -- |
| PCB-034 | | | | | -- | -- | -- | -- | 1.27 U | -- |
| PCB-035 | | | | | -- | -- | -- | -- | 1.3 U | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA06-SS21 | JW-EA06-SS22 | JW-EA06-SS23 | JW-EA06-SS24 | JW-EA07-Composite | JW-EA07-SS25 |
| Sample ID | | | | | JW-EA06-SS21-120507 | JW-EA06-SS22-120507 | JW-EA06-SS23-120507 | JW-EA06-SS24-120507 | JW-EA07-COMP-120507 | JW-EA07-SS25-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302291.162 | 1302142.585 | 1302394.161 | 1302257.349 | 1302472.205 | 1302470.095 |
| Y | | | | | 373634.381 | 373480.992 | 373524.961 | 373379.028 | 373308.1375 | 373436.105 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| PCB-036 | | | | | -- | -- | -- | -- | 1.19 U | -- |
| PCB-037 | | | | | -- | -- | -- | -- | **61.6** | -- |
| PCB-038 | | | | | -- | -- | -- | -- | 1.28 U | -- |
| PCB-039 | | | | | -- | -- | -- | -- | 1.15 U | -- |
| PCB-040/071 | | | | | -- | -- | -- | -- | **103 J** | -- |
| PCB-041 | | | | | -- | -- | -- | -- | **13.9 J** | -- |
| PCB-042 | | | | | -- | -- | -- | -- | **53.3 J** | -- |
| PCB-043 | | | | | -- | -- | -- | -- | **5.76 J** | -- |
| PCB-044/047/065 | | | | | -- | -- | -- | -- | **279 J** | -- |
| PCB-045 | | | | | -- | -- | -- | -- | **18.9 J** | -- |
| PCB-046 | | | | | -- | -- | -- | -- | **7.52 J** | -- |
| PCB-048 | | | | | -- | -- | -- | -- | **33.5 J** | -- |
| PCB-049/069 | | | | | -- | -- | -- | -- | **161 J** | -- |
| PCB-050/053 | | | | | -- | -- | -- | -- | **22.5 J** | -- |
| PCB-051 | | | | | -- | -- | -- | -- | **4.52 J** | -- |
| PCB-052 | | | | | -- | -- | -- | -- | **510 J** | -- |
| PCB-054 | | | | | -- | -- | -- | -- | 0.736 U | -- |
| PCB-055 | | | | | -- | -- | -- | -- | 1.57 UJ | -- |
| PCB-056 | | | | | -- | -- | -- | -- | **116 J** | -- |
| PCB-057 | | | | | -- | -- | -- | -- | 1.57 UJ | -- |
| PCB-058 | | | | | -- | -- | -- | -- | **13.9 J** | -- |
| PCB-059/062/075 | | | | | -- | -- | -- | -- | **15.1 J** | -- |
| PCB-060 | | | | | -- | -- | -- | -- | **52.6 J** | -- |
| PCB-061/070/074/076 | | | | | -- | -- | -- | -- | **626 J** | -- |
| PCB-063 | | | | | -- | -- | -- | -- | **10.4 J** | -- |
| PCB-064 | | | | | -- | -- | -- | -- | **102 J** | -- |
| PCB-066 | | | | | -- | -- | -- | -- | **283 J** | -- |
| PCB-067 | | | | | -- | -- | -- | -- | **7.98 J** | -- |
| PCB-068 | | | | | -- | -- | -- | -- | 1.41 UJ | -- |
| PCB-072 | | | | | -- | -- | -- | -- | **2.17 J** | -- |
| PCB-073 | | | | | -- | -- | -- | -- | **0.41 J** | -- |
| PCB-077 | | | | | -- | -- | -- | -- | **24.5 J** | -- |
| PCB-078 | | | | | -- | -- | -- | -- | 1.71 UJ | -- |
| PCB-079 | | | | | -- | -- | -- | -- | **7.54 J** | -- |
| PCB-080 | | | | | -- | -- | -- | -- | 1.41 UJ | -- |
| PCB-081 | | | | | -- | -- | -- | -- | 1.64 UJ | -- |
| PCB-082 | | | | | -- | -- | -- | -- | **98.7** | -- |
| PCB-083 | | | | | -- | -- | -- | -- | **45.9** | -- |
| PCB-084 | | | | | -- | -- | -- | -- | **219** | -- |
| PCB-085/116 | | | | | -- | -- | -- | -- | **126** | -- |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/109/119/125 | | | | | -- | -- | -- | -- | **586** | -- |
| PCB-088 | | | | | -- | -- | -- | -- | 0.779 U | -- |
| PCB-089 | | | | | -- | -- | -- | -- | **6.51** | -- |

## Table H-1
## Surface Sediment Results

| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | JeldWenMarineMay2012 JW-EA06-SS21 JW-EA06-SS21-120507 5/7/2012 0 - 10 cm N SE 1302291.162 373634.381 | JeldWenMarineMay2012 JW-EA06-SS22 JW-EA06-SS22-120507 5/7/2012 0 - 10 cm N SE 1302142.585 373480.992 | JeldWenMarineMay2012 JW-EA06-SS23 JW-EA06-SS23-120507 5/7/2012 0 - 10 cm N SE 1302394.161 373524.961 | JeldWenMarineMay2012 JW-EA06-SS24 JW-EA06-SS24-120507 5/7/2012 0 - 10 cm N SE 1302257.349 373379.028 | JeldWenMarineMay2012 JW-EA07-Composite JW-EA07-COMP-120507 5/7/2012 0 - 10 cm N SE 1302472.205 373308.1375 | JeldWenMarineMay2012 JW-EA07-SS25 JW-EA07-SS25-120507 5/7/2012 0 - 10 cm N SE 1302470.095 373436.105 |
|---|---|---|---|---|---|---|---|---|---|---|
| PCB-090/101/113 | | | | | -- | -- | -- | -- | **856** | -- |
| PCB-091 | | | | | -- | -- | -- | -- | **92.8** | -- |
| PCB-092 | | | | | -- | -- | -- | -- | **157** | -- |
| PCB-093/100 | | | | | -- | -- | -- | -- | 0.722 U | -- |
| PCB-094 | | | | | -- | -- | -- | -- | **1.92** | -- |
| PCB-095 | | | | | -- | -- | -- | -- | 0.725 U | -- |
| PCB-096 | | | | | -- | -- | -- | -- | **3.71** | -- |
| PCB-098 | | | | | -- | -- | -- | -- | **487** | -- |
| PCB-099 | | | | | -- | -- | -- | -- | **415** | -- |
| PCB-102 | | | | | -- | -- | -- | -- | **3.45 J** | -- |
| PCB-103 | | | | | -- | -- | -- | -- | **3.72** | -- |
| PCB-104 | | | | | -- | -- | -- | -- | 0.402 U | -- |
| PCB-105 | | | | | -- | -- | -- | -- | **297** | -- |
| PCB-106 | | | | | -- | -- | -- | -- | 0.642 U | -- |
| PCB-107 | | | | | -- | -- | -- | -- | **51.6** | -- |
| PCB-107/124 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-108/124 | | | | | -- | -- | -- | -- | **31.6** | -- |
| PCB-109 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-110 | | | | | -- | -- | -- | -- | **1040** | -- |
| PCB-111 | | | | | -- | -- | -- | -- | 0.568 U | -- |
| PCB-112 | | | | | -- | -- | -- | -- | 0.544 U | -- |
| PCB-114 | | | | | -- | -- | -- | -- | **14** | -- |
| PCB-115 | | | | | -- | -- | -- | -- | 0.558 U | -- |
| PCB-117 | | | | | -- | -- | -- | -- | **17.2** | -- |
| PCB-118 | | | | | -- | -- | -- | -- | **737** | -- |
| PCB-120 | | | | | -- | -- | -- | -- | 0.532 U | -- |
| PCB-121 | | | | | -- | -- | -- | -- | 0.529 U | -- |
| PCB-122 | | | | | -- | -- | -- | -- | **7.82** | -- |
| PCB-123 | | | | | -- | -- | -- | -- | **11** | -- |
| PCB-126 | | | | | -- | -- | -- | -- | **2.14** | -- |
| PCB-127 | | | | | -- | -- | -- | -- | 0.795 U | -- |
| PCB-128/166 | | | | | -- | -- | -- | -- | **149** | -- |
| PCB-129/138/163 | | | | | -- | -- | -- | -- | **860** | -- |
| PCB-130 | | | | | -- | -- | -- | -- | **54.6** | -- |
| PCB-131 | | | | | -- | -- | -- | -- | **12** | -- |
| PCB-132 | | | | | -- | -- | -- | -- | **264** | -- |
| PCB-133 | | | | | -- | -- | -- | -- | **10.3** | -- |
| PCB-134 | | | | | -- | -- | -- | -- | **43.5** | -- |
| PCB-135/151 | | | | | -- | -- | -- | -- | **198** | -- |
| PCB-136 | | | | | -- | -- | -- | -- | **85.3** | -- |
| PCB-137 | | | | | -- | -- | -- | -- | **48.2** | -- |
| PCB-139/140 | | | | | -- | -- | -- | -- | **16.8** | -- |
| PCB-141 | | | | | -- | -- | -- | -- | **109** | -- |
| PCB-142 | | | | | -- | -- | -- | -- | 0.47 U | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA06-SS21 | JW-EA06-SS22 | JW-EA06-SS23 | JW-EA06-SS24 | JW-EA07-Composite | JW-EA07-SS25 |
| Sample ID | | | | | JW-EA06-SS21-120507 | JW-EA06-SS22-120507 | JW-EA06-SS23-120507 | JW-EA06-SS24-120507 | JW-EA07-COMP-120507 | JW-EA07-SS25-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302291.162 | 1302142.585 | 1302394.161 | 1302257.349 | 1302472.205 | 1302470.095 |
| Y | | | | | 373634.381 | 373480.992 | 373524.961 | 373379.028 | 373308.1375 | 373436.105 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| PCB-143 | | | | | -- | -- | -- | -- | 0.433 U | -- |
| PCB-144 | | | | | -- | -- | -- | -- | **31.4** | -- |
| PCB-145 | | | | | -- | -- | -- | -- | 0.299 U | -- |
| PCB-146 | | | | | -- | -- | -- | -- | **106** | -- |
| PCB-147/149 | | | | | -- | -- | -- | -- | **516** | -- |
| PCB-148 | | | | | -- | -- | -- | -- | 0.398 U | -- |
| PCB-150 | | | | | -- | -- | -- | -- | 0.289 U | -- |
| PCB-152 | | | | | -- | -- | -- | -- | 0.282 U | -- |
| PCB-153/168 | | | | | -- | -- | -- | -- | **567** | -- |
| PCB-154 | | | | | -- | -- | -- | -- | **9.28** | -- |
| PCB-155 | | | | | -- | -- | -- | -- | 0.281 U | -- |
| PCB-156/157 | | | | | -- | -- | -- | -- | **107** | -- |
| PCB-158 | | | | | -- | -- | -- | -- | **87.4** | -- |
| PCB-159 | | | | | -- | -- | -- | -- | **4.37** | -- |
| PCB-160 | | | | | -- | -- | -- | -- | 0.347 U | -- |
| PCB-161 | | | | | -- | -- | -- | -- | 0.319 U | -- |
| PCB-162 | | | | | -- | -- | -- | -- | **2.95** | -- |
| PCB-164 | | | | | -- | -- | -- | -- | **48.7** | -- |
| PCB-165 | | | | | -- | -- | -- | -- | 0.355 U | -- |
| PCB-167 | | | | | -- | -- | -- | -- | **29.5** | -- |
| PCB-169 | | | | | -- | -- | -- | -- | 1.07 U | -- |
| PCB-170 | | | | | -- | -- | -- | -- | **104** | -- |
| PCB-171/173 | | | | | -- | -- | -- | -- | **35.6** | -- |
| PCB-172 | | | | | -- | -- | -- | -- | **18.8** | -- |
| PCB-174 | | | | | -- | -- | -- | -- | **99.9** | -- |
| PCB-175 | | | | | -- | -- | -- | -- | **4.78** | -- |
| PCB-176 | | | | | -- | -- | -- | -- | **12.7** | -- |
| PCB-177 | | | | | -- | -- | -- | -- | **70.8** | -- |
| PCB-178 | | | | | -- | -- | -- | -- | **23.6** | -- |
| PCB-179 | | | | | -- | -- | -- | -- | **50.8** | -- |
| PCB-180/193 | | | | | -- | -- | -- | -- | **228** | -- |
| PCB-181 | | | | | -- | -- | -- | -- | 0.706 U | -- |
| PCB-182 | | | | | -- | -- | -- | -- | 0.677 U | -- |
| PCB-183 | | | | | -- | -- | -- | -- | **73.4** | -- |
| PCB-184 | | | | | -- | -- | -- | -- | 0.32 U | -- |
| PCB-185 | | | | | -- | -- | -- | -- | 0.712 U | -- |
| PCB-186 | | | | | -- | -- | -- | -- | 0.31 U | -- |
| PCB-187 | | | | | -- | -- | -- | -- | **130** | -- |
| PCB-188 | | | | | -- | -- | -- | -- | 0.325 U | -- |
| PCB-189 | | | | | -- | -- | -- | -- | **5.24** | -- |
| PCB-190 | | | | | -- | -- | -- | -- | **19.5** | -- |
| PCB-191 | | | | | -- | -- | -- | -- | **4.32** | -- |
| PCB-192 | | | | | -- | -- | -- | -- | 0.627 U | -- |
| PCB-194 | | | | | -- | -- | -- | -- | **66.7** | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA06-SS21 | JW-EA06-SS22 | JW-EA06-SS23 | JW-EA06-SS24 | JW-EA07-Composite | JW-EA07-SS25 |
| Sample ID | | | | | JW-EA06-SS21-120507 | JW-EA06-SS22-120507 | JW-EA06-SS23-120507 | JW-EA06-SS24-120507 | JW-EA07-COMP-120507 | JW-EA07-SS25-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302291.162 | 1302142.585 | 1302394.161 | 1302257.349 | 1302472.205 | 1302470.095 |
| Y | | | | | 373634.381 | 373480.992 | 373524.961 | 373379.028 | 373308.1375 | 373436.105 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| PCB-195 | | | | | -- | -- | -- | -- | **21.4** | -- |
| PCB-196 | | | | | -- | -- | -- | -- | **31.1** | -- |
| PCB-197 | | | | | -- | -- | -- | -- | **1.42 J** | -- |
| PCB-198/199 | | | | | -- | -- | -- | -- | **73** | -- |
| PCB-200 | | | | | -- | -- | -- | -- | **6.35 J** | -- |
| PCB-201 | | | | | -- | -- | -- | -- | **8.51** | -- |
| PCB-202 | | | | | -- | -- | -- | -- | **17** | -- |
| PCB-203 | | | | | -- | -- | -- | -- | **44.6** | -- |
| PCB-204 | | | | | -- | -- | -- | -- | 0.582 U | -- |
| PCB-205 | | | | | -- | -- | -- | -- | **2.3 J** | -- |
| PCB-206 | | | | | -- | -- | -- | -- | **44.2** | -- |
| PCB-207 | | | | | -- | -- | -- | -- | **5.26** | -- |
| PCB-208 | | | | | -- | -- | -- | -- | **11.6** | -- |
| PCB-209 | | | | | -- | -- | -- | -- | **21.7** | -- |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | **13235.404 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | **1.6536974 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | **0.0200272 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | **0.2850642 J** | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | **13212.652 J** | -- |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | -- | -- | -- | -- | **13189.9 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | **1.5711624 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | **1.4886274 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | **0.01959045 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | **0.0191537 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | **0.2687682 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | **0.2524722 J** | -- |
| **Total Petroleum Hydrocarbons (mg/kg)** | | | | | | | | | | |
| Diesel range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- |
| Motor oil range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **0.0002886168966 J** | **0.0001820207692 J** | **0.0012625653846 J** | **0.00025665909091 J** | **0.00037582217419 J** | **0.0003335209524 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **0.000211447931 J** | **9.96938462E-05 J** | **0.0008084096154 J** | **0.00013393636364 J** | **0.000178634425807 J** | **0.0002107042857 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **0.0003620658621 J** | **0.0001411707692 J** | **0.0034860357692 J** | **0.00019257818182 J** | **0.00064488787742 J** | **0.0004715385714 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **0.0002884151724 J** | **0.0001814861538 J** | **0.0012621442308 J** | **0.00025629818182 J** | **0.00032436056129 J** | **0.0003332328571 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **0.0002112462069 J** | **9.91592308E-05 J** | **0.0008079884615 J** | **0.00013357545455 J** | **0.000140815498387 J** | **0.0002104161905 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | **0.0003618641379 J** | **0.0001406361538 J** | **0.0034856146154 J** | **0.00019221727273 J** | **0.00061446316774 J** | **0.0004712504762 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | **0.0002882134483 J** | **0.0001809515385 J** | **0.0012617230769 J** | **0.00025593727273 J** | **0.00027289894839 J** | **0.0003329447619 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | **0.0002110444828 J** | **9.86246154E-05 J** | **0.0008075673077 J** | **0.00013321454545 J** | **0.000102996570968 J** | **0.0002101280952 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | **0.0003616624138 J** | **0.0001401015385 J** | **0.0034851934615 J** | **0.00019185636364 J** | **0.00058403845806 J** | **0.000470962381 J** |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **8.36989 J** | **2.36627 J** | **32.8267 J** | **2.82325 J** | **11.6504874 J** | **7.00394 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **6.13199 J** | **1.29602 J** | **21.01865 J** | **1.4733 J** | **5.5376672 J** | **4.42479 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **10.49991 J** | **1.83522 J** | **90.63693 J** | **2.11836 J** | **19.9915242 J** | **9.90231 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **8.36404 J** | **2.35932 J** | **32.81575 J** | **2.81928 J** | **10.0551774 J** | **6.99789 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **6.12614 J** | **1.28907 J** | **21.0077 J** | **1.46933 J** | **4.36528045 J** | **4.41874 J** |

## Table H-1
## Surface Sediment Results

| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
| Location ID | | | | | JW-EA06-SS21 | JW-EA06-SS22 | JW-EA06-SS23 | JW-EA06-SS24 | JW-EA07-Composite | JW-EA07-SS25 |
| Sample ID | | | | | JW-EA06-SS21-120507 | JW-EA06-SS22-120507 | JW-EA06-SS23-120507 | JW-EA06-SS24-120507 | JW-EA07-COMP-120507 | JW-EA07-SS25-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302291.162 | 1302142.585 | 1302394.161 | 1302257.349 | 1302472.205 | 1302470.095 |
| Y | | | | | 373634.381 | 373480.992 | 373524.961 | 373379.028 | 373308.1375 | 373436.105 |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | 10.49406 J | 1.82827 J | 90.62598 J | 2.11439 J | 19.0483582 J | 9.89626 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | 8.35819 J | 2.35237 J | 32.8048 J | 2.81531 J | 8.4598674 J | 6.99184 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | 6.12029 J | 1.28212 J | 20.99675 J | 1.46536 J | 3.1928937 J | 4.41269 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | 10.48821 J | 1.82132 J | 90.61503 J | 2.11042 J | 18.1051922 J | 9.89021 J |

# Table H-1
## Surface Sediment Results

| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | JeldWenMarineMay2012 JW-EA07-SS26 JW-EA07-SS26-120507 5/7/2012 0 - 10 cm N SE 1302348.204 373299.779 | JeldWenMarineMay2012 JW-EA07-SS27 JW-EA07-SS27-120507 5/7/2012 0 - 10 cm N SE 1302623.687 373317.46 | JeldWenMarineMay2012 JW-EA07-SS28 JW-EA07-SS28-120507 5/7/2012 0 - 10 cm N SE 1302468.267 373173.809 | JeldWenMarineMay2012 JW-EA08-Composite JW-EA08-COMP-120507 5/7/2012 0 - 10 cm N SE 1302653.144 373112.3013 | JeldWenMarineMay2012 JW-EA08-Composite JW-EA58-COMP-120507 5/7/2012 0 - 10 cm FD SE 1302653.144 373112.3013 | JeldWenMarineMay2012 JW-EA08-SS29 JW-EA08-SS29-120507 5/7/2012 0 - 10 cm N SE 1302661.047 373224.526 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Conventional Parameters (pct)** | | | | | | | | | | |
| Total organic carbon | | | | | **2.7** | **3.2** | **3.5** | **2.9** | **2.8** | **3.4** |
| Moisture, percent | | | | | -- | -- | -- | **48.4** | **49.6** | -- |
| Total Solids | | | | | -- | -- | -- | **49** | **49** | -- |
| Total solids (preserved) | | | | | -- | -- | -- | -- | -- | -- |
| Total volatile solids | | | | | -- | -- | -- | -- | -- | -- |
| **Conventional Parameters (mg/kg)** | | | | | | | | | | |
| Ammonia as nitrogen | | | | | -- | -- | -- | -- | -- | -- |
| Black carbon | | | | | -- | -- | -- | **1600** | **1800** | -- |
| Sulfide | | | | | -- | -- | -- | -- | -- | -- |
| **Grain Size (pct)** | | | | | | | | | | |
| Cobbles | | | | | -- | -- | -- | 0 U | 0 U | -- |
| Gravel | | | | | -- | -- | -- | **3.4** | **2** | -- |
| Sand | | | | | -- | -- | -- | **25** | **25** | -- |
| Sand, very coarse | | | | | -- | -- | -- | -- | -- | -- |
| Sand, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Sand, medium | | | | | -- | -- | -- | -- | -- | -- |
| Sand, fine | | | | | -- | -- | -- | -- | -- | -- |
| Sand, very fine | | | | | -- | -- | -- | -- | -- | -- |
| Silt | | | | | -- | -- | -- | **60** | **61** | -- |
| Silt, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Silt, medium | | | | | -- | -- | -- | -- | -- | -- |
| Silt, fine | | | | | -- | -- | -- | -- | -- | -- |
| Silt, very fine | | | | | -- | -- | -- | -- | -- | -- |
| Total fines (Reported, not calculated) | | | | | -- | -- | -- | -- | -- | -- |
| Clay | | | | | -- | -- | -- | **12** | **13** | -- |
| Clay, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Clay, medium | | | | | -- | -- | -- | -- | -- | -- |
| Clay, fine | | | | | -- | -- | -- | -- | -- | -- |
| **Metals (mg/kg)** | | | | | | | | | | |
| Antimony | | | | | -- | -- | -- | -- | -- | -- |
| Arsenic | 57 | 93 | 57 | 93 | -- | -- | -- | -- | -- | -- |
| Cadmium | 5.1 | 6.7 | 5.1 | 6.7 | -- | -- | -- | -- | -- | -- |
| Chromium | 260 | 270 | 260 | 270 | -- | -- | -- | -- | -- | -- |
| Copper | 390 | 390 | 390 | 390 | -- | -- | -- | -- | -- | -- |
| Lead | 450 | 530 | 450 | 530 | -- | -- | -- | -- | -- | -- |
| Mercury | 0.41 | 0.59 | 0.41 | 0.59 | -- | -- | -- | -- | -- | -- |
| Nickel | | | | | -- | -- | -- | -- | -- | -- |
| Silver | 6.1 | 6.1 | 6.1 | 6.1 | -- | -- | -- | -- | -- | -- |
| Zinc | 410 | 960 | 410 | 960 | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (mg/kg-OC)** | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (µg/kg)** | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA07-SS26 | JW-EA07-SS27 | JW-EA07-SS28 | JW-EA08-Composite | JW-EA08-Composite | JW-EA08-SS29 |
| Sample ID | | | | | JW-EA07-SS26-120507 | JW-EA07-SS27-120507 | JW-EA07-SS28-120507 | JW-EA08-COMP-120507 | JW-EA58-COMP-120507 | JW-EA08-SS29-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | FD | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302348.204 | 1302623.687 | 1302468.267 | 1302653.144 | 1302653.144 | 1302661.047 |
| Y | | | | | 373299.779 | 373317.46 | 373173.809 | 373112.3013 | 373112.3013 | 373224.526 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | -- | -- | -- |
| 1,3-Dichlorobenzene | | | | | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | -- | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | -- | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | | | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | -- | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | **0.01931 J** | 0.0357 U | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | **0.03414** | **0.03429 J** | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | **0.0862** | **0.0464** | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- | **0.2862** | **0.125** | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | **0.3414** | **0.2393** | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | **0.3069** | **0.2607** | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | **0.1759** | **0.1643** | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- | **0.586** | **0.429** | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA07-SS26 | JW-EA07-SS27 | JW-EA07-SS28 | JW-EA08-Composite | JW-EA08-Composite | JW-EA08-SS29 |
| Sample ID | | | | | JW-EA07-SS26-120507 | JW-EA07-SS27-120507 | JW-EA07-SS28-120507 | JW-EA08-COMP-120507 | JW-EA58-COMP-120507 | JW-EA08-SS29-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | FD | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302348.204 | 1302623.687 | 1302468.267 | 1302653.144 | 1302653.144 | 1302661.047 |
| Y | | | | | 373299.779 | 373317.46 | 373173.809 | 373112.3013 | 373112.3013 | 373224.526 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | **0.0414** | **0.0357** | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | **0.69** | **0.571** | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- | **0.0552** | **0.0429** | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | **0.1966** | **0.1929** | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- | **0.03069 J** | **0.02393 J** | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | **0.3241** | **0.3143** | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | **0.655** | **0.607** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | **0.427931** | **0.3575** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | **0.427931** | **0.3575** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | **0.427931** | **0.3575** | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | **0.5724** | **0.4571** | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | **3.5655** | **2.9571** | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | **0.81655 J** | **0.58679 J** | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | |
| 1-Methylnaphthalene | | | | | -- | -- | -- | **0.3 J** | **0.32 J** | -- |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | **0.56 J** | 1 U | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | **0.99** | **0.96 J** | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | **2.5** | **1.3** | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- | **8.3** | **3.5** | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | **9.9** | **6.7** | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | **8.9** | **7.3** | -- |
| Benzo(b)fluoranthene | | | | | -- | -- | -- | **12** | **9.3** | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | **5.1** | **4.6** | -- |
| Benzo(k)fluoranthene | | | | | -- | -- | -- | **4.6** | **3.5** | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | **17** | **12** | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | **1.2** | **1** | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | -- | -- | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | **20** | **16** | -- |
| Fluorene | | | 540 | 540 | -- | -- | -- | **1.6** | **1.2** | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | **5.7** | **5.4** | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | **0.89 J** | **0.67 J** | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | **9.4** | **8.8** | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | **19** | **17** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | **12.41** | **10.01** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | **12.41** | **10.01** | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | **16.6** | **12.8** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | **12.41** | **10.01** | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | **103.4** | **82.8** | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | **23.68 J** | **16.43 J** | -- |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **0.293 J** | **0.49 J** | **0.48 J** | 0.0819 U | **0.412 J** | **0.551** |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **0.749 J** | **2.69** | **0.962 J** | **0.464 J** | **0.941 J** | **1.64 J** |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **1.08 J** | **4.88** | **1.36 J** | 0.677 U | **1.24 J** | **3.2** |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA07-SS26 | JW-EA07-SS27 | JW-EA07-SS28 | JW-EA08-Composite | JW-EA08-Composite | JW-EA08-SS29 |
| Sample ID | | | | | JW-EA07-SS26-120507 | JW-EA07-SS27-120507 | JW-EA07-SS28-120507 | JW-EA08-COMP-120507 | JW-EA58-COMP-120507 | JW-EA08-SS29-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | FD | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302348.204 | 1302623.687 | 1302468.267 | 1302653.144 | 1302653.144 | 1302661.047 |
| Y | | | | | 373299.779 | 373317.46 | 373173.809 | 373112.3013 | 373112.3013 | 373224.526 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **5.02** | **210** | **8.43** | **7.51** | **16.3** | **35.2** |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **2.69** | **65.8** | **3.84** | **2.5 J** | **6.73** | **14.3** |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **69.4** | **1130** | **82.6** | **95** | **174** | **327** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | **569** | **2810** | **550** | **770** | **1330** | **1880** |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **16.9 J** | **27.3 J** | **42.7 J** | **9.67 J** | **12.1 J** | **46 J** |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **14.8 J** | **37.4** | **22.6 J** | **8.34** | **11.5 J** | **34.1 J** |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **54.7** | **1490** | **77.1** | **55.9 J** | **110** | **278 J** |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **220** | **2240** | **192** | **188** | **359** | **693** |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | **1.64 J** | **3.1** | **2.41** | **0.601 J** | **1.36** | **3.54** |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **0.588 J** | **1.66 J** | **0.823 J** | **0.383 J** | **0.866 J** | **1.29 J** |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **1.04 J** | **4.04** | **1.43 J** | 0.684 U | **1.58 J** | **2.4 J** |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **0.824 J** | **6.4** | **1.19 J** | 0.952 U | **2.12 J** | **3.04** |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **0.659 J** | **4.84** | **0.954 J** | 0.729 U | **1.42 J** | **2.78** |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | 0.0847 U | 0.195 U | 0.0861 U | 0.316 U | 0.607 U | 0.127 U |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **0.826 J** | **9.82** | **1.35 J** | **1.18 J** | **2.41 J** | **4.18** |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | **10.2** | **186** | **16.6** | **16.2** | **34** | **62.3** |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | **0.615 J** | **6.19** | **0.627 J** | **0.991 J** | **1.85 J** | **2.93** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | **22.6** | **152** | **27.3** | **36.7** | **66.3** | **92.5** |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | **22.3 J** | **43.7** | **33.4 J** | **6.89 J** | **21 J** | **37.7 J** |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | **12.6 J** | **67.4 J** | **17.9 J** | **7.97 J** | **18.7 J** | **35 J** |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | **16.1 J** | **313** | **31.8 J** | **24.4 J** | **51.5 J** | **86.1** |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | **29.3** | **555** | **46.6 J** | **46.6 J** | **91.4 J** | **173** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | **4.63008 J** | **24.8836 J** | **6.57121 J** | **2.89343 J** | **6.60543 J** | **12.39125 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | **2.76658 J** | **16.1096 J** | **3.79196 J** | **2.04098 J** | **4.43243 J** | **7.91675 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | **3.63364 J** | **49.0558 J** | **5.02916 J** | **3.57301 J** | **7.58907 J** | **14.10045 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | **4.625845 J** | **24.87385 J** | **6.566905 J** | **2.393705 J** | **6.57508 J** | **12.3849 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | **2.762345 J** | **16.09985 J** | **3.787655 J** | **1.55993 J** | **4.40208 J** | **7.9104 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | **3.629405 J** | **49.04605 J** | **5.024855 J** | **3.29576 J** | **7.55872 J** | **14.0941 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | **4.62161 J** | **24.8641 J** | **6.5626 J** | **1.89398 J** | **6.54473 J** | **12.37855 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | **2.75811 J** | **16.0901 J** | **3.78335 J** | **1.07888 J** | **4.37173 J** | **7.90405 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | **3.62517 J** | **49.0363 J** | **5.02055 J** | **3.01851 J** | **7.52837 J** | **14.08775 J** |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1262 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1268 | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA07-SS26 | JW-EA07-SS27 | JW-EA07-SS28 | JW-EA08-Composite | JW-EA08-Composite | JW-EA08-SS29 |
| Sample ID | | | | | JW-EA07-SS26-120507 | JW-EA07-SS27-120507 | JW-EA07-SS28-120507 | JW-EA08-COMP-120507 | JW-EA58-COMP-120507 | JW-EA08-SS29-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | FD | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302348.204 | 1302623.687 | 1302468.267 | 1302653.144 | 1302653.144 | 1302661.047 |
| Y | | | | | 373299.779 | 373317.46 | 373173.809 | 373112.3013 | 373112.3013 | 373224.526 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | **0.160306207 J** | **0.46636875 J** | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | **0.158619138 J** | **0.464285107 J** | -- |
| Total PCB Congener (U = 0) | 12 | 65 | | | -- | -- | -- | **0.156932069 J** | **0.462201464 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | **3.03315E-05 J** | **6.280443929E-05 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | **2.49889655E-07 J** | **7.28291071E-07 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | **3.43447931E-06 J** | **9.711125E-06 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | **2.964886207E-05 J** | **6.2786225E-05 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | **2.896622414E-05 J** | **6.276801071E-05 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | **2.46016379E-07 J** | **7.27380357E-07 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | **2.42143103E-07 J** | **7.26469643E-07 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | **3.12573793E-06 J** | **9.16469643E-06 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | **2.81699655E-06 J** | **8.61826786E-06 J** | -- |
| **PCB Congeners (ng/kg)** | | | | | | | | | | |
| PCB-001 | | | | | -- | -- | -- | **13.6** | **20** | -- |
| PCB-002 | | | | | -- | -- | -- | **6.64** | **14.1** | -- |
| PCB-003 | | | | | -- | -- | -- | **13.7** | **24.7** | -- |
| PCB-004 | | | | | -- | -- | -- | **7.37 J** | **11 J** | -- |
| PCB-005 | | | | | -- | -- | -- | **0.878 J** | **0.895 J** | -- |
| PCB-006 | | | | | -- | -- | -- | **7.69 J** | **8 J** | -- |
| PCB-007 | | | | | -- | -- | -- | 1.93 UJ | **1.94 J** | -- |
| PCB-008 | | | | | -- | -- | -- | **33.8 J** | **40.4 J** | -- |
| PCB-009 | | | | | -- | -- | -- | **1.76 J** | **2.24 J** | -- |
| PCB-010 | | | | | -- | -- | -- | 2.05 UJ | **0.579 J** | -- |
| PCB-011 | | | | | -- | -- | -- | 70.7 UJ | 108 UJ | -- |
| PCB-012/013 | | | | | -- | -- | -- | **6.74 J** | **8.51 J** | -- |
| PCB-014 | | | | | -- | -- | -- | 1.75 UJ | **0.373 J** | -- |
| PCB-015 | | | | | -- | -- | -- | **37.5 J** | **46.6 J** | -- |
| PCB-016 | | | | | -- | -- | -- | **20 J** | **29.1** | -- |
| PCB-017 | | | | | -- | -- | -- | **20.4 J** | **32.4** | -- |
| PCB-018/030 | | | | | -- | -- | -- | **40.4 J** | **64.6** | -- |
| PCB-019 | | | | | -- | -- | -- | **2.31 J** | **3.89** | -- |
| PCB-020/028 | | | | | -- | -- | -- | **107 J** | **174** | -- |
| PCB-021/033 | | | | | -- | -- | -- | **42.3 J** | **68.5** | -- |
| PCB-022 | | | | | -- | -- | -- | **31 J** | **51.5** | -- |
| PCB-023 | | | | | -- | -- | -- | 0.931 UJ | 0.396 U | -- |
| PCB-024 | | | | | -- | -- | -- | 0.636 UJ | **0.784 J** | -- |
| PCB-025 | | | | | -- | -- | -- | **6.65 J** | **10.9** | -- |
| PCB-026/029 | | | | | -- | -- | -- | **13.1 J** | **21** | -- |
| PCB-027 | | | | | -- | -- | -- | **3.78 J** | **5.39** | -- |
| PCB-031 | | | | | -- | -- | -- | **79.9 J** | **131** | -- |
| PCB-032 | | | | | -- | -- | -- | **16.9 J** | **23.5** | -- |
| PCB-034 | | | | | -- | -- | -- | 0.975 UJ | 0.414 U | -- |
| PCB-035 | | | | | -- | -- | -- | **2.98 J** | **6.18** | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA07-SS26 | JW-EA07-SS27 | JW-EA07-SS28 | JW-EA08-Composite | JW-EA08-Composite | JW-EA08-SS29 |
| Sample ID | | | | | JW-EA07-SS26-120507 | JW-EA07-SS27-120507 | JW-EA07-SS28-120507 | JW-EA08-COMP-120507 | JW-EA58-COMP-120507 | JW-EA08-SS29-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | FD | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302348.204 | 1302623.687 | 1302468.267 | 1302653.144 | 1302653.144 | 1302661.047 |
| Y | | | | | 373299.779 | 373317.46 | 373173.809 | 373112.3013 | 373112.3013 | 373224.526 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-036 | | | | | -- | -- | -- | 0.957 UJ | **1.33 J** | -- |
| PCB-037 | | | | | -- | -- | -- | **44.6 J** | **77.1** | -- |
| PCB-038 | | | | | -- | -- | -- | 1.04 UJ | 0.441 U | -- |
| PCB-039 | | | | | -- | -- | -- | 0.924 UJ | 0.393 U | -- |
| PCB-040/071 | | | | | -- | -- | -- | **30.8 J** | **53.9 J** | -- |
| PCB-041 | | | | | -- | -- | -- | **4.07 J** | **8.49 J** | -- |
| PCB-042 | | | | | -- | -- | -- | **16.2 J** | **29.2 J** | -- |
| PCB-043 | | | | | -- | -- | -- | **2.03 J** | **3.4 J** | -- |
| PCB-044/047/065 | | | | | -- | -- | -- | **69 J** | **143 J** | -- |
| PCB-045 | | | | | -- | -- | -- | **5.41 J** | **9.29 J** | -- |
| PCB-046 | | | | | -- | -- | -- | **2.18 J** | **4.09 J** | -- |
| PCB-048 | | | | | -- | -- | -- | **11.2 J** | **18.8 J** | -- |
| PCB-049/069 | | | | | -- | -- | -- | **43 J** | **82.7 J** | -- |
| PCB-050/053 | | | | | -- | -- | -- | **5.38 J** | **10.2 J** | -- |
| PCB-051 | | | | | -- | -- | -- | **1.31 J** | **3.03 J** | -- |
| PCB-052 | | | | | -- | -- | -- | **105 J** | **257 J** | -- |
| PCB-054 | | | | | -- | -- | -- | 0.17 U | **0.272 J** | -- |
| PCB-055 | | | | | -- | -- | -- | **1.87 J** | **4.6 J** | -- |
| PCB-056 | | | | | -- | -- | -- | **58 J** | **111 J** | -- |
| PCB-057 | | | | | -- | -- | -- | 0.405 UJ | **0.672 J** | -- |
| PCB-058 | | | | | -- | -- | -- | **3.39 J** | **0.823 J** | -- |
| PCB-059/062/075 | | | | | -- | -- | -- | **5.01 J** | **8.42 J** | -- |
| PCB-060 | | | | | -- | -- | -- | **29.4 J** | **55.1 J** | -- |
| PCB-061/070/074/076 | | | | | -- | -- | -- | **253 J** | **536 J** | -- |
| PCB-063 | | | | | -- | -- | -- | **4.42 J** | **8.18 J** | -- |
| PCB-064 | | | | | -- | -- | -- | **26.7 J** | **53 J** | -- |
| PCB-066 | | | | | -- | -- | -- | **143 J** | **268 J** | -- |
| PCB-067 | | | | | -- | -- | -- | **3.6 J** | **6.69 J** | -- |
| PCB-068 | | | | | -- | -- | -- | **0.839 J** | **1.54 J** | -- |
| PCB-072 | | | | | -- | -- | -- | **1.57 J** | **2.58 J** | -- |
| PCB-073 | | | | | -- | -- | -- | 0.135 UJ | **0.366 J** | -- |
| PCB-077 | | | | | -- | -- | -- | **15.1 J** | **28.2 J** | -- |
| PCB-078 | | | | | -- | -- | -- | 0.467 UJ | 0.498 UJ | -- |
| PCB-079 | | | | | -- | -- | -- | **1.54 J** | **5.66 J** | -- |
| PCB-080 | | | | | -- | -- | -- | 0.362 UJ | 0.386 UJ | -- |
| PCB-081 | | | | | -- | -- | -- | 0.39 UJ | **0.902 J** | -- |
| PCB-082 | | | | | -- | -- | -- | **27.7** | **91** | -- |
| PCB-083 | | | | | -- | -- | -- | **10.7** | **37.4** | -- |
| PCB-084 | | | | | -- | -- | -- | **45.4** | **166** | -- |
| PCB-085/116 | | | | | -- | -- | -- | **33.7** | **106** | -- |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/109/119/125 | | | | | -- | -- | -- | **152** | **532** | -- |
| PCB-088 | | | | | -- | -- | -- | 0.576 U | 0.346 U | -- |
| PCB-089 | | | | | -- | -- | -- | **1.63 J** | **4.68** | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA07-SS26 | JW-EA07-SS27 | JW-EA07-SS28 | JW-EA08-Composite | JW-EA08-Composite | JW-EA08-SS29 |
| Sample ID | | | | | JW-EA07-SS26-120507 | JW-EA07-SS27-120507 | JW-EA07-SS28-120507 | JW-EA08-COMP-120507 | JW-EA58-COMP-120507 | JW-EA08-SS29-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | FD | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302348.204 | 1302623.687 | 1302468.267 | 1302653.144 | 1302653.144 | 1302661.047 |
| Y | | | | | 373299.779 | 373317.46 | 373173.809 | 373112.3013 | 373112.3013 | 373224.526 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| PCB-090/101/113 | | | | | -- | -- | -- | **224** | **751** | -- |
| PCB-091 | | | | | -- | -- | -- | **20.7** | **69.5** | -- |
| PCB-092 | | | | | -- | -- | -- | **39.6** | **132** | -- |
| PCB-093/100 | | | | | -- | -- | -- | 0.512 U | **2.8** | -- |
| PCB-094 | | | | | -- | -- | -- | 0.562 U | **1.69 J** | -- |
| PCB-095 | | | | | -- | -- | -- | **129** | **423** | -- |
| PCB-096 | | | | | -- | -- | -- | 0.241 U | **2.76** | -- |
| PCB-098 | | | | | -- | -- | -- | 0.592 U | 0.355 U | -- |
| PCB-099 | | | | | -- | -- | -- | **122** | **387** | -- |
| PCB-102 | | | | | -- | -- | -- | **4.01** | **10.6** | -- |
| PCB-103 | | | | | -- | -- | -- | **1.23 J** | **3.04** | -- |
| PCB-104 | | | | | -- | -- | -- | 0.245 U | 0.172 U | -- |
| PCB-105 | | | | | -- | -- | -- | **109** | **373** | -- |
| PCB-106 | | | | | -- | -- | -- | 0.454 U | 0.272 U | -- |
| PCB-107 | | | | | -- | -- | -- | **18.6** | **57.4** | -- |
| PCB-107/124 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-108/124 | | | | | -- | -- | -- | **9.5** | **32.1** | -- |
| PCB-109 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-110 | | | | | -- | -- | -- | **280** | **910** | -- |
| PCB-111 | | | | | -- | -- | -- | 0.409 U | 0.246 U | -- |
| PCB-112 | | | | | -- | -- | -- | 0.411 U | 0.246 U | -- |
| PCB-114 | | | | | -- | -- | -- | **4.88** | **17.6** | -- |
| PCB-115 | | | | | -- | -- | -- | **4.57** | **25.2** | -- |
| PCB-117 | | | | | -- | -- | -- | **7.29** | **23.3** | -- |
| PCB-118 | | | | | -- | -- | -- | **264** | **874** | -- |
| PCB-120 | | | | | -- | -- | -- | 0.408 U | **1.9** | -- |
| PCB-121 | | | | | -- | -- | -- | 0.398 U | 0.239 U | -- |
| PCB-122 | | | | | -- | -- | -- | **2.83** | **10.9** | -- |
| PCB-123 | | | | | -- | -- | -- | **4.32** | **13.8** | -- |
| PCB-126 | | | | | -- | -- | -- | **0.673 J** | **1.94 J** | -- |
| PCB-127 | | | | | -- | -- | -- | 0.46 U | 0.3 U | -- |
| PCB-128/166 | | | | | -- | -- | -- | **42.3 J** | **172 J** | -- |
| PCB-129/138/163 | | | | | -- | -- | -- | **327 J** | **1120 J** | -- |
| PCB-130 | | | | | -- | -- | -- | **20.5 J** | **71.9 J** | -- |
| PCB-131 | | | | | -- | -- | -- | **3.31 J** | **13.7 J** | -- |
| PCB-132 | | | | | -- | -- | -- | **83.9 J** | **308 J** | -- |
| PCB-133 | | | | | -- | -- | -- | **4.79 J** | **12.7 J** | -- |
| PCB-134 | | | | | -- | -- | -- | **14.7 J** | **51.3 J** | -- |
| PCB-135/151 | | | | | -- | -- | -- | **68.8 J** | **206 J** | -- |
| PCB-136 | | | | | -- | -- | -- | **23.3 J** | **84.6 J** | -- |
| PCB-137 | | | | | -- | -- | -- | **16.1 J** | **61.8 J** | -- |
| PCB-139/140 | | | | | -- | -- | -- | **5.44 J** | **17.4 J** | -- |
| PCB-141 | | | | | -- | -- | -- | **42.5 J** | **148 J** | -- |
| PCB-142 | | | | | -- | -- | -- | 0.345 UJ | 0.208 UJ | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA07-SS26 | JW-EA07-SS27 | JW-EA07-SS28 | JW-EA08-Composite | JW-EA08-Composite | JW-EA08-SS29 |
| Sample ID | | | | | JW-EA07-SS26-120507 | JW-EA07-SS27-120507 | JW-EA07-SS28-120507 | JW-EA08-COMP-120507 | JW-EA58-COMP-120507 | JW-EA08-SS29-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | FD | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302348.204 | 1302623.687 | 1302468.267 | 1302653.144 | 1302653.144 | 1302661.047 |
| Y | | | | | 373299.779 | 373317.46 | 373173.809 | 373112.3013 | 373112.3013 | 373224.526 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| PCB-143 | | | | | -- | -- | -- | 0.321 UJ | **1.84 J** | -- |
| PCB-144 | | | | | -- | -- | -- | **10.1 J** | **32.6 J** | -- |
| PCB-145 | | | | | -- | -- | -- | 0.224 UJ | 0.135 UJ | -- |
| PCB-146 | | | | | -- | -- | -- | **46.3 J** | **135 J** | -- |
| PCB-147/149 | | | | | -- | -- | -- | **179 J** | **591 J** | -- |
| PCB-148 | | | | | -- | -- | -- | 0.296 UJ | 0.178 UJ | -- |
| PCB-150 | | | | | -- | -- | -- | 0.209 UJ | 0.126 UJ | -- |
| PCB-152 | | | | | -- | -- | -- | 0.214 UJ | 0.129 UJ | -- |
| PCB-153/168 | | | | | -- | -- | -- | **216 J** | **675 J** | -- |
| PCB-154 | | | | | -- | -- | -- | **3.19 J** | **8.28 J** | -- |
| PCB-155 | | | | | -- | -- | -- | 0.202 U | 0.122 U | -- |
| PCB-156/157 | | | | | -- | -- | -- | **35.3** | **149 J** | -- |
| PCB-158 | | | | | -- | -- | -- | **30.2 J** | **107 J** | -- |
| PCB-159 | | | | | -- | -- | -- | 0.492 UJ | 0.736 UJ | -- |
| PCB-160 | | | | | -- | -- | -- | 0.249 UJ | 0.15 UJ | -- |
| PCB-161 | | | | | -- | -- | -- | 0.244 UJ | 0.146 UJ | -- |
| PCB-162 | | | | | -- | -- | -- | **1 J** | **3.51 J** | -- |
| PCB-164 | | | | | -- | -- | -- | **17.9 J** | **58.4 J** | -- |
| PCB-165 | | | | | -- | -- | -- | 0.272 UJ | 0.163 UJ | -- |
| PCB-167 | | | | | -- | -- | -- | **10.2 J** | **40.5 J** | -- |
| PCB-169 | | | | | -- | -- | -- | 0.593 U | 1.02 U | -- |
| PCB-170 | | | | | -- | -- | -- | **28.6 J** | **91.6 J** | -- |
| PCB-171/173 | | | | | -- | -- | -- | **13.3 J** | **43.9 J** | -- |
| PCB-172 | | | | | -- | -- | -- | **4.41 J** | **10.9 J** | -- |
| PCB-174 | | | | | -- | -- | -- | **38.4 J** | **123 J** | -- |
| PCB-175 | | | | | -- | -- | -- | **1.65 J** | **5.29 J** | -- |
| PCB-176 | | | | | -- | -- | -- | **4.15 J** | **12.4 J** | -- |
| PCB-177 | | | | | -- | -- | -- | **26 J** | **79.7 J** | -- |
| PCB-178 | | | | | -- | -- | -- | **10.6 J** | **23.2 J** | -- |
| PCB-179 | | | | | -- | -- | -- | **17.4 J** | **44.7 J** | -- |
| PCB-180/193 | | | | | -- | -- | -- | **62.7 J** | **182 J** | -- |
| PCB-181 | | | | | -- | -- | -- | 0.746 UJ | **1.84 J** | -- |
| PCB-182 | | | | | -- | -- | -- | 0.686 UJ | **0.894 J** | -- |
| PCB-183 | | | | | -- | -- | -- | **23.5 J** | **69 J** | -- |
| PCB-184 | | | | | -- | -- | -- | 0.313 UJ | 0.156 UJ | -- |
| PCB-185 | | | | | -- | -- | -- | **1.58 J** | **8.01 J** | -- |
| PCB-186 | | | | | -- | -- | -- | 0.301 UJ | 0.15 UJ | -- |
| PCB-187 | | | | | -- | -- | -- | **53.1 J** | **145 J** | -- |
| PCB-188 | | | | | -- | -- | -- | 0.295 U | 0.148 U | -- |
| PCB-189 | | | | | -- | -- | -- | **1.73 J** | **6.13 J** | -- |
| PCB-190 | | | | | -- | -- | -- | **6.51 J** | **19.1 J** | -- |
| PCB-191 | | | | | -- | -- | -- | **1.27 J** | **4.18 J** | -- |
| PCB-192 | | | | | -- | -- | -- | 0.509 UJ | 0.237 UJ | -- |
| PCB-194 | | | | | -- | -- | -- | **22.3** | **58.5** | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA07-SS26 | JW-EA07-SS27 | JW-EA07-SS28 | JW-EA08-Composite | JW-EA08-Composite | JW-EA08-SS29 |
| Sample ID | | | | | JW-EA07-SS26-120507 | JW-EA07-SS27-120507 | JW-EA07-SS28-120507 | JW-EA08-COMP-120507 | JW-EA58-COMP-120507 | JW-EA08-SS29-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | FD | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302348.204 | 1302623.687 | 1302468.267 | 1302653.144 | 1302653.144 | 1302661.047 |
| Y | | | | | 373299.779 | 373317.46 | 373173.809 | 373112.3013 | 373112.3013 | 373224.526 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| PCB-195 | | | | | -- | -- | -- | **7.68** | **20.8** | -- |
| PCB-196 | | | | | -- | -- | -- | **10.9** | **25.8** | -- |
| PCB-197 | | | | | -- | -- | -- | 0.641 U | **0.981 J** | -- |
| PCB-198/199 | | | | | -- | -- | -- | **28.1** | **70.8** | -- |
| PCB-200 | | | | | -- | -- | -- | **2.82** | **8.57** | -- |
| PCB-201 | | | | | -- | -- | -- | **2.76** | **7.9** | -- |
| PCB-202 | | | | | -- | -- | -- | **6.82** | **16.9** | -- |
| PCB-203 | | | | | -- | -- | -- | **15.3 J** | **42.1** | -- |
| PCB-204 | | | | | -- | -- | -- | 0.745 U | 0.176 U | -- |
| PCB-205 | | | | | -- | -- | -- | 0.863 U | **2.21** | -- |
| PCB-206 | | | | | -- | -- | -- | **17.9** | **44.3** | -- |
| PCB-207 | | | | | -- | -- | -- | **2.11** | **4.78** | -- |
| PCB-208 | | | | | -- | -- | -- | **5.56** | **14.4** | -- |
| PCB-209 | | | | | -- | -- | -- | **10.7** | **26** | -- |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | **4648.88 J** | **13058.325 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | **0.8796135 J** | **1.7585243 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | **0.0072468 J** | **0.02039215 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | **0.0995999 J** | **0.2719115 J** | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | **4599.955 J** | **12999.983 J** | -- |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | -- | -- | -- | **4551.03 J** | **12941.641 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | **0.859817 J** | **1.7580143 J** | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | **0.8400205 J** | **1.7575043 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | **0.007134475 J** | **0.02036665 J** | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | **0.00702215 J** | **0.02034115 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | **0.0906464 J** | **0.2566115 J** | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | **0.0816929 J** | **0.2413115 J** | -- |
| **Total Petroleum Hydrocarbons (mg/kg)** | | | | | | | | | | |
| Diesel range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- |
| Motor oil range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **0.00017148444444 J** | **0.0007776125 J** | **0.00018774885714 J** | **0.000130104948276 J** | **0.00029871265357 J** | **0.0003644485294 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **0.00010246592593 J** | **0.000503425 J** | **0.00010834171429 J** | **7.06285103448E-05 J** | **0.0001590293625 J** | **0.0002328455882 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **0.00013457925926 J** | **0.00153299375 J** | **0.00014369028571 J** | **0.00012664172069 J** | **0.00028074933929 J** | **0.0004147191176 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **0.00017132759259 J** | **0.0007773078125 J** | **0.00018762585714 J** | **0.000112190413793 J** | **0.00029761051071 J** | **0.0003642617647 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **0.00010230907407 J** | **0.0005031203125 J** | **0.00010821871429 J** | **5.40367060345E-05 J** | **0.0001579445232 14 J** | **0.0002326588235 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | **0.00013442240741 J** | **0.0015326890625 J** | **0.00014356728571 J** | **0.000116772634483 J** | **0.00027911898214 J** | **0.0004145323529 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | **0.00017117074074 J** | **0.000777003125 J** | **0.00018750285714 J** | **9.427587931E-05 J** | **0.00029650836786 J** | **0.000364075 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | **0.00010215222222 J** | **0.000502815625 J** | **0.00010809571429 J** | **3.74449017241E-05 J** | **0.000156859683929 J** | **0.0002324720588 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | **0.00013426555556 J** | **0.001532384375 J** | **0.00014344428571 J** | **0.000106903548276 J** | **0.000277488625 J** | **0.0004143455882 J** |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **4.63008 J** | **24.8836 J** | **6.57121 J** | **3.7730435 J** | **8.3639543 J** | **12.39125 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **2.76658 J** | **16.1096 J** | **3.79196 J** | **2.0482268 J** | **4.45282215 J** | **7.91675 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **3.63364 J** | **49.0558 J** | **5.02916 J** | **3.6726099 J** | **7.8609815 J** | **14.10045 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **4.625845 J** | **24.87385 J** | **6.566905 J** | **3.253522 J** | **8.3330943 J** | **12.3849 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **2.762345 J** | **16.09985 J** | **3.787655 J** | **1.567064475 J** | **4.42244665 J** | **7.9104 J** |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA07-SS26 | JW-EA07-SS27 | JW-EA07-SS28 | JW-EA08-Composite | JW-EA08-Composite | JW-EA08-SS29 |
| Sample ID | | | | | JW-EA07-SS26-120507 | JW-EA07-SS27-120507 | JW-EA07-SS28-120507 | JW-EA08-COMP-120507 | JW-EA58-COMP-120507 | JW-EA08-SS29-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | FD | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302348.204 | 1302623.687 | 1302468.267 | 1302653.144 | 1302653.144 | 1302661.047 |
| Y | | | | | 373299.779 | 373317.46 | 373173.809 | 373112.3013 | 373112.3013 | 373224.526 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | 3.629405 J | 49.04605 J | 5.024855 J | 3.3864064 J | 7.8153315 J | 14.0941 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | 4.62161 J | 24.8641 J | 6.5626 J | 2.7340005 J | 8.3022343 J | 12.37855 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | 2.75811 J | 16.0901 J | 3.78335 J | 1.08590215 J | 4.39207115 J | 7.90405 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | 3.62517 J | 49.0363 J | 5.02055 J | 3.1002029 J | 7.7696815 J | 14.08775 J |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA08-SS30 | JW-EA08-SS31 | JW-EA08-SS31 | JW-EA08-SS32 | JW-EA09-Composite | JW-EA09-SS33 |
| Sample ID | | | | | JW-EA08-SS30-120507 | JW-EA08-SS131-120507 | JW-EA08-SS31-120507 | JW-EA08-SS32-120507 | JW-EA09-COMP-120507 | JW-EA09-SS33-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | FD | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302550.074 | 1302755.944 | 1302755.944 | 1302633.582 | 1302650.756 | 1302513.168 |
| Y | | | | | 373090.315 | 373142.409 | 373142.409 | 373006.214 | 372572.4956 | 372902.008 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | |
| Total organic carbon | | | | | **3.5** | -- | **2.2** | **2.6** | **1.8** | **1.9** |
| Moisture, percent | | | | | -- | -- | -- | -- | **36.6** | -- |
| Total Solids | | | | | -- | -- | -- | -- | **58** | -- |
| Total solids (preserved) | | | | | -- | -- | -- | -- | -- | -- |
| Total volatile solids | | | | | -- | -- | -- | -- | -- | -- |
| **Conventional Parameters (mg/kg)** | | | | | | | | | | |
| Ammonia as nitrogen | | | | | -- | -- | -- | -- | -- | -- |
| Black carbon | | | | | -- | -- | -- | -- | **1400** | -- |
| Sulfide | | | | | -- | -- | -- | -- | -- | -- |
| **Grain Size (pct)** | | | | | | | | | | |
| Cobbles | | | | | -- | -- | -- | -- | 0 U | -- |
| Gravel | | | | | -- | -- | -- | -- | **1.5** | -- |
| Sand | | | | | -- | -- | -- | -- | **43** | -- |
| Sand, very coarse | | | | | -- | -- | -- | -- | -- | -- |
| Sand, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Sand, medium | | | | | -- | -- | -- | -- | -- | -- |
| Sand, fine | | | | | -- | -- | -- | -- | -- | -- |
| Sand, very fine | | | | | -- | -- | -- | -- | -- | -- |
| Silt | | | | | -- | -- | -- | -- | **47** | -- |
| Silt, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Silt, medium | | | | | -- | -- | -- | -- | -- | -- |
| Silt, fine | | | | | -- | -- | -- | -- | -- | -- |
| Silt, very fine | | | | | -- | -- | -- | -- | -- | -- |
| Total fines (Reported, not calculated) | | | | | -- | -- | -- | -- | -- | -- |
| Clay | | | | | -- | -- | -- | -- | **8.4** | -- |
| Clay, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Clay, medium | | | | | -- | -- | -- | -- | -- | -- |
| Clay, fine | | | | | -- | -- | -- | -- | -- | -- |
| **Metals (mg/kg)** | | | | | | | | | | |
| Antimony | | | | | -- | -- | -- | -- | -- | -- |
| Arsenic | 57 | 93 | 57 | 93 | -- | -- | -- | -- | -- | -- |
| Cadmium | 5.1 | 6.7 | 5.1 | 6.7 | -- | -- | -- | -- | -- | -- |
| Chromium | 260 | 270 | 260 | 270 | -- | -- | -- | -- | -- | -- |
| Copper | 390 | 390 | 390 | 390 | -- | -- | -- | -- | -- | -- |
| Lead | 450 | 530 | 450 | 530 | -- | -- | -- | -- | -- | -- |
| Mercury | 0.41 | 0.59 | 0.41 | 0.59 | -- | -- | -- | -- | -- | -- |
| Nickel | | | | | -- | -- | -- | -- | -- | -- |
| Silver | 6.1 | 6.1 | 6.1 | 6.1 | -- | -- | -- | -- | -- | -- |
| Zinc | 410 | 960 | 410 | 960 | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (mg/kg-OC)** | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (µg/kg)** | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA08-SS30 | JW-EA08-SS31 | JW-EA08-SS31 | JW-EA08-SS32 | JW-EA09-Composite | JW-EA09-SS33 |
| Sample ID | | | | | JW-EA08-SS30-120507 | JW-EA08-SS131-120507 | JW-EA08-SS31-120507 | JW-EA08-SS32-120507 | JW-EA09-COMP-120507 | JW-EA09-SS33-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | FD | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302550.074 | 1302755.944 | 1302755.944 | 1302633.582 | 1302650.756 | 1302513.168 |
| Y | | | | | 373090.315 | 373142.409 | 373142.409 | 373006.214 | 372572.4956 | 372902.008 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | -- | -- | -- |
| 1,3-Dichlorobenzene | | | | | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | -- | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | -- | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | | | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | -- | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | -- | 0.04778 UJ | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | -- | 0.04778 UJ | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | -- | **0.03444 J** | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- | -- | **0.03278 J** | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | -- | **0.0833 J** | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | -- | **0.0889 J** | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | -- | **0.04889 J** | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- | -- | **0.1389 J** | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA08-SS30 | JW-EA08-SS31 | JW-EA08-SS31 | JW-EA08-SS32 | JW-EA09-Composite | JW-EA09-SS33 |
| Sample ID | | | | | JW-EA08-SS30-120507 | JW-EA08-SS131-120507 | JW-EA08-SS31-120507 | JW-EA08-SS32-120507 | JW-EA09-COMP-120507 | JW-EA09-SS33-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | FD | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302550.074 | 1302755.944 | 1302755.944 | 1302633.582 | 1302650.756 | 1302513.168 |
| Y | | | | | 373090.315 | 373142.409 | 373142.409 | 373006.214 | 372572.4956 | 372902.008 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | -- | 0.04778 UJ | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | -- | **0.1556 J** | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- | -- | **0.01667 J** | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | -- | **0.0556 J** | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- | -- | **0.03944 J** | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | -- | **0.05056 J** | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | -- | **0.1333 J** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | **0.1255556 J** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | **0.1231667 J** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | **0.1207778 J** | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | -- | **0.16611 J** | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | -- | **0.87056 J** | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | -- | **0.17389 J** | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | |
| 1-Methylnaphthalene | | | | | -- | -- | -- | -- | **0.26 J** | -- |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | -- | 0.86 UJ | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | -- | 0.86 UJ | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | -- | **0.62 J** | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- | -- | **0.59 J** | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | -- | **1.5 J** | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | -- | **1.6 J** | -- |
| Benzo(b)fluoranthene | | | | | -- | -- | -- | -- | **2.1 J** | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | -- | **0.88 J** | -- |
| Benzo(k)fluoranthene | | | | | -- | -- | -- | -- | **0.89 J** | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | -- | **2.5 J** | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | -- | 0.86 UJ | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | -- | -- | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | -- | **2.8 J** | -- |
| Fluorene | | | 540 | 540 | -- | -- | -- | -- | **0.3 J** | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | -- | **1 J** | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | -- | **0.71 J** | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | -- | **0.91 J** | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | -- | **2.4 J** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | **2.26 J** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | **2.217 J** | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | -- | **2.99 J** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | **2.174 J** | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | -- | **15.67 J** | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | -- | **3.13 J** | -- |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **0.514 J** | **0.492 J** | **0.48 J** | **0.419 J** | **0.445 J** | **0.236 J** |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **1.27 J** | **2.1 J** | **1.84 J** | **1.28 J** | **0.928 J** | **0.718 J** |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **1.92 J** | **3.59** | **3.15** | **1.87 J** | **1.39 J** | **0.831 J** |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA08-SS30 | JW-EA08-SS31 | JW-EA08-SS31 | JW-EA08-SS32 | JW-EA09-Composite | JW-EA09-SS33 |
| Sample ID | | | | | JW-EA08-SS30-120507 | JW-EA08-SS131-120507 | JW-EA08-SS31-120507 | JW-EA08-SS32-120507 | JW-EA09-COMP-120507 | JW-EA09-SS33-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | FD | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302550.074 | 1302755.944 | 1302755.944 | 1302633.582 | 1302650.756 | 1302513.168 |
| Y | | | | | 373090.315 | 373142.409 | 373142.409 | 373006.214 | 372572.4956 | 372902.008 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **10.1** | **42.8** | **32.4** | **12.5** | **4.89 J** | **5.51** |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **4.97** | **15.1** | **12.4** | **5.61** | **3.03 J** | **2.68** |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **124** | **467** | **370** | **135** | **70.6** | **61.4** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | **903** | **3630** | **2990** | **977** | **511** | **468** |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **41.2 J** | **29.3 J** | **29.2 J** | **51.7 J** | **51.9 J** | **17.9 J** |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **31 J** | **28.8 J** | **29.3** | **40.2 J** | **38.9 J** | **13 J** |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **94.4** | **294** | **241** | **123 J** | **63.9 J** | **50.2** |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **273** | **894** | **721** | **298** | **175** | **143** |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | **3.07** | **2.59** | **2.48** | **2.97** | **2.78** | **1.29 J** |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **1.07 J** | **1.57 J** | **1.63 J** | **1.08 J** | **0.789 J** | **0.405 J** |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **1.87 J** | **3.49** | **3.23** | **1.95 J** | **1.39 J** | **0.865 J** |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **1.67 J** | **5.14** | **4.59** | **1.86 J** | **1.27 J** | **0.779 J** |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **1.35 J** | **3.54** | **3.23** | **1.49 J** | **0.848 J** | **0.497 J** |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | 0.129 U | 0.157 U | 0.161 U | **0.411 J** | 0.395 U | 0.112 U |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **1.7 J** | **5.38** | **4.75** | **2 J** | **1.23 J** | **0.881 J** |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | **23.2** | **101** | **82** | **25.7** | **15.3** | **10.9** |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | **1.31 J** | **4.69** | **4.09** | **1.38 J** | 1.01 U | **0.638 J** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | **51.2** | **143** | **128** | **52.4** | **47.4** | **22.6** |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | **43.9 J** | **36.9 J** | **34.4 J** | **38.5 J** | **37.5 J** | **17.3 J** |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | **23.2 J** | **43.9 J** | **42.5 J** | **24.5 J** | **17.8 J** | **10.6 J** |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | **36.5** | **146** | **120** | **42.4 J** | **24.8 J** | **16.5 J** |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | **68.9** | **298** | **251** | **80.6** | **48.3 J** | **31.8** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | **8.47442 J** | **14.2694 J** | **12.7303 J** | **8.59134 J** | **6.70714 J** | **3.96689 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | **4.98612 J** | **10.2419 J** | **8.9793 J** | **5.07744 J** | **3.68449 J** | **2.42139 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | **6.63936 J** | **18.3746 J** | **15.1503 J** | **7.11712 J** | **4.43359 J** | **3.36021 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | **8.46797 J** | **14.26155 J** | **12.72225 J** | **8.59134 J** | **6.68234 J** | **3.96129 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | **4.97967 J** | **10.23405 J** | **8.97125 J** | **5.07744 J** | **3.65969 J** | **2.41579 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | **6.63291 J** | **18.36675 J** | **15.14225 J** | **7.11712 J** | **4.40879 J** | **3.35461 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | **8.46152 J** | **14.2537 J** | **12.7142 J** | **8.59134 J** | **6.65754 J** | **3.95569 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | **4.97322 J** | **10.2262 J** | **8.9632 J** | **5.07744 J** | **3.63489 J** | **2.41019 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | **6.62646 J** | **18.3589 J** | **15.1342 J** | **7.11712 J** | **4.38399 J** | **3.34901 J** |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1262 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1268 | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA08-SS30 | JW-EA08-SS31 | JW-EA08-SS31 | JW-EA08-SS32 | JW-EA09-Composite | JW-EA09-SS33 |
| Sample ID | | | | | JW-EA08-SS30-120507 | JW-EA08-SS131-120507 | JW-EA08-SS31-120507 | JW-EA08-SS32-120507 | JW-EA09-COMP-120507 | JW-EA09-SS33-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | FD | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302550.074 | 1302755.944 | 1302755.944 | 1302633.582 | 1302650.756 | 1302513.168 |
| Y | | | | | 373090.315 | 373142.409 | 373142.409 | 373006.214 | 372572.4956 | 372902.008 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | **2.375119722 J** | **0.5105322579 J** |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | **2.374898111 J** | **0.5104294974 J** |
| Total PCB Congener (U = 0) | 12 | 65 | | | -- | -- | -- | -- | **2.3746765 J** | **0.5103267368 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | **0.00031864905556 J** | **0.0001079703 J** |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | **3.149986111E-06 J** | **9.85981579E-07 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | **3.5709E-05 J** | **1.314405789E-05 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | **0.00031862447222 J** | **0.00010796198421 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | **0.00031859988889 J** | **0.00010795366842 J** |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | **3.148756944E-06 J** | **9.8556579E-07 J** |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | **3.147527778E-06 J** | **9.8515E-07 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | **3.49715E-05 J** | **1.289458421E-05 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | **3.4234E-05 J** | **1.264511053E-05 J** |
| **PCB Congeners (ng/kg)** | | | | | | | | | | |
| PCB-001 | | | | | -- | -- | -- | -- | **38** | **61.2** |
| PCB-002 | | | | | -- | -- | -- | -- | **23.6** | **24** |
| PCB-003 | | | | | -- | -- | -- | -- | **43.9** | **64.3** |
| PCB-004 | | | | | -- | -- | -- | -- | **36.2 J** | **17.5 J** |
| PCB-005 | | | | | -- | -- | -- | -- | **2.2 J** | **1.3** |
| PCB-006 | | | | | -- | -- | -- | -- | **20.1 J** | **14.6** |
| PCB-007 | | | | | -- | -- | -- | -- | **3.81 J** | **3.64** |
| PCB-008 | | | | | -- | -- | -- | -- | **112 J** | **70.2** |
| PCB-009 | | | | | -- | -- | -- | -- | **5.4 J** | **4.85** |
| PCB-010 | | | | | -- | -- | -- | -- | **1.88 J** | **1.31 J** |
| PCB-011 | | | | | -- | -- | -- | -- | **398 J** | **140** |
| PCB-012/013 | | | | | -- | -- | -- | -- | **19.5 J** | **12.7** |
| PCB-014 | | | | | -- | -- | -- | -- | **1.19 J** | **0.725 J** |
| PCB-015 | | | | | -- | -- | -- | -- | **112 J** | **73.2** |
| PCB-016 | | | | | -- | -- | -- | -- | **104 J** | **33.6** |
| PCB-017 | | | | | -- | -- | -- | -- | **108 J** | **37.2** |
| PCB-018/030 | | | | | -- | -- | -- | -- | **248 J** | **73.6** |
| PCB-019 | | | | | -- | -- | -- | -- | **16.4** | **4.41** |
| PCB-020/028 | | | | | -- | -- | -- | -- | **595 J** | **246** |
| PCB-021/033 | | | | | -- | -- | -- | -- | **221 J** | **88.9** |
| PCB-022 | | | | | -- | -- | -- | -- | **176 J** | **67.4** |
| PCB-023 | | | | | -- | -- | -- | -- | 0.858 UJ | 0.214 U |
| PCB-024 | | | | | -- | -- | -- | -- | **2.13 J** | **0.86 J** |
| PCB-025 | | | | | -- | -- | -- | -- | **32.4 J** | **15.8** |
| PCB-026/029 | | | | | -- | -- | -- | -- | **69.5 J** | **29.8** |
| PCB-027 | | | | | -- | -- | -- | -- | **19 J** | **6.16** |
| PCB-031 | | | | | -- | -- | -- | -- | **474 J** | **181** |
| PCB-032 | | | | | -- | -- | -- | -- | **86.2 J** | **27.8** |
| PCB-034 | | | | | -- | -- | -- | -- | **2.8 J** | **0.954 J** |
| PCB-035 | | | | | -- | -- | -- | -- | **18.5 J** | **7.17** |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA08-SS30 | JW-EA08-SS31 | JW-EA08-SS31 | JW-EA08-SS32 | JW-EA09-Composite | JW-EA09-SS33 |
| Sample ID | | | | | JW-EA08-SS30-120507 | JW-EA08-SS131-120507 | JW-EA08-SS31-120507 | JW-EA08-SS32-120507 | JW-EA09-COMP-120507 | JW-EA09-SS33-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | FD | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302550.074 | 1302755.944 | 1302755.944 | 1302633.582 | 1302650.756 | 1302513.168 |
| Y | | | | | 373090.315 | 373142.409 | 373142.409 | 373006.214 | 372572.4956 | 372902.008 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-036 | | | | | -- | -- | -- | -- | **5.85 J** | **2.17** |
| PCB-037 | | | | | -- | -- | -- | -- | **209 J** | **85.4** |
| PCB-038 | | | | | -- | -- | -- | -- | 0.958 UJ | 0.23 U |
| PCB-039 | | | | | -- | -- | -- | -- | **3.87 J** | **1.03** |
| PCB-040/071 | | | | | -- | -- | -- | -- | **279 J** | **84.9** |
| PCB-041 | | | | | -- | -- | -- | -- | **39.5 J** | **14.1** |
| PCB-042 | | | | | -- | -- | -- | -- | **140 J** | **48.5** |
| PCB-043 | | | | | -- | -- | -- | -- | **17.6 J** | **5.8** |
| PCB-044/047/065 | | | | | -- | -- | -- | -- | **740 J** | **214** |
| PCB-045 | | | | | -- | -- | -- | -- | **52.2 J** | **15.9** |
| PCB-046 | | | | | -- | -- | -- | -- | **21.4 J** | **6.14** |
| PCB-048 | | | | | -- | -- | -- | -- | **90.9 J** | **31.5** |
| PCB-049/069 | | | | | -- | -- | -- | -- | **423 J** | **133** |
| PCB-050/053 | | | | | -- | -- | -- | -- | **59.9 J** | **16.5** |
| PCB-051 | | | | | -- | -- | -- | -- | **14.7 J** | **3.92** |
| PCB-052 | | | | | -- | -- | -- | -- | **1400 J** | **341** |
| PCB-054 | | | | | -- | -- | -- | -- | **0.651 J** | **0.182 J** |
| PCB-055 | | | | | -- | -- | -- | -- | **15.8 J** | **3.82** |
| PCB-056 | | | | | -- | -- | -- | -- | **462 J** | **120** |
| PCB-057 | | | | | -- | -- | -- | -- | **2.67 J** | **0.932 J** |
| PCB-058 | | | | | -- | -- | -- | -- | **3.67 J** | **0.942 J** |
| PCB-059/062/075 | | | | | -- | -- | -- | -- | **38.3 J** | **14.8** |
| PCB-060 | | | | | -- | -- | -- | -- | **232 J** | **59.6** |
| PCB-061/070/074/076 | | | | | -- | -- | -- | -- | **2310 J** | **540** |
| PCB-063 | | | | | -- | -- | -- | -- | **36.2 J** | **9.22** |
| PCB-064 | | | | | -- | -- | -- | -- | **265 J** | **84.9** |
| PCB-066 | | | | | -- | -- | -- | -- | **1070 J** | **306** |
| PCB-067 | | | | | -- | -- | -- | -- | **22 J** | **8.35** |
| PCB-068 | | | | | -- | -- | -- | -- | **6.11 J** | **2.16** |
| PCB-072 | | | | | -- | -- | -- | -- | **12 J** | **3.68** |
| PCB-073 | | | | | -- | -- | -- | -- | **1.89 J** | **0.553 J** |
| PCB-077 | | | | | -- | -- | -- | -- | **95 J** | **34.1** |
| PCB-078 | | | | | -- | -- | -- | -- | 0.673 UJ | 0.286 U |
| PCB-079 | | | | | -- | -- | -- | -- | **19.4 J** | **3.49** |
| PCB-080 | | | | | -- | -- | -- | -- | 0.574 UJ | 0.23 U |
| PCB-081 | | | | | -- | -- | -- | -- | **3.23 J** | **1 J** |
| PCB-082 | | | | | -- | -- | -- | -- | **344** | **50.9** |
| PCB-083 | | | | | -- | -- | -- | -- | **148** | **26.9** |
| PCB-084 | | | | | -- | -- | -- | -- | **688** | **103** |
| PCB-085/116 | | | | | -- | -- | -- | -- | **455** | **72.6** |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- | -- | -- | **310** |
| PCB-086/087/097/109/119/125 | | | | | -- | -- | -- | -- | **1950** | -- |
| PCB-088 | | | | | -- | -- | -- | -- | **1.08** | 0.19 U |
| PCB-089 | | | | | -- | -- | -- | -- | **21.7** | **3.57** |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA08-SS30 | JW-EA08-SS31 | JW-EA08-SS31 | JW-EA08-SS32 | JW-EA09-Composite | JW-EA09-SS33 |
| Sample ID | | | | | JW-EA08-SS30-120507 | JW-EA08-SS131-120507 | JW-EA08-SS31-120507 | JW-EA08-SS32-120507 | JW-EA09-COMP-120507 | JW-EA09-SS33-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | FD | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302550.074 | 1302755.944 | 1302755.944 | 1302633.582 | 1302650.756 | 1302513.168 |
| Y | | | | | 373090.315 | 373142.409 | 373142.409 | 373006.214 | 372572.4956 | 372902.008 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-090/101/113 | | | | | -- | -- | -- | -- | **2750** | **480** |
| PCB-091 | | | | | -- | -- | -- | -- | **283** | **50** |
| PCB-092 | | | | | -- | -- | -- | -- | **483** | **83.9** |
| PCB-093/100 | | | | | -- | -- | -- | -- | **12** | **2.92** |
| PCB-094 | | | | | -- | -- | -- | -- | **8.48** | **1.48** |
| PCB-095 | | | | | -- | -- | -- | -- | **1920** | **279** |
| PCB-096 | | | | | -- | -- | -- | -- | **11.3** | **2.04** |
| PCB-098 | | | | | -- | -- | -- | -- | **1.84** | **0.598 J** |
| PCB-099 | | | | | -- | -- | -- | -- | **1430** | **238** |
| PCB-102 | | | | | -- | -- | -- | -- | **50.6** | **9.72** |
| PCB-103 | | | | | -- | -- | -- | -- | **10.9** | **3.35** |
| PCB-104 | | | | | -- | -- | -- | -- | 0.197 U | 0.0963 U |
| PCB-105 | | | | | -- | -- | -- | -- | **1160** | **220** |
| PCB-106 | | | | | -- | -- | -- | -- | 0.238 U | 0.151 U |
| PCB-107 | | | | | -- | -- | -- | -- | **202** | -- |
| PCB-107/124 | | | | | -- | -- | -- | -- | -- | **17.4** |
| PCB-108/124 | | | | | -- | -- | -- | -- | **104** | -- |
| PCB-109 | | | | | -- | -- | -- | -- | -- | **36.2** |
| PCB-110 | | | | | -- | -- | -- | -- | **3500** | **602** |
| PCB-111 | | | | | -- | -- | -- | -- | 0.221 U | 0.133 U |
| PCB-112 | | | | | -- | -- | -- | -- | 0.233 U | 0.138 U |
| PCB-114 | | | | | -- | -- | -- | -- | **55.3** | **10.6** |
| PCB-115 | | | | | -- | -- | -- | -- | **39.7** | **7.51** |
| PCB-117 | | | | | -- | -- | -- | -- | **50.6** | **14.6** |
| PCB-118 | | | | | -- | -- | -- | -- | **2610** | **526** |
| PCB-120 | | | | | -- | -- | -- | -- | **7.01** | **2.36** |
| PCB-121 | | | | | -- | -- | -- | -- | 0.222 U | 0.131 U |
| PCB-122 | | | | | -- | -- | -- | -- | **33.3** | **5.77** |
| PCB-123 | | | | | -- | -- | -- | -- | **41.1** | **6.96** |
| PCB-126 | | | | | -- | -- | -- | -- | **4.75 J** | **2.11** |
| PCB-127 | | | | | -- | -- | -- | -- | 0.241 U | 0.156 U |
| PCB-128/166 | | | | | -- | -- | -- | -- | **456 J** | **91.2** |
| PCB-129/138/163 | | | | | -- | -- | -- | -- | **2730 J** | **528** |
| PCB-130 | | | | | -- | -- | -- | -- | **184 J** | **33.5** |
| PCB-131 | | | | | -- | -- | -- | -- | **36.6 J** | **5.63** |
| PCB-132 | | | | | -- | -- | -- | -- | **840 J** | **141** |
| PCB-133 | | | | | -- | -- | -- | -- | **31.2 J** | **8.32** |
| PCB-134 | | | | | -- | -- | -- | -- | **142 J** | **24.8** |
| PCB-135/151 | | | | | -- | -- | -- | -- | **561 J** | **121** |
| PCB-136 | | | | | -- | -- | -- | -- | **252 J** | **45.1** |
| PCB-137 | | | | | -- | -- | -- | -- | **136 J** | **22.4** |
| PCB-139/140 | | | | | -- | -- | -- | -- | **45.6 J** | **8.99** |
| PCB-141 | | | | | -- | -- | -- | -- | **351 J** | **65.8** |
| PCB-142 | | | | | -- | -- | -- | -- | 0.191 UJ | 0.135 U |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA08-SS30 | JW-EA08-SS31 | JW-EA08-SS31 | JW-EA08-SS32 | JW-EA09-Composite | JW-EA09-SS33 |
| Sample ID | | | | | JW-EA08-SS30-120507 | JW-EA08-SS131-120507 | JW-EA08-SS31-120507 | JW-EA08-SS32-120507 | JW-EA09-COMP-120507 | JW-EA09-SS33-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | FD | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302550.074 | 1302755.944 | 1302755.944 | 1302633.582 | 1302650.756 | 1302513.168 |
| Y | | | | | 373090.315 | 373142.409 | 373142.409 | 373006.214 | 372572.4956 | 372902.008 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| PCB-143 | | | | | -- | -- | -- | -- | **7.65 J** | **1.34** |
| PCB-144 | | | | | -- | -- | -- | -- | **87.6 J** | **16.8** |
| PCB-145 | | | | | -- | -- | -- | -- | **0.986 J** | 0.0891 U |
| PCB-146 | | | | | -- | -- | -- | -- | **320 J** | **55.8** |
| PCB-147/149 | | | | | -- | -- | -- | -- | **1570 J** | **309** |
| PCB-148 | | | | | -- | -- | -- | -- | **1.99 J** | **0.94 J** |
| PCB-150 | | | | | -- | -- | -- | -- | **1.81 J** | **0.559 J** |
| PCB-152 | | | | | -- | -- | -- | -- | **1.92 J** | **0.334 J** |
| PCB-153/168 | | | | | -- | -- | -- | -- | **1800 J** | **366** |
| PCB-154 | | | | | -- | -- | -- | -- | **19.6 J** | **6.93** |
| PCB-155 | | | | | -- | -- | -- | -- | 0.124 U | 0.0749 U |
| PCB-156/157 | | | | | -- | -- | -- | -- | **376 J** | **65** |
| PCB-158 | | | | | -- | -- | -- | -- | **282 J** | **48.2** |
| PCB-159 | | | | | -- | -- | -- | -- | 0.674 UJ | 0.273 U |
| PCB-160 | | | | | -- | -- | -- | -- | 0.15 UJ | 0.0983 U |
| PCB-161 | | | | | -- | -- | -- | -- | 0.141 UJ | 0.0923 U |
| PCB-162 | | | | | -- | -- | -- | -- | **7.96 J** | **1.99** |
| PCB-164 | | | | | -- | -- | -- | -- | **164 J** | **29** |
| PCB-165 | | | | | -- | -- | -- | -- | 0.154 UJ | 0.101 U |
| PCB-167 | | | | | -- | -- | -- | -- | **103 J** | **19.5** |
| PCB-169 | | | | | -- | -- | -- | -- | 0.885 U | 0.316 U |
| PCB-170 | | | | | -- | -- | -- | -- | **205 J** | **82.7** |
| PCB-171/173 | | | | | -- | -- | -- | -- | **109 J** | **25** |
| PCB-172 | | | | | -- | -- | -- | -- | **27.7 J** | **15.7** |
| PCB-174 | | | | | -- | -- | -- | -- | **301 J** | **71.4** |
| PCB-175 | | | | | -- | -- | -- | -- | **12.1 J** | **3.33** |
| PCB-176 | | | | | -- | -- | -- | -- | **26.1 J** | **8.52** |
| PCB-177 | | | | | -- | -- | -- | -- | **193 J** | **51.2** |
| PCB-178 | | | | | -- | -- | -- | -- | **51.2 J** | **19.8** |
| PCB-179 | | | | | -- | -- | -- | -- | **95.2 J** | **36.1** |
| PCB-180/193 | | | | | -- | -- | -- | -- | **392 J** | **181** |
| PCB-181 | | | | | -- | -- | -- | -- | **5.48 J** | **0.894 J** |
| PCB-182 | | | | | -- | -- | -- | -- | **1.9 J** | **0.716 J** |
| PCB-183 | | | | | -- | -- | -- | -- | **170 J** | **42.4** |
| PCB-184 | | | | | -- | -- | -- | -- | 0.154 UJ | **0.176 J** |
| PCB-185 | | | | | -- | -- | -- | -- | **19.4 J** | **7.69** |
| PCB-186 | | | | | -- | -- | -- | -- | 0.146 UJ | 0.103 U |
| PCB-187 | | | | | -- | -- | -- | -- | **357 J** | **116** |
| PCB-188 | | | | | -- | -- | -- | -- | 0.15 U | **0.293 J** |
| PCB-189 | | | | | -- | -- | -- | -- | **12.7 J** | **3.51** |
| PCB-190 | | | | | -- | -- | -- | -- | **48.4 J** | **13.6** |
| PCB-191 | | | | | -- | -- | -- | -- | **11 J** | **3.54** |
| PCB-192 | | | | | -- | -- | -- | -- | 0.508 UJ | 0.25 U |
| PCB-194 | | | | | -- | -- | -- | -- | **115** | **50.2** |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA08-SS30 | JW-EA08-SS31 | JW-EA08-SS31 | JW-EA08-SS32 | JW-EA09-Composite | JW-EA09-SS33 |
| Sample ID | | | | | JW-EA08-SS30-120507 | JW-EA08-SS131-120507 | JW-EA08-SS31-120507 | JW-EA08-SS32-120507 | JW-EA09-COMP-120507 | JW-EA09-SS33-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | FD | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302550.074 | 1302755.944 | 1302755.944 | 1302633.582 | 1302650.756 | 1302513.168 |
| Y | | | | | 373090.315 | 373142.409 | 373142.409 | 373006.214 | 372572.4956 | 372902.008 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| PCB-195 | | | | | -- | -- | -- | -- | **40.4** | **15.7** |
| PCB-196 | | | | | -- | -- | -- | -- | **68.4** | **23.7** |
| PCB-197 | | | | | -- | -- | -- | -- | **3.44** | **5.22** |
| PCB-198/199 | | | | | -- | -- | -- | -- | **179** | **68.5** |
| PCB-200 | | | | | -- | -- | -- | -- | **15.9** | 0.209 U |
| PCB-201 | | | | | -- | -- | -- | -- | **17.6** | **8.05** |
| PCB-202 | | | | | -- | -- | -- | -- | **35.7** | **17.5** |
| PCB-203 | | | | | -- | -- | -- | -- | **112** | **44.6** |
| PCB-204 | | | | | -- | -- | -- | -- | 0.286 U | 0.208 U |
| PCB-205 | | | | | -- | -- | -- | -- | **4.43** | **1.7** |
| PCB-206 | | | | | -- | -- | -- | -- | **79.9** | **43.1** |
| PCB-207 | | | | | -- | -- | -- | -- | **10.3** | **5.58** |
| PCB-208 | | | | | -- | -- | -- | -- | **25.2** | **13** |
| PCB-209 | | | | | -- | -- | -- | -- | **28.6** | **21.4** |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | **42752.155 J** | **9700.1129 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | **5.735683 J** | **2.0514357 J** |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | **0.05669975 J** | **0.01873365 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | **0.642762 J** | **0.2497371 J** |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | **42748.166 J** | **9698.1605 J** |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | -- | -- | -- | -- | **42744.177 J** | **9696.208 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | **5.7352405 J** | **2.0512777 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | **5.734798 J** | **2.0511197 J** |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | **0.056677625 J** | **0.01872575 J** |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | **0.0566555 J** | **0.01871785 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | **0.629487 J** | **0.2449971 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | **0.616212 J** | **0.2402571 J** |
| **Total Petroleum Hydrocarbons (mg/kg)** | | | | | | | | | | |
| Diesel range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- |
| Motor oil range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **0.0002421262857 J** | -- | **0.00057865 J** | **0.0003304361538 J** | **0.00069126794444 J** | **0.00031675398421 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **0.0001424605714 J** | -- | **0.00040815 J** | **0.0001952861538 J** | **0.000207843875 J** | **0.000128427560526 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **0.000189696 J** | -- | **0.00068865 J** | **0.0002737353846 J** | **0.00028201955556 J** | **0.00018999721579 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **0.000241942 J** | -- | **0.0005782840909 J** | **0.0003304361538 J** | **0.00068986558333 J** | **0.00031645093158 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **0.0001422762857 J** | -- | **0.0004077840909 J** | **0.0001952861538 J** | **0.000206464868056 J** | **0.000128132407895 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | **0.0001895117143 J** | -- | **0.0006882840909 J** | **0.0002737353846 J** | **0.00027990427778 J** | **0.00018945300526 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | **0.0002417577143 J** | -- | **0.0005779181818 J** | **0.0003304361538 J** | **0.00068846322222 J** | **0.00031614787895 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | **0.000142092 J** | -- | **0.0004074181818 J** | **0.0001952861538 J** | **0.000205085861111 J** | **0.000127837255263 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | **0.0001893274286 J** | -- | **0.0006879181818 J** | **0.0002737353846 J** | **0.000277789 J** | **0.00018890879474 J** |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **8.47442 J** | **14.2694 J** | **12.7303 J** | **8.59134 J** | **12.442823 J** | **6.0183257 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **4.98612 J** | **10.2419 J** | **8.9793 J** | **5.07744 J** | **3.74118975 J** | **2.44012365 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **6.63936 J** | **18.3746 J** | **15.1503 J** | **7.11712 J** | **5.076352 J** | **3.6099471 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **8.46797 J** | **14.26155 J** | **12.72225 J** | **8.59134 J** | **12.4175805 J** | **6.0125677 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **4.97967 J** | **10.23405 J** | **8.97125 J** | **5.07744 J** | **3.716367625 J** | **2.43451575 J** |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA08-SS30 | JW-EA08-SS31 | JW-EA08-SS31 | JW-EA08-SS32 | JW-EA09-Composite | JW-EA09-SS33 |
| Sample ID | | | | | JW-EA08-SS30-120507 | JW-EA08-SS131-120507 | JW-EA08-SS31-120507 | JW-EA08-SS32-120507 | JW-EA09-COMP-120507 | JW-EA09-SS33-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | FD | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302550.074 | 1302755.944 | 1302755.944 | 1302633.582 | 1302650.756 | 1302513.168 |
| Y | | | | | 373090.315 | 373142.409 | 373142.409 | 373006.214 | 372572.4956 | 372902.008 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | 6.63291 J | 18.36675 J | 15.14225 J | 7.11712 J | 5.038277 J | 3.5996071 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | 8.46152 J | 14.2537 J | 12.7142 J | 8.59134 J | 12.392338 J | 6.0068097 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | 4.97322 J | 10.2262 J | 8.9632 J | 5.07744 J | 3.6915455 J | 2.42890785 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | 6.62646 J | 18.3589 J | 15.1342 J | 7.11712 J | 5.000202 J | 3.5892671 J |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA09-SS34 | JW-EA09-SS35 | JW-EA09-SS36 | JW-EA09-SS37 | JW-EA09-SS38 | JW-EA10-Composite |
| Sample ID | | | | | JW-EA09-SS34-120507 | JW-EA09-SS35-120507 | JW-EA09-SS36-120507 | JW-EA09-SS37-120507 | JW-EA09-SS38-120507 | JW-EA10-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302755.347 | 1302548.452 | 1302768.177 | 1302586.944 | 1302785.819 | 1302901.691 |
| Y | | | | | 372706.341 | 372634.168 | 372459.35 | 372343.875 | 372183.491 | 372488.6797 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | |
| Total organic carbon | | | | | **1.8** | **2.1** | **2.5** | **0.86** | **2.7** | **2** |
| Moisture, percent | | | | | -- | -- | -- | -- | -- | **40.4** |
| Total Solids | | | | | -- | -- | -- | -- | -- | **63** |
| Total solids (preserved) | | | | | -- | -- | -- | -- | -- | -- |
| Total volatile solids | | | | | -- | -- | -- | -- | -- | -- |
| **Conventional Parameters (mg/kg)** | | | | | | | | | | |
| Ammonia as nitrogen | | | | | -- | -- | -- | -- | -- | -- |
| Black carbon | | | | | -- | -- | -- | -- | -- | **1400** |
| Sulfide | | | | | -- | -- | -- | -- | -- | -- |
| **Grain Size (pct)** | | | | | | | | | | |
| Cobbles | | | | | -- | -- | -- | -- | -- | 0 U |
| Gravel | | | | | -- | -- | -- | -- | -- | **3.5** |
| Sand | | | | | -- | -- | -- | -- | -- | **34** |
| Sand, very coarse | | | | | -- | -- | -- | -- | -- | -- |
| Sand, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Sand, medium | | | | | -- | -- | -- | -- | -- | -- |
| Sand, fine | | | | | -- | -- | -- | -- | -- | -- |
| Sand, very fine | | | | | -- | -- | -- | -- | -- | -- |
| Sand, fine | | | | | -- | -- | -- | -- | -- | -- |
| Sand, very fine | | | | | -- | -- | -- | -- | -- | -- |
| Silt | | | | | -- | -- | -- | -- | -- | **52** |
| Silt, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Silt, medium | | | | | -- | -- | -- | -- | -- | -- |
| Silt, fine | | | | | -- | -- | -- | -- | -- | -- |
| Silt, very fine | | | | | -- | -- | -- | -- | -- | -- |
| Total fines (Reported, not calculated) | | | | | -- | -- | -- | -- | -- | -- |
| Clay | | | | | -- | -- | -- | -- | -- | **11** |
| Clay, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Clay, medium | | | | | -- | -- | -- | -- | -- | -- |
| Clay, fine | | | | | -- | -- | -- | -- | -- | -- |
| **Metals (mg/kg)** | | | | | | | | | | |
| Antimony | | | | | -- | -- | -- | -- | -- | -- |
| Arsenic | 57 | 93 | 57 | 93 | -- | -- | -- | -- | -- | -- |
| Cadmium | 5.1 | 6.7 | 5.1 | 6.7 | -- | -- | -- | -- | -- | -- |
| Chromium | 260 | 270 | 260 | 270 | -- | -- | -- | -- | -- | -- |
| Copper | 390 | 390 | 390 | 390 | -- | -- | -- | -- | -- | -- |
| Lead | 450 | 530 | 450 | 530 | -- | -- | -- | -- | -- | -- |
| Mercury | 0.41 | 0.59 | 0.41 | 0.59 | -- | -- | -- | -- | -- | -- |
| Nickel | | | | | -- | -- | -- | -- | -- | -- |
| Silver | 6.1 | 6.1 | 6.1 | 6.1 | -- | -- | -- | -- | -- | -- |
| Zinc | 410 | 960 | 410 | 960 | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (mg/kg-OC)** | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (µg/kg)** | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA09-SS34 | JW-EA09-SS35 | JW-EA09-SS36 | JW-EA09-SS37 | JW-EA09-SS38 | JW-EA10-Composite |
| Sample ID | | | | | JW-EA09-SS34-120507 | JW-EA09-SS35-120507 | JW-EA09-SS36-120507 | JW-EA09-SS37-120507 | JW-EA09-SS38-120507 | JW-EA10-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302755.347 | 1302548.452 | 1302768.177 | 1302586.944 | 1302785.819 | 1302901.691 |
| Y | | | | | 372706.341 | 372634.168 | 372459.35 | 372343.875 | 372183.491 | 372488.6797 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | -- | -- | -- |
| 1,3-Dichlorobenzene | | | | | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | -- | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | -- | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | | | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | -- | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | -- | -- | **0.02 J** |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | -- | -- | **0.09** |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | -- | -- | **0.095** |
| Anthracene | 220 | 1200 | | | -- | -- | -- | -- | -- | **0.37** |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | -- | -- | **0.55** |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | -- | -- | **0.55** |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | -- | -- | **0.305** |
| Chrysene | 110 | 460 | | | -- | -- | -- | -- | -- | **1** |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA09-SS34 | JW-EA09-SS35 | JW-EA09-SS36 | JW-EA09-SS37 | JW-EA09-SS38 | JW-EA10-Composite |
| Sample ID | | | | | JW-EA09-SS34-120507 | JW-EA09-SS35-120507 | JW-EA09-SS36-120507 | JW-EA09-SS37-120507 | JW-EA09-SS38-120507 | JW-EA10-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302755.347 | 1302548.452 | 1302768.177 | 1302586.944 | 1302785.819 | 1302901.691 |
| Y | | | | | 372706.341 | 372634.168 | 372459.35 | 372343.875 | 372183.491 | 372488.6797 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | -- | -- | **0.085** |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | -- | -- | **1.15** |
| Fluorene | 23 | 79 | | | -- | -- | -- | -- | -- | **0.1** |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | -- | -- | **0.365** |
| Naphthalene | 99 | 170 | | | -- | -- | -- | -- | -- | 0.0385 U |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | -- | -- | **0.65** |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | -- | -- | **1.15** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | **0.77** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | **0.77** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | **0.77** |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | -- | -- | **1.1** |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | -- | -- | **6.255** |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | -- | -- | **1.305** |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | |
| 1-Methylnaphthalene | | | | | -- | -- | -- | -- | -- | **0.38 J** |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | -- | -- | **0.4 J** |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | -- | -- | **1.8** |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | -- | -- | **1.9** |
| Anthracene | | | 960 | 960 | -- | -- | -- | -- | -- | **7.4** |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | -- | -- | **11** |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | -- | -- | **11** |
| Benzo(b)fluoranthene | | | | | -- | -- | -- | -- | -- | **15** |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | -- | -- | **6.1** |
| Benzo(k)fluoranthene | | | | | -- | -- | -- | -- | -- | **7** |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | -- | -- | **20** |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | -- | -- | **1.7** |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | -- | -- | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | -- | -- | **23** |
| Fluorene | | | 540 | 540 | -- | -- | -- | -- | -- | **2** |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | -- | -- | **7.3** |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | -- | -- | 0.77 U |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | -- | -- | **13** |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | -- | -- | **23** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | **15.4** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | **15.4** |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | -- | -- | **22** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | **15.4** |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | -- | -- | **125.1** |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | -- | -- | **26.1** |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **0.448 J** | **0.376 J** | **0.745** | **0.223 J** | **1.8** | 0.108 U |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **1.2 J** | **0.776 J** | **1.56 J** | **0.421 J** | **3.13** | 1.17 U |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **1.62 J** | **1.12 J** | **2.08 J** | **0.644 J** | **3.98** | 1.59 U |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA09-SS34 | JW-EA09-SS35 | JW-EA09-SS36 | JW-EA09-SS37 | JW-EA09-SS38 | JW-EA10-Composite |
| Sample ID | | | | | JW-EA09-SS34-120507 | JW-EA09-SS35-120507 | JW-EA09-SS36-120507 | JW-EA09-SS37-120507 | JW-EA09-SS38-120507 | JW-EA10-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302755.347 | 1302548.452 | 1302768.177 | 1302586.944 | 1302785.819 | 1302901.691 |
| Y | | | | | 372706.341 | 372634.168 | 372459.35 | 372343.875 | 372183.491 | 372488.6797 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **10.1** | **6.83** | **8.16** | **2.61** | **12.8** | **7.78** |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **4.76** | **3.3** | **4.52** | **1.41 J** | **7.78** | **3.99** |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **94.1** | **67.1** | **93.8** | **34.7** | **161** | **99.7** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | **619** | **467** | **656** | **265** | **1080** | **833** |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **32.5 J** | **23.5 J** | **56.9 J** | **17.4 J** | **163** | **34.7 J** |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **31.4 J** | **21.4 J** | **44.5 J** | **12.1 J** | **111** | **31.3 J** |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **103** | **72.8** | **98.6** | **28.6 J** | **187 J** | **86.8 J** |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **214** | **165** | **230** | **80.3** | **369** | **242** |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | **2.98** | **2.08** | **5.71** | **2.82 J** | **9.89** | **2.85 J** |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **0.936 J** | **0.575 J** | **1.44 J** | **0.4 J** | **3.03** | 1.05 U |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **1.54 J** | **1.19 J** | **2.68** | **0.679 J** | **5.21** | 1.94 U |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **1.42 J** | **0.944 J** | **1.84 J** | **0.508 J** | **3.43** | 1.94 U |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **1 J** | **0.719 J** | **1.53 J** | **0.39 J** | **2.82 J** | 1.6 U |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | 0.0834 U | 0.117 U | 0.162 U | 0.0492 U | 0.139 U | 0.633 U |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **1.52 J** | **1.02 J** | **2.03 J** | **0.554 J** | **3.78** | 2.22 U |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | **19.3** | **11.5** | **21.4** | **8.56** | **36.1** | **21.9** |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | **0.975 J** | **0.623 J** | **1.31 J** | **0.513 J** | **2.56** | 1.69 U |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | **31.5** | **22.4** | **37.2** | **34.2** | **68.8** | **46.8** |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | **39.6 J** | **26.7 J** | **78 J** | **19.4 J** | **140 J** | **45.9 J** |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | **20.4 J** | **14.6 J** | **33.8 J** | **8.39 J** | **69.3 J** | **21.6 J** |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | **30.4 J** | **19.8 J** | **38.9 J** | **11.4 J** | **67.7 J** | **38.6 J** |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | **52.2** | **33.1 J** | **60.8 J** | **32.2 J** | **106** | **58** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | **7.68384 J** | **5.45107 J** | **12.42302 J** | **4.68777 J** | **23.11738 J** | **7.79218 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | **4.33664 J** | **3.05832 J** | **6.11572 J** | **1.81217 J** | **12.05618 J** | **4.41858 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | **5.82532 J** | **4.0783 J** | **7.12846 J** | **2.28571 J** | **13.38704 J** | **5.64864 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | **7.67967 J** | **5.44522 J** | **12.41492 J** | **4.68531 J** | **23.11043 J** | **5.76283 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | **4.33247 J** | **3.05247 J** | **6.10762 J** | **1.80971 J** | **12.04923 J** | **2.54273 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | **5.82115 J** | **4.07245 J** | **7.12036 J** | **2.28325 J** | **13.38009 J** | **4.29529 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | **7.6755 J** | **5.43937 J** | **12.40682 J** | **4.68285 J** | **23.10348 J** | **3.73348 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | **4.3283 J** | **3.04662 J** | **6.09952 J** | **1.80725 J** | **12.04228 J** | **0.66688 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | **5.81698 J** | **4.0666 J** | **7.11226 J** | **2.28079 J** | **13.37314 J** | **2.94194 J** |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1262 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1268 | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA09-SS34 | JW-EA09-SS35 | JW-EA09-SS36 | JW-EA09-SS37 | JW-EA09-SS38 | JW-EA10-Composite |
| Sample ID | | | | | JW-EA09-SS34-120507 | JW-EA09-SS35-120507 | JW-EA09-SS36-120507 | JW-EA09-SS37-120507 | JW-EA09-SS38-120507 | JW-EA10-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302755.347 | 1302548.452 | 1302768.177 | 1302586.944 | 1302785.819 | 1302901.691 |
| Y | | | | | 372706.341 | 372634.168 | 372459.35 | 372343.875 | 372183.491 | 372488.6797 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | 1.6956488611 J | 0.8505448762 J | 2.99954756 J | 1.2240007791 J | 4.8531270519 J | -- |
| Total PCB Congener (U = 1/2) | | | | | 1.695558875 J | 0.8504347 J | 2.999412 J | 1.2235898081 J | 4.8525280444 J | -- |
| Total PCB Congener (U = 0) | 12 | 65 | | | 1.6954688889 J | 0.8503245238 J | 2.99927644 J | 1.2231788372 J | 4.851929037 J | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | 0.000254609 | 0.000144038 | 0.0004537356 J | 0.000228033 | 0.00087555325926 J | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | 2.41224E-06 | 1.30032E-06 | 3.646188E-06 J | 1.76856E-06 | 6.260135185E-06 J | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | 2.61507E-05 | 1.55036E-05 | 3.831664E-05 J | 2.19811E-05 | 6.577537037E-05 J | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | 0.000254598 | 0.000144032 | 0.00045371912 J | 0.000228024 | 0.00087553766667 J | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | 0.000254586 | 0.000144027 | 0.00045370264 J | 0.000228014 | 0.00087552207407 J | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | 2.41166E-06 | 1.30005E-06 | 3.645364E-06 J | 1.76808E-06 | 6.259197222E-06 J | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | 2.41108E-06 | 1.29977E-06 | 3.64454E-06 J | 1.7676E-06 | 6.258259259E-06 J | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | 2.58049E-05 | 1.53365E-05 | 3.782224E-05 J | 2.16933E-05 | 6.531709259E-05 J | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | 2.54591E-05 | 1.51694E-05 | 3.732784E-05 J | 2.14055E-05 | 6.485881481E-05 J | -- |
| **PCB Congeners (ng/kg)** | | | | | | | | | | |
| PCB-001 | | | | | 41.3 | 69.4 | 79.4 | 13.7 | 123 | -- |
| PCB-002 | | | | | 35.5 | 30.1 | 58.2 | 19.7 | 109 | -- |
| PCB-003 | | | | | 50.5 | 48.6 | 82.9 | 15.8 | 118 | -- |
| PCB-004 | | | | | 25.1 J | 25.3 J | 76.3 J | 14.3 J | 163 J | -- |
| PCB-005 | | | | | 2.23 | 2.13 | 4.85 | 1.05 | 7.65 | -- |
| PCB-006 | | | | | 19.1 | 17.7 | 48.5 | 9.71 | 113 | -- |
| PCB-007 | | | | | 4.91 | 5.14 | 9.85 | 2.02 U | 18.9 | -- |
| PCB-008 | | | | | 110 | 98.5 | 273 | 53.5 | 617 | -- |
| PCB-009 | | | | | 6.53 | 6.67 | 13.9 | 3.09 | 30.2 | -- |
| PCB-010 | | | | | 1.81 J | 2.06 | 4.11 J | 0.932 J | 8.85 | -- |
| PCB-011 | | | | | 310 | 216 | 750 | 148 | 2640 | -- |
| PCB-012/013 | | | | | 21.2 | 18.1 | 42.2 | 9.65 | 83.1 | -- |
| PCB-014 | | | | | 1.46 | 0.853 J | 2.81 | 0.951 J | 5.28 | -- |
| PCB-015 | | | | | 112 | 98.6 | 232 | 41.2 | 421 | -- |
| PCB-016 | | | | | 66 | 58.9 | 249 | 47.4 | 452 | -- |
| PCB-017 | | | | | 70.6 | 63 | 242 | 48.1 | 434 | -- |
| PCB-018/030 | | | | | 137 | 119 | 542 | 103 | 1080 | -- |
| PCB-019 | | | | | 8.69 | 7.49 | 35.6 | 6.3 | 79.2 | -- |
| PCB-020/028 | | | | | 568 | 383 | 1520 | 287 | 3420 | -- |
| PCB-021/033 | | | | | 209 | 141 | 589 | 107 | 1270 | -- |
| PCB-022 | | | | | 155 | 102 | 444 | 82.4 | 961 | -- |
| PCB-023 | | | | | 0.308 U | 0.242 U | 0.825 J | 0.215 J | 1.73 J | -- |
| PCB-024 | | | | | 1.79 | 1.39 J | 4.22 | 0.0685 U | 0.102 U | -- |
| PCB-025 | | | | | 35.9 | 23.5 | 91.3 | 16 | 199 | -- |
| PCB-026/029 | | | | | 73.2 | 45.6 | 194 | 33.3 | 487 | -- |
| PCB-027 | | | | | 12.8 | 10.4 | 41.6 | 8.13 | 83.7 | -- |
| PCB-031 | | | | | 427 | 286 | 1230 | 227 | 2870 | -- |
| PCB-032 | | | | | 47 | 39.7 | 170 | 39.3 | 389 | -- |
| PCB-034 | | | | | 2.56 | 1.58 | 8.08 | 1.48 | 19.7 | -- |
| PCB-035 | | | | | 16.2 | 10.9 | 39.5 | 8.8 | 97.8 | -- |

## Table H-1
## Surface Sediment Results

| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | JeldWenMarineMay2012 JW-EA09-SS34 JW-EA09-SS34-120507 5/7/2012 0 - 10 cm N SE 1302755.347 372706.341 | JeldWenMarineMay2012 JW-EA09-SS35 JW-EA09-SS35-120507 5/7/2012 0 - 10 cm N SE 1302548.452 372634.168 | JeldWenMarineMay2012 JW-EA09-SS36 JW-EA09-SS36-120507 5/7/2012 0 - 10 cm N SE 1302768.177 372459.35 | JeldWenMarineMay2012 JW-EA09-SS37 JW-EA09-SS37-120507 5/7/2012 0 - 10 cm N SE 1302586.944 372343.875 | JeldWenMarineMay2012 JW-EA09-SS38 JW-EA09-SS38-120507 5/7/2012 0 - 10 cm N SE 1302785.819 372183.491 | JeldWenMarineMay2012 JW-EA10-Composite JW-EA10-COMP-120507 5/7/2012 0 - 10 cm N SE 1302901.691 372488.6797 |
|---|---|---|---|---|---|---|---|---|---|---|
| PCB-036 | | | | | **5.04** | **3.44** | **9.79** | **2.17** | **33.5** | -- |
| PCB-037 | | | | | **157** | **125** | **390** | **73.8** | **821** | -- |
| PCB-038 | | | | | **0.817 J** | **0.498 J** | 0.667 U | **0.463 J** | **2.87 J** | -- |
| PCB-039 | | | | | **2.59** | **1.67** | **7.54** | **1.29** | **15.4** | -- |
| PCB-040/071 | | | | | **201** | **136** | **711** | **155** | **1760** | -- |
| PCB-041 | | | | | **23.7** | **19.1** | **118** | **20.5** | **252** | -- |
| PCB-042 | | | | | **103** | **76.4** | **384** | **78.9** | **836** | -- |
| PCB-043 | | | | | **13.3** | **9.54** | **50** | **9.79** | **113** | -- |
| PCB-044/047/065 | | | | | **558** | **331** | **1680** | **328** | **3710** | -- |
| PCB-045 | | | | | **35.2** | **24** | **157** | **32** | **412** | -- |
| PCB-046 | | | | | **13.9** | **9.57** | **60.3** | **11.9** | **146** | -- |
| PCB-048 | | | | | **66.8** | **48.9** | **253** | **51.4** | **575** | -- |
| PCB-049/069 | | | | | **344** | **211** | **1050** | **195** | **2130** | -- |
| PCB-050/053 | | | | | **41.9** | **27.1** | **162** | **33.5** | **398** | -- |
| PCB-051 | | | | | **9.68** | **7.28** | **33.9** | **7.54** | **70.7** | -- |
| PCB-052 | | | | | **1120** | **543** | **2960** | **469** | **5760 J** | -- |
| PCB-054 | | | | | **0.295 J** | **0.243 J** | **1.05 J** | **0.221 J** | **2.78** | -- |
| PCB-055 | | | | | **6.41** | **5.27** | **25.3** | 0.202 U | 1.42 U | -- |
| PCB-056 | | | | | **271** | **186** | **817** | **170** | **2060** | -- |
| PCB-057 | | | | | **0.8 J** | **1.43** | **6.17** | 0.197 U | 1.38 U | -- |
| PCB-058 | | | | | **1.5** | **1.38** | **7.33** | **1.67** | **17.9** | -- |
| PCB-059/062/075 | | | | | **29.9** | **22.9** | **109** | **22.1** | **236** | -- |
| PCB-060 | | | | | **134** | **93** | **438** | **87** | **1120** | -- |
| PCB-061/070/074/076 | | | | | **1380** | **853** | **3710** | **672** | **8490** | -- |
| PCB-063 | | | | | **18.2** | **14.6** | **68.7** | **13** | **159** | -- |
| PCB-064 | | | | | **177** | **134** | **600** | **125** | **1440** | -- |
| PCB-066 | | | | | **684** | **464** | **1930** | **391** | **4560 J** | -- |
| PCB-067 | | | | | **9.37** | **12.1** | **45.8** | **9.81** | **99.8** | -- |
| PCB-068 | | | | | **3.39** | **3.1** | **14.5** | **2.87** | **28.5** | -- |
| PCB-072 | | | | | **6.66** | **5.41** | **25.6** | **5.23** | **64.6** | -- |
| PCB-073 | | | | | **0.862 J** | **0.54 J** | **2.63** | 0.0644 U | 0.139 U | -- |
| PCB-077 | | | | | **77** | **50.2** | **194** | **33** | **407** | -- |
| PCB-078 | | | | | 0.428 U | 0.265 U | 1.04 U | 0.196 U | 1.38 U | -- |
| PCB-079 | | | | | **12.9** | **6.43** | **27.4** | **2.96** | **36.1** | -- |
| PCB-080 | | | | | 0.344 U | 0.213 U | 0.835 U | 0.17 U | 1.2 U | -- |
| PCB-081 | | | | | **2.42** | **1.82** | **6.55** | **1.23** | **14.5** | -- |
| PCB-082 | | | | | **204** | **99.3** | **462** | **53.5** | **846** | -- |
| PCB-083 | | | | | **92.8** | **53.5** | **237** | **27.6** | **394** | -- |
| PCB-084 | | | | | **430** | **200** | **999** | **121** | **1620** | -- |
| PCB-085/116 | | | | | **277** | **133** | **597** | **85.2** | 2.22 U | -- |
| PCB-086/087/097/108/119/125 | | | | | **1270** | **600** | **2850** | **337** | **4640** | -- |
| PCB-086/087/097/109/119/125 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-088 | | | | | 0.156 U | 0.642 U | 0.276 U | 0.531 U | 3.66 U | -- |
| PCB-089 | | | | | **11.1** | **5.99** | **26.9** | **6.31** | **76** | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA09-SS34 | JW-EA09-SS35 | JW-EA09-SS36 | JW-EA09-SS37 | JW-EA09-SS38 | JW-EA10-Composite |
| Sample ID | | | | | JW-EA09-SS34-120507 | JW-EA09-SS35-120507 | JW-EA09-SS36-120507 | JW-EA09-SS37-120507 | JW-EA09-SS38-120507 | JW-EA10-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302755.347 | 1302548.452 | 1302768.177 | 1302586.944 | 1302785.819 | 1302901.691 |
| Y | | | | | 372706.341 | 372634.168 | 372459.35 | 372343.875 | 372183.491 | 372488.6797 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| PCB-090/101/113 | | | | | **1900** | **922** | **4650** | **593** | **6610** | -- |
| PCB-091 | | | | | **188** | **95.7** | **440** | **58.3** | **765** | -- |
| PCB-092 | | | | | **357** | **157** | **1010** | **109** | **1320** | -- |
| PCB-093/100 | | | | | **4.74** | **4.83** | **22.2** | **3.47** | **30.8** | -- |
| PCB-094 | | | | | **3.12** | **3.01** | **13.3** | **3.07** | **21.8** | -- |
| PCB-095 | | | | | **646** | **521** | **2720** | **445** | **3720** | -- |
| PCB-096 | | | | | **7.03** | **4.43** | **20.2** | **2.2** | **34.2** | -- |
| PCB-098 | | | | | **1.27** | **1.31** | **3.6** | 0.431 U | 2.97 U | -- |
| PCB-099 | | | | | **892** | **430** | **2110** | **254** | **3180** | -- |
| PCB-102 | | | | | **24.6** | **18.3** | **109** | **23.9** | **163** | -- |
| PCB-103 | | | | | **6.23** | **5.54** | **45.1** | **5.85** | **32.6** | -- |
| PCB-104 | | | | | 0.0667 U | 0.0665 U | 0.123 U | 0.048 U | **0.266 J** | -- |
| PCB-105 | | | | | **866** | **415** | **1670** | **175** | **2910** | -- |
| PCB-106 | | | | | 0.124 U | 0.51 U | 0.219 U | 0.315 U | 2.17 U | -- |
| PCB-107 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-107/124 | | | | | **74.1** | **35.1** | **146** | **14.7** | **230** | -- |
| PCB-108/124 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-109 | | | | | **135** | **68.2** | **292** | **34.8** | **579** | -- |
| PCB-110 | | | | | **2370** | **1130** | **5130 J** | **543** | **7270 J** | -- |
| PCB-111 | | | | | **1.53** | **0.774 J** | 0.193 U | **0.63 J** | 1.99 U | -- |
| PCB-112 | | | | | 0.113 U | 0.465 U | 0.2 U | 0.307 U | 2.12 U | -- |
| PCB-114 | | | | | **44.1** | **21.3** | **84.1** | **7.9** | **125** | -- |
| PCB-115 | | | | | **26.5** | **13.4** | **65.8** | 0.319 U | 2.2 U | -- |
| PCB-117 | | | | | **38** | **28.3** | **119** | 0.392 U | **1540** | -- |
| PCB-118 | | | | | **2090** | **989** | **4000 J** | **398** | **6210 J** | -- |
| PCB-120 | | | | | **5.86** | **3.36** | **22.4** | **2.59** | **31.3** | -- |
| PCB-121 | | | | | 0.108 U | 0.443 U | 0.19 U | 0.299 U | 2.06 U | -- |
| PCB-122 | | | | | **23.4** | **11.8** | **43.2** | **4.59** | **70.1** | -- |
| PCB-123 | | | | | **27.7** | **12.7** | **52.3** | **5.02** | 1.9 U | -- |
| PCB-126 | | | | | **3.47** | **2.64** | **7.16** | **1.61** | **14** | -- |
| PCB-127 | | | | | 0.133 U | 0.568 U | 0.235 U | 0.302 U | 2.09 U | -- |
| PCB-128/166 | | | | | **399** | **186** | **751** | **67.1** | **1070** | -- |
| PCB-129/138/163 | | | | | **2150** | **1170** | **4300** | **444** | **6330** | -- |
| PCB-130 | | | | | **146** | **73.9** | **301** | **28.3** | **429** | -- |
| PCB-131 | | | | | **28.8** | **13.9** | **57.4** | **4.14** | **72.8** | -- |
| PCB-132 | | | | | **624** | **333** | **1360** | **121** | **1780** | -- |
| PCB-133 | | | | | **26.6** | **15.7** | **74.9** | **7.14** | **85** | -- |
| PCB-134 | | | | | **114** | **56.6** | **259** | **23.9** | **342** | -- |
| PCB-135/151 | | | | | **446** | **272** | **1360** | **140** | **1630** | -- |
| PCB-136 | | | | | **191** | **114** | **533** | **51.8** | **630** | -- |
| PCB-137 | | | | | **131** | **52** | **184** | **13.9** | **244** | -- |
| PCB-139/140 | | | | | **40.8** | **19.4** | **80.4** | **5.92** | **93.2** | -- |
| PCB-141 | | | | | **278** | **177** | **645** | **64.9** | **830** | -- |
| PCB-142 | | | | | **0.51 J** | 0.072 U | 0.187 U | 0.072 U | 0.151 U | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA09-SS34 | JW-EA09-SS35 | JW-EA09-SS36 | JW-EA09-SS37 | JW-EA09-SS38 | JW-EA10-Composite |
| Sample ID | | | | | JW-EA09-SS34-120507 | JW-EA09-SS35-120507 | JW-EA09-SS36-120507 | JW-EA09-SS37-120507 | JW-EA09-SS38-120507 | JW-EA10-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302755.347 | 1302548.452 | 1302768.177 | 1302586.944 | 1302785.819 | 1302901.691 |
| Y | | | | | 372706.341 | 372634.168 | 372459.35 | 372343.875 | 372183.491 | 372488.6797 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-143 | | | | | **6.12** | **2.95** | **13.7** | 0.0658 U | 0.138 U | -- |
| PCB-144 | | | | | **66.6** | **40.9** | **186** | **18.8** | **240** | -- |
| PCB-145 | | | | | **0.743 J** | 0.0476 U | **1.45** | 0.0502 U | **1.92** | -- |
| PCB-146 | | | | | **187** | **109** | **527** | **62.8** | **702** | -- |
| PCB-147/149 | | | | | **1180** | **708** | **3090** | **325** | **3970** | -- |
| PCB-148 | | | | | **2.09** | **1.3** | **8.18** | **0.711 J** | **4.4** | -- |
| PCB-150 | | | | | **1.89** | **1.38** | **3.54** | **0.484 J** | **4.37** | -- |
| PCB-152 | | | | | **1.59** | **0.835 J** | **3.03** | **0.278 J** | **3.69** | -- |
| PCB-153/168 | | | | | **1290** | **773** | **2930** | **357** | **4420** | -- |
| PCB-154 | | | | | **19.2** | **11.7** | **57.4** | **4.86** | **44.5** | -- |
| PCB-155 | | | | | 0.0625 U | 0.04 U | 0.104 U | 0.0439 U | 0.0924 U | -- |
| PCB-156/157 | | | | | **304** | **144** | **538** | **44.3** | **710** | -- |
| PCB-158 | | | | | **222** | **114** | **428** | **41.1** | **626** | -- |
| PCB-159 | | | | | 0.368 U | 0.239 U | 0.634 U | 0.145 U | 0.666 U | -- |
| PCB-160 | | | | | 0.082 U | 0.0525 U | 0.136 U | 0.0531 U | 0.112 U | -- |
| PCB-161 | | | | | 0.077 U | 0.0493 U | 0.128 U | 0.0501 U | 0.105 U | -- |
| PCB-162 | | | | | **7.91** | **3.91** | **15.1** | **1.13** | **37** | -- |
| PCB-164 | | | | | **111** | **68.2** | **264** | **28.5** | **409** | -- |
| PCB-165 | | | | | **0.501 J** | 0.0541 U | **1.36** | 0.0552 U | 0.116 U | -- |
| PCB-167 | | | | | **85.6** | **43.1** | **160** | **13.7** | **208** | -- |
| PCB-169 | | | | | 0.415 U | 0.234 U | 0.824 U | 0.165 U | 0.823 U | -- |
| PCB-170 | | | | | **224** | **205** | **586** | **102** | **1220** | -- |
| PCB-171/173 | | | | | **74.3** | **61.2** | **191** | **26** | **319** | -- |
| PCB-172 | | | | | **40.5** | **31.8** | **110** | **16.2** | **193** | -- |
| PCB-174 | | | | | **199** | **189** | **578** | **80.5** | **1020** | -- |
| PCB-175 | | | | | **8.97** | **8.14** | **28** | **3.59** | **43.3** | -- |
| PCB-176 | | | | | **23.8** | **21.3** | **66.1** | **9.84** | **123** | -- |
| PCB-177 | | | | | **133** | **122** | **342** | **53** | **609** | -- |
| PCB-178 | | | | | **44.3** | **40.9** | **116** | **20.3** | **222** | -- |
| PCB-179 | | | | | **84.6** | **80.3** | **251** | **35.9** | **457** | -- |
| PCB-180/193 | | | | | **466** | **401** | **1200** | **214** | **2500** | -- |
| PCB-181 | | | | | **3.63** | **2.17** | **7.3** | **0.591 J** | **9.13** | -- |
| PCB-182 | | | | | **2.08** | **1.49** | **4.82** | 0.0901 U | **5.09** | -- |
| PCB-183 | | | | | **118** | **99.9** | **310** | **53.4** | **616** | -- |
| PCB-184 | | | | | **0.293 J** | **0.232 J** | **0.573 J** | 0.0587 U | **0.821 J** | -- |
| PCB-185 | | | | | **13.2** | **19.2** | **38.7** | 0.0953 U | 0.511 U | -- |
| PCB-186 | | | | | 0.0893 U | 0.0741 U | 0.128 U | 0.0564 U | **0.247 J** | -- |
| PCB-187 | | | | | **257** | **235** | **658** | **109** | **1210** | -- |
| PCB-188 | | | | | **0.429 J** | **0.4 J** | **0.753 J** | **0.156 J** | **1.19** | -- |
| PCB-189 | | | | | **10.5** | **7.92** | **23.3** | **3.36** | **41.6** | -- |
| PCB-190 | | | | | **43.6** | **38.7** | **89.7** | **15.7** | **198** | -- |
| PCB-191 | | | | | **9.85** | **8.45** | **25.8** | **3.94** | **46.5** | -- |
| PCB-192 | | | | | 0.226 U | 0.254 U | 0.401 U | 0.096 U | 0.509 U | -- |
| PCB-194 | | | | | **102** | **79.1** | **237** | **46** | **548** | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA09-SS34 | JW-EA09-SS35 | JW-EA09-SS36 | JW-EA09-SS37 | JW-EA09-SS38 | JW-EA10-Composite |
| Sample ID | | | | | JW-EA09-SS34-120507 | JW-EA09-SS35-120507 | JW-EA09-SS36-120507 | JW-EA09-SS37-120507 | JW-EA09-SS38-120507 | JW-EA10-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302755.347 | 1302548.452 | 1302768.177 | 1302586.944 | 1302785.819 | 1302901.691 |
| Y | | | | | 372706.341 | 372634.168 | 372459.35 | 372343.875 | 372183.491 | 372488.6797 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| PCB-195 | | | | | 33.1 | 29 | 82.6 | 16.2 | 215 | -- |
| PCB-196 | | | | | 47.7 | 41.9 | 112 | 21.6 | 254 | -- |
| PCB-197 | | | | | 2.66 J | 2.91 | 5.88 | 0.896 J | 15.2 | -- |
| PCB-198/199 | | | | | 134 | 103 | 259 | 46.4 | 616 | -- |
| PCB-200 | | | | | 8.57 | 6.19 | 20.7 | 4.19 | 51 | -- |
| PCB-201 | | | | | 14.9 | 11.2 | 30.3 | 5.51 | 71.5 | -- |
| PCB-202 | | | | | 31.9 | 20.9 | 55.6 | 10.5 | 137 | -- |
| PCB-203 | | | | | 85.2 | 60.9 | 160 | 30.5 | 368 | -- |
| PCB-204 | | | | | 0.139 U | 0.0963 U | 0.258 U | 0.11 U | 0.122 U | -- |
| PCB-205 | | | | | 3.7 | 3.43 | 8.86 | 1.77 | 20.7 | -- |
| PCB-206 | | | | | 70.2 | 35.1 | 79.5 J | 19.5 | 196 J | -- |
| PCB-207 | | | | | 9.44 | 4.99 | 13.6 | 2.84 | 36.5 | -- |
| PCB-208 | | | | | 21.6 | 11 | 29.9 | 6.3 | 76.6 | -- |
| PCB-209 | | | | | 29.9 | 19.3 | 45.5 | 18.3 | 138 | -- |
| Total PCB Congener (U = limit) | | | | | 30521.6795 J | 17861.4424 J | 74988.689 J | 10526.4067 J | 131034.4304 J | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | 4.582963 | 3.0247912 | 11.34339 J | 1.9610858 | 23.639938 J | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | 0.04342025 | 0.0273068 | 0.0911547 J | 0.01520965 | 0.16902365 J | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | 0.470713 | 0.3255766 | 0.957916 J | 0.1890374 | 1.775935 J | -- |
| Total PCB Congener (U = 1/2) | | | | | 30520.0597 J | 17859.1287 J | 74985.3 J | 10522.8723 J | 131018.2572 J | -- |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | 30518.44 J | 17856.815 J | 74981.911 J | 10519.338 J | 131002.084 J | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | 4.5827555 | 3.0246742 | 11.342978 J | 1.9610033 | 23.639517 J | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | 4.582548 | 3.0245572 | 11.342566 J | 1.9609208 | 23.639096 J | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | 0.043409875 | 0.02730095 | 0.0911341 J | 0.015205525 | 0.168998325 J | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | 0.0433995 | 0.0272951 | 0.0911135 J | 0.0152014 | 0.168973 J | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | 0.464488 | 0.3220666 | 0.945556 J | 0.1865624 | 1.7635615 J | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | 0.458263 | 0.3185566 | 0.933196 J | 0.1840874 | 1.751188 J | -- |
| **Total Petroleum Hydrocarbons (mg/kg)** | | | | | | | | | | |
| Diesel range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- |
| Motor oil range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | 0.000681489055556 J | 0.0004036124381 J | 0.0009506564 J | 0.000773122767442 J | 0.00173175251852 J | 0.000389609 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | 0.0002433366805556 J | 0.000146934609524 J | 0.000248274988 J | 0.000212486005814 J | 0.00045278532037 J | 0.000220929 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | 0.000349779611111 J | 0.00020970840952 J | 0.00032345504 J | 0.000287761325581 J | 0.00056159166667 J | 0.000282432 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | 0.000681245861111 J | 0.00040332829524 J | 0.00095031592 J | 0.000772827127907 J | 0.00173147951852 J | 0.0002881415 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | 0.0002431044375 J | 0.000146655759524 J | 0.000247950164 J | 0.0002121994796512 J | 0.000452526975 J | 0.0001271365 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | 0.000349202111111 J | 0.00020926269524 J | 0.00032263664 J | 0.000287187488372 J | 0.00056087598148 J | 0.0002147645 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | 0.000681002666667 J | 0.00040304415238 J | 0.00094997544 J | 0.000772531488372 J | 0.00173120651852 J | 0.000186674 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | 0.0002428721944444 J | 0.000146376909524 J | 0.00024762534 J | 0.0002119129534884 J | 0.00045226862963 J | 3.3344E-05 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | 0.000348624611111 J | 0.00020881698095 J | 0.00032181824 J | 0.000286613651163 J | 0.0005601602963 J | 0.000147097 J |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | 12.266803 J | 8.4758612 J | 23.76641 J | 6.6488558 J | 46.757318 J | 7.79218 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | 4.38006025 J | 3.0856268 J | 6.2068747 J | 1.82737965 J | 12.22520365 J | 4.41858 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | 6.296033 J | 4.4038766 J | 8.086376 J | 2.4747474 J | 15.162975 J | 5.64864 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | 12.2624255 J | 8.4698942 J | 23.757898 J | 6.6463133 J | 46.749947 J | 5.76283 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | 4.375879875 J | 3.07977095 J | 6.1987541 J | 1.824915525 J | 12.218228325 J | 2.54273 J |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA09-SS34 | JW-EA09-SS35 | JW-EA09-SS36 | JW-EA09-SS37 | JW-EA09-SS38 | JW-EA10-Composite |
| Sample ID | | | | | JW-EA09-SS34-120507 | JW-EA09-SS35-120507 | JW-EA09-SS36-120507 | JW-EA09-SS37-120507 | JW-EA09-SS38-120507 | JW-EA10-COMP-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302755.347 | 1302548.452 | 1302768.177 | 1302586.944 | 1302785.819 | 1302901.691 |
| Y | | | | | 372706.341 | 372634.168 | 372459.35 | 372343.875 | 372183.491 | 372488.6797 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | 6.285638 J | 4.3945166 J | 8.065916 J | 2.4698124 J | 15.1436515 J | 4.29529 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | 12.258048 J | 8.4639272 J | 23.749386 J | 6.6437708 J | 46.742576 J | 3.73348 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | 4.3716995 J | 3.0739151 J | 6.1906335 J | 1.8224514 J | 12.211253 J | 0.66688 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | 6.275243 J | 4.3851566 J | 8.045456 J | 2.4648774 J | 15.124328 J | 2.94194 J |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA10-SS39 | JW-EA10-SS40 | JW-EA10-SS40 | JW-EA10-SS41 | JW-EA10-SS42 | JW-EA10-SS43 |
| Sample ID | | | | | JW-EA10-SS39-120507 | JW-EA10-SS40-120507 | JW-EA10-SS90-120507 | JW-EA10-SS41-120507 | JW-EA10-SS42-120507 | JW-EA10-SS43-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302890.069 | 1302883.653 | 1302883.653 | 1302875.634 | 1302941.391 | 1302947.806 |
| Y | | | | | 372406.424 | 372505.862 | 372505.862 | 372598.884 | 372541.146 | 372459.35 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | |
| Total organic carbon | | | | | **2.4** | **2.5** | -- | **2.8** | **1.6** | **2.3** |
| Moisture, percent | | | | | **39.1** | **42.3** | **41.4** | **35.9** | **40.1** | **42.3** |
| Total Solids | | | | | **62** | **60** | -- | **70** | **63** | **61** |
| Total solids (preserved) | | | | | -- | -- | -- | -- | -- | -- |
| Total volatile solids | | | | | -- | -- | -- | -- | -- | -- |
| **Conventional Parameters (mg/kg)** | | | | | | | | | | |
| Ammonia as nitrogen | | | | | -- | -- | -- | -- | -- | -- |
| Black carbon | | | | | **1500** | **1500** | -- | **1600** | **1300** | **1500** |
| Sulfide | | | | | -- | -- | -- | -- | -- | -- |
| **Grain Size (pct)** | | | | | | | | | | |
| Cobbles | | | | | 0 U | 0 U | -- | 0 U | 0 U | 0 U |
| Gravel | | | | | **16** | **1.1** | -- | **14** | **0.2** | **1.6** |
| Sand | | | | | **52** | **31** | -- | **40** | **2.5** | **33** |
| Sand, very coarse | | | | | -- | -- | -- | -- | -- | -- |
| Sand, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Sand, medium | | | | | -- | -- | -- | -- | -- | -- |
| Sand, fine | | | | | -- | -- | -- | -- | -- | -- |
| Sand, very fine | | | | | -- | -- | -- | -- | -- | -- |
| Silt | | | | | **26** | **56** | -- | **37** | **85** | **11** |
| Silt, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Silt, medium | | | | | -- | -- | -- | -- | -- | -- |
| Silt, fine | | | | | -- | -- | -- | -- | -- | -- |
| Silt, very fine | | | | | -- | -- | -- | -- | -- | -- |
| Total fines (Reported, not calculated) | | | | | -- | -- | -- | -- | -- | -- |
| Clay | | | | | **6.5** | **13** | -- | **9.7** | **12** | **11** |
| Clay, coarse | | | | | -- | -- | -- | -- | -- | -- |
| Clay, medium | | | | | -- | -- | -- | -- | -- | -- |
| Clay, fine | | | | | -- | -- | -- | -- | -- | -- |
| **Metals (mg/kg)** | | | | | | | | | | |
| Antimony | | | | | -- | -- | -- | -- | -- | -- |
| Arsenic | 57 | 93 | 57 | 93 | -- | -- | -- | -- | -- | -- |
| Cadmium | 5.1 | 6.7 | 5.1 | 6.7 | -- | -- | -- | -- | -- | -- |
| Chromium | 260 | 270 | 260 | 270 | -- | -- | -- | -- | -- | -- |
| Copper | 390 | 390 | 390 | 390 | -- | -- | -- | -- | -- | -- |
| Lead | 450 | 530 | 450 | 530 | -- | -- | -- | -- | -- | -- |
| Mercury | 0.41 | 0.59 | 0.41 | 0.59 | -- | -- | -- | -- | -- | -- |
| Nickel | | | | | -- | -- | -- | -- | -- | -- |
| Silver | 6.1 | 6.1 | 6.1 | 6.1 | -- | -- | -- | -- | -- | -- |
| Zinc | 410 | 960 | 410 | 960 | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (mg/kg-OC)** | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (µg/kg)** | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA10-SS39 | JW-EA10-SS40 | JW-EA10-SS40 | JW-EA10-SS41 | JW-EA10-SS42 | JW-EA10-SS43 |
| Sample ID | | | | | JW-EA10-SS39-120507 | JW-EA10-SS40-120507 | JW-EA10-SS90-120507 | JW-EA10-SS41-120507 | JW-EA10-SS42-120507 | JW-EA10-SS43-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302890.069 | 1302883.653 | 1302883.653 | 1302875.634 | 1302941.391 | 1302947.806 |
| Y | | | | | 372406.424 | 372505.862 | 372505.862 | 372598.884 | 372541.146 | 372459.35 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | -- | -- | -- |
| 1,3-Dichlorobenzene | | | | | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | -- | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | -- | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | | | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | -- | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | -- | -- | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | -- | -- | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | -- | -- | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- | -- | -- | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA10-SS39 | JW-EA10-SS40 | JW-EA10-SS40 | JW-EA10-SS41 | JW-EA10-SS42 | JW-EA10-SS43 |
| Sample ID | | | | | JW-EA10-SS39-120507 | JW-EA10-SS40-120507 | JW-EA10-SS90-120507 | JW-EA10-SS41-120507 | JW-EA10-SS42-120507 | JW-EA10-SS43-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302890.069 | 1302883.653 | 1302883.653 | 1302875.634 | 1302941.391 | 1302947.806 |
| Y | | | | | 372406.424 | 372505.862 | 372505.862 | 372598.884 | 372541.146 | 372459.35 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | -- | -- | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | -- | -- | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- | -- | -- | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | -- | -- | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | |
| 1-Methylnaphthalene | | | | | -- | -- | -- | -- | -- | -- |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | -- | -- | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | -- | -- | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | -- | -- | -- |
| Benzo(b)fluoranthene | | | | | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | -- | -- | -- |
| Benzo(k)fluoranthene | | | | | -- | -- | -- | -- | -- | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | -- | -- | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | -- | -- | -- |
| Fluorene | | | 540 | 540 | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | -- | -- | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | -- | -- | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | -- | -- | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **0.648 J** | **0.879** | -- | **0.785** | **0.531** | **0.628** |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **1.52 J** | **1.9 J** | -- | **1.48 J** | **1.16 J** | **1.15 J** |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **2.32 J** | **2.81** | -- | **2.21 J** | **1.85 J** | **1.92 J** |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA10-SS39 | JW-EA10-SS40 | JW-EA10-SS40 | JW-EA10-SS41 | JW-EA10-SS42 | JW-EA10-SS43 |
| Sample ID | | | | | JW-EA10-SS39-120507 | JW-EA10-SS40-120507 | JW-EA10-SS90-120507 | JW-EA10-SS41-120507 | JW-EA10-SS42-120507 | JW-EA10-SS43-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302890.069 | 1302883.653 | 1302883.653 | 1302875.634 | 1302941.391 | 1302947.806 |
| Y | | | | | 372406.424 | 372505.862 | 372505.862 | 372598.884 | 372541.146 | 372459.35 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **8.16** | **9.92** | -- | **9.33** | **6.87** | **7.5** |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **4.04 J** | **5.18** | -- | **5.2** | **4.01** | **4.18** |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **85.7** | **112** | -- | **117** | **89.4** | **86.8** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | **622** | **781** | -- | **1020** | **848** | **697** |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **211 J** | **81.1 J** | -- | **54 J** | **45.3 J** | **45.2 J** |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **106** | **59.5 J** | -- | **46.7** | **36.1** | **32.4 J** |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **115 J** | **132** | -- | **120** | **83.6 J** | **93.2** |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **222** | **267** | -- | **266** | **206** | **209** |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | **4.01** | **5.23 J** | -- | **4.04** | **2.94** | **4.05 J** |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **1.28 J** | **1.63 J** | -- | **1.9 J** | **0.949 J** | **1.22 J** |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **2.28 J** | **2.79** | -- | **2.68** | **1.87 J** | **2.04 J** |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **1.92 J** | **2.47** | -- | **2.45 J** | **1.81 J** | **1.95 J** |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **1.42 J** | **1.74 J** | -- | **1.58 J** | **1.41 J** | **1.39 J** |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | 0.115 U | 0.163 U | -- | 0.112 U | 0.16 U | 0.0973 U |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **1.82 J** | **2.43 J** | -- | **2.3 J** | **1.57 J** | **1.67 J** |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | **17.8** | **22.3** | -- | **20.9** | **17.3** | **18.4** |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | **1.18 J** | **1.22 J** | -- | **1.38 J** | **1 J** | **1.1 J** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | **27.3** | **36.4** | -- | **36.3** | **34.8** | **33.6** |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | **56.9 J** | **74.5 J** | -- | **58.1 J** | **41.9 J** | **47.5 J** |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | **29 J** | **34.4 J** | -- | **34 J** | **22.6 J** | **25 J** |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | **31.5 J** | **43.8 J** | -- | **43.8 J** | **30.4** | **31.1 J** |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | **51.9** | **61.7** | -- | **61** | **52.5** | **54.5 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | **10.05553 J** | **12.82894 J** | -- | **10.98843 J** | **8.01378 J** | **9.44459 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | **5.72243 J** | **7.18224 J** | -- | **6.24193 J** | **4.70993 J** | **5.00389 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | **6.51249 J** | **8.25962 J** | -- | **7.55789 J** | **5.68431 J** | **5.98451 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | **10.04978 J** | **12.82079 J** | -- | **10.98283 J** | **8.00578 J** | **9.439725 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | **5.71668 J** | **7.17409 J** | -- | **6.23633 J** | **4.70193 J** | **4.999025 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | **6.50674 J** | **8.25147 J** | -- | **7.55229 J** | **5.67631 J** | **5.979645 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | **10.04403 J** | **12.81264 J** | -- | **10.97723 J** | **7.99778 J** | **9.43486 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | **5.71093 J** | **7.16594 J** | -- | **6.23073 J** | **4.69393 J** | **4.99416 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | **6.50099 J** | **8.24332 J** | -- | **7.54669 J** | **5.66831 J** | **5.97478 J** |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1262 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1268 | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
| Location ID | | | | | JW-EA10-SS39 | JW-EA10-SS40 | JW-EA10-SS40 | JW-EA10-SS41 | JW-EA10-SS42 | JW-EA10-SS43 |
| Sample ID | | | | | JW-EA10-SS39-120507 | JW-EA10-SS40-120507 | JW-EA10-SS90-120507 | JW-EA10-SS41-120507 | JW-EA10-SS42-120507 | JW-EA10-SS43-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302890.069 | 1302883.653 | 1302883.653 | 1302875.634 | 1302941.391 | 1302947.806 |
| Y | | | | | 372406.424 | 372505.862 | 372505.862 | 372598.884 | 372541.146 | 372459.35 |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | **5.886485875 J** | **2.32900048 J** | -- | **1.817622214 J** | **5.377820938 J** | **2.889752087 J** |
| Total PCB Congener (U = 1/2) | | | | | **5.885098583 J** | **2.32765478 J** | -- | **1.817075911 J** | **5.37680625 J** | **2.889067957 J** |
| Total PCB Congener (U = 0) | 12 | 65 | | | **5.883711292 J** | **2.32630908 J** | -- | **1.816529607 J** | **5.375791563 J** | **2.888383826 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | **0.000238008 J** | **0.000150512** | -- | **0.0001323681786 J** | **0.000245329** | **0.00018999** |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | **5.834375E-06 J** | **2.31422E-06** | -- | **2.26823214E-06 J** | **5.70134E-06** | **3.28674E-06** |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | **6.1042125E-05 J** | **2.54211E-05** | -- | **2.69201786E-05 J** | **5.90794E-05** | **4.17969E-05** |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | **0.0002276625833 J** | **0.000144876** | -- | **0.0001323485357 J** | **0.0002453** | **0.000185534** |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | **0.0002173171667 J** | **0.000139239** | -- | **0.0001323288929 J** | **0.000245271** | **0.000181077** |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | **5.78116667E-06 J** | **2.2844E-06** | -- | **2.26725E-06 J** | **5.69989E-06** | **3.26446E-06** |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | **5.72795833E-06 J** | **2.25458E-06** | -- | **2.26626786E-06 J** | **5.69844E-06** | **3.24217E-06** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | **6.00236875E-05 J** | **2.43123E-05** | -- | **2.63308929E-05 J** | **5.82734E-05** | **4.17835E-05** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | **5.900525E-05 J** | **2.32035E-05** | -- | **2.57416071E-05 J** | **5.74674E-05** | **4.17702E-05** |
| **PCB Congeners (ng/kg)** | | | | | | | | | | |
| PCB-001 | | | | | **21.1 J** | **23.6 J** | **30.8 J** | **35.5 J** | **16.4 J** | **21.9 J** |
| PCB-002 | | | | | **10.6** | **11.3** | **14.6** | **11.3** | **9.65** | **12** |
| PCB-003 | | | | | **21.7 J** | **23.8 J** | **34 J** | **28 J** | **17.3 J** | **25.7 J** |
| PCB-004 | | | | | **17.8** | **26.3** | **32.5** | **22.2** | **13.4** | **19.5** |
| PCB-005 | | | | | 2.55 U | 3.97 U | **1.74** | **1.29 J** | 1.32 U | 1.46 U |
| PCB-006 | | | | | **10.8** | **13.2 J** | **15.8** | **10.2** | **7.94** | **11.3** |
| PCB-007 | | | | | **2.07** | 3.75 U | **3.2** | **2.35** | **1.42 J** | **2.26 J** |
| PCB-008 | | | | | **50.2** | **63.5** | **85.5** | **49** | **37.2** | **50.8** |
| PCB-009 | | | | | **3.05** | **3.79 J** | **4.32** | **3.23** | **1.69 J** | **3.24** |
| PCB-010 | | | | | 2.36 U | 4.73 U | **1.68** | **1.34 J** | 1.34 U | 1.72 U |
| PCB-011 | | | | | **169** | **169** | **243** | **109** | **140** | **168** |
| PCB-012/013 | | | | | **8.89** | 3.84 U | **13.3** | **8.13** | **5.31** | **9.12** |
| PCB-014 | | | | | 2.13 U | 3.32 U | 0.608 U | 1.03 U | 1.1 U | 1.22 U |
| PCB-015 | | | | | **52.2** | **63.2** | **100** | **50.8** | **43.1** | **58.4** |
| PCB-016 | | | | | **59.9** | **70.5** | **93.1** | **47.3** | **31.7** | **43.9** |
| PCB-017 | | | | | **60.7** | **71.3** | **95.1** | **43.5** | **35.1** | **50.1** |
| PCB-018/030 | | | | | **144** | **156** | **207** | **96.4** | **73.8** | **107** |
| PCB-019 | | | | | **10.7** | **12.8** | **15.5** | **8.1** | **6.38** | **9.46** |
| PCB-020/028 | | | | | **334** | **344** | **557** | **241** | **195** | **270** |
| PCB-021/033 | | | | | **137** | **126** | **209** | **92.1** | **73.4** | **101** |
| PCB-022 | | | | | **101** | **104** | **167** | **72.7** | **57.2** | **77.2** |
| PCB-023 | | | | | 1.05 U | 1.77 U | **0.408 J** | 0.669 U | 0.569 U | 0.626 U |
| PCB-024 | | | | | 1.11 U | **2.01** | **1.87 J** | **1.14 J** | **1.01 J** | **1.41 J** |
| PCB-025 | | | | | **22.1** | **20.2** | **34.5** | **20.8** | **15** | **20.3** |
| PCB-026/029 | | | | | **50.5** | **42.4** | **74.3** | **36.1** | **31.6** | **45** |
| PCB-027 | | | | | **11.6** | **13.5** | **17.7** | **7.91** | **7.71** | **10.9** |
| PCB-031 | | | | | **315** | **272** | **453** | **196** | **159** | **223** |
| PCB-032 | | | | | **61.2** | **76.4** | **68.3** | **38.6** | **34.4** | **47.8** |
| PCB-034 | | | | | **1.49 J** | **1.58 J** | **3.4** | **1.27 J** | **0.991 J** | **1.51 J** |
| PCB-035 | | | | | **8.73** | **9.89** | **14.9** | **7.76** | **6.73** | 0.663 U |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA10-SS39 | JW-EA10-SS40 | JW-EA10-SS40 | JW-EA10-SS41 | JW-EA10-SS42 | JW-EA10-SS43 |
| Sample ID | | | | | JW-EA10-SS39-120507 | JW-EA10-SS40-120507 | JW-EA10-SS90-120507 | JW-EA10-SS41-120507 | JW-EA10-SS42-120507 | JW-EA10-SS43-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302890.069 | 1302883.653 | 1302883.653 | 1302875.634 | 1302941.391 | 1302947.806 |
| Y | | | | | 372406.424 | 372505.862 | 372505.862 | 372598.884 | 372541.146 | 372459.35 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-036 | | | | | 1.01 U | **2.25 J** | **4.18** | **1.71** | **1.93** | **2.47** |
| PCB-037 | | | | | **115** | **126** | **188** | **91.6** | **85.4** | **109** |
| PCB-038 | | | | | 1.09 U | 1.86 U | **0.831 J** | 0.7 U | 0.595 U | 0.655 U |
| PCB-039 | | | | | **3.41** | **2.99** | **3.97** | 0.626 U | 0.532 U | **2.28** |
| PCB-040/071 | | | | | **440** | **304** | **431** | **238** | **233** | **298** |
| PCB-041 | | | | | **34.9** | **31.8** | **49.1** | **23.4** | **19.4** | **23.4** |
| PCB-042 | | | | | **188** | **132** | **198** | **112** | **104** | **124** |
| PCB-043 | | | | | **20.6** | **14.2** | 0.599 U | **10.8** | **10.7** | **11.5** |
| PCB-044/047/065 | | | | | **1770** | **805** | **961** | **717** | **938** | **1030** |
| PCB-045 | | | | | **50.5** | **40.9** | **68** | **34.5** | **23.5** | **32.6** |
| PCB-046 | | | | | **20.8** | **16.9** | **27.6** | **15.1** | **10.7** | **14.2** |
| PCB-048 | | | | | **111** | **77.6** | **121** | **57.1** | **57.3** | **65.6** |
| PCB-049/069 | | | | | **956** | **458** | **582** | **425** | **523** | **578** |
| PCB-050/053 | | | | | **88.9** | **52.2** | **77.8** | **43.9** | **45.4** | **59.2** |
| PCB-051 | | | | | **12.9** | **11.1** | **17.5** | **8.15** | **7.75** | **10.2** |
| PCB-052 | | | | | **4580** | **1710** | **1850** | **1600** | **2450** | **2580** |
| PCB-054 | | | | | 0.769 U | 1.23 U | **0.578 J** | 0.46 U | 0.35 U | **0.528 J** |
| PCB-055 | | | | | 4.72 U | **7** | **9.37** | 1.93 U | 3.06 U | 1.96 U |
| PCB-056 | | | | | **522** | **314** | **372** | **246** | **328** | **317** |
| PCB-057 | | | | | 4.74 U | 2.68 U | 1.41 U | 1.94 U | 3.07 U | 1.97 U |
| PCB-058 | | | | | **118** | 2.61 U | **30.2** | **34.6** | **73.5** | **47.6** |
| PCB-059/062/075 | | | | | **44.3** | **35.7** | **54.7** | **29.2** | **24.9** | **31.3** |
| PCB-060 | | | | | **228** | **149** | **180** | **102** | **137** | **132** |
| PCB-061/070/074/076 | | | | | **4690** | **1920** | **1530** | **1800** | **2910** | **2550** |
| PCB-063 | | | | | 4.38 U | **26.6** | 1.3 U | 1.79 U | **29.9** | 1.82 U |
| PCB-064 | | | | | **554** | **289** | **333** | **231** | **313** | **329** |
| PCB-066 | | | | | **1350** | **752** | **1440** | **788** | **883** | **861** |
| PCB-067 | | | | | 4.43 U | **15.7** | **2.91** | **1.79 J** | 2.87 U | 1.84 U |
| PCB-068 | | | | | **4.01** | **6.19** | **6.79** | **7.08** | **2.39** | **3.91** |
| PCB-072 | | | | | **9.88** | **8.37** | **13.2** | **9.47** | **5.26** | **8.64** |
| PCB-073 | | | | | 1.07 U | **0.677 J** | 0.415 U | 0.679 U | 0.382 U | 0.531 U |
| PCB-077 | | | | | **71.8** | **56.6** | **83.7** | **54.8** | **52.4** | **64.8** |
| PCB-078 | | | | | 5.16 U | 2.92 U | 1.54 U | 2.11 U | 3.34 U | 2.14 U |
| PCB-079 | | | | | **85.2** | **37.3** | **20.4** | **22.7** | **52.6** | **35.6** |
| PCB-080 | | | | | 4.24 U | 2.4 U | 1.26 U | 1.74 U | 2.75 U | 1.76 U |
| PCB-081 | | | | | 4.95 U | 2.8 U | **2.51** | **1.84 J** | **2.73** | 2.05 U |
| PCB-082 | | | | | **1260** | **466** | **289** | **447** | **783** | **550** |
| PCB-083 | | | | | **571** | **218** | **132** | **185** | **356** | **246** |
| PCB-084 | | | | | **2700** | **928** | **578** | **982** | **1600** | **1200** |
| PCB-085/116 | | | | | **1920** | **709** | **379** | **667** | **1060** | **860** |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/109/119/125 | | | | | **7770** | **2800** | **1720** | **2590** | **4830** | **3350** |
| PCB-088 | | | | | 1.75 U | 2.25 U | 0.923 U | 1.53 U | 1.12 U | 1.12 U |
| PCB-089 | | | | | **63.6** | **25.5** | **18.1** | **22.5** | **38.3** | **29.1** |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA10-SS39 | JW-EA10-SS40 | JW-EA10-SS40 | JW-EA10-SS41 | JW-EA10-SS42 | JW-EA10-SS43 |
| Sample ID | | | | | JW-EA10-SS39-120507 | JW-EA10-SS40-120507 | JW-EA10-SS90-120507 | JW-EA10-SS41-120507 | JW-EA10-SS42-120507 | JW-EA10-SS43-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302890.069 | 1302883.653 | 1302883.653 | 1302875.634 | 1302941.391 | 1302947.806 |
| Y | | | | | 372406.424 | 372505.862 | 372505.862 | 372598.884 | 372541.146 | 372459.35 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-090/101/113 | | | | | **11300** | **4010** | **2570** | **3990** | **6980** | **4850** |
| PCB-091 | | | | | **1150** | **397** | **262** | **393** | **696** | **508** |
| PCB-092 | | | | | **2050** | **725** | **499** | **735** | **1280** | **885** |
| PCB-093/100 | | | | | 1.62 U | 2.08 U | 0.855 U | 1.42 U | 1.04 U | **8.88** |
| PCB-094 | | | | | **18.7** | **10.5** | **6.17** | **7.01** | **11.6** | **7.95** |
| PCB-095 | | | | | **4300** | **2630** | **1050** | **1510** | **2550** | **1750** |
| PCB-096 | | | | | **34.4** | **13.5** | **8.39** | **12.2** | **20.7** | **16.5** |
| PCB-098 | | | | | **230** | 2.22 U | **60.5** | **80.1** | **134** | **96.4** |
| PCB-099 | | | | | **5200** | **1940** | **1290** | **1910** | **3310** | **2320** |
| PCB-102 | | | | | **30.6** | **84.4** | **9.1** | **12.1** | **19.1** | 0.927 U |
| PCB-103 | | | | | **26.3** | **15** | **11.5** | **11.9** | **16.9** | **13** |
| PCB-104 | | | | | 0.264 U | 0.593 U | 0.183 U | 0.274 U | 0.191 U | 0.225 U |
| PCB-105 | | | | | **4180** | **1530** | **930** | **1400 J** | **2610** | **1850** |
| PCB-106 | | | | | 1.44 U | 1.85 U | 0.761 U | 1.26 U | 0.921 U | 0.925 U |
| PCB-107 | | | | | **675** | **253** | **181** | **274** | **462** | **305** |
| PCB-107/124 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-108/124 | | | | | **467** | **169** | **101** | **160** | **311** | **193** |
| PCB-109 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-110 | | | | | **13800** | **5030** | **3060** | **4750** | **8470** | **6050** |
| PCB-111 | | | | | 1.27 U | 1.64 U | **1.72** | 1.12 U | 0.815 U | 0.819 U |
| PCB-112 | | | | | 1.22 U | 1.57 U | 0.644 U | 1.07 U | **3.87** | **2.58 J** |
| PCB-114 | | | | | **207** | **76.4** | **45.9** | **70.2** | 0.71 U | **88** |
| PCB-115 | | | | | 1.25 U | 1.61 U | 0.66 U | 1.1 U | 0.8 U | 0.803 U |
| PCB-117 | | | | | 1.32 U | 1.7 U | **68.9** | 1.16 U | **140** | 0.849 U |
| PCB-118 | | | | | **10200** | **3780** | **2450** | **3760** | **6900** | **4580** |
| PCB-120 | | | | | 1.19 U | 1.53 U | 0.63 U | 1.05 U | **5.43** | 0.767 U |
| PCB-121 | | | | | 1.19 U | 1.52 U | 0.626 U | 1.04 U | 0.758 U | 0.762 U |
| PCB-122 | | | | | 1.4 U | **40** | **23.8** | **36.4** | **74** | **47.4** |
| PCB-123 | | | | | **169** | **64.4** | **40** | **57.5** | **99.4** | **72.3** |
| PCB-126 | | | | | **8.96** | **3.86** | **5.29** | **5.32** | **5.8** | **6.09** |
| PCB-127 | | | | | 1.96 U | 2.29 U | 0.996 U | 1.54 U | 1.16 U | 1.14 U |
| PCB-128/166 | | | | | **2200 J** | **856** | **486** | **798** | **1470** | **888** |
| PCB-129/138/163 | | | | | **12700 J** | **4250** | **2720** | **4140** | **7330** | **5050** |
| PCB-130 | | | | | **846 J** | **287** | **181** | **265** | **488** | **311** |
| PCB-131 | | | | | **195 J** | **71.6** | **35.7** | **59.4** | **120** | **74.9** |
| PCB-132 | | | | | **3980 J** | **1480** | **764** | **1230** | **2360** | **1550** |
| PCB-133 | | | | | **120 J** | **48.7** | **31.4** | **43.4** | **72.8** | **50.8** |
| PCB-134 | | | | | **662 J** | **228** | **120** | **208** | **393** | **255** |
| PCB-135/151 | | | | | **2240 J** | **914** | **540** | **764** | **1340** | **996** |
| PCB-136 | | | | | **1110 J** | **404** | **219** | **363** | **649** | **458** |
| PCB-137 | | | | | **908 J** | **307** | **169** | **279** | **514** | **287** |
| PCB-139/140 | | | | | **246 J** | **95** | **50** | **79** | **153** | **92.9** |
| PCB-141 | | | | | **1650 J** | **601** | **333** | **544** | **982** | **660** |
| PCB-142 | | | | | 0.399 UJ | 0.869 U | 0.257 U | 0.373 U | 0.265 U | 0.293 U |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA10-SS39 | JW-EA10-SS40 | JW-EA10-SS40 | JW-EA10-SS41 | JW-EA10-SS42 | JW-EA10-SS43 |
| Sample ID | | | | | JW-EA10-SS39-120507 | JW-EA10-SS40-120507 | JW-EA10-SS90-120507 | JW-EA10-SS41-120507 | JW-EA10-SS42-120507 | JW-EA10-SS43-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302890.069 | 1302883.653 | 1302883.653 | 1302875.634 | 1302941.391 | 1302947.806 |
| Y | | | | | 372406.424 | 372505.862 | 372505.862 | 372598.884 | 372541.146 | 372459.35 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-143 | | | | | 0.367 UJ | **16.5** | **6.95** | 0.343 U | 0.244 U | 0.269 U |
| PCB-144 | | | | | **401 J** | **156** | **82** | **129** | **240** | **164** |
| PCB-145 | | | | | 0.254 UJ | **1.58 J** | **0.838 J** | **1.3 J** | **2.75** | **1.64 J** |
| PCB-146 | | | | | **1220 J** | **519** | **301** | **439** | **710** | **509** |
| PCB-147/149 | | | | | **6670 J** | **2640** | **1430** | **2060** | **3900** | **2750** |
| PCB-148 | | | | | **5.71 J** | **2.37 J** | **2.15** | **2.24** | **3.52** | **2.41** |
| PCB-150 | | | | | **8.71 J** | **3.76** | **2.19** | **3.25** | **5.33** | **3.4** |
| PCB-152 | | | | | **10.1 J** | **3.68** | **1.97** | **3.19** | **6.18** | **3.63** |
| PCB-153/168 | | | | | **7520 J** | **3010** | **1750** | **2540** | **4440** | **3160** |
| PCB-154 | | | | | 0.303 UJ | **32.8** | **20.3** | **27.8** | 0.201 U | 0.222 U |
| PCB-155 | | | | | 0.238 U | 0.519 U | 0.154 U | 0.223 U | 0.158 U | 0.175 U |
| PCB-156/157 | | | | | **1820** | **640** | **345** | **622** | **1170** | **694** |
| PCB-158 | | | | | **1350 J** | **515** | **288** | **454** | **840** | **544** |
| PCB-159 | | | | | **32.3 J** | **15.9** | 0.605 U | **12** | **18.8** | **18.2** |
| PCB-160 | | | | | 0.294 UJ | 0.641 U | 0.19 U | 0.275 U | 0.195 U | 0.216 U |
| PCB-161 | | | | | 0.27 UJ | 0.589 U | 0.174 U | 0.253 U | 0.18 U | 0.198 U |
| PCB-162 | | | | | **42 J** | **17.4** | **8.93** | **14.8** | **29.1** | **16** |
| PCB-164 | | | | | **682 J** | **246** | **145** | **214** | **410** | **256** |
| PCB-165 | | | | | 0.301 UJ | 0.656 U | 0.194 U | 0.281 U | 0.2 U | 0.221 U |
| PCB-167 | | | | | **468 J** | **168** | **93.8** | **160** | **300** | **178** |
| PCB-169 | | | | | 1.58 U | 1.82 U | 1.35 U | 1.1 U | 0.859 U | **4.02** |
| PCB-170 | | | | | **1150** | **439** | **270** | **415** | **643** | **529** |
| PCB-171/173 | | | | | **364** | **135** | **97.2** | **141** | **211** | **173** |
| PCB-172 | | | | | **146** | **67.7** | **43.9** | **56.6** | **88.3** | **77.4** |
| PCB-174 | | | | | **808** | **358** | **259** | **320** | **450** | **462** |
| PCB-175 | | | | | **37.3** | **16.6** | **12.6** | **16.2** | **22.7** | **20.1** |
| PCB-176 | | | | | **98.4** | **44.6** | **29.9** | **38.9** | **60.2** | **55.7** |
| PCB-177 | | | | | **518** | **228** | **187** | **225** | **312** | **295** |
| PCB-178 | | | | | **125** | **70.2** | **57.4** | **57.6** | **80.4** | **87.1** |
| PCB-179 | | | | | **256** | **155** | **111** | **119** | **168** | **180** |
| PCB-180/193 | | | | | **1700** | **874** | **567** | **671** | **1000** | **981** |
| PCB-181 | | | | | **28.4** | **8.64** | **4.68** | **9.36** | **15.1** | **9.04** |
| PCB-182 | | | | | **8.03** | **3.36** | 0.329 U | **2.91 J** | 0.448 U | **3.09** |
| PCB-183 | | | | | **518** | **231** | **173** | **205** | **296** | **277** |
| PCB-184 | | | | | **0.968 J** | 0.536 U | 0.179 U | 0.304 U | **0.577 J** | 0.216 U |
| PCB-185 | | | | | **40.6** | **24.3** | **17.7** | **19** | **27.3** | **40.9** |
| PCB-186 | | | | | **0.713 J** | 0.518 U | 0.174 U | 0.294 U | 0.203 U | 0.209 U |
| PCB-187 | | | | | **605** | **447** | **289** | **302** | **346** | **480** |
| PCB-188 | | | | | **1.11 J** | 0.544 U | **0.631 J** | **0.589 J** | **0.717 J** | **0.65 J** |
| PCB-189 | | | | | **54.2** | **22.1** | **14.4** | **21.4** | **34.6** | **25.5** |
| PCB-190 | | | | | **184** | **77.1** | **47.8** | **69.6** | **106** | **91.9** |
| PCB-191 | | | | | **40.5** | **16** | **10.1** | **14.7** | **22.6** | **19.6** |
| PCB-192 | | | | | 0.58 U | 0.978 U | 0.272 U | 0.425 U | 0.396 U | 0.384 U |
| PCB-194 | | | | | **249** | **368** | **240** | **133** | **187** | **331** |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA10-SS39 | JW-EA10-SS40 | JW-EA10-SS40 | JW-EA10-SS41 | JW-EA10-SS42 | JW-EA10-SS43 |
| Sample ID | | | | | JW-EA10-SS39-120507 | JW-EA10-SS40-120507 | JW-EA10-SS90-120507 | JW-EA10-SS41-120507 | JW-EA10-SS42-120507 | JW-EA10-SS43-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302890.069 | 1302883.653 | 1302883.653 | 1302875.634 | 1302941.391 | 1302947.806 |
| Y | | | | | 372406.424 | 372505.862 | 372505.862 | 372598.884 | 372541.146 | 372459.35 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-195 | | | | | 88.2 | 75.9 | 56.8 | 45.8 | 58.4 | 86.6 |
| PCB-196 | | | | | 129 | 147 | 99 | 60.7 | 86.6 | 144 |
| PCB-197 | | | | | 5.24 | 5.73 | 2.57 | 2.76 | 2.99 | 2.75 |
| PCB-198/199 | | | | | 292 | 522 | 324 | 144 | 230 | 563 |
| PCB-200 | | | | | 32.4 | 40.6 | 22 | 13 | 18.9 | 40 |
| PCB-201 | | | | | 33.9 | 43.2 | 28.2 | 15.3 | 23.7 | 42.3 |
| PCB-202 | | | | | 64.4 | 119 | 75.3 | 32.3 | 57.5 | 127 |
| PCB-203 | | | | | 195 | 333 | 210 | 90.9 | 153 | 330 |
| PCB-204 | | | | | 0.371 U | 0.882 U | 0.305 U | 0.484 U | 0.328 U | 0.315 U |
| PCB-205 | | | | | 10.9 | 10.3 | 6.17 | 5.45 | 7.21 | 9.67 |
| PCB-206 | | | | | 159 | 490 | 279 | 78.1 | 155 | 829 |
| PCB-207 | | | | | 20 | 46.2 | 26.4 | 8.79 | 16.2 | 76.8 |
| PCB-208 | | | | | 43 | 106 | 65.4 | 21.7 | 39.3 | 280 |
| PCB-209 | | | | | 29.9 | 61 | 54.9 | 32.8 | 30.6 | 187 |
| Total PCB Congener (U = limit) | | | | | 141275.661 J | 58225.012 J | 40869.099 J | 50893.422 J | 86045.135 J | 66464.298 J |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | 5.712192 J | 3.762805 | 5.124422 | 3.706309 J | 3.92527 | 4.369778 |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | 0.140025 J | 0.0578555 | 0.055738 | 0.0635105 J | 0.0912215 | 0.075595 |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | 1.465011 J | 0.635527 | 0.696196 | 0.753765 J | 0.9452703 | 0.961329 |
| Total PCB Congener (U = 1/2) | | | | | 141242.366 J | 58191.37 J | 40860.303 J | 50878.125 J | 86028.9 J | 66448.563 J |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | 141209.071 J | 58157.727 J | 40851.506 J | 50862.829 J | 86012.665 J | 66432.828 J |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | 5.463902 J | 3.621895 | 5.123747 | 3.705759 J | 3.924805 | 4.267278 |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | 5.215612 J | 3.480985 | 5.123072 | 3.705209 J | 3.92434 | 4.164778 |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | 0.138748 J | 0.05711 | 0.05570425 | 0.063483 J | 0.09119825 | 0.0750825 |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | 0.137471 J | 0.0563645 | 0.0556705 | 0.0634555 J | 0.091175 | 0.07457 |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | 1.4405685 J | 0.607807 | 0.675946 | 0.737265 J | 0.93237465 | 0.9610215 |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | 1.416126 J | 0.580087 | 0.655696 | 0.720765 J | 0.919479 | 0.960714 |
| **Total Petroleum Hydrocarbons (mg/kg)** | | | | | | | | | | |
| Diesel range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- |
| Motor oil range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | 0.00065698841667 J | 0.0006636698 J | -- | 0.00052481210714 J | 0.000746190625 J | 0.000600624695652 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | 0.000244268958333 J | 0.00028960382 J | -- | 0.000225194303571 J | 0.00030007196875 J | 0.000220847173913 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | 0.000332395875 J | 0.00035580588 J | -- | 0.00029684482143 J | 0.00041434876875 J | 0.000301993 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | 0.00064640341667 J | 0.0006577074 J | -- | 0.00052459246429 J | 0.0007456615625 J | 0.000595956652174 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | 0.000243976166667 J | 0.000289248 J | -- | 0.000224993321429 J | 0.000299570515625 J | 0.0002206133695652 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | 0.00033113785417 J | 0.00035437108 J | -- | 0.00029605553571 J | 0.00041304279063 J | 0.000301768108696 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | 0.00063581841667 J | 0.000651745 J | -- | 0.00052437282143 J | 0.0007451325 J | 0.000591288608696 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | 0.000243683375 J | 0.00028889218 J | -- | 0.000224792339286 J | 0.0002990690625 J | 0.0002203795652174 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | 0.00032987983333 J | 0.00035293628 J | -- | 0.00029526625 J | 0.0004117368125 J | 0.000301543217391 J |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | 15.767722 J | 16.591745 J | 5.124422 | 14.694739 J | 11.93905 J | 13.814368 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | 5.862455 J | 7.2400955 J | 0.055738 | 6.3054405 J | 4.8011515 J | 5.079485 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | 7.977501 J | 8.895147 J | 0.696196 | 8.311655 J | 6.6295803 J | 6.945839 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | 15.513682 J | 16.442685 J | 5.123747 | 14.688589 J | 11.930585 J | 13.707003 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | 5.855428 J | 7.2312 J | 0.05570425 | 6.299813 J | 4.79312825 J | 5.0741075 J |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 | JeldWenMarineMay2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA10-SS39 | JW-EA10-SS40 | JW-EA10-SS40 | JW-EA10-SS41 | JW-EA10-SS42 | JW-EA10-SS43 |
| Sample ID | | | | | JW-EA10-SS39-120507 | JW-EA10-SS40-120507 | JW-EA10-SS90-120507 | JW-EA10-SS41-120507 | JW-EA10-SS42-120507 | JW-EA10-SS43-120507 |
| Sample Date | | | | | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 | 5/7/2012 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302890.069 | 1302883.653 | 1302883.653 | 1302875.634 | 1302941.391 | 1302947.806 |
| Y | | | | | 372406.424 | 372505.862 | 372505.862 | 372598.884 | 372541.146 | 372459.35 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | 7.9473085 J | 8.859277 J | 0.675946 | 8.289555 J | 6.60868465 J | 6.9406665 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | 15.259642 J | 16.293625 J | 5.123072 | 14.682439 J | 11.92212 J | 13.599638 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | 5.848401 J | 7.2223045 J | 0.0556705 | 6.2941855 J | 4.785105 J | 5.06873 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | 7.917116 J | 8.823407 J | 0.655696 | 8.267455 J | 6.587789 J | 6.935494 J |

# Table H-1
## Surface Sediment Results

| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
| Location ID | | | | | JW-301-130919 | JW-302-130919 | JW-SS-101-2013 | JW-SS-102-2013 | JW-SS-103-2013 | JW-SS-104-2013 | JW-SS-105-2013 | JW-SS-106-2013 |
| Sample ID | | | | | JW-301-130919 | JW-302-130919 | JW-SS-101-130429 | JW-SS-102-130429 | JW-SS-103-130429 | JW-SS-104-130429 | JW-SS-105-130429 | JW-SS-106-130429 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302315.848 | 1302196.687 | 1302147.983 | 1302137.562 | 1302321.922 | 1302384.445 | 1302452.239 | 1302358.053 |
| Y | | | | | 371339.0055 | 370932.173 | 373756.235 | 373622.314 | 373182.718 | 373076.652 | 372980.985 | 372592.179 |
| **Conventional Parameters (pct)** | | | | | | | | | | | | |
| Total organic carbon | | | | | 2.1 | 2.28 | 2.2 | 1.97 | 2.14 | 1.95 | 1.88 | 1.59 |
| Moisture, percent | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Solids | | | | | 51.86 | 52.18 | 46.82 | 44.99 | 63.41 | 55.77 | 55.69 | 60.35 |
| Total solids (preserved) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total volatile solids | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Conventional Parameters (mg/kg)** | | | | | | | | | | | | |
| Ammonia as nitrogen | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Black carbon | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Sulfide | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Grain Size (pct)** | | | | | | | | | | | | |
| Cobbles | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Gravel | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Sand | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Sand, very coarse | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Sand, coarse | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Sand, medium | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Sand, fine | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Sand, very fine | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Silt | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Silt, coarse | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Silt, medium | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Silt, fine | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Silt, very fine | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total fines (Reported, not calculated) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Clay | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Clay, coarse | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Clay, medium | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Clay, fine | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Metals (mg/kg)** | | | | | | | | | | | | |
| Antimony | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Arsenic | 57 | 93 | 57 | 93 | -- | -- | -- | -- | -- | -- | -- | -- |
| Cadmium | 5.1 | 6.7 | 5.1 | 6.7 | -- | -- | -- | -- | -- | -- | -- | -- |
| Chromium | 260 | 270 | 260 | 270 | -- | -- | -- | -- | -- | -- | -- | -- |
| Copper | 390 | 390 | 390 | 390 | -- | -- | -- | -- | -- | -- | -- | -- |
| Lead | 450 | 530 | 450 | 530 | -- | -- | -- | -- | -- | -- | -- | -- |
| Mercury | 0.41 | 0.59 | 0.41 | 0.59 | -- | -- | -- | -- | -- | -- | -- | -- |
| Nickel | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Silver | 6.1 | 6.1 | 6.1 | 6.1 | -- | -- | -- | -- | -- | -- | -- | -- |
| Zinc | 410 | 960 | 410 | 960 | -- | -- | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (mg/kg-OC)** | | | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (µg/kg)** | | | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-301-130919 | JW-302-130919 | JW-SS-101-2013 | JW-SS-102-2013 | JW-SS-103-2013 | JW-SS-104-2013 | JW-SS-105-2013 | JW-SS-106-2013 |
| Sample ID | | | | | JW-301-130919 | JW-302-130919 | JW-SS-101-130429 | JW-SS-102-130429 | JW-SS-103-130429 | JW-SS-104-130429 | JW-SS-105-130429 | JW-SS-106-130429 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302315.848 | 1302196.687 | 1302147.983 | 1302137.562 | 1302321.922 | 1302384.445 | 1302452.239 | 1302358.053 |
| Y | | | | | 371339.0055 | 370932.173 | 373756.235 | 373622.314 | 373182.718 | 373076.652 | 372980.985 | 372592.179 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,3-Dichlorobenzene | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | -- | -- | -- | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-301-130919 | JW-302-130919 | JW-SS-101-2013 | JW-SS-102-2013 | JW-SS-103-2013 | JW-SS-104-2013 | JW-SS-105-2013 | JW-SS-106-2013 |
| Sample ID | | | | | JW-301-130919 | JW-302-130919 | JW-SS-101-130429 | JW-SS-102-130429 | JW-SS-103-130429 | JW-SS-104-130429 | JW-SS-105-130429 | JW-SS-106-130429 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302315.848 | 1302196.687 | 1302147.983 | 1302137.562 | 1302321.922 | 1302384.445 | 1302452.239 | 1302358.053 |
| Y | | | | | 371339.0055 | 370932.173 | 373756.235 | 373622.314 | 373182.718 | 373076.652 | 372980.985 | 372592.179 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | | |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | | | |
| 1-Methylnaphthalene | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(b)fluoranthene | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(k)fluoranthene | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluorene | | | 540 | 540 | -- | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | 0.1756 U | **0.276 J** | **0.328 J** | **0.189 J** | **0.183 J** | -- |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | **0.749 J** | **0.629 J** | **0.751 J** | **0.621 J** | **0.521 J** | -- |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | **1.26 J** | **1.07 J** | **0.866 J** | **1.06 J** | **0.865 J** | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-301-130919 | JW-302-130919 | JW-SS-101-2013 | JW-SS-102-2013 | JW-SS-103-2013 | JW-SS-104-2013 | JW-SS-105-2013 | JW-SS-106-2013 |
| Sample ID | | | | | JW-301-130919 | JW-302-130919 | JW-SS-101-130429 | JW-SS-102-130429 | JW-SS-103-130429 | JW-SS-104-130429 | JW-SS-105-130429 | JW-SS-106-130429 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302315.848 | 1302196.687 | 1302147.983 | 1302137.562 | 1302321.922 | 1302384.445 | 1302452.239 | 1302358.053 |
| Y | | | | | 371339.0055 | 370932.173 | 373756.235 | 373622.314 | 373182.718 | 373076.652 | 372980.985 | 372592.179 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | | |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | 5.91 | 4.07 | 3.82 | 5.87 | 4.33 | -- |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | 2.96 | 2.4 J | 1.87 J | 2.58 | 2.43 | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | 71.4 | 59.6 | 47.2 | 63.5 | 49.3 | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | -- | -- | 513 | 554 | 340 | 402 | 324 | -- |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | 22.2 J | 21.5 J | 23.3 J | 21.3 J | 33.3 J | -- |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | 18.7 | 13.9 J | 18.1 J | 17.1 J | 26.3 J | -- |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | 55.3 J | 42.6 | 41.9 | 55.8 J | 52.9 J | -- |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | 165 | 147 | 118 | 144 | 116 | -- |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | 1.19 | 1.26 | 2.37 | 1.72 | 1.24 J | -- |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | 0.405 J | 0.392 J | 0.472 J | 0.512 J | 0.436 J | -- |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | 0.866 J | 0.959 J | 1.03 J | 0.957 J | 0.735 J | -- |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | 0.673 J | 0.627 J | 0.499 J | 0.681 J | 0.424 J | -- |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | 0.479 J | 0.572 J | 0.434 J | 0.529 J | 0.379 J | -- |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | 0.213 U | 0.1115 U | 0.1483 U | 0.1504 U | 0.0997 U | -- |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | 0.816 J | 0.861 J | 0.752 J | 0.847 J | 0.681 J | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | 11.6 | 9.91 | 8.47 | 10.5 | 7.87 | -- |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | 0.677 J | 0.6 J | 0.442 J | 0.51 J | 0.474 J | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | -- | -- | 24.5 | 23.6 | 17.4 | 19.6 | 15.8 | -- |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | 13.8 J | 14.2 J | 24.2 J | 21.1 J | 17 J | -- |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | 9.59 J | 10.7 J | 12.8 J | 11 J | 9.59 J | -- |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | 15.4 J | 13.8 J | 14.2 J | 15.3 J | 11.3 J | -- |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | 32.4 J | 27.6 | 24.3 | 29.3 | 22 | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | 3.90522 J | 3.93701 J | 5.15009 J | 4.3444 J | 3.37724 J | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | 2.62207 J | 2.50641 J | 2.58139 J | 2.4511 J | 1.98049 J | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | 3.54467 J | 3.17599 J | 3.14643 J | 3.32778 J | 2.66083 J | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | 3.80677 J | 3.931435 J | 5.142675 J | 4.33688 J | 3.372255 J | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | 2.52362 J | 2.500835 J | 2.573975 J | 2.44358 J | 1.975505 J | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | 3.44622 J | 3.170415 J | 3.139015 J | 3.32026 J | 2.655845 J | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | 3.70832 J | 3.92586 J | 5.13526 J | 4.32936 J | 3.36727 J | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | 2.42517 J | 2.49526 J | 2.56656 J | 2.43606 J | 1.97052 J | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | 3.34777 J | 3.16484 J | 3.1316 J | 3.31274 J | 2.65086 J | -- |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1262 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1268 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-301-130919 | JW-302-130919 | JW-SS-101-2013 | JW-SS-102-2013 | JW-SS-103-2013 | JW-SS-104-2013 | JW-SS-105-2013 | JW-SS-106-2013 |
| Sample ID | | | | | JW-301-130919 | JW-302-130919 | JW-SS-101-130429 | JW-SS-102-130429 | JW-SS-103-130429 | JW-SS-104-130429 | JW-SS-105-130429 | JW-SS-106-130429 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302315.848 | 1302196.687 | 1302147.983 | 1302137.562 | 1302321.922 | 1302384.445 | 1302452.239 | 1302358.053 |
| Y | | | | | 371339.0055 | 370932.173 | 373756.235 | 373622.314 | 373182.718 | 373076.652 | 372980.985 | 372592.179 |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | **0.602958905 J** | **0.344392237 J** | -- | -- | -- | -- | -- | **0.5301587862 J** |
| Total PCB Congener (U = 1/2) | | | | | **0.602596857 J** | **0.344077281 J** | -- | -- | -- | -- | -- | **0.5300165 J** |
| Total PCB Congener (U = 0) | 12 | 65 | | | **0.60223481 J** | **0.343762325 J** | -- | -- | -- | -- | -- | **0.5298742138 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | **0.00013922408095 J** | **7.538612719E-05 J** | -- | -- | -- | -- | -- | **0.000124736** |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | **1.331433333E-06 J** | **7.14708333E-07 J** | -- | -- | -- | -- | -- | **1.02526E-06** |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | **1.943890952E-05 J** | **1.104977193E-05 J** | -- | -- | -- | -- | -- | **1.34804E-05** |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | **0.00013920277143 J** | **7.536222368E-05 J** | -- | -- | -- | -- | -- | **0.000124729** |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | **0.0001391814619 J** | **7.533832018E-05 J** | -- | -- | -- | -- | -- | **0.000124723** |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | **1.330367857E-06 J** | **7.13513158E-07 J** | -- | -- | -- | -- | -- | **1.02494E-06** |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | **1.329302381E-06 J** | **7.12317983E-07 J** | -- | -- | -- | -- | -- | **1.02461E-06** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | **1.879962381E-05 J** | **1.033266667E-05 J** | -- | -- | -- | -- | -- | **1.32832E-05** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | **1.81603381E-05 J** | **9.6155614E-06 J** | -- | -- | -- | -- | -- | **1.30861E-05** |
| **PCB Congeners (ng/kg)** | | | | | | | | | | | | |
| PCB-001 | | | | | **83** | **139** | -- | -- | -- | -- | -- | **108** |
| PCB-002 | | | | | **36.1** | **64.8** | -- | -- | -- | -- | -- | **41.5** |
| PCB-003 | | | | | **68.8** | **177** | -- | -- | -- | -- | -- | **70.6** |
| PCB-004 | | | | | **35.8** | **23.6** | -- | -- | -- | -- | -- | **28.1 J** |
| PCB-005 | | | | | **3.73** | **3.17** | -- | -- | -- | -- | -- | **2.49** |
| PCB-006 | | | | | **31.4** | **19.7** | -- | -- | -- | -- | -- | **17.7** |
| PCB-007 | | | | | **8.64** | **5.85** | -- | -- | -- | -- | -- | **4.99** |
| PCB-008 | | | | | **157** | **87.6** | -- | -- | -- | -- | -- | **86.7** |
| PCB-009 | | | | | **10.8** | **7.29** | -- | -- | -- | -- | -- | **6.56** |
| PCB-010 | | | | | **2.21** | **1.66** | -- | -- | -- | -- | -- | **1.94** |
| PCB-011 | | | | | **187** | **131** | -- | -- | -- | -- | -- | **94.2** |
| PCB-012/013 | | | | | **21.2** | **21.8** | -- | -- | -- | -- | -- | **12.6** |
| PCB-014 | | | | | 0.468 U | 0.353 U | -- | -- | -- | -- | -- | **1.13** |
| PCB-015 | | | | | **111** | **75.6** | -- | -- | -- | -- | -- | **58.3** |
| PCB-016 | | | | | **67.1** | **41.7** | -- | -- | -- | -- | -- | **64.7** |
| PCB-017 | | | | | **72.6** | **44** | -- | -- | -- | -- | -- | **66.4** |
| PCB-018/030 | | | | | **140** | **84.3** | -- | -- | -- | -- | -- | **148** |
| PCB-019 | | | | | **8.74** | **5.1** | -- | -- | -- | -- | -- | **9.2** |
| PCB-020/028 | | | | | **415** | **220** | -- | -- | -- | -- | -- | **290** |
| PCB-021/033 | | | | | **159** | **83.2** | -- | -- | -- | -- | -- | **110** |
| PCB-022 | | | | | **121** | **64.2** | -- | -- | -- | -- | -- | **84** |
| PCB-023 | | | | | 0.853 U | 0.62 U | -- | -- | -- | -- | -- | 0.287 U |
| PCB-024 | | | | | **2.02** | **1.07** | -- | -- | -- | -- | -- | **1.33** |
| PCB-025 | | | | | **25.4** | **14.6** | -- | -- | -- | -- | -- | **17.7** |
| PCB-026/029 | | | | | **49.6** | **27.9** | -- | -- | -- | -- | -- | **34.9** |
| PCB-027 | | | | | **12.1** | **7.62** | -- | -- | -- | -- | -- | **10.3** |
| PCB-031 | | | | | **298** | **157** | -- | -- | -- | -- | -- | **224** |
| PCB-032 | | | | | **54.2** | **33.2** | -- | -- | -- | -- | -- | **52.1** |
| PCB-034 | | | | | **1.42 J** | **0.757 J** | -- | -- | -- | -- | -- | **1.43** |
| PCB-035 | | | | | **11.9** | **8.32** | -- | -- | -- | -- | -- | **6.84** |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-301-130919 | JW-302-130919 | JW-SS-101-2013 | JW-SS-102-2013 | JW-SS-103-2013 | JW-SS-104-2013 | JW-SS-105-2013 | JW-SS-106-2013 |
| Sample ID | | | | | JW-301-130919 | JW-302-130919 | JW-SS-101-130429 | JW-SS-102-130429 | JW-SS-103-130429 | JW-SS-104-130429 | JW-SS-105-130429 | JW-SS-106-130429 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302315.848 | 1302196.687 | 1302147.983 | 1302137.562 | 1302321.922 | 1302384.445 | 1302452.239 | 1302358.053 |
| Y | | | | | 371339.0055 | 370932.173 | 373756.235 | 373622.314 | 373182.718 | 373076.652 | 372980.985 | 372592.179 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| PCB-036 | | | | | **3** | **1.79** | -- | -- | -- | -- | -- | **1.89** |
| PCB-037 | | | | | **126** | **69.5** | -- | -- | -- | -- | -- | **82.2** |
| PCB-038 | | | | | 0.925 U | **2.11** | -- | -- | -- | -- | -- | **0.438 J** |
| PCB-039 | | | | | **2.05** | 0.603 U | -- | -- | -- | -- | -- | **0.922 J** |
| PCB-040/071 | | | | | **115** | **69.2** | -- | -- | -- | -- | -- | **115** |
| PCB-041 | | | | | **17.5** | **11.3** | -- | -- | -- | -- | -- | **21.8** |
| PCB-042 | | | | | **68.1** | **41.7** | -- | -- | -- | -- | -- | **67.8** |
| PCB-043 | | | | | **7.37** | **4.41** | -- | -- | -- | -- | -- | **8.54** |
| PCB-044/047/065 | | | | | **274** | **159** | -- | -- | -- | -- | -- | **258** |
| PCB-045 | | | | | **22.4** | **13.3** | -- | -- | -- | -- | -- | **34** |
| PCB-046 | | | | | **7.34** | **5.37** | -- | -- | -- | -- | -- | **12.4** |
| PCB-048 | | | | | **44.7** | **27.2** | -- | -- | -- | -- | -- | **49.9** |
| PCB-049/069 | | | | | **174** | **101** | -- | -- | -- | -- | -- | **164** |
| PCB-050/053 | | | | | **20.8** | **13.1** | -- | -- | -- | -- | -- | **29.6** |
| PCB-051 | | | | | **4.67** | **4.05** | -- | -- | -- | -- | -- | **7.28** |
| PCB-052 | | | | | **385** | **211** | -- | -- | -- | -- | -- | **327** |
| PCB-054 | | | | | 0.274 U | 0.294 U | -- | -- | -- | -- | -- | **0.581 J** |
| PCB-055 | | | | | 0.69 U | 0.674 U | -- | -- | -- | -- | -- | **3.45** |
| PCB-056 | | | | | **175** | **98.7** | -- | -- | -- | -- | -- | **145** |
| PCB-057 | | | | | **1.51** | **0.775 J** | -- | -- | -- | -- | -- | **1.08** |
| PCB-058 | | | | | **1.21** | 0.64 U | -- | -- | -- | -- | -- | **0.971** |
| PCB-059/062/075 | | | | | **21.4** | **13.6** | -- | -- | -- | -- | -- | **19.9** |
| PCB-060 | | | | | **87.4** | **47.4** | -- | -- | -- | -- | -- | **63.6** |
| PCB-061/070/074/076 | | | | | **725** | **398** | -- | -- | -- | -- | -- | **438** |
| PCB-063 | | | | | **13.4** | **7.45** | -- | -- | -- | -- | -- | **8.89** |
| PCB-064 | | | | | **114** | **65.6** | -- | -- | -- | -- | -- | **104** |
| PCB-066 | | | | | **426** | **238** | -- | -- | -- | -- | -- | **292** |
| PCB-067 | | | | | **11.9** | **7.6** | -- | -- | -- | -- | -- | **7.28** |
| PCB-068 | | | | | **2.62** | **1.63** | -- | -- | -- | -- | -- | **1.82** |
| PCB-072 | | | | | **4.86** | **2.69** | -- | -- | -- | -- | -- | **3.5** |
| PCB-073 | | | | | 0.389 U | 0.3 U | -- | -- | -- | -- | -- | **0.371 J** |
| PCB-077 | | | | | **47.2** | **28.5** | -- | -- | -- | -- | -- | **32.9** |
| PCB-078 | | | | | 0.746 U | 0.728 U | -- | -- | -- | -- | -- | 0.243 U |
| PCB-079 | | | | | **5.05** | **3.69** | -- | -- | -- | -- | -- | **3.3** |
| PCB-080 | | | | | 0.586 U | 0.572 U | -- | -- | -- | -- | -- | 0.205 U |
| PCB-081 | | | | | **1.75 J** | **0.689 J** | -- | -- | -- | -- | -- | **1.27** |
| PCB-082 | | | | | **67.7** | **43** | -- | -- | -- | -- | -- | **45.7** |
| PCB-083 | | | | | **31.8** | **17.6** | -- | -- | -- | -- | -- | **19.5** |
| PCB-084 | | | | | **124** | **73.1** | -- | -- | -- | -- | -- | **67.8** |
| PCB-085/116 | | | | | **98.3** | **65.5** | -- | -- | -- | -- | -- | **64.5** |
| PCB-086/087/097/108/119/125 | | | | | **377** | **237** | -- | -- | -- | -- | -- | **233** |
| PCB-086/087/097/109/119/125 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-088 | | | | | 0.661 U | 0.516 U | -- | -- | -- | -- | -- | **2.86** |
| PCB-089 | | | | | **4.38** | **2.82 J** | -- | -- | -- | -- | -- | **4.44** |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-301-130919 | JW-302-130919 | JW-SS-101-2013 | JW-SS-102-2013 | JW-SS-103-2013 | JW-SS-104-2013 | JW-SS-105-2013 | JW-SS-106-2013 |
| Sample ID | | | | | JW-301-130919 | JW-302-130919 | JW-SS-101-130429 | JW-SS-102-130429 | JW-SS-103-130429 | JW-SS-104-130429 | JW-SS-105-130429 | JW-SS-106-130429 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302315.848 | 1302196.687 | 1302147.983 | 1302137.562 | 1302321.922 | 1302384.445 | 1302452.239 | 1302358.053 |
| Y | | | | | 371339.0055 | 370932.173 | 373756.235 | 373622.314 | 373182.718 | 373076.652 | 372980.985 | 372592.179 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| PCB-090/101/113 | | | | | **557** | **353** | -- | -- | -- | -- | -- | **342** |
| PCB-091 | | | | | **55.2** | **34.6** | -- | -- | -- | -- | -- | **28.5** |
| PCB-092 | | | | | **106** | **66.2** | -- | -- | -- | -- | -- | **67.6** |
| PCB-093/100 | | | | | **3.2 J** | 0.47 U | -- | -- | -- | -- | -- | **2.57** |
| PCB-094 | | | | | **1.69 J** | 0.513 U | -- | -- | -- | -- | -- | **1.16 J** |
| PCB-095 | | | | | **357** | **216** | -- | -- | -- | -- | -- | **174** |
| PCB-096 | | | | | **2.39** | **1.64** | -- | -- | -- | -- | -- | **2.97** |
| PCB-098 | | | | | 0.667 U | 0.521 U | -- | -- | -- | -- | -- | 0.703 U |
| PCB-099 | | | | | **306** | **199** | -- | -- | -- | -- | -- | **190** |
| PCB-102 | | | | | **11** | **6.88** | -- | -- | -- | -- | -- | **6.92** |
| PCB-103 | | | | | **3.82** | **2.11** | -- | -- | -- | -- | -- | **2.8** |
| PCB-104 | | | | | 0.232 U | 0.219 U | -- | -- | -- | -- | -- | 0.0877 U |
| PCB-105 | | | | | **262** | **165** | -- | -- | -- | -- | -- | **167** |
| PCB-106 | | | | | 0.451 U | 0.352 U | -- | -- | -- | -- | -- | 0.405 U |
| PCB-107 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-107/124 | | | | | **23.6** | **15.5** | -- | -- | -- | -- | -- | **12.6** |
| PCB-108/124 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-109 | | | | | **44.6** | **28.9** | -- | -- | -- | -- | -- | **29.1** |
| PCB-110 | | | | | **666** | **413** | -- | -- | -- | -- | -- | **416** |
| PCB-111 | | | | | 0.423 U | 0.33 U | -- | -- | -- | -- | -- | 0.373 U |
| PCB-112 | | | | | 0.455 U | **0.73 J** | -- | -- | -- | -- | -- | 0.399 U |
| PCB-114 | | | | | **12.1** | **8.3** | -- | -- | -- | -- | -- | **8.23** |
| PCB-115 | | | | | 0.469 U | 0.366 U | -- | -- | -- | -- | -- | **7.67** |
| PCB-117 | | | | | **14.2** | **9.81** | -- | -- | -- | -- | -- | **10.1** |
| PCB-118 | | | | | **615** | **387** | -- | -- | -- | -- | -- | **383** |
| PCB-120 | | | | | 0.425 U | 0.332 U | -- | -- | -- | -- | -- | **2.2** |
| PCB-121 | | | | | 0.425 U | 0.331 U | -- | -- | -- | -- | -- | 0.388 U |
| PCB-122 | | | | | **8.39** | **5.77** | -- | -- | -- | -- | -- | **4.3** |
| PCB-123 | | | | | **8.75** | **6.75** | -- | -- | -- | -- | -- | **5.96** |
| PCB-126 | | | | | **3.46** | **1.97** | -- | -- | -- | -- | -- | **1.86** |
| PCB-127 | | | | | 0.494 U | 0.372 U | -- | -- | -- | -- | -- | 0.393 U |
| PCB-128/166 | | | | | **105** | **72.7** | -- | -- | -- | -- | -- | **47.3** |
| PCB-129/138/163 | | | | | **683** | **420** | -- | -- | -- | -- | -- | **358** |
| PCB-130 | | | | | **43.2** | **28** | -- | -- | -- | -- | -- | **23.7** |
| PCB-131 | | | | | **7.16** | **4.98** | -- | -- | -- | -- | -- | **3.41** |
| PCB-132 | | | | | **179** | **112** | -- | -- | -- | -- | -- | **90.3** |
| PCB-133 | | | | | 0.289 U | **6.46** | -- | -- | -- | -- | -- | **6.24** |
| PCB-134 | | | | | **34.3** | **22.1** | -- | -- | -- | -- | -- | **17.6** |
| PCB-135/151 | | | | | **154** | **89.5** | -- | -- | -- | -- | -- | **93.9** |
| PCB-136 | | | | | **54.3** | **35.4** | -- | -- | -- | -- | -- | **32.4** |
| PCB-137 | | | | | **27.3** | **18.8** | -- | -- | -- | -- | -- | **13.3** |
| PCB-139/140 | | | | | **10.3** | **7.37** | -- | -- | -- | -- | -- | **5.83** |
| PCB-141 | | | | | **83.2** | **51.5** | -- | -- | -- | -- | -- | **46.7** |
| PCB-142 | | | | | 0.309 U | 0.28 U | -- | -- | -- | -- | -- | 0.106 U |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-301-130919 | JW-302-130919 | JW-SS-101-2013 | JW-SS-102-2013 | JW-SS-103-2013 | JW-SS-104-2013 | JW-SS-105-2013 | JW-SS-106-2013 |
| Sample ID | | | | | JW-301-130919 | JW-302-130919 | JW-SS-101-130429 | JW-SS-102-130429 | JW-SS-103-130429 | JW-SS-104-130429 | JW-SS-105-130429 | JW-SS-106-130429 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302315.848 | 1302196.687 | 1302147.983 | 1302137.562 | 1302321.922 | 1302384.445 | 1302452.239 | 1302358.053 |
| Y | | | | | 371339.0055 | 370932.173 | 373756.235 | 373622.314 | 373182.718 | 373076.652 | 372980.985 | 372592.179 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| PCB-143 | | | | | 0.267 U | 0.242 U | -- | -- | -- | -- | -- | **0.564 J** |
| PCB-144 | | | | | **19.9** | **12.4** | -- | -- | -- | -- | -- | **11.7** |
| PCB-145 | | | | | 0.179 U | 0.206 U | -- | -- | -- | -- | -- | 0.0775 U |
| PCB-146 | | | | | **91.3** | **55.7** | -- | -- | -- | -- | -- | **56.3** |
| PCB-147/149 | | | | | **392** | **234** | -- | -- | -- | -- | -- | **225** |
| PCB-148 | | | | | **1.12** | **0.61 J** | -- | -- | -- | -- | -- | **0.72 J** |
| PCB-150 | | | | | 0.168 U | 0.193 U | -- | -- | -- | -- | -- | **0.537 J** |
| PCB-152 | | | | | **0.331 J** | 0.192 U | -- | -- | -- | -- | -- | **0.28 J** |
| PCB-153/168 | | | | | **473** | **286** | -- | -- | -- | -- | -- | **305** |
| PCB-154 | | | | | **7.92** | **4.48 J** | -- | -- | -- | -- | -- | **5.42** |
| PCB-155 | | | | | 0.152 U | 0.174 U | -- | -- | -- | -- | -- | 0.0778 U |
| PCB-156/157 | | | | | **78.9** | **53.6** | -- | -- | -- | -- | -- | **35.4** |
| PCB-158 | | | | | **62.2** | **37.8** | -- | -- | -- | -- | -- | **31** |
| PCB-159 | | | | | **3.55** | **2.28 J** | -- | -- | -- | -- | -- | **1.66 J** |
| PCB-160 | | | | | 0.236 U | 0.214 U | -- | -- | -- | -- | -- | 0.0777 U |
| PCB-161 | | | | | 0.208 U | 0.188 U | -- | -- | -- | -- | -- | 0.0718 U |
| PCB-162 | | | | | **2.57** | **1.67** | -- | -- | -- | -- | -- | **1.16** |
| PCB-164 | | | | | **40.6** | **25.2** | -- | -- | -- | -- | -- | **21.6** |
| PCB-165 | | | | | 0.235 U | 0.213 U | -- | -- | -- | -- | -- | **0.238 J** |
| PCB-167 | | | | | **22.8** | **15.5** | -- | -- | -- | -- | -- | **11.4** |
| PCB-169 | | | | | 0.895 U | 1.09 U | -- | -- | -- | -- | -- | 0.209 U |
| PCB-170 | | | | | **109** | **62** | -- | -- | -- | -- | -- | **61.1** |
| PCB-171/173 | | | | | **35.7** | **19.5** | -- | -- | -- | -- | -- | **19** |
| PCB-172 | | | | | **20.7** | **11.1** | -- | -- | -- | -- | -- | **10.2** |
| PCB-174 | | | | | **99.2** | **53.1** | -- | -- | -- | -- | -- | **59.1** |
| PCB-175 | | | | | 0.658 U | **3.01** | -- | -- | -- | -- | -- | **2.56** |
| PCB-176 | | | | | **10.5** | **6.5** | -- | -- | -- | -- | -- | **7.09** |
| PCB-177 | | | | | **72.7** | **40.2** | -- | -- | -- | -- | -- | **42** |
| PCB-178 | | | | | **24.5** | **15.4** | -- | -- | -- | -- | -- | **15.8** |
| PCB-179 | | | | | **40.2** | **23.4** | -- | -- | -- | -- | -- | **27.4** |
| PCB-180/193 | | | | | **235** | **126** | -- | -- | -- | -- | -- | **140** |
| PCB-181 | | | | | **1.4** | 0.487 U | -- | -- | -- | -- | -- | **0.484 J** |
| PCB-182 | | | | | 0.559 U | 0.461 U | -- | -- | -- | -- | -- | **0.574 J** |
| PCB-183 | | | | | **59.9** | **32.1** | -- | -- | -- | -- | -- | **34.8** |
| PCB-184 | | | | | 0.205 U | 0.214 U | -- | -- | -- | -- | -- | 0.0733 U |
| PCB-185 | | | | | **9.67** | **6.41** | -- | -- | -- | -- | -- | **5.51** |
| PCB-186 | | | | | 0.197 U | 0.206 U | -- | -- | -- | -- | -- | 0.0698 U |
| PCB-187 | | | | | **151** | **83.9** | -- | -- | -- | -- | -- | **91.9** |
| PCB-188 | | | | | 0.191 U | 0.199 U | -- | -- | -- | -- | -- | 0.0746 U |
| PCB-189 | | | | | **4.52** | **3.12** | -- | -- | -- | -- | -- | **2.26** |
| PCB-190 | | | | | **20.3** | **10.8** | -- | -- | -- | -- | -- | **10.8** |
| PCB-191 | | | | | **4.55** | **2.44** | -- | -- | -- | -- | -- | **2.2** |
| PCB-192 | | | | | 0.518 U | 0.427 U | -- | -- | -- | -- | -- | 0.125 U |
| PCB-194 | | | | | **61.4** | **32.1** | -- | -- | -- | -- | -- | **31.8** |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-301-130919 | JW-302-130919 | JW-SS-101-2013 | JW-SS-102-2013 | JW-SS-103-2013 | JW-SS-104-2013 | JW-SS-105-2013 | JW-SS-106-2013 |
| Sample ID | | | | | JW-301-130919 | JW-302-130919 | JW-SS-101-130429 | JW-SS-102-130429 | JW-SS-103-130429 | JW-SS-104-130429 | JW-SS-105-130429 | JW-SS-106-130429 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302315.848 | 1302196.687 | 1302147.983 | 1302137.562 | 1302321.922 | 1302384.445 | 1302452.239 | 1302358.053 |
| Y | | | | | 371339.0055 | 370932.173 | 373756.235 | 373622.314 | 373182.718 | 373076.652 | 372980.985 | 372592.179 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| PCB-195 | | | | | 22 | 11.6 | -- | -- | -- | -- | -- | 11.1 |
| PCB-196 | | | | | 26 | 14.1 | -- | -- | -- | -- | -- | 14.2 |
| PCB-197 | | | | | 1.62 | 1 J | -- | -- | -- | -- | -- | 1.04 |
| PCB-198/199 | | | | | 60.9 | 34.8 | -- | -- | -- | -- | -- | 34.3 |
| PCB-200 | | | | | 6.05 | 3.11 | -- | -- | -- | -- | -- | 3.91 |
| PCB-201 | | | | | 7.23 | 4.26 | -- | -- | -- | -- | -- | 4.45 |
| PCB-202 | | | | | 15.1 | 9.05 | -- | -- | -- | -- | -- | 11.1 |
| PCB-203 | | | | | 38.5 | 22.8 | -- | -- | -- | -- | -- | 21.9 |
| PCB-204 | | | | | 0.307 U | 0.27 U | -- | -- | -- | -- | -- | 0.0785 U |
| PCB-205 | | | | | 2.73 | 1.5 | -- | -- | -- | -- | -- | 1.2 |
| PCB-206 | | | | | 29.9 | 24.4 | -- | -- | -- | -- | -- | 20.3 |
| PCB-207 | | | | | 3.77 | 2.73 | -- | -- | -- | -- | -- | 2.29 |
| PCB-208 | | | | | 9.37 | 6.73 | -- | -- | -- | -- | -- | 6.84 |
| PCB-209 | | | | | 17 | 12 | -- | -- | -- | -- | -- | 12.4 |
| Total PCB Congener (U = limit) | | | | | 12662.137 J | 7852.143 J | -- | -- | -- | -- | -- | 8429.5247 J |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | 2.9237057 J | 1.7188037 J | -- | -- | -- | -- | -- | 1.9832982 |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | 0.0279601 J | 0.01629535 J | -- | -- | -- | -- | -- | 0.0163017 |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | 0.4082171 J | 0.2519348 J | -- | -- | -- | -- | -- | 0.2143385 |
| Total PCB Congener (U = 1/2) | | | | | 12654.534 J | 7844.962 J | -- | -- | -- | -- | -- | 8427.2624 J |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | 12646.931 J | 7837.781 J | -- | -- | -- | -- | -- | 8425 J |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | 2.9232582 J | 1.7182587 J | -- | -- | -- | -- | -- | 1.9831937 |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | 2.9228107 J | 1.7177137 J | -- | -- | -- | -- | -- | 1.9830892 |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | 0.027937725 J | 0.0162681 J | -- | -- | -- | -- | -- | 0.016296475 |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | 0.02791535 J | 0.01624085 J | -- | -- | -- | -- | -- | 0.01629125 |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | 0.3947921 J | 0.2355848 J | -- | -- | -- | -- | -- | 0.2112035 |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | 0.3813671 J | 0.2192348 J | -- | -- | -- | -- | -- | 0.2080685 |
| **Total Petroleum Hydrocarbons (mg/kg)** | | | | | | | | | | | | |
| Diesel range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Motor oil range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | 0.00013922408095 J | 7.538612719E-05 J | 0.00017751 J | 0.00019984822335 J | 0.00024065841122 J | 0.00022278974359 J | 0.00017964042553 J | 0.000124736 |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | 1.331433333E-06 J | 7.14708333E-07 J | 0.000119185 J | 0.00012722893401 J | 0.00012062570093 J | 0.0001256974359 J | 0.00010534521277 J | 1.02526E-06 |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | 1.943890952E-05 J | 1.104977193E-05 J | 0.00016112136364 J | 0.0001612177665 J | 0.00014702943925 J | 0.00017065538462 J | 0.00014153351064 J | 1.34804E-05 |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | 0.00013920277143 J | 7.536222368E-05 J | 0.000173035 J | 0.00019956522843 J | 0.00024031191589 J | 0.00022240410256 J | 0.00017937526596 J | 0.000124729 |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | 1.330367857E-06 J | 7.13513158E-07 J | 0.00011471 J | 0.00012694593909 J | 0.00012027920561 J | 0.00012531179487 J | 0.00010508005319 J | 1.02494E-06 |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | 1.879962381E-05 J | 1.033266667E-05 J | 0.00015664636364 J | 0.00016093477157 J | 0.00014668294393 J | 0.00017026974359 J | 0.00014126835106 J | 1.32832E-05 |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | 0.0001391814619 J | 7.533832018E-05 J | 0.00016856 J | 0.0001992822335 J | 0.00023996542056 J | 0.00022201846154 J | 0.00017911010638 J | 0.000124723 |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | 1.329302381E-06 J | 7.12317983E-07 J | 0.000110235 J | 0.00012666294416 J | 0.00011993271028 J | 0.00012492615385 J | 0.00010481489362 J | 1.02461E-06 |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | 1.81603381E-05 J | 9.6155614E-06 J | 0.00015217136364 J | 0.00016065177665 J | 0.0001463364486 J | 0.00016988410256 J | 0.00014100319149 J | 1.30861E-05 |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | 2.9237057 J | 1.7188037 J | 3.90522 J | 3.93701 J | 5.15009 J | 4.3444 J | 3.37724 J | 1.9832982 |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | 0.0279601 J | 0.01629535 J | 2.62207 J | 2.50641 J | 2.58139 J | 2.4511 J | 1.98049 J | 0.0163017 |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | 0.4082171 J | 0.2519348 J | 3.54467 J | 3.17599 J | 3.14643 J | 3.32778 J | 2.66083 J | 0.2143385 |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | 2.9232582 J | 1.7182587 J | 3.80677 J | 3.931435 J | 5.142675 J | 4.33688 J | 3.372255 J | 1.9831937 |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | 0.027937725 J | 0.0162681 J | 2.52362 J | 2.500835 J | 2.573975 J | 2.44358 J | 1.975505 J | 0.016296475 |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-301-130919 | JW-302-130919 | JW-SS-101-2013 | JW-SS-102-2013 | JW-SS-103-2013 | JW-SS-104-2013 | JW-SS-105-2013 | JW-SS-106-2013 |
| Sample ID | | | | | JW-301-130919 | JW-302-130919 | JW-SS-101-130429 | JW-SS-102-130429 | JW-SS-103-130429 | JW-SS-104-130429 | JW-SS-105-130429 | JW-SS-106-130429 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302315.848 | 1302196.687 | 1302147.983 | 1302137.562 | 1302321.922 | 1302384.445 | 1302452.239 | 1302358.053 |
| Y | | | | | 371339.0055 | 370932.173 | 373756.235 | 373622.314 | 373182.718 | 373076.652 | 372980.985 | 372592.179 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | 0.3947921 J | 0.2355848 J | 3.44622 J | 3.170415 J | 3.139015 J | 3.32026 J | 2.655845 J | 0.2112035 |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | 2.9228107 J | 1.7177137 J | 3.70832 J | 3.92586 J | 5.13526 J | 4.32936 J | 3.36727 J | 1.9830892 |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | 0.02791535 J | 0.01624085 J | 2.42517 J | 2.49526 J | 2.56656 J | 2.43606 J | 1.97052 J | 0.01629125 |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | 0.3813671 J | 0.2192348 J | 3.34777 J | 3.16484 J | 3.1316 J | 3.31274 J | 2.65086 J | 0.2080685 |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-SS-107-2013 | JW-SS-108-2013 | JW-SS-109-2013 | JW-SS-110-2013 | JW-SS-110-2013 | JW-SS-207-2013 | JW-SS-208-2013 | JW-SS-209-2013 |
| Sample ID | | | | | JW-SS-107-130429 | JW-SS-108-130429 | JW-SS-109-130429 | JW-SS-110-130429 | JW-SS-310-130429 | JW-SS-207-130429 | JW-SS-208-130429 | JW-SS-209-130429 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302378.901 | 1302611.606 | 1302793.455 | 1302729.017 | 1302729.017 | 1302337.163942 | 1302131.302806 | 1302183.819433 |
| Y | | | | | 372312.064 | 372134.198 | 372034.018 | 371899.504 | 371899.504 | 372986.353233 | 372599.319231 | 372279.345789 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | | | |
| Total organic carbon | | | | | 1.75 | 2.24 | 2.34 | 2.34 | 2.73 | 2.35 J | 2.18 J | 1.67 J |
| Moisture, percent | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Solids | | | | | 68.94 | 63.19 | 62.58 | 62.66 | 62 | 49.9 | 49.1 | 54.5 |
| Total solids (preserved) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total volatile solids | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Conventional Parameters (mg/kg)** | | | | | | | | | | | | |
| Ammonia as nitrogen | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Black carbon | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Sulfide | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Grain Size (pct)** | | | | | | | | | | | | |
| Cobbles | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Gravel | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Sand | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Sand, very coarse | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Sand, coarse | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Sand, medium | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Sand, fine | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Sand, very fine | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Silt | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Silt, coarse | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Silt, medium | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Silt, fine | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Silt, very fine | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total fines (Reported, not calculated) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Clay | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Clay, coarse | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Clay, medium | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Clay, fine | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Metals (mg/kg)** | | | | | | | | | | | | |
| Antimony | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Arsenic | 57 | 93 | 57 | 93 | -- | -- | -- | -- | -- | -- | -- | -- |
| Cadmium | 5.1 | 6.7 | 5.1 | 6.7 | -- | -- | -- | -- | -- | -- | -- | -- |
| Chromium | 260 | 270 | 260 | 270 | -- | -- | -- | -- | -- | -- | -- | -- |
| Copper | 390 | 390 | 390 | 390 | -- | -- | -- | -- | -- | -- | -- | -- |
| Lead | 450 | 530 | 450 | 530 | -- | -- | -- | -- | -- | -- | -- | -- |
| Mercury | 0.41 | 0.59 | 0.41 | 0.59 | -- | -- | -- | -- | -- | -- | -- | -- |
| Nickel | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Silver | 6.1 | 6.1 | 6.1 | 6.1 | -- | -- | -- | -- | -- | -- | -- | -- |
| Zinc | 410 | 960 | 410 | 960 | -- | -- | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (mg/kg-OC)** | | | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (µg/kg)** | | | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
| Location ID | | | | | JW-SS-107-2013 | JW-SS-108-2013 | JW-SS-109-2013 | JW-SS-110-2013 | JW-SS-110-2013 | JW-SS-207-2013 | JW-SS-208-2013 | JW-SS-209-2013 |
| Sample ID | | | | | JW-SS-107-130429 | JW-SS-108-130429 | JW-SS-109-130429 | JW-SS-110-130429 | JW-SS-310-130429 | JW-SS-207-130429 | JW-SS-208-130429 | JW-SS-209-130429 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302378.901 | 1302611.606 | 1302793.455 | 1302729.017 | 1302729.017 | 1302337.163942 | 1302131.302806 | 1302183.819433 |
| Y | | | | | 372312.064 | 372134.198 | 372034.018 | 371899.504 | 371899.504 | 372986.353233 | 372599.319231 | 372279.345789 |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,3-Dichlorobenzene | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | -- | -- | -- | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- | -- | -- | -- | -- | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-SS-107-2013 | JW-SS-108-2013 | JW-SS-109-2013 | JW-SS-110-2013 | JW-SS-110-2013 | JW-SS-207-2013 | JW-SS-208-2013 | JW-SS-209-2013 |
| Sample ID | | | | | JW-SS-107-130429 | JW-SS-108-130429 | JW-SS-109-130429 | JW-SS-110-130429 | JW-SS-310-130429 | JW-SS-207-130429 | JW-SS-208-130429 | JW-SS-209-130429 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302378.901 | 1302611.606 | 1302793.455 | 1302729.017 | 1302729.017 | 1302337.163942 | 1302131.302806 | 1302183.819433 |
| Y | | | | | 372312.064 | 372134.198 | 372034.018 | 371899.504 | 371899.504 | 372986.353233 | 372599.319231 | 372279.345789 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | | |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | | | |
| 1-Methylnaphthalene | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(b)fluoranthene | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzo(k)fluoranthene | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluorene | | | 540 | 540 | -- | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | **0.701** | **0.785** | **0.82** | **0.844** | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | **1.96 J** | **1.78 J** | **2.36 J** | **2.21 J** | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | **2.22 J** | **2.07 J** | **2.92** | **2.75** | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-SS-107-2013 | JW-SS-108-2013 | JW-SS-109-2013 | JW-SS-110-2013 | JW-SS-110-2013 | JW-SS-207-2013 | JW-SS-208-2013 | JW-SS-209-2013 |
| Sample ID | | | | | JW-SS-107-130429 | JW-SS-108-130429 | JW-SS-109-130429 | JW-SS-110-130429 | JW-SS-310-130429 | JW-SS-207-130429 | JW-SS-208-130429 | JW-SS-209-130429 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302378.901 | 1302611.606 | 1302793.455 | 1302729.017 | 1302729.017 | 1302337.163942 | 1302131.302806 | 1302183.819433 |
| Y | | | | | 372312.064 | 372134.198 | 372034.018 | 371899.504 | 371899.504 | 372986.353233 | 372599.319231 | 372279.345789 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | 8.99 | 5.38 | 10.1 | 8.29 | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | 4.62 | 3.21 | 5.78 | 4.48 | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | 106 | 103 | 151 | 114 | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | -- | 664 | 1170 | 1180 | 780 | -- | -- | -- |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | 69.2 J | 79.8 J | 73.3 J | 63.7 J | -- | -- | -- |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | 64.4 J | 68.7 J | 70.3 J | 57 J | -- | -- | -- |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | 104 | 87.6 | 111 | 91.7 J | -- | -- | -- |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | 223 | 218 | 316 | 241 | -- | -- | -- |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | -- | 8.03 | 5.09 | 8.32 | 6.92 | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | 1.57 J | 1.5 J | 1.57 J | 1.39 J | -- | -- | -- |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | 3.05 | 3.89 | 3.32 | 2.72 | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | 1.74 J | 1.64 J | 2.14 J | 1.75 J | -- | -- | -- |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | 1.59 J | 1.52 J | 1.68 J | 1.48 J | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | -- | 0.1771 U | 0.1618 U | 0.1646 U | 0.1714 U | -- | -- | -- |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | 2.51 | 2.35 J | 2.86 | 2.35 J | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | -- | 21.9 | 23.8 | 30.2 | 22.9 | -- | -- | -- |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | -- | 1.34 J | 1.28 J | 2.03 J | 1.64 J | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | -- | 39.4 | 162 | 84.6 | 49.6 | -- | -- | -- |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | -- | 73.9 J | 86 J | 77.2 J | 67.1 J | -- | -- | -- |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | -- | 37.8 J | 47 J | 42 J | 33.7 J | -- | -- | -- |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | -- | 41.3 J | 34.9 J | 45.5 J | 36.9 | -- | -- | -- |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | -- | 59.6 | 86.5 | 91.8 J | 66.4 | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | -- | 15.57135 J | 13.22748 J | 17.08622 J | 14.5189 J | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | -- | 6.92255 J | 7.01458 J | 8.23752 J | 7.3497 J | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | -- | 8.11423 J | 7.59958 J | 9.83124 J | 8.36512 J | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | -- | 15.562495 J | 13.21939 J | 17.07799 J | 14.51033 J | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | 6.913695 J | 7.00649 J | 8.22929 J | 7.34113 J | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | 8.105375 J | 7.59149 J | 9.82301 J | 8.35655 J | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | -- | 15.55364 J | 13.2113 J | 17.06976 J | 14.50176 J | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | -- | 6.90484 J | 6.9984 J | 8.22106 J | 7.33256 J | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | -- | 8.09652 J | 7.5834 J | 9.81478 J | 8.34798 J | -- | -- | -- |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1262 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1268 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-SS-107-2013 | JW-SS-108-2013 | JW-SS-109-2013 | JW-SS-110-2013 | JW-SS-110-2013 | JW-SS-207-2013 | JW-SS-208-2013 | JW-SS-209-2013 |
| Sample ID | | | | | JW-SS-107-130429 | JW-SS-108-130429 | JW-SS-109-130429 | JW-SS-110-130429 | JW-SS-310-130429 | JW-SS-207-130429 | JW-SS-208-130429 | JW-SS-209-130429 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302378.901 | 1302611.606 | 1302793.455 | 1302729.017 | 1302729.017 | 1302337.163942 | 1302131.302806 | 1302183.819433 |
| Y | SMS_Marine_ | SMS_Marine_ | AET_Marine_ | AET_Marine_ | 372312.064 | 372134.198 | 372034.018 | 371899.504 | 371899.504 | 372986.353233 | 372599.319231 | 372279.345789 |
| Analyte | SCO_SCUMII | CSL_SCUMII | SCO_SCUMII | CSL_SCUMII | | | | | | | | |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | 0.7762985429 J | 2.205004196 J | 2.039072479 J | 3.028431239 J | 2.156191758 J | 0.458716511 J | 0.293266972 J | 0.660782994 J |
| Total PCB Congener (U = 1/2) | | | | | 0.7761976714 J | 2.204852321 J | 2.03890406 J | 3.02826453 J | 2.15611141 J | 0.456564021 J | 0.288819404 J | 0.66034479 J |
| Total PCB Congener (U = 0) | 12 | 65 | | | 0.7760968 J | 2.204700446 J | 2.038735641 J | 3.028097821 J | 2.156031062 J | 0.454411532 J | 0.284371835 J | 0.659906587 J |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | 0.000159331 | 0.000479288 | 0.00032508 | 0.00064792 | 0.000432422 | 7.01082553E-05 J | 6.35952E-05 | 0.0001360281916 J |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | 1.23537E-06 | 3.93558E-06 | 3.39594E-06 | 5.25376E-06 | 3.74717E-06 | 6.8785106E-07 J | 4.60255E-07 | 1.08777844E-06 J |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | 1.57442E-05 | 4.93717E-05 | 4.26604E-05 | 6.36109E-05 | 4.7087E-05 | 9.5106809E-06 J | 7.1144E-06 | 1.50693653E-05 J |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | 0.000159324 | 0.000479276 | 0.000325072 | 0.000647906 | 0.000432411 | 7.0084E-05 J | 5.93191E-05 | 0.0001359910659 J |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | 0.000159317 | 0.000479264 | 0.000325063 | 0.000647892 | 0.000432401 | 7.00597447E-05 J | 5.50429E-05 | 0.0001359539401 J |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | 1.23505E-06 | 3.93499E-06 | 3.3955E-06 | 5.25306E-06 | 3.74665E-06 | 6.866383E-07 J | 3.39544E-07 | 1.08592216E-06 J |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | 1.23472E-06 | 3.9344E-06 | 3.39506E-06 | 5.25235E-06 | 3.74614E-06 | 6.8542553E-07 J | 2.18833E-07 | 1.08406587E-06 J |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | 1.5547E-05 | 4.90154E-05 | 4.23982E-05 | 6.31879E-05 | 4.67766E-05 | 8.7830213E-06 J | 3.94306E-06 | 1.39555928E-05 J |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | 1.53499E-05 | 4.86592E-05 | 4.21361E-05 | 6.27648E-05 | 4.64661E-05 | 8.0553617E-06 J | 7.71711E-07 | 1.28418204E-05 J |
| **PCB Congeners (ng/kg)** | | | | | | | | | | | | |
| PCB-001 | | | | | 761 | 124 | 33.6 | 88.3 | 101 | 25.8 | 45.6 | 53.1 |
| PCB-002 | | | | | 126 | 71.9 | 73.3 | 85.9 | 69.7 | 44.3 | 43.5 | 32.8 |
| PCB-003 | | | | | 501 | 125 | 54 | 112 | 104 | 28.1 | 35.9 | 46.2 |
| PCB-004 | | | | | 82.1 J | 106 J | 48.9 J | 87.6 J | 81.3 J | 12.8 | 17 | 21.7 |
| PCB-005 | | | | | 7.7 | 7.91 | 191 | 350 | 6.75 | 1.33 J | 1.49 J | 1.93 |
| PCB-006 | | | | | 46.3 | 76.6 | 33.9 | 67 | 58.4 | 12.4 | 13.5 | 18.7 |
| PCB-007 | | | | | 14.6 | 14.4 | 5.19 | 14.2 | 12.5 | 2.4 | 2.9 | 3.91 |
| PCB-008 | | | | | 224 | 334 | 0.23 U | 0.223 U | 308 | 61.2 | 57.2 | 92.3 |
| PCB-009 | | | | | 17.6 | 20.6 | 8.77 | 20.4 | 18.1 | 3.88 | 4.3 | 5.96 |
| PCB-010 | | | | | 6.37 | 5.41 | 2.12 | 4.89 | 4.51 | 0.375 U | 1.45 J | 1.8 |
| PCB-011 | | | | | 163 | 598 | 951 | 948 | 774 | 89.3 U | 90 U | 134 |
| PCB-012/013 | | | | | 31.1 | 49.9 | 36.5 | 56.7 | 45.9 | 10.2 | 10.6 | 14.8 |
| PCB-014 | | | | | 0.28 U | 2.79 | 3.85 | 3.18 | 2.63 | 1.4 J | 1.15 J | 1.04 J |
| PCB-015 | | | | | 133 | 270 | 163 | 307 | 249 | 51.3 | 49.7 | 72.3 |
| PCB-016 | | | | | 131 | 241 | 167 | 286 | 255 | 33.2 | 30 | 49.9 |
| PCB-017 | | | | | 141 | 263 | 166 | 279 | 248 | 39.1 | 36.1 | 56.7 |
| PCB-018/030 | | | | | 285 | 581 | 356 | 620 | 556 | 72.3 | 67.2 | 112 |
| PCB-019 | | | | | 16.3 | 50.9 | 28.1 | 42.3 | 36.3 | 4.73 | 4.42 | 7.08 |
| PCB-020/028 | | | | | 460 | 1430 | 920 | 1570 | 1310 | 221 | 194 | 329 |
| PCB-021/033 | | | | | 176 | 538 | 339 | 595 | 502 | 85.6 | 69.1 | 124 |
| PCB-022 | | | | | 135 | 418 | 269 | 477 | 395 | 61.8 | 53.7 | 95.8 |
| PCB-023 | | | | | 0.366 U | 0.933 J | 0.733 J | 0.952 J | 0.852 J | 0.636 U | 0.925 U | 0.434 U |
| PCB-024 | | | | | 3.62 | 6.05 | 4.54 | 5.83 | 5.8 | 0.905 J | 0.97 J | 1.53 J |
| PCB-025 | | | | | 27.7 | 130 | 57.2 | 100 | 79.8 | 16.3 | 13.7 | 21.3 |
| PCB-026/029 | | | | | 54.9 | 302 | 115 | 200 | 163 | 29.9 | 24.5 | 40.2 |
| PCB-027 | | | | | 23.1 | 54.9 | 31.4 | 49.4 | 43.7 | 6.86 | 6.33 | 9.65 |
| PCB-031 | | | | | 349 | 1130 | 705 | 1260 | 1070 | 161 | 136 | 241 |
| PCB-032 | | | | | 112 | 200 | 131 | 224 | 204 | 27.7 | 25.9 | 44.2 |
| PCB-034 | | | | | 2.29 | 7.09 | 4.15 | 8.78 | 7.01 | 1 J | 0.956 U | 1.68 |
| PCB-035 | | | | | 11.5 | 39.2 | 35 | 50.2 | 40.8 | 6.36 | 5.87 | 9.05 |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-SS-107-2013 | JW-SS-108-2013 | JW-SS-109-2013 | JW-SS-110-2013 | JW-SS-110-2013 | JW-SS-207-2013 | JW-SS-208-2013 | JW-SS-209-2013 |
| Sample ID | | | | | JW-SS-107-130429 | JW-SS-108-130429 | JW-SS-109-130429 | JW-SS-110-130429 | JW-SS-310-130429 | JW-SS-207-130429 | JW-SS-208-130429 | JW-SS-209-130429 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302378.901 | 1302611.606 | 1302793.455 | 1302729.017 | 1302729.017 | 1302337.163942 | 1302131.302806 | 1302183.819433 |
| Y | | | | | 372312.064 | 372134.198 | 372034.018 | 371899.504 | 371899.504 | 372986.353233 | 372599.319231 | 372279.345789 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| PCB-036 | | | | | **2.71** | **8.81** | **13** | **12.9** | **10.7** | **1.54 J** | **1.66 J** | **2.18 J** |
| PCB-037 | | | | | **134** | **426** | **285** | **522** | **423** | **72.2** | **65** | **103** |
| PCB-038 | | | | | **0.875 J** | **1.58** | **1.96** | **1.76 J** | **1.34 J** | 0.691 U | 1 U | 0.472 U |
| PCB-039 | | | | | **1.12** | **3.3** | **4.77** | **9.28** | **3.55** | **1.19 J** | 0.954 U | **2.22** |
| PCB-040/071 | | | | | **160** | **704** | **500** | **926** | **753** | **58.6** | **46.3** | **101** |
| PCB-041 | | | | | **20.2** | **85.8** | **52.2** | **121** | **99.9** | **8.14** | **8.57** | **17.4** |
| PCB-042 | | | | | **90.4** | **332** | **235** | **460** | **375** | **37.7** | **31.4** | **64.9** |
| PCB-043 | | | | | **10.2** | **37.2** | **26.2** | **53.2** | **43.7** | **4.94** | **3.81** | **8.02** |
| PCB-044/047/065 | | | | | **339** | **1360** | **1170** | **1890** | **1550** | **187** | **121** | **258** |
| PCB-045 | | | | | **35.2** | **145** | **102** | **197** | **168** | **11.7** | **9.68** | **19.6** |
| PCB-046 | | | | | **12.4** | **51.8** | **35.6** | **69.8** | **58.2** | **5.12** | **4.03** | **8.51** |
| PCB-048 | | | | | **57.9** | **219** | **138** | **284** | **239** | **25** | **21.4** | **43.8** |
| PCB-049/069 | | | | | **220** | **940** | **682** | **1120** | **922** | **115** | **83.5** | **167** |
| PCB-050/053 | | | | | **30.4** | **152** | **104** | **182** | **152** | **14.5** | **10.6** | **21.5** |
| PCB-051 | | | | | **7.79** | **33.7** | **20.3** | **37.2** | **30.1** | **3.96** | **2.91** | **6.98** |
| PCB-052 | | | | | **440** | **2180** | **2190** | **2940** | **2450** | **334** | **160** | **344** |
| PCB-054 | | | | | **0.374 J** | **1.26** | **0.803 J** | **1.7** | **1.29** | 0.303 U | 0.626 U | 0.308 U |
| PCB-055 | | | | | **4.78** | **23.5** | **13** | **27.8** | **18.2** | **3.28** | **2.56 J** | **7.21** |
| PCB-056 | | | | | **205** | **719** | **479** | **978** | **811** | **98** | **80** | **156** |
| PCB-057 | | | | | **1.86** | **5** | **2.9** | **6.28** | **5.53** | 0.602 U | 0.875 U | **1.34 J** |
| PCB-058 | | | | | **1.81** | **5.6** | **3.53** | **8.94** | **6.09** | **0.762 J** | 0.879 U | **1.39 J** |
| PCB-059/062/075 | | | | | **27.5** | **100** | **64.7** | **124** | **103** | **11.5** | **10.2** | **21** |
| PCB-060 | | | | | **98.2** | **352** | **235** | **507** | **411** | **40.2** | **37.2** | **68.6** |
| PCB-061/070/074/076 | | | | | **789** | **2600** | **2200** | **3770** | **3230** | **457** | **296** | **624** |
| PCB-063 | | | | | **16** | **47.9** | **33.3** | **70.4** | **58.6** | **7.72** | **6.15** | **13.2** |
| PCB-064 | | | | | **140** | **532** | **419** | **743** | **611** | **62.8** | **45.1** | **101** |
| PCB-066 | | | | | **480** | **1580** | **1090** | **2150** | **1790** | **247** | **196** | **387** |
| PCB-067 | | | | | **12.6** | **37.6** | **23.1** | **49.1** | **41.1** | **7.36** | 0.821 U | **11.5** |
| PCB-068 | | | | | **3.44** | **10.3** | **8.1** | **14.1** | **11** | **1.91** | **1.3 J** | **2.9** |
| PCB-072 | | | | | **6.1** | **21.5** | **14** | **27.6** | **22.1** | **3.08** | **2.21** | **4.8** |
| PCB-073 | | | | | **0.515 J** | 0.162 U | 0.163 U | 0.177 U | **2.42** | 0.274 U | 0.533 U | **2.02** |
| PCB-077 | | | | | **46.6** | **181** | **123** | **256** | **198** | **26.5** | **23.6** | **38.1** |
| PCB-078 | | | | | 0.268 U | 1.08 U | 1.09 U | 1.65 U | 1.54 U | 0.682 U | 0.991 U | 1.17 U |
| PCB-079 | | | | | **4.23** | 0.918 U | **20** | **25.2** | **21.3** | **6.11** | **3.29** | **7.54** |
| PCB-080 | | | | | **1.88** | **8.27** | 0.919 U | **13.3** | **11.2** | 0.53 U | **1.49 J** | 0.911 U |
| PCB-081 | | | | | **1.86** | **5.71** | **4.29** | **8.42** | **5.96** | **1.22 J** | 0.902 U | **1.45 J** |
| PCB-082 | | | | | **57.3** | **288** | **336** | **457** | **369** | **70.8** | **30.5** | **62.1** |
| PCB-083 | | | | | **26.4** | **133** | **143** | **207** | **167** | **35.1** | **11.1** | 1.1 U |
| PCB-084 | | | | | **106** | **529** | **675** | **854** | **714** | **137** | **46.2** | **109** |
| PCB-085/116 | | | | | **82.8** | **400** | **428** | **612** | **488** | **92.2** | **45.2** | **81** |
| PCB-086/087/097/108/119/125 | | | | | **320** | **1590** | **1970** | **2460** | **2040** | **427** | **173** | **347** |
| PCB-086/087/097/109/119/125 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-088 | | | | | **69.2** | 1.32 U | 1.33 U | 1.61 U | 0.374 U | 0.888 U | **32.6** | 1.04 U |
| PCB-089 | | | | | **5.05** | **22.4** | **23.5** | **37.6** | **30.6** | **4.14** | **2.3** | **4.39** |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-SS-107-2013 | JW-SS-108-2013 | JW-SS-109-2013 | JW-SS-110-2013 | JW-SS-110-2013 | JW-SS-207-2013 | JW-SS-208-2013 | JW-SS-209-2013 |
| Sample ID | | | | | JW-SS-107-130429 | JW-SS-108-130429 | JW-SS-109-130429 | JW-SS-110-130429 | JW-SS-310-130429 | JW-SS-207-130429 | JW-SS-208-130429 | JW-SS-209-130429 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302378.901 | 1302611.606 | 1302793.455 | 1302729.017 | 1302729.017 | 1302337.163942 | 1302131.302806 | 1302183.819433 |
| Y | | | | | 372312.064 | 372134.198 | 372034.018 | 371899.504 | 371899.504 | 372986.353233 | 372599.319231 | 372279.345789 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| PCB-090/101/113 | | | | | **484** | **2270** | **2750** | **3450** | **2880** | **613** | **268** | **529** |
| PCB-091 | | | | | 0.319 U | **229** | **266** | **342** | **290** | **57.1** | 0.756 U | **51.2** |
| PCB-092 | | | | | **97.3** | **450** | **525** | **681** | **574** | **113** | **52.9** | **102** |
| PCB-093/100 | | | | | **3.6** | **11.1** | **12** | **15** | **13.3** | **3.6** | 0.872 U | **4.18** |
| PCB-094 | | | | | **1.73** | **7.6** | **8.16** | **12.6** | **10.3** | **1.68 J** | 0.952 U | **1.86** |
| PCB-095 | | | | | **273** | **1410** | **1760** | **2200** | **1870** | **375** | **133** | **319** |
| PCB-096 | | | | | **2.89** | **12.3** | **12.1** | **19.4** | **15.2** | **2.66** | **1.13 J** | **1.76 J** |
| PCB-098 | | | | | **1.1** | **8.49** | **3.73** | **8.85** | **2.39** | 0.743 U | 0.872 U | 0.87 U |
| PCB-099 | | | | | **255** | **1140** | **1360** | **1630** | **1340** | **324** | **165** | **319** |
| PCB-102 | | | | | **9.63** | **42.3** | **48** | **67.2** | **58.6** | **11.7** | **5.88** | **12.6** |
| PCB-103 | | | | | **4.07** | **13.7** | **13.8** | **18** | **14.3** | **3.97** | **1.95** | **4.3** |
| PCB-104 | | | | | 0.123 U | **0.19 J** | 0.104 U | 0.122 U | 0.123 U | 0.238 U | 0.476 U | 0.184 U |
| PCB-105 | | | | | **220** | **1060** | **1260** | **1710** | **1350** | **268** | **120** | **225** |
| PCB-106 | | | | | 0.288 U | 0.842 U | 0.845 U | 1.03 U | 0.238 U | 0.648 U | 0.761 U | 0.759 U |
| PCB-107 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-107/124 | | | | | **16.4** | **82.4** | **105** | **128** | **106** | **24.9** | **11.1** | **20.9** |
| PCB-108/124 | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-109 | | | | | **40.8** | **176** | **196** | **257** | **210** | **43.8** | **24.6** | **41.9** |
| PCB-110 | | | | | **593** | **2800** | **3470** | **4270 J** | **3490** | **788** | **342** | **686** |
| PCB-111 | | | | | **0.541 J** | **1.82** | **1.84** | **2.54** | **1.76** | 0.561 U | 0.659 U | 0.657 U |
| PCB-112 | | | | | **0.529 J** | **2.28** | **1.27** | **11.3** | **2.08** | 0.58 U | 0.681 U | 0.679 U |
| PCB-114 | | | | | **9.69** | **46.8** | **56.9** | **71.3** | **59** | **13.3** | **6.44** | **11.6** |
| PCB-115 | | | | | **8.84** | **65.9** | **41.9** | **74** | **64.2** | **30.3** | **6.14** | 0.614 U |
| PCB-117 | | | | | **10.2** | **59.1** | **71.3** | **84.7** | **58.4** | **18.6** | **6.58** | **14.5** |
| PCB-118 | | | | | **512** | **2420** | **2880** | **3610** | **2960** | **599** | **294** | **534** |
| PCB-120 | | | | | **3.3** | **10.6** | **9.34** | **14.3** | **10.8** | **2.54** | 0.672 U | **3.3** |
| PCB-121 | | | | | 0.275 U | 0.805 U | 0.808 U | 0.981 U | 0.228 U | 0.557 U | 0.654 U | 0.652 U |
| PCB-122 | | | | | **5.22** | **24.2** | **27.8** | **35.4** | **29.2** | **9.23** | **5.25** | **8.66** |
| PCB-123 | | | | | **6.97** | **34.4** | **41** | **56.5** | **40.9** | **11.6** | **5.42** | **7.9** |
| PCB-126 | | | | | **2.39** | **9.53** | **8.32** | **12.6** | **11** | **1.56 J** | 0.948 U | **1.84 J** |
| PCB-127 | | | | | 0.276 U | **2.49** | 0.816 U | **4.18** | **3.27** | **1.34 J** | 0.77 U | 0.833 U |
| PCB-128/166 | | | | | **63.4** | **374** | **471** | **585** | **504** | **109** | **54.9** | **89.5** |
| PCB-129/138/163 | | | | | **474** | **2380** | **2620** | **3760** | **3060** | **714** | **386** | **586** |
| PCB-130 | | | | | **31.7** | **165** | **181** | **262** | **212** | **48.5** | **25.6** | **39.2** |
| PCB-131 | | | | | **4.07 J** | **29.2** | **35.6** | **47.1** | **38.4** | **8.62** | **4.03** | **6.35** |
| PCB-132 | | | | | **127** | **699** | **810** | **1140** | **933** | **196** | **92.3** | **153** |
| PCB-133 | | | | | **7.89** | **32.4** | **30.9** | **48.9** | **39.8** | **11.7** | **7.36** | **9.91** |
| PCB-134 | | | | | **23.9** | **125** | **147** | **200** | **167** | **38.1** | **17.6** | **27.1** |
| PCB-135/151 | | | | | **128** | **604** | **584** | **966** | **783** | **152** | **93.7** | **136** |
| PCB-136 | | | | | **46.3** | **229** | **238** | **353** | **302** | **66** | **33.7** | **49** |
| PCB-137 | | | | | **17.1** | **100** | **131** | **148** | **132** | **32.8** | **14.9** | **25.9** |
| PCB-139/140 | | | | | **7.25** | **39** | **50.1** | **63.1** | **51.1** | **13.6** | **6.78** | **10.7** |
| PCB-141 | | | | | **65.9** | **346** | **364** | **523** | **465** | **94.4** | **50.2** | **80.3** |
| PCB-142 | | | | | 0.138 U | **0.466 J** | **0.592 J** | **0.631 J** | **0.857 J** | 0.31 U | 0.603 U | 0.329 U |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-SS-107-2013 | JW-SS-108-2013 | JW-SS-109-2013 | JW-SS-110-2013 | JW-SS-110-2013 | JW-SS-207-2013 | JW-SS-208-2013 | JW-SS-209-2013 |
| Sample ID | | | | | JW-SS-107-130429 | JW-SS-108-130429 | JW-SS-109-130429 | JW-SS-110-130429 | JW-SS-310-130429 | JW-SS-207-130429 | JW-SS-208-130429 | JW-SS-209-130429 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302378.901 | 1302611.606 | 1302793.455 | 1302729.017 | 1302729.017 | 1302337.163942 | 1302131.302806 | 1302183.819433 |
| Y | | | | | 372312.064 | 372134.198 | 372034.018 | 371899.504 | 371899.504 | 372986.353233 | 372599.319231 | 372279.345789 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| PCB-143 | | | | | **0.614 J** | **6.45** | **7.92** | **15.6** | **8.52** | 0.286 U | 0.558 U | **1.63** |
| PCB-144 | | | | | **16** | **85.8** | **89.9** | **143** | **117** | **21.8** | **11.7** | **18** |
| PCB-145 | | | | | 0.0946 U | **0.647 J** | **0.794 J** | **1.15** | **0.997** | 0.217 U | 0.411 U | 0.218 U |
| PCB-146 | | | | | **75.2** | **320** | **311** | **495** | **396** | **102** | **65.9** | **88.8** |
| PCB-147/149 | | | | | **311** | **1510** | **1560** | **2400** | **1960** | **404** | **230** | **353** |
| PCB-148 | | | | | **0.811 J** | **2.25** | **1.87** | **2.92** | **2.37** | **1.23 J** | 0.534 U | **1.13 J** |
| PCB-150 | | | | | **0.625 J** | **2.1** | **2.08** | **2.79** | **2.28** | **1.13 J** | **0.736 J** | **0.78 J** |
| PCB-152 | | | | | **0.294 J** | **1.53** | **1.99** | **2.35** | **1.96** | **0.455 J** | 0.384 U | **0.299 J** |
| PCB-153/168 | | | | | **404** | **1860** | **1910** | **2950** | **2370** | **463** | **283** | **407** |
| PCB-154 | | | | | **6.13** | **20.9** | **20.4** | **29.1** | **22.6** | **10.5** | **6.97** | **8.45** |
| PCB-155 | | | | | 0.0949 U | 0.117 U | 0.107 U | 0.101 U | 0.124 U | 0.186 U | 0.352 U | 0.187 U |
| PCB-156/157 | | | | | **47.2** | **254** | **335** | **424** | **364** | **88.8** | **41.5** | **71.1** |
| PCB-158 | | | | | **42.2** | **234** | **271** | **366** | **308** | **69.8** | **34** | **53.1** |
| PCB-159 | | | | | **2.96** | **11.3** | **8.03** | **17.2** | **14.6** | **3.24** | 0.927 U | **4.26** |
| PCB-160 | | | | | 0.101 U | 0.12 U | 0.121 U | 0.111 U | 0.137 U | **7.33** | **4.93** | **6.16** |
| PCB-161 | | | | | 0.0938 U | 0.111 U | 0.112 U | 0.103 U | 0.126 U | 0.219 U | 0.427 U | 0.233 U |
| PCB-162 | | | | | **1.52** | **7.55** | **8.93** | **11.1** | **10** | **2.2** | 0.946 U | **1.84 J** |
| PCB-164 | | | | | **29.5** | **154** | **168** | **257** | **200** | **44.1** | **23.5** | **33.3** |
| PCB-165 | | | | | 0.102 U | **0.7 J** | 0.122 U | **1** | **0.782 J** | 0.252 U | 0.491 U | 0.268 U |
| PCB-167 | | | | | **14.4** | **75.4** | **94.6** | **124** | **104** | **24.9** | **12.2** | **20.6** |
| PCB-169 | | | | | 0.23 U | 0.532 U | 0.409 U | 0.66 U | 0.565 U | 1.14 U | 1.44 U | 1.24 U |
| PCB-170 | | | | | **84.1** | **406** | **323** | **670** | **572** | **89** | 60.4 U | **87.7** |
| PCB-171/173 | | | | | **26.3** | **125** | **101** | **205** | **178** | **29** | **20.1** | **26.7** |
| PCB-172 | | | | | **14.9** | **68.7** | **52.3** | **106** | **93** | **15.7** | **11.2** | **15.7** |
| PCB-174 | | | | | **83.9** | **410** | **301** | **672** | **564** | **80.2** | **57.6** | **79.1** |
| PCB-175 | | | | | **3.73** | **17** | **13.3** | **27.4** | **23.6** | **4.16** | **2.51** | **3.08 J** |
| PCB-176 | | | | | **9.25** | **41.4** | **31.1** | **62.7** | **55** | **9.94** | **7.1** | **9.08** |
| PCB-177 | | | | | **54.8** | **248** | **180** | **395** | **339** | **56.6** | **44.3** | **57.5** |
| PCB-178 | | | | | **19.7** | **69.8** | **52.3** | **103** | **92.8** | **21** | **16.6** | **19.7** |
| PCB-179 | | | | | **37** | **155** | **107** | **225** | **197** | **37.8** | **29.1** | **36** |
| PCB-180/193 | | | | | **191** | **851** | **635** | **1320** | **1150** | **183** | **131** | **183** |
| PCB-181 | | | | | **0.643 J** | **3.78** | **4.64** | **6.66** | **5.9** | **1.26 J** | 0.953 U | **0.9 J** |
| PCB-182 | | | | | **0.748 J** | **2.71** | **2.57** | **3.93** | **3.5** | **1.17 J** | 0.882 U | **0.751 J** |
| PCB-183 | | | | | **49.5** | **255** | **179** | **337** | **323** | **50.5** | **38.6** | **52.3** |
| PCB-184 | | | | | 0.0996 U | **0.488 J** | 0.105 U | **0.528 J** | 0.136 U | **0.328 J** | 0.429 U | 0.253 U |
| PCB-185 | | | | | **4.95** | 0.255 U | **20** | **85.7** | **36** | **8.36** | **5.69** | **5.66** |
| PCB-186 | | | | | 0.0949 U | 0.101 U | 0.1 U | 0.128 U | 0.129 U | 0.192 U | 0.406 U | 0.24 U |
| PCB-187 | | | | | **118** | **492** | **366** | **770** | **646** | **117** | **94.9** | **119** |
| PCB-188 | | | | | **0.245 J** | **0.706 J** | **0.792 J** | **0.848 J** | **0.67 J** | **0.341 J** | 0.4 U | **0.29 J** |
| PCB-189 | | | | | **3.25** | **14.5** | **12.4** | **23.2** | **20** | **3.9** | **2.55** | **3.58** |
| PCB-190 | | | | | **14.6** | **66.1** | **49.3** | **106** | **90.7** | **17.8** | **12.6** | **16.5** |
| PCB-191 | | | | | **3.21** | **14.9** | **11.8** | **23.2** | **20.1** | **4.75** | **3.05** | **4.7** |
| PCB-192 | | | | | 0.191 U | 0.214 U | 0.22 U | 0.409 U | 0.394 U | 0.501 U | 0.868 U | 0.588 U |
| PCB-194 | | | | | **44.8** | **211** | **148** | **311** | **262** | **45.1** | **38.8** | **47.1** |

# Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-SS-107-2013 | JW-SS-108-2013 | JW-SS-109-2013 | JW-SS-110-2013 | JW-SS-110-2013 | JW-SS-207-2013 | JW-SS-208-2013 | JW-SS-209-2013 |
| Sample ID | | | | | JW-SS-107-130429 | JW-SS-108-130429 | JW-SS-109-130429 | JW-SS-110-130429 | JW-SS-310-130429 | JW-SS-207-130429 | JW-SS-208-130429 | JW-SS-209-130429 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302378.901 | 1302611.606 | 1302793.455 | 1302729.017 | 1302729.017 | 1302337.163942 | 1302131.302806 | 1302183.819433 |
| Y | | | | | 372312.064 | 372134.198 | 372034.018 | 371899.504 | 371899.504 | 372986.353233 | 372599.319231 | 372279.345789 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | | |
| PCB-195 | | | | | 15.1 | 70.8 | 48.4 | 110 | 92.4 | 16.3 | 13.3 U | 16.4 |
| PCB-196 | | | | | 19.2 | 82.7 | 62.2 | 124 | 105 | 20.2 | 15.9 | 20.5 |
| PCB-197 | | | | | 1.21 | 0.106 U | 0.131 U | 0.231 U | 6.53 | 1.36 J | 1.25 J | 1.76 J |
| PCB-198/199 | | | | | 50 | 208 | 161 | 281 | 245 | 48.6 | 43 | 48.3 |
| PCB-200 | | | | | 5.43 | 30.9 | 23.9 | 44.8 | 30.1 | 4.9 | 3.44 J | 4.91 |
| PCB-201 | | | | | 5.87 | 25.9 | 21.8 | 38.9 | 32.3 | 6.43 | 5.27 | 6.46 |
| PCB-202 | | | | | 13.8 | 57 | 53.5 | 87.7 | 69.4 | 13.5 | 11.6 | 13 |
| PCB-203 | | | | | 28.8 | 128 | 90.6 | 167 | 142 | 32.1 | 25.6 | 28.6 |
| PCB-204 | | | | | 0.0957 U | 0.121 U | 0.15 U | 0.266 U | 0.273 U | 0.256 U | 0.668 U | 0.397 U |
| PCB-205 | | | | | 1.85 | 7.2 | 4.94 | 10.9 | 9.35 | 1.91 | 1.92 | 2.83 |
| PCB-206 | | | | | 25.3 | 86.8 | 154 | 112 | 94.3 | 30.5 | 27.6 | 29.9 |
| PCB-207 | | | | | 3.23 | 13.6 | 19.9 | 20.6 | 16.1 | 3.89 | 3.51 | 3.34 |
| PCB-208 | | | | | 8.44 | 34.4 | 71 | 54.3 | 42.5 | 9.95 | 8.28 | 8.81 |
| PCB-209 | | | | | 14.8 | 55.2 | 217 | 79.1 | 66.5 | 20.9 | 17.4 | 20.1 |
| Total PCB Congener (U = limit) | | | | | 13585.2245 J | 49392.094 J | 47714.296 J | 70865.291 J | 58864.035 J | 10779.838 J | 6393.22 J | 11035.076 J |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | 2.7882852 | 10.736055 | 7.606879 | 15.161327 | 11.805114 | 1.647544 J | 1.3863757 | 2.2716708 J |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | 0.02161905 | 0.0881571 | 0.07946495 | 0.122938 | 0.10229775 | 0.0161645 J | 0.01003355 | 0.0181659 J |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | 0.2755233 | 1.105926 | 0.998254 | 1.488496 | 1.285475 | 0.223501 J | 0.1550939 | 0.2516584 J |
| Total PCB Congener (U = 1/2) | | | | | 13583.4593 J | 49388.692 J | 47710.355 J | 70861.39 J | 58861.841 J | 10729.254 J | 6296.263 J | 11027.758 J |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | 13581.694 J | 49385.29 J | 47706.414 J | 70857.489 J | 58859.648 J | 10678.671 J | 6199.306 J | 11020.44 J |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | 2.7881702 | 10.735789 | 7.6066745 | 15.160997 | 11.8048315 | 1.646974 J | 1.2931557 | 2.2710508 J |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | 2.7880552 | 10.735523 | 7.60647 | 15.160667 | 11.804549 | 1.646404 J | 1.1999357 | 2.2704308 J |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | 0.0216133 | 0.0881438 | 0.079454725 | 0.1229215 | 0.102283625 | 0.016136 J | 0.00740205 | 0.0181349 J |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | 0.02160755 | 0.0881305 | 0.0794445 | 0.122905 | 0.1022695 | 0.0161075 J | 0.00477055 | 0.0181039 J |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | 0.2720733 | 1.097946 | 0.992119 | 1.478596 | 1.277 | 0.206401 J | 0.0859586 | 0.2330584 J |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | 0.2686233 | 1.089966 | 0.985984 | 1.468696 | 1.268525 | 0.189301 J | 0.0168233 | 0.2144584 J |
| **Total Petroleum Hydrocarbons (mg/kg)** | | | | | | | | | | | | |
| Diesel range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Motor oil range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | 0.000159331 | 0.001174437723214 J | 0.000890357222222 J | 0.001378100299145 J | 0.00096424959707 J | 7.01082553E-05 J | 6.35952E-05 | 0.0001360281916 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | 1.23537E-06 | 0.0003129779955357 J | 0.000303164314102 6 J | 0.0003572845299145 J | 0.0002729669505495 J | 6.8785106E-07 J | 4.60255E-07 | 1.08777844E-06 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | 1.57442E-05 | 0.000411614107143 J | 0.000367428803419 J | 0.000483749401709 J | 0.000353501648352 J | 9.5106809E-06 J | 7.1144E-06 | 1.50693653E-05 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | 0.000159324 | 0.001174030535714 J | 0.00089000275641 J | 0.00137773448718 J | 0.00096392532967 J | 7.0084E-05 J | 5.93191E-05 | 0.0001359910659 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | 1.23505E-06 | 0.0003125820892857 J | 0.000302818150641 J | 0.0003569321153846 J | 0.0002726525137363 J | 6.866383E-07 J | 3.39544E-07 | 1.08592216E-06 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | 1.5547E-05 | 0.000410862544643 J | 0.000366820897436 J | 0.000482974615385 J | 0.000352877289377 J | 8.7830213E-06 J | 3.94306E-06 | 1.39555928E-05 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | 0.000159317 | 0.001173623348214 J | 0.000889648290598 J | 0.001377368675214 J | 0.000963601062271 J | 7.00597447E-05 J | 5.50429E-05 | 0.0001359539401 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | 1.23472E-06 | 0.0003121861830357 J | 0.0003024719871795 J | 0.0003565797008547 J | 0.0002723380769231 J | 6.8542553E-07 J | 2.18833E-07 | 1.08406587E-06 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | 1.53499E-05 | 0.000410110982143 J | 0.000366212991453 J | 0.00048219982906 J | 0.000352252930403 J | 8.0553617E-06 J | 7.71711E-07 | 1.28418204E-05 J |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | 2.7882852 | 26.307405 J | 20.834359 J | 32.247547 J | 26.324014 J | 1.647544 J | 1.3863757 | 2.2716708 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | 0.02161905 | 7.0107071 J | 7.09404495 J | 8.360458 J | 7.45199775 J | 0.0161645 J | 0.01003355 | 0.0181659 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | 0.2755233 | 9.220156 J | 8.597834 J | 11.319736 J | 9.650595 J | 0.223501 J | 0.1550939 | 0.2516584 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | 2.7881702 | 26.298284 J | 20.8260645 J | 32.238987 J | 26.3151615 J | 1.646974 J | 1.2931557 | 2.2710508 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | 0.0216133 | 7.0018388 J | 7.085944725 J | 8.3522115 J | 7.443413625 J | 0.016136 J | 0.00740205 | 0.0181349 J |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-SS-107-2013 | JW-SS-108-2013 | JW-SS-109-2013 | JW-SS-110-2013 | JW-SS-110-2013 | JW-SS-207-2013 | JW-SS-208-2013 | JW-SS-209-2013 |
| Sample ID | | | | | JW-SS-107-130429 | JW-SS-108-130429 | JW-SS-109-130429 | JW-SS-110-130429 | JW-SS-310-130429 | JW-SS-207-130429 | JW-SS-208-130429 | JW-SS-209-130429 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302378.901 | 1302611.606 | 1302793.455 | 1302729.017 | 1302729.017 | 1302337.163942 | 1302131.302806 | 1302183.819433 |
| Y | | | | | 372312.064 | 372134.198 | 372034.018 | 371899.504 | 371899.504 | 372986.353233 | 372599.319231 | 372279.345789 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | 0.2720733 | 9.203321 J | 8.583609 J | 11.301606 J | 9.63355 J | 0.206401 J | 0.0859586 | 0.2330584 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | 2.7880552 | 26.289163 J | 20.81777 J | 32.230427 J | 26.306309 J | 1.646404 J | 1.1999357 | 2.2704308 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | 0.02160755 | 6.9929705 J | 7.0778445 J | 8.343965 J | 7.4348295 J | 0.0161075 J | 0.00477055 | 0.0181039 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | 0.2686233 | 9.186486 J | 8.569384 J | 11.283476 J | 9.616505 J | 0.189301 J | 0.0168233 | 0.2144584 J |

# Table H-1
## Surface Sediment Results

| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | JeldWenSed2013 JW-SS-211-2013 JW-SS-211-130429 4/29/2013 0 - 10 cm N SE 1302289.984247 371905.343584 | JeldWenSed2013 JW-SS-214-2013 JW-SS-214-130429 4/29/2013 0 - 10 cm N SE 1302723.710085 371783.257543 | JeldWenSed2013 JW-SS-215-2013 JW-SS-215-130429 4/29/2013 0 - 10 cm N SE 1302604.772987 371628.867759 | JeldWenSed2013 JW-SS-216-2013 JW-SS-216-130429 4/29/2013 0 - 10 cm N SE 1302181.5 371644.3599 | PortGardner_08 A2-18B A2-18B-S_8/14/2008 8/14/2008 0 - 10 cm N SE -122.2181852 48.01191568 | PortGardner_08 A2-18B A2-18B-S_9/4/2008 9/4/2008 0 - 10 cm N SE -122.2181852 48.01191568 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Conventional Parameters (pct)** | | | | | | | | | | |
| Total organic carbon | | | | | **2.53 J** | **2.91 J** | **2.23 J** | **2.2 J** | **2.46** | -- |
| Moisture, percent | | | | | -- | -- | -- | -- | -- | -- |
| Total Solids | | | | | **57.66** | **37.05** | **59.04** | **76.68** | **65.9** | -- |
| Total solids (preserved) | | | | | -- | -- | -- | -- | **61.5** | -- |
| Total volatile solids | | | | | -- | -- | -- | -- | **6.42** | -- |
| **Conventional Parameters (mg/kg)** | | | | | | | | | | |
| Ammonia as nitrogen | | | | | -- | -- | -- | -- | **5.44 J** | -- |
| Black carbon | | | | | -- | -- | -- | -- | -- | -- |
| Sulfide | | | | | -- | -- | -- | -- | **24.5 J** | -- |
| **Grain Size (pct)** | | | | | | | | | | |
| Cobbles | | | | | -- | -- | -- | -- | -- | -- |
| Gravel | | | | | -- | -- | -- | -- | **8.1** | -- |
| Sand | | | | | -- | -- | -- | -- | -- | -- |
| Sand, very coarse | | | | | -- | -- | -- | -- | **0.8** | -- |
| Sand, coarse | | | | | -- | -- | -- | -- | **1.5** | -- |
| Sand, medium | | | | | -- | -- | -- | -- | **10.4** | -- |
| Sand, fine | | | | | -- | -- | -- | -- | **43.4** | -- |
| Sand, very fine | | | | | -- | -- | -- | -- | **11** | -- |
| Silt | | | | | -- | -- | -- | -- | -- | -- |
| Silt, coarse | | | | | -- | -- | -- | -- | **6** | -- |
| Silt, medium | | | | | -- | -- | -- | -- | **6.5** | -- |
| Silt, fine | | | | | -- | -- | -- | -- | **1.7** | -- |
| Silt, very fine | | | | | -- | -- | -- | -- | **4.9** | -- |
| Total fines (Reported, not calculated) | | | | | -- | -- | -- | -- | -- | -- |
| Clay | | | | | -- | -- | -- | -- | -- | -- |
| Clay, coarse | | | | | -- | -- | -- | -- | **1.5** | -- |
| Clay, medium | | | | | -- | -- | -- | -- | **1.5** | -- |
| Clay, fine | | | | | -- | -- | -- | -- | **2.6** | -- |
| **Metals (mg/kg)** | | | | | | | | | | |
| Antimony | | | | | -- | -- | -- | -- | -- | -- |
| Arsenic | 57 | 93 | 57 | 93 | -- | -- | -- | -- | **11** | -- |
| Cadmium | 5.1 | 6.7 | 5.1 | 6.7 | -- | -- | -- | -- | 0.3 U | -- |
| Chromium | 260 | 270 | 260 | 270 | -- | -- | -- | -- | **40.5** | -- |
| Copper | 390 | 390 | 390 | 390 | -- | -- | -- | -- | **28.9** | -- |
| Lead | 450 | 530 | 450 | 530 | -- | -- | -- | -- | **8** | -- |
| Mercury | 0.41 | 0.59 | 0.41 | 0.59 | -- | -- | -- | -- | 0.07 U | -- |
| Nickel | | | | | -- | -- | -- | -- | -- | -- |
| Silver | 6.1 | 6.1 | 6.1 | 6.1 | -- | -- | -- | -- | 0.5 U | -- |
| Zinc | 410 | 960 | 410 | 960 | -- | -- | -- | -- | **67** | -- |
| **Volatile Organics (mg/kg-OC)** | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- |
| **Volatile Organics (µg/kg)** | | | | | | | | | | |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- |

# Table H-1
## Surface Sediment Results

| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | PortGardner_08 | PortGardner_08 |
|---|---|---|---|---|---|---|---|---|---|---|
| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | PortGardner_08 | PortGardner_08 |
| Location ID | | | | | JW-SS-211-2013 | JW-SS-214-2013 | JW-SS-215-2013 | JW-SS-216-2013 | A2-18B | A2-18B |
| Sample ID | | | | | JW-SS-211-130429 | JW-SS-214-130429 | JW-SS-215-130429 | JW-SS-216-130429 | A2-18B-S_8/14/2008 | A2-18B-S_9/4/2008 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 8/14/2008 | 9/4/2008 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302289.984247 | 1302723.710085 | 1302604.772987 | 1302181.5 | -122.2181852 | -122.2181852 |
| Y | | | | | 371905.343584 | 371783.257543 | 371628.867759 | 371644.3599 | 48.01191568 | 48.01191568 |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | -- | 0.813 U | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | -- | 0.813 U | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | -- | 0.813 U | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | -- | 0.813 U | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | -- | 0.813 U | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | -- | 0.813 U | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | -- | 0.813 U | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | -- | 0.813 U | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | -- | 0.813 U | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | -- | 0.813 U | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | 0.813 U | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | -- | 0.813 U | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | -- | 20 U | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | -- | 20 U | -- |
| 1,3-Dichlorobenzene | | | | | -- | -- | -- | -- | 20 U | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | -- | 20 U | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | -- | 20 U | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | -- | 20 U | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | -- | 20 U | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | -- | 200 U | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | -- | 20 UJ | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | -- | 20 U | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | -- | 20 U | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | -- | 20 U | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | -- | 20 U | -- |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | -- | 20 U | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | -- | 20 U | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | -- | 20 U | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | 20 U | -- |
| Hexachloroethane | | | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | -- | 20 U | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | -- | 98 U | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | -- | 20 U | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | -- | 0.813 U | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | -- | 0.813 U | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | -- | 0.813 U | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- | -- | 0.813 U | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | -- | 0.813 U | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | -- | 0.813 U | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | -- | 0.813 U | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- | -- | 0.813 U | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | PortGardner_08 | PortGardner_08 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-SS-211-2013 | JW-SS-214-2013 | JW-SS-215-2013 | JW-SS-216-2013 | A2-18B | A2-18B |
| Sample ID | | | | | JW-SS-211-130429 | JW-SS-214-130429 | JW-SS-215-130429 | JW-SS-216-130429 | A2-18B-S_8/14/2008 | A2-18B-S_9/4/2008 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 8/14/2008 | 9/4/2008 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302289.984247 | 1302723.710085 | 1302604.772987 | 1302181.5 | -122.2181852 | -122.2181852 |
| Y | | | | | 371905.343584 | 371783.257543 | 371628.867759 | 371644.3599 | 48.01191568 | 48.01191568 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | -- | 0.813 U | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | -- | 0.813 U | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | -- | **1.22** | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- | -- | 0.813 U | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | -- | 0.813 U | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- | -- | 0.813 U | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | -- | 0.813 U | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | -- | **1.057** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | 0.81301 U | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | 0.81301 U | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | 0.81301 U | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | -- | 0.813 U | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | -- | **2.276** | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | -- | 0.813 U | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | |
| 1-Methylnaphthalene | | | | | -- | -- | -- | -- | 20 U | -- |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | -- | 20 U | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | -- | 20 U | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | -- | 20 U | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- | -- | 20 U | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | -- | 20 U | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | -- | 20 U | -- |
| Benzo(b)fluoranthene | | | | | -- | -- | -- | -- | 20 U | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | -- | 20 U | -- |
| Benzo(k)fluoranthene | | | | | -- | -- | -- | -- | 20 U | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | -- | 20 U | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | -- | 20 U | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | -- | 20 U | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | -- | **30** | -- |
| Fluorene | | | 540 | 540 | -- | -- | -- | -- | 20 U | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | -- | 20 U | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | -- | 20 U | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | -- | 20 U | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | -- | **26** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | 20 U | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | 20 U | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | -- | 20 U | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | 20 U | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | -- | **56** | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | -- | 20 U | -- |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **0.205 J** | **0.872 J** | **0.529 J** | **0.155 J** | -- | **0.31 J** |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **0.74 J** | **2.35 J** | **1.38 J** | **0.388 J** | -- | **0.8 J** |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **1.43 J** | **4.06 J** | **2.07 J** | **0.707 J** | -- | **1.12 J** |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | PortGardner_08 | PortGardner_08 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-SS-211-2013 | JW-SS-214-2013 | JW-SS-215-2013 | JW-SS-216-2013 | A2-18B | A2-18B |
| Sample ID | | | | | JW-SS-211-130429 | JW-SS-214-130429 | JW-SS-215-130429 | JW-SS-216-130429 | A2-18B-S_8/14/2008 | A2-18B-S_9/4/2008 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 8/14/2008 | 9/4/2008 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302289.984247 | 1302723.710085 | 1302604.772987 | 1302181.5 | -122.2181852 | -122.2181852 |
| Y | | | | | 371905.343584 | 371783.257543 | 371628.867759 | 371644.3599 | 48.01191568 | 48.01191568 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **3.78 J** | **11.4** | **7.27** | **2.4 J** | -- | **4.29 J** |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **2.36 J** | **9.07** | **4 J** | **1.36 J** | -- | **2.87 J** |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **55** | **177** | **85** | **24.2** | -- | **56.7** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | **428** | **1150** | **575** | **157** | -- | **377** |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **17.1** | **57.5 J** | **52.1 J** | **17.5 J** | -- | **43** |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **14.5 J** | **47.9 J** | **45 J** | **19.3** | -- | **50** |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **40.6 J** | **111** | **87.6** | **32.5 J** | -- | **57.9** |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **127** | **352** | **201** | **54.6** | -- | **111** |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | **1.57** | **3.96** | **4.06** | **1.28** | -- | **2.16** |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **0.532 J** | **1.34 J** | **0.989 J** | **0.267 J** | -- | **0.53 J** |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **0.903 J** | **2.68 J** | **1.84 J** | **0.589 J** | -- | **0.69 J** |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **0.784 J** | **2.54 J** | **1.32 J** | **0.287 J** | -- | **1.01 J** |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **0.673 J** | **2.06 J** | **1.14 J** | **0.311 J** | -- | **0.56 J** |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | 0.1583 U | 0.1953 U | 0.1747 U | 0.1124 U | -- | 0.08 U |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **0.99 J** | **2.65 J** | **1.71 J** | **0.518 J** | -- | **0.52 J** |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | **9.74** | **31.9** | **15.6** | **4.48** | -- | **11.7** |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | **0.557 J** | **2.19 J** | **1.11 J** | **0.228 J** | -- | **1.02 J** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | **23.1** | **91** | **27.7** | **8.57** | -- | **31** |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | **16.7 J** | **47.7 J** | **44.1 J** | **12.2 J** | -- | **27.1** |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | **10.9 J** | **32.2 J** | **24.5 J** | **6.96 J** | -- | **14.3** |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | **15.6 J** | **53.3 J** | **29.4** | **9.06 J** | -- | **17.7** |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | **26.8 J** | **90.3** | **41.8 J** | **12** | -- | **34.7** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | **4.28011 J** | **12.60653 J** | **9.23094 J** | **2.844727 J** | -- | **4.8406 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | **2.74161 J** | **8.44823 J** | **4.97599 J** | **1.516627 J** | -- | **2.6628 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | **3.19469 J** | **10.14293 J** | **5.86305 J** | **1.764001 J** | -- | **3.4105 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | **4.272195 J** | **12.596765 J** | **9.222205 J** | **2.839107 J** | -- | **4.8366 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | **2.733695 J** | **8.438465 J** | **4.967255 J** | **1.511007 J** | -- | **2.6588 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | **3.186775 J** | **10.133165 J** | **5.854315 J** | **1.758381 J** | -- | **3.4065 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | **4.26428 J** | **12.587 J** | **9.21347 J** | **2.833487 J** | -- | **4.8326 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | **2.72578 J** | **8.4287 J** | **4.95852 J** | **1.505387 J** | -- | **2.6548 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | **3.17886 J** | **10.1234 J** | **5.84558 J** | **1.752761 J** | -- | **3.4025 J** |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | 0.772 U | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | 19 U | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | 19 U | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | 19 U | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | 19 U | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | 19 U | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | 19 U | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | 19 U | -- |
| Aroclor 1262 | | | | | -- | -- | -- | -- | 19 U | -- |
| Aroclor 1268 | | | | | -- | -- | -- | -- | 19 U | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | 19 U | -- |

# Table H-1
## Surface Sediment Results

| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | PortGardner_08 | PortGardner_08 |
|---|---|---|---|---|---|---|---|---|---|---|
| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | PortGardner_08 | PortGardner_08 |
| Location ID | | | | | JW-SS-211-2013 | JW-SS-214-2013 | JW-SS-215-2013 | JW-SS-216-2013 | A2-18B | A2-18B |
| Sample ID | | | | | JW-SS-211-130429 | JW-SS-214-130429 | JW-SS-215-130429 | JW-SS-216-130429 | A2-18B-S_8/14/2008 | A2-18B-S_9/4/2008 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 8/14/2008 | 9/4/2008 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302289.984247 | 1302723.710085 | 1302604.772987 | 1302181.5 | -122.2181852 | -122.2181852 |
| Y | | | | | 371905.343584 | 371783.257543 | 371628.867759 | 371644.3599 | 48.01191568 | 48.01191568 |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | **0.336916601 J** | **1.18501299 J** | **1.328018251 J** | **0.37184 J** | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | **0.336610178 J** | **1.184678557 J** | **1.327480874 J** | **0.368641568 J** | -- | -- |
| Total PCB Congener (U = 0) | 12 | 65 | | | **0.336303755 J** | **1.184344124 J** | **1.326943498 J** | **0.365443136 J** | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | **7.7462166E-05 J** | **0.000297742** | **0.00026224** | **7.85274E-05** | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | **7.1503557E-07 J** | **2.23026E-06** | **2.22536E-06** | **6.18948E-07** | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | **1.10976047E-05 J** | **2.65114E-05** | **2.94038E-05** | **8.7019E-06** | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | **7.74331146E-05 J** | **0.000297715** | **0.0002622** | **7.85088E-05** | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | **7.74040632E-05 J** | **0.000297688** | **0.00026216** | **7.84902E-05** | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | **7.13583E-07 J** | **2.2289E-06** | **2.22337E-06** | **6.18018E-07** | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | **7.1213043E-07 J** | **2.22754E-06** | **2.22139E-06** | **6.17089E-07** | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | **1.02260632E-05 J** | **2.5697E-05** | **2.82132E-05** | **8.14417E-06** | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | **9.3545217E-06 J** | **2.48825E-05** | **2.70226E-05** | **7.58644E-06** | -- | -- |
| **PCB Congeners (ng/kg)** | | | | | | | | | | |
| PCB-001 | | | | | **44.7** | **45.7** | **82.2** | **53.6** | -- | -- |
| PCB-002 | | | | | **34.9** | **40.1** | **52.6** | **20.9** | -- | -- |
| PCB-003 | | | | | **39.1** | **53.8** | **82.9** | **40.4** | -- | -- |
| PCB-004 | | | | | **14.6** | **33.3** | **41.9** | **25.5** | -- | -- |
| PCB-005 | | | | | **1.47 J** | **3.16** | **4.78** | **2.7** | -- | -- |
| PCB-006 | | | | | **12.5** | **27.8** | **36.9** | **19.1** | -- | -- |
| PCB-007 | | | | | **3.14** | **5.97** | **8.17** | **4.78 J** | -- | -- |
| PCB-008 | | | | | **57.9** | **165** | **179** | **85.5** | -- | -- |
| PCB-009 | | | | | **4.43** | **8.09** | **11.7** | **6.89** | -- | -- |
| PCB-010 | | | | | **1.07 J** | **1.92** | **2.53** | **1.58 J** | -- | -- |
| PCB-011 | | | | | **127** | **421** | **394** | 80.4 U | -- | -- |
| PCB-012/013 | | | | | **11.3** | **31.7** | **33.1** | **13.2** | -- | -- |
| PCB-014 | | | | | **1.14 J** | **1.5 J** | **2.16** | **0.768 J** | -- | -- |
| PCB-015 | | | | | **55.8** | **140** | **152** | **55** | -- | -- |
| PCB-016 | | | | | **28.5** | **91.8** | **106** | **49.9** | -- | -- |
| PCB-017 | | | | | **31.8** | **104** | **119** | **55** | -- | -- |
| PCB-018/030 | | | | | **60.6** | **220** | **245** | **113** | -- | -- |
| PCB-019 | | | | | **4.17** | **13.9** | **14.5** | **8.16** | -- | -- |
| PCB-020/028 | | | | | **209** | **798** | **706** | **259** | -- | -- |
| PCB-021/033 | | | | | **76.1** | **310** | **272** | **101** | -- | -- |
| PCB-022 | | | | | **58.3** | **212** | **203** | **78.3** | -- | -- |
| PCB-023 | | | | | 0.729 U | 0.937 U | 0.66 U | 0.454 U | -- | -- |
| PCB-024 | | | | | **0.802 J** | **2.58** | **3.33** | **1.66** | -- | -- |
| PCB-025 | | | | | **14.8** | **44.5** | **45.2** | **16.3** | -- | -- |
| PCB-026/029 | | | | | **26.5** | **91.5** | **89.1** | **32.4** | -- | -- |
| PCB-027 | | | | | **5.36** | **19.3** | **20.7** | **8.95** | -- | -- |
| PCB-031 | | | | | **152** | **616** | **545** | **199** | -- | -- |
| PCB-032 | | | | | **24.5** | **90.1** | **93.6** | **42.4** | -- | -- |
| PCB-034 | | | | | 0.753 U | **3.39 J** | **4.2** | **1.37** | -- | -- |
| PCB-035 | | | | | **7.49** | **32.7** | **22.9** | **6.88** | -- | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | PortGardner_08 | PortGardner_08 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-SS-211-2013 | JW-SS-214-2013 | JW-SS-215-2013 | JW-SS-216-2013 | A2-18B | A2-18B |
| Sample ID | | | | | JW-SS-211-130429 | JW-SS-214-130429 | JW-SS-215-130429 | JW-SS-216-130429 | A2-18B-S_8/14/2008 | A2-18B-S_9/4/2008 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 8/14/2008 | 9/4/2008 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302289.984247 | 1302723.710085 | 1302604.772987 | 1302181.5 | -122.2181852 | -122.2181852 |
| Y | | | | | 371905.343584 | 371783.257543 | 371628.867759 | 371644.3599 | 48.01191568 | 48.01191568 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-036 | | | | | **2.13** | **6.85** | **5.95** | **1.39** | -- | -- |
| PCB-037 | | | | | **73.3** | **280** | **231** | **76.1** | -- | -- |
| PCB-038 | | | | | 0.792 U | 1.02 U | **1.19 J** | 0.493 U | -- | -- |
| PCB-039 | | | | | **1.37 J** | **6.81** | **5.18** | **1.79 J** | -- | -- |
| PCB-040/071 | | | | | **56.2** | **228** | **291** | **106** | -- | -- |
| PCB-041 | | | | | **9.29** | **27.8** | **40.3** | **16.5** | -- | -- |
| PCB-042 | | | | | **36.5** | **123** | **159** | **64.5** | -- | -- |
| PCB-043 | | | | | **4.67** | **17.4** | **21.1** | **8.31** | -- | -- |
| PCB-044/047/065 | | | | | **152** | **591** | **682** | **240** | -- | -- |
| PCB-045 | | | | | **11.1** | **39.4** | **48.1** | **23.4** | -- | -- |
| PCB-046 | | | | | **4.86** | **16.7** | **20.4** | **9.45** | -- | -- |
| PCB-048 | | | | | **23.4** | **85.5** | **102** | **42** | -- | -- |
| PCB-049/069 | | | | | **101** | **376** | **428** | **151** | -- | -- |
| PCB-050/053 | | | | | **12.4** | **46.4** | **53.4** | **23.5** | -- | -- |
| PCB-051 | | | | | **3.71** | **11.9** | **15.3** | **6.09** | -- | -- |
| PCB-052 | | | | | **230** | **1040** | **1050** | **293** | -- | -- |
| PCB-054 | | | | | 0.327 U | **0.469 J** | 0.387 U | 0.262 U | -- | -- |
| PCB-055 | | | | | **3.83** | **11.4** | **13.2** | **4.28** | -- | -- |
| PCB-056 | | | | | **101** | **367** | **390** | **135** | -- | -- |
| PCB-057 | | | | | 0.744 U | **2.41** | **3.01** | **1.01 J** | -- | -- |
| PCB-058 | | | | | **0.937 J** | **2.59** | **4.31** | **1.04 J** | -- | -- |
| PCB-059/062/075 | | | | | **11.6** | **38.4** | **48.6** | **20.1** | -- | -- |
| PCB-060 | | | | | **46.8** | **156** | **170** | **65.2** | -- | -- |
| PCB-061/070/074/076 | | | | | **400** | **1720** | **1680** | **498** | -- | -- |
| PCB-063 | | | | | **7.78** | **29.2** | **32.5** | **11.1** | -- | -- |
| PCB-064 | | | | | **55.4** | **208** | **257** | **94.9** | -- | -- |
| PCB-066 | | | | | **248** | **1030** | **970** | **313** | -- | -- |
| PCB-067 | | | | | **6.68** | **20.8** | **23.3** | **8.52** | -- | -- |
| PCB-068 | | | | | **1.58 J** | **5.69** | **7.59** | **2.39** | -- | -- |
| PCB-072 | | | | | **2.72** | **9.04** | **14** | **4.28** | -- | -- |
| PCB-073 | | | | | **0.798 J** | 0.372 U | **2.8 J** | **1.5** | -- | -- |
| PCB-077 | | | | | **32** | **149** | **97.8** | **28.1** | -- | -- |
| PCB-078 | | | | | 0.842 U | 1.61 U | 2.19 U | 0.775 U | -- | -- |
| PCB-079 | | | | | **4.52** | **21.4** | **20.2** | **4.57** | -- | -- |
| PCB-080 | | | | | 0.654 U | 1.25 U | 1.7 U | 0.602 U | -- | -- |
| PCB-081 | | | | | **1.16 J** | **4.61** | **3.34** | **1.52** | -- | -- |
| PCB-082 | | | | | **48** | **232** | **175** | **42.9** | -- | -- |
| PCB-083 | | | | | **23.7** | **107** | **82.9** | **20.6** | -- | -- |
| PCB-084 | | | | | **79.8** | **390** | **343** | **80** | -- | -- |
| PCB-085/116 | | | | | **67.4** | **326** | **249** | **55** | -- | -- |
| PCB-086/087/097/108/119/125 | | | | | **272** | **1370** | **1030** | **225** | -- | -- |
| PCB-086/087/097/109/119/125 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-088 | | | | | 0.774 U | 1.32 U | 2.24 U | 0.853 U | -- | -- |
| PCB-089 | | | | | **3.1** | **13.9** | **13.6** | **4.34** | -- | -- |

# Table H-1
## Surface Sediment Results

| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | PortGardner_08 | PortGardner_08 |
|---|---|---|---|---|---|---|---|---|---|---|
| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | PortGardner_08 | PortGardner_08 |
| Location ID | | | | | JW-SS-211-2013 | JW-SS-214-2013 | JW-SS-215-2013 | JW-SS-216-2013 | A2-18B | A2-18B |
| Sample ID | | | | | JW-SS-211-130429 | JW-SS-214-130429 | JW-SS-215-130429 | JW-SS-216-130429 | A2-18B-S_8/14/2008 | A2-18B-S_9/4/2008 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 8/14/2008 | 9/4/2008 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302289.984247 | 1302723.710085 | 1302604.772987 | 1302181.5 | -122.2181852 | -122.2181852 |
| Y | | | | | 371905.343584 | 371783.257543 | 371628.867759 | 371644.3599 | 48.01191568 | 48.01191568 |
| PCB-090/101/113 | | | | | **410** | **1920** | **1520** | **329** | -- | -- |
| PCB-091 | | | | | **36.5** | **169** | **149** | **38** | -- | -- |
| PCB-092 | | | | | **77.4** | **356** | **289** | **67.4** | -- | -- |
| PCB-093/100 | | | | | **2.54 J** | **9.21** | **9.99** | **3.3** | -- | -- |
| PCB-094 | | | | | **1.11 J** | **4.95** | **5.17** | **1.46 J** | -- | -- |
| PCB-095 | | | | | **228** | **1110** | **1010** | **225** | -- | -- |
| PCB-096 | | | | | **1.65** | **7.32** | **6.36** | **1.95 J** | -- | -- |
| PCB-098 | | | | | 0.648 U | 1.1 U | 1.87 U | 0.713 U | -- | -- |
| PCB-099 | | | | | **226** | **1020** | **807** | **199** | -- | -- |
| PCB-102 | | | | | **8.24** | **37.3** | **35.6** | **10.3** | -- | -- |
| PCB-103 | | | | | **2.63 J** | **8.55** | **9.65** | **3.56** | -- | -- |
| PCB-104 | | | | | 0.294 U | 0.283 U | 0.322 U | 0.237 U | -- | -- |
| PCB-105 | | | | | **192** | **921** | **662** | **139** | -- | -- |
| PCB-106 | | | | | 0.565 U | 0.961 U | 1.63 U | 0.622 U | -- | -- |
| PCB-107 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-107/124 | | | | | **17.6** | **87** | **56.6** | **11.9** | -- | -- |
| PCB-108/124 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-109 | | | | | **35.6** | **152** | **111** | **28.1** | -- | -- |
| PCB-110 | | | | | **548** | **2650** | **1980** | **436** | -- | -- |
| PCB-111 | | | | | 0.489 U | 0.832 U | 1.41 U | 0.539 U | -- | -- |
| PCB-112 | | | | | 0.506 U | 0.86 U | 1.46 U | **1.71** | -- | -- |
| PCB-114 | | | | | **9.6** | **47.3** | **31.7** | **6.94** | -- | -- |
| PCB-115 | | | | | **10.4** | **37** | **36.8** | **8.29** | -- | -- |
| PCB-117 | | | | | **9.98** | **43.8** | **28.2** | **9.42** | -- | -- |
| PCB-118 | | | | | **442** | **2100** | **1460** | **318** | -- | -- |
| PCB-120 | | | | | 0.499 U | 0.849 U | 1.44 U | 0.549 U | -- | -- |
| PCB-121 | | | | | 0.486 U | 0.826 U | 1.4 U | 0.535 U | -- | -- |
| PCB-122 | | | | | **6.68 J** | **28.2** | **21.4** | **4.87** | -- | -- |
| PCB-123 | | | | | **7.22** | **34.7** | **23.9** | **4.96** | -- | -- |
| PCB-126 | | | | | **2.11** | **6.03** | **5.19** | **1.48** | -- | -- |
| PCB-127 | | | | | 0.611 U | 1.03 U | 1.71 U | 0.679 U | -- | -- |
| PCB-128/166 | | | | | **79.3** | **363** | **257** | **50.4** | -- | -- |
| PCB-129/138/163 | | | | | **541** | **2280** | **1580** | **368** | -- | -- |
| PCB-130 | | | | | **36.6** | **156** | **106** | **24.7** | -- | -- |
| PCB-131 | | | | | **5.41** | **30.6** | **17.3** | **3.72** | -- | -- |
| PCB-132 | | | | | **138** | **621** | **425** | **103** | -- | -- |
| PCB-133 | | | | | **8.45** | **28** | **22.9** | **5.73** | -- | -- |
| PCB-134 | | | | | **25.9** | **121** | **75.7** | **17.4** | -- | -- |
| PCB-135/151 | | | | | **122** | **451** | **384** | **103** | -- | -- |
| PCB-136 | | | | | **46.9** | **183** | **151** | **39** | -- | -- |
| PCB-137 | | | | | **22.9** | **110** | **58.7** | **12.8** | -- | -- |
| PCB-139/140 | | | | | **9.33** | **40** | **24.4** | **5.75** | -- | -- |
| PCB-141 | | | | | **70.4** | **306** | **225** | **55.5** | -- | -- |
| PCB-142 | | | | | 0.44 U | 0.581 U | 0.473 U | 0.323 U | -- | -- |

## Table H-1
## Surface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | PortGardner_08 | PortGardner_08 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-SS-211-2013 | JW-SS-214-2013 | JW-SS-215-2013 | JW-SS-216-2013 | A2-18B | A2-18B |
| Sample ID | | | | | JW-SS-211-130429 | JW-SS-214-130429 | JW-SS-215-130429 | JW-SS-216-130429 | A2-18B-S_8/14/2008 | A2-18B-S_9/4/2008 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 8/14/2008 | 9/4/2008 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302289.984247 | 1302723.710085 | 1302604.772987 | 1302181.5 | -122.2181852 | -122.2181852 |
| Y | | | | | 371905.343584 | 371783.257543 | 371628.867759 | 371644.3599 | 48.01191568 | 48.01191568 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| PCB-143 | | | | | 0.407 U | 0.537 U | **4.86** | **1.88** | -- | -- |
| PCB-144 | | | | | **16.5** | **69.7** | **54** | **13.6** | -- | -- |
| PCB-145 | | | | | 0.318 U | 0.362 U | 0.32 U | 0.222 U | -- | -- |
| PCB-146 | | | | | **76.2** | **265** | **217** | **58.2** | -- | -- |
| PCB-147/149 | | | | | **308** | **1230** | **970** | **245** | -- | -- |
| PCB-148 | | | | | **1.05 J** | **1.37 J** | **1.65 J** | **0.521 J** | -- | -- |
| PCB-150 | | | | | **0.862 J** | **1.79 J** | **1.32 J** | 0.205 U | -- | -- |
| PCB-152 | | | | | 0.297 U | **1.51 J** | **0.734 J** | 0.208 U | -- | -- |
| PCB-153/168 | | | | | **359** | **1390** | **1090** | **274** | -- | -- |
| PCB-154 | | | | | **6.47** | **18.4** | **15** | **4.83** | -- | -- |
| PCB-155 | | | | | 0.273 U | 0.31 U | 0.274 U | 0.191 U | -- | -- |
| PCB-156/157 | | | | | **64.5** | **296** | **183** | **38.2** | -- | -- |
| PCB-158 | | | | | **50.2** | **234** | **151** | **33.2** | -- | -- |
| PCB-159 | | | | | **2.74** | **6.88 J** | **12.3** | **2.79** | -- | -- |
| PCB-160 | | | | | **6.45** | **45.8** | **22.1** | **4.59** | -- | -- |
| PCB-161 | | | | | 0.311 U | **1.19 J** | **1.09 J** | 0.228 U | -- | -- |
| PCB-162 | | | | | **1.62** | **7.01** | **4.72** | **1.24** | -- | -- |
| PCB-164 | | | | | **33.2** | **143** | **99.5** | **23.1** | -- | -- |
| PCB-165 | | | | | 0.358 U | 0.472 U | 0.385 U | 0.263 U | -- | -- |
| PCB-167 | | | | | **18.4** | **83.4** | **56.4** | **11.7** | -- | -- |
| PCB-169 | | | | | 1.47 U | 1.58 U | 1.77 U | 0.818 U | -- | -- |
| PCB-170 | | | | | **86.2** | **256** | **265** | **65.2** | -- | -- |
| PCB-171/173 | | | | | **26.1** | **76.2** | **80.9** | **20.7** | -- | -- |
| PCB-172 | | | | | **14.5** | **41.5** | **46.1** | **11.6** | -- | -- |
| PCB-174 | | | | | **75.4** | **207** | **241** | **65.1** | -- | -- |
| PCB-175 | | | | | **3.15** | **9.81** | **11.1** | **2.99** | -- | -- |
| PCB-176 | | | | | **9.16** | **24.4** | **29.6** | **7.55** | -- | -- |
| PCB-177 | | | | | **54** | **137** | **159** | **42.3** | -- | -- |
| PCB-178 | | | | | **19.9** | **44.3** | **52.3** | **14.9** | -- | -- |
| PCB-179 | | | | | **33.9** | **85.3** | **108** | **29.1** | -- | -- |
| PCB-180/193 | | | | | **171** | **484** | **546** | **144** | -- | -- |
| PCB-181 | | | | | **1.13 J** | **4.3** | **3.22** | 0.646 U | -- | -- |
| PCB-182 | | | | | **0.956 J** | **2.29** | **2.4** | 0.598 U | -- | -- |
| PCB-183 | | | | | **48.4** | **142** | **148** | **38.7** | -- | -- |
| PCB-184 | | | | | 0.245 U | 0.415 U | 0.39 U | 0.275 U | -- | -- |
| PCB-185 | | | | | **5.6** | **14.3** | **23.3** | **7.1** | -- | -- |
| PCB-186 | | | | | 0.233 U | 0.394 U | 0.37 U | 0.26 U | -- | -- |
| PCB-187 | | | | | **106** | **271** | **303** | **88** | -- | -- |
| PCB-188 | | | | | 0.229 U | **0.615 J** | **0.506 J** | 0.256 U | -- | -- |
| PCB-189 | | | | | **3.66** | **10.9** | **10.4** | **2.39** | -- | -- |
| PCB-190 | | | | | **16.1** | **46.7** | **48.1** | **12.2** | -- | -- |
| PCB-191 | | | | | **4.44** | **13.1** | **14.4** | **3.38** | -- | -- |
| PCB-192 | | | | | 0.716 U | 0.937 U | 0.989 U | 0.588 U | -- | -- |
| PCB-194 | | | | | **46.2** | **113** | **134** | 35.3 U | -- | -- |

# Table H-1
## Surface Sediment Results

| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | PortGardner_08 | PortGardner_08 |
|---|---|---|---|---|---|---|---|---|---|---|
| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | PortGardner_08 | PortGardner_08 |
| Location ID | | | | | JW-SS-211-2013 | JW-SS-214-2013 | JW-SS-215-2013 | JW-SS-216-2013 | A2-18B | A2-18B |
| Sample ID | | | | | JW-SS-211-130429 | JW-SS-214-130429 | JW-SS-215-130429 | JW-SS-216-130429 | A2-18B-S_8/14/2008 | A2-18B-S_9/4/2008 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 8/14/2008 | 9/4/2008 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302289.984247 | 1302723.710085 | 1302604.772987 | 1302181.5 | -122.2181852 | -122.2181852 |
| Y | | | | | 371905.343584 | 371783.257543 | 371628.867759 | 371644.3599 | 48.01191568 | 48.01191568 |
| PCB-195 | | | | | 16.9 | 39.3 | 49.2 | 12.2 U | -- | -- |
| PCB-196 | | | | | 20.9 | 52.6 | 61.5 | 16.9 | -- | -- |
| PCB-197 | | | | | 1.6 | 2.83 | 3.65 | 1.13 J | -- | -- |
| PCB-198/199 | | | | | 48 | 120 | 137 | 40.7 | -- | -- |
| PCB-200 | | | | | 4.87 | 12.8 | 14.9 | 4.04 | -- | -- |
| PCB-201 | | | | | 6.17 | 16.5 | 17.1 | 5.1 | -- | -- |
| PCB-202 | | | | | 13.2 | 33.6 | 33.3 | 10.1 | -- | -- |
| PCB-203 | | | | | 31.5 | 78.4 | 85.4 | 24.3 | -- | -- |
| PCB-204 | | | | | 0.495 U | 0.626 U | 0.577 U | 0.437 U | -- | -- |
| PCB-205 | | | | | 2.19 | 4.63 J | 6.35 | 1.74 | -- | -- |
| PCB-206 | | | | | 31.3 | 76.4 | 65.6 | 20.8 | -- | -- |
| PCB-207 | | | | | 3.66 | 9.25 | 8.44 | 2.54 | -- | -- |
| PCB-208 | | | | | 8.95 | 22.8 | 20.9 | 6.38 | -- | -- |
| PCB-209 | | | | | 17.1 | 37.1 | 32.4 | 10.7 | -- | -- |
| Total PCB Congener (U = limit) | | | | | 8523.99 J | 34483.878 J | 29614.807 J | 8180.48 J | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | 1.9597928 J | 8.6643 | 5.847947 | 1.7276025 | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | 0.0180904 J | 0.0649005 | 0.0496255 | 0.01361685 | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | | | 0.2807694 J | 0.771482 | 0.655704 | 0.1914417 | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | 8516.237 J | 34474.146 J | 29602.823 J | 8110.114 J | -- | -- |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | 8508.485 J | 34464.414 J | 29590.84 J | 8039.749 J | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | 1.9590578 J | 8.66351 | 5.847062 | 1.7271935 | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | 1.9583228 J | 8.66272 | 5.846177 | 1.7267845 | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | 0.01805365 J | 0.064861 | 0.04958125 | 0.0135964 | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | 0.0180169 J | 0.0648215 | 0.049537 | 0.01357595 | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | 0.2587194 J | 0.747782 | 0.629154 | 0.1791717 | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | 0.2366694 J | 0.724082 | 0.602604 | 0.1669017 | -- | -- |
| **Total Petroleum Hydrocarbons (mg/kg)** | | | | | | | | | | |
| Diesel range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- |
| Motor oil range hydrocarbons | | | | | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | 0.000246636474308 J | 0.000730956357388 J | 0.000676183273543 J | 0.000207833159091 J | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | 0.0001090790671937 J | 0.0002925474398625 J | 0.0002253639237668 J | 6.95565386364E-05 J | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | 0.000137369936759 J | 0.000375065704467 J | 0.000292320807175 J | 8.8883759091E-05 J | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | 0.000246294577075 J | 0.000730593642612 J | 0.000675751883408 J | 0.000207559113636 J | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | 0.0001087647687747 J | 0.0002922105154639 J | 0.000224970235426 J | 6.93001545455E-05 J | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | 0.000136185549407 J | 0.000373915704467 J | 0.000290738520179 J | 8.8070577273E-05 J | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | 0.000245952679842 J | 0.000730230927835 J | 0.000675320493274 J | 0.000207285068182 J | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | 0.0001084504703557 J | 0.0002918735910653 J | 0.0002245765470852 J | 6.90437704545E-05 J | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | 0.000135001162055 J | 0.000372765704467 J | 0.000289156233184 J | 8.7257395455E-05 J | -- | -- |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | 6.2399028 J | 21.27083 J | 15.078887 J | 4.5723295 J | -- | 4.8406 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | 2.7597004 J | 8.5131305 J | 5.0256155 J | 1.53024385 J | -- | 2.6628 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | 3.4754594 J | 10.914412 J | 6.518754 J | 1.9554427 J | -- | 3.4105 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | 6.2312528 J | 21.260275 J | 15.069267 J | 4.5663005 J | -- | 4.8366 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | 2.75174865 J | 8.503326 J | 5.01683625 J | 1.5246034 J | -- | 2.6588 J |

## Table H-1
## Surface Sediment Results

| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | PortGardner_08 | PortGardner_08 |
|---|---|---|---|---|---|---|---|---|---|---|
| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | PortGardner_08 | PortGardner_08 |
| Location ID | | | | | JW-SS-211-2013 | JW-SS-214-2013 | JW-SS-215-2013 | JW-SS-216-2013 | A2-18B | A2-18B |
| Sample ID | | | | | JW-SS-211-130429 | JW-SS-214-130429 | JW-SS-215-130429 | JW-SS-216-130429 | A2-18B-S_8/14/2008 | A2-18B-S_9/4/2008 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/29/2013 | 4/29/2013 | 8/14/2008 | 9/4/2008 |
| Depth | | | | | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm | 0 - 10 cm |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302289.984247 | 1302723.710085 | 1302604.772987 | 1302181.5 | -122.2181852 | -122.2181852 |
| Y | | | | | 371905.343584 | 371783.257543 | 371628.867759 | 371644.3599 | 48.01191568 | 48.01191568 |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | 3.4454944 J | 10.880947 J | 6.483469 J | 1.9375527 J | -- | 3.4065 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | 6.2226028 J | 21.24972 J | 15.059647 J | 4.5602715 J | -- | 4.8326 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | 2.7437969 J | 8.4935215 J | 5.008057 J | 1.51896295 J | -- | 2.6548 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | 3.4155294 J | 10.847482 J | 6.448184 J | 1.9196627 J | -- | 3.4025 J |

# Table H-1
# Surface Sediment Results

Notes:
Total LPAH represents the sum of naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, and anthracene.
Total HPAH represents the sum of fluoranthene, pyrene, benz(a)anthracene, chrysene, benzo(b,j,k)fluoranthenes, benzo(a)pyrene, indeno(1,2,3,-c,d)pyrene, dibenzo(a,h)anthracene, and benzo(g,h,i)perylene.
*TOC in range (0.5% - 3.5%)*
Detected concentration is greater than SMS_Marine_SCO_SCUMII screening level
Detected concentration is greater than SMS_Marine_CSL_SCUMII screening level
*TOC out of range*
Detected concentration is greater than AET_Marine_SCO_SCUMII screening level
Detected concentration is greater than AET_Marine_CSL_SCUMII screening level
**Bold = detected result**
µg/kg = micrograms per kilogram dry weight
CAEPA = California Environmental Protection Agency
cm = centimeter
cPAH = carcinogenic polycyclic aromatic hydrocarbon
CSL = cleanup screening level
FD = field duplicate sample
HPAH = high-molecular-weight polycyclic aromatic hydrocarbon
J = estimated value
LPAH = low-molecular-weight polycyclic aromatic hydrocarbon
mg/kg = milligrams per kilogram dry weight
N = normal environmental sample
ng/kg = nanograms per kilogram dry weight
OC = organic carbon
PCB = polychlorinated biphenyl
pct = percent
SCO = sediment cleanup objective
SE = sediment
SMS = Sediment Management Standards
TEQ = toxicity equivalency factor
TOC = total organic carbon
U = compound analyzed but not detected above detection limit
UJ = compound analyzed but not detected above estimated detection limit

# Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 |
| Sample ID | | | | | JW-EA02-SC05-A-130423 | JW-EA02-SC05-B-130423 | JW-EA02-SC05-C-130423 | JW-EA02-SC05-D-130423 | JW-EA02-SC05-E-130423 | JW-EA02-SC105-B-130423 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 6 - 7 ft | 7 - 7.3 ft | 2 - 4 ft |
| Sample Type | | | | | N | N | N | N | N | FD |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 |
| Y | | | | | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | |
| Total organic carbon | | | | | **3.19** | **5.04** | **6.32** | **4.35 J** | **8.78** | **6.59** |
| Moisture, percent | | | | | -- | -- | -- | -- | -- | -- |
| Total Solids | | | | | **53.12** | **49.56** | **45.72** | **51.08** | **42.97** | **49.73** |
| **Grain Size (pct)** | | | | | | | | | | |
| Gravel | | | | | **1.5** | **1** | **1.1** | -- | -- | **1.2** |
| Sand, very coarse | | | | | **1** | **0.3** | **0.7** | -- | -- | **0.6** |
| Sand, coarse | | | | | **2.2** | **0.8** | **1.5** | -- | -- | **1.3** |
| Sand, medium | | | | | **9.6** | **2.4** | **4.1** | -- | -- | **2.9** |
| Sand, fine | | | | | **8.5** | **4.5** | **5.7** | -- | -- | **5.5** |
| Sand, very fine | | | | | **4.4** | **5.8** | **7.1** | -- | -- | **6.8** |
| Silt, coarse | | | | | **13.1** | **14.4** | **11.6** | -- | -- | **17** |
| Silt, medium | | | | | **19.8** | **21** | **20.5** | -- | -- | **17.2** |
| Silt, fine | | | | | **14.9** | **15.7** | **15.9** | -- | -- | **15.6** |
| Silt, very fine | | | | | **8** | **10.4** | **9.9** | -- | -- | **10.1** |
| Clay, coarse | | | | | **5.1** | **7** | **6.5** | -- | -- | **6.7** |
| Clay, medium | | | | | **3.9** | **5.7** | **4.7** | -- | -- | **5.3** |
| Clay, fine | | | | | **8.1** | **10.9** | **10.6** | -- | -- | **9.8** |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | 0.1103 U | 0.0558 U | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | 0.1103 U | **0.0273 J** | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | **0.0782 J** | **0.0615** | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | **3.448** | 1.367 U | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | 0.1103 U | 0.0558 U | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | 1.103 U | 0.558 U | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | 0.1103 U | **0.968** | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | 0.437 U | 0.228 U | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | **0.276 J** | 0.228 U | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | 0.1103 U | 0.0558 U | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | 0.1103 U | 0.0558 U | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | 0.437 U | 0.228 U | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | 4.8 U | 4.9 U | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | 4.8 U | **2.4 J** | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | **3.4 J** | **5.4** | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | **7.3 J** | **14 J** | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | **13** | 4.9 UJ | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | **260** | **760** | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | **690 J** | **430 J** | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | **160** | 20 U | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | **150** | 120 U | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | 4.8 U | 4.9 U | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | 48 U | 49 U | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | 4.8 U | **85** | -- |

# Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 |
| Sample ID | | | | | JW-EA02-SC05-A-130423 | JW-EA02-SC05-B-130423 | JW-EA02-SC05-C-130423 | JW-EA02-SC05-D-130423 | JW-EA02-SC05-E-130423 | JW-EA02-SC105-B-130423 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 6 - 7 ft | 7 - 7.3 ft | 2 - 4 ft |
| Sample Type | | | | | N | N | N | N | N | FD |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 |
| Y | | | | | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | 19 U | 20 U | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | **12 J** | 20 U | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | 4.8 U | 4.9 U | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | 4.8 U | 4.9 U | -- |
| Hexachloroethane | | | | | -- | -- | -- | 19 U | 20 U | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | 19 U | 20 U | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | **31 J** | **21 J** | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | **280** | **160** | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | **1.931** | **0.661** | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | **1.103** | **0.809** | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | **0.69** | 0.228 U | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- | **2.023** | **1.481** | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | **2.529** | **1.367** | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | **1.655** | **1.014** | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | **1.195** | **0.444** | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- | **4.598** | **2.392** | -- |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | **0.276** | **0.194** | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | **1.908** | **0.968** | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | **9.885** | **6.264** | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- | **1.908** | **1.253** | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | **0.851** | **0.376** | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- | **5.057** | **1.595** | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | **5.517** | **3.759** | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | **9.195** | **5.809** | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | **4.368** | **2.278** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | **2.50345** | **1.459** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | **2.50345** | **1.459** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | **2.50345** | **1.459** | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | **34.552** | **20.137** | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | **16.299** | **8.895** | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | **84** | **58** | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | **48** | **71** | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | **30** | 20 U | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- | **88** | **130** | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | **110** | **120** | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | **72** | **89** | -- |
| Benzo(b,j,k)fluoranthenes | | | | | -- | -- | -- | **190** | **200** | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | **52** | **39** | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | **200** | **210** | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | **12** | **17** | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | **83** | **85** | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | **430** | **550** | -- |

# Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 |
| Sample ID | | | | | JW-EA02-SC05-A-130423 | JW-EA02-SC05-B-130423 | JW-EA02-SC05-C-130423 | JW-EA02-SC05-D-130423 | JW-EA02-SC05-E-130423 | JW-EA02-SC105-B-130423 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 6 - 7 ft | 7 - 7.3 ft | 2 - 4 ft |
| Sample Type | | | | | N | N | N | N | N | FD |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 |
| Y | | | | | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| Fluorene | | | 540 | 540 | -- | -- | -- | **83** | **110** | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | **37** | **33** | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | **220** | **140** | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | **240** | **330** | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | **400** | **510** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | **108.9** | **128.1** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | **108.9** | **128.1** | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | **190** | **200** | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | **108.9** | **128.1** | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | **1503** | **1768** | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | **709** | **781** | -- |
| **Dioxin Furans (mg/kg-OC)** | | | | | | | | | | |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | **0.00023751818182 J** | **0.0005653630952 J** | **0.000605756** | **0.00143145494253 J** | -- | **0.00038449286798 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | **0.00017800250784 J** | **0.000426484127 J** | **0.000468517** | **0.00105554689655 J** | -- | **0.00028680698027 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | **0.00030156802508 J** | **0.0006832242063 J** | **0.000748353** | **0.00200990091954 J** | -- | **0.00045819544765 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | **0.00023725815047 J** | **0.0005649325397 J** | **0.000605467** | **0.00143081942529 J** | -- | **0.00038424264036 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | **0.00017774247649 J** | **0.0004260535714 J** | **0.000468228** | **0.00105491137931 J** | -- | **0.00028655675266 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | **0.00030130799373 J** | **0.0006827936508 J** | **0.000748064** | **0.0020092654023 J** | -- | **0.00045794522003 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | **0.00023699811912 J** | **0.0005645019841 J** | **0.000605179** | **0.00143018390805 J** | -- | **0.00038399241275 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | **0.00017748244514 J** | **0.0004256230159 J** | **0.00046794** | **0.00105427586207 J** | -- | **0.00028630652504 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | **0.00030104796238 J** | **0.0006823630952 J** | **0.000747775** | **0.00200862988506 J** | -- | **0.00045769499241 J** |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **0.278 J** | **0.869** | **1.01** | **1.39 J** | -- | **0.773** |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **1.38 J** | **4.78 J** | **6.57** | **8.36** | -- | **4.35** |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **2.34** | **8.53** | **10.6** | **16.9** | -- | **7.69** |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **17.2** | **72.9** | **114** | **136** | -- | **61.9** |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **6.58** | **21.7** | **27.2** | **43.2** | -- | **20** |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **278** | **863** | **1060** | **2940** | -- | **756** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | **2450** | **5410** | **6600** | **35500 J** | -- | **5070** |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **18.6 J** | **66.6 J** | **71.2 J** | **120 J** | -- | **53.4 J** |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **23.8 J** | **95.5 J** | **96.6 J** | **155** | -- | **76.8 J** |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **147** | **459** | **594** | **878** | -- | **403** |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **561** | **1620** | **2000** | **5700** | -- | **1430** |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | **1.56** | **5.79** | **6.24** | **14.8** | -- | **5.51** |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **0.747 J** | **2.49** | **3.55** | **4.18 J** | -- | **2.17 J** |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **1.68 J** | **6.52** | **9.78** | **11.6** | -- | **5.51** |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **2.02 J** | **8.63** | **11.8** | **18.4** | -- | **6.68** |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **1.83 J** | **8.94** | **13.9** | **17.2** | -- | **7.61** |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | 0.1659 U | 0.434 U | 0.3648 U | 0.5529 U | -- | 0.3298 U |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **2.88** | **15.4** | **25.1** | **30.4** | -- | **12.9** |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | **41.4** | **210** | **292** | **559** | -- | **185** |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | **2.13 J** | **8.99** | **14.6** | **31.5** | -- | **8.39** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | **92.4** | **265** | **363** | **1250** | -- | **257** |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | **19 J** | **60.2 J** | **78.1 J** | **106 J** | -- | **53.7 J** |

# Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 |
| Sample ID | | | | | JW-EA02-SC05-A-130423 | JW-EA02-SC05-B-130423 | JW-EA02-SC05-C-130423 | JW-EA02-SC05-D-130423 | JW-EA02-SC05-E-130423 | JW-EA02-SC105-B-130423 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 6 - 7 ft | 7 - 7.3 ft | 2 - 4 ft |
| Sample Type | | | | | N | N | N | N | N | FD |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 |
| Y | | | | | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | **23 J** | **116** | **185 J** | **213 J** | -- | **106 J** |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | **61.5 J** | **366** | **532** | **765** | -- | **288** |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | **120** | **585** | **831** | **1840** | -- | **511** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | **7.57683 J** | **28.4943 J** | **38.28378** | **62.26829 J** | -- | **25.33808 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | **5.67828 J** | **21.4948 J** | **29.61028** | **45.91629 J** | -- | **18.90058 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | **9.62002 J** | **34.4345 J** | **47.29588** | **87.43069 J** | -- | **30.19508 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | **7.568535 J** | **28.4726 J** | **38.26554** | **62.240645 J** | -- | **25.32159 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | **5.669985 J** | **21.4731 J** | **29.59204** | **45.888645 J** | -- | **18.88409 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | **9.611725 J** | **34.4128 J** | **47.27764** | **87.403045 J** | -- | **30.17859 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | **7.56024 J** | **28.4509 J** | **38.2473** | **62.213 J** | -- | **25.3051 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | **5.66169 J** | **21.4514 J** | **29.5738** | **45.861 J** | -- | **18.8676 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | **9.60343 J** | **34.3911 J** | **47.2594** | **87.3754 J** | -- | **30.1621 J** |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | **0.5353** | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | 9.8 U | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | 9.8 U | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | 9.8 U | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | 9.8 U | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | **28** | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | **19** | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | 24 U | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | **47** | -- |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (ng/kg)** | | | | | | | | | | |
| PCB-001 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-002 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-003 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-004 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-005 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-006 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-007 | | | | | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 |
| Sample ID | | | | | JW-EA02-SC05-A-130423 | JW-EA02-SC05-B-130423 | JW-EA02-SC05-C-130423 | JW-EA02-SC05-D-130423 | JW-EA02-SC05-E-130423 | JW-EA02-SC105-B-130423 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 6 - 7 ft | 7 - 7.3 ft | 2 - 4 ft |
| Sample Type | | | | | N | N | N | N | N | FD |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 |
| Y | | | | | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| PCB-008 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-009 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-010 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-011 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-012/013 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-014 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-015 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-016 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-017 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-018/030 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-019 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-020/028 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-021/033 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-022 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-023 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-024 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-025 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-026/029 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-027 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-031 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-032 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-034 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-035 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-036 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-037 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-038 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-039 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-040/071 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-041 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-042 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-043 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-044/047/065 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-045 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-046 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-048 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-049/069 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-050/053 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-051 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-052 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-054 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-055 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-056 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-057 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-058 | | | | | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 |
| Sample ID | | | | | JW-EA02-SC05-A-130423 | JW-EA02-SC05-B-130423 | JW-EA02-SC05-C-130423 | JW-EA02-SC05-D-130423 | JW-EA02-SC05-E-130423 | JW-EA02-SC105-B-130423 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 6 - 7 ft | 7 - 7.3 ft | 2 - 4 ft |
| Sample Type | | | | | N | N | N | N | N | FD |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 |
| Y | | | | | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-059/062/075 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-060 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-061/070/074/076 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-063 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-064 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-066 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-067 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-068 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-072 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-073 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-077 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-078 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-079 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-080 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-081 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-082 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-083 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-084 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-085/116 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-088 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-089 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-090/101/113 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-091 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-092 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-093/100 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-094 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-095 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-096 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-098 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-099 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-102 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-103 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-104 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-105 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-106 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-107/124 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-109 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-110 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-111 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-112 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-114 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-115 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-117 | | | | | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 |
| Sample ID | | | | | JW-EA02-SC05-A-130423 | JW-EA02-SC05-B-130423 | JW-EA02-SC05-C-130423 | JW-EA02-SC05-D-130423 | JW-EA02-SC05-E-130423 | JW-EA02-SC105-B-130423 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 6 - 7 ft | 7 - 7.3 ft | 2 - 4 ft |
| Sample Type | | | | | N | N | N | N | N | FD |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 |
| Y | | | | | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-118 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-120 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-121 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-122 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-123 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-126 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-127 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-128/166 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-129/138/163 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-130 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-131 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-132 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-133 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-134 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-135/151 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-136 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-137 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-139/140 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-141 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-142 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-143 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-144 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-145 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-146 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-147/149 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-148 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-150 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-152 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-153/168 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-154 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-155 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-156/157 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-158 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-159 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-160 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-161 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-162 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-164 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-165 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-167 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-169 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-170 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-171/173 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-172 | | | | | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 |
| Sample ID | | | | | JW-EA02-SC05-A-130423 | JW-EA02-SC05-B-130423 | JW-EA02-SC05-C-130423 | JW-EA02-SC05-D-130423 | JW-EA02-SC05-E-130423 | JW-EA02-SC105-B-130423 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 6 - 7 ft | 7 - 7.3 ft | 2 - 4 ft |
| Sample Type | | | | | N | N | N | N | N | FD |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 |
| Y | | | | | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-174 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-175 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-176 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-177 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-178 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-179 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-180/193 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-181 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-182 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-183 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-184 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-185 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-186 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-187 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-188 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-189 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-190 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-191 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-192 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-194 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-195 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-196 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-197 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-198/199 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-200 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-201 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-202 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-203 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-204 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-205 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-206 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-207 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-208 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-209 | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |

# Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 | JW-EA02-SC05-2013 |
| Sample ID | | | | | JW-EA02-SC05-A-130423 | JW-EA02-SC05-B-130423 | JW-EA02-SC05-C-130423 | JW-EA02-SC05-D-130423 | JW-EA02-SC05-E-130423 | JW-EA02-SC105-B-130423 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 6 - 7 ft | 7 - 7.3 ft | 2 - 4 ft |
| Sample Type | | | | | N | N | N | N | N | FD |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 | 1303198.45046 |
| Y | | | | | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 | 373770.516973 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| **Radionuclides (pci/g)** | | | | | | | | | | |
| Cesium 137 | | | | | -- | -- | -- | -- | -- | -- |
| Lead 210 | | | | | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **0.00023751818182 J** | **0.0005653630952 J** | **0.000605756** | **0.00143145494253 J** | -- | **0.00038449286798 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **0.00017800250784 J** | **0.000426484127 J** | **0.000468517** | **0.00105554689655 J** | -- | **0.00028680698027 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **0.00030156802508 J** | **0.0006832242063 J** | **0.000748353** | **0.00200990091954 J** | -- | **0.00045819544765 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **0.00023725815047 J** | **0.0005649325397 J** | **0.000605467** | **0.00143081942529 J** | -- | **0.00038424264036 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **0.00017774247649 J** | **0.0004260535714 J** | **0.000468228** | **0.00105491137931 J** | -- | **0.00028655675266 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | **0.00030130799373 J** | **0.0006827936508 J** | **0.000748064** | **0.0020092654023 J** | -- | **0.00045794522003 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | **0.00023699811912 J** | **0.0005645019841 J** | **0.000605179** | **0.00143018390805 J** | -- | **0.00038399241275 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | **0.00017748244514 J** | **0.0004256230159 J** | **0.00046794** | **0.00105427586207 J** | -- | **0.00028630652504 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | **0.00030104796238 J** | **0.0006823630952 J** | **0.000747775** | **0.00200862988506 J** | -- | **0.00045769499241 J** |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **7.57683 J** | **28.4943 J** | **38.28378** | **62.26829 J** | -- | **25.33808 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **5.67828 J** | **21.4948 J** | **29.61028** | **45.91629 J** | -- | **18.90058 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **9.62002 J** | **34.4345 J** | **47.29588** | **87.43069 J** | -- | **30.19508 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **7.568535 J** | **28.4726 J** | **38.26554** | **62.240645 J** | -- | **25.32159 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **5.669985 J** | **21.4731 J** | **29.59204** | **45.888645 J** | -- | **18.88409 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | **9.611725 J** | **34.4128 J** | **47.27764** | **87.403045 J** | -- | **30.17859 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | **7.56024 J** | **28.4509 J** | **38.2473** | **62.213 J** | -- | **25.3051 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | **5.66169 J** | **21.4514 J** | **29.5738** | **45.861 J** | -- | **18.8676 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | **9.60343 J** | **34.3911 J** | **47.2594** | **87.3754 J** | -- | **30.1621 J** |

# Table H-2
## Subsurface Sediment Results

| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
| Location ID | | | | | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA06-SC21-2013 |
| Sample ID | | | | | JW-EA04-SC13-A-130423 | JW-EA04-SC13-B-130423 | JW-EA04-SC13-C-130423 | JW-EA04-SC13-D-130423 | JW-EA04-SC13-EF-130423 | JW-EA06-SC21-A-130423 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 6 - 7 ft | 7 - 9 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302293.75554 |
| Y | | | | | 374224.242676 | 374224.242676 | 374224.242676 | 374224.242676 | 374224.242676 | 373635.149742 |
| **Conventional Parameters (pct)** | | | | | | | | | | |
| Total organic carbon | | | | | **1.02** | **3.51** | **1.85** | **2.55 J** | **4.46** | **2.43 J** |
| Moisture, percent | | | | | -- | -- | -- | -- | -- | -- |
| Total Solids | | | | | **51.93** | **58.03** | **72.34** | **60.73** | **76.93** | **49.73** |
| **Grain Size (pct)** | | | | | | | | | | |
| Gravel | | | | | **0.8** | **0.9** | **1.7** | -- | -- | -- |
| Sand, very coarse | | | | | **0.9** | **1.2** | **2.2** | -- | -- | -- |
| Sand, coarse | | | | | **1.3** | **2.6** | **6.3** | -- | -- | -- |
| Sand, medium | | | | | **3.3** | **6.4** | **21.2** | -- | -- | -- |
| Sand, fine | | | | | **3.8** | **7.4** | **18.4** | -- | -- | -- |
| Sand, very fine | | | | | **8.8** | **12.7** | **8.7** | -- | -- | -- |
| Silt, coarse | | | | | **20.5** | **21.7** | **8.9** | -- | -- | -- |
| Silt, medium | | | | | **23.4** | **16.2** | **10.6** | -- | -- | -- |
| Silt, fine | | | | | **14.4** | **10.9** | **7.4** | -- | -- | -- |
| Silt, very fine | | | | | **6.8** | **6.5** | **4.3** | -- | -- | -- |
| Clay, coarse | | | | | **5.1** | **4.4** | **3.1** | -- | -- | -- |
| Clay, medium | | | | | **3.5** | **3.4** | **2.3** | -- | -- | -- |
| Clay, fine | | | | | **7.6** | **5.9** | **4.9** | -- | -- | -- |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | 0.1882 U | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | 0.1882 U | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | 0.1882 U | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | **0.98** | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | 0.1882 U | -- | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | 1.843 U | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | 0.1882 U | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | 0.745 U | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | 0.745 U | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | 0.1882 U | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | 0.745 U | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | 4.8 U | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | 4.8 U | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | 4.8 U | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | 19 U | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | **16** | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | **1600** | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | **580 J** | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | **190** | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | **25** | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | 4.8 U | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | 47 U | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | 4.8 U | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA06-SC21-2013 |
| Sample ID | | | | | JW-EA04-SC13-A-130423 | JW-EA04-SC13-B-130423 | JW-EA04-SC13-C-130423 | JW-EA04-SC13-D-130423 | JW-EA04-SC13-EF-130423 | JW-EA06-SC21-A-130423 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 6 - 7 ft | 7 - 9 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302293.75554 |
| Y | | | | | 374224.242676 | 374224.242676 | 374224.242676 | 374224.242676 | 374224.242676 | 373635.149742 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | 19 U | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | 19 U | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | 4.8 U | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | | | | | -- | -- | -- | 19 U | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | 19 U | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | **15 J** | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | **190** | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | **14.118** | -- | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | **16.078** | -- | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | **5.49** | -- | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- | **6.275** | -- | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | **5.49** | -- | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | **2.824** | -- | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | **2.353** | -- | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- | **7.843** | -- | -- |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | **0.2667** | -- | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | **11.373** | -- | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | **34.51** | -- | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- | **14.51** | -- | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | **1.333** | -- | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- | **37.647** | -- | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | **47.059** | -- | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | **29.412** | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | **6.275** | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | **4.238431** | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | **4.238431** | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | **4.238431** | -- | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | **90.3059** | -- | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | **127.059** | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | **360** | -- | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | **410** | -- | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | **140** | -- | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- | **160** | -- | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | **140** | -- | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | **72** | -- | -- |
| Benzo(b,j,k)fluoranthenes | | | | | -- | -- | -- | **160** | -- | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | **60** | -- | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | **200** | -- | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | **6.8** | -- | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | **290** | -- | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | **880** | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA06-SC21-2013 |
| Sample ID | | | | | JW-EA04-SC13-A-130423 | JW-EA04-SC13-B-130423 | JW-EA04-SC13-C-130423 | JW-EA04-SC13-D-130423 | JW-EA04-SC13-EF-130423 | JW-EA06-SC21-A-130423 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 6 - 7 ft | 7 - 9 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302293.75554 |
| Y | | | | | 374224.242676 | 374224.242676 | 374224.242676 | 374224.242676 | 374224.242676 | 373635.149742 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| Fluorene | | | 540 | 540 | -- | -- | -- | **370** | -- | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | **34** | -- | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | **960** | -- | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | **1200** | -- | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | **750** | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | **108.08** | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | **108.08** | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | **160** | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | **108.08** | -- | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | **2302.8** | -- | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | **3240** | -- | -- |
| **Dioxin Furans (mg/kg-OC)** | | | | | | | | | | |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | **0.00130991372549 J** | **0.000879034** | **0.00027283675676 J** | **0.00052498588235 J** | **2.240197309E-05 J** | **0.00077554691358 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | **0.0008821 J** | **0.000642267** | **0.00015988540541 J** | **0.00028079372549 J** | **1.143627803E-05 J** | **0.00051803662551 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | **0.00119911960784 J** | **0.00083864** | **0.00021678162162 J** | **0.00037492705882 J** | **1.293183857E-05 J** | **0.00119357572016 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | **0.00130909411765 J** | **0.00087846** | **0.00027262783784 J** | **0.00052448117647 J** | **1.981825112E-05 J** | **0.00077500390947 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | **0.00088128039216 J** | **0.000641693** | **0.00015967648649 J** | **0.00028028901961 J** | **8.89930493E-06 J** | **0.0005174936214 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | **0.0011983 J** | **0.000838067** | **0.0002165727027 J** | **0.00037442235294 J** | **1.041356502E-05 J** | **0.00119303271605 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | **0.0013082745098 J** | **0.000877886** | **0.00027241891892 J** | **0.00052397647059 J** | **1.723452915E-05 J** | **0.00077446090535 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | **0.00088046078431 J** | **0.00064112** | **0.00015946756757 J** | **0.00027978431373 J** | **6.36233184E-06 J** | **0.00051695061728 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | **0.00119748039216 J** | **0.000837493** | **0.00021636378378 J** | **0.00037391764706 J** | **7.89529148E-06 J** | **0.00119248971193 J** |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **0.445** | **0.717** | **0.173 J** | **0.842** | 0.0918 U | **0.506 J** |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **2.1 J** | **4.75** | **0.7 J** | **1.52 J** | 0.1206 U | **2 J** |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **3.03** | **7.57** | **1.06 J** | **2.55 J** | **0.113 J** | **3.95** |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **23** | **60.3** | **6.56** | **10.1** | **0.374 J** | **95.2** |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **7.23** | **14.6** | **2.37** | **5.26** | **0.27 J** | **28.4** |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **216** | **465** | **77.5** | **215** | **7.96** | **711** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | **1350** | **2300** | **553** | **1670** | **55.6** | **5370** |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **31.6 J** | **77.3 J** | **24.3** | **42.8 J** | **2.67 J** | **43.7 J** |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **37.7 J** | **99.5** | **21.3 J** | **37.6 J** | **1.09 J** | **45.7 J** |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **150** | **363** | **58.3** | **107** | **4.53 J** | **578** |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **455** | **888** | **169** | **487** | **18.1** | **1430** |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | **3.53** | **6.19** | **1.86** | **5.8** | **0.411 J** | **3.62** |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **1.26 J** | **2.85** | **0.426 J** | **1.02 J** | 0.0834 U | **1.6 J** |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **3.32** | **8.76** | **1.13 J** | **2.68 J** | **0.242 J** | **3.92** |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **3.48** | **9.99** | **1.09 J** | **2.31 J** | **0.177 J** | **4.43** |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **4.15** | **13.7** | **1.09 J** | **1.73 J** | **0.103 J** | **3.99** |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | 0.1672 U | 0.4028 U | 0.0773 U | 0.2574 U | 0.0859 U | 0.2639 U |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **7.04** | **22.9** | **1.81 J** | **2.85 J** | **0.139 J** | **8.88** |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | **85.4** | **220** | **23.3** | **53.7** | **2.35 J** | **157** |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | **3.51** | **9.92** | **1.06 J** | **3.72** | 0.1138 U | **5.91** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | **118** | **171** | **31.5** | **177** | **3.5 J** | **168** |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | **35.1 J** | **68.6 J** | **15.1 J** | **56.3 J** | **3.89 J** | **39.9 J** |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA06-SC21-2013 |
| Sample ID | | | | | JW-EA04-SC13-A-130423 | JW-EA04-SC13-B-130423 | JW-EA04-SC13-C-130423 | JW-EA04-SC13-D-130423 | JW-EA04-SC13-EF-130423 | JW-EA06-SC21-A-130423 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 6 - 7 ft | 7 - 9 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302293.75554 |
| Y | | | | | 374224.242676 | 374224.242676 | 374224.242676 | 374224.242676 | 374224.242676 | 373635.149742 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | 54.4 J | 146 | 15.6 J | 35.3 J | 1.77 J | 56 J |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | 153 J | 473 | 40.9 | 69.2 J | 3.25 J | 196 |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | 221 | 524 | 63.3 | 196 | 6.89 | 424 |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | 13.36112 J | 30.85408 | 5.04748 J | 13.38714 J | 0.999128 J | 18.84579 J |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | 8.99742 J | 22.54358 | 2.95788 J | 7.16024 J | 0.510058 J | 12.58829 J |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | 12.23102 J | 29.43628 | 4.01046 J | 9.56064 J | 0.57676 J | 29.00389 J |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | 13.35276 J | 30.83394 | 5.043615 J | 13.37427 J | 0.883894 J | 18.832595 J |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | 8.98906 J | 22.52344 | 2.954015 J | 7.14737 J | 0.396909 J | 12.575095 J |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | 12.22266 J | 29.41614 | 4.006595 J | 9.54777 J | 0.464445 J | 28.990695 J |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | 13.3444 J | 30.8138 | 5.03975 J | 13.3614 J | 0.76866 J | 18.8194 J |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | 8.9807 J | 22.5033 | 2.95015 J | 7.1345 J | 0.28376 J | 12.5619 J |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | 12.2143 J | 29.396 | 4.00273 J | 9.5349 J | 0.35213 J | 28.9775 J |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (ng/kg)** | | | | | | | | | | |
| PCB-001 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-002 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-003 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-004 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-005 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-006 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-007 | | | | | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA06-SC21-2013 |
| Sample ID | | | | | JW-EA04-SC13-A-130423 | JW-EA04-SC13-B-130423 | JW-EA04-SC13-C-130423 | JW-EA04-SC13-D-130423 | JW-EA04-SC13-EF-130423 | JW-EA06-SC21-A-130423 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 6 - 7 ft | 7 - 9 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302293.75554 |
| Y | | | | | 374224.242676 | 374224.242676 | 374224.242676 | 374224.242676 | 374224.242676 | 373635.149742 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-008 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-009 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-010 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-011 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-012/013 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-014 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-015 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-016 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-017 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-018/030 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-019 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-020/028 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-021/033 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-022 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-023 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-024 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-025 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-026/029 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-027 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-031 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-032 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-034 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-035 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-036 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-037 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-038 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-039 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-040/071 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-041 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-042 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-043 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-044/047/065 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-045 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-046 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-048 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-049/069 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-050/053 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-051 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-052 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-054 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-055 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-056 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-057 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-058 | | | | | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA06-SC21-2013 |
| Sample ID | | | | | JW-EA04-SC13-A-130423 | JW-EA04-SC13-B-130423 | JW-EA04-SC13-C-130423 | JW-EA04-SC13-D-130423 | JW-EA04-SC13-EF-130423 | JW-EA06-SC21-A-130423 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 6 - 7 ft | 7 - 9 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302293.75554 |
| Y | | | | | 374224.242676 | 374224.242676 | 374224.242676 | 374224.242676 | 374224.242676 | 373635.149742 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-059/062/075 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-060 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-061/070/074/076 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-063 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-064 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-066 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-067 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-068 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-072 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-073 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-077 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-078 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-079 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-080 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-081 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-082 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-083 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-084 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-085/116 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-088 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-089 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-090/101/113 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-091 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-092 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-093/100 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-094 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-095 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-096 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-098 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-099 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-102 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-103 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-104 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-105 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-106 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-107/124 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-109 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-110 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-111 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-112 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-114 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-115 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-117 | | | | | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA06-SC21-2013 |
| Sample ID | | | | | JW-EA04-SC13-A-130423 | JW-EA04-SC13-B-130423 | JW-EA04-SC13-C-130423 | JW-EA04-SC13-D-130423 | JW-EA04-SC13-EF-130423 | JW-EA06-SC21-A-130423 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 6 - 7 ft | 7 - 9 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302293.75554 |
| Y | | | | | 374224.242676 | 374224.242676 | 374224.242676 | 374224.242676 | 374224.242676 | 373635.149742 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-118 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-120 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-121 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-122 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-123 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-126 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-127 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-128/166 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-129/138/163 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-130 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-131 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-132 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-133 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-134 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-135/151 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-136 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-137 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-139/140 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-141 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-142 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-143 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-144 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-145 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-146 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-147/149 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-148 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-150 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-152 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-153/168 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-154 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-155 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-156/157 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-158 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-159 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-160 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-161 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-162 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-164 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-165 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-167 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-169 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-170 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-171/173 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-172 | | | | | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA06-SC21-2013 |
| Sample ID | | | | | JW-EA04-SC13-A-130423 | JW-EA04-SC13-B-130423 | JW-EA04-SC13-C-130423 | JW-EA04-SC13-D-130423 | JW-EA04-SC13-EF-130423 | JW-EA06-SC21-A-130423 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 6 - 7 ft | 7 - 9 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302293.75554 |
| Y | | | | | 374224.242676 | 374224.242676 | 374224.242676 | 374224.242676 | 374224.242676 | 373635.149742 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-174 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-175 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-176 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-177 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-178 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-179 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-180/193 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-181 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-182 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-183 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-184 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-185 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-186 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-187 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-188 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-189 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-190 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-191 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-192 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-194 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-195 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-196 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-197 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-198/199 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-200 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-201 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-202 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-203 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-204 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-205 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-206 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-207 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-208 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-209 | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |

# Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA04-SC13-2013 | JW-EA06-SC21-2013 |
| Sample ID | | | | | JW-EA04-SC13-A-130423 | JW-EA04-SC13-B-130423 | JW-EA04-SC13-C-130423 | JW-EA04-SC13-D-130423 | JW-EA04-SC13-EF-130423 | JW-EA06-SC21-A-130423 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 6 - 7 ft | 7 - 9 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302771.36466 | 1302293.75554 |
| Y | | | | | 374224.242676 | 374224.242676 | 374224.242676 | 374224.242676 | 374224.242676 | 373635.149742 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| **Radionuclides (pci/g)** | | | | | | | | | | |
| Cesium 137 | | | | | -- | -- | -- | -- | -- | -- |
| Lead 210 | | | | | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **0.00130991372549 J** | **0.000879034** | **0.00027283675676 J** | **0.00052498588235 J** | **2.240197309E-05 J** | **0.00077554691358 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **0.0008821 J** | **0.000642267** | **0.00015988540541 J** | **0.00028079372549 J** | **1.143627803E-05 J** | **0.00051803662551 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **0.00119911960784 J** | **0.00083864** | **0.00021678162162 J** | **0.00037492705882 J** | **1.293183857E-05 J** | **0.00119357572016 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **0.00130909411765 J** | **0.00087846** | **0.00027262783784 J** | **0.00052448117647 J** | **1.981825112E-05 J** | **0.00077500390947 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **0.00088128039216 J** | **0.000641693** | **0.00015967648649 J** | **0.00028028901961 J** | **8.89930493E-06 J** | **0.0005174936214 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | **0.0011983 J** | **0.000838067** | **0.0002165727027 J** | **0.00037442235294 J** | **1.041356502E-05 J** | **0.00119303271605 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | **0.0013082745098 J** | **0.000877886** | **0.00027241891892 J** | **0.00052397647059 J** | **1.723452915E-05 J** | **0.00077446090535 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | **0.00088046078431 J** | **0.00064112** | **0.00015946756757 J** | **0.00027978431373 J** | **6.36233184E-06 J** | **0.00051695061728 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | **0.00119748039216 J** | **0.000837493** | **0.00021636378378 J** | **0.00037391764706 J** | **7.89529148E-06 J** | **0.00119248971193 J** |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **13.36112 J** | **30.85408** | **5.04748 J** | **13.38714 J** | **0.999128 J** | **18.84579 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **8.99742 J** | **22.54358** | **2.95788 J** | **7.16024 J** | **0.510058 J** | **12.58829 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **12.23102 J** | **29.43628** | **4.01046 J** | **9.56064 J** | **0.57676 J** | **29.00389 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **13.35276 J** | **30.83394** | **5.043615 J** | **13.37427 J** | **0.883894 J** | **18.832595 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **8.98906 J** | **22.52344** | **2.954015 J** | **7.14737 J** | **0.396909 J** | **12.575095 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | **12.22266 J** | **29.41614** | **4.006595 J** | **9.54777 J** | **0.464445 J** | **28.990695 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | **13.3444 J** | **30.8138** | **5.03975 J** | **13.3614 J** | **0.76866 J** | **18.8194 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | **8.9807 J** | **22.5033** | **2.95015 J** | **7.1345 J** | **0.28376 J** | **12.5619 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | **12.2143 J** | **29.396** | **4.00273 J** | **9.5349 J** | **0.35213 J** | **28.9775 J** |

# Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA06-SC21-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013426 | JW-EA07-SC27-2013 |
| Sample ID | | | | | JW-EA06-SC21-B-130423 | JW-EA06-SC23-A-130423 | JW-EA06-SC23-B-130423 | JW-EA06-SC23-C-130423 | JW-EA06-SC23-A-130426 | JW-EA07-SC27-A-130429 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/26/2013 | 4/29/2013 |
| Depth | | | | | 2 - 4 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft | 0 - 1 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302293.75554 | 1302384.62796 | 1302384.62796 | 1302384.62796 | 1302395.40758 | 1302622.479 |
| Y | SMS_Marine_ | SMS_Marine_ | AET_Marine_ | AET_Marine_ | 373635.149742 | 373531.546624 | 373531.546624 | 373531.546624 | 373522.961899 | 373317.7446 |
| Analyte | SCO_SCUMII | CSL_SCUMII | SCO_SCUMII | CSL_SCUMII | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | |
| Total organic carbon | | | | | 2.55 J | 2.07 | 2.61 | 0.83 | 2.24 J | 2.29 |
| Moisture, percent | | | | | -- | -- | -- | -- | -- | -- |
| Total Solids | | | | | 70.81 | 65.46 | 72.99 | 82.47 | 85.81 | 58.3 |
| **Grain Size (pct)** | | | | | | | | | | |
| Gravel | | | | | -- | 1.2 | 3.7 | 1.4 | -- | 2.7 |
| Sand, very coarse | | | | | -- | 1.3 | 2 | 4 | -- | 1.5 |
| Sand, coarse | | | | | -- | 4.6 | 9 | 21 | -- | 1.5 |
| Sand, medium | | | | | -- | 10.9 | 22.5 | 42.9 | -- | 3.9 |
| Sand, fine | | | | | -- | 8.8 | 18.5 | 21 | -- | 4.5 |
| Sand, very fine | | | | | -- | 8.4 | 9 | 4.2 | -- | 4.9 |
| Silt, coarse | | | | | -- | 16.8 | 11 | 2.5 | -- | 14.2 |
| Silt, medium | | | | | -- | 17.5 | 8.3 | 0.8 | -- | 17.7 |
| Silt, fine | | | | | -- | 11.9 | 5.8 | 0.7 | -- | 18.3 |
| Silt, very fine | | | | | -- | 7.4 | 3.3 | 0.4 | -- | 9.6 |
| Clay, coarse | | | | | -- | 3.5 | 2.3 | 0.4 | -- | 5.6 |
| Clay, medium | | | | | -- | 2.3 | 1.7 | 0.3 | -- | 4.2 |
| Clay, fine | | | | | -- | 5.6 | 3.1 | 0.5 | -- | 11.3 |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | -- | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | -- | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA06-SC21-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013426 | JW-EA07-SC27-2013 |
| Sample ID | | | | | JW-EA06-SC21-B-130423 | JW-EA06-SC23-A-130423 | JW-EA06-SC23-B-130423 | JW-EA06-SC23-C-130423 | JW-EA06-SC23-A-130426 | JW-EA07-SC27-A-130429 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/26/2013 | 4/29/2013 |
| Depth | | | | | 2 - 4 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft | 0 - 1 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302293.75554 | 1302384.62796 | 1302384.62796 | 1302384.62796 | 1302395.40758 | 1302622.479 |
| Y | | | | | 373635.149742 | 373531.546624 | 373531.546624 | 373531.546624 | 373522.961899 | 373317.7446 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | | | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | -- | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | -- | -- | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | -- | -- | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | -- | -- | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | -- | -- | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | -- | -- | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- | -- | -- | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | -- | -- | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | -- | -- | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | -- | -- | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | -- | -- | -- |
| Benzo(b,j,k)fluoranthenes | | | | | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | -- | -- | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | -- | -- | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA06-SC21-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013426 | JW-EA07-SC27-2013 |
| Sample ID | | | | | JW-EA06-SC21-B-130423 | JW-EA06-SC23-A-130423 | JW-EA06-SC23-B-130423 | JW-EA06-SC23-C-130423 | JW-EA06-SC23-A-130426 | JW-EA07-SC27-A-130429 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/26/2013 | 4/29/2013 |
| Depth | | | | | 2 - 4 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft | 0 - 1 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302293.75554 | 1302384.62796 | 1302384.62796 | 1302384.62796 | 1302395.40758 | 1302622.479 |
| Y | | | | | 373635.149742 | 373531.546624 | 373531.546624 | 373531.546624 | 373522.961899 | 373317.7446 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| Fluorene | | | 540 | 540 | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | -- | -- | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | -- | -- | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | -- | -- | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (mg/kg-OC)** | | | | | | | | | | |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | **0.00086835921569 J** | **0.00097670966184 J** | **0.00121134137931 J** | **6.460084337E-05 J** | -- | **0.00129672751092 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | **0.00040013176471 J** | **0.00060968067633 J** | **0.00063512681992 J** | **5.003518072E-05 J** | -- | **0.00099567947598 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | **0.0005334454902 J** | **0.00181927487923 J** | **0.0008959697318 J** | **4.827156627E-05 J** | -- | **0.00223930829694 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | **0.00086784235294 J** | **0.00097607705314 J** | **0.00121087758621 J** | **3.282385542E-05 J** | -- | **0.00129600349345 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | **0.00039961490196 J** | **0.00060904806763 J** | **0.00063466302682 J** | **2.55410241E-05 J** | -- | **0.00099495545852 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | **0.00053292862745 J** | **0.00181864227053 J** | **0.0008955059387 J** | **2.609584337E-05 J** | -- | **0.00223858427948 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | **0.0008673254902 J** | **0.00097544444444 J** | **0.0012104137931 J** | **1.04686747E-06 J** | -- | **0.00129527947598 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | **0.00039909803922 J** | **0.00060841545894 J** | **0.00063419923372 J** | **1.04686747E-06 J** | -- | **0.00099423144105 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | **0.00053241176471 J** | **0.00181800966184 J** | **0.00089504214559 J** | **3.92012048E-06 J** | -- | **0.00223786026201 J** |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **1.12 J** | **0.45 J** | **1.38** | 0.1286 U | -- | **0.686** |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **2.32 J** | **2.04 J** | **1.83 J** | 0.1287 U | -- | **3.94** |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **2.95 J** | **3.36** | **2.39** | 0.1313 U | -- | **10.5** |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **15.7** | **140** | **23.8** | 0.1494 U | -- | **185** |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **6.67** | **43.5** | **6.63** | 0.1375 U | -- | **55.2** |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **273** | **1070** | **660** | **2.27** | -- | **1250** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | **2010** | **3240** | **5430** | **15.5** | -- | **3240** |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **76.5 J** | **33.1** | **74.1 J** | **0.582 J** | -- | **70.7 J** |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **60.7** | **41.6 J** | **88.6 J** | 0.1287 U | -- | **72** |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **142 J** | **940** | **214** | **1.16 J** | -- | **1200** |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **538** | **2260** | **1150** | **4.64** | -- | **2480** |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | **11** | **3.8** | **9.69** | 0.1285 U | -- | **4.13** |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **2.14 J** | **1.19 J** | **3.25** | 0.0836 U | -- | **2.15 J** |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **4.22** | **3.05** | **12.3** | 0.0827 U | -- | **5.24** |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **3.52 J** | **4.48** | **13.9** | 0.0642 U | -- | **8.1** |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **2.42 J** | **3.46** | **5** | 0.0642 U | -- | **6.64** |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | 0.2636 U | 0.2619 U | 0.2421 U | 0.0827 U | -- | 0.3316 U |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **4.39** | **8.3** | **6.56** | 0.0652 U | -- | **14.1** |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | **69.6** | **172** | **121** | **0.471 J** | -- | **298** |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | **4.63** | **6** | **6.74** | 0.1199 U | -- | **9.41** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | **220** | **167** | **199** | **1.59 J** | -- | **238** |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | **102 J** | **34 J** | **110** | 0.1285 U | -- | **52 J** |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA06-SC21-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013426 | JW-EA07-SC27-2013 |
| Sample ID | | | | | JW-EA06-SC21-B-130423 | JW-EA06-SC23-A-130423 | JW-EA06-SC23-B-130423 | JW-EA06-SC23-C-130423 | JW-EA06-SC23-A-130426 | JW-EA07-SC27-A-130429 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/26/2013 | 4/29/2013 |
| Depth | | | | | 2 - 4 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft | 0 - 1 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302293.75554 | 1302384.62796 | 1302384.62796 | 1302384.62796 | 1302395.40758 | 1302622.479 |
| Y | | | | | 373635.149742 | 373531.546624 | 373531.546624 | 373531.546624 | 373522.961899 | 373317.7446 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | **54.1 J** | **42.7 J** | **140** | 0.0832 U | -- | **89.1 J** |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | **94.7 J** | **213** | **309** | **0.357** | -- | **383** |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | **266** | **473** | **418** | **1.69** | -- | **822** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | **22.14316 J** | **20.21789 J** | **31.61601 J** | **0.536187 J** | -- | **29.69506 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | **10.20336 J** | **12.62039 J** | **16.57681 J** | **0.415292 J** | -- | **22.80106 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | **13.60286 J** | **37.65899 J** | **23.38481 J** | **0.400654 J** | -- | **51.28016 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | **22.12998 J** | **20.204795 J** | **31.603905 J** | **0.272438 J** | -- | **29.67848 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | **10.19018 J** | **12.607295 J** | **16.564705 J** | **0.2119905 J** | -- | **22.78448 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | **13.58968 J** | **37.645895 J** | **23.372705 J** | **0.2165955 J** | -- | **51.26358 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | **22.1168 J** | **20.1917 J** | **31.5918 J** | **0.008689 J** | -- | **29.6619 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | **10.177 J** | **12.5942 J** | **16.5526 J** | **0.008689 J** | -- | **22.7679 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | **13.5765 J** | **37.6328 J** | **23.3606 J** | **0.032537 J** | -- | **51.247 J** |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (ng/kg)** | | | | | | | | | | |
| PCB-001 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-002 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-003 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-004 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-005 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-006 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-007 | | | | | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA06-SC21-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013426 | JW-EA07-SC27-2013 |
| Sample ID | | | | | JW-EA06-SC21-B-130423 | JW-EA06-SC23-A-130423 | JW-EA06-SC23-B-130423 | JW-EA06-SC23-C-130423 | JW-EA06-SC23-A-130426 | JW-EA07-SC27-A-130429 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/26/2013 | 4/29/2013 |
| Depth | | | | | 2 - 4 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft | 0 - 1 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302293.75554 | 1302384.62796 | 1302384.62796 | 1302384.62796 | 1302395.40758 | 1302622.479 |
| Y | | | | | 373635.149742 | 373531.546624 | 373531.546624 | 373531.546624 | 373522.961899 | 373317.7446 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-008 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-009 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-010 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-011 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-012/013 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-014 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-015 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-016 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-017 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-018/030 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-019 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-020/028 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-021/033 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-022 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-023 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-024 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-025 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-026/029 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-027 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-031 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-032 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-034 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-035 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-036 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-037 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-038 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-039 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-040/071 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-041 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-042 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-043 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-044/047/065 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-045 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-046 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-048 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-049/069 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-050/053 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-051 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-052 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-054 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-055 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-056 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-057 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-058 | | | | | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA06-SC21-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013426 | JW-EA07-SC27-2013 |
| Sample ID | | | | | JW-EA06-SC21-B-130423 | JW-EA06-SC23-A-130423 | JW-EA06-SC23-B-130423 | JW-EA06-SC23-C-130423 | JW-EA06-SC23-A-130426 | JW-EA07-SC27-A-130429 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/26/2013 | 4/29/2013 |
| Depth | | | | | 2 - 4 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft | 0 - 1 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302293.75554 | 1302384.62796 | 1302384.62796 | 1302384.62796 | 1302395.40758 | 1302622.479 |
| Y | | | | | 373635.149742 | 373531.546624 | 373531.546624 | 373531.546624 | 373522.961899 | 373317.7446 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-059/062/075 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-060 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-061/070/074/076 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-063 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-064 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-066 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-067 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-068 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-072 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-073 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-077 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-078 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-079 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-080 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-081 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-082 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-083 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-084 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-085/116 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-088 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-089 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-090/101/113 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-091 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-092 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-093/100 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-094 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-095 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-096 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-098 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-099 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-102 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-103 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-104 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-105 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-106 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-107/124 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-109 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-110 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-111 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-112 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-114 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-115 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-117 | | | | | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA06-SC21-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013426 | JW-EA07-SC27-2013 |
| Sample ID | | | | | JW-EA06-SC21-B-130423 | JW-EA06-SC23-A-130423 | JW-EA06-SC23-B-130423 | JW-EA06-SC23-C-130423 | JW-EA06-SC23-A-130426 | JW-EA07-SC27-A-130429 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/26/2013 | 4/29/2013 |
| Depth | | | | | 2 - 4 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft | 0 - 1 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302293.75554 | 1302384.62796 | 1302384.62796 | 1302384.62796 | 1302395.40758 | 1302622.479 |
| Y | | | | | 373635.149742 | 373531.546624 | 373531.546624 | 373531.546624 | 373522.961899 | 373317.7446 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-118 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-120 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-121 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-122 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-123 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-126 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-127 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-128/166 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-129/138/163 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-130 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-131 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-132 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-133 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-134 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-135/151 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-136 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-137 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-139/140 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-141 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-142 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-143 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-144 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-145 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-146 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-147/149 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-148 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-150 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-152 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-153/168 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-154 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-155 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-156/157 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-158 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-159 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-160 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-161 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-162 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-164 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-165 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-167 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-169 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-170 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-171/173 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-172 | | | | | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA06-SC21-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013426 | JW-EA07-SC27-2013 |
| Sample ID | | | | | JW-EA06-SC21-B-130423 | JW-EA06-SC23-A-130423 | JW-EA06-SC23-B-130423 | JW-EA06-SC23-C-130423 | JW-EA06-SC23-A-130426 | JW-EA07-SC27-A-130429 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/26/2013 | 4/29/2013 |
| Depth | | | | | 2 - 4 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft | 0 - 1 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302293.75554 | 1302384.62796 | 1302384.62796 | 1302384.62796 | 1302395.40758 | 1302622.479 |
| Y | | | | | 373635.149742 | 373531.546624 | 373531.546624 | 373531.546624 | 373522.961899 | 373317.7446 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-174 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-175 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-176 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-177 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-178 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-179 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-180/193 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-181 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-182 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-183 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-184 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-185 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-186 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-187 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-188 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-189 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-190 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-191 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-192 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-194 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-195 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-196 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-197 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-198/199 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-200 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-201 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-202 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-203 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-204 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-205 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-206 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-207 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-208 | | | | | -- | -- | -- | -- | -- | -- |
| PCB-209 | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |

# Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA06-SC21-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013 | JW-EA06-SC23-2013426 | JW-EA07-SC27-2013 |
| Sample ID | | | | | JW-EA06-SC21-B-130423 | JW-EA06-SC23-A-130423 | JW-EA06-SC23-B-130423 | JW-EA06-SC23-C-130423 | JW-EA06-SC23-A-130426 | JW-EA07-SC27-A-130429 |
| Sample Date | | | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/26/2013 | 4/29/2013 |
| Depth | | | | | 2 - 4 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft | 0 - 1 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302293.75554 | 1302384.62796 | 1302384.62796 | 1302384.62796 | 1302395.40758 | 1302622.479 |
| Y | | | | | 373635.149742 | 373531.546624 | 373531.546624 | 373531.546624 | 373522.961899 | 373317.7446 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| **Radionuclides (pci/g)** | | | | | | | | | | |
| Cesium 137 | | | | | -- | -- | -- | -- | -- | -- |
| Lead 210 | | | | | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **0.00086835921569 J** | **0.00097670966184 J** | **0.00121134137931 J** | **6.460084337E-05 J** | -- | **0.00129672751092 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **0.00040013176471 J** | **0.00060968067633 J** | **0.00063512681992 J** | **5.003518072E-05 J** | -- | **0.00099567947598 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **0.0005334454902 J** | **0.00181927487923 J** | **0.0008959697318 J** | **4.827156627E-05 J** | -- | **0.00223930829694 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **0.00086784235294 J** | **0.00097607705314 J** | **0.00121087758621 J** | **3.282385542E-05 J** | -- | **0.00129600349345 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **0.00039961490196 J** | **0.00060904806763 J** | **0.00063466302682 J** | **2.55410241E-05 J** | -- | **0.00099495545852 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | **0.00053292862745 J** | **0.00181864227053 J** | **0.0008955059387 J** | **2.609584337E-05 J** | -- | **0.00223858427948 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | **0.0008673254902 J** | **0.00097544444444 J** | **0.0012104137931 J** | **1.04686747E-06 J** | -- | **0.00129527947598 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | **0.00039909803922 J** | **0.00060841545894 J** | **0.00063419923372 J** | **1.04686747E-06 J** | -- | **0.00099423144105 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | **0.00053241176471 J** | **0.00181800966184 J** | **0.00089504214559 J** | **3.92012048E-06 J** | -- | **0.00223786026201 J** |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **22.14316 J** | **20.21789 J** | **31.61601 J** | **0.536187 J** | -- | **29.69506 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **10.20336 J** | **12.62039 J** | **16.57681 J** | **0.415292 J** | -- | **22.80106 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **13.60286 J** | **37.65899 J** | **23.38481 J** | **0.400654 J** | -- | **51.28016 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **22.12998 J** | **20.204795 J** | **31.603905 J** | **0.272438 J** | -- | **29.67848 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **10.19018 J** | **12.607295 J** | **16.564705 J** | **0.2119905 J** | -- | **22.78448 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | **13.58968 J** | **37.645895 J** | **23.372705 J** | **0.2165955 J** | -- | **51.26358 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | **22.1168 J** | **20.1917 J** | **31.5918 J** | **0.008689 J** | -- | **29.6619 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | **10.177 J** | **12.5942 J** | **16.5526 J** | **0.008689 J** | -- | **22.7679 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | **13.5765 J** | **37.6328 J** | **23.3606 J** | **0.032537 J** | -- | **51.247 J** |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA07-SC27-2013 | JW-EA07-SC27-2013 | JW-EA07-SC28-2013 | JW-EA07-SC28-2013 | JW-EA07-SC28-2013 | JW-EA09-SC36-2013 |
| Sample ID | | | | | JW-EA07-SC27-B-130429 | JW-EA07-SC27-C-130429 | JW-EA07-SC28-A-130426 | JW-EA07-SC28-B-130426 | JW-EA07-SC28-C-130426 | JW-EA09-SC36-A-130426 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 |
| Depth | | | | | 1 - 2 ft | 2 - 2.6 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302622.479 | 1302622.479 | 1302470.87217 | 1302470.87217 | 1302470.87217 | 1302770.78155 |
| Y | | | | | 373317.7446 | 373317.7446 | 373174.526718 | 373174.526718 | 373174.526718 | 372460.088498 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | |
| Total organic carbon | | | | | 3.5 | 2.54 | -- | 0.8 J | 0.45 J | 1.84 J |
| Moisture, percent | | | | | -- | -- | -- | -- | -- | -- |
| Total Solids | | | | | 69.06 | 70.96 | -- | 80.86 | 78.07 | 72.68 |
| **Grain Size (pct)** | | | | | | | | | | |
| Gravel | | | | | 3.1 | 3.2 | -- | -- | -- | -- |
| Sand, very coarse | | | | | 2.6 | 1.5 | -- | -- | -- | -- |
| Sand, coarse | | | | | 3.2 | 2.2 | -- | -- | -- | -- |
| Sand, medium | | | | | 7.9 | 6.8 | -- | -- | -- | -- |
| Sand, fine | | | | | 9.2 | 9.6 | -- | -- | -- | -- |
| Sand, very fine | | | | | 8.8 | 8.5 | -- | -- | -- | -- |
| Silt, coarse | | | | | 16.7 | 17 | -- | -- | -- | -- |
| Silt, medium | | | | | 16.5 | 13.8 | -- | -- | -- | -- |
| Silt, fine | | | | | 12.8 | 14.9 | -- | -- | -- | -- |
| Silt, very fine | | | | | 7.1 | 9.1 | -- | -- | -- | -- |
| Clay, coarse | | | | | 4.2 | 4 | -- | -- | -- | -- |
| Clay, medium | | | | | 3 | 2.9 | -- | -- | -- | -- |
| Clay, fine | | | | | 4.8 | 6.5 | -- | -- | -- | -- |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | -- | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | -- | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA07-SC27-2013 | JW-EA07-SC27-2013 | JW-EA07-SC28-2013 | JW-EA07-SC28-2013 | JW-EA07-SC28-2013 | JW-EA09-SC36-2013 |
| Sample ID | | | | | JW-EA07-SC27-B-130429 | JW-EA07-SC27-C-130429 | JW-EA07-SC28-A-130426 | JW-EA07-SC28-B-130426 | JW-EA07-SC28-C-130426 | JW-EA09-SC36-A-130426 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 |
| Depth | | | | | 1 - 2 ft | 2 - 2.6 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302622.479 | 1302622.479 | 1302470.87217 | 1302470.87217 | 1302470.87217 | 1302770.78155 |
| Y | | | | | 373317.7446 | 373317.7446 | 373174.526718 | 373174.526718 | 373174.526718 | 372460.088498 |
| **Analyte** | **SMS_Marine_SCO_SCUMII** | **SMS_Marine_CSL_SCUMII** | **AET_Marine_SCO_SCUMII** | **AET_Marine_CSL_SCUMII** | | | | | | |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | | | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | -- | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | -- | -- | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | -- | -- | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | -- | -- | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | -- | -- | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | -- | -- | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- | -- | -- | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | -- | -- | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | -- | -- | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | -- | -- | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | -- | -- | -- |
| Benzo(b,j,k)fluoranthenes | | | | | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | -- | -- | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | -- | -- | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | -- | -- | -- |

# Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA07-SC27-2013 | JW-EA07-SC27-2013 | JW-EA07-SC28-2013 | JW-EA07-SC28-2013 | JW-EA07-SC28-2013 | JW-EA09-SC36-2013 |
| Sample ID | | | | | JW-EA07-SC27-B-130429 | JW-EA07-SC27-C-130429 | JW-EA07-SC28-A-130426 | JW-EA07-SC28-B-130426 | JW-EA07-SC28-C-130426 | JW-EA09-SC36-A-130426 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 |
| Depth | | | | | 1 - 2 ft | 2 - 2.6 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302622.479 | 1302622.479 | 1302470.87217 | 1302470.87217 | 1302470.87217 | 1302770.78155 |
| Y | | | | | 373317.7446 | 373317.7446 | 373174.526718 | 373174.526718 | 373174.526718 | 372460.088498 |
| **Analyte** | **SMS_Marine_SCO_SCUMII** | **SMS_Marine_CSL_SCUMII** | **AET_Marine_SCO_SCUMII** | **AET_Marine_CSL_SCUMII** | | | | | | |
| Fluorene | | | 540 | 540 | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | -- | -- | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | -- | -- | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | -- | -- | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (mg/kg-OC)** | | | | | | | | | | |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | **0.00211533057143 J** | **0.00139058** | -- | **0.00018873044125 J** | **0.00013061530444 J** | **0.00041511793478 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | **0.00156954485714 J** | **0.000707608** | -- | **6.970356625E-05 J** | **8.667086E-05 J** | **0.00019876195652 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | **0.00299511628571 J** | **0.000973482** | -- | **6.679657375E-05 J** | **7.976502444E-05 J** | **0.00022262065217 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | **0.00211480528571 J** | **0.001390115** | -- | **0.00016877834563 J** | **9.088631889E-05 J** | **0.00041465788043 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | **0.00156901957143 J** | **0.000707143** | -- | **4.603053313E-05 J** | **4.474187444E-05 J** | **0.00019830190217 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | **0.002994591 J** | **0.000973017** | -- | **4.534078688E-05 J** | **4.325117889E-05 J** | **0.00022216059783 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | **0.00211428 J** | **0.00138965** | -- | **0.00014882625 J** | **5.115733333E-05 J** | **0.00041419782609 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | **0.00156849428571 J** | **0.000706677** | -- | **2.23575E-05 J** | **2.81288889E-06 J** | **0.00019784184783 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | **0.00299406571429 J** | **0.000972551** | -- | **2.3885E-05 J** | **6.73733333E-06 J** | **0.00022170054348 J** |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **1.44 J** | **2.43** | **1.79** | 0.1051 U | 0.1182 U | **0.434 J** |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **7.83** | **4.28** | **2.94 J** | 0.157 U | 0.1015 U | **1.06 J** |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **18.5** | **4.65** | **3.25 J** | 0.1642 U | 0.1568 U | **0.985 J** |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **327** | **50.4** | **12.6** | 0.1758 U | 0.1622 U | **4** |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **82.4** | **17.3** | **5.79** | 0.1595 U | 0.156 U | **2.36 J** |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **2410** | **370** | **172** | **1.13 J** | **0.542 J** | **44.6** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | **6440** | **1490** | **1160** | **14.9** | **6.66** | **308** |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **125 J** | **190** | **122 J** | **3.12 J** | **0.866 J** | **45.8 J** |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **163 J** | **157 J** | **99.1** | **1.36 J** | 0.1015 U | **34 J** |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **2010** | **403** | **142** | **1.69** | 0.341 U | **49.4 J** |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **4600** | **709** | **341** | **2.97** | **1.45** | **96.1** |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | **12.4** | **14** | **11.7** | **0.939** | **0.229 J** | **3.44** |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **5.63** | **4.46** | **3.59** | **0.284 J** | 0.0694 U | **0.976 J** |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **15.9** | **8.72** | **5.86** | **0.211 J** | 0.0665 U | **1.79 J** |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **26.4** | **4.6** | **3.19 J** | **0.0959 J** | 0.0893 U | **0.941 J** |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **20.3** | **3.82** | **2.57 J** | 0.0884 U | 0.0861 U | **0.833 J** |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | 0.3677 U | 0.2364 U | 0.2935 U | 0.0994 U | 0.1064 U | 0.1693 U |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **48.2** | **6.44** | **3.77** | 0.0955 U | 0.0916 U | **1.2 J** |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | **1050** | **90.1** | **58.7** | 0.134 U | 0.0912 U | **9.32** |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | **31.6** | **3.59** | **3.05 J** | 0.1532 U | 0.109 U | **0.683 J** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | **718** | **127** | **148** | 0.1353 U | 0.1687 U | **15.6** |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | **163 J** | **220 J** | **149 J** | **6.19 J** | **0.653 J** | **44.2 J** |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA07-SC27-2013 | JW-EA07-SC27-2013 | JW-EA07-SC28-2013 | JW-EA07-SC28-2013 | JW-EA07-SC28-2013 | JW-EA09-SC36-2013 |
| Sample ID | | | | | JW-EA07-SC27-B-130429 | JW-EA07-SC27-C-130429 | JW-EA07-SC28-A-130426 | JW-EA07-SC28-B-130426 | JW-EA07-SC28-C-130426 | JW-EA09-SC36-A-130426 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 |
| Depth | | | | | 1 - 2 ft | 2 - 2.6 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302622.479 | 1302622.479 | 1302470.87217 | 1302470.87217 | 1302470.87217 | 1302770.78155 |
| Y | | | | | 373317.7446 | 373317.7446 | 373174.526718 | 373174.526718 | 373174.526718 | 372460.088498 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | **301 J** | **114 J** | **72.8 J** | **1.28 J** | 0.0679 U | **20.4 J** |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | **1400** | **134** | **72.5** | **0.0959** | 0.0929 U | **19.5 J** |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | **2930** | **250 J** | **165** | 0.1433 U | 0.0996 U | **25.3** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | **74.03657 J** | **35.32074** | **25.41915 J** | **1.50984353 J** | **0.58776887 J** | **7.63817 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | **54.93407 J** | **17.97324** | **12.13605 J** | **0.55762853 J** | **0.39001887 J** | **3.65722 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | **104.82907 J** | **24.72644** | **13.64195 J** | **0.53437259 J** | **0.35894261 J** | **4.09622 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | **74.018185 J** | **35.30892** | **25.404475 J** | **1.35022677 J** | **0.40898843 J** | **7.629705 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | **54.915685 J** | **17.96142** | **12.121375 J** | **0.36824427 J** | **0.20133844 J** | **3.648755 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | **104.810685 J** | **24.71462** | **13.627275 J** | **0.36272629 J** | **0.19463031 J** | **4.087755 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | **73.9998 J** | **35.2971** | **25.3898 J** | **1.19061 J** | **0.230208 J** | **7.62124 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | **54.8973 J** | **17.9496** | **12.1067 J** | **0.17886 J** | **0.012658 J** | **3.64029 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | **104.7923 J** | **24.7028** | **13.6126 J** | **0.19108 J** | **0.030318 J** | **4.07929 J** |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | **1.121726739 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | **0.000214354** |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | **1.90776E-06** |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | **3.40962E-05** |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | **1.121393397 J** |
| Total PCB Congener (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | **1.121060054 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | **0.00021432** |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | **0.000214286** |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | **1.90608E-06** |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | **1.90439E-06** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | **2.48222E-05** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | **2.38113E-05** |
| **PCB Congeners (ng/kg)** | | | | | | | | | | |
| PCB-001 | | | | | -- | -- | -- | -- | -- | **18.9** |
| PCB-002 | | | | | -- | -- | -- | -- | -- | **21.2** |
| PCB-003 | | | | | -- | -- | -- | -- | -- | **27.1** |
| PCB-004 | | | | | -- | -- | -- | -- | -- | **22.7** |
| PCB-005 | | | | | -- | -- | -- | -- | -- | **1.82** |
| PCB-006 | | | | | -- | -- | -- | -- | -- | **14.2** |
| PCB-007 | | | | | -- | -- | -- | -- | -- | **2.75** |

## Table H-2
## Subsurface Sediment Results

| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Task | | | | | | | | | | |
| Location ID | | | | | JW-EA07-SC27-2013 | JW-EA07-SC27-2013 | JW-EA07-SC28-2013 | JW-EA07-SC28-2013 | JW-EA07-SC28-2013 | JW-EA09-SC36-2013 |
| Sample ID | | | | | JW-EA07-SC27-B-130429 | JW-EA07-SC27-C-130429 | JW-EA07-SC28-A-130426 | JW-EA07-SC28-B-130426 | JW-EA07-SC28-C-130426 | JW-EA09-SC36-A-130426 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 |
| Depth | | | | | 1 - 2 ft | 2 - 2.6 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302622.479 | 1302622.479 | 1302470.87217 | 1302470.87217 | 1302470.87217 | 1302770.78155 |
| Y | | | | | 373317.7446 | 373317.7446 | 373174.526718 | 373174.526718 | 373174.526718 | 372460.088498 |
| PCB-008 | | | | | -- | -- | -- | -- | -- | **74.3** |
| PCB-009 | | | | | -- | -- | -- | -- | -- | **4.13** |
| PCB-010 | | | | | -- | -- | -- | -- | -- | **1.41** |
| PCB-011 | | | | | -- | -- | -- | -- | -- | **214** |
| PCB-012/013 | | | | | -- | -- | -- | -- | -- | **18.5** |
| PCB-014 | | | | | -- | -- | -- | -- | -- | **1.63** |
| PCB-015 | | | | | -- | -- | -- | -- | -- | **78.3** |
| PCB-016 | | | | | -- | -- | -- | -- | -- | **73.5** |
| PCB-017 | | | | | -- | -- | -- | -- | -- | **74.3** |
| PCB-018/030 | | | | | -- | -- | -- | -- | -- | **168** |
| PCB-019 | | | | | -- | -- | -- | -- | -- | **13.3** |
| PCB-020/028 | | | | | -- | -- | -- | -- | -- | **400** |
| PCB-021/033 | | | | | -- | -- | -- | -- | -- | **146** |
| PCB-022 | | | | | -- | -- | -- | -- | -- | **118** |
| PCB-023 | | | | | -- | -- | -- | -- | -- | 0.635 U |
| PCB-024 | | | | | -- | -- | -- | -- | -- | **1.9** |
| PCB-025 | | | | | -- | -- | -- | -- | -- | **23.5** |
| PCB-026/029 | | | | | -- | -- | -- | -- | -- | **49.6** |
| PCB-027 | | | | | -- | -- | -- | -- | -- | **13.7** |
| PCB-031 | | | | | -- | -- | -- | -- | -- | **313** |
| PCB-032 | | | | | -- | -- | -- | -- | -- | **63.7** |
| PCB-034 | | | | | -- | -- | -- | -- | -- | **2.17** |
| PCB-035 | | | | | -- | -- | -- | -- | -- | **14.5** |
| PCB-036 | | | | | -- | -- | -- | -- | -- | **3** |
| PCB-037 | | | | | -- | -- | -- | -- | -- | **135** |
| PCB-038 | | | | | -- | -- | -- | -- | -- | 0.69 U |
| PCB-039 | | | | | -- | -- | -- | -- | -- | **2.92** |
| PCB-040/071 | | | | | -- | -- | -- | -- | -- | **186** |
| PCB-041 | | | | | -- | -- | -- | -- | -- | **27.7** |
| PCB-042 | | | | | -- | -- | -- | -- | -- | **97.9** |
| PCB-043 | | | | | -- | -- | -- | -- | -- | **14** |
| PCB-044/047/065 | | | | | -- | -- | -- | -- | -- | **428** |
| PCB-045 | | | | | -- | -- | -- | -- | -- | **35.1** |
| PCB-046 | | | | | -- | -- | -- | -- | -- | **16** |
| PCB-048 | | | | | -- | -- | -- | -- | -- | **62.9** |
| PCB-049/069 | | | | | -- | -- | -- | -- | -- | **261** |
| PCB-050/053 | | | | | -- | -- | -- | -- | -- | **40.2** |
| PCB-051 | | | | | -- | -- | -- | -- | -- | **12.3** |
| PCB-052 | | | | | -- | -- | -- | -- | -- | **672** |
| PCB-054 | | | | | -- | -- | -- | -- | -- | 0.296 U |
| PCB-055 | | | | | -- | -- | -- | -- | -- | **8.07** |
| PCB-056 | | | | | -- | -- | -- | -- | -- | **230** |
| PCB-057 | | | | | -- | -- | -- | -- | -- | **1.65 J** |
| PCB-058 | | | | | -- | -- | -- | -- | -- | **2.26** |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA07-SC27-2013 | JW-EA07-SC27-2013 | JW-EA07-SC28-2013 | JW-EA07-SC28-2013 | JW-EA07-SC28-2013 | JW-EA09-SC36-2013 |
| Sample ID | | | | | JW-EA07-SC27-B-130429 | JW-EA07-SC27-C-130429 | JW-EA07-SC28-A-130426 | JW-EA07-SC28-B-130426 | JW-EA07-SC28-C-130426 | JW-EA09-SC36-A-130426 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 |
| Depth | | | | | 1 - 2 ft | 2 - 2.6 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302622.479 | 1302622.479 | 1302470.87217 | 1302470.87217 | 1302470.87217 | 1302770.78155 |
| Y | | | | | 373317.7446 | 373317.7446 | 373174.526718 | 373174.526718 | 373174.526718 | 372460.088498 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-059/062/075 | | | | | -- | -- | -- | -- | -- | **28.6** |
| PCB-060 | | | | | -- | -- | -- | -- | -- | **115** |
| PCB-061/070/074/076 | | | | | -- | -- | -- | -- | -- | **900** |
| PCB-063 | | | | | -- | -- | -- | -- | -- | **18.1** |
| PCB-064 | | | | | -- | -- | -- | -- | -- | **154** |
| PCB-066 | | | | | -- | -- | -- | -- | -- | **529** |
| PCB-067 | | | | | -- | -- | -- | -- | -- | **12.7** |
| PCB-068 | | | | | -- | -- | -- | -- | -- | **4.54** |
| PCB-072 | | | | | -- | -- | -- | -- | -- | **8.49** |
| PCB-073 | | | | | -- | -- | -- | -- | -- | **2.07** |
| PCB-077 | | | | | -- | -- | -- | -- | -- | **64.4** |
| PCB-078 | | | | | -- | -- | -- | -- | -- | 0.99 U |
| PCB-079 | | | | | -- | -- | -- | -- | -- | **10.3** |
| PCB-080 | | | | | -- | -- | -- | -- | -- | 0.769 U |
| PCB-081 | | | | | -- | -- | -- | -- | -- | **2.71** |
| PCB-082 | | | | | -- | -- | -- | -- | -- | **124** |
| PCB-083 | | | | | -- | -- | -- | -- | -- | **52.7** |
| PCB-084 | | | | | -- | -- | -- | -- | -- | **218** |
| PCB-085/116 | | | | | -- | -- | -- | -- | -- | **160** |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- | -- | -- | **692** |
| PCB-088 | | | | | -- | -- | -- | -- | -- | **128** |
| PCB-089 | | | | | -- | -- | -- | -- | -- | **11.7** |
| PCB-090/101/113 | | | | | -- | -- | -- | -- | -- | **1010** |
| PCB-091 | | | | | -- | -- | -- | -- | -- | 0.546 U |
| PCB-092 | | | | | -- | -- | -- | -- | -- | **195** |
| PCB-093/100 | | | | | -- | -- | -- | -- | -- | **5.81** |
| PCB-094 | | | | | -- | -- | -- | -- | -- | **3.4** |
| PCB-095 | | | | | -- | -- | -- | -- | -- | **625** |
| PCB-096 | | | | | -- | -- | -- | -- | -- | **4.89** |
| PCB-098 | | | | | -- | -- | -- | -- | -- | 0.63 U |
| PCB-099 | | | | | -- | -- | -- | -- | -- | **532** |
| PCB-102 | | | | | -- | -- | -- | -- | -- | **24.9** |
| PCB-103 | | | | | -- | -- | -- | -- | -- | **5.66** |
| PCB-104 | | | | | -- | -- | -- | -- | -- | 0.231 U |
| PCB-105 | | | | | -- | -- | -- | -- | -- | **427** |
| PCB-106 | | | | | -- | -- | -- | -- | -- | 0.55 U |
| PCB-107/124 | | | | | -- | -- | -- | -- | -- | **38** |
| PCB-109 | | | | | -- | -- | -- | -- | -- | **74.4** |
| PCB-110 | | | | | -- | -- | -- | -- | -- | **1310** |
| PCB-111 | | | | | -- | -- | -- | -- | -- | 0.476 U |
| PCB-112 | | | | | -- | -- | -- | -- | -- | 0.492 U |
| PCB-114 | | | | | -- | -- | -- | -- | -- | **20.3** |
| PCB-115 | | | | | -- | -- | -- | -- | -- | **23** |
| PCB-117 | | | | | -- | -- | -- | -- | -- | **25.9** |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA07-SC27-2013 | JW-EA07-SC27-2013 | JW-EA07-SC28-2013 | JW-EA07-SC28-2013 | JW-EA07-SC28-2013 | JW-EA09-SC36-2013 |
| Sample ID | | | | | JW-EA07-SC27-B-130429 | JW-EA07-SC27-C-130429 | JW-EA07-SC28-A-130426 | JW-EA07-SC28-B-130426 | JW-EA07-SC28-C-130426 | JW-EA09-SC36-A-130426 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 |
| Depth | | | | | 1 - 2 ft | 2 - 2.6 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302622.479 | 1302622.479 | 1302470.87217 | 1302470.87217 | 1302470.87217 | 1302770.78155 |
| Y | | | | | 373317.7446 | 373317.7446 | 373174.526718 | 373174.526718 | 373174.526718 | 372460.088498 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-118 | | | | | -- | -- | -- | -- | -- | **962** |
| PCB-120 | | | | | -- | -- | -- | -- | -- | 0.485 U |
| PCB-121 | | | | | -- | -- | -- | -- | -- | 0.473 U |
| PCB-122 | | | | | -- | -- | -- | -- | -- | **13.8** |
| PCB-123 | | | | | -- | -- | -- | -- | -- | **18.1** |
| PCB-126 | | | | | -- | -- | -- | -- | -- | **3.82** |
| PCB-127 | | | | | -- | -- | -- | -- | -- | 0.569 U |
| PCB-128/166 | | | | | -- | -- | -- | -- | -- | **197** |
| PCB-129/138/163 | | | | | -- | -- | -- | -- | -- | **1310** |
| PCB-130 | | | | | -- | -- | -- | -- | -- | **83.4** |
| PCB-131 | | | | | -- | -- | -- | -- | -- | **14.1** |
| PCB-132 | | | | | -- | -- | -- | -- | -- | **352** |
| PCB-133 | | | | | -- | -- | -- | -- | -- | **16.5** |
| PCB-134 | | | | | -- | -- | -- | -- | -- | **63.7** |
| PCB-135/151 | | | | | -- | -- | -- | -- | -- | **322** |
| PCB-136 | | | | | -- | -- | -- | -- | -- | **122** |
| PCB-137 | | | | | -- | -- | -- | -- | -- | **55.9** |
| PCB-139/140 | | | | | -- | -- | -- | -- | -- | **20** |
| PCB-141 | | | | | -- | -- | -- | -- | -- | **208** |
| PCB-142 | | | | | -- | -- | -- | -- | -- | 0.382 U |
| PCB-143 | | | | | -- | -- | -- | -- | -- | **3.52** |
| PCB-144 | | | | | -- | -- | -- | -- | -- | **46.4** |
| PCB-145 | | | | | -- | -- | -- | -- | -- | 0.247 U |
| PCB-146 | | | | | -- | -- | -- | -- | -- | **170** |
| PCB-147/149 | | | | | -- | -- | -- | -- | -- | **806** |
| PCB-148 | | | | | -- | -- | -- | -- | -- | **0.617 J** |
| PCB-150 | | | | | -- | -- | -- | -- | -- | **0.881 J** |
| PCB-152 | | | | | -- | -- | -- | -- | -- | **0.714 J** |
| PCB-153/168 | | | | | -- | -- | -- | -- | -- | **896** |
| PCB-154 | | | | | -- | -- | -- | -- | -- | **9.82** |
| PCB-155 | | | | | -- | -- | -- | -- | -- | 0.212 U |
| PCB-156/157 | | | | | -- | -- | -- | -- | -- | **148** |
| PCB-158 | | | | | -- | -- | -- | -- | -- | **130** |
| PCB-159 | | | | | -- | -- | -- | -- | -- | **10.8** |
| PCB-160 | | | | | -- | -- | -- | -- | -- | **19.4** |
| PCB-161 | | | | | -- | -- | -- | -- | -- | **0.403 J** |
| PCB-162 | | | | | -- | -- | -- | -- | -- | **3.61** |
| PCB-164 | | | | | -- | -- | -- | -- | -- | **78.2** |
| PCB-165 | | | | | -- | -- | -- | -- | -- | 0.31 U |
| PCB-167 | | | | | -- | -- | -- | -- | -- | **44.2** |
| PCB-169 | | | | | -- | -- | -- | -- | -- | 1.24 U |
| PCB-170 | | | | | -- | -- | -- | -- | -- | **262** |
| PCB-171/173 | | | | | -- | -- | -- | -- | -- | **80.3** |
| PCB-172 | | | | | -- | -- | -- | -- | -- | **44.5** |

## Table H-2
## Subsurface Sediment Results

| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
| Location ID | | | | | JW-EA07-SC27-2013 | JW-EA07-SC27-2013 | JW-EA07-SC28-2013 | JW-EA07-SC28-2013 | JW-EA07-SC28-2013 | JW-EA09-SC36-2013 |
| Sample ID | | | | | JW-EA07-SC27-B-130429 | JW-EA07-SC27-C-130429 | JW-EA07-SC28-A-130426 | JW-EA07-SC28-B-130426 | JW-EA07-SC28-C-130426 | JW-EA09-SC36-A-130426 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 |
| Depth | | | | | 1 - 2 ft | 2 - 2.6 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302622.479 | 1302622.479 | 1302470.87217 | 1302470.87217 | 1302470.87217 | 1302770.78155 |
| Y | | | | | 373317.7446 | 373317.7446 | 373174.526718 | 373174.526718 | 373174.526718 | 372460.088498 |
| PCB-174 | | | | | -- | -- | -- | -- | -- | **250** |
| PCB-175 | | | | | -- | -- | -- | -- | -- | **11.2** |
| PCB-176 | | | | | -- | -- | -- | -- | -- | **29.1** |
| PCB-177 | | | | | -- | -- | -- | -- | -- | **149** |
| PCB-178 | | | | | -- | -- | -- | -- | -- | **47.4** |
| PCB-179 | | | | | -- | -- | -- | -- | -- | **101** |
| PCB-180/193 | | | | | -- | -- | -- | -- | -- | **543** |
| PCB-181 | | | | | -- | -- | -- | -- | -- | **2.56 J** |
| PCB-182 | | | | | -- | -- | -- | -- | -- | **1.79** |
| PCB-183 | | | | | -- | -- | -- | -- | -- | **155** |
| PCB-184 | | | | | -- | -- | -- | -- | -- | 0.303 U |
| PCB-185 | | | | | -- | -- | -- | -- | -- | **22.5** |
| PCB-186 | | | | | -- | -- | -- | -- | -- | 0.287 U |
| PCB-187 | | | | | -- | -- | -- | -- | -- | **281** |
| PCB-188 | | | | | -- | -- | -- | -- | -- | 0.282 U |
| PCB-189 | | | | | -- | -- | -- | -- | -- | **9.57** |
| PCB-190 | | | | | -- | -- | -- | -- | -- | **49.9** |
| PCB-191 | | | | | -- | -- | -- | -- | -- | **14.2** |
| PCB-192 | | | | | -- | -- | -- | -- | -- | 0.759 U |
| PCB-194 | | | | | -- | -- | -- | -- | -- | **128** |
| PCB-195 | | | | | -- | -- | -- | -- | -- | **50.8** |
| PCB-196 | | | | | -- | -- | -- | -- | -- | **61.1** |
| PCB-197 | | | | | -- | -- | -- | -- | -- | **4.4 J** |
| PCB-198/199 | | | | | -- | -- | -- | -- | -- | **133** |
| PCB-200 | | | | | -- | -- | -- | -- | -- | **14.4** |
| PCB-201 | | | | | -- | -- | -- | -- | -- | **16.6** |
| PCB-202 | | | | | -- | -- | -- | -- | -- | **30.2** |
| PCB-203 | | | | | -- | -- | -- | -- | -- | **78.4** |
| PCB-204 | | | | | -- | -- | -- | -- | -- | 0.413 U |
| PCB-205 | | | | | -- | -- | -- | -- | -- | **6.29** |
| PCB-206 | | | | | -- | -- | -- | -- | -- | **68** |
| PCB-207 | | | | | -- | -- | -- | -- | -- | **8.33** |
| PCB-208 | | | | | -- | -- | -- | -- | -- | **25** |
| PCB-209 | | | | | -- | -- | -- | -- | -- | **44.4** |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | **20639.772 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | **3.9441087** |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | **0.03510285** |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | **0.62737** |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | **20633.639 J** |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | -- | -- | -- | -- | -- | **20627.505 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | **3.9434887** |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | **3.9428687** |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | **0.03507185** |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | **0.03504085** |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA07-SC27-2013 | JW-EA07-SC27-2013 | JW-EA07-SC28-2013 | JW-EA07-SC28-2013 | JW-EA07-SC28-2013 | JW-EA09-SC36-2013 |
| Sample ID | | | | | JW-EA07-SC27-B-130429 | JW-EA07-SC27-C-130429 | JW-EA07-SC28-A-130426 | JW-EA07-SC28-B-130426 | JW-EA07-SC28-C-130426 | JW-EA09-SC36-A-130426 |
| Sample Date | | | | | 4/29/2013 | 4/29/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 |
| Depth | | | | | 1 - 2 ft | 2 - 2.6 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302622.479 | 1302622.479 | 1302470.87217 | 1302470.87217 | 1302470.87217 | 1302770.78155 |
| Y | | | | | 373317.7446 | 373317.7446 | 373174.526718 | 373174.526718 | 373174.526718 | 372460.088498 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | 0.4567281 |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | 0.4381281 |
| **Radionuclides (pci/g)** | | | | | | | | | | |
| Cesium 137 | | | | | -- | -- | -- | -- | -- | -- |
| Lead 210 | | | | | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | 0.00211533057143 J | 0.00139058 | -- | 0.00018873044125 J | 0.00013061530444 J | 0.000629471668478 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | 0.00156954485714 J | 0.000707608 | -- | 6.970356625E-05 J | 8.667086E-05 J | 0.0002006697201087 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | 0.00299511628571 J | 0.000973482 | -- | 6.679657375E-05 J | 7.976502444E-05 J | 0.000248453701087 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | 0.00211480528571 J | 0.001390115 | -- | 0.00016877834563 J | 9.088631889E-05 J | 0.000628977918478 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | 0.00156901957143 J | 0.000707143 | -- | 4.603053313E-05 J | 4.474187444E-05 J | 0.0002002079809783 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | 0.002994591 J | 0.000973017 | -- | 4.534078688E-05 J | 4.325117889E-05 J | 0.000246982777174 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | 0.00211428 J | 0.00138965 | -- | 0.00014882625 J | 5.115733333E-05 J | 0.000628484168478 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | 0.00156849428571 J | 0.000706677 | -- | 2.23575E-05 J | 2.81288889E-06 J | 0.0001997462418478 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | 0.00299406571429 J | 0.000972551 | -- | 2.3885E-05 J | 6.73733333E-06 J | 0.000245511853261 J |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | 74.03657 J | 35.32074 | 25.41915 J | 1.50984353 J | 0.58776887 J | 11.5822787 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | 54.93407 J | 17.97324 | 12.13605 J | 0.55762853 J | 0.39001887 J | 3.69232285 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | 104.82907 J | 24.72644 | 13.64195 J | 0.53437259 J | 0.35894261 J | 4.5715481 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | 74.018185 J | 35.30892 | 25.404475 J | 1.35022677 J | 0.40898843 J | 11.5731937 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | 54.915685 J | 17.96142 | 12.121375 J | 0.36824427 J | 0.20133844 J | 3.68382685 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | 104.810685 J | 24.71462 | 13.627275 J | 0.36272629 J | 0.19463031 J | 4.5444831 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | 73.9998 J | 35.2971 | 25.3898 J | 1.19061 J | 0.230208 J | 11.5641087 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | 54.8973 J | 17.9496 | 12.1067 J | 0.17886 J | 0.012658 J | 3.67533085 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | 104.7923 J | 24.7028 | 13.6126 J | 0.19108 J | 0.030318 J | 4.5174181 J |

## Table H-2
## Subsurface Sediment Results

| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | JeldWenSed2013 JW-EA09-SC36-2013 JW-EA09-SC36-B-130426 4/26/2013 2 - 4 ft N SE 1302770.78155 372460.088498 | JeldWenSed2013 JW-EA09-SC36-2013 JW-EA09-SC36-C-130426 4/26/2013 4 - 6 ft N SE 1302770.78155 372460.088498 | JeldWenSed2013 JW-EA09-SC38-2013 JW-EA09-SC138-C-130426 4/26/2013 4 - 6 ft FD SE 1302764.45674 372227.923047 | JeldWenSed2013 JW-EA09-SC38-2013 JW-EA09-SC38-A-130426 4/26/2013 0 - 2 ft N SE 1302764.45674 372227.923047 | JeldWenSed2013 JW-EA09-SC38-2013 JW-EA09-SC38-B-130426 4/26/2013 2 - 4 ft N SE 1302764.45674 372227.923047 | JeldWenSed2013 JW-EA09-SC38-2013 JW-EA09-SC38-C-130426 4/26/2013 4 - 6 ft N SE 1302764.45674 372227.923047 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Conventional Parameters (pct)** | | | | | | | | | | |
| Total organic carbon | | | | | 0.468 | 0.44 | 0.623 | 1.44 | 0.306 | 0.525 |
| Moisture, percent | | | | | -- | -- | -- | -- | -- | -- |
| Total Solids | | | | | 78.92 | 79.36 | 76.86 | 70.97 | 74.44 | 72.96 |
| **Grain Size (pct)** | | | | | | | | | | |
| Gravel | | | | | -- | -- | 0.2 | 0.9 | 0.3 | 0.4 |
| Sand, very coarse | | | | | -- | -- | 0.6 | 0.4 | 0.4 | 0.5 |
| Sand, coarse | | | | | -- | -- | 1.4 | 1 | 1.2 | 1.3 |
| Sand, medium | | | | | -- | -- | 29.1 | 10.6 | 17.7 | 28.2 |
| Sand, fine | | | | | -- | -- | 45.9 | 28.2 | 41.7 | 45 |
| Sand, very fine | | | | | -- | -- | 12.4 | 32.6 | 28.1 | 13 |
| Silt, coarse | | | | | -- | -- | 4.5 | 5.5 | 6 | 5.6 |
| Silt, medium | | | | | -- | -- | 1.7 | 5.7 | 1.2 | 1.7 |
| Silt, fine | | | | | -- | -- | 1.2 | 5.2 | 1 | 1.3 |
| Silt, very fine | | | | | -- | -- | 0.8 | 3.1 | 0.6 | 0.7 |
| Clay, coarse | | | | | -- | -- | 0.6 | 1.8 | 0.5 | 0.6 |
| Clay, medium | | | | | -- | -- | 0.5 | 1.4 | 0.5 | 0.5 |
| Clay, fine | | | | | -- | -- | 1.1 | 3.4 | 1 | 1.2 |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | -- | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | -- | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA09-SC36-2013 | JW-EA09-SC36-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 |
| Sample ID | | | | | JW-EA09-SC36-B-130426 | JW-EA09-SC36-C-130426 | JW-EA09-SC138-C-130426 | JW-EA09-SC38-A-130426 | JW-EA09-SC38-B-130426 | JW-EA09-SC38-C-130426 |
| Sample Date | | | | | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 |
| Depth | | | | | 2 - 4 ft | 4 - 6 ft | 4 - 6 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft |
| Sample Type | | | | | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302770.78155 | 1302770.78155 | 1302764.45674 | 1302764.45674 | 1302764.45674 | 1302764.45674 |
| Y | | | | | 372460.088498 | 372460.088498 | 372227.923047 | 372227.923047 | 372227.923047 | 372227.923047 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | | | | | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | -- | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | -- | -- | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | -- | -- | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | -- | -- | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | -- | -- | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | -- | -- | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- | -- | -- | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | -- | -- | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | -- | -- | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | -- | -- | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | -- | -- | -- |
| Benzo(b,j,k)fluoranthenes | | | | | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | -- | -- | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | -- | -- | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA09-SC36-2013 | JW-EA09-SC36-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 |
| Sample ID | | | | | JW-EA09-SC36-B-130426 | JW-EA09-SC36-C-130426 | JW-EA09-SC138-C-130426 | JW-EA09-SC38-A-130426 | JW-EA09-SC38-B-130426 | JW-EA09-SC38-C-130426 |
| Sample Date | | | | | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 |
| Depth | | | | | 2 - 4 ft | 4 - 6 ft | 4 - 6 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft |
| Sample Type | | | | | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302770.78155 | 1302770.78155 | 1302764.45674 | 1302764.45674 | 1302764.45674 | 1302764.45674 |
| Y | | | | | 372460.088498 | 372460.088498 | 372227.923047 | 372227.923047 | 372227.923047 | 372227.923047 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| Fluorene | | | 540 | 540 | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | -- | -- | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | -- | -- | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | -- | -- | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (mg/kg-OC)** | | | | | | | | | | |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | **0.00010069815409 J** | **0.000322129375 J** | **0.00014042314379 J** | **8.765151238E-05 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | **8.080152488E-05 J** | **0.00014612243056 J** | **0.00011508686928 J** | **7.369189333E-05 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | **7.267199037E-05 J** | **0.00014664493056 J** | **0.00010225962745 J** | **6.53284419E-05 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | **5.041946228E-05 J** | **0.00031214288194 J** | **7.032251961E-05 J** | **4.389585143E-05 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | **4.047114767E-05 J** | **0.0001361359375 J** | **5.765438235E-05 J** | **3.69160419E-05 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | **3.677580257E-05 J** | **0.0001366584375 J** | **5.183782026E-05 J** | **3.311117333E-05 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | **1.4077047E-07 J** | **0.00030215638889 J** | **2.2189542E-07 J** | **1.4019048E-07 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | **1.4077047E-07 J** | **0.00012614944444 J** | **2.2189542E-07 J** | **1.4019048E-07 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | **8.7961477E-07 J** | **0.00012667194444 J** | **1.41601307E-06 J** | **8.9390476E-07 J** |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | 0.1451 U | **0.472 J** | 0.09 U | 0.1028 U |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | 0.1544 U | 0.2647 U | 0.116 U | 0.1158 U |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | 0.1664 U | **0.598 J** | 0.1298 U | 0.156 U |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | 0.165 U | **1.47 J** | 0.1239 U | 0.1442 U |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | 0.1594 U | **1.06 J** | 0.1191 U | 0.1567 U |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | **0.407 J** | **18.9** | **0.328 J** | **0.355 J** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | -- | -- | **4.7 J** | **115** | **3.51 J** | **3.81 J** |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | **0.588 J** | **42.8 J** | **0.525** | **0.362 J** |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | 0.1544 U | **31.3** | 0.116 U | 0.1158 U |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | 0.1633 U | **34.1 J** | **0.218** | 0.1522 U |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | **1.11** | **40.3** | **0.834** | **1.04** |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | 0.1299 U | **2.11** | 0.0865 U | 0.0911 U |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | 0.1037 U | **0.574 J** | 0.0719 U | 0.0778 U |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | 0.1118 U | **1.35 J** | 0.0789 U | 0.0779 U |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | 0.1092 U | **0.332 J** | 0.0719 U | 0.087 U |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | 0.1073 U | **0.375 J** | 0.0674 U | 0.084 U |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | 0.132 U | 0.204 U | 0.0823 U | 0.1127 U |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | 0.1086 U | **0.617 J** | 0.0656 U | 0.0882 U |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | 0.1663 U | **4.73** | 0.097 U | 0.0917 U |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | 0.1593 U | 0.2511 U | 0.1078 U | 0.1018 U |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | -- | -- | 0.265 U | **9.52** | 0.1882 U | 0.1744 U |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | 0.1299 U | **32.8 J** | 0.0865 U | 0.0911 U |

# Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA09-SC36-2013 | JW-EA09-SC36-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 |
| Sample ID | | | | | JW-EA09-SC36-B-130426 | JW-EA09-SC36-C-130426 | JW-EA09-SC138-C-130426 | JW-EA09-SC38-A-130426 | JW-EA09-SC38-B-130426 | JW-EA09-SC38-C-130426 |
| Sample Date | | | | | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 |
| Depth | | | | | 2 - 4 ft | 4 - 6 ft | 4 - 6 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft |
| Sample Type | | | | | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302770.78155 | 1302770.78155 | 1302764.45674 | 1302764.45674 | 1302764.45674 | 1302764.45674 |
| Y | | | | | 372460.088498 | 372460.088498 | 372227.923047 | 372227.923047 | 372227.923047 | 372227.923047 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | 0.1077 U | **15.9 J** | 0.0753 U | 0.0778 U |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | 0.1135 U | **8.05 J** | 0.0713 U | 0.0922 U |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | 0.1631 U | **11.3** | 0.1023 U | 0.0966 U |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | **0.6273495 J** | **4.638663 J** | **0.42969482 J** | **0.46017044 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | **0.5033935 J** | **2.104163 J** | **0.35216582 J** | **0.38688244 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | **0.4527465 J** | **2.111687 J** | **0.31291446 J** | **0.34297432 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | **0.31411325 J** | **4.4948575 J** | **0.21518691 J** | **0.23045322 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | **0.25213525 J** | **1.9603575 J** | **0.17642241 J** | **0.19380922 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | **0.22911325 J** | **1.9678815 J** | **0.15862373 J** | **0.17383366 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | **0.000877 J** | **4.351052 J** | **0.000679 J** | **0.000736 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | **0.000877 J** | **1.816552 J** | **0.000679 J** | **0.000736 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | **0.00548 J** | **1.824076 J** | **0.004333 J** | **0.004693 J** |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | **0.0141023504 J** | **0.0111690682 J** | **0.010228411 J** | **1.641807708 J** | **0.028283007 J** | **0.013656381 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | **8.06236752E-06 J** | **4.330705E-06 J** | 5.04012841E-06 U | **0.000202604** | **2.755730392E-05 J** | 9.2952381E-06 U |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | **1.58475427E-07 J** | **8.29284091E-08 J** | 1.1717496E-07 U | **1.67468E-06** | **4.49357843E-07 J** | 2.50476191E-07 U |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | **3.26001496E-06 J** | **1.684723409E-06 J** | 2.3434992E-06 U | **2.7809E-05** | **7.90844444E-06 J** | 5.00952381E-06 U |
| Total PCB Congener (U = 1/2) | | | | | **0.0085409188 J** | **0.0069240568 J** | **0.00595313 J** | **1.641623438 J** | **0.017035784 J** | **0.00706819 J** |
| Total PCB Congener (U = 0) | 12 | 65 | | | **0.0029794872 J** | **0.0026790455 J** | **0.001677849 J** | **1.641439167 J** | **0.005788562 J** | **0.00048 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | **4.03462393E-06 J** | **2.170113864E-06 J** | 5.04012841E-06 U | **0.000202595** | **1.378541667E-05 J** | 9.2952381E-06 U |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | **6.88034E-09 J** | **9.522727E-09 J** | 5.04012841E-06 U | **0.000202585** | **1.352941E-08 J** | 9.2952381E-06 U |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | **7.9409722E-08 J** | **4.17022727E-08 J** | 1.1717496E-07 U | **1.67418E-06** | **2.25017157E-07 J** | 2.50476191E-07 U |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | **3.44017E-10 J** | **4.761364E-10 J** | 1.1717496E-07 U | **1.67369E-06** | **6.76471E-10 J** | 2.50476191E-07 U |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | **2.13722756E-06 J** | **1.091956818E-06 J** | 2.3434992E-06 U | **1.8743E-05** | **4.41167157E-06 J** | 5.00952381E-06 U |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | **2.0641E-09 J** | **2.856818E-09 J** | 2.3434992E-06 U | **1.84472E-05** | **4.05882E-09 J** | 5.00952381E-06 U |
| **PCB Congeners (ng/kg)** | | | | | | | | | | |
| PCB-001 | | | | | 0.709 U | 0.502 U | 0.228 U | **8.01** | 0.384 U | 0.442 U |
| PCB-002 | | | | | **1.92** | **1.04** | **2.5** | **15.8** | **1.72** | **1.49** |
| PCB-003 | | | | | 0.976 U | 0.569 U | **1.75 J** | **15.4** | **1.08** | 0.383 U |
| PCB-004 | | | | | 0.565 UJ | **0.263 J** | 0.206 UJ | **14.6 J** | 0.385 UJ | 0.337 UJ |
| PCB-005 | | | | | 0.289 UJ | 0.186 UJ | 0.292 U | **1.2** | 0.326 U | 0.348 U |
| PCB-006 | | | | | 0.284 UJ | 0.184 UJ | 0.296 U | **10.3** | 0.331 U | 0.354 U |
| PCB-007 | | | | | 0.264 UJ | 0.17 UJ | 0.275 U | **1.46** | 0.307 U | 0.329 U |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA09-SC36-2013 | JW-EA09-SC36-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 |
| Sample ID | | | | | JW-EA09-SC36-B-130426 | JW-EA09-SC36-C-130426 | JW-EA09-SC138-C-130426 | JW-EA09-SC38-A-130426 | JW-EA09-SC38-B-130426 | JW-EA09-SC38-C-130426 |
| Sample Date | | | | | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 |
| Depth | | | | | 2 - 4 ft | 4 - 6 ft | 4 - 6 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft |
| Sample Type | | | | | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302770.78155 | 1302770.78155 | 1302764.45674 | 1302764.45674 | 1302764.45674 | 1302764.45674 |
| Y | | | | | 372460.088498 | 372460.088498 | 372227.923047 | 372227.923047 | 372227.923047 | 372227.923047 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-008 | | | | | 0.278 UJ | **0.352 J** | **0.323 J** | **65.2** | 0.32 U | 0.343 U |
| PCB-009 | | | | | 0.311 UJ | 0.201 UJ | 0.313 U | **2.66** | 0.349 U | 0.374 U |
| PCB-010 | | | | | 0.379 UJ | 0.115 UJ | 0.142 U | **0.555 J** | 0.266 U | 0.233 U |
| PCB-011 | | | | | 2.84 UJ | 3.39 UJ | 2.65 U | **245** | 4.19 U | 2.74 U |
| PCB-012/013 | | | | | 0.276 UJ | 0.178 UJ | 0.277 U | **11.9** | 0.31 U | 0.331 U |
| PCB-014 | | | | | 0.242 UJ | 0.156 UJ | 0.244 U | **1.57** | 0.272 U | 0.291 U |
| PCB-015 | | | | | 0.258 UJ | **0.253 J** | 0.269 U | **56.2** | 0.301 U | 0.322 U |
| PCB-016 | | | | | 0.368 U | 0.301 U | 0.59 U | **59.1** | 0.695 U | 0.869 U |
| PCB-017 | | | | | 0.29 U | 0.237 U | 0.447 U | **66** | 0.526 U | 0.658 U |
| PCB-018/030 | | | | | 0.249 U | **0.467 J** | **0.601 J** | **135** | **0.497 J** | 0.572 U |
| PCB-019 | | | | | 0.328 U | 0.268 U | 0.505 U | **9.32** | 0.596 U | 0.745 U |
| PCB-020/028 | | | | | 0.537 U | 0.829 U | 0.784 U | **347** | 1.27 U | 0.729 U |
| PCB-021/033 | | | | | 0.338 U | **0.515 J** | 0.39 U | **133** | **0.549 J** | 0.573 U |
| PCB-022 | | | | | 0.367 U | 0.236 U | 0.417 U | **98.3** | 0.474 U | 0.612 U |
| PCB-023 | | | | | 0.347 U | 0.223 U | 0.401 U | 0.425 U | 0.456 U | 0.589 U |
| PCB-024 | | | | | 0.225 U | 0.183 U | 0.35 U | **1.57** | 0.413 U | 0.516 U |
| PCB-025 | | | | | 0.342 U | 0.22 U | 0.393 U | **18** | 0.446 U | 0.576 U |
| PCB-026/029 | | | | | 0.349 U | 0.224 U | 0.393 U | **37.1** | 0.447 U | 0.577 U |
| PCB-027 | | | | | 0.217 U | 0.177 U | 0.334 U | **9.45** | 0.394 U | 0.493 U |
| PCB-031 | | | | | **0.429 J** | **0.668 J** | 0.655 U | **278** | 0.985 U | 0.557 U |
| PCB-032 | | | | | 0.202 U | 0.165 U | 0.317 U | **56.3** | 0.374 U | 0.468 U |
| PCB-034 | | | | | 0.357 U | 0.23 U | 0.403 U | **1.68** | 0.458 U | 0.591 U |
| PCB-035 | | | | | 0.368 U | 0.236 U | 0.406 U | **12.3** | 0.462 U | 0.596 U |
| PCB-036 | | | | | 0.338 U | 0.217 U | 0.371 U | **3.26** | 0.421 U | 0.544 U |
| PCB-037 | | | | | 0.355 U | 0.228 U | 0.417 U | **112** | 0.474 U | 0.612 U |
| PCB-038 | | | | | 0.36 U | 0.231 U | 0.392 U | **1.17** | 0.446 U | 0.576 U |
| PCB-039 | | | | | 0.326 U | 0.209 U | 0.356 U | **1.97** | 0.405 U | 0.523 U |
| PCB-040/071 | | | | | 0.205 U | **0.217 J** | **0.312 J** | **229** | **0.527 J** | 0.326 U |
| PCB-041 | | | | | 0.247 U | 0.133 U | 0.307 U | **22.2** | 0.338 U | 0.395 U |
| PCB-042 | | | | | 0.229 U | 0.123 U | 0.283 U | **346** | 0.311 U | 0.363 U |
| PCB-043 | | | | | 0.24 U | 0.129 U | 0.302 U | **11.9** | 0.332 U | 0.387 U |
| PCB-044/047/065 | | | | | 7.81 U | 4.36 U | 0.838 U | **1130** | 0.949 U | 0.769 U |
| PCB-045 | | | | | 0.227 U | 0.122 U | 0.29 U | **37.6** | 0.319 U | 0.373 U |
| PCB-046 | | | | | 0.249 U | 0.134 U | 0.327 U | **18.2** | 0.359 U | 0.42 U |
| PCB-048 | | | | | 0.205 U | 0.111 U | 0.259 U | **61.6** | 0.284 U | 0.332 U |
| PCB-049/069 | | | | | 0.301 U | 0.4 U | 0.465 U | **1130** | 0.556 U | 0.424 U |
| PCB-050/053 | | | | | 0.205 U | 0.111 U | 0.265 U | **65.8** | 0.291 U | 0.34 U |
| PCB-051 | | | | | 1.69 U | 0.848 U | 0.274 U | **34.8** | 0.301 U | 0.352 U |
| PCB-052 | | | | | 0.591 U | 0.744 U | 1.11 U | **1950** | 1.49 U | 0.902 U |
| PCB-054 | | | | | 0.146 U | 0.0805 U | 0.159 U | **0.426 J** | 0.26 U | 0.259 U |
| PCB-055 | | | | | **0.334 J** | 0.0863 U | 0.312 U | **4.53** | 0.423 U | 0.485 U |
| PCB-056 | | | | | 0.174 U | **0.297 J** | 0.317 U | **219** | **0.525 J** | 0.493 U |
| PCB-057 | | | | | 0.165 U | 0.0858 U | 0.308 U | **1.41** | 0.418 U | 0.478 U |
| PCB-058 | | | | | 0.158 U | 0.0821 U | 0.301 U | **4.5** | 0.408 U | 0.468 U |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA09-SC36-2013 | JW-EA09-SC36-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 |
| Sample ID | | | | | JW-EA09-SC36-B-130426 | JW-EA09-SC36-C-130426 | JW-EA09-SC138-C-130426 | JW-EA09-SC38-A-130426 | JW-EA09-SC38-B-130426 | JW-EA09-SC38-C-130426 |
| Sample Date | | | | | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 |
| Depth | | | | | 2 - 4 ft | 4 - 6 ft | 4 - 6 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft |
| Sample Type | | | | | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302770.78155 | 1302770.78155 | 1302764.45674 | 1302764.45674 | 1302764.45674 | 1302764.45674 |
| Y | | | | | 372460.088498 | 372460.088498 | 372227.923047 | 372227.923047 | 372227.923047 | 372227.923047 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-059/062/075 | | | | | 0.154 U | 0.083 U | 0.191 U | **39.2** | 0.21 U | 0.246 U |
| PCB-060 | | | | | 0.165 U | **0.153 J** | 0.307 U | **92.5** | 0.417 U | 0.477 U |
| PCB-061/070/074/076 | | | | | 0.162 U | 1.03 U | 1.59 U | **1480** | 2.41 U | 0.463 U |
| PCB-063 | | | | | 0.149 U | 0.0773 U | 0.276 U | **27.2** | 0.374 U | 0.428 U |
| PCB-064 | | | | | 0.145 U | **0.223 J** | **0.388 J** | **346** | **0.478 J** | 0.229 U |
| PCB-066 | | | | | 0.171 U | **0.644 J** | **0.865 J** | **873** | **1.28** | **1.03** |
| PCB-067 | | | | | 0.152 U | 0.0788 U | 0.294 U | **9.03** | 0.399 U | 0.457 U |
| PCB-068 | | | | | 0.806 U | 0.679 U | 0.277 U | **12.8** | 0.376 U | 0.43 U |
| PCB-072 | | | | | 0.159 U | 0.0827 U | 0.3 U | **23.2** | 0.407 U | 0.466 U |
| PCB-073 | | | | | 0.162 U | 0.0873 U | 0.203 U | 0.215 U | 0.223 U | 0.26 U |
| PCB-077 | | | | | 0.17 U | 0.0858 U | 0.291 U | **49.7** | 0.39 U | 0.508 U |
| PCB-078 | | | | | 0.172 U | 0.0893 U | 0.309 U | 0.503 U | 0.418 U | 0.479 U |
| PCB-079 | | | | | 0.141 U | 0.073 U | 0.266 U | **8.76** | 0.361 U | 0.413 U |
| PCB-080 | | | | | 0.144 U | 0.0747 U | 0.262 U | 0.427 U | 0.355 U | 0.407 U |
| PCB-081 | | | | | 0.165 U | 0.0858 U | 0.314 U | **1.71** | 0.426 U | 0.488 U |
| PCB-082 | | | | | 0.229 U | **0.146 J** | 0.23 U | **89.7** | 0.262 U | 0.405 U |
| PCB-083 | | | | | 0.219 U | 0.108 U | 0.234 U | **94.4** | 0.266 U | 0.412 U |
| PCB-084 | | | | | 0.222 U | **0.207 J** | 0.238 U | **609** | 0.271 U | 0.419 U |
| PCB-085/116 | | | | | 0.163 U | **0.142 J** | **0.208 J** | **132** | **0.371 J** | 0.315 U |
| PCB-086/087/097/108/119/125 | | | | | **0.517 J** | **0.557 J** | 0.899 U | **716** | 1.29 U | 0.301 U |
| PCB-088 | | | | | 0.208 U | 0.102 U | 0.223 U | 0.774 U | 0.254 U | 0.393 U |
| PCB-089 | | | | | 0.209 U | 0.103 U | 0.221 U | **9.05** | 0.252 U | 0.389 U |
| PCB-090/101/113 | | | | | 0.922 U | 0.913 U | 1.25 U | **1440** | 1.98 U | 0.956 U |
| PCB-091 | | | | | 0.172 U | 0.0847 U | 0.18 U | **504** | 0.205 U | 0.317 U |
| PCB-092 | | | | | 0.198 U | **0.133 J** | **0.253 J** | **307** | 0.231 U | 0.358 U |
| PCB-093/100 | | | | | 0.185 U | 0.0909 U | 0.201 U | **16** | 0.229 U | 0.354 U |
| PCB-094 | | | | | 0.204 U | 0.1 U | 0.215 U | **6.38** | 0.245 U | 0.379 U |
| PCB-095 | | | | | 0.192 U | 0.708 U | 0.99 U | **1630** | 0.229 U | 0.354 U |
| PCB-096 | | | | | 0.121 U | 0.069 U | 0.158 U | **12.5** | 0.191 U | 0.244 U |
| PCB-098 | | | | | 0.191 U | 0.0941 U | 0.234 U | **4.95** | 0.266 U | 0.411 U |
| PCB-099 | | | | | **0.422 J** | **0.332 J** | 0.702 U | **923** | 0.677 U | 0.516 U |
| PCB-102 | | | | | 0.188 U | 0.0924 U | 0.17 U | **29.8** | 0.193 U | 0.299 U |
| PCB-103 | | | | | 0.18 U | 0.0886 U | 0.188 U | **20.8** | 0.215 U | 0.332 U |
| PCB-104 | | | | | 0.1 U | 0.0572 U | 0.133 U | **0.264 J** | 0.16 U | 0.204 U |
| PCB-105 | | | | | **0.322 J** | **0.286 J** | 0.54 U | **275** | 0.818 U | 0.39 U |
| PCB-106 | | | | | 0.154 U | 0.0756 U | 0.144 U | 0.499 U | 0.164 U | 0.253 U |
| PCB-107/124 | | | | | 0.151 U | 0.0743 U | 0.146 U | **21.6** | 0.166 U | 0.257 U |
| PCB-109 | | | | | 0.144 U | 0.0709 U | 0.135 U | **94.3** | 0.154 U | 0.238 U |
| PCB-110 | | | | | 0.937 U | 1.04 U | 1.4 U | **1640** | **2.24** | 0.809 U |
| PCB-111 | | | | | 0.138 U | 0.068 U | 0.137 U | **1.09 J** | 0.156 U | 0.241 U |
| PCB-112 | | | | | 0.147 U | 0.0722 U | 0.147 U | **1.64** | 0.167 U | 0.258 U |
| PCB-114 | | | | | 0.144 U | 0.0698 U | 0.136 U | **11.5** | 0.16 U | 0.234 U |
| PCB-115 | | | | | 0.129 U | 0.0635 U | 0.156 U | **56.3** | 0.177 U | 0.274 U |
| PCB-117 | | | | | 0.16 U | 0.0789 U | 0.141 U | **30.9** | 0.161 U | 0.249 U |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA09-SC36-2013 | JW-EA09-SC36-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 |
| Sample ID | | | | | JW-EA09-SC36-B-130426 | JW-EA09-SC36-C-130426 | JW-EA09-SC138-C-130426 | JW-EA09-SC38-A-130426 | JW-EA09-SC38-B-130426 | JW-EA09-SC38-C-130426 |
| Sample Date | | | | | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 |
| Depth | | | | | 2 - 4 ft | 4 - 6 ft | 4 - 6 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft |
| Sample Type | | | | | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302770.78155 | 1302770.78155 | 1302764.45674 | 1302764.45674 | 1302764.45674 | 1302764.45674 |
| Y | | | | | 372460.088498 | 372460.088498 | 372227.923047 | 372227.923047 | 372227.923047 | 372227.923047 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-118 | | | | | 0.795 U | 0.71 U | 1.41 U | **1130** | 2.1 U | 1.02 U |
| PCB-120 | | | | | 0.137 U | 0.0674 U | 0.135 U | **9.46** | 0.154 U | 0.237 U |
| PCB-121 | | | | | 0.14 U | 0.069 U | 0.143 U | 0.495 U | 0.162 U | 0.251 U |
| PCB-122 | | | | | 0.161 U | 0.0785 U | 0.157 U | **6.16** | 0.185 U | 0.271 U |
| PCB-123 | | | | | 0.144 U | 0.0708 U | 0.137 U | **8.32** | 0.156 U | 0.241 U |
| PCB-126 | | | | | 0.124 U | 0.0601 U | 0.146 U | **2.15** | 0.219 U | 0.263 U |
| PCB-127 | | | | | 0.142 U | 0.0746 U | 0.139 U | **0.563 J** | 0.153 U | 0.242 U |
| PCB-128/166 | | | | | 0.194 U | 0.0909 U | **0.32 J** | **94.8** | **0.346 J** | 0.238 U |
| PCB-129/138/163 | | | | | 1.96 U | 1.7 U | 1.75 U | **621** | 3.42 U | 1.5 U |
| PCB-130 | | | | | 0.216 U | 0.104 U | 0.225 U | **38.1** | 0.272 U | 0.284 U |
| PCB-131 | | | | | 0.206 U | 0.099 U | 0.223 U | **6.94** | 0.27 U | 0.282 U |
| PCB-132 | | | | | **0.574 J** | **0.53 J** | **0.525 J** | **191** | **1.14** | 0.278 U |
| PCB-133 | | | | | 0.189 U | 0.0911 U | 0.207 U | **10.2** | 0.25 U | 0.261 U |
| PCB-134 | | | | | 0.237 U | 0.114 U | 0.238 U | **49.3** | 0.288 U | 0.301 U |
| PCB-135/151 | | | | | **0.723 J** | **0.694 J** | **0.374 J** | **214** | **0.956 J** | 0.261 U |
| PCB-136 | | | | | **0.375 J** | **0.304 J** | 0.141 U | **123** | **0.369 J** | 0.196 U |
| PCB-137 | | | | | 0.187 U | 0.0901 U | 0.172 U | **22.7** | 0.209 U | 0.218 U |
| PCB-139/140 | | | | | 0.179 U | 0.086 U | 0.192 U | **12.1** | 0.232 U | 0.242 U |
| PCB-141 | | | | | **0.48 J** | **0.476 J** | **0.247 J** | **66.7** | **0.459 J** | 0.253 U |
| PCB-142 | | | | | 0.204 U | 0.0981 U | 0.227 U | 0.182 U | 0.275 U | 0.287 U |
| PCB-143 | | | | | 0.182 U | 0.0878 U | 0.211 U | **1.95** | 0.256 U | 0.267 U |
| PCB-144 | | | | | 0.186 U | **0.113 J** | 0.199 U | **20.5** | 0.241 U | 0.252 U |
| PCB-145 | | | | | 0.142 U | 0.0643 U | 0.136 U | **0.266 J** | 0.18 U | 0.189 U |
| PCB-146 | | | | | **0.329 J** | **0.258 J** | **0.217 J** | **98.6** | 0.225 U | 0.235 U |
| PCB-147/149 | | | | | 1.43 U | 1.57 U | 1.14 U | **465** | 2.14 U | 0.803 U |
| PCB-148 | | | | | 0.181 U | 0.0873 U | 0.2 U | **0.996** | 0.242 U | 0.253 U |
| PCB-150 | | | | | 0.134 U | 0.0606 U | 0.13 U | **1.85** | 0.171 U | 0.18 U |
| PCB-152 | | | | | 0.133 U | 0.0605 U | 0.132 U | **1.02 J** | 0.174 U | 0.183 U |
| PCB-153/168 | | | | | 1.81 U | 1.54 U | 1.59 U | **540** | 2.1 U | 1.05 U |
| PCB-154 | | | | | 0.168 U | 0.0808 U | 0.18 U | **8.25** | 0.217 U | 0.227 U |
| PCB-155 | | | | | 0.124 U | 0.0563 U | 0.126 U | 0.11 U | 0.166 U | 0.175 U |
| PCB-156/157 | | | | | 0.239 U | **0.133 J** | 0.208 U | **59.8** | **0.414 J** | 0.295 U |
| PCB-158 | | | | | 0.138 U | **0.172 J** | **0.141 J** | **57.2** | **0.315 J** | 0.177 U |
| PCB-159 | | | | | 0.162 U | 0.0759 U | 0.146 U | **2.31** | 0.146 U | 0.198 U |
| PCB-160 | | | | | 0.141 U | 0.068 U | 0.149 U | 0.12 U | 0.181 U | 0.189 U |
| PCB-161 | | | | | 0.14 U | 0.0673 U | 0.149 U | 0.12 U | 0.18 U | 0.188 U |
| PCB-162 | | | | | 0.16 U | 0.0747 U | 0.145 U | **1.82** | 0.145 U | 0.197 U |
| PCB-164 | | | | | **0.183 J** | 0.0689 U | 0.158 U | **39.3** | **0.227 J** | 0.2 U |
| PCB-165 | | | | | 0.157 U | 0.0754 U | 0.167 U | 0.135 U | 0.203 U | 0.212 U |
| PCB-167 | | | | | 0.157 U | 0.0733 U | 0.134 U | **17.5** | 0.134 U | 0.182 U |
| PCB-169 | | | | | 0.249 U | 0.117 U | 0.151 U | 0.284 U | 0.16 U | 0.217 U |
| PCB-170 | | | | | **0.77 J** | **0.517 J** | **0.37 J** | **74.4** | **0.779 J** | 0.359 U |
| PCB-171/173 | | | | | 0.209 U | 0.118 U | 0.239 U | **26.3** | **0.433 J** | 0.375 U |
| PCB-172 | | | | | 0.201 U | 0.114 U | 0.228 U | **14** | 0.32 U | 0.357 U |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA09-SC36-2013 | JW-EA09-SC36-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 |
| Sample ID | | | | | JW-EA09-SC36-B-130426 | JW-EA09-SC36-C-130426 | JW-EA09-SC138-C-130426 | JW-EA09-SC38-A-130426 | JW-EA09-SC38-B-130426 | JW-EA09-SC38-C-130426 |
| Sample Date | | | | | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 |
| Depth | | | | | 2 - 4 ft | 4 - 6 ft | 4 - 6 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft |
| Sample Type | | | | | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302770.78155 | 1302770.78155 | 1302764.45674 | 1302764.45674 | 1302764.45674 | 1302764.45674 |
| Y | | | | | 372460.088498 | 372460.088498 | 372227.923047 | 372227.923047 | 372227.923047 | 372227.923047 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| PCB-174 | | | | | 0.892 U | 0.675 U | 0.363 U | **79.7** | **1.14** | 0.371 U |
| PCB-175 | | | | | 0.191 U | 0.108 U | 0.217 U | **3.8** | 0.304 U | 0.34 U |
| PCB-176 | | | | | 0.0853 U | **0.0948 J** | 0.124 U | **8.9** | 0.162 U | 0.224 U |
| PCB-177 | | | | | **0.507 J** | **0.313 J** | **0.295 J** | **47.6** | **0.814 J** | 0.379 U |
| PCB-178 | | | | | **0.125 J** | **0.146 J** | 0.173 U | **16.9** | 0.226 U | 0.313 U |
| PCB-179 | | | | | **0.397 J** | **0.36 J** | 0.132 U | **34.9** | **0.467 J** | 0.239 U |
| PCB-180/193 | | | | | **1.99** | 1.29 U | 0.909 U | **156** | 1.63 U | 0.606 U |
| PCB-181 | | | | | 0.184 U | 0.104 U | 0.209 U | 0.237 U | 0.293 U | 0.327 U |
| PCB-182 | | | | | 0.177 U | 0.0996 U | 0.199 U | **0.454 J** | 0.28 U | 0.312 U |
| PCB-183 | | | | | **0.467 J** | **0.273 J** | **0.411 J** | **49.8** | **0.587 J** | 0.324 U |
| PCB-184 | | | | | 0.0941 U | 0.0685 U | 0.137 U | 0.153 U | 0.18 U | 0.249 U |
| PCB-185 | | | | | 0.178 U | **0.107 J** | 0.202 U | **5.21** | 0.284 U | 0.317 U |
| PCB-186 | | | | | 0.0906 U | 0.066 U | 0.131 U | 0.147 U | 0.172 U | 0.238 U |
| PCB-187 | | | | | **1.12** | 0.636 U | 0.62 U | **101** | 1.21 U | 0.594 U |
| PCB-188 | | | | | 0.085 U | 0.0619 U | 0.124 U | 0.139 U | 0.163 U | 0.225 U |
| PCB-189 | | | | | 0.142 U | 0.0681 U | 0.121 U | **3.11** | 0.225 U | 0.234 U |
| PCB-190 | | | | | **0.212 J** | 0.0883 U | 0.167 U | **13.3** | 0.217 U | 0.264 U |
| PCB-191 | | | | | 0.15 U | 0.0849 U | 0.161 U | **3.24** | 0.226 U | 0.253 U |
| PCB-192 | | | | | 0.157 U | 0.0888 U | 0.173 U | 0.196 U | 0.242 U | 0.271 U |
| PCB-194 | | | | | **0.581 J** | **0.303 J** | 0.273 U | **41.1** | 0.435 U | 0.428 U |
| PCB-195 | | | | | **0.234 J** | 0.121 U | 0.3 U | **14.4** | 0.478 U | 0.471 U |
| PCB-196 | | | | | **0.271 J** | 0.105 U | 0.176 U | **20.6** | 0.343 U | 0.328 U |
| PCB-197 | | | | | 0.115 U | 0.0731 U | 0.132 U | **1.93** | 0.258 U | 0.246 U |
| PCB-198/199 | | | | | **0.441 J** | 0.11 U | **0.353 J** | **53** | 0.35 U | 0.334 U |
| PCB-200 | | | | | 0.129 U | 0.0823 U | 0.15 U | **5.51** | 0.292 U | 0.279 U |
| PCB-201 | | | | | 0.124 U | 0.0786 U | 0.139 U | **6.72** | 0.27 U | 0.258 U |
| PCB-202 | | | | | 0.138 U | 0.0879 U | 0.153 U | **13.9** | 0.298 U | 0.285 U |
| PCB-203 | | | | | **0.221 J** | 0.102 U | 0.171 U | **28.3** | 0.332 U | 0.317 U |
| PCB-204 | | | | | 0.132 U | 0.0842 U | 0.146 U | 0.146 U | 0.285 U | 0.272 U |
| PCB-205 | | | | | 0.179 U | 0.0927 U | 0.197 U | **1.49** | 0.313 U | 0.309 U |
| PCB-206 | | | | | 0.544 U | 0.243 U | 0.59 U | **51.4** | 0.972 U | 1 U |
| PCB-207 | | | | | 0.307 U | 0.151 U | 0.406 U | **6.29** | 0.636 U | 0.653 U |
| PCB-208 | | | | | 0.319 U | 0.157 U | 0.41 U | **19.7** | 0.643 U | 0.66 U |
| PCB-209 | | | | | 0.184 U | **0.099 J** | 0.247 U | **73.3** | 0.361 U | 0.489 U |
| Total PCB Congener (U = limit) | | | | | **65.999 J** | **49.1439 J** | **63.723 J** | **23642.031 J** | **86.546 J** | **71.696 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | **0.03773188 J** | **0.019055102 J** | 0.0314 U | **2.9175033** | **0.08432535 J** | 0.0488 U |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | **0.000741665 J** | **0.000364885 J** | 0.00073 U | **0.02411535** | **0.001375035 J** | 0.001315 U |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | **0.01525687 J** | **0.007412783 J** | 0.0146 U | **0.400449** | **0.02419984 J** | 0.0263 U |
| Total PCB Congener (U = 1/2) | | | | | **39.9715 J** | **30.4658 J** | **37.088 J** | **23639.377 J** | **52.13 J** | **37.108 J** |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | **13.944 J** | **11.7878 J** | **10.453 J** | **23636.724 J** | **17.713 J** | **2.52 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | **0.01888204 J** | **0.009548501 J** | 0.0314 U | **2.9173613** | **0.04218338 J** | 0.0488 U |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | **3.22E-05 J** | **4.19E-05 J** | 0.0314 U | **2.9172193** | **4.14E-05 J** | 0.0488 U |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | **0.000371638 J** | **0.00018349 J** | 0.00073 U | **0.02410825** | **0.000688553 J** | 0.001315 U |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | **1.61E-06 J** | **2.095E-06 J** | 0.00073 U | **0.02410115** | **2.07E-06 J** | 0.001315 U |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA09-SC36-2013 | JW-EA09-SC36-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 | JW-EA09-SC38-2013 |
| Sample ID | | | | | JW-EA09-SC36-B-130426 | JW-EA09-SC36-C-130426 | JW-EA09-SC138-C-130426 | JW-EA09-SC38-A-130426 | JW-EA09-SC38-B-130426 | JW-EA09-SC38-C-130426 |
| Sample Date | | | | | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 | 4/26/2013 |
| Depth | | | | | 2 - 4 ft | 4 - 6 ft | 4 - 6 ft | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft |
| Sample Type | | | | | N | N | FD | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302770.78155 | 1302770.78155 | 1302764.45674 | 1302764.45674 | 1302764.45674 | 1302764.45674 |
| Y | | | | | 372460.088498 | 372460.088498 | 372227.923047 | 372227.923047 | 372227.923047 | 372227.923047 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | **0.01000223 J** | **0.00480461 J** | 0.0146 U | **0.2698999** | **0.01349972 J** | 0.0263 U |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | **9.66E-06 J** | **1.257E-05 J** | 0.0146 U | **0.2656399** | **1.242E-05 J** | 0.0263 U |
| **Radionuclides (pci/g)** | | | | | | | | | | |
| Cesium 137 | | | | | -- | -- | -- | -- | -- | -- |
| Lead 210 | | | | | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **8.06236752E-06 J** | **4.330705E-06 J** | **0.000110458574639 J** | **0.000524733770833 J** | **0.000167980447712 J** | **0.000106856401905 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **1.58475427E-07 J** | **8.29284091E-08 J** | **8.09519390048E-05 J** | **0.0001477971076389 J** | **0.0001155362271242 J** | **7.40030609524E-05 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **4.27239103E-06 J** | **2.181056818E-06 J** | **7.5775341894E-05 J** | **0.0001656838125 J** | **0.000111078911765 J** | **7.1630361905E-05 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **4.03462393E-06 J** | **2.170113864E-06 J** | **5.5299672552E-05 J** | **0.000514737416667 J** | **8.4107936275E-05 J** | **5.3498296191E-05 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **7.9409722E-08 J** | **4.17022727E-08 J** | **4.05463547352E-05 J** | **0.0001378101215278 J** | **5.78793995098E-05 J** | **3.70716257143E-05 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | **2.13722756E-06 J** | **1.091956818E-06 J** | **3.8327478331E-05 J** | **0.000155401486111 J** | **5.624949183E-05 J** | **3.6262133333E-05 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | **6.88034E-09 J** | **9.522727E-09 J** | **1.40770466E-07 J** | **0.0005047410625 J** | **2.35424837E-07 J** | **1.40190476E-07 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | **3.44017E-10 J** | **4.761364E-10 J** | **1.407704655E-07 J** | **0.0001278231354167 J** | **2.225718954E-07 J** | **1.401904762E-07 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | **2.0641E-09 J** | **2.856818E-09 J** | **8.79614767E-07 J** | **0.000145119159722 J** | **1.420071895E-06 J** | **8.93904762E-07 J** |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **0.03773188 J** | **0.019055102 J** | **0.68815692 J** | **7.5561663 J** | **0.51402017 J** | **0.56099611 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **0.000741665 J** | **0.000364885 J** | **0.50433058 J** | **2.12827835 J** | **0.353540855 J** | **0.38851607 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **0.01999479 J** | **0.00959665 J** | **0.47208038 J** | **2.3858469 J** | **0.33990147 J** | **0.3760594 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **0.01888204 J** | **0.009548501 J** | **0.34451696 J** | **7.4122188 J** | **0.257370285 J** | **0.280866055 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **0.000371638 J** | **0.00018349 J** | **0.25260379 J** | **1.98446575 J** | **0.1771109625 J** | **0.194626035 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | **0.01000223 J** | **0.00480461 J** | **0.23878019 J** | **2.2377814 J** | **0.172123445 J** | **0.1903762 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | **3.22E-05 J** | **4.19E-05 J** | **0.000877 J** | **7.2682713 J** | **0.0007204 J** | **0.000736 J** |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | **1.61E-06 J** | **2.095E-06 J** | **0.000877 J** | **1.84065315 J** | **0.00068107 J** | **0.000736 J** |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | **9.66E-06 J** | **1.257E-05 J** | **0.00548 J** | **2.0897159 J** | **0.00434542 J** | **0.004693 J** |

# Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA10-SC42-2013 | JW-EA10-SC42-2013 | JW-EA10-SC42-2013 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-EA10-SC42-A-130426 | JW-EA10-SC42-B-130426 | JW-EA10-SC42-C-130426 | JW-GC1-02-04-130919 | JW-GC1-06-08-130919 | JW-GC1-08-10-130919 | JW-GC1-10-12-130919 |
| Sample Date | | | | | 4/26/2013 | 4/26/2013 | 4/26/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 2 - 4 cm | 6 - 8 cm | 8 - 10 cm | 10 - 12 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302929.32957 | 1302929.32957 | 1302929.32957 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372558.002123 | 372558.002123 | 372558.002123 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | | |
| Total organic carbon | | | | | **1.72** | **0.834** | **0.905** | -- | -- | -- | -- |
| Moisture, percent | | | | | -- | -- | -- | **40.69** | **36.94** | **38.44** | **33.96** |
| Total Solids | | | | | **62.71** | **79.7** | **78.95** | -- | -- | -- | -- |
| **Grain Size (pct)** | | | | | | | | | | | |
| Gravel | | | | | **0.9** | **0.8** | **0.8** | -- | -- | -- | -- |
| Sand, very coarse | | | | | **0.9** | **0.9** | **1.4** | -- | -- | -- | -- |
| Sand, coarse | | | | | **2.1** | **7.5** | **11.2** | -- | -- | -- | -- |
| Sand, medium | | | | | **6.9** | **39.7** | **45.4** | -- | -- | -- | -- |
| Sand, fine | | | | | **7.8** | **30.7** | **25.5** | -- | -- | -- | -- |
| Sand, very fine | | | | | **12.1** | **12.6** | **7.9** | -- | -- | -- | -- |
| Silt, coarse | | | | | **17.3** | **2.9** | **4.6** | -- | -- | -- | -- |
| Silt, medium | | | | | **19.8** | **1.3** | **1.1** | -- | -- | -- | -- |
| Silt, fine | | | | | **12.5** | **1** | **0.6** | -- | -- | -- | -- |
| Silt, very fine | | | | | **6.9** | **0.7** | **0.4** | -- | -- | -- | -- |
| Clay, coarse | | | | | **3.8** | **0.5** | **0.3** | -- | -- | -- | -- |
| Clay, medium | | | | | **2.7** | **0.4** | **0.3** | -- | -- | -- | -- |
| Clay, fine | | | | | **6.3** | **0.8** | **0.6** | -- | -- | -- | -- |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | -- | -- | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | -- | -- | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA10-SC42-2013 | JW-EA10-SC42-2013 | JW-EA10-SC42-2013 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-EA10-SC42-A-130426 | JW-EA10-SC42-B-130426 | JW-EA10-SC42-C-130426 | JW-GC1-02-04-130919 | JW-GC1-06-08-130919 | JW-GC1-08-10-130919 | JW-GC1-10-12-130919 |
| Sample Date | | | | | 4/26/2013 | 4/26/2013 | 4/26/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 2 - 4 cm | 6 - 8 cm | 8 - 10 cm | 10 - 12 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302929.32957 | 1302929.32957 | 1302929.32957 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372558.002123 | 372558.002123 | 372558.002123 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | | | | | -- | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | -- | -- | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | -- | -- | -- | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | | |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(b,j,k)fluoranthenes | | | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA10-SC42-2013 | JW-EA10-SC42-2013 | JW-EA10-SC42-2013 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-EA10-SC42-A-130426 | JW-EA10-SC42-B-130426 | JW-EA10-SC42-C-130426 | JW-GC1-02-04-130919 | JW-GC1-06-08-130919 | JW-GC1-08-10-130919 | JW-GC1-10-12-130919 |
| Sample Date | | | | | 4/26/2013 | 4/26/2013 | 4/26/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 2 - 4 cm | 6 - 8 cm | 8 - 10 cm | 10 - 12 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302929.32957 | 1302929.32957 | 1302929.32957 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372558.002123 | 372558.002123 | 372558.002123 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Fluorene | | | 540 | 540 | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (mg/kg-OC)** | | | | | | | | | | | |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | **0.00080456046512 J** | **9.386106954E-05 J** | **4.858039116E-05 J** | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | **0.00038190930233 J** | **5.893217266E-05 J** | **4.03306674E-05 J** | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | **0.00041198488372 J** | **5.374639808E-05 J** | **3.593575912E-05 J** | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | **0.00080417267442 J** | **6.45460024E-05 J** | **2.431925635E-05 J** | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | **0.00038152151163 J** | **3.039390408E-05 J** | **2.019439448E-05 J** | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | **0.00041159709302 J** | **2.897182014E-05 J** | **1.815561436E-05 J** | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | **0.00080378488372 J** | **3.523093525E-05 J** | **5.812155E-08 J** | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | **0.00038113372093 J** | **1.85563549E-06 J** | **5.812155E-08 J** | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | **0.00041120930233 J** | **4.19724221E-06 J** | **3.7546961E-07 J** | -- | -- | -- | -- |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **0.87** | 0.1368 U | 0.1048 U | -- | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **1.71 J** | 0.1407 U | 0.1066 U | -- | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **2.02 J** | 0.1566 U | 0.1284 U | -- | -- | -- | -- |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **6.27** | 0.1573 U | 0.1293 U | -- | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **3.44** | 0.1508 U | 0.124 U | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **77.8** | **0.461 J** | **0.26 J** | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | **532** | **3.65 J** | **2.66 J** | -- | -- | -- | -- |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **84.4 J** | **1.18** | **0.306 J** | -- | -- | -- | -- |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | **68.1 J** | **0.622 J** | 0.1066 U | -- | -- | -- | -- |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **95.8** | **1.16 J** | 0.127 U | -- | -- | -- | -- |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | **164** | **1.2 J** | **0.754 J** | -- | -- | -- | -- |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | **6.48** | **0.293 J** | 0.08 U | -- | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **1.76 J** | 0.1431 U | 0.0776 U | -- | -- | -- | -- |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | **3.25** | 0.1254 U | 0.0828 U | -- | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **1.6 J** | 0.1021 U | 0.0837 U | -- | -- | -- | -- |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **1.52 J** | 0.0957 U | 0.0819 U | -- | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | 0.1334 U | 0.1226 U | 0.1021 U | -- | -- | -- | -- |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | **2.04 J** | 0.1203 U | 0.0841 U | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | **17.1** | 0.1337 U | 0.0923 U | -- | -- | -- | -- |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | **1.04 J** | 0.1838 U | 0.0936 U | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | **30** | 0.3732 U | 0.1454 U | -- | -- | -- | -- |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | **100** | **1.9** | 0.08 U | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA10-SC42-2013 | JW-EA10-SC42-2013 | JW-EA10-SC42-2013 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-EA10-SC42-A-130426 | JW-EA10-SC42-B-130426 | JW-EA10-SC42-C-130426 | JW-GC1-02-04-130919 | JW-GC1-06-08-130919 | JW-GC1-08-10-130919 | JW-GC1-10-12-130919 |
| Sample Date | | | | | 4/26/2013 | 4/26/2013 | 4/26/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 2 - 4 cm | 6 - 8 cm | 8 - 10 cm | 10 - 12 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302929.32957 | 1302929.32957 | 1302929.32957 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372558.002123 | 372558.002123 | 372558.002123 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | **41.9 J** | 0.1343 U | 0.0801 U | -- | -- | -- | -- |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | **31.4 J** | 0.1092 U | 0.0873 U | -- | -- | -- | -- |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | **45.7** | 0.1554 U | 0.093 U | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | **13.83844 J** | **0.78280132 J** | **0.43965254 J** | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | **6.56884 J** | **0.49149432 J** | **0.36499254 J** | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | **7.08614 J** | **0.44824496 J** | **0.32521862 J** | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | **13.83177 J** | **0.53831366 J** | **0.22008927 J** | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | **6.56217 J** | **0.25348516 J** | **0.18275927 J** | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | **7.07947 J** | **0.24162498 J** | **0.16430831 J** | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | **13.8251 J** | **0.293826 J** | **0.000526 J** | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | **6.5555 J** | **0.015476 J** | **0.000526 J** | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | **7.0728 J** | **0.035005 J** | **0.003398 J** | -- | -- | -- | -- |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | **4.00016936 J** | **0.032797122 J** | **0.006922431 J** | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | **0.00047035738372 J** | **2.121930815E-05 J** | 3.24861878E-06 U | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | **5.320209302E-06 J** | **3.83666667E-07 J** | 9.1712707E-08 U | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | **0.00010712156977 J** | **7.0791247E-06 J** | 1.83425414E-06 U | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | **3.999611715 J** | **0.029508633 J** | **0.004179171 J** | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | 12 | 65 | | | **3.99905407 J** | **0.026220144 J** | **0.001435912 J** | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | **0.00046711081395 J** | **1.062553537E-05 J** | 3.24861878E-06 U | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | **0.00046386424419 J** | **3.176259E-08 J** | 3.24861878E-06 U | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | **5.303084302E-06 J** | **1.93660672E-07 J** | 9.1712707E-08 U | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | **5.285959302E-06 J** | **3.654676E-09 J** | 9.1712707E-08 U | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | **5.875043605E-05 J** | **4.05828297E-06 J** | 1.83425414E-06 U | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | **5.814598837E-05 J** | **2.192806E-08 J** | 1.83425414E-06 U | -- | -- | -- | -- |
| **PCB Congeners (ng/kg)** | | | | | | | | | | | |
| PCB-001 | | | | | **35.6** | **1.28** | 0.23 U | -- | -- | -- | -- |
| PCB-002 | | | | | **41.9** | **4.18** | **0.756 J** | -- | -- | -- | -- |
| PCB-003 | | | | | **54.5** | **3.21** | **0.483 J** | -- | -- | -- | -- |
| PCB-004 | | | | | **29.4 J** | 0.436 UJ | 0.291 UJ | -- | -- | -- | -- |
| PCB-005 | | | | | **118** | 0.551 U | 0.215 U | -- | -- | -- | -- |
| PCB-006 | | | | | **22** | **0.834 J** | 0.218 U | -- | -- | -- | -- |
| PCB-007 | | | | | **4.79** | 0.521 U | 0.203 U | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA10-SC42-2013 | JW-EA10-SC42-2013 | JW-EA10-SC42-2013 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-EA10-SC42-A-130426 | JW-EA10-SC42-B-130426 | JW-EA10-SC42-C-130426 | JW-GC1-02-04-130919 | JW-GC1-06-08-130919 | JW-GC1-08-10-130919 | JW-GC1-10-12-130919 |
| Sample Date | | | | | 4/26/2013 | 4/26/2013 | 4/26/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 2 - 4 cm | 6 - 8 cm | 8 - 10 cm | 10 - 12 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302929.32957 | 1302929.32957 | 1302929.32957 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372558.002123 | 372558.002123 | 372558.002123 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-008 | | | | | 0.331 U | **2.63** | 0.211 U | -- | -- | -- | -- |
| PCB-009 | | | | | **6.09** | 0.592 U | 0.23 U | -- | -- | -- | -- |
| PCB-010 | | | | | 0.352 U | 0.302 U | 0.201 U | -- | -- | -- | -- |
| PCB-011 | | | | | **425** | 6.24 U | 3.34 U | -- | -- | -- | -- |
| PCB-012/013 | | | | | **31.5** | **3.8** | 0.204 U | -- | -- | -- | -- |
| PCB-014 | | | | | **2.99** | 0.461 U | 0.179 U | -- | -- | -- | -- |
| PCB-015 | | | | | **126** | **2.99** | 0.198 U | -- | -- | -- | -- |
| PCB-016 | | | | | **94.5** | **2.29 J** | 0.47 U | -- | -- | -- | -- |
| PCB-017 | | | | | **94.6** | **2.47** | 0.355 U | -- | -- | -- | -- |
| PCB-018/030 | | | | | **229** | **4.74** | 0.309 U | -- | -- | -- | -- |
| PCB-019 | | | | | **15.6** | 0.876 U | 0.402 U | -- | -- | -- | -- |
| PCB-020/028 | | | | | **615** | **9.44** | 0.576 U | -- | -- | -- | -- |
| PCB-021/033 | | | | | **229** | **6.01** | **0.335 J** | -- | -- | -- | -- |
| PCB-022 | | | | | **177** | **3.47** | 0.292 U | -- | -- | -- | -- |
| PCB-023 | | | | | 0.546 U | 0.808 U | 0.281 U | -- | -- | -- | -- |
| PCB-024 | | | | | **2.21** | 0.608 U | 0.279 U | -- | -- | -- | -- |
| PCB-025 | | | | | **34.2** | **0.969 J** | 0.275 U | -- | -- | -- | -- |
| PCB-026/029 | | | | | **72.2** | **2.36 J** | 0.276 U | -- | -- | -- | -- |
| PCB-027 | | | | | **17.3** | 0.58 U | 0.266 U | -- | -- | -- | -- |
| PCB-031 | | | | | **506** | **8.78** | 0.504 U | -- | -- | -- | -- |
| PCB-032 | | | | | **93.1** | **1.87** | 0.253 U | -- | -- | -- | -- |
| PCB-034 | | | | | **3** | 0.812 U | 0.282 U | -- | -- | -- | -- |
| PCB-035 | | | | | **25.4** | **1.52** | 0.285 U | -- | -- | -- | -- |
| PCB-036 | | | | | **5.92** | 0.747 U | 0.26 U | -- | -- | -- | -- |
| PCB-037 | | | | | **236** | **3.53** | 0.292 U | -- | -- | -- | -- |
| PCB-038 | | | | | **1.81** | 0.791 U | 0.275 U | -- | -- | -- | -- |
| PCB-039 | | | | | **4.09** | 0.718 U | 0.25 U | -- | -- | -- | -- |
| PCB-040/071 | | | | | **499** | **3.46** | 0.209 U | -- | -- | -- | -- |
| PCB-041 | | | | | **48.7** | **0.93 J** | 0.253 U | -- | -- | -- | -- |
| PCB-042 | | | | | **213** | **2.13** | 0.233 U | -- | -- | -- | -- |
| PCB-043 | | | | | **24.9** | 0.689 U | 0.248 U | -- | -- | -- | -- |
| PCB-044/047/065 | | | | | **1120** | **10.4** | 0.642 U | -- | -- | -- | -- |
| PCB-045 | | | | | **59.2** | **1.32** | 0.239 U | -- | -- | -- | -- |
| PCB-046 | | | | | **32.2** | 0.747 U | 0.269 U | -- | -- | -- | -- |
| PCB-048 | | | | | **126** | **1.86 J** | 0.213 U | -- | -- | -- | -- |
| PCB-049/069 | | | | | **649** | **4.84** | 0.282 U | -- | -- | -- | -- |
| PCB-050/053 | | | | | **89.3** | **1.03 J** | 0.218 U | -- | -- | -- | -- |
| PCB-051 | | | | | **34.2** | **1.1** | 0.225 U | -- | -- | -- | -- |
| PCB-052 | | | | | **2130** | **8.04 J** | 0.861 U | -- | -- | -- | -- |
| PCB-054 | | | | | **0.916 J** | 0.307 U | 0.137 U | -- | -- | -- | -- |
| PCB-055 | | | | | **14.6** | **3.9** | 0.291 U | -- | -- | -- | -- |
| PCB-056 | | | | | **504** | **1.74** | 0.297 U | -- | -- | -- | -- |
| PCB-057 | | | | | **2.33** | 0.778 U | 0.288 U | -- | -- | -- | -- |
| PCB-058 | | | | | **8** | 0.761 U | 0.281 U | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA10-SC42-2013 | JW-EA10-SC42-2013 | JW-EA10-SC42-2013 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-EA10-SC42-A-130426 | JW-EA10-SC42-B-130426 | JW-EA10-SC42-C-130426 | JW-GC1-02-04-130919 | JW-GC1-06-08-130919 | JW-GC1-08-10-130919 | JW-GC1-10-12-130919 |
| Sample Date | | | | | 4/26/2013 | 4/26/2013 | 4/26/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 2 - 4 cm | 6 - 8 cm | 8 - 10 cm | 10 - 12 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302929.32957 | 1302929.32957 | 1302929.32957 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372558.002123 | 372558.002123 | 372558.002123 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-059/062/075 | | | | | **55.4** | **0.679 J** | 0.157 U | -- | -- | -- | -- |
| PCB-060 | | | | | **261** | 0.777 U | 0.287 U | -- | -- | -- | -- |
| PCB-061/070/074/076 | | | | | **2760** | 0.754 U | 0.913 U | -- | -- | -- | -- |
| PCB-063 | | | | | **42.6** | 0.697 U | 0.258 U | -- | -- | -- | -- |
| PCB-064 | | | | | **421** | **2.31** | **0.239 J** | -- | -- | -- | -- |
| PCB-066 | | | | | **1260** | **9.1** | **0.427 J** | -- | -- | -- | -- |
| PCB-067 | | | | | **21.7** | 0.743 U | 0.275 U | -- | -- | -- | -- |
| PCB-068 | | | | | **9.4** | 0.7 U | 0.259 U | -- | -- | -- | -- |
| PCB-072 | | | | | **18.1** | 0.758 U | 0.28 U | -- | -- | -- | -- |
| PCB-073 | | | | | 0.336 U | 0.463 U | 0.167 U | -- | -- | -- | -- |
| PCB-077 | | | | | **138** | 0.874 U | 0.279 U | -- | -- | -- | -- |
| PCB-078 | | | | | 1.08 U | 0.779 U | 0.288 U | -- | -- | -- | -- |
| PCB-079 | | | | | **20.2** | 0.672 U | 0.248 U | -- | -- | -- | -- |
| PCB-080 | | | | | **13.8** | 0.662 U | 0.245 U | -- | -- | -- | -- |
| PCB-081 | | | | | 1.11 U | 0.794 U | 0.294 U | -- | -- | -- | -- |
| PCB-082 | | | | | **532** | 0.566 U | 0.233 U | -- | -- | -- | -- |
| PCB-083 | | | | | **178** | 0.576 U | 0.237 U | -- | -- | -- | -- |
| PCB-084 | | | | | **1100** | **1.16 J** | 0.242 U | -- | -- | -- | -- |
| PCB-085/116 | | | | | **748** | **0.834 J** | 0.182 U | -- | -- | -- | -- |
| PCB-086/087/097/108/119/125 | | | | | **3180** | **3.3 J** | 0.632 U | -- | -- | -- | -- |
| PCB-088 | | | | | 2.97 U | 0.549 U | 0.226 U | -- | -- | -- | -- |
| PCB-089 | | | | | **35.9** | 0.544 U | 0.224 U | -- | -- | -- | -- |
| PCB-090/101/113 | | | | | **4510** | **6.28** | 1.21 U | -- | -- | -- | -- |
| PCB-091 | | | | | **477** | 0.443 U | 0.183 U | -- | -- | -- | -- |
| PCB-092 | | | | | **815** | **1.05 J** | 0.206 U | -- | -- | -- | -- |
| PCB-093/100 | | | | | **258** | 0.495 U | 0.204 U | -- | -- | -- | -- |
| PCB-094 | | | | | **13.6** | 0.531 U | 0.219 U | -- | -- | -- | -- |
| PCB-095 | | | | | **2630** | **5.26** | 0.977 U | -- | -- | -- | -- |
| PCB-096 | | | | | **18.8** | 0.262 U | 0.1 U | -- | -- | -- | -- |
| PCB-098 | | | | | **114** | 0.576 U | 0.237 U | -- | -- | -- | -- |
| PCB-099 | | | | | **2210** | **2.13 J** | 0.38 U | -- | -- | -- | -- |
| PCB-102 | | | | | 2.26 U | 0.418 U | 0.172 U | -- | -- | -- | -- |
| PCB-103 | | | | | **19** | 0.464 U | 0.191 U | -- | -- | -- | -- |
| PCB-104 | | | | | 0.155 U | 0.219 U | 0.084 U | -- | -- | -- | -- |
| PCB-105 | | | | | **2050** | **1.49 J** | 0.344 U | -- | -- | -- | -- |
| PCB-106 | | | | | 1.92 U | 0.355 U | 0.146 U | -- | -- | -- | -- |
| PCB-107/124 | | | | | **182** | 0.359 U | 0.148 U | -- | -- | -- | -- |
| PCB-109 | | | | | **287** | 0.333 U | 0.137 U | -- | -- | -- | -- |
| PCB-110 | | | | | **4830 J** | **4.41** | 1.17 U | -- | -- | -- | -- |
| PCB-111 | | | | | 1.82 U | 0.337 U | 0.139 U | -- | -- | -- | -- |
| PCB-112 | | | | | 1.95 U | 0.362 U | 0.149 U | -- | -- | -- | -- |
| PCB-114 | | | | | **97.2** | 0.317 U | 0.142 U | -- | -- | -- | -- |
| PCB-115 | | | | | **388** | 0.384 U | 0.158 U | -- | -- | -- | -- |
| PCB-117 | | | | | **115** | 0.348 U | 0.143 U | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA10-SC42-2013 | JW-EA10-SC42-2013 | JW-EA10-SC42-2013 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-EA10-SC42-A-130426 | JW-EA10-SC42-B-130426 | JW-EA10-SC42-C-130426 | JW-GC1-02-04-130919 | JW-GC1-06-08-130919 | JW-GC1-08-10-130919 | JW-GC1-10-12-130919 |
| Sample Date | | | | | 4/26/2013 | 4/26/2013 | 4/26/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 2 - 4 cm | 6 - 8 cm | 8 - 10 cm | 10 - 12 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302929.32957 | 1302929.32957 | 1302929.32957 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372558.002123 | 372558.002123 | 372558.002123 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-118 | | | | | **4850 J** | **3.83** | 0.783 U | -- | -- | -- | -- |
| PCB-120 | | | | | **11.9** | 0.332 U | 0.137 U | -- | -- | -- | -- |
| PCB-121 | | | | | 1.9 U | 0.351 U | 0.145 U | -- | -- | -- | -- |
| PCB-122 | | | | | **49.1** | 0.368 U | 0.164 U | -- | -- | -- | -- |
| PCB-123 | | | | | **99.8** | 0.337 U | 0.139 U | -- | -- | -- | -- |
| PCB-126 | | | | | **7.48** | 0.531 U | 0.166 U | -- | -- | -- | -- |
| PCB-127 | | | | | **6.02** | 0.311 U | 0.128 U | -- | -- | -- | -- |
| PCB-128/166 | | | | | **890** | **0.735 J** | **0.276 J** | -- | -- | -- | -- |
| PCB-129/138/163 | | | | | **5250** | **7.78** | 2.36 U | -- | -- | -- | -- |
| PCB-130 | | | | | **336** | 0.363 U | 0.191 U | -- | -- | -- | -- |
| PCB-131 | | | | | **67.9** | 0.36 U | 0.189 U | -- | -- | -- | -- |
| PCB-132 | | | | | **1540** | **2.17** | **0.623 J** | -- | -- | -- | -- |
| PCB-133 | | | | | **56.4** | 0.334 U | 0.175 U | -- | -- | -- | -- |
| PCB-134 | | | | | **263** | 0.385 U | 0.202 U | -- | -- | -- | -- |
| PCB-135/151 | | | | | **1050** | **3.64 J** | **0.845 J** | -- | -- | -- | -- |
| PCB-136 | | | | | **455** | **1.39** | **0.435 J** | -- | -- | -- | -- |
| PCB-137 | | | | | **261** | 0.278 U | 0.146 U | -- | -- | -- | -- |
| PCB-139/140 | | | | | **90.4** | 0.309 U | 0.163 U | -- | -- | -- | -- |
| PCB-141 | | | | | **694** | **1.8** | **0.715 J** | -- | -- | -- | -- |
| PCB-142 | | | | | **0.94 J** | 0.366 U | 0.193 U | -- | -- | -- | -- |
| PCB-143 | | | | | 0.265 U | 0.341 U | 0.179 U | -- | -- | -- | -- |
| PCB-144 | | | | | **166** | **0.555 J** | 0.169 U | -- | -- | -- | -- |
| PCB-145 | | | | | **1.92** | 0.216 U | 0.12 U | -- | -- | -- | -- |
| PCB-146 | | | | | **559** | **1.04** | 0.158 U | -- | -- | -- | -- |
| PCB-147/149 | | | | | **2880** | **7.5** | 1.91 U | -- | -- | -- | -- |
| PCB-148 | | | | | **3.07** | 0.323 U | 0.17 U | -- | -- | -- | -- |
| PCB-150 | | | | | **3.77** | 0.206 U | 0.114 U | -- | -- | -- | -- |
| PCB-152 | | | | | **3.45** | 0.209 U | 0.116 U | -- | -- | -- | -- |
| PCB-153/168 | | | | | **3260** | **8.8** | 2.33 U | -- | -- | -- | -- |
| PCB-154 | | | | | **32.7** | 0.29 U | 0.152 U | -- | -- | -- | -- |
| PCB-155 | | | | | **0.266 J** | 0.199 U | 0.111 U | -- | -- | -- | -- |
| PCB-156/157 | | | | | **642** | **0.776 J** | 0.222 U | -- | -- | -- | -- |
| PCB-158 | | | | | **544** | **0.646 J** | **0.237 J** | -- | -- | -- | -- |
| PCB-159 | | | | | **15.4** | 0.359 U | 0.145 U | -- | -- | -- | -- |
| PCB-160 | | | | | 0.187 U | 0.241 U | 0.127 U | -- | -- | -- | -- |
| PCB-161 | | | | | 0.187 U | 0.241 U | 0.126 U | -- | -- | -- | -- |
| PCB-162 | | | | | **16.8** | 0.357 U | 0.145 U | -- | -- | -- | -- |
| PCB-164 | | | | | **305** | **0.633 J** | **0.284 J** | -- | -- | -- | -- |
| PCB-165 | | | | | 0.21 U | 0.27 U | 0.142 U | -- | -- | -- | -- |
| PCB-167 | | | | | **181** | 0.33 U | 0.134 U | -- | -- | -- | -- |
| PCB-169 | | | | | 0.682 U | 0.462 U | 0.155 U | -- | -- | -- | -- |
| PCB-170 | | | | | **577** | **2.77** | **0.907 J** | -- | -- | -- | -- |
| PCB-171/173 | | | | | **194** | **0.761 J** | **0.315 J** | -- | -- | -- | -- |
| PCB-172 | | | | | **91.7** | 0.513 U | 0.233 U | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA10-SC42-2013 | JW-EA10-SC42-2013 | JW-EA10-SC42-2013 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-EA10-SC42-A-130426 | JW-EA10-SC42-B-130426 | JW-EA10-SC42-C-130426 | JW-GC1-02-04-130919 | JW-GC1-06-08-130919 | JW-GC1-08-10-130919 | JW-GC1-10-12-130919 |
| Sample Date | | | | | 4/26/2013 | 4/26/2013 | 4/26/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 2 - 4 cm | 6 - 8 cm | 8 - 10 cm | 10 - 12 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302929.32957 | 1302929.32957 | 1302929.32957 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372558.002123 | 372558.002123 | 372558.002123 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-174 | | | | | **532** | **3.85** | **1.52** | -- | -- | -- | -- |
| PCB-175 | | | | | **22.5** | 0.488 U | 0.222 U | -- | -- | -- | -- |
| PCB-176 | | | | | **59.2** | **0.455 J** | **0.147 J** | -- | -- | -- | -- |
| PCB-177 | | | | | **318** | **1.42 J** | **0.553 J** | -- | -- | -- | -- |
| PCB-178 | | | | | **93.5** | **0.613 J** | **0.335 J** | -- | -- | -- | -- |
| PCB-179 | | | | | **188** | **1.39** | **0.467 J** | -- | -- | -- | -- |
| PCB-180/193 | | | | | **1050** | **6.51** | 1.98 U | -- | -- | -- | -- |
| PCB-181 | | | | | **9.52** | 0.47 U | 0.214 U | -- | -- | -- | -- |
| PCB-182 | | | | | **3.12 J** | 0.448 U | 0.204 U | -- | -- | -- | -- |
| PCB-183 | | | | | **306** | **2.24** | **0.643 J** | -- | -- | -- | -- |
| PCB-184 | | | | | **0.591 J** | 0.258 U | 0.136 U | -- | -- | -- | -- |
| PCB-185 | | | | | **55.6** | 0.455 U | 0.207 U | -- | -- | -- | -- |
| PCB-186 | | | | | 0.221 U | 0.247 U | 0.13 U | -- | -- | -- | -- |
| PCB-187 | | | | | **580** | **3.52 J** | 1.29 U | -- | -- | -- | -- |
| PCB-188 | | | | | **0.987 J** | 0.234 U | 0.123 U | -- | -- | -- | -- |
| PCB-189 | | | | | **23.7** | 0.376 U | 0.134 U | -- | -- | -- | -- |
| PCB-190 | | | | | **93.2** | **0.568 J** | **0.195 J** | -- | -- | -- | -- |
| PCB-191 | | | | | **22.6** | 0.363 U | 0.165 U | -- | -- | -- | -- |
| PCB-192 | | | | | 0.483 U | 0.389 U | 0.177 U | -- | -- | -- | -- |
| PCB-194 | | | | | **225** | **1.62 J** | **0.695 J** | -- | -- | -- | -- |
| PCB-195 | | | | | **81.1** | 0.925 U | **0.282 J** | -- | -- | -- | -- |
| PCB-196 | | | | | **99.4** | **0.958** | **0.284 J** | -- | -- | -- | -- |
| PCB-197 | | | | | **7.75** | 0.443 U | 0.123 U | -- | -- | -- | -- |
| PCB-198/199 | | | | | **235** | **2.09** | **0.578 J** | -- | -- | -- | -- |
| PCB-200 | | | | | **25.8** | 0.502 U | 0.14 U | -- | -- | -- | -- |
| PCB-201 | | | | | **30.7** | 0.463 U | 0.129 U | -- | -- | -- | -- |
| PCB-202 | | | | | **59.8** | 0.512 U | 0.143 U | -- | -- | -- | -- |
| PCB-203 | | | | | **142** | **1.18** | **0.419 J** | -- | -- | -- | -- |
| PCB-204 | | | | | 0.218 U | 0.489 U | 0.136 U | -- | -- | -- | -- |
| PCB-205 | | | | | **8.4** | 0.606 U | 0.156 U | -- | -- | -- | -- |
| PCB-206 | | | | | **146** | 1.1 U | 0.643 U | -- | -- | -- | -- |
| PCB-207 | | | | | **18.6** | 0.729 U | 0.416 U | -- | -- | -- | -- |
| PCB-208 | | | | | **56.9** | 0.737 U | 0.42 U | -- | -- | -- | -- |
| PCB-209 | | | | | **114** | **2.31** | 0.273 U | -- | -- | -- | -- |
| Total PCB Congener (U = limit) | | | | | **68802.913 J** | **273.528 J** | **62.648 J** | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | **8.090147 J** | **0.17696903 J** | 0.0294 U | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | **0.0915076 J** | **0.00319978 J** | 0.00083 U | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | **1.842491 J** | **0.0590399 J** | 0.0166 U | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | **68793.321 J** | **246.102 J** | **37.821 J** | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | **68783.73 J** | **218.676 J** | **12.995 J** | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | **8.034306 J** | **0.08861697 J** | 0.0294 U | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | **7.978465 J** | **0.0002649 J** | 0.0294 U | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | **0.09121305 J** | **0.00161513 J** | 0.00083 U | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | **0.0909185 J** | **3.048E-05 J** | 0.00083 U | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-EA10-SC42-2013 | JW-EA10-SC42-2013 | JW-EA10-SC42-2013 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-EA10-SC42-A-130426 | JW-EA10-SC42-B-130426 | JW-EA10-SC42-C-130426 | JW-GC1-02-04-130919 | JW-GC1-06-08-130919 | JW-GC1-08-10-130919 | JW-GC1-10-12-130919 |
| Sample Date | | | | | 4/26/2013 | 4/26/2013 | 4/26/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 2 - 4 cm | 6 - 8 cm | 8 - 10 cm | 10 - 12 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302929.32957 | 1302929.32957 | 1302929.32957 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372558.002123 | 372558.002123 | 372558.002123 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | **1.0105075 J** | **0.03384608 J** | 0.0166 U | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | **1.000111 J** | **0.00018288 J** | 0.0166 U | -- | -- | -- | -- |
| **Radionuclides (pci/g)** | | | | | | | | | | | |
| Cesium 137 | | | | | -- | -- | -- | **0.14** | 0.03759 U | -- | 0.05775 U |
| Lead 210 | | | | | -- | -- | -- | **0.222** | -- | **0.36** | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **0.001274917848837 J** | **0.000115080377698 J** | **5.5230965746E-05 J** | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **0.0003872295116279 J** | **5.93158393285E-05 J** | **4.04436110497E-05 J** | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **0.000471339767442 J** | **6.1841035971E-05 J** | **3.8302945856E-05 J** | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **0.001271283488372 J** | **7.517153777E-05 J** | **2.7644543646E-05 J** | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **0.0003868245959302 J** | **3.05875647482E-05 J** | **2.02508662983E-05 J** | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | **0.00047034752907 J** | **3.3030103118E-05 J** | **1.9339207735E-05 J** | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | **0.001267649127907 J** | **3.5262697842E-05 J** | **5.8121547E-08 J** | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | **0.0003864196802326 J** | **1.8592901679E-06 J** | **5.8121547E-08 J** | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | **0.000469355290698 J** | **4.219170264E-06 J** | **3.75469613E-07 J** | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **21.928587 J** | **0.95977035 J** | **0.49984024 J** | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **6.6603476 J** | **0.4946941 J** | **0.36601468 J** | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **8.107044 J** | **0.51575424 J** | **0.34664166 J** | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **21.866076 J** | **0.626930625 J** | **0.25018312 J** | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **6.65338305 J** | **0.25510029 J** | **0.18327034 J** | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | **8.0899775 J** | **0.27547106 J** | **0.17501983 J** | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | **21.803565 J** | **0.2940909 J** | **0.000526 J** | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | **6.6464185 J** | **0.01550648 J** | **0.000526 J** | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | **8.072911 J** | **0.03518788 J** | **0.003398 J** | -- | -- | -- | -- |

# Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-14-16-130919 | JW-GC1-18-20-130919 | JW-GC1-20-22-130919 | JW-GC1-22-24-130919 | JW-GC1-26-28-130919 | JW-GC1-30-32-130919 | JW-GC1-32-34-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 14 - 16 cm | 18 - 20 cm | 20 - 22 cm | 22 - 24 cm | 26 - 28 cm | 30 - 32 cm | 32 - 34 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | | |
| Total organic carbon | | | | | -- | -- | -- | -- | -- | -- | -- |
| Moisture, percent | | | | | **27.73** | **27.62** | **21.1** | **19.78** | **19.09** | **19.9** | **20.75** |
| Total Solids | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Grain Size (pct)** | | | | | | | | | | | |
| Gravel | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, very coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, medium | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, very fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, medium | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, very fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Clay, coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Clay, medium | | | | | -- | -- | -- | -- | -- | -- | -- |
| Clay, fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | -- | -- | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | -- | -- | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-14-16-130919 | JW-GC1-18-20-130919 | JW-GC1-20-22-130919 | JW-GC1-22-24-130919 | JW-GC1-26-28-130919 | JW-GC1-30-32-130919 | JW-GC1-32-34-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 14 - 16 cm | 18 - 20 cm | 20 - 22 cm | 22 - 24 cm | 26 - 28 cm | 30 - 32 cm | 32 - 34 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | | | | | -- | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | -- | -- | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | -- | -- | -- | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | | |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(b,j,k)fluoranthenes | | | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-14-16-130919 | JW-GC1-18-20-130919 | JW-GC1-20-22-130919 | JW-GC1-22-24-130919 | JW-GC1-26-28-130919 | JW-GC1-30-32-130919 | JW-GC1-32-34-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 14 - 16 cm | 18 - 20 cm | 20 - 22 cm | 22 - 24 cm | 26 - 28 cm | 30 - 32 cm | 32 - 34 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Fluorene | | | 540 | 540 | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (mg/kg-OC)** | | | | | | | | | | | |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-14-16-130919 | JW-GC1-18-20-130919 | JW-GC1-20-22-130919 | JW-GC1-22-24-130919 | JW-GC1-26-28-130919 | JW-GC1-30-32-130919 | JW-GC1-32-34-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 14 - 16 cm | 18 - 20 cm | 20 - 22 cm | 22 - 24 cm | 26 - 28 cm | 30 - 32 cm | 32 - 34 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (ng/kg)** | | | | | | | | | | | |
| PCB-001 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-002 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-003 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-004 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-005 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-006 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-007 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-14-16-130919 | JW-GC1-18-20-130919 | JW-GC1-20-22-130919 | JW-GC1-22-24-130919 | JW-GC1-26-28-130919 | JW-GC1-30-32-130919 | JW-GC1-32-34-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 14 - 16 cm | 18 - 20 cm | 20 - 22 cm | 22 - 24 cm | 26 - 28 cm | 30 - 32 cm | 32 - 34 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-008 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-009 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-010 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-011 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-012/013 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-014 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-015 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-016 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-017 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-018/030 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-019 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-020/028 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-021/033 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-022 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-023 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-024 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-025 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-026/029 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-027 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-031 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-032 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-034 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-035 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-036 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-037 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-038 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-039 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-040/071 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-041 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-042 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-043 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-044/047/065 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-045 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-046 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-048 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-049/069 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-050/053 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-051 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-052 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-054 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-055 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-056 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-057 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-058 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-14-16-130919 | JW-GC1-18-20-130919 | JW-GC1-20-22-130919 | JW-GC1-22-24-130919 | JW-GC1-26-28-130919 | JW-GC1-30-32-130919 | JW-GC1-32-34-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 14 - 16 cm | 18 - 20 cm | 20 - 22 cm | 22 - 24 cm | 26 - 28 cm | 30 - 32 cm | 32 - 34 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-059/062/075 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-060 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-061/070/074/076 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-063 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-064 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-066 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-067 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-068 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-072 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-073 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-077 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-078 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-079 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-080 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-081 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-082 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-083 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-084 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-085/116 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-088 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-089 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-090/101/113 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-091 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-092 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-093/100 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-094 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-095 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-096 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-098 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-099 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-102 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-103 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-104 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-105 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-106 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-107/124 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-109 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-110 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-111 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-112 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-114 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-115 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-117 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-14-16-130919 | JW-GC1-18-20-130919 | JW-GC1-20-22-130919 | JW-GC1-22-24-130919 | JW-GC1-26-28-130919 | JW-GC1-30-32-130919 | JW-GC1-32-34-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 14 - 16 cm | 18 - 20 cm | 20 - 22 cm | 22 - 24 cm | 26 - 28 cm | 30 - 32 cm | 32 - 34 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-118 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-120 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-121 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-122 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-123 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-126 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-127 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-128/166 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-129/138/163 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-130 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-131 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-132 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-133 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-134 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-135/151 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-136 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-137 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-139/140 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-141 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-142 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-143 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-144 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-145 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-146 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-147/149 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-148 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-150 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-152 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-153/168 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-154 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-155 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-156/157 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-158 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-159 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-160 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-161 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-162 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-164 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-165 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-167 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-169 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-170 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-171/173 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-172 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-14-16-130919 | JW-GC1-18-20-130919 | JW-GC1-20-22-130919 | JW-GC1-22-24-130919 | JW-GC1-26-28-130919 | JW-GC1-30-32-130919 | JW-GC1-32-34-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 14 - 16 cm | 18 - 20 cm | 20 - 22 cm | 22 - 24 cm | 26 - 28 cm | 30 - 32 cm | 32 - 34 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-174 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-175 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-176 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-177 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-178 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-179 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-180/193 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-181 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-182 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-183 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-184 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-185 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-186 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-187 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-188 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-189 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-190 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-191 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-192 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-194 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-195 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-196 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-197 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-198/199 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-200 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-201 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-202 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-203 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-204 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-205 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-206 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-207 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-208 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-209 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-14-16-130919 | JW-GC1-18-20-130919 | JW-GC1-20-22-130919 | JW-GC1-22-24-130919 | JW-GC1-26-28-130919 | JW-GC1-30-32-130919 | JW-GC1-32-34-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 14 - 16 cm | 18 - 20 cm | 20 - 22 cm | 22 - 24 cm | 26 - 28 cm | 30 - 32 cm | 32 - 34 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Radionuclides (pci/g)** | | | | | | | | | | | |
| Cesium 137 | | | | | 0.04688 U | 0.04196 U | -- | 0.02341 U | 0.02463 U | 0.03747 U | -- |
| Lead 210 | | | | | **0.19** | -- | **0.108** | -- | **0.289** | -- | **0.27** |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-34-36-130919 | JW-GC1-38-40-130919 | JW-GC1-42-44-130919 | JW-GC1-44-46-130919 | JW-GC1-46-48-130919 | JW-GC1-50-52-130919 | JW-GC1-54-56-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 34 - 36 cm | 38 - 40 cm | 42 - 44 cm | 44 - 46 cm | 46 - 48 cm | 50 - 52 cm | 54 - 56 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | | |
| Total organic carbon | | | | | -- | -- | -- | -- | -- | -- | -- |
| Moisture, percent | | | | | **19.76** | **20.77** | **20.59** | **20.11** | **20.43** | **20.86** | **20.86** |
| Total Solids | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Grain Size (pct)** | | | | | | | | | | | |
| Gravel | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, very coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, medium | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, very fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, medium | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, very fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Clay, coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Clay, medium | | | | | -- | -- | -- | -- | -- | -- | -- |
| Clay, fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | -- | -- | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | -- | -- | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-34-36-130919 | JW-GC1-38-40-130919 | JW-GC1-42-44-130919 | JW-GC1-44-46-130919 | JW-GC1-46-48-130919 | JW-GC1-50-52-130919 | JW-GC1-54-56-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 34 - 36 cm | 38 - 40 cm | 42 - 44 cm | 44 - 46 cm | 46 - 48 cm | 50 - 52 cm | 54 - 56 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | | | | | -- | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | -- | -- | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | -- | -- | -- | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | | |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(b,j,k)fluoranthenes | | | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-34-36-130919 | JW-GC1-38-40-130919 | JW-GC1-42-44-130919 | JW-GC1-44-46-130919 | JW-GC1-46-48-130919 | JW-GC1-50-52-130919 | JW-GC1-54-56-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 34 - 36 cm | 38 - 40 cm | 42 - 44 cm | 44 - 46 cm | 46 - 48 cm | 50 - 52 cm | 54 - 56 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Fluorene | | | 540 | 540 | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (mg/kg-OC)** | | | | | | | | | | | |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-34-36-130919 | JW-GC1-38-40-130919 | JW-GC1-42-44-130919 | JW-GC1-44-46-130919 | JW-GC1-46-48-130919 | JW-GC1-50-52-130919 | JW-GC1-54-56-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 34 - 36 cm | 38 - 40 cm | 42 - 44 cm | 44 - 46 cm | 46 - 48 cm | 50 - 52 cm | 54 - 56 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (ng/kg)** | | | | | | | | | | | |
| PCB-001 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-002 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-003 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-004 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-005 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-006 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-007 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-34-36-130919 | JW-GC1-38-40-130919 | JW-GC1-42-44-130919 | JW-GC1-44-46-130919 | JW-GC1-46-48-130919 | JW-GC1-50-52-130919 | JW-GC1-54-56-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 34 - 36 cm | 38 - 40 cm | 42 - 44 cm | 44 - 46 cm | 46 - 48 cm | 50 - 52 cm | 54 - 56 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-008 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-009 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-010 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-011 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-012/013 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-014 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-015 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-016 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-017 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-018/030 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-019 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-020/028 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-021/033 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-022 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-023 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-024 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-025 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-026/029 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-027 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-031 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-032 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-034 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-035 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-036 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-037 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-038 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-039 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-040/071 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-041 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-042 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-043 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-044/047/065 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-045 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-046 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-048 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-049/069 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-050/053 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-051 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-052 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-054 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-055 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-056 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-057 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-058 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-34-36-130919 | JW-GC1-38-40-130919 | JW-GC1-42-44-130919 | JW-GC1-44-46-130919 | JW-GC1-46-48-130919 | JW-GC1-50-52-130919 | JW-GC1-54-56-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 34 - 36 cm | 38 - 40 cm | 42 - 44 cm | 44 - 46 cm | 46 - 48 cm | 50 - 52 cm | 54 - 56 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-059/062/075 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-060 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-061/070/074/076 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-063 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-064 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-066 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-067 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-068 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-072 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-073 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-077 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-078 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-079 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-080 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-081 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-082 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-083 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-084 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-085/116 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-088 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-089 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-090/101/113 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-091 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-092 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-093/100 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-094 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-095 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-096 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-098 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-099 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-102 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-103 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-104 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-105 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-106 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-107/124 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-109 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-110 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-111 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-112 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-114 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-115 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-117 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-34-36-130919 | JW-GC1-38-40-130919 | JW-GC1-42-44-130919 | JW-GC1-44-46-130919 | JW-GC1-46-48-130919 | JW-GC1-50-52-130919 | JW-GC1-54-56-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 34 - 36 cm | 38 - 40 cm | 42 - 44 cm | 44 - 46 cm | 46 - 48 cm | 50 - 52 cm | 54 - 56 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-118 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-120 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-121 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-122 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-123 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-126 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-127 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-128/166 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-129/138/163 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-130 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-131 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-132 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-133 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-134 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-135/151 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-136 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-137 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-139/140 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-141 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-142 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-143 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-144 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-145 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-146 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-147/149 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-148 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-150 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-152 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-153/168 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-154 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-155 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-156/157 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-158 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-159 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-160 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-161 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-162 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-164 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-165 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-167 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-169 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-170 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-171/173 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-172 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-34-36-130919 | JW-GC1-38-40-130919 | JW-GC1-42-44-130919 | JW-GC1-44-46-130919 | JW-GC1-46-48-130919 | JW-GC1-50-52-130919 | JW-GC1-54-56-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 34 - 36 cm | 38 - 40 cm | 42 - 44 cm | 44 - 46 cm | 46 - 48 cm | 50 - 52 cm | 54 - 56 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-174 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-175 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-176 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-177 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-178 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-179 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-180/193 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-181 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-182 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-183 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-184 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-185 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-186 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-187 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-188 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-189 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-190 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-191 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-192 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-194 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-195 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-196 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-197 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-198/199 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-200 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-201 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-202 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-203 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-204 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-205 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-206 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-207 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-208 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-209 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-34-36-130919 | JW-GC1-38-40-130919 | JW-GC1-42-44-130919 | JW-GC1-44-46-130919 | JW-GC1-46-48-130919 | JW-GC1-50-52-130919 | JW-GC1-54-56-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 34 - 36 cm | 38 - 40 cm | 42 - 44 cm | 44 - 46 cm | 46 - 48 cm | 50 - 52 cm | 54 - 56 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Radionuclides (pci/g)** | | | | | | | | | | | |
| Cesium 137 | | | | | 0.01868 U | 0.01838 U | 0.02907 U | -- | 0.02247 U | 0.07561 U | 0.05942 U |
| Lead 210 | | | | | -- | **0.33** | -- | **0.159** | -- | **0.199** | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-56-58-130919 | JW-GC1-58-60-130919 | JW-GC1-62-64-130919 | JW-GC1-68-70-130919 | JW-GC1-74-76-130919 | JW-GC1-80-82-130919 | JW-GC1-84-86-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 56 - 58 cm | 58 - 60 cm | 62 - 64 cm | 68 - 70 cm | 74 - 76 cm | 80 - 82 cm | 84 - 86 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | | |
| Total organic carbon | | | | | -- | -- | -- | -- | -- | -- | -- |
| Moisture, percent | | | | | **20.93** | **21.25** | **21.63** | **20.35** | **20.95** | **21.88** | **22** |
| Total Solids | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Grain Size (pct)** | | | | | | | | | | | |
| Gravel | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, very coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, medium | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, very fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, medium | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, very fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Clay, coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Clay, medium | | | | | -- | -- | -- | -- | -- | -- | -- |
| Clay, fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | -- | -- | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | -- | -- | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-56-58-130919 | JW-GC1-58-60-130919 | JW-GC1-62-64-130919 | JW-GC1-68-70-130919 | JW-GC1-74-76-130919 | JW-GC1-80-82-130919 | JW-GC1-84-86-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 56 - 58 cm | 58 - 60 cm | 62 - 64 cm | 68 - 70 cm | 74 - 76 cm | 80 - 82 cm | 84 - 86 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | | | | | -- | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | -- | -- | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | -- | -- | -- | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | | |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(b,j,k)fluoranthenes | | | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | JeldWenSed2013 JW-GC1 JW-GC1-56-58-130919 9/19/2013 56 - 58 cm N SE 1302749.66 372434.8399 | JeldWenSed2013 JW-GC1 JW-GC1-58-60-130919 9/19/2013 58 - 60 cm N SE 1302749.66 372434.8399 | JeldWenSed2013 JW-GC1 JW-GC1-62-64-130919 9/19/2013 62 - 64 cm N SE 1302749.66 372434.8399 | JeldWenSed2013 JW-GC1 JW-GC1-68-70-130919 9/19/2013 68 - 70 cm N SE 1302749.66 372434.8399 | JeldWenSed2013 JW-GC1 JW-GC1-74-76-130919 9/19/2013 74 - 76 cm N SE 1302749.66 372434.8399 | JeldWenSed2013 JW-GC1 JW-GC1-80-82-130919 9/19/2013 80 - 82 cm N SE 1302749.66 372434.8399 | JeldWenSed2013 JW-GC1 JW-GC1-84-86-130919 9/19/2013 84 - 86 cm N SE 1302749.66 372434.8399 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluorene | | | 540 | 540 | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (mg/kg-OC)** | | | | | | | | | | | |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-56-58-130919 | JW-GC1-58-60-130919 | JW-GC1-62-64-130919 | JW-GC1-68-70-130919 | JW-GC1-74-76-130919 | JW-GC1-80-82-130919 | JW-GC1-84-86-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 56 - 58 cm | 58 - 60 cm | 62 - 64 cm | 68 - 70 cm | 74 - 76 cm | 80 - 82 cm | 84 - 86 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (ng/kg)** | | | | | | | | | | | |
| PCB-001 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-002 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-003 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-004 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-005 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-006 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-007 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-56-58-130919 | JW-GC1-58-60-130919 | JW-GC1-62-64-130919 | JW-GC1-68-70-130919 | JW-GC1-74-76-130919 | JW-GC1-80-82-130919 | JW-GC1-84-86-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 56 - 58 cm | 58 - 60 cm | 62 - 64 cm | 68 - 70 cm | 74 - 76 cm | 80 - 82 cm | 84 - 86 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-008 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-009 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-010 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-011 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-012/013 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-014 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-015 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-016 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-017 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-018/030 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-019 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-020/028 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-021/033 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-022 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-023 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-024 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-025 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-026/029 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-027 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-031 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-032 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-034 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-035 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-036 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-037 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-038 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-039 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-040/071 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-041 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-042 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-043 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-044/047/065 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-045 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-046 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-048 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-049/069 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-050/053 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-051 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-052 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-054 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-055 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-056 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-057 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-058 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-56-58-130919 | JW-GC1-58-60-130919 | JW-GC1-62-64-130919 | JW-GC1-68-70-130919 | JW-GC1-74-76-130919 | JW-GC1-80-82-130919 | JW-GC1-84-86-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 56 - 58 cm | 58 - 60 cm | 62 - 64 cm | 68 - 70 cm | 74 - 76 cm | 80 - 82 cm | 84 - 86 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-059/062/075 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-060 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-061/070/074/076 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-063 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-064 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-066 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-067 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-068 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-072 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-073 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-077 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-078 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-079 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-080 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-081 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-082 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-083 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-084 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-085/116 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-088 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-089 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-090/101/113 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-091 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-092 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-093/100 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-094 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-095 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-096 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-098 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-099 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-102 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-103 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-104 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-105 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-106 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-107/124 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-109 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-110 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-111 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-112 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-114 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-115 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-117 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-56-58-130919 | JW-GC1-58-60-130919 | JW-GC1-62-64-130919 | JW-GC1-68-70-130919 | JW-GC1-74-76-130919 | JW-GC1-80-82-130919 | JW-GC1-84-86-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 56 - 58 cm | 58 - 60 cm | 62 - 64 cm | 68 - 70 cm | 74 - 76 cm | 80 - 82 cm | 84 - 86 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-118 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-120 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-121 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-122 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-123 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-126 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-127 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-128/166 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-129/138/163 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-130 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-131 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-132 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-133 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-134 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-135/151 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-136 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-137 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-139/140 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-141 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-142 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-143 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-144 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-145 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-146 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-147/149 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-148 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-150 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-152 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-153/168 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-154 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-155 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-156/157 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-158 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-159 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-160 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-161 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-162 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-164 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-165 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-167 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-169 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-170 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-171/173 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-172 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-56-58-130919 | JW-GC1-58-60-130919 | JW-GC1-62-64-130919 | JW-GC1-68-70-130919 | JW-GC1-74-76-130919 | JW-GC1-80-82-130919 | JW-GC1-84-86-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 56 - 58 cm | 58 - 60 cm | 62 - 64 cm | 68 - 70 cm | 74 - 76 cm | 80 - 82 cm | 84 - 86 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-174 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-175 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-176 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-177 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-178 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-179 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-180/193 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-181 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-182 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-183 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-184 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-185 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-186 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-187 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-188 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-189 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-190 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-191 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-192 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-194 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-195 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-196 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-197 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-198/199 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-200 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-201 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-202 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-203 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-204 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-205 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-206 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-207 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-208 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-209 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 | JW-GC1 |
| Sample ID | | | | | JW-GC1-56-58-130919 | JW-GC1-58-60-130919 | JW-GC1-62-64-130919 | JW-GC1-68-70-130919 | JW-GC1-74-76-130919 | JW-GC1-80-82-130919 | JW-GC1-84-86-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 56 - 58 cm | 58 - 60 cm | 62 - 64 cm | 68 - 70 cm | 74 - 76 cm | 80 - 82 cm | 84 - 86 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 | 1302749.66 |
| Y | | | | | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 | 372434.8399 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Radionuclides (pci/g)** | | | | | | | | | | | |
| Cesium 137 | | | | | -- | 0.02808 U | -- | -- | -- | -- | -- |
| Lead 210 | | | | | **0.205** | -- | **0.293** | **0.179** | **0.233** | **0.359** | **0.249** |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |

# Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-02-04-130919 | JW-GC2-06-08-130919 | JW-GC2-08-10-130919 | JW-GC2-10-12-130919 | JW-GC2-14-16-130919 | JW-GC2-18-20-130919 | JW-GC2-20-22-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 2 - 4 cm | 6 - 8 cm | 8 - 10 cm | 10 - 12 cm | 14 - 16 cm | 18 - 20 cm | 20 - 22 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | | |
| Total organic carbon | | | | | -- | -- | -- | -- | -- | -- | -- |
| Moisture, percent | | | | | **39.47** | **28.88** | **30.16** | **27.61** | **26.75** | **24.34** | **20.29** |
| Total Solids | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Grain Size (pct)** | | | | | | | | | | | |
| Gravel | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, very coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, medium | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, very fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, medium | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, very fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Clay, coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Clay, medium | | | | | -- | -- | -- | -- | -- | -- | -- |
| Clay, fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | -- | -- | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | -- | -- | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-02-04-130919 | JW-GC2-06-08-130919 | JW-GC2-08-10-130919 | JW-GC2-10-12-130919 | JW-GC2-14-16-130919 | JW-GC2-18-20-130919 | JW-GC2-20-22-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 2 - 4 cm | 6 - 8 cm | 8 - 10 cm | 10 - 12 cm | 14 - 16 cm | 18 - 20 cm | 20 - 22 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | | | | | -- | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | -- | -- | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | -- | -- | -- | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | | |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(b,j,k)fluoranthenes | | | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | JeldWenSed2013 JW-GC2 JW-GC2-02-04-130919 9/19/2013 2 - 4 cm N SE 1302604.72279 372117.764091 | JeldWenSed2013 JW-GC2 JW-GC2-06-08-130919 9/19/2013 6 - 8 cm N SE 1302604.72279 372117.764091 | JeldWenSed2013 JW-GC2 JW-GC2-08-10-130919 9/19/2013 8 - 10 cm N SE 1302604.72279 372117.764091 | JeldWenSed2013 JW-GC2 JW-GC2-10-12-130919 9/19/2013 10 - 12 cm N SE 1302604.72279 372117.764091 | JeldWenSed2013 JW-GC2 JW-GC2-14-16-130919 9/19/2013 14 - 16 cm N SE 1302604.72279 372117.764091 | JeldWenSed2013 JW-GC2 JW-GC2-18-20-130919 9/19/2013 18 - 20 cm N SE 1302604.72279 372117.764091 | JeldWenSed2013 JW-GC2 JW-GC2-20-22-130919 9/19/2013 20 - 22 cm N SE 1302604.72279 372117.764091 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluorene | | | 540 | 540 | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (mg/kg-OC)** | | | | | | | | | | | |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-02-04-130919 | JW-GC2-06-08-130919 | JW-GC2-08-10-130919 | JW-GC2-10-12-130919 | JW-GC2-14-16-130919 | JW-GC2-18-20-130919 | JW-GC2-20-22-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 2 - 4 cm | 6 - 8 cm | 8 - 10 cm | 10 - 12 cm | 14 - 16 cm | 18 - 20 cm | 20 - 22 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (ng/kg)** | | | | | | | | | | | |
| PCB-001 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-002 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-003 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-004 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-005 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-006 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-007 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-02-04-130919 | JW-GC2-06-08-130919 | JW-GC2-08-10-130919 | JW-GC2-10-12-130919 | JW-GC2-14-16-130919 | JW-GC2-18-20-130919 | JW-GC2-20-22-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 2 - 4 cm | 6 - 8 cm | 8 - 10 cm | 10 - 12 cm | 14 - 16 cm | 18 - 20 cm | 20 - 22 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-008 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-009 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-010 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-011 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-012/013 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-014 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-015 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-016 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-017 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-018/030 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-019 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-020/028 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-021/033 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-022 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-023 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-024 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-025 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-026/029 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-027 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-031 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-032 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-034 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-035 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-036 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-037 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-038 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-039 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-040/071 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-041 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-042 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-043 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-044/047/065 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-045 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-046 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-048 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-049/069 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-050/053 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-051 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-052 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-054 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-055 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-056 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-057 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-058 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-02-04-130919 | JW-GC2-06-08-130919 | JW-GC2-08-10-130919 | JW-GC2-10-12-130919 | JW-GC2-14-16-130919 | JW-GC2-18-20-130919 | JW-GC2-20-22-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 2 - 4 cm | 6 - 8 cm | 8 - 10 cm | 10 - 12 cm | 14 - 16 cm | 18 - 20 cm | 20 - 22 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | SMS_Marine_ | SMS_Marine_ | AET_Marine_ | AET_Marine_ | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SCO_SCUMII | CSL_SCUMII | SCO_SCUMII | CSL_SCUMII | | | | | | | |
| PCB-059/062/075 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-060 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-061/070/074/076 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-063 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-064 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-066 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-067 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-068 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-072 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-073 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-077 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-078 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-079 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-080 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-081 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-082 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-083 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-084 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-085/116 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-088 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-089 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-090/101/113 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-091 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-092 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-093/100 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-094 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-095 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-096 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-098 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-099 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-102 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-103 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-104 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-105 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-106 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-107/124 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-109 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-110 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-111 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-112 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-114 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-115 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-117 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-02-04-130919 | JW-GC2-06-08-130919 | JW-GC2-08-10-130919 | JW-GC2-10-12-130919 | JW-GC2-14-16-130919 | JW-GC2-18-20-130919 | JW-GC2-20-22-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 2 - 4 cm | 6 - 8 cm | 8 - 10 cm | 10 - 12 cm | 14 - 16 cm | 18 - 20 cm | 20 - 22 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-118 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-120 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-121 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-122 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-123 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-126 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-127 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-128/166 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-129/138/163 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-130 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-131 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-132 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-133 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-134 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-135/151 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-136 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-137 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-139/140 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-141 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-142 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-143 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-144 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-145 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-146 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-147/149 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-148 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-150 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-152 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-153/168 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-154 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-155 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-156/157 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-158 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-159 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-160 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-161 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-162 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-164 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-165 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-167 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-169 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-170 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-171/173 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-172 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-02-04-130919 | JW-GC2-06-08-130919 | JW-GC2-08-10-130919 | JW-GC2-10-12-130919 | JW-GC2-14-16-130919 | JW-GC2-18-20-130919 | JW-GC2-20-22-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 2 - 4 cm | 6 - 8 cm | 8 - 10 cm | 10 - 12 cm | 14 - 16 cm | 18 - 20 cm | 20 - 22 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-174 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-175 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-176 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-177 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-178 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-179 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-180/193 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-181 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-182 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-183 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-184 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-185 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-186 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-187 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-188 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-189 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-190 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-191 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-192 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-194 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-195 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-196 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-197 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-198/199 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-200 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-201 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-202 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-203 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-204 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-205 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-206 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-207 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-208 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-209 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-02-04-130919 | JW-GC2-06-08-130919 | JW-GC2-08-10-130919 | JW-GC2-10-12-130919 | JW-GC2-14-16-130919 | JW-GC2-18-20-130919 | JW-GC2-20-22-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 2 - 4 cm | 6 - 8 cm | 8 - 10 cm | 10 - 12 cm | 14 - 16 cm | 18 - 20 cm | 20 - 22 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Radionuclides (pci/g)** | | | | | | | | | | | |
| Cesium 137 | | | | | **0.0645** | **0.119** | -- | **0.258** | **0.203** | **0.132** | -- |
| Lead 210 | | | | | **0.381** | -- | **0.209** | -- | **0.326** | -- | **0.327** |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |

# Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-22-24-130919 | JW-GC2-26-28-130919 | JW-GC2-30-32-130919 | JW-GC2-32-34-130919 | JW-GC2-34-36-130919 | JW-GC2-38-40-130919 | JW-GC2-42-44-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 22 - 24 cm | 26 - 28 cm | 30 - 32 cm | 32 - 34 cm | 34 - 36 cm | 38 - 40 cm | 42 - 44 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | | |
| Total organic carbon | | | | | -- | -- | -- | -- | -- | -- | -- |
| Moisture, percent | | | | | **23.35** | **17.87** | **20** | **18.89** | **20.08** | **19.21** | **20.24** |
| Total Solids | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Grain Size (pct)** | | | | | | | | | | | |
| Gravel | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, very coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, medium | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, very fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, medium | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, very fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Clay, coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Clay, medium | | | | | -- | -- | -- | -- | -- | -- | -- |
| Clay, fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | -- | -- | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | -- | -- | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-22-24-130919 | JW-GC2-26-28-130919 | JW-GC2-30-32-130919 | JW-GC2-32-34-130919 | JW-GC2-34-36-130919 | JW-GC2-38-40-130919 | JW-GC2-42-44-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 22 - 24 cm | 26 - 28 cm | 30 - 32 cm | 32 - 34 cm | 34 - 36 cm | 38 - 40 cm | 42 - 44 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | | | | | -- | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | -- | -- | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | -- | -- | -- | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | | |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(b,j,k)fluoranthenes | | | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | -- | -- | -- | -- |

# Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-22-24-130919 | JW-GC2-26-28-130919 | JW-GC2-30-32-130919 | JW-GC2-32-34-130919 | JW-GC2-34-36-130919 | JW-GC2-38-40-130919 | JW-GC2-42-44-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 22 - 24 cm | 26 - 28 cm | 30 - 32 cm | 32 - 34 cm | 34 - 36 cm | 38 - 40 cm | 42 - 44 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Fluorene | | | 540 | 540 | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (mg/kg-OC)** | | | | | | | | | | | |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-22-24-130919 | JW-GC2-26-28-130919 | JW-GC2-30-32-130919 | JW-GC2-32-34-130919 | JW-GC2-34-36-130919 | JW-GC2-38-40-130919 | JW-GC2-42-44-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 22 - 24 cm | 26 - 28 cm | 30 - 32 cm | 32 - 34 cm | 34 - 36 cm | 38 - 40 cm | 42 - 44 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (ng/kg)** | | | | | | | | | | | |
| PCB-001 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-002 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-003 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-004 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-005 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-006 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-007 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-22-24-130919 | JW-GC2-26-28-130919 | JW-GC2-30-32-130919 | JW-GC2-32-34-130919 | JW-GC2-34-36-130919 | JW-GC2-38-40-130919 | JW-GC2-42-44-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 22 - 24 cm | 26 - 28 cm | 30 - 32 cm | 32 - 34 cm | 34 - 36 cm | 38 - 40 cm | 42 - 44 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-008 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-009 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-010 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-011 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-012/013 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-014 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-015 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-016 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-017 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-018/030 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-019 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-020/028 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-021/033 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-022 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-023 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-024 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-025 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-026/029 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-027 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-031 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-032 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-034 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-035 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-036 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-037 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-038 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-039 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-040/071 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-041 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-042 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-043 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-044/047/065 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-045 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-046 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-048 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-049/069 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-050/053 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-051 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-052 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-054 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-055 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-056 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-057 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-058 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-22-24-130919 | JW-GC2-26-28-130919 | JW-GC2-30-32-130919 | JW-GC2-32-34-130919 | JW-GC2-34-36-130919 | JW-GC2-38-40-130919 | JW-GC2-42-44-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 22 - 24 cm | 26 - 28 cm | 30 - 32 cm | 32 - 34 cm | 34 - 36 cm | 38 - 40 cm | 42 - 44 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-059/062/075 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-060 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-061/070/074/076 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-063 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-064 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-066 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-067 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-068 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-072 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-073 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-077 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-078 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-079 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-080 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-081 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-082 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-083 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-084 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-085/116 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-088 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-089 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-090/101/113 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-091 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-092 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-093/100 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-094 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-095 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-096 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-098 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-099 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-102 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-103 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-104 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-105 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-106 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-107/124 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-109 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-110 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-111 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-112 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-114 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-115 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-117 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-22-24-130919 | JW-GC2-26-28-130919 | JW-GC2-30-32-130919 | JW-GC2-32-34-130919 | JW-GC2-34-36-130919 | JW-GC2-38-40-130919 | JW-GC2-42-44-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 22 - 24 cm | 26 - 28 cm | 30 - 32 cm | 32 - 34 cm | 34 - 36 cm | 38 - 40 cm | 42 - 44 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-118 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-120 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-121 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-122 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-123 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-126 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-127 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-128/166 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-129/138/163 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-130 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-131 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-132 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-133 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-134 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-135/151 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-136 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-137 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-139/140 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-141 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-142 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-143 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-144 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-145 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-146 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-147/149 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-148 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-150 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-152 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-153/168 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-154 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-155 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-156/157 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-158 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-159 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-160 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-161 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-162 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-164 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-165 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-167 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-169 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-170 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-171/173 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-172 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-22-24-130919 | JW-GC2-26-28-130919 | JW-GC2-30-32-130919 | JW-GC2-32-34-130919 | JW-GC2-34-36-130919 | JW-GC2-38-40-130919 | JW-GC2-42-44-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 22 - 24 cm | 26 - 28 cm | 30 - 32 cm | 32 - 34 cm | 34 - 36 cm | 38 - 40 cm | 42 - 44 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-174 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-175 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-176 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-177 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-178 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-179 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-180/193 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-181 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-182 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-183 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-184 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-185 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-186 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-187 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-188 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-189 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-190 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-191 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-192 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-194 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-195 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-196 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-197 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-198/199 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-200 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-201 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-202 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-203 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-204 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-205 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-206 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-207 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-208 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-209 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |

# Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-22-24-130919 | JW-GC2-26-28-130919 | JW-GC2-30-32-130919 | JW-GC2-32-34-130919 | JW-GC2-34-36-130919 | JW-GC2-38-40-130919 | JW-GC2-42-44-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 22 - 24 cm | 26 - 28 cm | 30 - 32 cm | 32 - 34 cm | 34 - 36 cm | 38 - 40 cm | 42 - 44 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Radionuclides (pci/g)** | | | | | | | | | | | |
| Cesium 137 | | | | | 0.05764 U | 0.03528 U | 0.03953 U | -- | 0.06724 U | 0.03743 U | 0.03271 U |
| Lead 210 | | | | | -- | **0.162** | -- | **0.244** | -- | **0.232** | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |

# Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-44-46-130919 | JW-GC2-46-48-130919 | JW-GC2-50-52-130919 | JW-GC2-54-56-130919 | JW-GC2-56-58-130919 | JW-GC2-58-60-130919 | JW-GC2-62-64-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 44 - 46 cm | 46 - 48 cm | 50 - 52 cm | 54 - 56 cm | 56 - 58 cm | 58 - 60 cm | 62 - 64 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | | |
| Total organic carbon | | | | | -- | -- | -- | -- | -- | -- | -- |
| Moisture, percent | | | | | **21.02** | **21.17** | **21.18** | **19.6** | **21.81** | **22.41** | **22.74** |
| Total Solids | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Grain Size (pct)** | | | | | | | | | | | |
| Gravel | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, very coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, medium | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, very fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, medium | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, very fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Clay, coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Clay, medium | | | | | -- | -- | -- | -- | -- | -- | -- |
| Clay, fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | -- | -- | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | -- | -- | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-44-46-130919 | JW-GC2-46-48-130919 | JW-GC2-50-52-130919 | JW-GC2-54-56-130919 | JW-GC2-56-58-130919 | JW-GC2-58-60-130919 | JW-GC2-62-64-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 44 - 46 cm | 46 - 48 cm | 50 - 52 cm | 54 - 56 cm | 56 - 58 cm | 58 - 60 cm | 62 - 64 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | | | | | -- | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | -- | -- | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | -- | -- | -- | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | | |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(b,j,k)fluoranthenes | | | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | JeldWenSed2013 JW-GC2 JW-GC2-44-46-130919 9/19/2013 44 - 46 cm N SE 1302604.72279 372117.764091 | JeldWenSed2013 JW-GC2 JW-GC2-46-48-130919 9/19/2013 46 - 48 cm N SE 1302604.72279 372117.764091 | JeldWenSed2013 JW-GC2 JW-GC2-50-52-130919 9/19/2013 50 - 52 cm N SE 1302604.72279 372117.764091 | JeldWenSed2013 JW-GC2 JW-GC2-54-56-130919 9/19/2013 54 - 56 cm N SE 1302604.72279 372117.764091 | JeldWenSed2013 JW-GC2 JW-GC2-56-58-130919 9/19/2013 56 - 58 cm N SE 1302604.72279 372117.764091 | JeldWenSed2013 JW-GC2 JW-GC2-58-60-130919 9/19/2013 58 - 60 cm N SE 1302604.72279 372117.764091 | JeldWenSed2013 JW-GC2 JW-GC2-62-64-130919 9/19/2013 62 - 64 cm N SE 1302604.72279 372117.764091 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluorene | | | 540 | 540 | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (mg/kg-OC)** | | | | | | | | | | | |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-44-46-130919 | JW-GC2-46-48-130919 | JW-GC2-50-52-130919 | JW-GC2-54-56-130919 | JW-GC2-56-58-130919 | JW-GC2-58-60-130919 | JW-GC2-62-64-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 44 - 46 cm | 46 - 48 cm | 50 - 52 cm | 54 - 56 cm | 56 - 58 cm | 58 - 60 cm | 62 - 64 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (ng/kg)** | | | | | | | | | | | |
| PCB-001 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-002 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-003 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-004 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-005 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-006 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-007 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-44-46-130919 | JW-GC2-46-48-130919 | JW-GC2-50-52-130919 | JW-GC2-54-56-130919 | JW-GC2-56-58-130919 | JW-GC2-58-60-130919 | JW-GC2-62-64-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 44 - 46 cm | 46 - 48 cm | 50 - 52 cm | 54 - 56 cm | 56 - 58 cm | 58 - 60 cm | 62 - 64 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-008 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-009 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-010 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-011 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-012/013 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-014 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-015 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-016 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-017 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-018/030 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-019 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-020/028 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-021/033 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-022 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-023 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-024 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-025 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-026/029 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-027 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-031 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-032 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-034 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-035 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-036 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-037 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-038 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-039 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-040/071 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-041 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-042 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-043 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-044/047/065 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-045 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-046 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-048 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-049/069 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-050/053 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-051 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-052 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-054 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-055 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-056 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-057 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-058 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-44-46-130919 | JW-GC2-46-48-130919 | JW-GC2-50-52-130919 | JW-GC2-54-56-130919 | JW-GC2-56-58-130919 | JW-GC2-58-60-130919 | JW-GC2-62-64-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 44 - 46 cm | 46 - 48 cm | 50 - 52 cm | 54 - 56 cm | 56 - 58 cm | 58 - 60 cm | 62 - 64 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-059/062/075 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-060 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-061/070/074/076 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-063 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-064 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-066 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-067 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-068 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-072 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-073 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-077 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-078 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-079 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-080 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-081 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-082 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-083 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-084 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-085/116 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-088 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-089 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-090/101/113 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-091 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-092 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-093/100 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-094 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-095 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-096 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-098 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-099 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-102 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-103 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-104 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-105 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-106 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-107/124 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-109 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-110 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-111 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-112 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-114 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-115 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-117 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-44-46-130919 | JW-GC2-46-48-130919 | JW-GC2-50-52-130919 | JW-GC2-54-56-130919 | JW-GC2-56-58-130919 | JW-GC2-58-60-130919 | JW-GC2-62-64-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 44 - 46 cm | 46 - 48 cm | 50 - 52 cm | 54 - 56 cm | 56 - 58 cm | 58 - 60 cm | 62 - 64 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-118 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-120 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-121 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-122 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-123 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-126 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-127 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-128/166 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-129/138/163 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-130 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-131 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-132 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-133 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-134 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-135/151 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-136 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-137 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-139/140 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-141 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-142 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-143 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-144 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-145 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-146 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-147/149 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-148 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-150 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-152 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-153/168 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-154 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-155 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-156/157 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-158 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-159 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-160 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-161 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-162 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-164 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-165 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-167 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-169 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-170 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-171/173 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-172 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-44-46-130919 | JW-GC2-46-48-130919 | JW-GC2-50-52-130919 | JW-GC2-54-56-130919 | JW-GC2-56-58-130919 | JW-GC2-58-60-130919 | JW-GC2-62-64-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 44 - 46 cm | 46 - 48 cm | 50 - 52 cm | 54 - 56 cm | 56 - 58 cm | 58 - 60 cm | 62 - 64 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-174 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-175 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-176 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-177 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-178 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-179 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-180/193 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-181 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-182 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-183 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-184 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-185 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-186 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-187 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-188 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-189 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-190 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-191 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-192 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-194 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-195 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-196 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-197 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-198/199 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-200 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-201 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-202 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-203 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-204 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-205 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-206 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-207 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-208 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-209 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 | JW-GC2 |
| Sample ID | | | | | JW-GC2-44-46-130919 | JW-GC2-46-48-130919 | JW-GC2-50-52-130919 | JW-GC2-54-56-130919 | JW-GC2-56-58-130919 | JW-GC2-58-60-130919 | JW-GC2-62-64-130919 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/19/2013 |
| Depth | | | | | 44 - 46 cm | 46 - 48 cm | 50 - 52 cm | 54 - 56 cm | 56 - 58 cm | 58 - 60 cm | 62 - 64 cm |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302604.72279 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 | 372117.764091 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Radionuclides (pci/g)** | | | | | | | | | | | |
| Cesium 137 | | | | | -- | 0.0326 U | 0.04697 U | 0.02915 U | -- | 0.05359 U | -- |
| Lead 210 | | | | | **0.254** | -- | **0.273** | -- | **0.148** | -- | **0.243** |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |

# Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-SC401-130928 | JW-SC401-130928 | JW-SC401-130928 | JW-SC402-130928 |
| Sample ID | | | | | JW-GC2-68-70-130919 | JW-GC2-74-76-130919 | JW-GC2-80-82-130919 | JW-SC401-A-130928 | JW-SC401-B-130928 | JW-SC401-C-130928 | JW-SC402-A-130928 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/28/2013 | 9/28/2013 | 9/28/2013 | 9/28/2013 |
| Depth | | | | | 68 - 70 cm | 74 - 76 cm | 80 - 82 cm | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302218.979 | 1302218.979 | 1302218.979 | 1302871.603 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 373425.021 | 373425.021 | 373425.021 | 374375.3905 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | | | | | |
| **Conventional Parameters (pct)** | | | | | | | | | | | |
| Total organic carbon | | | | | -- | -- | -- | 2.16 | 1.76 | 0.949 | 2.15 |
| Moisture, percent | | | | | 22.87 | 21.36 | 23.51 | -- | -- | -- | -- |
| Total Solids | | | | | -- | -- | -- | 78.84 | 81.53 | 79.6 | 60.67 |
| **Grain Size (pct)** | | | | | | | | | | | |
| Gravel | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, very coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, medium | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Sand, very fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, medium | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Silt, very fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| Clay, coarse | | | | | -- | -- | -- | -- | -- | -- | -- |
| Clay, medium | | | | | -- | -- | -- | -- | -- | -- | -- |
| Clay, fine | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- | -- | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- | -- | -- | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- | -- | -- | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- | -- | -- | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-SC401-130928 | JW-SC401-130928 | JW-SC401-130928 | JW-SC402-130928 |
| Sample ID | | | | | JW-GC2-68-70-130919 | JW-GC2-74-76-130919 | JW-GC2-80-82-130919 | JW-SC401-A-130928 | JW-SC401-B-130928 | JW-SC401-C-130928 | JW-SC402-A-130928 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/28/2013 | 9/28/2013 | 9/28/2013 | 9/28/2013 |
| Depth | | | | | 68 - 70 cm | 74 - 76 cm | 80 - 82 cm | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302218.979 | 1302218.979 | 1302218.979 | 1302871.603 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 373425.021 | 373425.021 | 373425.021 | 374375.3905 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | | | | | -- | -- | -- | -- | -- | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- | -- | -- | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- | -- | -- | -- | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- | -- | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | | |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- | -- | -- | -- | -- |
| Benzo(b,j,k)fluoranthenes | | | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- | -- | -- | -- | -- |

# Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-SC401-130928 | JW-SC401-130928 | JW-SC401-130928 | JW-SC402-130928 |
| Sample ID | | | | | JW-GC2-68-70-130919 | JW-GC2-74-76-130919 | JW-GC2-80-82-130919 | JW-SC401-A-130928 | JW-SC401-B-130928 | JW-SC401-C-130928 | JW-SC402-A-130928 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/28/2013 | 9/28/2013 | 9/28/2013 | 9/28/2013 |
| Depth | | | | | 68 - 70 cm | 74 - 76 cm | 80 - 82 cm | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302218.979 | 1302218.979 | 1302218.979 | 1302871.603 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 373425.021 | 373425.021 | 373425.021 | 374375.3905 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Fluorene | | | 540 | 540 | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- | -- | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- | -- | -- | -- | -- |
| **Dioxin Furans (mg/kg-OC)** | | | | | | | | | | | |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | **0.0001518200463 J** | **0.00010993206818 J** | **6.997883246E-05 J** | **0.0002332665116 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | **8.988023148E-05 J** | **4.996729545E-05 J** | **3.772224658E-05 J** | **0.0001393781395 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | **0.00010942773148 J** | **4.637211364E-05 J** | **3.593502213E-05 J** | **0.0001833037209 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | **0.00015155430556 J** | **0.00010963648864 J** | **5.666222972E-05 J** | **0.0002330688372 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | **8.961449074E-05 J** | **4.967171591E-05 J** | **2.265590727E-05 J** | **0.0001391804651 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | **0.00010916199074 J** | **4.607554545E-05 J** | **2.133974499E-05 J** | **0.0001831060465 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | **0.00015128856481 J** | **0.00010934090909 J** | **4.334562698E-05 J** | **0.0002328711628 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | **8.934875E-05 J** | **4.937613636E-05 J** | **7.58956797E-06 J** | **0.0001389827907 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | **0.00010889625 J** | **4.577897727E-05 J** | **6.74446786E-06 J** | **0.0001829083721 J** |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | -- | **0.215 J** | **0.116 J** | 0.1012 U | **0.257 J** |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | -- | **0.5 J** | **0.22 J** | 0.0947 U | **0.709 J** |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | **0.946 J** | **0.304 J** | 0.1022 U | **1.38 J** |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | **3.51** | **0.467 J** | 0.1062 U | **5.18** |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | **1.57 J** | **0.402 J** | 0.142 U | **2.68** |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | -- | **39.9** | **4.54** | 0.859 U | **85.3** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | -- | -- | -- | **233** | **12.9** | 9.19 U | **602** |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | -- | -- | -- | **18.2 J** | **17.1** | **2.27 J** | **18.1 J** |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | -- | -- | -- | **16 J** | **12.8 J** | **0.931** | **17.6** |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | -- | -- | -- | **43.6** | **20 J** | **1.64** | **54.6** |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | -- | -- | -- | **88.1** | **7.79** | 2.14 U | **199** |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | -- | **1.36** | **0.928** | **0.297 J** | **1.98** |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | **0.286 J** | **0.318 J** | **0.0635 J** | **0.438 J** |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | **0.632 J** | **0.517 J** | **0.108 J** | **0.991 J** |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | **0.413 J** | **0.127 J** | 0.0785 U | **0.975 J** |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | **0.419 J** | **0.127 J** | 0.0747 U | **0.775 J** |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | 0.1148 U | 0.0703 U | 0.0943 U | 0.085 U |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | **0.685 J** | **0.203 J** | 0.0797 U | **1.25 J** |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | **7.32** | 0.239 U | 0.0938 U | **17.7** |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | **0.381 J** | 0.0967 U | 0.1025 U | **1.02 J** |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | -- | -- | -- | **9.23** | 0.174 U | 0.1612 U | **44.3** |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | -- | -- | -- | **14 J** | **15.9 J** | **2.41 J** | **18.5 J** |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-SC401-130928 | JW-SC401-130928 | JW-SC401-130928 | JW-SC402-130928 |
| Sample ID | | | | | JW-GC2-68-70-130919 | JW-GC2-74-76-130919 | JW-GC2-80-82-130919 | JW-SC401-A-130928 | JW-SC401-B-130928 | JW-SC401-C-130928 | JW-SC402-A-130928 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/28/2013 | 9/28/2013 | 9/28/2013 | 9/28/2013 |
| Depth | | | | | 68 - 70 cm | 74 - 76 cm | 80 - 82 cm | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302218.979 | 1302218.979 | 1302218.979 | 1302871.603 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 373425.021 | 373425.021 | 373425.021 | 374375.3905 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | -- | -- | -- | **7.71 J** | **5.18 J** | **0.545 J** | **11.9 J** |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | -- | -- | -- | **12.6 J** | **1.78 J** | 0.0859 U | **26.9 J** |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | -- | -- | -- | **19.3** | 0.35 U | 0.0979 U | **58.3** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | **3.279313 J** | **1.9348044 J** | **0.66409912 J** | **5.01523 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | **1.941413 J** | **0.8794244 J** | **0.35798412 J** | **2.99663 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | -- | -- | -- | **2.363639 J** | **0.8161492 J** | **0.34102336 J** | **3.94103 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | **3.273573 J** | **1.9296022 J** | **0.53772456 J** | **5.01098 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | **1.935673 J** | **0.8742222 J** | **0.21500456 J** | **2.99238 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | **2.357899 J** | **0.8109296 J** | **0.20251418 J** | **3.93678 J** |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | **3.267833 J** | **1.9244 J** | **0.41135 J** | **5.00673 J** |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | **1.929933 J** | **0.86902 J** | **0.072025 J** | **2.98813 J** |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | **2.352159 J** | **0.80571 J** | **0.064005 J** | **3.93253 J** |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (mg/kg-OC)** | | | | | | | | | | | |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | 12 | 65 | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **PCB Congeners (ng/kg)** | | | | | | | | | | | |
| PCB-001 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-002 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-003 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-004 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-005 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-006 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-007 | | | | | -- | -- | -- | -- | -- | -- | -- |

# Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-SC401-130928 | JW-SC401-130928 | JW-SC401-130928 | JW-SC402-130928 |
| Sample ID | | | | | JW-GC2-68-70-130919 | JW-GC2-74-76-130919 | JW-GC2-80-82-130919 | JW-SC401-A-130928 | JW-SC401-B-130928 | JW-SC401-C-130928 | JW-SC402-A-130928 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/28/2013 | 9/28/2013 | 9/28/2013 | 9/28/2013 |
| Depth | | | | | 68 - 70 cm | 74 - 76 cm | 80 - 82 cm | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302218.979 | 1302218.979 | 1302218.979 | 1302871.603 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 373425.021 | 373425.021 | 373425.021 | 374375.3905 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-008 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-009 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-010 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-011 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-012/013 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-014 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-015 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-016 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-017 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-018/030 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-019 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-020/028 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-021/033 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-022 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-023 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-024 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-025 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-026/029 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-027 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-031 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-032 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-034 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-035 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-036 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-037 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-038 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-039 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-040/071 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-041 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-042 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-043 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-044/047/065 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-045 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-046 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-048 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-049/069 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-050/053 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-051 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-052 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-054 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-055 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-056 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-057 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-058 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-SC401-130928 | JW-SC401-130928 | JW-SC401-130928 | JW-SC402-130928 |
| Sample ID | | | | | JW-GC2-68-70-130919 | JW-GC2-74-76-130919 | JW-GC2-80-82-130919 | JW-SC401-A-130928 | JW-SC401-B-130928 | JW-SC401-C-130928 | JW-SC402-A-130928 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/28/2013 | 9/28/2013 | 9/28/2013 | 9/28/2013 |
| Depth | | | | | 68 - 70 cm | 74 - 76 cm | 80 - 82 cm | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302218.979 | 1302218.979 | 1302218.979 | 1302871.603 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 373425.021 | 373425.021 | 373425.021 | 374375.3905 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-059/062/075 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-060 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-061/070/074/076 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-063 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-064 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-066 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-067 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-068 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-072 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-073 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-077 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-078 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-079 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-080 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-081 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-082 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-083 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-084 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-085/116 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-088 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-089 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-090/101/113 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-091 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-092 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-093/100 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-094 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-095 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-096 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-098 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-099 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-102 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-103 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-104 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-105 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-106 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-107/124 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-109 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-110 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-111 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-112 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-114 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-115 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-117 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-SC401-130928 | JW-SC401-130928 | JW-SC401-130928 | JW-SC402-130928 |
| Sample ID | | | | | JW-GC2-68-70-130919 | JW-GC2-74-76-130919 | JW-GC2-80-82-130919 | JW-SC401-A-130928 | JW-SC401-B-130928 | JW-SC401-C-130928 | JW-SC402-A-130928 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/28/2013 | 9/28/2013 | 9/28/2013 | 9/28/2013 |
| Depth | | | | | 68 - 70 cm | 74 - 76 cm | 80 - 82 cm | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302218.979 | 1302218.979 | 1302218.979 | 1302871.603 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 373425.021 | 373425.021 | 373425.021 | 374375.3905 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-118 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-120 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-121 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-122 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-123 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-126 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-127 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-128/166 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-129/138/163 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-130 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-131 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-132 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-133 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-134 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-135/151 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-136 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-137 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-139/140 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-141 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-142 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-143 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-144 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-145 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-146 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-147/149 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-148 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-150 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-152 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-153/168 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-154 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-155 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-156/157 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-158 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-159 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-160 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-161 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-162 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-164 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-165 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-167 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-169 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-170 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-171/173 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-172 | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-SC401-130928 | JW-SC401-130928 | JW-SC401-130928 | JW-SC402-130928 |
| Sample ID | | | | | JW-GC2-68-70-130919 | JW-GC2-74-76-130919 | JW-GC2-80-82-130919 | JW-SC401-A-130928 | JW-SC401-B-130928 | JW-SC401-C-130928 | JW-SC402-A-130928 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/28/2013 | 9/28/2013 | 9/28/2013 | 9/28/2013 |
| Depth | | | | | 68 - 70 cm | 74 - 76 cm | 80 - 82 cm | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302218.979 | 1302218.979 | 1302218.979 | 1302871.603 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 373425.021 | 373425.021 | 373425.021 | 374375.3905 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| PCB-174 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-175 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-176 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-177 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-178 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-179 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-180/193 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-181 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-182 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-183 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-184 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-185 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-186 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-187 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-188 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-189 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-190 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-191 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-192 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-194 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-195 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-196 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-197 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-198/199 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-200 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-201 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-202 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-203 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-204 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-205 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-206 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-207 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-208 | | | | | -- | -- | -- | -- | -- | -- | -- |
| PCB-209 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-GC2 | JW-GC2 | JW-GC2 | JW-SC401-130928 | JW-SC401-130928 | JW-SC401-130928 | JW-SC402-130928 |
| Sample ID | | | | | JW-GC2-68-70-130919 | JW-GC2-74-76-130919 | JW-GC2-80-82-130919 | JW-SC401-A-130928 | JW-SC401-B-130928 | JW-SC401-C-130928 | JW-SC402-A-130928 |
| Sample Date | | | | | 9/19/2013 | 9/19/2013 | 9/19/2013 | 9/28/2013 | 9/28/2013 | 9/28/2013 | 9/28/2013 |
| Depth | | | | | 68 - 70 cm | 74 - 76 cm | 80 - 82 cm | 0 - 2 ft | 2 - 4 ft | 4 - 6 ft | 0 - 2 ft |
| Sample Type | | | | | N | N | N | N | N | N | N |
| Matrix | | | | | SE | SE | SE | SE | SE | SE | SE |
| X | | | | | 1302604.72279 | 1302604.72279 | 1302604.72279 | 1302218.979 | 1302218.979 | 1302218.979 | 1302871.603 |
| Y | | | | | 372117.764091 | 372117.764091 | 372117.764091 | 373425.021 | 373425.021 | 373425.021 | 374375.3905 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | | | | | |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- | -- | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- | -- | -- | -- | -- |
| **Radionuclides (pci/g)** | | | | | | | | | | | |
| Cesium 137 | | | | | -- | -- | -- | -- | -- | -- | -- |
| Lead 210 | | | | | 0.176 | 0.294 | 0.187 | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | -- | -- | -- | 0.0001518200463 J | 0.00010993206818 J | 6.997883246E-05 J | 0.0002332665116 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | -- | -- | -- | 8.988023148E-05 J | 4.996729545E-05 J | 3.772224658E-05 J | 0.0001393781395 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | -- | -- | -- | 0.00010942773148 J | 4.637211364E-05 J | 3.593502213E-05 J | 0.0001833037209 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | -- | -- | -- | 0.00015155430556 J | 0.00010963648864 J | 5.666222972E-05 J | 0.0002330688372 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | -- | -- | -- | 8.961449074E-05 J | 4.967171591E-05 J | 2.265590727E-05 J | 0.0001391804651 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | -- | -- | -- | 0.00010916199074 J | 4.607554545E-05 J | 2.133974499E-05 J | 0.0001831060465 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | -- | -- | -- | 0.00015128856481 J | 0.00010934090909 J | 4.334562698E-05 J | 0.0002328711628 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | -- | -- | -- | 8.934875E-05 J | 4.937613636E-05 J | 7.58956797E-06 J | 0.0001389827907 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | -- | -- | -- | 0.00010889625 J | 4.577897727E-05 J | 6.74446786E-06 J | 0.0001829083721 J |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | -- | -- | -- | 3.279313 J | 1.9348044 J | 0.66409912 J | 5.01523 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | -- | -- | -- | 1.941413 J | 0.8794244 J | 0.35798412 J | 2.99663 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | -- | -- | -- | 2.363639 J | 0.8161492 J | 0.34102336 J | 3.94103 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | -- | -- | -- | 3.273573 J | 1.9296022 J | 0.53772456 J | 5.01098 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | -- | -- | -- | 1.935673 J | 0.8742222 J | 0.21500456 J | 2.99238 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | -- | -- | -- | 2.357899 J | 0.8109296 J | 0.20251418 J | 3.93678 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | -- | -- | -- | 3.267833 J | 1.9244 J | 0.41135 J | 5.00673 J |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | -- | -- | -- | 1.929933 J | 0.86902 J | 0.072025 J | 2.98813 J |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | -- | -- | -- | 2.352159 J | 0.80571 J | 0.064005 J | 3.93253 J |

# Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-SC402-130928 | JW-SC402-130928 | JW-SC402-130928 |
| Sample ID | | | | | JW-SC402-B-130928 | JW-SC402-C-130928 | JW-SC402-D-130928 |
| Sample Date | | | | | 9/28/2013 | 9/28/2013 | 9/28/2013 |
| Depth | | | | | 2 - 4 ft | 4 - 6 ft | 6 - 8 ft |
| Sample Type | | | | | N | N | N |
| Matrix | | | | | SE | SE | SE |
| X | | | | | 1302871.603 | 1302871.603 | 1302871.603 |
| Y | | | | | 374375.3905 | 374375.3905 | 374375.3905 |
| Analyte | SMS_Marine_ SCO_SCUMII | SMS_Marine_ CSL_SCUMII | AET_Marine_ SCO_SCUMII | AET_Marine_ CSL_SCUMII | | | |
| **Conventional Parameters (pct)** | | | | | | | |
| Total organic carbon | | | | | **0.368** | **0.358** | **0.305** |
| Moisture, percent | | | | | -- | -- | -- |
| Total Solids | | | | | **79.6** | **86.63** | **87.1** |
| **Grain Size (pct)** | | | | | | | |
| Gravel | | | | | -- | -- | -- |
| Sand, very coarse | | | | | -- | -- | -- |
| Sand, coarse | | | | | -- | -- | -- |
| Sand, medium | | | | | -- | -- | -- |
| Sand, fine | | | | | -- | -- | -- |
| Sand, very fine | | | | | -- | -- | -- |
| Silt, coarse | | | | | -- | -- | -- |
| Silt, medium | | | | | -- | -- | -- |
| Silt, fine | | | | | -- | -- | -- |
| Silt, very fine | | | | | -- | -- | -- |
| Clay, coarse | | | | | -- | -- | -- |
| Clay, medium | | | | | -- | -- | -- |
| Clay, fine | | | | | -- | -- | -- |
| **Semivolatile Organics (mg/kg-OC)** | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.81 | 1.8 | | | -- | -- | -- |
| 1,2-Dichlorobenzene | 2.3 | 2.3 | | | -- | -- | -- |
| 1,4-Dichlorobenzene | 3.1 | 9 | | | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | 47 | 78 | | | -- | -- | -- |
| Butylbenzyl phthalate | 4.9 | 64 | | | -- | -- | -- |
| Diethyl phthalate | 61 | 110 | | | -- | -- | -- |
| Dimethyl phthalate | 53 | 53 | | | -- | -- | -- |
| Di-n-butyl phthalate | 220 | 1700 | | | -- | -- | -- |
| Di-n-octyl phthalate | 58 | 4500 | | | -- | -- | -- |
| Hexachlorobenzene | 0.38 | 2.3 | | | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | 3.9 | 6.2 | | | -- | -- | -- |
| n-Nitrosodiphenylamine | 11 | 11 | | | -- | -- | -- |
| **Semivolatile Organics (µg/kg)** | | | | | | | |
| 1,2,4-Trichlorobenzene | | | 31 | 51 | -- | -- | -- |
| 1,2-Dichlorobenzene | | | 35 | 50 | -- | -- | -- |
| 1,4-Dichlorobenzene | | | 110 | 110 | -- | -- | -- |
| 2,4-Dimethylphenol | 29 | 29 | 29 | 29 | -- | -- | -- |
| 2-Methylphenol (o-Cresol) | 63 | 63 | 63 | 63 | -- | -- | -- |
| 4-Methylphenol (p-Cresol) | 670 | 670 | 670 | 670 | -- | -- | -- |
| Benzoic acid | 650 | 650 | 650 | 650 | -- | -- | -- |
| Benzyl alcohol | 57 | 73 | 57 | 73 | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate | | | 1300 | 1900 | -- | -- | -- |
| Butylbenzyl phthalate | | | 63 | 900 | -- | -- | -- |
| Diethyl phthalate | | | 200 | 1200 | -- | -- | -- |
| Dimethyl phthalate | | | 71 | 160 | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-SC402-130928 | JW-SC402-130928 | JW-SC402-130928 |
| Sample ID | | | | | JW-SC402-B-130928 | JW-SC402-C-130928 | JW-SC402-D-130928 |
| Sample Date | | | | | 9/28/2013 | 9/28/2013 | 9/28/2013 |
| Depth | | | | | 2 - 4 ft | 4 - 6 ft | 6 - 8 ft |
| Sample Type | | | | | N | N | N |
| Matrix | | | | | SE | SE | SE |
| X | | | | | 1302871.603 | 1302871.603 | 1302871.603 |
| Y | | | | | 374375.3905 | 374375.3905 | 374375.3905 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | |
| Di-n-butyl phthalate | | | 1400 | 1400 | -- | -- | -- |
| Di-n-octyl phthalate | | | 6200 | 6200 | -- | -- | -- |
| Hexachlorobenzene | | | 22 | 70 | -- | -- | -- |
| Hexachlorobutadiene (Hexachloro-1,3-butadiene) | | | 11 | 120 | -- | -- | -- |
| Hexachloroethane | | | | | -- | -- | -- |
| n-Nitrosodiphenylamine | | | 28 | 40 | -- | -- | -- |
| Pentachlorophenol | 360 | 690 | 360 | 690 | -- | -- | -- |
| Phenol | 420 | 1200 | 420 | 1200 | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-OC)** | | | | | | | |
| 2-Methylnaphthalene | 38 | 64 | | | -- | -- | -- |
| Acenaphthene | 16 | 57 | | | -- | -- | -- |
| Acenaphthylene | 66 | 66 | | | -- | -- | -- |
| Anthracene | 220 | 1200 | | | -- | -- | -- |
| Benzo(a)anthracene | 110 | 270 | | | -- | -- | -- |
| Benzo(a)pyrene | 99 | 210 | | | -- | -- | -- |
| Benzo(g,h,i)perylene | 31 | 78 | | | -- | -- | -- |
| Chrysene | 110 | 460 | | | -- | -- | -- |
| Dibenzo(a,h)anthracene | 12 | 33 | | | -- | -- | -- |
| Dibenzofuran | 15 | 58 | | | -- | -- | -- |
| Fluoranthene | 160 | 1200 | | | -- | -- | -- |
| Fluorene | 23 | 79 | | | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | 34 | 88 | | | -- | -- | -- |
| Naphthalene | 99 | 170 | | | -- | -- | -- |
| Phenanthrene | 100 | 480 | | | -- | -- | -- |
| Pyrene | 1000 | 1400 | | | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | 230 | 450 | | | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | 960 | 5300 | | | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | 370 | 780 | | | -- | -- | -- |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | |
| 2-Methylnaphthalene | | | 670 | 670 | -- | -- | -- |
| Acenaphthene | | | 500 | 500 | -- | -- | -- |
| Acenaphthylene | | | 1300 | 1300 | -- | -- | -- |
| Anthracene | | | 960 | 960 | -- | -- | -- |
| Benzo(a)anthracene | | | 1300 | 1600 | -- | -- | -- |
| Benzo(a)pyrene | | | 1600 | 1600 | -- | -- | -- |
| Benzo(b,j,k)fluoranthenes | | | | | -- | -- | -- |
| Benzo(g,h,i)perylene | | | 670 | 720 | -- | -- | -- |
| Chrysene | | | 1400 | 2800 | -- | -- | -- |
| Dibenzo(a,h)anthracene | | | 230 | 230 | -- | -- | -- |
| Dibenzofuran | | | 540 | 540 | -- | -- | -- |
| Fluoranthene | | | 1700 | 2500 | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-SC402-130928 | JW-SC402-130928 | JW-SC402-130928 |
| Sample ID | | | | | JW-SC402-B-130928 | JW-SC402-C-130928 | JW-SC402-D-130928 |
| Sample Date | | | | | 9/28/2013 | 9/28/2013 | 9/28/2013 |
| Depth | | | | | 2 - 4 ft | 4 - 6 ft | 6 - 8 ft |
| Sample Type | | | | | N | N | N |
| Matrix | | | | | SE | SE | SE |
| X | | | | | 1302871.603 | 1302871.603 | 1302871.603 |
| Y | | | | | 374375.3905 | 374375.3905 | 374375.3905 |
| **Analyte** | **SMS_Marine_SCO_SCUMII** | **SMS_Marine_CSL_SCUMII** | **AET_Marine_SCO_SCUMII** | **AET_Marine_CSL_SCUMII** | | | |
| Fluorene | | | 540 | 540 | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | | | 600 | 690 | -- | -- | -- |
| Naphthalene | | | 2100 | 2100 | -- | -- | -- |
| Phenanthrene | | | 1500 | 1500 | -- | -- | -- |
| Pyrene | | | 2600 | 3300 | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | | | | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | | | | -- | -- | -- |
| Total Benzofluoranthenes (b,j,k) (U = 0) | | | 3200 | 3600 | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | | | | -- | -- | -- |
| Total HPAH (SMS) (U = 0) | | | 12000 | 17000 | -- | -- | -- |
| Total LPAH (SMS) (U = 0) | | | 5200 | 5200 | -- | -- | -- |
| **Dioxin Furans (mg/kg-OC)** | | | | | | | |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | **0.00015194429348 J** | **0.00014106703911 J** | 4.140983607E-05 U |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | **0.0001102173913 J** | **0.00010920614525 J** | 4.140983607E-05 U |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | **0.00010578804348 J** | **0.00010312290503 J** | 4.140983607E-05 U |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | **0.00010118002717 J** | **8.774664804E-05 J** | 4.140983607E-05 U |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | **5.734103261E-05 J** | **5.62924581E-05 J** | 4.140983607E-05 U |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | **5.668070652E-05 J** | **5.411145251E-05 J** | 4.140983607E-05 U |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | **5.041576087E-05 J** | **3.442625698E-05 J** | 4.140983607E-05 U |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | **4.46467391E-06 J** | **3.37877095E-06 J** | 4.140983607E-05 U |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | **7.57336957E-06 J** | **5.1E-06 J** | 4.140983607E-05 U |
| **Dioxin Furans (ng/kg)** | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | 0.1056 U | 0.1058 U | 0.1216 U |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | 0.1347 U | 0.1346 U | 0.1263 U |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | 0.1477 U | 0.1201 U | 0.1346 U |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | 0.1487 U | 0.1243 U | 0.1357 U |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | 0.1565 U | 0.1183 U | 0.1293 U |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | 2.04 U | 1.61 U | 0.1936 U |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | | | | **12.7** | 11.5 U | 1.64 U |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | | | | **0.542 J** | **0.421** | **0.313** |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | | | | 0.1347 U | 0.1346 U | 0.1263 U |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | | | | **0.573 J** | **0.64 J** | 0.183 U |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | | | | 4.29 U | 3.57 U | 0.351 U |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | | | | **0.178 J** | **0.117 J** | 0.0798 U |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | 0.0687 U | 0.0852 U | 0.0774 U |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | | | | 0.0668 U | 0.0841 U | 0.0749 U |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | 0.0742 U | 0.0587 U | 0.0937 U |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | 0.0731 U | 0.0599 U | 0.0907 U |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | | | | 0.0901 U | 0.0741 U | 0.1063 U |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | | | | | 0.0787 U | 0.0653 U | 0.0888 U |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | | | | | **0.626 J** | **0.609 J** | 0.1255 U |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | | | | | 0.136 U | 0.1116 U | 0.1302 U |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | | | | | 1.23 U | **1.56 J** | 0.1735 U |
| Total Tetrachlorodibenzofuran (TCDF) | | | | | **0.559 J** | **0.763 J** | 0.0798 U |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-SC402-130928 | JW-SC402-130928 | JW-SC402-130928 |
| Sample ID | | | | | JW-SC402-B-130928 | JW-SC402-C-130928 | JW-SC402-D-130928 |
| Sample Date | | | | | 9/28/2013 | 9/28/2013 | 9/28/2013 |
| Depth | | | | | 2 - 4 ft | 4 - 6 ft | 6 - 8 ft |
| Sample Type | | | | | N | N | N |
| Matrix | | | | | SE | SE | SE |
| X | | | | | 1302871.603 | 1302871.603 | 1302871.603 |
| Y | | | | | 374375.3905 | 374375.3905 | 374375.3905 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | |
| Total Pentachlorodibenzofuran (PeCDF) | | | | | **0.302** | **0.619 J** | 0.0762 U |
| Total Hexachlorodibenzofuran (HxCDF) | | | | | **0.492 J** | **0.659 J** | 0.0944 U |
| Total Heptachlorodibenzofuran (HpCDF) | | | | | 1.67 U | 1.6 U | 0.1278 U |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = limit) | | | | | **0.559155 J** | **0.50502 J** | 0.1263 U |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = limit) | | | | | **0.4056 J** | **0.390958 J** | 0.1263 U |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | | | | | **0.3893 J** | **0.36918 J** | 0.1263 U |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 1/2) | | | | | **0.3723425 J** | **0.314133 J** | 0.1263 U |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 1/2) | | | | | **0.211015 J** | **0.201527 J** | 0.1263 U |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | | | | | **0.208585 J** | **0.193719 J** | 0.1263 U |
| Total Dioxin/Furan TEQ 1998 (Avian) (U = 0) | | | | | **0.18553 J** | **0.123246 J** | 0.1263 U |
| Total Dioxin/Furan TEQ 1998 (Fish) (U = 0) | | | | | **0.01643 J** | **0.012096 J** | 0.1263 U |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | | | | | **0.02787 J** | **0.018258 J** | 0.1263 U |
| **PCB Aroclors (mg/kg-OC)** | | | | | | | |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | 12 | 65 | | | -- | -- | -- |
| **PCB Aroclors (µg/kg)** | | | | | | | |
| Aroclor 1016 | | | | | -- | -- | -- |
| Aroclor 1221 | | | | | -- | -- | -- |
| Aroclor 1232 | | | | | -- | -- | -- |
| Aroclor 1242 | | | | | -- | -- | -- |
| Aroclor 1248 | | | | | -- | -- | -- |
| Aroclor 1254 | | | | | -- | -- | -- |
| Aroclor 1260 | | | | | -- | -- | -- |
| Total PCB Aroclors (SMS Marine 2013) (U = 0) | | | 130 | 1000 | -- | -- | -- |
| **PCB Congeners (mg/kg-OC)** | | | | | | | |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- |
| Total PCB Congener (U = 0) | 12 | 65 | | | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- |
| **PCB Congeners (ng/kg)** | | | | | | | |
| PCB-001 | | | | | -- | -- | -- |
| PCB-002 | | | | | -- | -- | -- |
| PCB-003 | | | | | -- | -- | -- |
| PCB-004 | | | | | -- | -- | -- |
| PCB-005 | | | | | -- | -- | -- |
| PCB-006 | | | | | -- | -- | -- |
| PCB-007 | | | | | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-SC402-130928 | JW-SC402-130928 | JW-SC402-130928 |
| Sample ID | | | | | JW-SC402-B-130928 | JW-SC402-C-130928 | JW-SC402-D-130928 |
| Sample Date | | | | | 9/28/2013 | 9/28/2013 | 9/28/2013 |
| Depth | | | | | 2 - 4 ft | 4 - 6 ft | 6 - 8 ft |
| Sample Type | | | | | N | N | N |
| Matrix | | | | | SE | SE | SE |
| X | | | | | 1302871.603 | 1302871.603 | 1302871.603 |
| Y | | | | | 374375.3905 | 374375.3905 | 374375.3905 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | |
| PCB-008 | | | | | -- | -- | -- |
| PCB-009 | | | | | -- | -- | -- |
| PCB-010 | | | | | -- | -- | -- |
| PCB-011 | | | | | -- | -- | -- |
| PCB-012/013 | | | | | -- | -- | -- |
| PCB-014 | | | | | -- | -- | -- |
| PCB-015 | | | | | -- | -- | -- |
| PCB-016 | | | | | -- | -- | -- |
| PCB-017 | | | | | -- | -- | -- |
| PCB-018/030 | | | | | -- | -- | -- |
| PCB-019 | | | | | -- | -- | -- |
| PCB-020/028 | | | | | -- | -- | -- |
| PCB-021/033 | | | | | -- | -- | -- |
| PCB-022 | | | | | -- | -- | -- |
| PCB-023 | | | | | -- | -- | -- |
| PCB-024 | | | | | -- | -- | -- |
| PCB-025 | | | | | -- | -- | -- |
| PCB-026/029 | | | | | -- | -- | -- |
| PCB-027 | | | | | -- | -- | -- |
| PCB-031 | | | | | -- | -- | -- |
| PCB-032 | | | | | -- | -- | -- |
| PCB-034 | | | | | -- | -- | -- |
| PCB-035 | | | | | -- | -- | -- |
| PCB-036 | | | | | -- | -- | -- |
| PCB-037 | | | | | -- | -- | -- |
| PCB-038 | | | | | -- | -- | -- |
| PCB-039 | | | | | -- | -- | -- |
| PCB-040/071 | | | | | -- | -- | -- |
| PCB-041 | | | | | -- | -- | -- |
| PCB-042 | | | | | -- | -- | -- |
| PCB-043 | | | | | -- | -- | -- |
| PCB-044/047/065 | | | | | -- | -- | -- |
| PCB-045 | | | | | -- | -- | -- |
| PCB-046 | | | | | -- | -- | -- |
| PCB-048 | | | | | -- | -- | -- |
| PCB-049/069 | | | | | -- | -- | -- |
| PCB-050/053 | | | | | -- | -- | -- |
| PCB-051 | | | | | -- | -- | -- |
| PCB-052 | | | | | -- | -- | -- |
| PCB-054 | | | | | -- | -- | -- |
| PCB-055 | | | | | -- | -- | -- |
| PCB-056 | | | | | -- | -- | -- |
| PCB-057 | | | | | -- | -- | -- |
| PCB-058 | | | | | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-SC402-130928 | JW-SC402-130928 | JW-SC402-130928 |
| Sample ID | | | | | JW-SC402-B-130928 | JW-SC402-C-130928 | JW-SC402-D-130928 |
| Sample Date | | | | | 9/28/2013 | 9/28/2013 | 9/28/2013 |
| Depth | | | | | 2 - 4 ft | 4 - 6 ft | 6 - 8 ft |
| Sample Type | | | | | N | N | N |
| Matrix | | | | | SE | SE | SE |
| X | | | | | 1302871.603 | 1302871.603 | 1302871.603 |
| Y | | | | | 374375.3905 | 374375.3905 | 374375.3905 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | |
| PCB-059/062/075 | | | | | -- | -- | -- |
| PCB-060 | | | | | -- | -- | -- |
| PCB-061/070/074/076 | | | | | -- | -- | -- |
| PCB-063 | | | | | -- | -- | -- |
| PCB-064 | | | | | -- | -- | -- |
| PCB-066 | | | | | -- | -- | -- |
| PCB-067 | | | | | -- | -- | -- |
| PCB-068 | | | | | -- | -- | -- |
| PCB-072 | | | | | -- | -- | -- |
| PCB-073 | | | | | -- | -- | -- |
| PCB-077 | | | | | -- | -- | -- |
| PCB-078 | | | | | -- | -- | -- |
| PCB-079 | | | | | -- | -- | -- |
| PCB-080 | | | | | -- | -- | -- |
| PCB-081 | | | | | -- | -- | -- |
| PCB-082 | | | | | -- | -- | -- |
| PCB-083 | | | | | -- | -- | -- |
| PCB-084 | | | | | -- | -- | -- |
| PCB-085/116 | | | | | -- | -- | -- |
| PCB-086/087/097/108/119/125 | | | | | -- | -- | -- |
| PCB-088 | | | | | -- | -- | -- |
| PCB-089 | | | | | -- | -- | -- |
| PCB-090/101/113 | | | | | -- | -- | -- |
| PCB-091 | | | | | -- | -- | -- |
| PCB-092 | | | | | -- | -- | -- |
| PCB-093/100 | | | | | -- | -- | -- |
| PCB-094 | | | | | -- | -- | -- |
| PCB-095 | | | | | -- | -- | -- |
| PCB-096 | | | | | -- | -- | -- |
| PCB-098 | | | | | -- | -- | -- |
| PCB-099 | | | | | -- | -- | -- |
| PCB-102 | | | | | -- | -- | -- |
| PCB-103 | | | | | -- | -- | -- |
| PCB-104 | | | | | -- | -- | -- |
| PCB-105 | | | | | -- | -- | -- |
| PCB-106 | | | | | -- | -- | -- |
| PCB-107/124 | | | | | -- | -- | -- |
| PCB-109 | | | | | -- | -- | -- |
| PCB-110 | | | | | -- | -- | -- |
| PCB-111 | | | | | -- | -- | -- |
| PCB-112 | | | | | -- | -- | -- |
| PCB-114 | | | | | -- | -- | -- |
| PCB-115 | | | | | -- | -- | -- |
| PCB-117 | | | | | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-SC402-130928 | JW-SC402-130928 | JW-SC402-130928 |
| Sample ID | | | | | JW-SC402-B-130928 | JW-SC402-C-130928 | JW-SC402-D-130928 |
| Sample Date | | | | | 9/28/2013 | 9/28/2013 | 9/28/2013 |
| Depth | | | | | 2 - 4 ft | 4 - 6 ft | 6 - 8 ft |
| Sample Type | | | | | N | N | N |
| Matrix | | | | | SE | SE | SE |
| X | | | | | 1302871.603 | 1302871.603 | 1302871.603 |
| Y | | | | | 374375.3905 | 374375.3905 | 374375.3905 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | |
| PCB-118 | | | | | -- | -- | -- |
| PCB-120 | | | | | -- | -- | -- |
| PCB-121 | | | | | -- | -- | -- |
| PCB-122 | | | | | -- | -- | -- |
| PCB-123 | | | | | -- | -- | -- |
| PCB-126 | | | | | -- | -- | -- |
| PCB-127 | | | | | -- | -- | -- |
| PCB-128/166 | | | | | -- | -- | -- |
| PCB-129/138/163 | | | | | -- | -- | -- |
| PCB-130 | | | | | -- | -- | -- |
| PCB-131 | | | | | -- | -- | -- |
| PCB-132 | | | | | -- | -- | -- |
| PCB-133 | | | | | -- | -- | -- |
| PCB-134 | | | | | -- | -- | -- |
| PCB-135/151 | | | | | -- | -- | -- |
| PCB-136 | | | | | -- | -- | -- |
| PCB-137 | | | | | -- | -- | -- |
| PCB-139/140 | | | | | -- | -- | -- |
| PCB-141 | | | | | -- | -- | -- |
| PCB-142 | | | | | -- | -- | -- |
| PCB-143 | | | | | -- | -- | -- |
| PCB-144 | | | | | -- | -- | -- |
| PCB-145 | | | | | -- | -- | -- |
| PCB-146 | | | | | -- | -- | -- |
| PCB-147/149 | | | | | -- | -- | -- |
| PCB-148 | | | | | -- | -- | -- |
| PCB-150 | | | | | -- | -- | -- |
| PCB-152 | | | | | -- | -- | -- |
| PCB-153/168 | | | | | -- | -- | -- |
| PCB-154 | | | | | -- | -- | -- |
| PCB-155 | | | | | -- | -- | -- |
| PCB-156/157 | | | | | -- | -- | -- |
| PCB-158 | | | | | -- | -- | -- |
| PCB-159 | | | | | -- | -- | -- |
| PCB-160 | | | | | -- | -- | -- |
| PCB-161 | | | | | -- | -- | -- |
| PCB-162 | | | | | -- | -- | -- |
| PCB-164 | | | | | -- | -- | -- |
| PCB-165 | | | | | -- | -- | -- |
| PCB-167 | | | | | -- | -- | -- |
| PCB-169 | | | | | -- | -- | -- |
| PCB-170 | | | | | -- | -- | -- |
| PCB-171/173 | | | | | -- | -- | -- |
| PCB-172 | | | | | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-SC402-130928 | JW-SC402-130928 | JW-SC402-130928 |
| Sample ID | | | | | JW-SC402-B-130928 | JW-SC402-C-130928 | JW-SC402-D-130928 |
| Sample Date | | | | | 9/28/2013 | 9/28/2013 | 9/28/2013 |
| Depth | | | | | 2 - 4 ft | 4 - 6 ft | 6 - 8 ft |
| Sample Type | | | | | N | N | N |
| Matrix | | | | | SE | SE | SE |
| X | | | | | 1302871.603 | 1302871.603 | 1302871.603 |
| Y | | | | | 374375.3905 | 374375.3905 | 374375.3905 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | |
| PCB-174 | | | | | -- | -- | -- |
| PCB-175 | | | | | -- | -- | -- |
| PCB-176 | | | | | -- | -- | -- |
| PCB-177 | | | | | -- | -- | -- |
| PCB-178 | | | | | -- | -- | -- |
| PCB-179 | | | | | -- | -- | -- |
| PCB-180/193 | | | | | -- | -- | -- |
| PCB-181 | | | | | -- | -- | -- |
| PCB-182 | | | | | -- | -- | -- |
| PCB-183 | | | | | -- | -- | -- |
| PCB-184 | | | | | -- | -- | -- |
| PCB-185 | | | | | -- | -- | -- |
| PCB-186 | | | | | -- | -- | -- |
| PCB-187 | | | | | -- | -- | -- |
| PCB-188 | | | | | -- | -- | -- |
| PCB-189 | | | | | -- | -- | -- |
| PCB-190 | | | | | -- | -- | -- |
| PCB-191 | | | | | -- | -- | -- |
| PCB-192 | | | | | -- | -- | -- |
| PCB-194 | | | | | -- | -- | -- |
| PCB-195 | | | | | -- | -- | -- |
| PCB-196 | | | | | -- | -- | -- |
| PCB-197 | | | | | -- | -- | -- |
| PCB-198/199 | | | | | -- | -- | -- |
| PCB-200 | | | | | -- | -- | -- |
| PCB-201 | | | | | -- | -- | -- |
| PCB-202 | | | | | -- | -- | -- |
| PCB-203 | | | | | -- | -- | -- |
| PCB-204 | | | | | -- | -- | -- |
| PCB-205 | | | | | -- | -- | -- |
| PCB-206 | | | | | -- | -- | -- |
| PCB-207 | | | | | -- | -- | -- |
| PCB-208 | | | | | -- | -- | -- |
| PCB-209 | | | | | -- | -- | -- |
| Total PCB Congener (U = limit) | | | | | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | | | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | | | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Mammal) (U = limit) | | | | | -- | -- | -- |
| Total PCB Congener (U = 1/2) | | | | | -- | -- | -- |
| Total PCB Congener (U = 0) | | | 130000 | 1000000 | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | | | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | | | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | | | -- | -- | -- |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | | | -- | -- | -- |

## Table H-2
## Subsurface Sediment Results

| Task | | | | | JeldWenSed2013 | JeldWenSed2013 | JeldWenSed2013 |
|---|---|---|---|---|---|---|---|
| Location ID | | | | | JW-SC402-130928 | JW-SC402-130928 | JW-SC402-130928 |
| Sample ID | | | | | JW-SC402-B-130928 | JW-SC402-C-130928 | JW-SC402-D-130928 |
| Sample Date | | | | | 9/28/2013 | 9/28/2013 | 9/28/2013 |
| Depth | | | | | 2 - 4 ft | 4 - 6 ft | 6 - 8 ft |
| Sample Type | | | | | N | N | N |
| Matrix | | | | | SE | SE | SE |
| X | | | | | 1302871.603 | 1302871.603 | 1302871.603 |
| Y | | | | | 374375.3905 | 374375.3905 | 374375.3905 |
| Analyte | SMS_Marine_SCO_SCUMII | SMS_Marine_CSL_SCUMII | AET_Marine_SCO_SCUMII | AET_Marine_CSL_SCUMII | | | |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | | | -- | -- | -- |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | | | -- | -- | -- |
| **Radionuclides (pci/g)** | | | | | | | |
| Cesium 137 | | | | | -- | -- | -- |
| Lead 210 | | | | | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (mg/kg-OC)** | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **0.00015194429348 J** | **0.00014106703911 J** | 4.140983607E-05 U |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **0.0001102173913 J** | **0.00010920614525 J** | 4.140983607E-05 U |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **0.00010578804348 J** | **0.00010312290503 J** | 4.140983607E-05 U |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **0.00010118002717 J** | **8.774664804E-05 J** | 4.140983607E-05 U |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **5.734103261E-05 J** | **5.62924581E-05 J** | 4.140983607E-05 U |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | **5.668070652E-05 J** | **5.411145251E-05 J** | 4.140983607E-05 U |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | **5.041576087E-05 J** | **3.442625698E-05 J** | 4.140983607E-05 U |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | **4.46467391E-06 J** | **3.37877095E-06 J** | 4.140983607E-05 U |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | **7.57336957E-06 J** | **5.1E-06 J** | 4.140983607E-05 U |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = limit) | | | | | **0.559155 J** | **0.50502 J** | 0.1263 U |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = limit) | | | | | **0.4056 J** | **0.390958 J** | 0.1263 U |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | | | | | **0.3893 J** | **0.36918 J** | 0.1263 U |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2) | | | | | **0.3723425 J** | **0.314133 J** | 0.1263 U |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2) | | | | | **0.211015 J** | **0.201527 J** | 0.1263 U |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | | | | | **0.208585 J** | **0.193719 J** | 0.1263 U |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Avian) (Calculated U = 0) | | | | | **0.18553 J** | **0.123246 J** | 0.1263 U |
| Total Dioxin/Furan and PCB Congener TEQ 1998 (Fish) (Calculated U = 0) | | | | | **0.01643 J** | **0.012096 J** | 0.1263 U |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | | | | | **0.02787 J** | **0.018258 J** | 0.1263 U |

# Table H-2
# Subsurface Sediment Results

Notes:
Total LPAH represents the sum of naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, and anthracene.
Total HPAH represents the sum of fluoranthene, pyrene, benz(a)anthracene, chrysene, benzo(b,j,k)fluoranthenes, benzo(a)pyrene, indeno(1,2,3,-c,d)pyrene, dibenzo(a,h)anthracene, and benzo(g,h,i)perylene.
Total LPAH represents the sum of naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, and anthracene.
Total HPAH represents the sum of fluoranthene, pyrene, benz(a)anthracene, chrysene, benzo(b,j,k)fluoranthenes, benzo(a)pyrene, indeno(1,2,3,-c,d)pyrene, dibenzo(a,h)anthracene, and benzo(g,h,i)perylene.
*TOC in range (0.5% - 3.5%)*
Detected concentration is greater than SMS_Marine_SCO_SCUMII screening level
Detected concentration is greater than SMS_Marine_CSL_SCUMII screening level
*TOC out of range*
Detected concentration is greater than AET_Marine_SCO_SCUMII screening level
Detected concentration is greater than AET_Marine_CSL_SCUMII screening level
**Bold = detected result**
µg/kg = micrograms per kilogram dry weight
-- = not applicable
cPAH = carcinogenic polycyclic aromatic hydrocarbon
CAEPA = California Environmental Protection Agency
FD = field duplicate sample
ft = foot
HPAH = high-molecular-weight polycyclic aromatic hydrocarbon
J = estimated value
LPAH = low-molecular-weight polycyclic aromatic hydrocarbon
mg/kg = milligram per kilogram dry weight
N = normal environmental sample
ng/kg = nanogram per kilogram dry weight
OC = organic carbon
PCB = polychlorinated biphenyl
pct = percent
SE = sediment
TEQ = toxicity equivalency factor
TOC = total organic carbon
U = compound analyzed but not detected above detection limit
UJ = compound analyzed but not detected above estimated detection limit

**Table H-3**
**Summary of Core Sieving Wood Fragment Results**

**H-3a - Geochronology Subsurface Core GC-1**

| Matrix | Interval (cm) | % Wood | % Shell | Description of Material Retained on 200-Sieve |
|---|---|---|---|---|
| Sandy Silt* | 0 to 2 | 2 | | Trace small bark fragments up to 0.125 inch x 0.25 inch, trace short orange wood fibers |
| | 2 to 4 | 2 | <5 | Contains small clam, small bark fragments up to 0.125 inch x 0.25 inch, substantial fine sand retained |
| | 4 to 6 | 5 | | 3 small bark fragments up to 0.5 inch x 0.125 inch, trace red wood splinters |
| | 6 to 8 | 5 | | 2 large bark fragments up to 1 inch x 0.5 inch, contains small reddish wood splinters |
| | 8 to 10 | 10 | | 4 bark fragments up to 0.5 inch x 0.25 inch, contains trace reddish wood splinters |
| | 10 to 12 | 10 | | 5 bark fragments up to 1 inch x 0.25 inch, contains trace reddish wood splinters, wood, and bark fragments |
| | 12 to 14 | 10 | | 1 bark fragment 1.5 inches x 1 inch, 1 wood splinter 1 inch x 0.33 inch, contains small wood and bark fragments and fibers |
| | 14 to 16 | 15 | | 1 bark fragment 1 inch x 0.5 inch, contains small bark fragments up to 0.5 inch x 0.125 inch |
| | 16 to 18 | 20 | | 1 to 2-inch yellow wood splinter, contains small bark fragments up to 0.5 inch x 0.125 inch |
| | 18 to 20 | 5 | | Contains small bark fragments up to 0.125 inch x 0.25 inch, trace yellow wood splinters |
| | 20 to 22 | 5 | | Contains small bark fragments up to 0.125 inch x 0.25 inch, trace yellow wood splinters |
| | 22 to 24 | 2 | | Contains trace bark fragments and fibers |
| Sand with Silt | 24 to 26 | 5 | | 3 bark fragments up to 0.5 inch x 0.25 inch, contains small bark fragments and fibers |
| | 26 to 28 | 2 | | Contains trace bark fibers |
| | 28 to end of core | 0 | | No wood or bark |

**H-3b - Geochronology Subsurface Core GC-2**

| Matrix | Interval (cm) | % Wood | % Shell | Description of Material Retained on 200-Sieve |
|---|---|---|---|---|
| Sandy Silt* | 0 to 2 | 10 | | Contains small bark slivers up to 2.5 inches x 0.125 inch, 4 small wood and bark fragments, trace brownish orange wood fibers |
| | 2 to 4 | 5 | <5 | 2 small wood fragments up to 0.125 inch x 0.25 inch |
| | 4 to 6 | 2 | <5 | 1 large bark fragment 1.5 inches x 0.5 inch, contains orange wood fibers |
| | 6 to 8 | 5 | | 3 small bark fragments up to 0.125 inch x 0.25 inch, 5 splintered wood fragments up to 1.5 inches x 0.25 inch |
| | 8 to 10 | 10 | | 8 large bark fragments up to 1.5 inch x 0.5 inch, 1 splintered wood fragment 1.5 inches x 0.25 inch, trace organic fibers |
| | 10 to 12 | 15 | | 6 large bark fragments up to 1.5 inches x 0.5 inch |
| | 12 to 14 | 10 | | Contains large and small bark fragments up to 1.5 inch x 0.5 inch |
| | 14 to 16 | 5 | | 1 large bark fragment 1 inch x 1 inch, contains wood splinters up to 0.5 inch and small bark fragments |
| | 16 to 18 | 10 | | Contains large and small bark fragments up to 1 inch x 0.25 inch, small wood fragments and fibers |
| | 18 to 20 | 5 | | Contains small bark fragments up to 0.125 inch x 0.25 inch, trace bark fibers and brownish orange fibers |
| | 20 to 22 | 5 | | Contains shredded reddish bark fragments |
| | 22 to 30 | 5 | | Contains small bark and shredded reddish bark fragments up to 0.125 inch x 0.25 inch; trace bark fibers and brownish orange fibers |
| | 30 to 32 | 15 | | Contains large and small bark fragments up to 1.5 inches x 1 inch |
| Sand with Silt | 32 to 34 | 10 | | Contains small bark fragments up to 0.125 inch x 0.25 inch, substantial fine sand retained |
| | 34 to 36 | 2 | | Contains bark and woody fibers, substantial fine sand retained |
| | 36 to 38 | 10 | | Contains large and small bark fragments up to 1.5 inches x 0.5 inch |
| | 38 to 40 | 2 | | Contains trace bark fragments |
| | 40 to 42 | 0 | | No bark or wood fragments |
| | 42 to end of core | 0 | | No wood or bark |

Notes:

cm = centimeter

*The nearshore tidal lands adjacent to the southern extent of the Former Nord Door Facility are a homogenous sandy SILT sediment matrix. The mean surficial sediment grain size results (gravel 3%, sand 35%, and silt and clay 63%) collected from the southern extent of the site (EA-06, EA-07, EA-08, EA-09, and EA-10) were considered when determining the total percentage of wood observed.

# Table H-4
## Tissue Results

| Analyte | Task | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | JeldWend2014Tissue | JeldWend2014Tissue | JeldWend2014Tissue | JeldWend2014Tissue |
|---|---|---|---|---|---|---|---|---|---|---|
| | Location ID | JW-DR-Tissue | JW-EA01-Tissue | JW-EA10-Tissue | JW-RG-Tissue | JW-UR-Tissue | P-100 | P-100 | P-25 | P-50 |
| | Sample ID | JW-DR-TISSUE-120508 | JW-EA01-TISSUE-120516 | JW-EA10-TISSUE-120516 | JW-RG-TISSUE-120508 | JW-UR-TISSUE-120508 | JW-TISSUE-01-140428 | JW-TISSUE-01-140428-DUP | JW-TISSUE-03-140428 | JW-TISSUE-02-140428 |
| | Sample Date | 05/08/2012 | 05/16/2012 | 05/16/2012 | 05/08/2012 | 05/08/2012 | 04/29/2014 | 04/29/2014 | 04/29/2014 | 04/29/2014 |
| | Sample Type | N | N | N | N | N | N | FD | N | N |
| | Matrix | TA | TA | TA | TA | TA | TA | TA | TA | TA |
| | X | 1301953.88 | 1303385.74 | 1302901.691 | 1302616.709 | 1306498.34 | 1302756.413 | 1302756.413 | 1302506.518 | 1302753.529 |
| | Y | 370102.4568 | 373575.7223 | 372488.6797 | 382542.3177 | 374273.3559 | 372242.2397 | 372242.2397 | 372341.8726 | 371894.7329 |
| **Conventional Parameters (pct)** | | | | | | | | | | |
| Lipids | | **0.319** | **0.5** | **0.519** | **0.459** | **0.559** | **0.5** | **0.5** | **0.6** | **0.5** |
| **Polycyclic Aromatic Hydrocarbons (µg/kg)** | | | | | | | | | | |
| 1-Methylnaphthalene | | 7.96 U | **0.721 J** | **0.758 J** | 7.92 U | **0.569** | **--** | **--** | -- | **--** |
| 2-Methylnaphthalene | | **1.08 J** | **0.821 J** | **0.759 J** | 7.92 U | **0.76** | **--** | **--** | -- | **--** |
| Acenaphthene | | 7.96 U | **1.45 J** | 1.74 U | 7.92 U | 0.389 U | **--** | -- | -- | -- |
| Acenaphthylene | | 7.96 U | 1.86 U | 1.74 U | 7.92 U | 0.389 U | -- | -- | -- | -- |
| Anthracene | | 7.96 U | **0.733 J** | **0.765 J** | 7.92 U | **0.352 J** | **--** | **--** | -- | **--** |
| Benzo(a)anthracene | | 7.96 U | **5.55** | **2.58** | 7.92 U | **2.72** | **--** | **--** | -- | **--** |
| Benzo(a)pyrene | | 7.96 U | **0.627 J** | **0.671 J** | 7.92 U | 0.389 U | **--** | **--** | -- | -- |
| Benzo(b)fluoranthene | | **2.33 J** | **2.66** | 1.74 U | 7.92 U | 0.389 U | **--** | -- | -- | -- |
| Benzo(e)pyrene | | **2.38 J** | **2.48** | **2.33** | 7.92 U | 0.389 U | **--** | **--** | -- | -- |
| Benzo(g,h,i)perylene | | **3.06 J** | 1.86 U | 1.74 U | **18.4** | 0.389 U | -- | -- | **--** | -- |
| Benzo(k)fluoranthene | | 7.96 U | **1.11 J** | 1.74 U | 7.92 U | 0.389 U | **--** | -- | -- | -- |
| Chrysene | | **1.5 J** | **5.56** | **3.42** | 7.92 U | **3.61** | **--** | **--** | -- | **--** |
| Dibenzo(a,h)anthracene | | 7.96 UJ | 1.86 U | **0.909 J** | 7.92 UJ | 0.389 UJ | -- | **--** | -- | -- |
| Dibenzofuran | | 7.96 U | **1.27 J** | 1.74 U | 7.92 U | **0.362 J** | **--** | -- | -- | **--** |
| Fluoranthene | | **5.09 J** | **25.2** | **15.9** | 7.92 U | **6.86** | **--** | **--** | -- | **--** |
| Fluorene | | 7.96 U | **2.09** | **1.39 J** | 7.92 U | **0.549** | **--** | **--** | -- | **--** |
| Indeno(1,2,3-c,d)pyrene | | **1.81 J** | 1.86 U | 1.74 U | 7.92 U | 0.389 U | -- | -- | -- | -- |
| Naphthalene | | **1.63 J** | **0.709 J** | **1.14 J** | **1.2 J** | **0.704** | **--** | **--** | **--** | **--** |
| Perylene | | **3.25 J** | **1.83 J** | **7.16** | **2.54 J** | **0.618** | **--** | **--** | **--** | **--** |
| Phenanthrene | | **3.42 J** | **12.1** | **8.99** | **1.93 J** | **3.24** | **--** | **--** | **--** | **--** |
| Pyrene | | **5.67 J** | **18.3** | **8.78** | 7.92 U | **5.39** | **--** | **--** | -- | **--** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | **10.78 J** | **1.987 J** | **1.576 J** | 7.92 UJ | **0.853 J** | **--** | **--** | -- | **--** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | **0.43 J** | **1.615 J** | **1.054 J** | 7.92 UJ | **0.308 J** | **--** | **--** | -- | **--** |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | **5.6 J** | **1.801 J** | **1.315 J** | 7.92 UJ | **0.58 J** | **--** | **--** | -- | **--** |
| Total cPAH TEQ (EPA 1993) (U = 0) | | **0.42 J** | **1.465 J** | **1.841 J** | 7.92 UJ | **0.276 J** | **--** | **--** | -- | **--** |
| Total HPAH (9 of 15) (U = 0) | | **19.46 J** | **59.007 J** | **32.26 J** | **18.4 J** | **18.58 J** | **--** | **--** | **--** | **--** |
| Total HPAH (9 of 15) (U = 1/2) | | **35.38 J** | **61.797 J** | **35.74 J** | **54.04 J** | **19.747 J** | **--** | **--** | **--** | **--** |
| Total HPAH (9 of 15) (U = limit) | | **51.3 J** | **64.587 J** | **39.22 J** | **89.68 J** | **20.914 J** | **--** | **--** | **--** | **--** |
| Total LPAH (6 of 15) (U = 0) | | **5.05 J** | **17.082 J** | **12.285 J** | **3.13 J** | **4.845 J** | **--** | **--** | **--** | **--** |
| Total LPAH (6 of 15) (U = 1/2) | | **20.97 J** | **18.012 J** | **14.025 J** | **18.97 J** | **5.234 J** | **--** | **--** | **--** | **--** |
| Total LPAH (6 of 15) (U = limit) | | **36.89 J** | **18.942 J** | **15.765 J** | **34.81 J** | **5.623 J** | **--** | **--** | **--** | **--** |
| Total PAH (15) (U = 0) | | **24.51 J** | **76.089 J** | **44.545 J** | **21.53 J** | **23.425 J** | **--** | **--** | **--** | **--** |
| Total PAH (15) (U = 1/2) | | **56.35 J** | **79.809 J** | **49.765 J** | **73.01 J** | **24.981 J** | **--** | **--** | **--** | **--** |
| Total PAH (15) (U = limit) | | **88.19 J** | **83.529 J** | **54.985 J** | **124.49 J** | **26.537 J** | **--** | **--** | **--** | **--** |
| **Polycyclic Aromatic Hydrocarbons (mg/kg-lipid)** | | | | | | | | | | |
| 1-Methylnaphthalene | | 2.50 U | **0.14 J** | **0.15 J** | 1.73 U | **0.10** | -- | **--** | -- | **--** |
| 2-Methylnaphthalene | | **0.34 J** | **0.16 J** | **0.15 J** | 1.73 U | **0.14** | **--** | **--** | -- | **--** |
| Acenaphthene | | 2.50 U | **0.29 J** | 0.34 U | 1.73 U | 0.07 U | **--** | -- | -- | -- |
| Acenaphthylene | | 2.50 U | 0.37 U | 0.34 U | 1.73 U | 0.07 U | -- | -- | -- | -- |
| Anthracene | | 2.50 U | **0.15 J** | **0.15 J** | 1.73 U | **0.06 J** | **--** | **--** | -- | **--** |
| Benzo(a)anthracene | | 2.50 U | **1.11** | **0.50** | 1.73 U | **0.49** | **--** | **--** | -- | **--** |

## Table H-4
## Tissue Results

| Analyte | Task | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | JeldWend2014Tissue | JeldWend2014Tissue | JeldWend2014Tissue | JeldWend2014Tissue |
|---|---|---|---|---|---|---|---|---|---|---|
| | Location ID | JW-DR-Tissue | JW-EA01-Tissue | JW-EA10-Tissue | JW-RG-Tissue | JW-UR-Tissue | P-100 | P-100 | P-25 | P-50 |
| | Sample ID | JW-DR-TISSUE-120508 | JW-EA01-TISSUE-120516 | JW-EA10-TISSUE-120516 | JW-RG-TISSUE-120508 | JW-UR-TISSUE-120508 | JW-TISSUE-01-140428 | JW-TISSUE-01-140428-DUP | JW-TISSUE-03-140428 | JW-TISSUE-02-140428 |
| | Sample Date | 05/08/2012 | 05/16/2012 | 05/16/2012 | 05/08/2012 | 05/08/2012 | 04/29/2014 | 04/29/2014 | 04/29/2014 | 04/29/2014 |
| | Sample Type | N | N | N | N | N | N | FD | N | N |
| | Matrix | TA | TA | TA | TA | TA | TA | TA | TA | TA |
| | X | 1301953.88 | 1303385.74 | 1302901.691 | 1302616.709 | 1306498.34 | 1302756.413 | 1302756.413 | 1302506.518 | 1302753.529 |
| | Y | 370102.4568 | 373575.7223 | 372488.6797 | 382542.3177 | 374273.3559 | 372242.2397 | 372242.2397 | 372341.8726 | 371894.7329 |
| Benzo(a)pyrene | | 2.50 U | **0.13 J** | **0.13 J** | 1.73 U | 0.07 U | -- | -- | -- | -- |
| Benzo(b)fluoranthene | | **0.73 J** | **0.53** | 0.34 U | 1.73 U | 0.07 U | -- | -- | -- | -- |
| Benzo(e)pyrene | | **0.75 J** | **0.50** | **0.45** | 1.73 U | 0.07 U | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | | **0.96 J** | 0.37 U | 0.34 U | **4.01** | 0.07 U | -- | -- | -- | -- |
| Benzo(k)fluoranthene | | 2.50 U | **0.22 J** | 0.34 U | 1.73 U | 0.07 U | -- | -- | -- | -- |
| Chrysene | | **0.47 J** | **1.11** | **0.66** | 1.73 U | **0.65** | -- | -- | -- | -- |
| Dibenzo(a,h)anthracene | | 2.50UJ | 0.37 U | **0.18 J** | 1.73UJ | 0.07UJ | -- | -- | -- | -- |
| Dibenzofuran | | 2.4953 U | **0.254 J** | 0.33526 U | 1.72549 U | **0.064758 J** | -- | -- | -- | -- |
| Fluoranthene | | **1.60 J** | **5.04** | **3.06** | 1.73 U | **1.23** | -- | -- | -- | -- |
| Fluorene | | 2.50 U | **0.42** | **0.27 J** | 1.73 U | **0.10** | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | | **0.57 J** | 0.37 U | 0.34 U | 1.73 U | 0.07 U | -- | -- | -- | -- |
| Naphthalene | | **0.51 J** | **0.14 J** | **0.22 J** | **0.26 J** | **0.13** | -- | -- | -- | -- |
| Perylene | | **1.02 J** | **0.37 J** | **1.38** | **0.55 J** | **0.11** | -- | -- | -- | -- |
| Phenanthrene | | **1.07 J** | **2.42** | **1.73** | **0.42 J** | **0.58** | -- | -- | -- | -- |
| Pyrene | | **1.78 J** | **3.66** | **1.69** | 1.73 U | **0.96** | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = limit) | | **3.38 J** | **0.40 J** | **0.30 J** | 1.73UJ | **0.15 J** | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0) | | **0.13 J** | **0.32 J** | **0.20 J** | 1.73UJ | **0.06 J** | -- | -- | -- | -- |
| Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2) | | **1.76 J** | **0.36 J** | **0.25 J** | 1.73UJ | **0.10 J** | -- | -- | -- | -- |
| Total HPAH (9 of 15) (U = 0) | | **6.10 J** | **11.80 J** | **6.22 J** | **4.01 J** | **3.32 J** | -- | -- | -- | -- |
| Total HPAH (9 of 15) (U = 1/2) | | **11.09 J** | **12.36 J** | **6.89 J** | **11.77 J** | **3.53 J** | -- | -- | -- | -- |
| Total HPAH (9 of 15) (U = limit) | | **16.08 J** | **12.92 J** | **7.56 J** | **19.54 J** | **3.74 J** | -- | -- | -- | -- |
| Total LPAH (6 of 15) (U = 0) | | **1.58 J** | **3.42 J** | **2.37 J** | **0.68 J** | **0.87 J** | -- | -- | -- | -- |
| Total LPAH (6 of 15) (U = 1/2) | | **6.57 J** | **3.60 J** | **2.70 J** | **4.13 J** | **0.94 J** | -- | -- | -- | -- |
| Total PAH (15) (U = 0) | | **7.68 J** | **15.22 J** | **8.58 J** | **4.69 J** | **4.19 J** | -- | -- | -- | -- |
| Total PAH (15) (U = 1/2) | | **17.66 J** | **15.96 J** | **9.59 J** | **15.91 J** | **4.47 J** | -- | -- | -- | -- |
| Total PAH (15) (U = limit) | | **27.65 J** | **16.71 J** | **10.59 J** | **27.12 J** | **4.75 J** | -- | -- | -- | -- |
| **Dioxin Furans (ng/kg)** | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | | 0.0469 U | 0.0809 U | 0.0565 U | 0.064 U | 0.0494 U | -- | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | | 0.0344 U | 0.0565 U | 0.0469 U | 0.0423 U | 0.0481 U | -- | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | 0.06 U | 0.138 U | 0.0623 U | 0.141 U | 0.076 U | -- | -- | -- | -- |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | | **0.133 J** | 0.143 U | **0.241 J** | 0.155 U | 0.0817 U | -- | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | | 0.0626 U | 0.14 U | 0.0661 U | 0.148 U | 0.0788 U | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | | **1.11 J** | **0.948 J** | **2.05 J** | **0.655 J** | **1.26 J** | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | | 9.8 U | 7.92 U | 19.4 U | 10.1 U | 12.1 U | -- | -- | -- | -- |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | | **0.95 J** | **0.616 J** | **0.409 J** | **0.623 J** | **0.764 J** | -- | -- | -- | -- |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | | 0.0344 U | 0.0565 U | 0.0469 U | 0.0423 U | 0.0481 U | -- | -- | -- | -- |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | | **0.92 J** | **0.318 J** | **1.18 J** | **0.163 J** | **0.26 J** | -- | -- | -- | -- |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | | **3.32 J** | **2.91 J** | **5.1 J** | **1.65 J** | **3.37 J** | -- | -- | -- | -- |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | | 0.0499 U | 0.062 U | 0.0542 U | **0.109 J** | 0.0492 U | -- | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | | 0.0497 U | 0.0938 U | 0.114 U | 0.0514 U | 0.0541 U | -- | -- | -- | -- |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | | 0.0295 U | 0.0395 U | 0.063 U | 0.0288 U | 0.0301 U | -- | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | | 0.0308 U | 0.0638 U | **0.389 J** | 0.0293 U | 0.0319 U | -- | -- | -- | -- |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | | 0.0275 U | 0.0579 U | **0.196 J** | 0.0256 U | 0.0285 U | -- | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | | 0.0436 U | 0.0987 U | **0.12 J** | 0.0436 U | 0.0459 U | -- | -- | -- | -- |

# Table H-4
## Tissue Results

| Task | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | JeldWend2014Tissue | JeldWend2014Tissue | JeldWend2014Tissue | JeldWend2014Tissue |
|---|---|---|---|---|---|---|---|---|---|
| Location ID | JW-DR-Tissue | JW-EA01-Tissue | JW-EA10-Tissue | JW-RG-Tissue | JW-UR-Tissue | P-100 | P-100 | P-25 | P-50 |
| Sample ID | JW-DR-TISSUE-120508 | JW-EA01-TISSUE-120516 | JW-EA10-TISSUE-120516 | JW-RG-TISSUE-120508 | JW-UR-TISSUE-120508 | JW-TISSUE-01-140428 | JW-TISSUE-01-140428-DUP | JW-TISSUE-03-140428 | JW-TISSUE-02-140428 |
| Sample Date | 05/08/2012 | 05/16/2012 | 05/16/2012 | 05/08/2012 | 05/08/2012 | 04/29/2014 | 04/29/2014 | 04/29/2014 | 04/29/2014 |
| Sample Type | N | N | N | N | N | N | FD | N | N |
| Matrix | TA | TA | TA | TA | TA | TA | TA | TA | TA |
| X | 1301953.88 | 1303385.74 | 1302901.691 | 1302616.709 | 1306498.34 | 1302756.413 | 1302756.413 | 1302506.518 | 1302753.529 |
| Y | 370102.4568 | 373575.7223 | 372488.6797 | 382542.3177 | 374273.3559 | 372242.2397 | 372242.2397 | 372341.8726 | 371894.7329 |
| **Analyte** | | | | | | | | | |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | 0.0346 U | 0.0523 U | **0.165 J** | 0.0314 U | **0.0726 J** | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | 0.329 U | 0.334 U | **1.91 J** | 0.254 U | 0.358 U | -- | -- | -- | -- |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | 0.0996 U | 0.177 U | **0.288 J** | 0.0842 U | 0.111 U | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | 0.375 U | 0.494 U | **4.59** | 0.338 U | **1.26 J** | -- | -- | -- | -- |
| Total Tetrachlorodibenzofuran (TCDF) | 0.0499 U | 0.062 U | 0.0542 U | 0.449 U | 0.0492 U | -- | -- | -- | -- |
| Total Pentachlorodibenzofuran (PeCDF) | **0.226 J** | **0.386 J** | **0.281 J** | **0.156 J** | **0.192 J** | -- | -- | -- | -- |
| Total Hexachlorodibenzofuran (HxCDF) | **0.49 J** | **0.417 J** | **1.94 J** | 0.0436 U | **0.43 J** | -- | -- | -- | -- |
| Total Heptachlorodibenzofuran (HpCDF) | **0.57 J** | 0.671 U | **3.24** | 0.443 U | 0.837 U | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | **0.1543 J** | **0.2447 J** | **0.3048 J** | **0.1978 J** | **0.1759 J** | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | **0.0893 J** | **0.1271 J** | **0.2299 J** | **0.1076 J** | **0.0981 J** | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | **0.0244 J** | **0.0095 J** | **0.155 J** | **0.0175 J** | **0.0202 J** | -- | -- | -- | -- |
| **Dioxin Furans (µg/kg-lipid)** | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | 15.0 U | 16.0 U | 11.0 U | 14.0 U | 9.0 U | -- | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | 11.0 U | 11.0 U | 9.0 U | 9.0 U | 9.0 U | -- | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | 19.0 U | 28.0 U | 12.0 U | 31.0 U | 14.0 U | -- | -- | -- | -- |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | **42.0 J** | 29.0 U | **46.0 J** | 34.0 U | 15.0 U | -- | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | 20.0 U | 28.0 U | 13.0 U | 32.0 U | 14.0 U | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | **348.0 J** | **190.0 J** | **395.0 J** | **143.0 J** | **225.0 J** | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD) | 3,072.0 U | 1,584.0 U | 3,738.0 U | 2,200.0 U | 2,165.0 U | -- | -- | -- | -- |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | **298.0 J** | **123.0 J** | **79.0 J** | **136.0 J** | **137.0 J** | -- | -- | -- | -- |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | 11.0 U | 11.0 U | 9.0 U | 9.0 U | 9.0 U | -- | -- | -- | -- |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | **288.0 J** | **64.0 J** | **227.0 J** | **36.0 J** | **47.0 J** | -- | -- | -- | -- |
| Total Heptachlorodibenzo-p-dioxin (HpCDD) | **1,041.0 J** | **582.0 J** | **983.0 J** | **359.0 J** | **603.0 J** | -- | -- | -- | -- |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | 16.0 U | 12.0 U | 10.0 U | **24.0 J** | 9.0 U | -- | -- | -- | -- |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | 16.0 U | 19.0 U | 22.0 U | 11.0 U | 10.0 U | -- | -- | -- | -- |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | 9.0 U | 8.0 U | 12.0 U | 6.0 U | 5.0 U | -- | -- | -- | -- |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | 10.0 U | 13.0 U | **75.0 J** | 6.0 U | 6.0 U | -- | -- | -- | -- |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | 9.0 U | 12.0 U | **38.0 J** | 6.0 U | 5.0 U | -- | -- | -- | -- |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | 14.0 U | 20.0 U | **23.0 J** | 9.0 U | 8.0 U | -- | -- | -- | -- |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | 11.0 U | 10.0 U | **32.0 J** | 7.0 U | **13.0 J** | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | 103.0 U | 67.0 U | **368.0 J** | 55.0 U | 64.0 U | -- | -- | -- | -- |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | 31.0 U | 35.0 U | **55.0 J** | 18.0 U | 20.0 U | -- | -- | -- | -- |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF) | 118.0 U | 99.0 U | **884.0** | 74.0 U | **225.0 J** | -- | -- | -- | -- |
| Total Tetrachlorodibenzofuran (TCDF) | 16.0 U | 12.0 U | 10.0 U | 98.0 U | 9.0 U | -- | -- | -- | -- |
| Total Pentachlorodibenzofuran (PeCDF) | **71.0 J** | **77.0 J** | **54.0 J** | **34.0 J** | **34.0 J** | -- | -- | -- | -- |
| Total Hexachlorodibenzofuran (HxCDF) | **154.0 J** | **83.0 J** | **374.0 J** | 9.0 U | **77.0 J** | -- | -- | -- | -- |
| Total Heptachlorodibenzofuran (HpCDF) | **179.0 J** | 134.0 U | **624.0** | 97.0 U | 150.0 U | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = limit) | **48.0 J** | **49.0 J** | **59.0 J** | **43.0 J** | **31.0 J** | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2) | **28.0 J** | **25.0 J** | **44.0 J** | **23.0 J** | **18.0 J** | -- | -- | -- | -- |
| Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0) | **8.0 J** | **2.0 J** | **30.0 J** | **4.0 J** | **4.0 J** | -- | -- | -- | -- |
| **PCB Congeners (ng/kg)** | | | | | | | | | |
| PCB-001 | **1.97** | **1.65** | **1.46** | **1.15** | **1.45** | 4 UJ | 8.41 UJ | 26.1 UJ | 12.5 UJ |
| PCB-002 | **2.95** | **1.48** | **2.34** | **1.76** | **2.08** | **2.79** | **3.58** | **9.43 J** | **5.94 J** |
| PCB-003 | **1.78** | **1.24** | **1.56** | **1.15** | **1.41** | 2.66 U | 4.16 U | 10.9 UJ | 7.28 UJ |

## Table H-4
## Tissue Results

| Task | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | JeldWend2014Tissue | JeldWend2014Tissue | JeldWend2014Tissue | JeldWend2014Tissue |
|---|---|---|---|---|---|---|---|---|---|
| Location ID | JW-DR-Tissue | JW-EA01-Tissue | JW-EA10-Tissue | JW-RG-Tissue | JW-UR-Tissue | P-100 | P-100 | P-25 | P-50 |
| Sample ID | JW-DR-TISSUE-120508 | JW-EA01-TISSUE-120516 | JW-EA10-TISSUE-120516 | JW-RG-TISSUE-120508 | JW-UR-TISSUE-120508 | JW-TISSUE-01-140428 | JW-TISSUE-01-140428-DUP | JW-TISSUE-03-140428 | JW-TISSUE-02-140428 |
| Sample Date | 05/08/2012 | 05/16/2012 | 05/16/2012 | 05/08/2012 | 05/08/2012 | 04/29/2014 | 04/29/2014 | 04/29/2014 | 04/29/2014 |
| Sample Type | N | N | N | N | N | N | FD | N | N |
| Matrix | TA | TA | TA | TA | TA | TA | TA | TA | TA |
| X | 1301953.88 | 1303385.74 | 1302901.691 | 1302616.709 | 1306498.34 | 1302756.413 | 1302756.413 | 1302506.518 | 1302753.529 |
| Y | 370102.4568 | 373575.7223 | 372488.6797 | 382542.3177 | 374273.3559 | 372242.2397 | 372242.2397 | 372341.8726 | 371894.7329 |
| Analyte | | | | | | | | | |
| PCB-004 | **3.03 J** | **24.9 J** | **7.56 J** | **2.68 J** | **2.44 J** | **5.62 J** | 5.8 UJ | **6.36 J** | **5.13 J** |
| PCB-005 | 4.82 UJ | 3.72 UJ | 4.51 UJ | 2.77 UJ | 1.3 UJ | 0.408 UJ | 0.439 UJ | 0.325 UJ | 0.44 UJ |
| PCB-006 | **1.94 J** | **8.5 J** | **3.96 J** | **1.18 J** | **1.41 J** | **4.13 J** | **4.32 J** | **4.44 J** | **3.92 J** |
| PCB-007 | 4.32 UJ | **1.64 J** | 4.05 UJ | 2.49 UJ | 1.16 UJ | **0.615 J** | **0.529 J** | **0.576 J** | **0.539 J** |
| PCB-008 | **5.96 J** | **26.2 J** | **8.66 J** | **3.68 J** | **3.55 J** | **11.6 J** | **13.7 J** | **12.7 J** | **10.9 J** |
| PCB-009 | 5.09 UJ | **2.1 J** | 4.77 UJ | 2.93 UJ | 1.37 UJ | **1.32 J** | **1.51 J** | **1.52 J** | **1.55 J** |
| PCB-010 | 3.84 UJ | **1.61 J** | 4.93 UJ | 2.95 UJ | 2.02 UJ | 0.324 UJ | 0.338 UJ | 0.321 UJ | 0.291 UJ |
| PCB-011 | **130 J** | **52.9 J** | **121 J** | **58.3 J** | **59 J** | **104 J** | **116 J** | **108 J** | **117 J** |
| PCB-012/013 | 4.8 UJ | **5.04 J** | 4.5 UJ | 2.77 UJ | **0.834 J** | 0.406 UJ | 0.437 UJ | 0.323 UJ | 0.438 UJ |
| PCB-014 | 4.11 UJ | 3.17 UJ | 3.85 UJ | 2.37 UJ | 1.11 UJ | 0.35 UJ | 0.377 UJ | 0.279 UJ | 0.378 UJ |
| PCB-015 | **2.21 J** | **34.1 J** | **6.22 J** | **1.32 J** | **1.97 J** | **3.54 J** | **3.82 J** | **3.49 J** | 0.449 UJ |
| PCB-016 | **3.93 J** | **92.8** | **12.6** | **2.86** | **3.91** | **6.74** | **7.31** | **7.79** | **6.56** |
| PCB-017 | **4.65** | **104** | **15.2** | **2.97 J** | **4.72** | **8.23** | **8.8** | **9.52** | **7.43** |
| PCB-018/030 | **8.73** | **115** | **24.5** | **6.25** | **8.95** | **16.1** | **17.8** | **17.6** | **15** |
| PCB-019 | **1.15** | **18.4** | **4.84** | **0.787 J** | **1.07** | **2.7** | **2.72** | **2.31** | **2.4** |
| PCB-020/028 | **12.6** | **389** | **41.5** | **10** | **16.4** | **19.1** | **23.3** | **24.4** | **20.3** |
| PCB-021/033 | **4.04** | **67.3** | **9.21** | **3.17** | **3.79** | **6.64** | **7.7** | **7.12** | **6.48** |
| PCB-022 | **4.08** | **134** | **14.5** | **2.94** | **4.94** | **6.52** | **7.81** | **7.92** | **7.19** |
| PCB-023 | 0.573 U | 0.672 U | 0.509 U | 0.306 U | 0.233 U | 0.412 U | 0.423 U | 0.403 U | 0.514 U |
| PCB-024 | 0.4 U | **4.33** | **0.781 J** | 0.245 U | 0.206 U | 0.433 U | 0.471 U | 0.404 U | 0.446 U |
| PCB-025 | **1.5** | **24.8** | **6.16** | **1.22** | **2.38** | **2.45** | **2.94** | **3.09** | **2.47** |
| PCB-026/029 | **2.83** | **50.5** | **14.2** | **2.29** | **3.64** | **5.37** | **6.49** | **5.24** | **5.34** |
| PCB-027 | **1.23** | **21.1** | **8.07** | **0.805 J** | **1.32** | **3.15** | **3.38** | **2.5** | **2.74** |
| PCB-031 | **10** | **298** | **31** | **7.89** | **12.3** | **15.1** | **18.2** | **18.3** | **16.1** |
| PCB-032 | **3.18** | **72.7** | **12.3** | **2.16** | **3.44** | **5.52** | **5.83** | **5.95** | **5.08** |
| PCB-034 | 0.59 U | 0.691 U | 0.523 U | 0.314 U | 0.239 U | 0.419 U | 0.43 U | 0.41 U | 0.523 U |
| PCB-035 | **1.31** | **3.87** | **1.66** | **0.735 J** | **0.942** | **1.46** | **1.66 J** | **1.49** | **1.57** |
| PCB-036 | 0.581 U | 0.681 U | **0.71 J** | **0.32 J** | **0.304 J** | **0.767 J** | **1.09** | 0.397 U | 0.506 U |
| PCB-037 | **3.21** | **62.9** | **6.87** | **2.3** | **4.02** | **5.66** | **6.46** | **6.77** | **5.81** |
| PCB-038 | 0.619 U | 0.726 U | 0.55 U | 0.33 U | 0.251 U | 0.438 U | 0.449 U | 0.429 U | 0.546 U |
| PCB-039 | 0.554 U | **1.81** | 0.492 U | 0.295 U | 0.225 U | 0.394 U | 0.404 U | 0.385 U | 0.491 U |
| PCB-040/071 | **7.3** | **118** | **24** | **5.36** | **8.76** | **30.5** | **37.4** | **27.6** | **30.6** |
| PCB-041 | **1.01 J** | **37.7** | **3.45** | **1.04** | **1.54** | **4.13** | **4.16 J** | **5.06** | **3.93** |
| PCB-042 | **5.03** | **83.2** | **12.2** | **4.02** | **6.42** | **16** | **19.4** | **17.5** | **16.2** |
| PCB-043 | **0.563 J** | **14.1** | **1.63** | **0.482 J** | **0.9 J** | **2.71 J** | 0.477 UJ | **2.78** | **3.77** |
| PCB-044/047/065 | **19.8** | **282** | **55.9** | **16.1** | **24.8** | **130** | **153** | **105** | **94.8** |
| PCB-045 | **1.81** | **40.6** | **5.28** | **1.37** | **2.2** | **4.66** | **5.36** | **5.03** | **4.54** |
| PCB-046 | **0.692 J** | **14.4** | **2.57** | **0.638 J** | **0.935** | **2.56** | **3.24** | **2.83** | **2.58** |
| PCB-048 | **3.23** | **77.2** | **8.85** | **2.36** | **4.07** | **10.2** | **12.3** | **11.4** | **10.9** |
| PCB-049/069 | **12.2** | **162** | **39.2** | **9.88** | **15.2** | **48.2** | **56** | **43.6** | **45.7** |
| PCB-050/053 | **2.23** | **33.6** | **11.1** | **1.74 J** | **2.81** | **7** | **8.77** | **6.97** | **7.02** |
| PCB-051 | **1.04** | **10.9** | **4.22** | **0.677 J** | **1.33** | **19.7** | **23.7** | **16.5** | **12.8** |
| PCB-052 | **27.8** | **283** | **96.3** | **22.9** | **34.8** | **122** | **144** | **99.4** | **119** |
| PCB-054 | 0.263 U | **0.818 J** | **0.661 J** | 0.137 U | 0.114 U | 0.262 U | 0.261 U | 0.227 U | 0.246 U |

## Table H-4
## Tissue Results

| Analyte | Task<br>Location ID<br>Sample ID<br>Sample Date<br>Sample Type<br>Matrix<br>X<br>Y | Anchor QEA 2012/2013<br>JW-DR-Tissue<br>JW-DR-TISSUE-120508<br>05/08/2012<br>N<br>TA<br>1301953.88<br>370102.4568 | Anchor QEA 2012/2013<br>JW-EA01-Tissue<br>JW-EA01-TISSUE-120516<br>05/16/2012<br>N<br>TA<br>1303385.74<br>373575.7223 | Anchor QEA 2012/2013<br>JW-EA10-Tissue<br>JW-EA10-TISSUE-120516<br>05/16/2012<br>N<br>TA<br>1302901.691<br>372488.6797 | Anchor QEA 2012/2013<br>JW-RG-Tissue<br>JW-RG-TISSUE-120508<br>05/08/2012<br>N<br>TA<br>1302616.709<br>382542.3177 | Anchor QEA 2012/2013<br>JW-UR-Tissue<br>JW-UR-TISSUE-120508<br>05/08/2012<br>N<br>TA<br>1306498.34<br>374273.3559 | JeldWend2014Tissue<br>P-100<br>JW-TISSUE-01-140428<br>04/29/2014<br>N<br>TA<br>1302756.413<br>372242.2397 | JeldWend2014Tissue<br>P-100<br>JW-TISSUE-01-140428-DUP<br>04/29/2014<br>FD<br>TA<br>1302756.413<br>372242.2397 | JeldWend2014Tissue<br>P-25<br>JW-TISSUE-03-140428<br>04/29/2014<br>N<br>TA<br>1302506.518<br>372341.8726 | JeldWend2014Tissue<br>P-50<br>JW-TISSUE-02-140428<br>04/29/2014<br>N<br>TA<br>1302753.529<br>371894.7329 |
|---|---|---|---|---|---|---|---|---|---|---|
| PCB-055 | | 0.374 U | **1.96** | **0.894 J** | 0.201 U | **0.775 J** | 0.432 U | 0.504 U | 0.365 U | 0.48 U |
| PCB-056 | | **8.23** | **14.9** | **12.3** | **6.07** | **9.65** | **22** | **26.1** | **23.4** | **22.6** |
| PCB-057 | | 0.374 U | **1.34 J** | 0.35 U | 0.201 U | **0.311 J** | **0.661 J** | 0.494 U | **0.67 J** | 0.47 U |
| PCB-058 | | 0.368 U | **0.705 J** | **0.396 J** | 0.197 U | **0.27 J** | **0.726 J** | 0.492 U | 0.356 U | 0.468 U |
| PCB-059/062/075 | | **2.83** | **37** | **5.35** | **2.02 J** | **3.13** | **8.84** | **10.6** | **9.12** | **8.56** |
| PCB-060 | | **4.19** | **7.45** | **5.87** | **3.08** | **4.91** | **10.3** | **11.8** | **10.7** | **10** |
| PCB-061/070/074/076 | | **33.5** | **157** | **69.4** | **24.8** | **40.8** | **102** | **118** | **92.6** | **102** |
| PCB-063 | | **0.952** | **5.92** | **1.55** | **0.629 J** | **1.05** | **2.52** | **3** | **2.56** | **2.46** |
| PCB-064 | | **7.43** | **124** | **19.1** | **5.8** | **9.04** | **25.4** | **31.2** | **24.7** | **26.2** |
| PCB-066 | | **19.1** | **75.2** | **33.7** | **15.9** | **23.3** | **54.1** | **62.6** | **53.7** | **52.1** |
| PCB-067 | | **2.12** | **7.9** | **2.59** | **1.4** | **3.44** | **4.99** | **5.96** | **7.17** | **4.9** |
| PCB-068 | | **0.394 J** | **1.29** | **1.53** | **0.327 J** | **0.596 J** | **11.1** | **12.3** | **8.79** | **5.95** |
| PCB-072 | | **0.65 J** | **2.42** | **1.41** | **0.567 J** | **1.03** | **2.78** | **3.13** | **2.67** | **2.26** |
| PCB-073 | | 0.254 U | **0.99** | **0.355 J** | 0.142 U | 0.147 U | 0.217 U | 0.289 U | **0.481 J** | 0.236 U |
| PCB-077 | | **1.29 J** | **1.38** | **2.36** | **1.32** | **1.92** | **4.06** | **5.06** | **4.55** | **4.32** |
| PCB-078 | | 0.404 U | 0.338 U | 0.377 U | 0.216 U | 0.214 U | 0.456 U | 0.532 U | 0.385 U | 0.506 U |
| PCB-079 | | **0.64 J** | **0.686 J** | **0.897 J** | **0.318 J** | **0.535 J** | **1.58** | **2.04** | **1.57** | **1.77** |
| PCB-080 | | 0.334 U | 0.279 U | 0.312 U | 0.179 U | 0.177 U | 0.377 U | 0.44 U | 0.318 U | 0.418 U |
| PCB-081 | | 0.329 U | 0.276 U | 0.308 U | 0.176 U | 0.175 U | 0.456 U | 0.531 U | 0.384 U | 0.505 U |
| PCB-082 | | **5.88** | **5.74** | **14.7** | **3.82** | **6.48** | **19.4** | **23.8** | **15.1** | **20** |
| PCB-083 | | **4.87** | **5.02** | **11** | **3.2** | **5.51** | **14.6** | **19.2** | **12.3** | **14.4** |
| PCB-084 | | **9.92** | **15.3** | **28.1** | **6.24** | **11.2** | **40** | **46.2** | **29.5** | **37.5** |
| PCB-085/116 | | **8.97** | **10.7** | **21.7** | **5.67** | **9.45** | **31.8** | **35.5** | **25.3** | **37.2** |
| PCB-086/087/097/109/119/125 | | **31.6** | **35.1** | **78.1** | **21** | **34.3** | **106** | **126** | **78.2** | **101** |
| PCB-088 | | 0.616 U | 0.56 U | 0.914 U | 0.421 U | 0.681 U | **35.3 J** | 0.877 UJ | 0.791 U | 0.606 U |
| PCB-089 | | 0.609 U | **1.01 J** | 0.902 U | 0.415 U | 0.673 U | **2.07** | **2.5** | **1.74** | **1.95** |
| PCB-090/101/113 | | **57.3** | **76.8** | **147** | **41.5** | **66.1** | **197** | **225** | **148** | **174** |
| PCB-091 | | **6.95** | **15.5** | **17.8** | **4.38** | **7.39** | 0.433 UJ | **28.8 J** | **18.7** | **22.1** |
| PCB-092 | | **17.2** | **26.1** | **41.5** | **14.1** | **22.6** | **67** | **75.2** | **52.1** | **56.7** |
| PCB-093/100 | | 0.542 U | **2.7** | **1.71 J** | **0.596 J** | **0.948 J** | **3.06** | 0.71 U | **2.92** | **2.9** |
| PCB-094 | | 0.579 U | **1.3 J** | 0.858 U | 0.395 U | 0.639 U | **1.37** | **1.62** | **1.26** | **1.2** |
| PCB-095 | | **38.6** | **91.4** | **112** | **28.5** | **45.4** | **153** | **182** | **113** | **140** |
| PCB-096 | | 0.352 U | **2.54** | **0.994** | 0.246 U | **0.297 J** | **1.18 J** | **1.39** | **1.1 J** | **1.11 J** |
| PCB-098 | | 0.615 U | 0.558 U | 0.911 U | 0.419 U | 0.679 U | 0.532 U | 0.761 U | 0.687 U | 0.526 U |
| PCB-099 | | **36.6** | **42.6** | **88** | **26.2** | **40.8** | **111** | **126** | **83** | **96.8** |
| PCB-102 | | **1.26 J** | **5.26** | **3.95** | **0.875 J** | **1.67** | **7.26** | **8.22** | **5.97** | **6.19** |
| PCB-103 | | 0.505 U | **1.39 J** | **1.42** | 0.345 U | **0.928** | **2.56** | **2.75** | **2.52** | **1.98 J** |
| PCB-104 | | 0.342 U | 0.27 U | 0.439 U | 0.239 U | 0.2 U | 0.101 U | 0.128 U | 0.111 U | 0.118 U |
| PCB-105 | | **15.9** | **16.4** | **40.5** | **10.2** | **17.1** | **47.2** | **58** | **35.5** | **50** |
| PCB-106 | | 0.428 U | 0.388 U | 0.634 U | 0.292 U | 0.473 U | 0.414 U | 0.592 U | 0.535 U | 0.41 U |
| PCB-107 | | **4.51** | **4.09** | **9.92** | **2.86** | **4.87** | **5.86** | **7.08** | **4.51** | **5.7** |
| PCB-108/124 | | **1.98** | **2.68** | **4.84** | **1.41 J** | **2.27** | **12.5** | **14.3** | **9.5** | **11.1** |
| PCB-110 | | **57.1** | **72.2** | **150** | **36.8** | **63.8** | **186** | **227** | **135** | **183** |
| PCB-111 | | 0.414 U | 0.376 U | 0.614 U | 0.283 U | 0.458 U | 0.365 U | 0.523 U | 0.472 U | 0.361 U |

## Table H-4
## Tissue Results

| Task | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | JeldWend2014Tissue | JeldWend2014Tissue | JeldWend2014Tissue | JeldWend2014Tissue |
|---|---|---|---|---|---|---|---|---|---|
| Location ID | JW-DR-Tissue | JW-EA01-Tissue | JW-EA10-Tissue | JW-RG-Tissue | JW-UR-Tissue | P-100 | P-100 | P-25 | P-50 |
| Sample ID | JW-DR-TISSUE-120508 | JW-EA01-TISSUE-120516 | JW-EA10-TISSUE-120516 | JW-RG-TISSUE-120508 | JW-UR-TISSUE-120508 | JW-TISSUE-01-140428 | JW-TISSUE-01-140428-DUP | JW-TISSUE-03-140428 | JW-TISSUE-02-140428 |
| Sample Date | 05/08/2012 | 05/16/2012 | 05/16/2012 | 05/08/2012 | 05/08/2012 | 04/29/2014 | 04/29/2014 | 04/29/2014 | 04/29/2014 |
| Sample Type | N | N | N | N | N | N | FD | N | N |
| Matrix | TA | TA | TA | TA | TA | TA | TA | TA | TA |
| X | 1301953.88 | 1303385.74 | 1302901.691 | 1302616.709 | 1306498.34 | 1302756.413 | 1302756.413 | 1302506.518 | 1302753.529 |
| Y | 370102.4568 | 373575.7223 | 372488.6797 | 382542.3177 | 374273.3559 | 372242.2397 | 372242.2397 | 372341.8726 | 371894.7329 |
| Analyte | | | | | | | | | |
| PCB-112 | 0.403 U | 0.366 U | 0.597 U | 0.275 U | 0.445 U | 0.374 U | 0.535 U | 0.483 U | 0.37 U |
| PCB-114 | **0.821 J** | **0.834 J** | **2.07** | **0.704 J** | **1.09** | **2.95 J** | 0.51 UJ | **2.28** | **2.98** |
| PCB-115 | **1.52** | **0.922** | **3.46** | **0.877 J** | **1.5** | 0.383 U | 0.549 U | 0.495 U | 0.38 U |
| PCB-117 | **2.87** | **1.86** | **4.07** | **2.05** | **3.13** | **5.3** | **7.53** | **3.18** | 0.408 U |
| PCB-118 | **39.5** | **41.2** | **98.8** | **26.2** | **42.3** | **108** | **132** | **78.7** | **106** |
| PCB-120 | 0.409 U | 0.371 U | 0.606 U | 0.279 U | **0.652 J** | 0.369 U | 0.528 U | 0.476 U | 0.365 U |
| PCB-121 | 0.414 U | 0.376 U | 0.614 U | 0.283 U | 0.458 U | 0.366 U | 0.524 U | 0.472 U | 0.362 U |
| PCB-122 | 0.442 U | **0.747 J** | 0.736 U | 0.313 U | 0.448 U | **1.76** | **2.45** | **1.58** | **2.1** |
| PCB-123 | **1.15** | **1.21 J** | **1.84** | **0.606 J** | **1.14** | **2.33** | **3.11** | **2** | **2.48** |
| PCB-126 | 0.382 U | 0.322 U | 0.402 U | 0.256 U | 0.239 U | 0.705 UJ | 0.592 UJ | 0.515 U | 0.584 U |
| PCB-127 | 0.415 U | 0.378 U | 0.691 U | 0.283 U | 0.438 U | 0.384 U | 0.528 U | 0.493 U | 0.383 U |
| PCB-128/166 | **11.1** | **13** | **27.8** | **7.02** | **10.3** | **38.3** | **47.5** | **27.4** | **33.9** |
| PCB-129/138/163 | **85.8** | **92.9** | **202** | **59** | **83.4** | **218** | **258** | **168** | **187** |
| PCB-130 | **9.43** | **9.77** | **19.9** | **6.69** | **9.28** | **26.2** | **30.9** | **19.5** | **21.7** |
| PCB-131 | 0.354 U | **0.93** | **2.06 J** | 0.255 U | **0.935** | **2.44** | **3.53** | **2.01** | **2.62** |
| PCB-132 | **19.5** | **22** | **50** | **12.1** | **17.3** | **56.6** | **72.5** | **45.6** | **52.6** |
| PCB-133 | **4.11** | **4.59** | **8.11** | **3.76** | **4.83** | **11.4** | **12.4** | **9.45** | **8.94** |
| PCB-134 | **5.15 J** | **6.31** | **12.3** | **3.51** | **4.95** | **17.1** | **21.8** | **13.8** | **15.6** |
| PCB-135/151 | **34.2** | **36.1** | **74.7** | **25.6** | **37.2** | **96.2** | **122** | **85.6** | **84.9** |
| PCB-136 | **7.65** | **8.32** | **19.3** | **5.46** | **8.36** | **21.9** | **29.5** | **20.6** | **21.5** |
| PCB-137 | **4.2** | **5.73** | **10.1** | **2.98** | **5.03** | **14.1** | **14.3** | **7.94** | **10.5** |
| PCB-139/140 | **1.83 J** | **2.14 J** | **3.93 J** | **1.21 J** | **1.82** | **5.54** | **6.21** | **4.08** | **4.66** |
| PCB-141 | **6.61** | **8.99** | **18.3** | **4.53** | **6.37** | **15.1** | **18.4** | **11.1** | **12.2** |
| PCB-142 | 0.326 U | 0.26 U | 0.305 U | 0.235 U | 0.167 U | 0.14 U | 0.24 U | 0.154 U | 0.201 U |
| PCB-143 | 0.316 U | 0.251 U | 0.295 U | 0.228 U | 0.162 U | 0.123 U | 0.212 U | 0.136 U | 0.178 U |
| PCB-144 | **3.06** | **3.15** | **7.93** | **2.1** | **3.14** | **8.51** | **10.7** | **7.02** | **7.74** |
| PCB-145 | 0.236 U | 0.188 U | 0.221 U | 0.17 U | 0.121 U | 0.0888 U | 0.142 U | 0.0954 U | 0.119 U |
| PCB-146 | **25.7** | **26.2** | **50.5** | **20.8** | **26.7** | **67.6** | **75.8** | **56.4** | **52.8** |
| PCB-147/149 | **64.9** | **65.8** | **148** | **46.1** | **63.8** | **178** | **220** | **150** | **157** |
| PCB-148 | 0.305 U | 0.243 U | 0.286 U | 0.22 U | **0.614 J** | **1.11** | **1.21** | **1.32** | **0.848 J** |
| PCB-150 | 0.221 U | 0.176 U | 0.206 U | 0.159 U | **0.225 J** | **0.509 J** | **0.603 J** | **0.541 J** | **0.449 J** |
| PCB-152 | 0.224 U | 0.178 U | 0.21 U | 0.162 U | 0.115 U | 0.0837 U | **0.344 J** | 0.09 U | 0.112 U |
| PCB-153/168 | **83** | **82.5** | **185** | **60.5** | **81** | **201** | **228** | **156** | **156** |
| PCB-154 | **2.02** | **1.74** | **4.41** | **1.53** | **2** | **4.32** | **5.49** | **4.18** | **3.6** |
| PCB-155 | 0.208 U | 0.166 U | 0.195 U | 0.15 U | **0.231 J** | **0.215 J** | **0.27 J** | **0.266 J** | **0.185 J** |
| PCB-156/157 | **5.01** | **6** | **11.6** | **3.31** | **5.14** | **14.9** | **17.6** | **10.5** | **13** |
| PCB-158 | **7.25** | **8.49** | **19.5** | **5.12** | **7.7** | **19.6** | **22.6** | **14.2** | **16.5** |
| PCB-159 | 0.296 U | 0.236 U | 0.366 U | 0.188 U | 0.121 U | **0.806 J** | **1.01** | **0.661 J** | **0.464 J** |
| PCB-160 | 0.241 U | 0.191 U | 0.225 U | 0.174 U | 0.123 U | 0.1 U | 0.172 U | 0.111 U | 0.145 U |
| PCB-161 | 0.233 U | 0.185 U | 0.218 U | 0.168 U | 0.119 U | 0.0941 U | 0.162 U | 0.104 U | 0.136 U |
| PCB-162 | 0.286 U | 0.228 U | **0.662 J** | 0.182 U | **0.331 J** | **0.874 J** | **1.12** | **0.673 J** | **0.866 J** |
| PCB-164 | **6.58** | **7.09** | **14.7** | **4.55** | **5.74** | **14.6** | **18.2** | **12.8** | **14** |
| PCB-165 | 0.266 U | 0.212 U | 0.249 U | 0.192 U | 0.136 U | 0.104 U | 0.178 U | 0.114 U | 0.149 U |
| PCB-167 | **2.38** | **2.87** | **5.42** | **1.71** | **2.59** | **6.3** | **7.11** | **4.77** | **5.18** |

## Table H-4
## Tissue Results

| Analyte | Task<br>Location ID<br>Sample ID<br>Sample Date<br>Sample Type<br>Matrix<br>X<br>Y | Anchor QEA 2012/2013<br>JW-DR-Tissue<br>JW-DR-TISSUE-120508<br>05/08/2012<br>N<br>TA<br>1301953.88<br>370102.4568 | Anchor QEA 2012/2013<br>JW-EA01-Tissue<br>JW-EA01-TISSUE-120516<br>05/16/2012<br>N<br>TA<br>1303385.74<br>373575.7223 | Anchor QEA 2012/2013<br>JW-EA10-Tissue<br>JW-EA10-TISSUE-120516<br>05/16/2012<br>N<br>TA<br>1302901.691<br>372488.6797 | Anchor QEA 2012/2013<br>JW-RG-Tissue<br>JW-RG-TISSUE-120508<br>05/08/2012<br>N<br>TA<br>1302616.709<br>382542.3177 | Anchor QEA 2012/2013<br>JW-UR-Tissue<br>JW-UR-TISSUE-120508<br>05/08/2012<br>N<br>TA<br>1306498.34<br>374273.3559 | JeldWend2014Tissue<br>P-100<br>JW-TISSUE-01-140428<br>04/29/2014<br>N<br>TA<br>1302756.413<br>372242.2397 | JeldWend2014Tissue<br>P-100<br>JW-TISSUE-01-140428-DUP<br>04/29/2014<br>FD<br>TA<br>1302756.413<br>372242.2397 | JeldWend2014Tissue<br>P-25<br>JW-TISSUE-03-140428<br>04/29/2014<br>N<br>TA<br>1302506.518<br>372341.8726 | JeldWend2014Tissue<br>P-50<br>JW-TISSUE-02-140428<br>04/29/2014<br>N<br>TA<br>1302753.529<br>371894.7329 |
|---|---|---|---|---|---|---|---|---|---|---|
| PCB-169 | | 0.324 U | 0.292 U | 0.479 U | 0.209 U | 0.144 U | 0.395 U | 0.372 U | 0.3 U | 0.326 U |
| PCB-170 | | **5.53** | **4.09** | **12.9** | **4.05** | **4.82** | **21.9 J** | **25.6 J** | 0.33 U | **14.7** |
| PCB-171/173 | | **5.28** | **3.98** | **11** | **3.29** | **5.21** | **15.5 J** | **18.9 J** | **12.8 J** | **12.1** |
| PCB-172 | | **0.974 J** | **0.84 J** | **2.39** | **0.68 J** | **0.8 J** | **4.23 J** | **5.28 J** | 0.305 U | **3** |
| PCB-174 | | **8.28** | **6.88** | **21.2** | **5.52** | **7.72** | **24 J** | **30.3 J** | **17.9 J** | **16.8** |
| PCB-175 | | **0.958 J** | **0.625 J** | **2.15** | **0.968** | **1.26** | **3.58 J** | **4.15 J** | **3.05 J** | **2.46** |
| PCB-176 | | **2.22** | **1.59** | **4.47** | **1.37 J** | **1.83** | **6.03** | **7.65** | **5.25** | **4.87** |
| PCB-177 | | **17.3** | **11.9** | **31.8** | **12.4** | **16.7** | **49.1 J** | **59.6 J** | **42.1 J** | **37.5** |
| PCB-178 | | **11.9** | **8.3** | **16.8 J** | **9.68** | **11.9** | **29.8** | **35.4** | **24.5** | **22.7** |
| PCB-179 | | **9.72** | **6.87** | **19.3** | **6.05 J** | **9.5** | **28.3** | **34.9** | **24.4** | **23** |
| PCB-180/193 | | **23.7** | **19.2** | **52.6** | **18.2** | **23.1** | **77.8 J** | **90.7 J** | **60.8 J** | **54.8** |
| PCB-181 | | 0.451 U | 0.41 U | 0.651 U | 0.388 U | 0.215 U | **0.479 J** | 0.356 U | 0.277 U | 0.302 U |
| PCB-182 | | 0.435 U | 0.396 U | 0.628 U | 0.374 U | 0.208 U | **0.673 J** | **0.51 J** | 0.259 U | **0.444 J** |
| PCB-183 | | **10.5** | **8.38** | **23.3** | **7.74** | **11.2** | **32 J** | **38.5 J** | **26.5 J** | **24** |
| PCB-184 | | 0.33 U | 0.295 U | 0.401 U | 0.24 U | 0.161 U | **0.283 J** | **0.458 J** | **0.335 J** | 0.175 U |
| PCB-185 | | 0.482 U | 0.439 U | **1.51** | 0.415 U | 0.23 U | **1.68 J** | 0.352 U | **0.86 J** | 0.299 U |
| PCB-186 | | 0.307 U | 0.275 U | 0.374 U | 0.223 U | 0.15 U | 0.137 U | 0.205 U | 0.161 U | 0.168 U |
| PCB-187 | | **40.7** | **28** | **77** | **31.1** | **40.8** | **105 J** | **124 J** | **87.1 J** | **77.6** |
| PCB-188 | | 0.325 U | 0.291 U | 0.396 U | 0.237 U | 0.158 U | **0.324 J** | 0.183 U | 0.144 U | 0.15 U |
| PCB-189 | | 0.262 U | 0.204 U | **0.628 J** | 0.165 U | 0.141 U | 0.969 UJ | 0.997 U | 0.65 U | 0.502 UJ |
| PCB-190 | | **1.97** | **1.45** | **3.73** | **1.44** | **1.49 J** | **5.63 J** | **6.66 J** | 0.241 U | **3.92** |
| PCB-191 | | 0.34 U | **0.507 J** | **1.32** | **0.499 J** | **0.599 J** | **1.99 J** | **2.42 J** | 0.225 U | **1.33 J** |
| PCB-192 | | 0.351 U | 0.287 U | 0.448 U | 0.271 U | 0.157 U | 0.211 U | 0.304 U | 0.236 U | 0.258 U |
| PCB-194 | | **1.69 J** | **1.14** | **5.81** | **1.45** | **1.84** | **7.03** | **7.6** | **4.03** | **3.4** |
| PCB-195 | | **0.984** | **0.579 J** | **2.51** | **0.778 J** | **0.797 J** | **8.42** | **6.29 J** | **3.3** | **2.53** |
| PCB-196 | | **3.15 J** | **2.42** | **9.23** | **2.3** | **2.66** | **6.37 J** | **9.18 J** | **5.17** | **5.38** |
| PCB-197 | | **0.928 J** | 0.266 U | **1.78** | **0.494 J** | **0.647 J** | **1.64** | **1.66** | **0.978 J** | **1.15** |
| PCB-198/199 | | **9.73** | **6.67** | **23.9** | **7.67** | **9.23** | **26.9** | **32.1** | **15.8** | **17** |
| PCB-200 | | 0.238 U | 0.28 U | 0.337 U | 0.269 U | 0.148 U | **0.621 J** | **0.608 J** | **0.255 J** | 0.184 U |
| PCB-201 | | **2.26** | **1.42** | **4.5** | **1.58** | **1.97** | **6.62** | **7.34** | **4.45** | **4.26** |
| PCB-202 | | **8.33** | **4.78** | **15.8** | **6.41** | **6.5** | **22.6** | **24.5** | **13.6** | **14.7** |
| PCB-203 | | **3.27** | **1.94 J** | **7.92** | **2.29** | **2.47** | **7.01** | **8.72** | **4.22** | **4.27** |
| PCB-204 | | 0.221 U | 0.26 U | 0.312 U | 0.249 U | 0.138 U | 0.149 U | 0.219 U | 0.183 U | 0.187 U |
| PCB-205 | | 0.294 U | 0.239 U | 0.313 U | 0.196 U | 0.125 U | 1.31 U | 0.591 U | 0.583 U | 0.513 U |
| PCB-206 | | 0.503 U | 0.441 U | **2.05 J** | 0.379 U | **0.745 J** | **3.77** | **4.37** | **1.51 J** | **1.97** |
| PCB-207 | | 0.299 U | 0.332 U | 0.511 U | 0.278 U | 0.171 U | 0.359 U | 0.338 U | 0.257 U | 0.277 U |
| PCB-208 | | 0.304 U | 0.338 U | **0.641 J** | 0.282 U | **0.269 J** | **1.17 J** | **1.49** | **0.545 J** | **0.659 J** |
| PCB-209 | | 0.247 U | 0.362 U | 0.381 U | 0.246 U | 0.139 U | **1.29 J** | **1.71** | **0.608 J** | **0.866 J** |
| Total PCB Congener (U = limit) | | **1,329.355 J** | **4,258.752 J** | **2,962.815 J** | **918.909 J** | **1,312.881 J** | **3,616.4366 J** | **4,255.95 J** | **2,963.4954 J** | **3,200.345 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | **0.05 J** | **0.043 J** | **0.06 J** | **0.033 J** | **0.031** | **0.08837227 J** | **0.07760511 J** | **0.0651022** | **0.07416776 J** |
| Total PCB Congener (U = 1/2) | | **1,304.511 J** | **4,247.533 J** | **2,939.337 J** | **903.476 J** | **1,303.821 J** | **3,610.0368 J** | **4,246.661 J** | **2,955.9797 J** | **3,192.086 J** |
| Total PCB Congener (U = 0) | | **1,279.666 J** | **4,236.313 J** | **2,915.859 J** | **888.042 J** | **1,294.76 J** | **3,603.637 J** | **4,237.371 J** | **2,948.464 J** | **3,183.826 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | **0.026 J** | **0.023 J** | **0.032 J** | **0.017 J** | **0.016** | **0.08237887 J** | **0.07193781 J** | **0.0605446** | **0.06920201 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | **0.002 J** | **0.002 J** | **0.005 J** | **0.001 J** | **0.002** | **0.07638547 J** | **0.06627051 J** | **0.055987** | **0.06423626 J** |

# Table H-4
## Tissue Results

| Task | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | JeldWend2014Tissue | JeldWend2014Tissue | JeldWend2014Tissue | JeldWend2014Tissue |
|---|---|---|---|---|---|---|---|---|---|
| Location ID | JW-DR-Tissue | JW-EA01-Tissue | JW-EA10-Tissue | JW-RG-Tissue | JW-UR-Tissue | P-100 | P-100 | P-25 | P-50 |
| Sample ID | JW-DR-TISSUE-120508 | JW-EA01-TISSUE-120516 | JW-EA10-TISSUE-120516 | JW-RG-TISSUE-120508 | JW-UR-TISSUE-120508 | JW-TISSUE-01-140428 | JW-TISSUE-01-140428-DUP | JW-TISSUE-03-140428 | JW-TISSUE-02-140428 |
| Sample Date | 05/08/2012 | 05/16/2012 | 05/16/2012 | 05/08/2012 | 05/08/2012 | 04/29/2014 | 04/29/2014 | 04/29/2014 | 04/29/2014 |
| Sample Type | N | N | N | N | N | N | FD | N | N |
| Matrix | TA | TA | TA | TA | TA | TA | TA | TA | TA |
| X | 1301953.88 | 1303385.74 | 1302901.691 | 1302616.709 | 1306498.34 | 1302756.413 | 1302756.413 | 1302506.518 | 1302753.529 |
| Y | 370102.4568 | 373575.7223 | 372488.6797 | 382542.3177 | 374273.3559 | 372242.2397 | 372242.2397 | 372341.8726 | 371894.7329 |
| **Analyte** | | | | | | | | | |
| **PCB Congeners (µg/kg-lipid)** | | | | | | | | | |
| PCB-001 | **0.618** | **0.330** | **0.281** | **0.251** | **0.259** | 0.8 UJ | 1.682 UJ | 4.35 UJ | 2.5 UJ |
| PCB-002 | **0.925** | **0.296** | **0.451** | **0.383** | **0.372** | **0.558** | **0.716** | **1.57167 J** | **1.188 J** |
| PCB-003 | **0.558** | **0.248** | **0.301** | **0.251** | **0.252** | 0.532 U | 0.832 U | 1.8167 UJ | 1.456 UJ |
| PCB-004 | **0.950 J** | **4.980 J** | **1.457 J** | **0.584 J** | **0.436 J** | **1.124 J** | 1.16 UJ | **1.06 J** | **1.026 J** |
| PCB-005 | 1.511UJ | 0.744UJ | 0.869UJ | 0.603UJ | 0.233UJ | 0.0816 UJ | 0.0878 UJ | 0.054167 UJ | 0.088 UJ |
| PCB-006 | **0.608 J** | **1.700 J** | **0.763 J** | **0.257 J** | **0.252 J** | **0.826 J** | **0.864 J** | **0.74 J** | **0.784 J** |
| PCB-007 | 1.354UJ | **0.328 J** | 0.780UJ | 0.542UJ | 0.208UJ | **0.123 J** | **0.1058 J** | **0.096 J** | **0.1078 J** |
| PCB-008 | **1.868 J** | **5.240 J** | **1.669 J** | **0.802 J** | **0.635 J** | **2.32 J** | **2.74 J** | **2.1167 J** | **2.18 J** |
| PCB-009 | 1.596UJ | **0.420 J** | 0.919UJ | 0.638UJ | 0.245UJ | **0.264 J** | **0.302 J** | **0.25333 J** | **0.31 J** |
| PCB-010 | 1.204UJ | **0.322 J** | 0.950UJ | 0.643UJ | 0.361UJ | 0.0648 UJ | 0.0676 UJ | 0.0535 UJ | 0.0582 UJ |
| PCB-011 | **40.752 J** | **10.580 J** | **23.314 J** | **12.702 J** | **10.555 J** | **20.8 J** | **23.2 J** | **18 J** | **23.4 J** |
| PCB-012/013 | 1.505UJ | **1.008 J** | 0.867UJ | 0.603UJ | **0.149 J** | 0.0812 UJ | 0.0874 UJ | 0.053833 UJ | 0.0876 UJ |
| PCB-014 | 1.288UJ | 0.634UJ | 0.742UJ | 0.516UJ | 0.199UJ | 0.07 UJ | 0.0754 UJ | 0.0465 UJ | 0.0756 UJ |
| PCB-015 | **0.693 J** | **6.820 J** | **1.198 J** | **0.288 J** | **0.352 J** | **0.708 J** | **0.764 J** | **0.58167 J** | 0.0898 UJ |
| PCB-016 | **1.232 J** | **18.560** | **2.428** | **0.623** | **0.699** | **1.348** | **1.462** | **1.29833** | **1.312** |
| PCB-017 | **1.458** | **20.800** | **2.929** | **0.647 J** | **0.844** | **1.646** | **1.76** | **1.58667** | **1.486** |
| PCB-018/030 | **2.737** | **23.000** | **4.721** | **1.362** | **1.601** | **3.22** | **3.56** | **2.9333** | **3** |
| PCB-019 | **0.361** | **3.680** | **0.933** | **0.171 J** | **0.191** | **0.54** | **0.544** | **0.385** | **0.48** |
| PCB-020/028 | **3.950** | **77.800** | **7.996** | **2.179** | **2.934** | **3.82** | **4.66** | **4.0667** | **4.06** |
| PCB-021/033 | **1.266** | **13.460** | **1.775** | **0.691** | **0.678** | **1.328** | **1.54** | **1.18667** | **1.296** |
| PCB-022 | **1.279** | **26.800** | **2.794** | **0.641** | **0.884** | **1.304** | **1.562** | **1.32** | **1.438** |
| PCB-023 | 0.180 U | 0.134 U | 0.098 U | 0.067 U | 0.042 U | 0.0824 U | 0.0846 U | 0.067167 U | 0.1028 U |
| PCB-024 | 0.125 U | **0.866** | **0.150 J** | 0.053 U | 0.037 U | 0.0866 U | 0.0942 U | 0.067333 U | 0.0892 U |
| PCB-025 | **0.470** | **4.960** | **1.187** | **0.266** | **0.426** | **0.49** | **0.588** | **0.515** | **0.494** |
| PCB-026/029 | **0.887** | **10.100** | **2.736** | **0.499** | **0.651** | **1.074** | **1.298** | **0.87333** | **1.068** |
| PCB-027 | **0.386** | **4.220** | **1.555** | **0.175 J** | **0.236** | **0.63** | **0.676** | **0.4167** | **0.548** |
| PCB-031 | **3.135** | **59.600** | **5.973** | **1.719** | **2.200** | **3.02** | **3.64** | **3.05** | **3.22** |
| PCB-032 | **0.997** | **14.540** | **2.370** | **0.471** | **0.615** | **1.104** | **1.166** | **0.99167** | **1.016** |
| PCB-034 | 0.185 U | 0.138 U | 0.101 U | 0.068 U | 0.043 U | 0.0838 U | 0.086 U | 0.06833 U | 0.1046 U |
| PCB-035 | **0.411** | **0.774** | **0.320** | **0.160 J** | **0.169** | **0.292** | **0.332 J** | **0.24833** | **0.314** |
| PCB-036 | 0.182 U | 0.136 U | **0.137 J** | **0.070 J** | **0.054 J** | **0.1534 J** | **0.218** | 0.066167 U | 0.1012 U |
| PCB-037 | **1.006** | **12.580** | **1.324** | **0.501** | **0.719** | **1.132** | **1.292** | **1.12833** | **1.162** |
| PCB-038 | 0.194 U | 0.145 U | 0.106 U | 0.072 U | 0.045 U | 0.0876 U | 0.0898 U | 0.0715 U | 0.1092 U |
| PCB-039 | 0.174 U | **0.362** | 0.095 U | 0.064 U | 0.040 U | 0.0788 U | 0.0808 U | 0.064167 U | 0.0982 U |
| PCB-040/071 | **2.288** | **23.600** | **4.624** | **1.168** | **1.567** | **6.1** | **7.48** | **4.6** | **6.12** |
| PCB-041 | **0.317 J** | **7.540** | **0.665** | **0.227** | **0.275** | **0.826** | **0.832 J** | **0.84333** | **0.786** |
| PCB-042 | **1.577** | **16.640** | **2.351** | **0.876** | **1.148** | **3.2** | **3.88** | **2.9167** | **3.24** |
| PCB-043 | **0.176 J** | **2.820** | **0.314** | **0.105 J** | **0.161 J** | **0.542 J** | 0.0954 UJ | **0.46333** | **0.754** |
| PCB-044/047/065 | **6.207** | **56.400** | **10.771** | **3.508** | **4.437** | **26** | **30.6** | **17.5** | **18.96** |
| PCB-045 | **0.567** | **8.120** | **1.017** | **0.298** | **0.394** | **0.932** | **1.072** | **0.83833** | **0.908** |
| PCB-046 | **0.217 J** | **2.880** | **0.495** | **0.139 J** | **0.167** | **0.512** | **0.648** | **0.47167** | **0.516** |
| PCB-048 | **1.013** | **15.440** | **1.705** | **0.514** | **0.728** | **2.04** | **2.46** | **1.9** | **2.18** |
| PCB-049/069 | **3.825** | **32.400** | **7.553** | **2.153** | **2.719** | **9.64** | **11.2** | **7.2667** | **9.14** |

## Table H-4
## Tissue Results

| Task | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | JeldWend2014Tissue | JeldWend2014Tissue | JeldWend2014Tissue | JeldWend2014Tissue |
|---|---|---|---|---|---|---|---|---|---|
| Location ID | JW-DR-Tissue | JW-EA01-Tissue | JW-EA10-Tissue | JW-RG-Tissue | JW-UR-Tissue | P-100 | P-100 | P-25 | P-50 |
| Sample ID | JW-DR-TISSUE-120508 | JW-EA01-TISSUE-120516 | JW-EA10-TISSUE-120516 | JW-RG-TISSUE-120508 | JW-UR-TISSUE-120508 | JW-TISSUE-01-140428 | JW-TISSUE-01-140428-DUP | JW-TISSUE-03-140428 | JW-TISSUE-02-140428 |
| Sample Date | 05/08/2012 | 05/16/2012 | 05/16/2012 | 05/08/2012 | 05/08/2012 | 04/29/2014 | 04/29/2014 | 04/29/2014 | 04/29/2014 |
| Sample Type | N | N | N | N | N | N | FD | N | N |
| Matrix | TA | TA | TA | TA | TA | TA | TA | TA | TA |
| X | 1301953.88 | 1303385.74 | 1302901.691 | 1302616.709 | 1306498.34 | 1302756.413 | 1302756.413 | 1302506.518 | 1302753.529 |
| Y | 370102.4568 | 373575.7223 | 372488.6797 | 382542.3177 | 374273.3559 | 372242.2397 | 372242.2397 | 372341.8726 | 371894.7329 |
| Analyte | | | | | | | | | |
| PCB-050/053 | **0.699** | **6.720** | **2.139** | **0.379 J** | **0.503** | **1.4** | **1.754** | **1.16167** | **1.404** |
| PCB-051 | **0.326** | **2.180** | **0.813** | **0.147 J** | **0.238** | **3.94** | **4.74** | **2.75** | **2.56** |
| PCB-052 | **8.715** | **56.600** | **18.555** | **4.989** | **6.225** | **24.4** | **28.8** | **16.5667** | **23.8** |
| PCB-054 | 0.082 U | **0.164 J** | **0.127 J** | 0.030 U | 0.020 U | 0.0524 U | 0.0522 U | 0.037833 U | 0.0492 U |
| PCB-055 | 0.117 U | **0.392** | **0.172 J** | 0.044 U | **0.139 J** | 0.0864 U | 0.1008 U | 0.060833 U | 0.096 U |
| PCB-056 | **2.580** | **2.980** | **2.370** | **1.322** | **1.726** | **4.4** | **5.22** | **3.9** | **4.52** |
| PCB-057 | 0.117 U | **0.268 J** | 0.067 U | 0.044 U | **0.056 J** | **0.1322 J** | 0.0988 U | **0.11167 J** | 0.094 U |
| PCB-058 | 0.115 U | **0.141 J** | **0.076 J** | 0.043 U | **0.048 J** | **0.1452 J** | 0.0984 U | 0.059333 U | 0.0936 U |
| PCB-059/062/075 | **0.887** | **7.400** | **1.031** | **0.440 J** | **0.560** | **1.768** | **2.12** | **1.52** | **1.712** |
| PCB-060 | **1.313** | **1.490** | **1.131** | **0.671** | **0.878** | **2.06** | **2.36** | **1.7833** | **2** |
| PCB-061/070/074/076 | **10.502** | **31.400** | **13.372** | **5.403** | **7.299** | **20.4** | **23.6** | **15.4333** | **20.4** |
| PCB-063 | **0.298** | **1.184** | **0.299** | **0.137 J** | **0.188** | **0.504** | **0.6** | **0.42667** | **0.492** |
| PCB-064 | **2.329** | **24.800** | **3.680** | **1.264** | **1.617** | **5.08** | **6.24** | **4.1167** | **5.24** |
| PCB-066 | **5.988** | **15.040** | **6.493** | **3.464** | **4.168** | **10.82** | **12.52** | **8.95** | **10.42** |
| PCB-067 | **0.665** | **1.580** | **0.499** | **0.305** | **0.615** | **0.998** | **1.192** | **1.195** | **0.98** |
| PCB-068 | **0.124 J** | **0.258** | **0.295** | **0.071 J** | **0.107 J** | **2.22** | **2.46** | **1.465** | **1.19** |
| PCB-072 | **0.204 J** | **0.484** | **0.272** | **0.124 J** | **0.184** | **0.556** | **0.626** | **0.445** | **0.452** |
| PCB-073 | 0.080 U | **0.198** | **0.068 J** | 0.031 U | 0.026 U | 0.0434 U | 0.0578 U | **0.080167 J** | 0.0472 U |
| PCB-077 | **0.404 J** | **0.276** | **0.455** | **0.288** | **0.343** | **0.812** | **1.012** | **0.75833** | **0.864** |
| PCB-078 | 0.127 U | 0.068 U | 0.073 U | 0.047 U | 0.038 U | 0.0912 U | 0.1064 U | 0.064167 U | 0.1012 U |
| PCB-079 | **0.201 J** | **0.137 J** | **0.173 J** | **0.069 J** | **0.096 J** | **0.316** | **0.408** | **0.26167** | **0.354** |
| PCB-080 | 0.105 U | 0.056 U | 0.060 U | 0.039 U | 0.032 U | 0.0754 U | 0.088 U | 0.053 U | 0.0836 U |
| PCB-081 | 0.103 U | 0.055 U | 0.059 U | 0.038 U | 0.031 U | 0.0912 U | 0.1062 U | 0.064 U | 0.101 U |
| PCB-082 | **1.843** | **1.148** | **2.832** | **0.832** | **1.159** | **3.88** | **4.76** | **2.5167** | **4** |
| PCB-083 | **1.527** | **1.004** | **2.119** | **0.697** | **0.986** | **2.92** | **3.84** | **2.05** | **2.88** |
| PCB-084 | **3.110** | **3.060** | **5.414** | **1.359** | **2.004** | **8** | **9.24** | **4.9167** | **7.5** |
| PCB-085/116 | **2.812** | **2.140** | **4.181** | **1.235** | **1.691** | **6.36** | **7.1** | **4.2167** | **7.44** |
| PCB-086/087/097/109/119/125 | **9.906** | **7.020** | **15.048** | **4.575** | **6.136** | **21.2** | **25.2** | **13.0333** | **20.2** |
| PCB-088 | 0.193 U | 0.112 U | 0.176 U | 0.092 U | 0.122 U | **7.06 J** | 0.1754 UJ | 0.131833 U | 0.1212 U |
| PCB-089 | 0.191 U | **0.202 J** | 0.174 U | 0.090 U | 0.120 U | **0.414** | **0.5** | **0.29** | **0.39** |
| PCB-090/101/113 | **17.962** | **15.360** | **28.324** | **9.041** | **11.825** | **39.4** | **45** | **24.667** | **34.8** |
| PCB-091 | **2.179** | **3.100** | **3.430** | **0.954** | **1.322** | 0.0866 UJ | **5.76 J** | **3.1167** | **4.42** |
| PCB-092 | **5.392** | **5.220** | **7.996** | **3.072** | **4.043** | **13.4** | **15.04** | **8.6833** | **11.34** |
| PCB-093/100 | 0.170 U | **0.540** | **0.329 J** | **0.130 J** | **0.170 J** | **0.612** | 0.142 U | **0.48667** | **0.58** |
| PCB-094 | 0.182 U | **0.260 J** | 0.165 U | 0.086 U | 0.114 U | **0.274** | **0.324** | **0.21** | **0.24** |
| PCB-095 | **12.100** | **18.280** | **21.580** | **6.209** | **8.122** | **30.6** | **36.4** | **18.833** | **28** |
| PCB-096 | 0.110 U | **0.508** | **0.192** | 0.054 U | **0.053 J** | **0.236 J** | **0.278** | **0.1833 J** | **0.222 J** |
| PCB-098 | 0.193 U | 0.112 U | 0.176 U | 0.091 U | 0.121 U | 0.1064 U | 0.1522 U | 0.1145 U | 0.1052 U |
| PCB-099 | **11.473** | **8.520** | **16.956** | **5.708** | **7.299** | **22.2** | **25.2** | **13.833** | **19.36** |
| PCB-102 | **0.395 J** | **1.052** | **0.761** | **0.191 J** | **0.299** | **1.452** | **1.644** | **0.995** | **1.238** |
| PCB-103 | 0.158 U | **0.278 J** | **0.274** | 0.075 U | **0.166** | **0.512** | **0.55** | **0.42** | **0.396 J** |
| PCB-104 | 0.107 U | 0.054 U | 0.085 U | 0.052 U | 0.036 U | 0.0202 U | 0.0256 U | 0.0185 U | 0.0236 U |
| PCB-105 | **4.984** | **3.280** | **7.804** | **2.222** | **3.059** | **9.44** | **11.6** | **5.9167** | **10** |
| PCB-106 | 0.134 U | 0.078 U | 0.122 U | 0.064 U | 0.085 U | 0.0828 U | 0.1184 U | 0.089167 U | 0.082 U |

## Table H-4
## Tissue Results

| Analyte | Task | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | JeldWend2014Tissue | JeldWend2014Tissue | JeldWend2014Tissue | JeldWend2014Tissue |
|---|---|---|---|---|---|---|---|---|---|---|
| | Location ID | JW-DR-Tissue | JW-EA01-Tissue | JW-EA10-Tissue | JW-RG-Tissue | JW-UR-Tissue | P-100 | P-100 | P-25 | P-50 |
| | Sample ID | JW-DR-TISSUE-120508 | JW-EA01-TISSUE-120516 | JW-EA10-TISSUE-120516 | JW-RG-TISSUE-120508 | JW-UR-TISSUE-120508 | JW-TISSUE-01-140428 | JW-TISSUE-01-140428-DUP | JW-TISSUE-03-140428 | JW-TISSUE-02-140428 |
| | Sample Date | 05/08/2012 | 05/16/2012 | 05/16/2012 | 05/08/2012 | 05/08/2012 | 04/29/2014 | 04/29/2014 | 04/29/2014 | 04/29/2014 |
| | Sample Type | N | N | N | N | N | N | FD | N | N |
| | Matrix | TA | TA | TA | TA | TA | TA | TA | TA | TA |
| | X | 1301953.88 | 1303385.74 | 1302901.691 | 1302616.709 | 1306498.34 | 1302756.413 | 1302756.413 | 1302506.518 | 1302753.529 |
| | Y | 370102.4568 | 373575.7223 | 372488.6797 | 382542.3177 | 374273.3559 | 372242.2397 | 372242.2397 | 372341.8726 | 371894.7329 |
| PCB-107 | | **1.414** | **0.818** | **1.911** | **0.623** | **0.871** | **1.172** | **1.416** | **0.75167** | **1.14** |
| PCB-108/124 | | **0.621** | **0.536** | **0.933** | **0.307 J** | **0.406** | **2.5** | **2.86** | **1.5833** | **2.22** |
| PCB-110 | | **17.900** | **14.440** | **28.902** | **8.017** | **11.413** | **37.2** | **45.4** | **22.5** | **36.6** |
| PCB-111 | | 0.130 U | 0.075 U | 0.118 U | 0.062 U | 0.082 U | 0.073 U | 0.1046 U | 0.078667 U | 0.0722 U |
| PCB-112 | | 0.126 U | 0.073 U | 0.115 U | 0.060 U | 0.080 U | 0.0748 U | 0.107 U | 0.0805 U | 0.074 U |
| PCB-114 | | **0.257 J** | **0.167 J** | **0.399** | **0.153 J** | **0.195** | **0.59 J** | 0.102 UJ | **0.38** | **0.596** |
| PCB-115 | | **0.476** | **0.184** | **0.667** | **0.191 J** | **0.268** | 0.0766 U | 0.1098 U | 0.0825 U | 0.076 U |
| PCB-117 | | **0.900** | **0.372** | **0.784** | **0.447** | **0.560** | **1.06** | **1.506** | **0.53** | 0.0816 U |
| PCB-118 | | **12.382** | **8.240** | **19.037** | **5.708** | **7.567** | **21.6** | **26.4** | **13.1167** | **21.2** |
| PCB-120 | | 0.128 U | 0.074 U | 0.117 U | 0.061 U | **0.117 J** | 0.0738 U | 0.1056 U | 0.079333 U | 0.073 U |
| PCB-121 | | 0.130 U | 0.075 U | 0.118 U | 0.062 U | 0.082 U | 0.0732 U | 0.1048 U | 0.078667 U | 0.0724 U |
| PCB-122 | | 0.139 U | **0.149 J** | 0.142 U | 0.068 U | 0.080 U | **0.352** | **0.49** | **0.26333** | **0.42** |
| PCB-123 | | **0.361** | **0.242 J** | **0.355** | **0.132 J** | **0.204** | **0.466** | **0.622** | **0.333** | **0.496** |
| PCB-126 | | 0.120 U | 0.064 U | 0.077 U | 0.056 U | 0.043 U | 0.141 UJ | 0.1184 UJ | 0.085833 U | 0.1168 U |
| PCB-127 | | 0.130 U | 0.076 U | 0.133 U | 0.062 U | 0.078 U | 0.0768 U | 0.1056 U | 0.082167 U | 0.0766 U |
| PCB-128/166 | | **3.480** | **2.600** | **5.357** | **1.529** | **1.843** | **7.66** | **9.5** | **4.5667** | **6.78** |
| PCB-129/138/163 | | **26.897** | **18.580** | **38.921** | **12.854** | **14.920** | **43.6** | **51.6** | **28** | **37.4** |
| PCB-130 | | **2.956** | **1.954** | **3.834** | **1.458** | **1.660** | **5.24** | **6.18** | **3.25** | **4.34** |
| PCB-131 | | 0.111 U | **0.186** | **0.397 J** | 0.056 U | **0.167** | **0.488** | **0.706** | **0.335** | **0.524** |
| PCB-132 | | **6.113** | **4.400** | **9.634** | **2.636** | **3.095** | **11.32** | **14.5** | **7.6** | **10.52** |
| PCB-133 | | **1.288** | **0.918** | **1.563** | **0.819** | **0.864** | **2.28** | **2.48** | **1.575** | **1.788** |
| PCB-134 | | **1.614 J** | **1.262** | **2.370** | **0.765** | **0.886** | **3.42** | **4.36** | **2.3** | **3.12** |
| PCB-135/151 | | **10.721** | **7.220** | **14.393** | **5.577** | **6.655** | **19.24** | **24.4** | **14.2667** | **16.98** |
| PCB-136 | | **2.398** | **1.664** | **3.719** | **1.190** | **1.496** | **4.38** | **5.9** | **3.4333** | **4.3** |
| PCB-137 | | **1.317** | **1.146** | **1.946** | **0.649** | **0.900** | **2.82** | **2.86** | **1.32333** | **2.1** |
| PCB-139/140 | | **0.574 J** | **0.428 J** | **0.757 J** | **0.264 J** | **0.326** | **1.108** | **1.242** | **0.68** | **0.932** |
| PCB-141 | | **2.072** | **1.798** | **3.526** | **0.987** | **1.140** | **3.02** | **3.68** | **1.85** | **2.44** |
| PCB-142 | | 0.102 U | 0.052 U | 0.059 U | 0.051 U | 0.030 U | 0.028 U | 0.048 U | 0.025667 U | 0.0402 U |
| PCB-143 | | 0.099 U | 0.050 U | 0.057 U | 0.050 U | 0.029 U | 0.0246 U | 0.0424 U | 0.022667 U | 0.0356 U |
| PCB-144 | | **0.959** | **0.630** | **1.528** | **0.458** | **0.562** | **1.702** | **2.14** | **1.17** | **1.548** |
| PCB-145 | | 0.074 U | 0.038 U | 0.043 U | 0.037 U | 0.022 U | 0.01776 U | 0.0284 U | 0.0159 U | 0.0238 U |
| PCB-146 | | **8.056** | **5.240** | **9.730** | **4.532** | **4.776** | **13.52** | **15.16** | **9.4** | **10.56** |
| PCB-147/149 | | **20.345** | **13.160** | **28.516** | **10.044** | **11.413** | **35.6** | **44** | **25** | **31.4** |
| PCB-148 | | 0.096 U | 0.049 U | 0.055 U | 0.048 U | **0.110 J** | **0.222** | **0.242** | **0.22** | **0.1696 J** |
| PCB-150 | | 0.069 U | 0.035 U | 0.040 U | 0.035 U | **0.040 J** | **0.1018 J** | **0.1206 J** | **0.090167 J** | **0.0898 J** |
| PCB-152 | | 0.070 U | 0.036 U | 0.040 U | 0.035 U | 0.021 U | 0.01674 U | **0.0688 J** | 0.015 U | 0.0224 U |
| PCB-153/168 | | **26.019** | **16.500** | **35.645** | **13.181** | **14.490** | **40.2** | **45.6** | **26** | **31.2** |
| PCB-154 | | **0.633** | **0.348** | **0.850** | **0.333** | **0.358** | **0.864** | **1.098** | **0.69667** | **0.72** |
| PCB-155 | | 0.065 U | 0.033 U | 0.038 U | 0.033 U | **0.041 J** | **0.043 J** | **0.054 J** | **0.044333 J** | **0.037 J** |
| PCB-156/157 | | **1.571** | **1.200** | **2.235** | **0.721** | **0.920** | **2.98** | **3.52** | **1.75** | **2.6** |
| PCB-158 | | **2.273** | **1.698** | **3.757** | **1.115** | **1.378** | **3.92** | **4.52** | **2.3667** | **3.3** |
| PCB-159 | | 0.093 U | 0.047 U | 0.071 U | 0.041 U | 0.022 U | **0.1612 J** | **0.202** | **0.110167 J** | **0.0928 J** |
| PCB-160 | | 0.076 U | 0.038 U | 0.043 U | 0.038 U | 0.022 U | 0.02 U | 0.0344 U | 0.0185 U | 0.029 U |
| PCB-161 | | 0.073 U | 0.037 U | 0.042 U | 0.037 U | 0.021 U | 0.01882 U | 0.0324 U | 0.017333 U | 0.0272 U |

## Table H-4
## Tissue Results

| Analyte | Task | Location ID | Sample ID | Sample Date | Sample Type | Matrix | X | Y |
|---|---|---|---|---|---|---|---|---|
| | Anchor QEA 2012/2013 | JW-DR-Tissue | JW-DR-TISSUE-120508 | 05/08/2012 | N | TA | 1301953.88 | 370102.4568 |
| | Anchor QEA 2012/2013 | JW-EA01-Tissue | JW-EA01-TISSUE-120516 | 05/16/2012 | N | TA | 1303385.74 | 373575.7223 |
| | Anchor QEA 2012/2013 | JW-EA10-Tissue | JW-EA10-TISSUE-120516 | 05/16/2012 | N | TA | 1302901.691 | 372488.6797 |
| | Anchor QEA 2012/2013 | JW-RG-Tissue | JW-RG-TISSUE-120508 | 05/08/2012 | N | TA | 1302616.709 | 382542.3177 |
| | Anchor QEA 2012/2013 | JW-UR-Tissue | JW-UR-TISSUE-120508 | 05/08/2012 | N | TA | 1306498.34 | 374273.3559 |
| | JeldWend2014Tissue | P-100 | JW-TISSUE-01-140428 | 04/29/2014 | N | TA | 1302756.413 | 372242.2397 |
| | JeldWend2014Tissue | P-100 | JW-TISSUE-01-140428-DUP | 04/29/2014 | FD | TA | 1302756.413 | 372242.2397 |
| | JeldWend2014Tissue | P-25 | JW-TISSUE-03-140428 | 04/29/2014 | N | TA | 1302506.518 | 372341.8726 |
| | JeldWend2014Tissue | P-50 | JW-TISSUE-02-140428 | 04/29/2014 | N | TA | 1302753.529 | 371894.7329 |
| PCB-162 | 0.090 U | 0.046 U | **0.128 J** | 0.040 U | **0.059 J** | **0.1748 J** | **0.224** | **0.112167 J** | **0.1732 J** |
| PCB-164 | **2.063** | **1.418** | **2.832** | **0.991** | **1.027** | **2.92** | **3.64** | **2.1333** | **2.8** |
| PCB-165 | 0.083 U | 0.042 U | 0.048 U | 0.042 U | 0.024 U | 0.0208 U | 0.0356 U | 0.019 U | 0.0298 U |
| PCB-167 | **0.746** | **0.574** | **1.044** | **0.373** | **0.463** | **1.26** | **1.422** | **0.795** | **1.036** |
| PCB-169 | 0.102 U | 0.058 U | 0.092 U | 0.046 U | 0.026 U | 0.079 U | 0.0744 U | 0.05 U | 0.0652 U |
| PCB-170 | **1.734** | **0.818** | **2.486** | **0.882** | **0.862** | **4.38 J** | **5.12 J** | 0.055 U | **2.94** |
| PCB-171/173 | **1.655** | **0.796** | **2.119** | **0.717** | **0.932** | **3.1 J** | **3.78 J** | **2.1333 J** | **2.42** |
| PCB-172 | **0.305 J** | **0.168 J** | **0.461** | **0.148 J** | **0.143 J** | **0.846 J** | **1.056 J** | 0.050833 U | **0.6** |
| PCB-174 | **2.596** | **1.376** | **4.085** | **1.203** | **1.381** | **4.8 J** | **6.06 J** | **2.9833 J** | **3.36** |
| PCB-175 | **0.300 J** | **0.125 J** | **0.414** | **0.211** | **0.225** | **0.716 J** | **0.83 J** | **0.50833 J** | **0.492** |
| PCB-176 | **0.696** | **0.318** | **0.861** | **0.298 J** | **0.327** | **1.206** | **1.53** | **0.875** | **0.974** |
| PCB-177 | **5.423** | **2.380** | **6.127** | **2.702** | **2.988** | **9.82 J** | **11.92 J** | **7.0167 J** | **7.5** |
| PCB-178 | **3.730** | **1.660** | **3.237 J** | **2.109** | **2.129** | **5.96** | **7.08** | **4.0833** | **4.54** |
| PCB-179 | **3.047** | **1.374** | **3.719** | **1.318 J** | **1.700** | **5.66** | **6.98** | **4.0667** | **4.6** |
| PCB-180/193 | **7.430** | **3.840** | **10.135** | **3.965** | **4.132** | **15.56 J** | **18.14 J** | **10.1333 J** | **10.96** |
| PCB-181 | 0.141 U | 0.082 U | 0.125 U | 0.085 U | 0.038 U | **0.0958 J** | 0.0712 U | 0.046167 U | 0.0604 U |
| PCB-182 | 0.136 U | 0.079 U | 0.121 U | 0.081 U | 0.037 U | **0.1346 J** | **0.102 J** | 0.043167 U | **0.0888 J** |
| PCB-183 | **3.292** | **1.676** | **4.489** | **1.686** | **2.004** | **6.4 J** | **7.7 J** | **4.4167 J** | **4.8** |
| PCB-184 | 0.103 U | 0.059 U | 0.077 U | 0.052 U | 0.029 U | **0.0566 J** | **0.0916 J** | **0.055833 J** | 0.035 U |
| PCB-185 | 0.151 U | 0.088 U | **0.291** | 0.090 U | 0.041 U | **0.336 J** | 0.0704 U | **0.14333 J** | 0.0598 U |
| PCB-186 | 0.096 U | 0.055 U | 0.072 U | 0.049 U | 0.027 U | 0.0274 U | 0.041 U | 0.026833 U | 0.0336 U |
| PCB-187 | **12.759** | **5.600** | **14.836** | **6.776** | **7.299** | **21 J** | **24.8 J** | **14.5167 J** | **15.52** |
| PCB-188 | 0.102 U | 0.058 U | 0.076 U | 0.052 U | 0.028 U | **0.0648 J** | 0.0366 U | 0.024 U | 0.03 U |
| PCB-189 | 0.082 U | 0.041 U | **0.121 J** | 0.036 U | 0.025 U | 0.1938 UJ | 0.1994 U | 0.10833 U | 0.1004 UJ |
| PCB-190 | **0.618** | **0.290** | **0.719** | **0.314** | **0.267 J** | **1.126 J** | **1.332 J** | 0.040167 U | **0.784** |
| PCB-191 | 0.107 U | **0.101 J** | **0.254** | **0.109 J** | **0.107 J** | **0.398 J** | **0.484 J** | 0.0375 U | **0.266 J** |
| PCB-192 | 0.110 U | 0.057 U | 0.086 U | 0.059 U | 0.028 U | 0.0422 U | 0.0608 U | 0.039333 U | 0.0516 U |
| PCB-194 | **0.530 J** | **0.228** | **1.119** | **0.316** | **0.329** | **1.406** | **1.52** | **0.67167** | **0.68** |
| PCB-195 | **0.308** | **0.116 J** | **0.484** | **0.169 J** | **0.143 J** | **1.684** | **1.258 J** | **0.55** | **0.506** |
| PCB-196 | **0.987 J** | **0.484** | **1.778** | **0.501** | **0.476** | **1.274 J** | **1.836 J** | **0.86167** | **1.076** |
| PCB-197 | **0.291 J** | 0.053 U | **0.343** | **0.108 J** | **0.116 J** | **0.328** | **0.332** | **0.163 J** | **0.23** |
| PCB-198/199 | **3.050** | **1.334** | **4.605** | **1.671** | **1.651** | **5.38** | **6.42** | **2.6333** | **3.4** |
| PCB-200 | 0.075 U | 0.056 U | 0.065 U | 0.059 U | 0.026 U | **0.1242 J** | **0.1216 J** | **0.0425 J** | 0.0368 U |
| PCB-201 | **0.708** | **0.284** | **0.867** | **0.344** | **0.352** | **1.324** | **1.468** | **0.74167** | **0.852** |
| PCB-202 | **2.611** | **0.956** | **3.044** | **1.397** | **1.163** | **4.52** | **4.9** | **2.2667** | **2.94** |
| PCB-203 | **1.025** | **0.388 J** | **1.526** | **0.499** | **0.442** | **1.402** | **1.744** | **0.70333** | **0.854** |
| PCB-204 | 0.069 U | 0.052 U | 0.060 U | 0.054 U | 0.025 U | 0.0298 U | 0.0438 U | 0.0305 U | 0.0374 U |
| PCB-205 | 0.092 U | 0.048 U | 0.060 U | 0.043 U | 0.022 U | 0.262 U | 0.1182 U | 0.097167 U | 0.1026 U |
| PCB-206 | 0.158 U | 0.088 U | **0.395 J** | 0.083 U | **0.133 J** | **0.754** | **0.874** | **0.25167 J** | **0.394** |
| PCB-207 | 0.094 U | 0.066 U | 0.098 U | 0.061 U | 0.031 U | 0.0718 U | 0.0676 U | 0.042833 U | 0.0554 U |
| PCB-208 | 0.095 U | 0.068 U | **0.124 J** | 0.061 U | **0.048 J** | **0.234 J** | **0.298** | **0.090833 J** | **0.1318 J** |
| PCB-209 | 0.077 U | 0.072 U | 0.073 U | 0.054 U | 0.025 U | **0.258 J** | **0.342** | **0.101333 J** | **0.1732 J** |
| Total PCB Congener (U = limit) | **416.726 J** | **851.750 J** | **570.870 J** | **200.198 J** | **234.862 J** | **723.28732 J** | **851.19 J** | **493.9159 J** | **640.069 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | **0.016 J** | **0.009 J** | **0.012 J** | **0.007 J** | **0.005** | **0.017674454 J** | **0.015521022 J** | **0.010850367** | **0.014833552 J** |

## Table H-4
## Tissue Results

| Task | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | Anchor QEA 2012/2013 | JeldWend2014Tissue | JeldWend2014Tissue | JeldWend2014Tissue | JeldWend2014Tissue |
|---|---|---|---|---|---|---|---|---|---|
| Location ID | JW-DR-Tissue | JW-EA01-Tissue | JW-EA10-Tissue | JW-RG-Tissue | JW-UR-Tissue | P-100 | P-100 | P-25 | P-50 |
| Sample ID | JW-DR-TISSUE-120508 | JW-EA01-TISSUE-120516 | JW-EA10-TISSUE-120516 | JW-RG-TISSUE-120508 | JW-UR-TISSUE-120508 | JW-TISSUE-01-140428 | JW-TISSUE-01-140428-DUP | JW-TISSUE-03-140428 | JW-TISSUE-02-140428 |
| Sample Date | 05/08/2012 | 05/16/2012 | 05/16/2012 | 05/08/2012 | 05/08/2012 | 04/29/2014 | 04/29/2014 | 04/29/2014 | 04/29/2014 |
| Sample Type | N | N | N | N | N | N | FD | N | N |
| Matrix | TA | TA | TA | TA | TA | TA | TA | TA | TA |
| X | 1301953.88 | 1303385.74 | 1302901.691 | 1302616.709 | 1306498.34 | 1302756.413 | 1302756.413 | 1302506.518 | 1302753.529 |
| Y | 370102.4568 | 373575.7223 | 372488.6797 | 382542.3177 | 374273.3559 | 372242.2397 | 372242.2397 | 372341.8726 | 371894.7329 |
| **Analyte** | | | | | | | | | |
| Total PCB Congener (U = 1/2) | **408.937 J** | **849.507 J** | **566.346 J** | **196.836 J** | **233.242 J** | **722.00736 J** | **849.3321 J** | **492.6632833 J** | **638.4171 J** |
| Total PCB Congener (U = 0) | **401.149 J** | **847.263 J** | **561.823 J** | **193.473 J** | **231.621 J** | **720.7274 J** | **847.4742 J** | **491.4106667 J** | **636.7652 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | **0.008 J** | **0.005 J** | **0.006 J** | **0.004 J** | **0.003** | **0.016475774 J** | **0.014387562 J** | **0.010090767** | **0.013840402 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | **0.001 J** | **0.0004 J** | **0.001 J** | **0.0003J** | **0.0004** | **0.015277094 J** | **0.013254102 J** | **0.009331167** | **0.012847252 J** |
| **Dioxin Furans and PCB Congeners (ng/kg)** | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | **0.204 J** | **0.288 J** | **0.365 J** | **0.231 J** | **0.207 J** | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | **0.115 J** | **0.150 J** | **0.262 J** | **0.125 J** | **0.115 J** | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | **0.027 J** | **0.012 J** | **0.160 J** | **0.019 J** | **0.023 J** | -- | -- | -- | -- |
| **Dioxin Furans and PCB Congeners (µg/kg-lipid)** | | | | | | | | | |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = limit) | **0.064 J** | **0.058 J** | **0.070 J** | **0.050 J** | **0.037 J** | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 1/2) | **0.036 J** | **0.030 J** | **0.051 J** | **0.027 J** | **0.020 J** | -- | -- | -- | -- |
| Total Dioxin/Furan and PCB Congener TEQ 2005 (Mammal) (Calculated U = 0) | **0.008 J** | **0.002 J** | **0.031 J** | **0.004 J** | **0.004 J** | -- | -- | -- | -- |

# Table H-4
# Tissue Results

Notes:
Total LPAH represents the sum of naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, and anthracene.
Total HPAH represents the sum of fluoranthene, pyrene, benz(a)anthracene, chrysene, benzo(b,j,k)fluoranthenes, benzo(a)pyrene, indeno(1,2,3,-c,d)pyrene, dibenzo(a,h)anthracene, and benzo(g,h,i)perylene.
**Bold = detected result**
µg/kg = microgram per kilogram wet weight
CAEPA = California Environmental Protection Agency
cPAH = carcinogenic polycyclic aromatic hydrocarbon
FD = field duplicate sample
HPAH = high-molecular-weight polycyclic aromatic hydrocarbon
J = estimated value
LPAH = low-molecular-weight polycyclic aromatic hydrocarbon
mg/kg = milligram per kilogram wet weight
N = normal environmental sample
ng/kg = nanogram per kilogram wet weight
PCB = polychlorinated biphenyl
pct = percentage
TA = tissue sample
TEQ = toxicity equivalency factor
U = compound analyzed but not detected above detection limit
UJ = compound analyzed but not detected above estimated detection limit

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ANCHOR QEA

# Memorandum

March 29, 2021

To: Nathan Soccorsy, Anchor QEA, LLC

From: Masa Kanematsu, Anchor QEA, LLC

cc: Scott Miller, SLR Consulting

**Re: In Situ Measurement of Freely Dissolved Polychlorinated Biphenyls in Seep Porewater and Groundwater by Solid-Phase Microextraction, Former E.A. Nord Door, Inc. Facility**

## Introduction

This document presents the results of in situ solid-phase microextraction (SPME) sampling to determine the freely dissolved concentrations of polychlorinated biphenyls (PCBs) in seep porewater and groundwater at the former E.A. Nord, Inc., door facility (through its successor, JELD-WEN, Inc.). The site is located at 300 West Marine View Drive, Everett, Washington, 98201.

The SPME method is a continuous sampling process, providing time-averaged concentrations of PCBs at sampling locations during the deployment period. In this study, stainless-steel sampling devices loading SPME fibers are deployed at the seep locations and monitoring wells for approximately 28 days.

## Methods

### Selection of Performance Reference Compounds

In circumstances where the deployment conditions vary between sampling locations and events, differences in the PCB uptake rates to SPME fiber are estimated using the performance reference compound (PRC) approach. PRCs are isotope-labeled versions of target analytes that do not occur naturally. PRCs were added to quality assurance/quality control (QA/QC) and field-deployed SPME fibers during fabrication. During deployment, PRCs diffuse out of the SPME fibers as target PCBs diffuse into the SPME fibers. The isotropic exchange kinetics is generally assumed for the PRC method. Based on the assumption, the depletion rates of PRCs during deployment reflect the uptake rates of target analytes. By measuring the amounts of PRC losses during field deployment, the PCB uptake rates can be estimated. In this study, six different $^{13}$C-labeled PCBs (i.e., $^{13}$C-PCB-008, $^{13}$C-PCB-031, $^{13}$C-PCB-060, $^{13}$C-PCB-85, $^{13}$C-PCB-128, and $^{13}$C-PCB-182) were obtained from Cambridge Isotope Inc. (Tewksbury, Massachusetts).

## SPME Sampler Preparation

The SPME fiber was obtained from Polymicro Technologies Inc. (Phoenix, Arizona; Part No. 1068020213). This SPME fiber consists of an inert glass core (1,000-micron [µm] diameter) coated with 35 µm of polydimethylsiloxane (PDMS). Figure 1a shows a photograph of the SPME fiber. Prior to use, SPME fibers were sequentially soaked in high-performance liquid chromatography (HPLC)-grade n-hexane, methanol, and water in a glass tube on a shaker table to remove any potential contaminants that may interfere with subsequent analysis. Clean SPME fibers were then soaked in a methanol and water (70:30) mixture spiked with the six different $^{13}C$-labeled PRCs and allowed to equilibrate for 14 days on a shaker table. Subsequently, all SPME fibers were removed from the PRC spiking solution and rinsed with HPLC-grade water to remove residual methanol.

Five of the PRC-spiked SPME samples (approximately 70 centimeters [cm] each) were immediately sent to the analytical laboratory to measure the initial PRC concentrations for QA/QC (i.e., the PRC-loaded SPME reproducibility standards). Due to the delay of the groundwater sampling in monitoring wells MW-13 and MW-14, one additional PRC-spiked SPME sample was sent later to assess the loss of the PRCs during storage in a refrigerator at 4°C.

## In Situ SPME Sampling

For seep porewater sampling, custom-designed push-point samplers that can hold two 12-inch-long SPME fibers were purchased from MHE Products (East Tawas, Michigan). The push-point sampler consists of two parts: 1) a 15-inch-long stainless-steel guard-rod with a 12-inch SPME fiber holding section; and 2) a protective outer sleeve with 0.025-inch slits at a 1-cm spacing to allow equilibration of the SPME fiber with seep porewater (Figure 1b).

For groundwater sampling, the SPME sampler assemblies were prepared by assembling a stainless metal plate, perforated stainless-steel tube, and Teflon plug (Figure 1c). The groundwater SPME sampler assemblies consisted of two approximately 15-inch SPME fibers.

The SPME sampler assemblies were deployed in the field for 28 days from September 27 to October 25, 2019, and for 28 days from October 30 to November 25, 2019, for seep porewater and groundwater, respectively. After retrieval, PRCs and target PCBs were extracted and quantified in the laboratory. By combining the measured loss of PRCs with equations describing diffusive transport, the uptake of target PCBs can be estimated (called “the fraction of equilibrium”), allowing a calculation of the freely dissolved concentration of the target PCBs as described below.

## Analytical Program

The SPMEs were analyzed for PCBs using high-resolution gas chromatography/mass spectrometry (HR-GCMS) by SGS, Inc., in Wilmington, North Carolina (U.S. Environmental Protection Agency Method 1668C).

## SPME Data Assessment

The following QA/QC samples were prepared to ensure SPME data quality: 1) a method blank; 2) an n-hexane rinsate of the SPME sampler assembly; 3) SPME fibers to determine initial PRC concentrations (i.e., PRC-loaded SPME reproducibility standards); and 4) a field blank.

The method blank was a 12-inch-long SPME fiber stored under an inert atmosphere at 4°C after cleaning by the solvents. The method blank accounts for contamination during the cleaning process. The n-hexane rinsate of the SPME sampler assembly was 60 milliliters of n-hexane rinsate prepared by thoroughly washing one complete SPME sampler assembly (the push-point sampler loaded with clean SPME fibers) with HPLC-grade n-hexane. This rinsate sample was used to evaluate interference and contamination incurred from the preparation of the SPME sampler assemblies. No notable PCB contamination was found in these QA/QC samples; the total PCB (TPCB) mass in the method blank and the hexane rinsate samples were 0.11 nanograms (ng) and 0.04 ng, respectively.

The PRC-loaded SPME reproducibility standards were also analyzed for target PCB congeners to assess contamination during the PRC spiking process. No notable PCB contamination was found in these QA/QC samples (0.03 to 0.05 ng). The field blank was concurrently prepared with field-deployed SPME fibers, transported to the field site, and set out on the work area of the sampling vessel to expose it to the atmosphere during retrieval. The field blank accounts for contamination incurred during exposure to air at the field site. The field blank was accidentally contacted with field soil and water; the TPCB mass in the field blank was slightly higher than the other QA/QC samples (0.51 ng).

## Calculation of Freely Dissolved PCB Concentrations

Freely dissolved PCB concentration in seep porewater and groundwater ($C_W$) can be estimated using the PCB concentration measured on the SPME fiber after deployment ($C_{PDMS}$) divided by PDMS-water partition coefficients ($K_{PDMS-w}$) and the fraction of equilibrium achieved within the SPME fiber ($f_e$), as shown in Equation 1.

**Equation 1**

$$C_W = \frac{C_{PDMS}}{K_{PDMS-W} \times f_e}$$

where:

| | | |
|---|---|---|
| $C_W$ | = | Concentration in porewater |
| $C_{PDMS}$ | = | Concentration in PDMS polymer |
| $K_{PDMS-W}$ | = | PDMS-water partitioning coefficient |
| $f_e$ | = | Fraction of equilibrium |

A regression of measured $K_{PDMS-water}$ values against published octanol-water partitioning coefficient ($K_{ow}$) values for many PCB congeners, as well as different but related (i.e., hydrophobic organics) chemicals, including polycyclic aromatic hydrocarbons (PAHs) and pesticides, was developed (Equation 2).[1] By incorporating these related hydrophobic organic chemicals, the final regression is more robust. Using this regression equation, the $K_{PDMS-water}$ value for each PCB congener was calculated based on the $K_{ow}$ value of the congener used in this analysis.

**Equation 2**

$$\log K_{PDMS-water} = 0.903 \times \log K_{ow} - 0.159 \qquad (r^2 = 0.937)$$

where:

| | | |
|---|---|---|
| $K_{PDMS-water}$ | = | PDMS-water partitioning coefficient of a compound |
| $K_{ow}$ | = | Octanol-water partitioning coefficient of a compound |

The fraction of equilibrium for each of the six PRCs was calculated for each SPME sample using the ratio of the final concentration of PRC (i.e., following deployment) to the initial concentration, as shown in Equation 3.

[1] Log $K_{ow}$ values of PAHs were obtained from the U.S. Environmental Protection (EPA 2003). Log $K_{ow}$ values of PCBs were taken from Hawker and Connell (1988) and were adjusted based on the $K_{ow}$ values measured by De Bruijn et al. (1989) with a slow stirring method, which is generally considered a more reliable method for $K_{ow}$ values (OECD 2006). Log $K_{PDMS-water}$ values for PCBs measured by Smedes et al. (2009) were used in this study because they were recommended by the passive sampling workshop sponsored by the Society of Environmental Toxicology and Chemistry (Ghosh et al. 2014). Log $K_{ow}$ values of pesticides were obtained from De Bruijn et al. (1989), EPA (2012), and Simpson et al. (1995). Log $K_{PDMS-water}$ values for PAHs were obtained from Smedes et al. (2009). Log $K_{PDMS-water}$ values of pesticides were obtained from Zeng et al. (2005) and Xing et al. (2009).

**Equation 3**

$$f_{e,PRC} = 1 - \frac{C_{PRC,final}}{C_{PRC,init}}$$

where:

| | | |
|---|---|---|
| $f_{e,PRC}$ | = | Fraction of equilibrium of a PRC |
| $C_{PRC,final}$ | = | Final PRC concentration in SPME fiber of a PRC |
| $C_{PRC,init}$ | = | Initial PRC concentration in SPME fiber of a PRC |

Subsequently, the calculated fraction of equilibrium ($f_e$) values are incorporated into the external resistance diffusion model of Lampert et al. (2015), along with the $K_{PDMS\text{-}water}$ value for each PCB congener to estimate the $f_e$ value for each target PCB congener.

# Results

## Uptake Kinetics of PCBs

As stated earlier, all field-deployed SPME fibers were spiked with six different $^{13}$C-labeled PCB congeners. Low variability in initial PRC concentrations is a key step in accurately determining the fraction of equilibrium of target PCB congeners. Initial concentrations of the PRCs in the QC samples are shown in Figure 2. Overall, the initial PRC concentrations in the QC samples (n = 6) had low variability (the coefficient of variation ranged from 2.3% to 6.9%). The additional QC sample had a slightly higher concentration of $^{13}$C-PCB-031 than the other QC samples, which resulted in higher variability of $^{13}$C-PCB-031 (15.2%).

The values of $f_e$ of the PRCs are shown as a function of their $K_{PDMS\text{-}W}$ values for all SPME samples in Figure 3. The $f_e$ values of target PCBs present in the SPME fiber samples can be estimated using the $f_e$ of the PRCs and the uptake kinetics model as described in Lampert et al. (2015). The predicted values of $f_e$ of target PCBs in the SPME samples deployed at Seep-S-18 and MW-13 are shown in Figures 4a and 4b, respectively.

## Freely Dissolved PCB Concentrations

The estimated freely dissolved TPCB concentrations in groundwater and seep porewater are shown in Figure 5 and included in Table 1. The highest TPCB concentration was observed at Seep-S-18 (59 ng/L). The second highest TPCB concentration was detected at Seep-S-16 (45 ng/L). The estimated TPCB porewater concentrations in groundwater were 4.7 and 1.8 ng/L at MW-13 and MW-14, respectively. The PCB concentrations at Seep-S-3A, Seep-S-3B, and Seep-S-17 were estimated to be very low (0.2 to 0.3 ng/L) compared to other sampling locations.

The compositional homolog profiles of freely dissolved PCBs in seep porewater and groundwater are presented in Figure 6. The 2-CBs, 3-CBs, 4-CBs, and 5-CBs were the dominant homolog groups, accounting for 3.9% to 27.2% (mean: 17.0%), 13.2% to 51.9% (mean: 31.4%), 19.3% to 41.2% (mean: 30.9%), and 3.5% to 30.2% (mean: 16.9%) of TPCBs, respectively. The homolog profiles are slightly different in each sample. It is noted that the ratio of the 3-CBs was higher at the two seep locations where elevated TPCB concentrations (Seep-S-16 and Seep-S-18) were observed.

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# Tables

**Table 1**
**Former E.A. Nord Door, Inc., SPME Dissolved-Phase Results**

| | | Task | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 |
|---|---|---|---|---|---|---|---|---|---|
| | | Location ID | MW13-2019 | MW14-2019 | S-16-2019 | S-17-2019 | S-18-2019 | S-3A-2019 | S-3B-2019 |
| | | Sample ID | JW-MW13-SPME-20191127 | JW-MW14-SPME-20191127 | SEEP-S-16-20191025 | SEEP-S-17-20191025 | SEEP-S-18-20191025 | SEEP-S-3A-20191025 | SEEP-S-3B-20191025 |
| | | Sample Date | 11/27/2019 | 11/27/2019 | 10/25/2019 | 10/25/2019 | 10/25/2019 | 10/25/2019 | 10/25/2019 |
| | | Sample Type | N | N | N | N | N | N | N |
| | | Matrix | SPME | SPME | SPME | SPME | SPME | SPME | SPME |
| | | X | 1302902.776 | 1302925.171953 | 1302898.29930297 | 1302869.24260256 | 1302860.510 | 1303023.840 | 1303396.159 |
| | | Y | 372190.010666 | 372289.750296 | 372295.489457637 | 372035.848244637 | 372151.182659641 | 372498.099944815 | 372538.921 |
| **PCB Congeners (ng/L)** | | | | | | | | | |
| PCB-001 | E1668C | **0.056216** | **0.014279 J** | **0.08412 J** | 0.00564 U | **0.49398** | 0.01021 U | 0.00606 U |
| PCB-002 | E1668C | **0.004293 J** | **0.008518 J** | 0.00324 U | 0.00457 U | **0.00681 J** | 0.00742 U | 0.00494 U |
| PCB-003 | E1668C | **0.003693 J** | **0.00261 J** | **0.01037 J** | 0.00445 U | **0.01573** | 0.00723 U | 0.0048 U |
| PCB-004 | E1668C | **0.570999** | **0.086407** | **0.74613** | **0.01417 J** | **4.61133** | **0.01384 J** | **0.01122 J** |
| PCB-005 | E1668C | 0.00722 UJ | 0.005735 U | 0.00204 U | 0.00591 U | 0.00466 U | 0.00522 U | 0.00465 U |
| PCB-006 | E1668C | **0.338006 J** | **0.012941 J** | **0.56337** | **0.00461 J** | **2.34138** | **0.00445 J** | 0.00342 U |
| PCB-007 | E1668C | **0.006622 J** | 0.00461 U | **0.05904** | 0.00508 U | **0.10289** | 0.00432 U | 0.00394 U |
| PCB-008 | E1668C | **0.125005 J** | **0.040381** | **0.23399** | **0.01239 J** | **1.44161** | **0.00953 J** | **0.00595 J** |
| PCB-009 | E1668C | **0.007373 J** | 0.004268 U | **0.04574** | 0.00472 U | **0.15508** | 0.00403 U | 0.00366 U |
| PCB-010 | E1668C | **0.008838 J** | 0.00228 U | **0.01555** | 0.00653 U | **0.12254** | 0.00601 U | 0.004 U |
| PCB-011 | E1668C | **0.031208 J** | **0.092578** | **0.01237** | 0.02066 U | **0.03327** | 0.02113 U | 0.01471 U |
| PCB-012/013 | E1668C | **0.011256 J** | 0.003909 U | **0.04247** | 0.00404 U | **0.14065** | 0.00317 U | 0.00304 U |
| PCB-014 | E1668C | 0.004775 UJ | 0.004003 U | 0.00106 U | 0.00392 U | 0.00261 U | 0.00305 U | 0.00294 U |
| PCB-015 | E1668C | **0.006464 J** | **0.005503** | **0.02192** | **0.00246 J** | **0.10009** | **0.00269 J** | 0.00254 U |
| PCB-016 | E1668C | **0.129838 J** | **0.057955** | **0.10125** | 0.01093 U | **0.1852** | 0.01087 U | 0.0074 U |
| PCB-017 | E1668C | **0.382972 J** | **0.072222** | **2.35668** | 0.00959 U | **3.07862** | 0.00915 U | 0.00638 U |
| PCB-018/030 | E1668C | **0.690152 J** | **0.135647** | **3.41718** | **0.01456 J** | **7.27835** | **0.01151 J** | **0.0096 J** |
| PCB-019 | E1668C | **0.188362 J** | **0.053232** | **3.14312** | 0.01145 U | **3.92438** | 0.01198 U | 0.0079 U |
| PCB-020/028 | E1668C | **0.118325** | **0.054874** | **0.40708** | **0.00746 J** | **0.75713** | **0.00538 J** | **0.00636 J** |
| PCB-021/033 | E1668C | **0.028246** | **0.02072** | **0.1319** | **0.00424 J** | **0.10038** | **0.00448 J** | **0.00334 J** |
| PCB-022 | E1668C | **0.015073** | **0.011804** | **0.01618** | 0.00408 U | **0.04218** | 0.0027 U | 0.0031 U |
| PCB-023 | E1668C | 0.001919 U | 0.001223 U | 0.00146 U | 0.0047 U | 0.00244 U | 0.00315 U | 0.00361 U |
| PCB-024 | E1668C | **0.002895 J** | **0.001129 J** | **0.0131** | 0.00595 U | **0.01842 J** | 0.00542 U | 0.0039 U |
| PCB-025 | E1668C | **0.137369** | **0.006372** | **1.26935** | 0.00351 U | **1.28473** | 0.00222 U | 0.00263 U |
| PCB-026/029 | E1668C | **0.34944** | **0.019392** | **2.74639** | **0.00562 J** | **4.00789** | **0.00515 J** | **0.00391 J** |
| PCB-027 | E1668C | **0.130489 J** | **0.009521** | **2.6617** | 0.00557 U | **5.08624** | 0.00487 U | 0.0036 U |
| PCB-031 | E1668C | **0.147708** | **0.042381** | **0.46453** | **0.00583 J** | **1.0354** | **0.00429 J** | **0.00415 J** |
| PCB-032 | E1668C | **0.142579 J** | **0.047503** | **2.44769** | 0.00499 U | **2.16718** | **0.00489 J** | 0.00324 U |
| PCB-034 | E1668C | 0.001649 U | 0.001072 U | **0.01436** | 0.00427 U | **0.02644** | 0.00271 U | 0.0032 U |
| PCB-035 | E1668C | 0.001294 U | 0.000882 U | **0.00095 J** | 0.00351 U | 0.00178 U | 0.00206 U | 0.00257 U |
| PCB-036 | E1668C | 0.001087 U | 0.000753 U | 0.00078 U | 0.00289 U | 0.00148 U | 0.00164 U | 0.0021 U |
| PCB-037 | E1668C | 0.001205 U | **0.003316 J** | **0.00565** | 0.00315 U | **0.00948** | 0.00184 U | 0.00231 U |
| PCB-038 | E1668C | 0.001281 U | 0.000857 U | 0.00101 U | 0.0036 U | 0.00183 U | 0.00218 U | 0.00266 U |
| PCB-039 | E1668C | 0.001138 U | 0.00079 U | **0.00136** | 0.00312 U | 0.0016 U | 0.00177 U | 0.00226 U |
| PCB-040/071 | E1668C | **0.054956** | **0.033294 J** | **0.99692** | **0.00286 J** | **0.72947** | **0.00488 J** | **0.00413 J** |
| PCB-041 | E1668C | **0.001549 J** | **0.001743 J** | 0.00082 U | 0.00399 U | 0.00087 U | 0.00301 U | 0.00339 U |
| PCB-042 | E1668C | **0.025507** | **0.024046 J** | **0.28035** | 0.00332 U | **0.14794** | 0.00242 U | 0.00279 U |
| PCB-043 | E1668C | 0.000458 U | **0.001553 J** | **0.01323** | 0.00284 U | **0.00915** | 0.00208 U | 0.00239 U |

**Table 1**
**Former E.A. Nord Door, Inc., SPME Dissolved-Phase Results**

| | | Task | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 |
|---|---|---|---|---|---|---|---|---|---|
| | | Location ID | MW13-2019 | MW14-2019 | S-16-2019 | S-17-2019 | S-18-2019 | S-3A-2019 | S-3B-2019 |
| | | Sample ID | JW-MW13-SPME-20191127 | JW-MW14-SPME-20191127 | SEEP-S-16-20191025 | SEEP-S-17-20191025 | SEEP-S-18-20191025 | SEEP-S-3A-20191025 | SEEP-S-3B-20191025 |
| | | Sample Date | 11/27/2019 | 11/27/2019 | 10/25/2019 | 10/25/2019 | 10/25/2019 | 10/25/2019 | 10/25/2019 |
| | | Sample Type | N | N | N | N | N | N | N |
| | | Matrix | SPME | SPME | SPME | SPME | SPME | SPME | SPME |
| | | X | 1302902.776 | 1302925.171953 | 1302898.29930297 | 1302869.24260256 | 1302860.510 | 1303023.840 | 1303396.159 |
| | | Y | 372190.010666 | 372289.750296 | 372295.489457637 | 372035.848244637 | 372151.182659641 | 372498.099944815 | 372538.921 |
| PCB-044/047/065 | E1668C | **0.121069** | **0.09368 J** | **1.82046** | **0.00917 J** | **1.27309** | **0.01559 J** | **0.00988 J** |
| PCB-045 | E1668C | **0.069128** | **0.026472 J** | 0.00112 U | 0.005 U | 0.00111 U | 0.00408 U | 0.00433 U |
| PCB-046 | E1668C | **0.028561** | **0.012444 J** | **0.48712** | 0.00465 U | **0.33114** | 0.0038 U | 0.00402 U |
| PCB-048 | E1668C | **0.007886** | **0.008717 J** | **0.03495** | 0.00296 U | **0.04745** | 0.00214 U | 0.00247 U |
| PCB-049/069 | E1668C | **0.145855** | **0.086152 J** | **2.80562** | **0.0083 J** | **3.02529** | **0.00978** | **0.00767 J** |
| PCB-050/053 | E1668C | **0.071197** | **0.033106 J** | **3.86312** | **0.00498 J** | **3.72227** | **0.00726 J** | **0.00376 J** |
| PCB-051 | E1668C | **0.014495** | **0.008075 J** | **1.33479** | 0.00305 U | **0.92147** | 0.00238 U | 0.00261 U |
| PCB-052 | E1668C | **0.280235** | **0.18676 J** | **5.10846** | **0.01711** | **6.24747** | **0.03207** | **0.02128** |
| PCB-054 | E1668C | **0.003036 J** | **0.003969 J** | **0.83891** | 0.00388 U | **0.28891** | 0.00367 U | 0.00316 U |
| PCB-055 | E1668C | 0.000161 U | 0.000217 UJ | 0.00033 U | 0.00119 U | 0.00047 U | 0.00086 U | 0.00119 U |
| PCB-056 | E1668C | **0.004172** | **0.007473 J** | **0.02538** | 0.00124 U | **0.01913** | **0.00142 J** | **0.00116 J** |
| PCB-057 | E1668C | 0.000153 U | 0.000209 UJ | **0.00392** | 0.00124 U | **0.00141 J** | 0.00087 U | 0.00123 U |
| PCB-058 | E1668C | 0.00014 U | **0.000295 J** | **0.00245 J** | 0.00109 U | 0.00044 U | 0.00076 U | 0.00108 U |
| PCB-059/062/075 | E1668C | **0.015741** | **0.00455 J** | **0.09112** | 0.00188 U | **0.14187** | 0.00123 U | 0.00153 U |
| PCB-060 | E1668C | **0.000929 J** | **0.001855 J** | **0.00222 J** | 0.00145 U | **0.00365** | 0.00105 U | 0.00146 U |
| PCB-061/070/074/076 | E1668C | **0.020161** | **0.045369 J** | **0.31282** | **0.00667 J** | **0.18077** | **0.01041 J** | **0.00766 J** |
| PCB-063 | E1668C | **0.000434 J** | **0.001053 J** | **0.00814** | 0.00132 U | **0.00331** | 0.00092 U | 0.00131 U |
| PCB-064 | E1668C | **0.039913** | **0.021156 J** | **0.165** | **0.00277 J** | **0.2136** | **0.00381 J** | **0.00283 J** |
| PCB-066 | E1668C | **0.010356** | **0.02206 J** | **0.19214** | **0.00222 J** | **0.09056** | **0.00249 J** | **0.00172 J** |
| PCB-067 | E1668C | **0.000508 J** | 0.000189 UJ | **0.01477** | 0.00103 U | **0.02639** | 0.00071 U | 0.00102 U |
| PCB-068 | E1668C | **0.000565 J** | **0.000734 J** | **0.01932** | 0.00114 U | **0.01681** | 0.00075 U | 0.00111 U |
| PCB-072 | E1668C | **0.000736 J** | **0.000833 J** | **0.02516** | 0.00108 U | **0.0305** | 0.00071 U | 0.00106 U |
| PCB-073 | E1668C | **0.001267 J** | **0.000603 J** | **0.03153** | 0.00167 U | **0.0336** | 0.00105 U | 0.00134 U |
| PCB-077 | E1668C | **0.000354 J** | **0.000356 J** | **0.00253** | 0.00105 U | **0.00204** | 0.00068 U | 0.00096 U |
| PCB-078 | E1668C | 0.000144 U | 0.000208 UJ | 0.00032 U | 0.001 U | 0.00045 U | 0.00063 U | 0.00097 U |
| PCB-079 | E1668C | 0.000108 U | **0.000512 J** | **0.00323** | 0.0008 U | **0.00159** | 0.00049 U | 0.00077 U |
| PCB-080 | E1668C | 0.000105 U | 0.000158 UJ | 0.00031 U | 0.00084 U | 0.00041 U | 0.00049 U | 0.0008 U |
| PCB-081 | E1668C | 0.000131 U | 0.000191 UJ | 0.00033 U | 0.00101 U | 0.00046 U | 0.00064 U | 0.00098 U |
| PCB-082 | E1668C | **0.002036 J** | **0.004951** | **0.02351** | 0.00131 U | **0.01041** | **0.00141 J** | 0.00099 U |
| PCB-083 | E1668C | **0.000954 J** | **0.002234 J** | **0.03719** | 0.00152 U | 0.0007 U | 0.00112 U | 0.00114 U |
| PCB-084 | E1668C | **0.022916 J** | **0.03541** | **0.38453** | **0.00342 J** | **0.25261** | **0.0071** | **0.0048 J** |
| PCB-085/116 | E1668C | **0.001882 J** | **0.005132** | **0.03668** | 0.00098 U | **0.01541** | **0.00183 J** | **0.00125 J** |
| PCB-086/087/097/109/119/125 | E1668C | **0.011474 J** | **0.032781** | **0.24825** | **0.00562 J** | **0.11538** | **0.00931 J** | **0.00687 J** |
| PCB-088 | E1668C | 0.000331 UJ | 0.000665 U | 0.00061 U | 0.00174 U | 0.00073 U | 0.00142 U | 0.00134 U |
| PCB-089 | E1668C | 0.00032 UJ | **0.000483 J** | 0.00053 U | 0.0015 U | **0.00205** | 0.00122 U | 0.00115 U |
| PCB-090/101/113 | E1668C | **0.017493 J** | **0.053405** | **0.59473** | **0.00748 J** | **0.25348** | **0.01148** | **0.00834** |
| PCB-091 | E1668C | **0.009417 J** | **0.014214** | **0.18789** | 0.00137 U | **0.13963** | **0.00271 J** | **0.00176 J** |
| PCB-092 | E1668C | **0.005024 J** | **0.013181** | **0.15072** | 0.00118 U | **0.05418** | **0.0027** | **0.00129 J** |
| PCB-093/100 | E1668C | **0.000683 J** | **0.000955 J** | **0.04014** | 0.00149 U | **0.01734** | 0.00117 U | 0.00113 U |

**Table 1**
**Former E.A. Nord Door, Inc., SPME Dissolved-Phase Results**

| | | Task | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 |
|---|---|---|---|---|---|---|---|---|---|
| | | Location ID | MW13-2019 | MW14-2019 | S-16-2019 | S-17-2019 | S-18-2019 | S-3A-2019 | S-3B-2019 |
| | | Sample ID | JW-MW13-SPME-20191127 | JW-MW14-SPME-20191127 | SEEP-S-16-20191025 | SEEP-S-17-20191025 | SEEP-S-18-20191025 | SEEP-S-3A-20191025 | SEEP-S-3B-20191025 |
| | | Sample Date | 11/27/2019 | 11/27/2019 | 10/25/2019 | 10/25/2019 | 10/25/2019 | 10/25/2019 | 10/25/2019 |
| | | Sample Type | N | N | N | N | N | N | N |
| | | Matrix | SPME | SPME | SPME | SPME | SPME | SPME | SPME |
| | | X | 1302902.776 | 1302925.171953 | 1302898.29930297 | 1302869.24260256 | 1302860.510 | 1303023.840 | 1303396.159 |
| | | Y | 372190.010666 | 372289.750296 | 372295.489457637 | 372035.848244637 | 372151.182659641 | 372498.099944815 | 372538.921 |
| PCB-094 | E1668C | | 0.000328 UJ | 0.000671 U | **0.01078** | 0.00166 U | **0.00263** | 0.00131 U | 0.00127 U |
| PCB-095 | E1668C | | **0.059182 J** | **0.098339** | **1.17831** | **0.01108** | **0.81268** | **0.02058** | **0.01409** |
| PCB-096 | E1668C | | **0.002242 J** | **0.001788 J** | **0.04889** | 0.00123 U | **0.03423** | 0.0013 U | 0.00088 U |
| PCB-098 | E1668C | | 0.000321 UJ | 0.000655 U | 0.00052 U | 0.00146 U | 0.00063 U | 0.00115 U | 0.00112 U |
| PCB-099 | E1668C | | **0.0066 J** | **0.020675** | **0.25798** | **0.00351 J** | **0.11487** | **0.00516** | **0.0038** |
| PCB-102 | E1668C | | **0.002027 J** | **0.00238** | **0.10638** | 0.00105 U | **0.0392** | 0.00082 U | 0.0008 U |
| PCB-103 | E1668C | | **0.000866 J** | **0.001112 J** | **0.06535** | 0.00125 U | **0.03102** | 0.00094 U | 0.00094 U |
| PCB-104 | E1668C | | 0.000283 U | 0.000147 U | **0.03639** | 0.00109 U | **0.00262** | 0.0011 U | 0.00077 U |
| PCB-105 | E1668C | | **0.001234 J** | **0.004528** | **0.02895** | **0.00138 J** | **0.00958** | **0.0018 J** | **0.00156 J** |
| PCB-106 | E1668C | | 0.000117 UJ | 0.000283 U | 0.00032 U | 0.00057 U | 0.00034 U | 0.00034 U | 0.00041 U |
| PCB-107 | E1668C | | **0.000365 J** | **0.001186 J** | **0.01445** | 0.00051 U | **0.00462** | 0.00029 U | 0.00036 U |
| PCB-108/124 | E1668C | | **0.000215 J** | **0.000458 J** | **0.00359** | 0.00054 U | **0.0016 J** | 0.0003 U | 0.00038 U |
| PCB-110 | E1668C | | **0.019262 J** | **0.04903** | **0.68492** | **0.00807** | **0.27249** | **0.0117** | **0.0094** |
| PCB-111 | E1668C | | 0.000099 UJ | 0.000249 U | 0.00036 U | 0.00054 U | 0.00036 U | 0.0003 U | 0.00038 U |
| PCB-112 | E1668C | | 0.000129 UJ | 0.000292 U | 0.00028 U | 0.00063 U | **0.00044 J** | 0.00042 U | 0.00046 U |
| PCB-114 | E1668C | | 0.000116 UJ | 0.000282 U | **0.00101 J** | 0.00053 U | 0.00033 U | 0.00032 U | 0.00037 U |
| PCB-115 | E1668C | | 0.000126 UJ | 0.000288 U | 0.00026 U | 0.00055 U | 0.0003 U | 0.00036 U | 0.0004 U |
| PCB-117 | E1668C | | 0.000174 UJ | **0.00102 J** | **0.01021** | 0.00077 U | **0.00233 J** | 0.0005 U | 0.00056 U |
| PCB-118 | E1668C | | **0.003814 J** | **0.014019** | **0.18028** | **0.00312** | **0.05735** | **0.00382** | **0.00366** |
| PCB-120 | E1668C | | 0.00008 UJ | 0.000204 U | **0.00347** | 0.00042 U | **0.00096 J** | 0.00023 U | 0.00029 U |
| PCB-121 | E1668C | | 0.0001 UJ | 0.00024 U | 0.00032 U | 0.00056 U | 0.00034 U | 0.00033 U | 0.0004 U |
| PCB-122 | E1668C | | 0.000157 UJ | 0.000379 U | **0.00125** | 0.00069 U | 0.00042 U | 0.00041 U | 0.00047 U |
| PCB-123 | E1668C | | 0.000101 UJ | 0.000252 U | **0.00171** | 0.0005 U | 0.00033 U | 0.00028 U | 0.00035 U |
| PCB-126 | E1668C | | 0.000057 U | 0.000069 U | 0.00022 U | 0.00046 U | 0.0002 U | 0.00016 U | 0.0003 U |
| PCB-127 | E1668C | | 0.000092 UJ | 0.000241 U | 0.00036 U | 0.00042 U | 0.00033 U | 0.00021 U | 0.00026 U |
| PCB-128/166 | E1668C | | **0.000531 J** | **0.001592 J** | **0.01567** | 0.00058 U | **0.00466** | **0.00057 J** | **0.00053 J** |
| PCB-129/138/163 | E1668C | | **0.003951 J** | **0.008898** | **0.09775** | **0.00302 J** | **0.02688** | **0.0026 J** | **0.00293 J** |
| PCB-130 | E1668C | | **0.000456 J** | **0.000766 J** | **0.00805** | 0.00053 U | **0.00243** | **0.00048 J** | 0.00037 U |
| PCB-131 | E1668C | | 0.000096 UJ | 0.000079 U | **0.00136** | 0.00062 U | **0.00075 J** | 0.00027 U | 0.00045 U |
| PCB-132 | E1668C | | **0.002977 J** | **0.005195** | **0.06035** | 0.00059 U | **0.01922** | **0.00142 J** | **0.00129 J** |
| PCB-133 | E1668C | | 0.000058 UJ | 0.000053 U | **0.00335** | 0.00041 U | **0.00092 J** | 0.00016 U | 0.00029 U |
| PCB-134 | E1668C | | **0.000615 J** | **0.001499** | **0.0156** | 0.00079 U | **0.00516** | 0.00035 U | 0.00057 U |
| PCB-135/151 | E1668C | | **0.003009 J** | **0.005346** | **0.06858** | 0.00052 U | **0.02083** | **0.00135 J** | **0.00108 J** |
| PCB-136 | E1668C | | **0.00311** | **0.004238 J** | **0.05623** | **0.00113 J** | **0.02417** | **0.0011 J** | **0.00114 J** |
| PCB-137 | E1668C | | **0.000215 J** | **0.000383 J** | **0.0042** | 0.00046 U | **0.00102 J** | **0.00029 J** | 0.00032 U |
| PCB-139/140 | E1668C | | 0.00007 UJ | **0.000214 J** | **0.00319** | 0.00048 U | **0.00086 J** | 0.0002 U | 0.00034 U |
| PCB-141 | E1668C | | **0.000827 J** | **0.001458** | **0.01132** | 0.00044 U | **0.00277 J** | **0.00044 J** | 0.00031 U |
| PCB-142 | E1668C | | 0.000107 UJ | 0.000087 U | 0.00021 U | 0.00067 U | 0.00019 U | 0.00031 U | 0.00049 U |
| PCB-143 | E1668C | | 0.000074 UJ | 0.000062 U | 0.00018 U | 0.00052 U | 0.00016 U | 0.00023 U | 0.00038 U |

**Table 1**
**Former E.A. Nord Door, Inc., SPME Dissolved-Phase Results**

| | | Task | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 |
|---|---|---|---|---|---|---|---|---|---|
| | | Location ID | MW13-2019 | MW14-2019 | S-16-2019 | S-17-2019 | S-18-2019 | S-3A-2019 | S-3B-2019 |
| | | Sample ID | JW-MW13-SPME-20191127 | JW-MW14-SPME-20191127 | SEEP-S-16-20191025 | SEEP-S-17-20191025 | SEEP-S-18-20191025 | SEEP-S-3A-20191025 | SEEP-S-3B-20191025 |
| | | Sample Date | 11/27/2019 | 11/27/2019 | 10/25/2019 | 10/25/2019 | 10/25/2019 | 10/25/2019 | 10/25/2019 |
| | | Sample Type | N | N | N | N | N | N | N |
| | | Matrix | SPME | SPME | SPME | SPME | SPME | SPME | SPME |
| | | X | 1302902.776 | 1302925.171953 | 1302898.29930297 | 1302869.24260256 | 1302860.510 | 1303023.840 | 1303396.159 |
| | | Y | 372190.010666 | 372289.750296 | 372295.489457637 | 372035.848244637 | 372151.182659641 | 372498.099944815 | 372538.921 |
| PCB-144 | E1668C | | **0.000411 J** | **0.000452 J** | **0.00452** | 0.00052 U | **0.0015** | 0.00022 U | 0.00037 U |
| PCB-145 | E1668C | | 0.000092 U | 0.000062 U | 0.00013 U | 0.00054 U | 0.00013 U | 0.00026 U | 0.00041 U |
| PCB-146 | E1668C | | **0.000625 J** | **0.001164 J** | **0.02034** | 0.00033 U | **0.00521** | **0.00033 J** | **0.00035 J** |
| PCB-147/149 | E1668C | | **0.006074 J** | **0.010796** | **0.19814** | **0.00326 J** | **0.05317** | **0.00318** | **0.00275 J** |
| PCB-148 | E1668C | | 0.000065 UJ | 0.000057 U | **0.00183** | 0.00048 U | **0.00027 J** | 0.0002 U | 0.00034 U |
| PCB-150 | E1668C | | 0.000087 U | 0.00006 U | **0.01254** | 0.00053 U | **0.00048 J** | 0.00025 U | 0.0004 U |
| PCB-152 | E1668C | | 0.000088 U | 0.000059 U | **0.00048 J** | 0.00052 U | 0.00012 U | 0.00026 U | 0.0004 U |
| PCB-153/168 | E1668C | | **0.002717 J** | **0.005643** | **0.15424** | **0.0018 J** | **0.02752** | **0.00179** | **0.00163 J** |
| PCB-154 | E1668C | | **0.00013 J** | **0.000217 J** | **0.09124** | 0.00044 U | **0.00227** | 0.00018 U | 0.00031 U |
| PCB-155 | E1668C | | 0.000068 U | 0.000048 U | **0.00418** | 0.00045 U | 0.00012 U | 0.0002 U | 0.00033 U |
| PCB-156/157 | E1668C | | **0.000211 J** | **0.000523 J** | **0.00494** | 0.0005 U | **0.00118 J** | **0.0002 J** | 0.00029 U |
| PCB-158 | E1668C | | **0.000311 J** | **0.000739 J** | **0.0086** | 0.00026 U | **0.00234** | **0.00025 J** | **0.00019 J** |
| PCB-159 | E1668C | | 0.000048 U | 0.000075 U | 0.0002 U | 0.0003 U | 0.00015 U | 0.00007 U | 0.00016 U |
| PCB-160 | E1668C | | 0.000048 UJ | 0.000044 U | 0.00017 U | 0.00031 U | 0.00013 U | 0.00011 U | 0.00021 U |
| PCB-161 | E1668C | | 0.000033 UJ | 0.000032 U | 0.00017 U | 0.00024 U | 0.00011 U | 0.00008 U | 0.00017 U |
| PCB-162 | E1668C | | 0.000054 U | 0.000084 U | 0.00023 U | 0.00035 U | 0.00017 U | 0.00009 U | 0.00019 U |
| PCB-164 | E1668C | | **0.000202 J** | **0.000544 J** | **0.00891** | 0.00024 U | **0.00231** | **0.00019 J** | 0.00017 U |
| PCB-165 | E1668C | | 0.000041 UJ | 0.000039 U | 0.00019 U | 0.00028 U | 0.00013 U | 0.0001 U | 0.00019 U |
| PCB-167 | E1668C | | **0.000084 J** | 0.000077 U | **0.00215** | 0.00031 U | **0.00063 J** | 0.00008 U | 0.00017 U |
| PCB-169 | E1668C | | 0.000047 U | 0.000071 U | 0.00028 U | 0.00031 U | 0.00017 U | 0.00007 U | 0.00016 U |
| PCB-170 | E1668C | | **0.000232 J** | **0.000333 J** | **0.00293 J** | 0.00045 U | **0.00073 J** | 0.00017 U | 0.00034 U |
| PCB-171/173 | E1668C | | **0.000122 J** | **0.000122 J** | **0.0011 J** | 0.00053 U | **0.00042 J** | 0.0002 U | 0.00041 U |
| PCB-172 | E1668C | | 0.000053 UJ | 0.000064 UJ | **0.00112 J** | 0.00039 U | 0.00032 U | 0.00013 U | 0.0003 U |
| PCB-174 | E1668C | | **0.000254 J** | **0.000507 J** | **0.00755** | 0.00047 U | **0.00206** | 0.00018 U | 0.00037 U |
| PCB-175 | E1668C | | 0.000066 UJ | 0.000075 UJ | 0.00039 U | 0.00048 U | 0.00034 U | 0.00017 U | 0.00037 U |
| PCB-176 | E1668C | | 0.000044 UJ | 0.000051 U | **0.0013** | 0.00042 U | **0.00027 J** | 0.00013 U | 0.00033 U |
| PCB-177 | E1668C | | **0.000121 J** | **0.000379 J** | **0.00366 J** | 0.00048 U | **0.00106 J** | 0.00018 U | 0.00038 U |
| PCB-178 | E1668C | | 0.000036 UJ | 0.000047 U | **0.00668** | 0.00038 U | **0.00071 J** | 0.00009 U | 0.00028 U |
| PCB-179 | E1668C | | **0.000465 J** | **0.00062 J** | **0.00911** | 0.00036 U | **0.00152** | 0.00011 U | 0.00028 U |
| PCB-180/193 | E1668C | | **0.00042 J** | **0.000595 J** | **0.01613** | 0.00029 U | **0.00226 J** | **0.00019 J** | 0.00022 U |
| PCB-181 | E1668C | | 0.000057 UJ | 0.000064 UJ | 0.00032 U | 0.00044 U | 0.00029 U | 0.00016 U | 0.00034 U |
| PCB-182 | E1668C | | 0.000049 UJ | 0.000057 UJ | 0.00032 U | 0.00038 U | 0.00027 U | 0.00014 U | 0.0003 U |
| PCB-183 | E1668C | | **0.000225 J** | **0.000339 J** | **0.00699** | 0.0004 U | **0.00097 J** | **0.00015 J** | 0.00031 U |
| PCB-184 | E1668C | | 0.000035 UJ | 0.000042 U | 0.00018 U | 0.00036 U | 0.00017 U | 0.00011 U | 0.00028 U |
| PCB-185 | E1668C | | 0.000073 UJ | **0.000184 J** | **0.00076 J** | 0.00051 U | **0.00042 J** | 0.00019 U | 0.0004 U |
| PCB-186 | E1668C | | 0.00004 UJ | 0.000045 U | 0.00015 U | 0.00038 U | 0.00015 U | 0.00012 U | 0.00029 U |
| PCB-187 | E1668C | | **0.000465 J** | **0.000819 J** | **0.0534** | **0.00036 J** | **0.00414** | **0.00035 J** | **0.00033 J** |
| PCB-188 | E1668C | | 0.000033 UJ | 0.000039 U | **0.00263** | 0.00035 U | 0.00015 U | 0.0001 U | 0.00027 U |
| PCB-189 | E1668C | | 0.00002 U | 0.000043 U | 0.00031 U | 0.00018 U | 0.0002 U | 0.00005 U | 0.00014 U |

**Table 1**
**Former E.A. Nord Door, Inc., SPME Dissolved-Phase Results**

| | | Task | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 | JeldWenPCB_Porewater2019 |
|---|---|---|---|---|---|---|---|---|---|
| | | Location ID | MW13-2019 | MW14-2019 | S-16-2019 | S-17-2019 | S-18-2019 | S-3A-2019 | S-3B-2019 |
| | | Sample ID | JW-MW13-SPME-20191127 | JW-MW14-SPME-20191127 | SEEP-S-16-20191025 | SEEP-S-17-20191025 | SEEP-S-18-20191025 | SEEP-S-3A-20191025 | SEEP-S-3B-20191025 |
| | | Sample Date | 11/27/2019 | 11/27/2019 | 10/25/2019 | 10/25/2019 | 10/25/2019 | 10/25/2019 | 10/25/2019 |
| | | Sample Type | N | N | N | N | N | N | N |
| | | Matrix | SPME | SPME | SPME | SPME | SPME | SPME | SPME |
| | | X | 1302902.776 | 1302925.171953 | 1302898.29930297 | 1302869.24260256 | 1302860.510 | 1303023.840 | 1303396.159 |
| | | Y | 372190.010666 | 372289.750296 | 372295.489457637 | 372035.848244637 | 372151.182659641 | 372498.099944815 | 372538.921 |
| PCB-190 | E1668C | | 0.000037 UJ | **0.000043 J** | **0.00071 J** | 0.00026 U | 0.00024 U | 0.00009 U | 0.00019 U |
| PCB-191 | E1668C | | 0.000031 UJ | 0.000041 UJ | 0.00038 U | 0.00025 U | 0.00026 U | 0.00007 U | 0.00019 U |
| PCB-192 | E1668C | | 0.000028 UJ | 0.000036 UJ | 0.00033 U | 0.00023 U | 0.00023 U | 0.00007 U | 0.00017 U |
| PCB-194 | E1668C | | 0.000024 UJ | 0.00004 U | **0.00398** | 0.00025 U | **0.00043 J** | 0.00006 U | 0.00014 U |
| PCB-195 | E1668C | | 0.000035 UJ | 0.000054 U | **0.00067 J** | 0.00033 U | 0.00026 U | 0.00009 U | 0.00019 U |
| PCB-196 | E1668C | | 0.000028 U | 0.000075 U | **0.0028** | 0.00016 U | **0.00021 J** | 0.00006 U | 0.00015 U |
| PCB-197 | E1668C | | 0.000031 U | 0.000073 U | 0.00016 U | 0.00016 U | 0.00013 U | 0.00007 U | 0.00015 U |
| PCB-198/199 | E1668C | | **0.000145 J** | **0.000241 J** | **0.0116** | 0.00017 U | **0.00132 J** | 0.00007 U | 0.00016 U |
| PCB-200 | E1668C | | 0.000036 U | 0.000083 U | **0.00085 J** | 0.00018 U | 0.00015 U | 0.00008 U | 0.00017 U |
| PCB-201 | E1668C | | 0.000023 U | 0.00006 U | **0.00177 J** | 0.00014 U | 0.00016 U | 0.00005 U | 0.00012 U |
| PCB-202 | E1668C | | 0.00003 U | **0.000136 J** | **0.00524** | 0.00016 U | **0.00061 J** | 0.00007 U | 0.00015 U |
| PCB-203 | E1668C | | **0.000045 J** | 0.00006 U | **0.00497** | 0.00013 U | **0.00073 J** | 0.00005 U | 0.00012 U |
| PCB-204 | E1668C | | 0.00003 U | 0.000069 U | 0.00016 U | 0.00016 U | 0.00013 U | 0.00007 U | 0.00015 U |
| PCB-205 | E1668C | | 0.000017 UJ | 0.000029 U | 0.00039 U | 0.00017 U | 0.0002 U | 0.00004 U | 0.00009 U |
| PCB-206 | E1668C | | 0.000018 U | 0.000039 U | **0.00313** | 0.00054 U | 0.00064 U | 0.0001 U | 0.00024 U |
| PCB-207 | E1668C | | 0.00002 UJ | 0.000037 UJ | 0.00053 U | 0.00037 U | 0.00032 U | 0.00008 U | 0.00017 U |
| PCB-208 | E1668C | | 0.000021 UJ | 0.000037 UJ | **0.001 J** | 0.00032 U | 0.00027 U | 0.00007 U | 0.00015 U |
| PCB-209 | E1668C | | 0.000023 U | 0.000024 U | 0.0005 U | 0.00019 U | 0.00023 U | 0.00004 U | 0.00009 U |
| Total PCB Congener (U = 0) | | | **4.748667 J** | **1.837411 J** | **44.8626 J** | **0.17867 J** | **58.54778 J** | **0.2484 J** | **0.17366 J** |
| Total PCB Congener (U = 1/2) | | | **4.762624 J** | **1.856783 J** | **44.87384 J** | **0.30218 J** | **58.56394 J** | **0.34486 J** | **0.26898 J** |
| Total PCB Congener (U = limit) | | | **4.77658 J** | **1.876155 J** | **44.88508 J** | **0.42568 J** | **58.58009 J** | **0.44132 J** | **0.3643 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = 0) | | | **0.00001788348 J** | **0.00001844529 J** | **0.0001318314 J** | **0.0000001692 J** | **0.0001036558 J** | **0.0000002382 J** | **0.0000001926 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = 1/2) | | | **0.00002731339 J** | **0.00003149675 J** | **0.000159473 J** | **0.0001001307 J** | **0.00013676 J** | **0.0000572913 J** | **0.0000883089 J** |
| Total PCB Congener TEQ 1998 (Avian) (U = limit) | | | **0.00003674329 J** | **0.00004454821 J** | **0.0001871145 J** | **0.0002000921 J** | **0.0001698641 J** | **0.0001143443 J** | **0.0001764252 J** |
| Total PCB Congener TEQ 1998 (Fish) (U = 0) | | | **0.000000062115 J** | **0.00000013095 J** | **0.0000013482 J** | **0.0000000225 J** | **0.0000005477 J** | **0.0000000291 J** | **0.0000000261 J** |
| Total PCB Congener TEQ 1998 (Fish) (U = 1/2) | | | **0.000000239133 J** | **0.000000354611 J** | **0.00000198848 J** | **0.0000014903 J** | **0.0000011691 J** | **0.00000062668 J** | **0.0000010764 J** |
| Total PCB Congener TEQ 1998 (Fish) (U = limit) | | | **0.00000041615 J** | **0.00000057827 J** | **0.00000262875 J** | **0.0000029581 J** | **0.0000017905 J** | **0.00000122425 J** | **0.0000021267 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 0) | | | **0.00000019569 J** | **0.0000006077 J** | **0.0000068242 J** | **0.000000135 J** | **0.0000022662 J** | **0.0000001746 J** | **0.0000001566 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = 1/2) | | | **0.0000037739 J** | **0.00000516116 J** | **0.0000220784 J** | **0.0000280193 J** | **0.0000148981 J** | **0.0000093656 J** | **0.0000177714 J** |
| Total PCB Congener TEQ 2005 (Mammal) (U = limit) | | | **0.0000073521 J** | **0.00000971462 J** | **0.0000373325 J** | **0.0000559036 J** | **0.00002753 J** | **0.0000185565 J** | **0.0000353862 J** |

Notes:

**Bold: Detected result**

J: estimated value

ng/L: nanogram per liter

PCB: polychlorinated biphenyl

SPME: solid-phase microextraction

TEQ: toxic equivalents quotient

U: compound analyzed, but not detected above detection limit

UJ: compound analyzed, but not detected above estimated detection limit

# Figures

**Figure 1**
**Images of the SPME fiber (a), Stainless-Steel Push-Point Sampler for Seep Porewater Sampling (b), and Groundwater Sampler Assembly (c)**

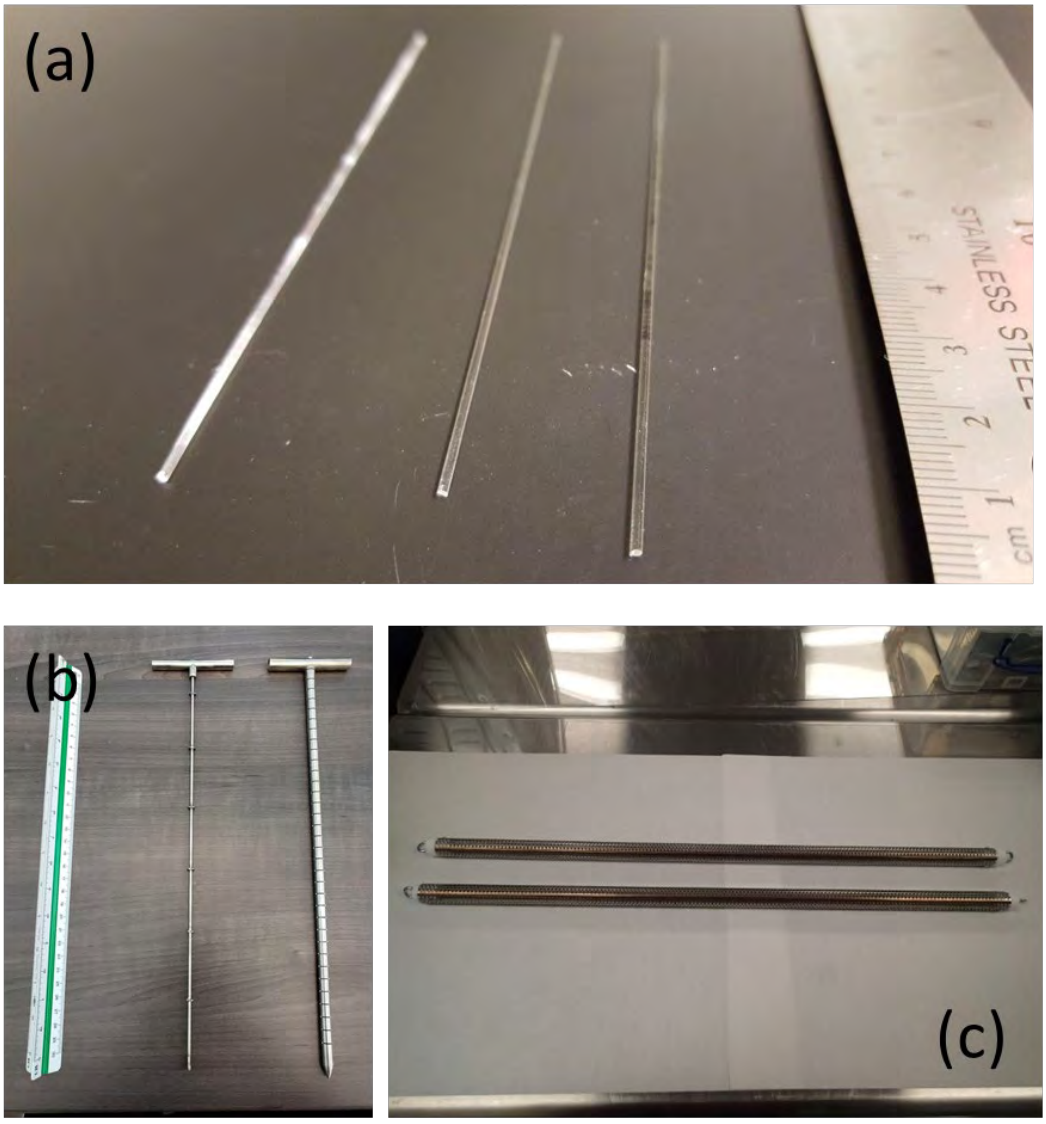
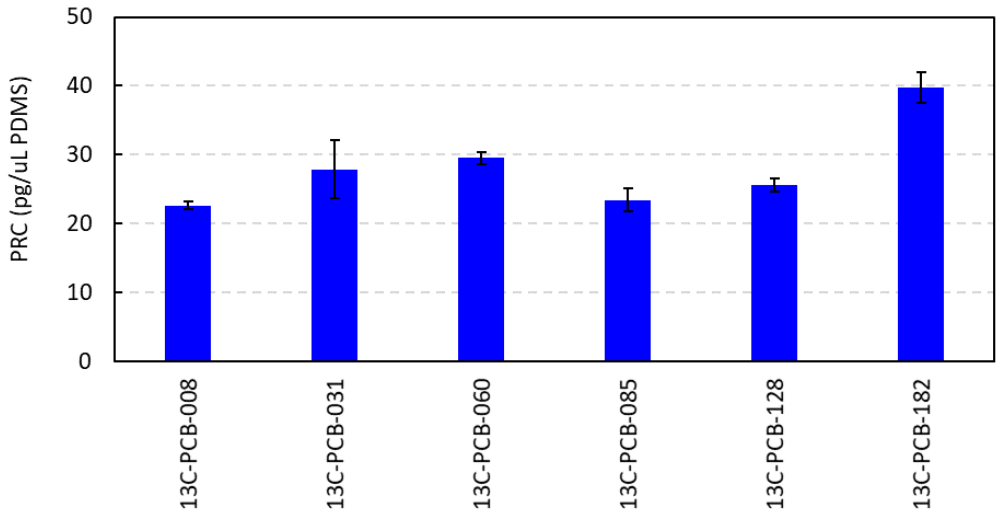


**Figure 2**
**Initial Concentrations of PRCs in SPME QA/QC Samples**




Note: Error bars denote +/- 1 standard deviation (n = 6)

**Figure 3**
**Fraction of Equilibrium ($f_e$) of PRCs in All Deployed SPME Samplers**

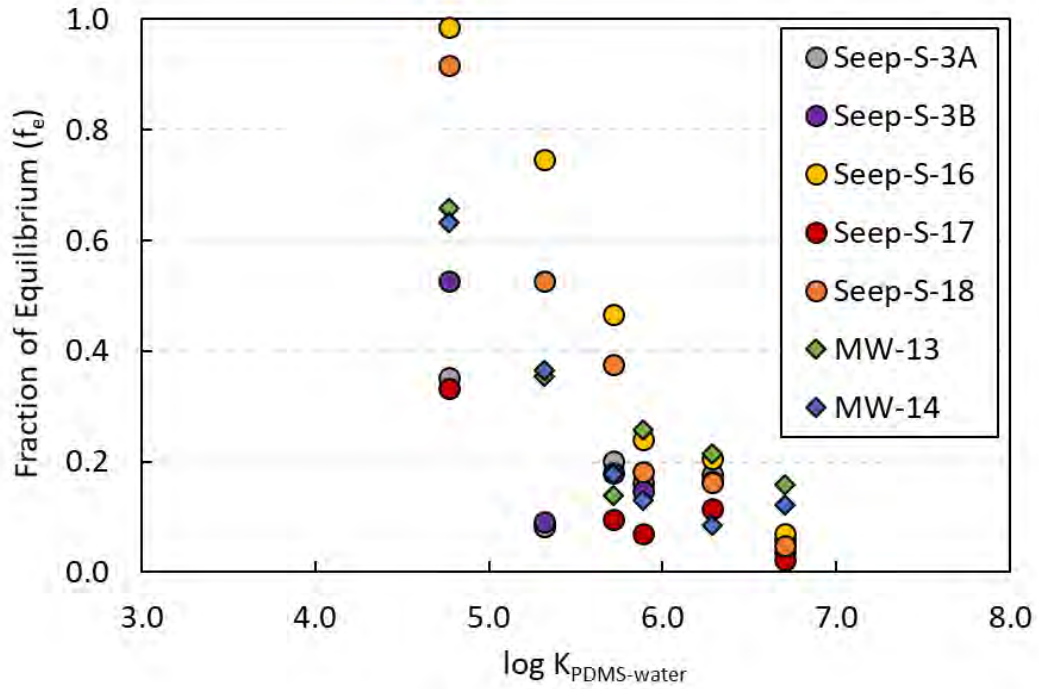
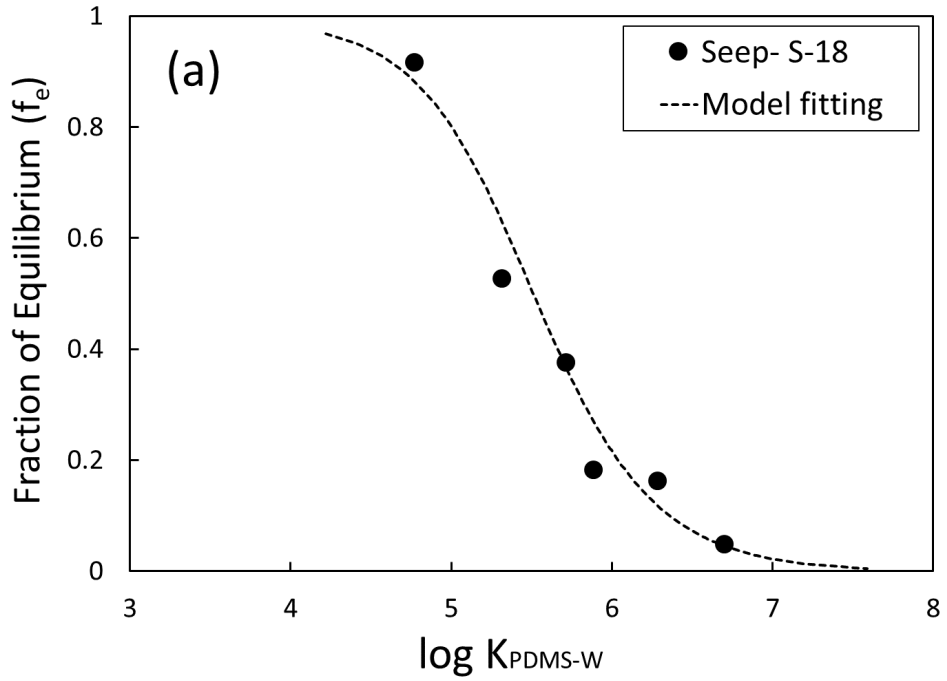


**Figure 4**
**Predicted Fraction of Equilibrium Achieved for PCBs by the External Diffusion Model at Seep-S-18 (a) and MW-13 (b)**



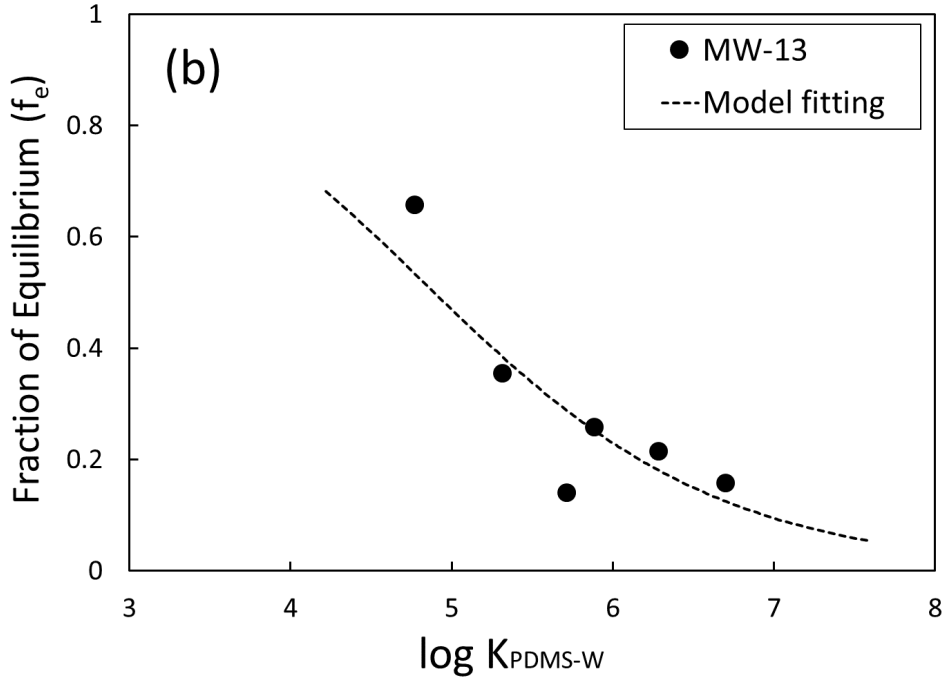
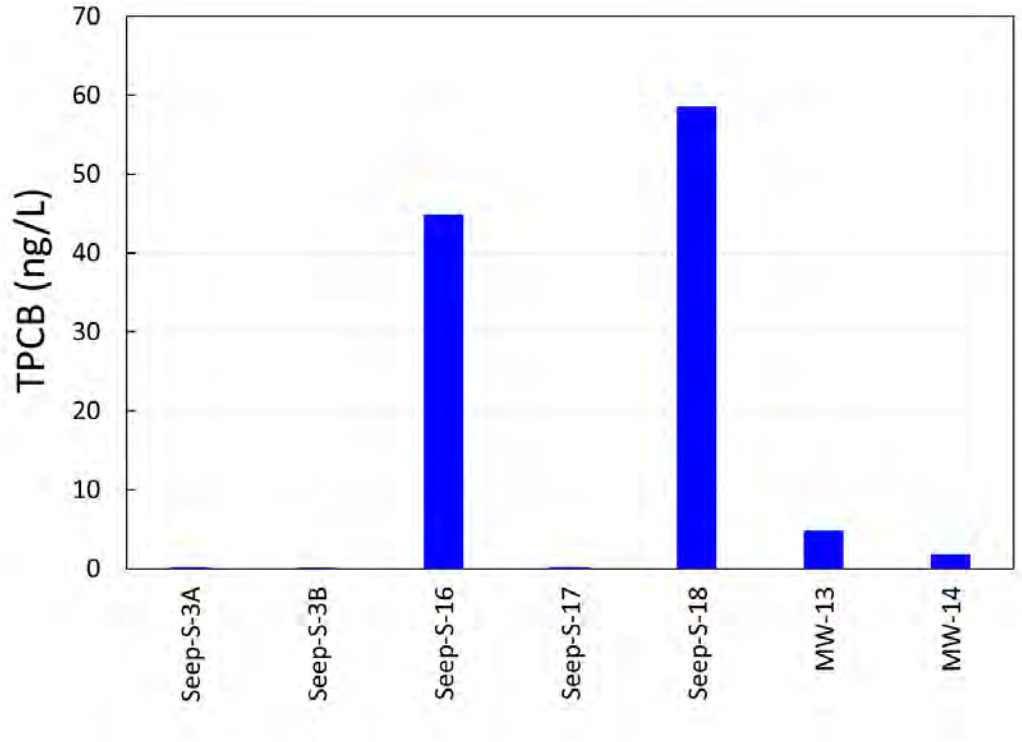
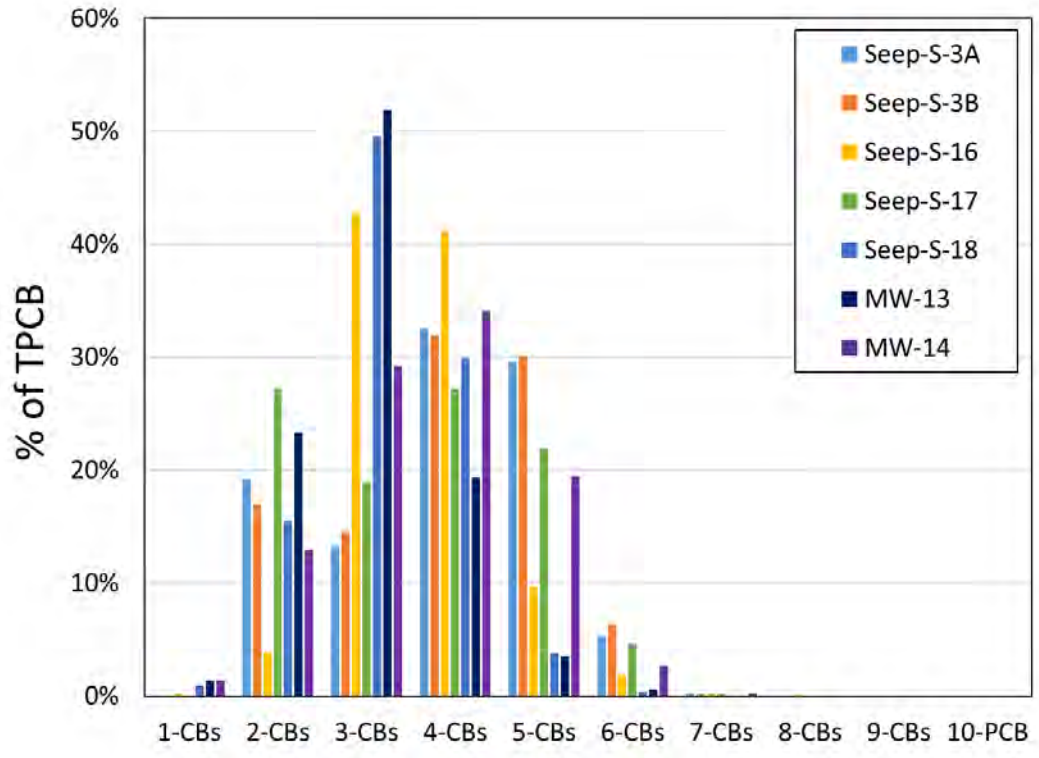



**Figure 5**
**Estimated Freely Dissolved TPCB Concentrations in Seep Porewater and Groundwater**




Note: Non-detects were handled as zero.

**Figure 6**
**Homolog Profiles of Freely Dissolved PCBs in Seep Porewater and Groundwater**



# APPENDIX I

# FIELD COLLECTION FORMS

Description: Provides the backup field documentation for the porewater, surface sediment, and subsurface sampling events.

# 9/27 Jeld Wen Site

0800 - AQ staff on site, coordinating with SLR Geo (Steven)

0900 *GPS not connecting to satellites, attempting to visually identify seeps
- given coordinates of seep S-16, awaiting others
S-16: 48.012341106l
-122.212377041

1030 - GPS began functioning properly, awaiting lat/long coordinates from GIS.

1115 - Recieved GPS coordinates for remaining seeps, begin placement of SPME samplers

1230 SPME Samples deployed, packing materials, AQ off site.

NOTE: Additional SPME sampler placed at location S-38 due to visual identification of nearby seep

Rite in the Rain.

10/25/2019

10/25 Field Work
SPME retrieval

0815 AQ (Sam, Nathan) onsite, greeted ecology personnel

0845 Begin removal of SPME samplers under ecology supervision:

| Time | Sample (removed) |
|---|---|
| 0845 | S-3B, ~~[illegible]~~ SG |
| 0850 | SG ~~[illegible]~~ S-3A |
| 0855 | S-16 |
| 0900 | S-18 |
| 0930 | S-17 |

1000 Sam offsite - return to AQ office to process samples

NOTE - it was determined that SPME samples placed in MW-13 and MW-14 were deployed in incorrect locations and will be redeployed at later date.



Rite in the Rain.

10/30 Jeld Wen SPME deploy

0840 - AQ on site (Sam, Lucas)
mob. equipment to MW-14

0850 Measure water depth in well
-18.5ft below Top of casing (TOC)

0920 Measure depth of well MW-14
- 25.4 feet below TOC

0925 SPME sampler placed at -24.3 feet
below top of casing (~1 ft above bottom)

0930 Move to MW-13

0935 water level measured at -20.5 feet
below TOC MW-13

1004 measure bottom of well
~ 26.8 feet bellow TOC

1005 Place SPME at -25.8 ft
below TOC.

1015 AQ off site

NOTE - TOC measured at +2 feet above
ground surface.



Note that the depths of deployment are recorded as the depth of the bottom of the SPME sample device.

Rite in the Rain

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA01-SS01

Sampling Crew: EM JP
Sample Date: 5/7/12 Sampling Method:
Sampling Vessel:
Subcontractor(s): Weather:
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: 0 ft. Grab Recovery: 10 cm Time: 15:22
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | (none) | H2S | (none) | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| (silt clay) | brown | dense/stiff | strong | | moderate | (Wet) |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments: Surrounded by failed creosote piling bulkheads

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: TW

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA01-SS02

Sampling Crew: EM, JP
Sample Date: 5/7/12 Sampling Method:
Sampling Vessel:
Subcontractor(s): Weather:
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: 0 ft. Grab Recovery: 10 cm Time: 15:15
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | (gray) | (soft/loose) | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | (Moist) |
| (silt clay) | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments: Oxidized tubeworm channels, trace woody debris

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: EM

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA01-SS03

Sampling Crew: EM
Sample Date: 5/7/12 Sampling Method:
Sampling Vessel:
Subcontractor(s): Weather:
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: 0 ft. Grab Recovery: 10 cm Time: 15:10
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| (gravel) | (gray) | (soft/loose) | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | (Moist) |
| (silt clay) | brown | dense/stiff | strong | | moderate | (Wet) |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments: Site on steep slope, upper portion moist silt clay
lower portion wet, soft silt clay with coarse gravel layer
>3cm. Abundant barnacles on surface of sed's

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: EM

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA01-SS04

Sampling Crew: EM
Sample Date: 5/7/17 Sampling Method:
Sampling Vessel:
Subcontractor(s): Weather:
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: 0 ft. Grab Recovery: 10 cm Time: 1500
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: oxidized worm tunnels, rust in color

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: EM

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA02-SS085

Sampling Crew: JRP

Sample Date: 5-7-12 Sampling Method: Grabs

Sampling Vessel:

Subcontractor(s): Weather: Clear 60°F

Station Coordinates: N / Lat. On target

E / Long.

Datum: NAD 83 / WGS 84 zone:

Sample ID:

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:

(Circle Appropriate Analyses)

Grab Number: 1-05 Water Depth: 0 ft. Grab Recovery: 10 cm Time: ~~30~~ 15:05

Tide Level: ft. Sample Interval: cm

Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | (H2S) | (none) | Dry |
| gravel | (gray) | (soft/loose) | (slight) | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| (silt clay) | brown | dense/stiff | strong | | moderate | (Wet) |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments: 15' from creosote bulkhead

Grab Number: Water Depth: ft. Grab Recovery: cm Time:

Tide Level: ft. Sample Interval: cm

Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:

Tide Level: ft. Sample Interval: cm

Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by:

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA02-SS06

Sampling Crew: JRP
Sample Date: 5-7-12 Sampling Method: Grabs
Sampling Vessel:
Subcontractor(s): Weather: Clear 60°F
Station Coordinates: N / Lat. On target
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1-06 Water Depth: 0 ft. Grab Recovery: 10 cm Time: 14:56
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | none | (H2S) | (none) | Dry |
| gravel | (gray) | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | (moderate) | other: | slight | Moist |
| (silt clay) | brown | dense/stiff | strong | | moderate | (Wet) |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments: 20' from piles

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by:

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA02-SS07

Sampling Crew: TRP
Sample Date: _____ Sampling Method: Grabs
Sampling Vessel: _____
Subcontractor(s): _____ Weather: Sunny, windy, clear 60°F
Station Coordinates: N / Lat. _____
E / Long. _____
Datum: NAD 83 / WGS 84 zone:

Sample ID: EA02-SS07
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other: _____
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other: _____
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: _____ ft. Grab Recovery: 10 cm Time: 15:11
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: _____

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA02-SS08

Sampling Crew: JRP

Sample Date: 5-09-17 Sampling Method: Grabs

Sampling Vessel:

Subcontractor(s): Weather: Clear 60°F

Station Coordinates: N / Lat. On target

E / Long.

Datum: NAD 83 / WGS 84 zone:

Sample ID:

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:

(Circle Appropriate Analyses)

Grab Number: 1-08 Water Depth: 0 ft. Grab Recovery: 10 cm Time: 14:47

Tide Level: ft. Sample Interval: cm

Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | (H2S) | (none) | Dry |
| gravel | (gray) | (soft/loose) | (slight) | Petroleum | trace | (Damp) |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | (Moist) |
| (silt clay) | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:

Tide Level: ft. Sample Interval: cm

Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:

Tide Level: ft. Sample Interval: cm

Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by:

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA03-SS09

Sampling Crew: Kara Hitchko
Sample Date: _____ Sampling Method: _____
Sampling Vessel: _____
Subcontractor(s): _____ Weather: sunny breezy
Station Coordinates: N / Lat. _____
E / Long. _____
Datum: NAD 83 / WGS 84 zone:

Sample ID: EA3-SS9
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other: _____
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other: _____
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: _____ ft. Grab Recovery: _____ cm Time: 1345
Tide Level: _____ ft. Sample Interval: 10 cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black small layers | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: KH

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA03-SS10

Sampling Crew: Karen Hitchko
Sample Date: 5/7/12 Sampling Method:
Sampling Vessel: Weather:
Subcontractor(s):
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: EA3-~~SS04~~ SS10
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest
TS / TVS / Grain Size / TOC / Ammonia / Sulfides
(Circle Appropriate Analyses)
Other: 1330
Other:

Grab Number: 1 Water Depth: ft. Grab Recovery: 10 cm Time: 1330
Tide Level: ft. Sample Interval: 10 cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | (none) | H2S | (none) | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| ~~sand C M F~~ | (black) layer | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | (brown) | dense/stiff | strong | | moderate | (Wet) |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments: Pronounced black layer

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: KH

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA03-SS11

Sampling Crew: Kara Hitchko

Sample Date: _____ Sampling Method: _____

Sampling Vessel: _____

Subcontractor(s): _____ Weather: Sunny breezy

Station Coordinates: N / Lat. _____

E / Long. _____

Datum: NAD 83 / WGS 84 zone:

Sample ID: _____

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other: 1345

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other: _____

(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: _____ ft. Grab Recovery: _____ cm Time: 1400

Tide Level: _____ ft. Sample Interval: 10 cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | (mod dense/stiff) | moderate | other: | slight | (Moist) |
| (silt clay) | (brown) | dense/stiff | strong | | moderate | Wet |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: KH

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA03-SS12

Sampling Crew: Kara Hitchko
Sample Date: 5/7/12 Sampling Method:
Sampling Vessel:
Subcontractor(s): Weather: Sunny, breeze
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: EA3-SS12
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: ft. Grab Recovery: cm Time: 1300
Tide Level: ft. Sample Interval: 10 cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | none | H2S | (none) | Dry |
| gravel | gray | soft/loose | (slight) poop | Petroleum | trace | Damp |
| (sand) C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| (silt clay) | (brown) | dense/stiff | strong | | moderate | (Wet) |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: KH

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA04-SS13

Sampling Crew: _____

Sample Date: _____ Sampling Method: _____

Sampling Vessel: _____

Subcontractor(s): _____ Weather: _____

Station Coordinates: N / Lat. _____

E / Long. _____

Datum: NAD 83 / WGS 84 zone:

Sample ID: _____

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other: _____

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other: _____

(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: _____ ft. Grab Recovery: _____ cm Time: 1255

Tide Level: _____ ft. Sample Interval: 10 cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| (sand) C M F | (black) | (mod dense/stiff) | moderate | other: | slight | Moist |
| (silt clay) | (brown) | dense/stiff | strong | | moderate | (Wet) |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: Sand on top

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA04-SS14

Sampling Crew: _____

Sample Date: _____ Sampling Method: _____

Sampling Vessel: _____

Subcontractor(s): _____ Weather: _____

Station Coordinates: N / Lat. _____

E / Long. _____

Datum: NAD 83 / WGS 84 zone:

Sample ID: _____

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other: _____

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other: _____

(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: _____ ft. Grab Recovery: _____ cm Time: 1250

Tide Level: _____ ft. Sample Interval: 10 cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: 2 inch sand with dark clay sandy beneath 4 inches down layer of woody debris

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA04-SS15

Sampling Crew: Kara Hitchko
Sample Date: 5/7/12 Sampling Method:
Sampling Vessel:
Subcontractor(s): Weather: Sunny, breezy
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: EA4-SS15
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: ft. Grab Recovery: cm Time: 1230
Tide Level: ft. Sample Interval: 10 cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | (none) | H2S | (none) | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| (sand) C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| (silt clay) | (brown) | dense/stiff | strong | | moderate | (Wet) |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: KH

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA04-SS16

Sampling Crew: Alicia Toney
Sample Date: 5/7/12 Sampling Method:
Sampling Vessel:
Subcontractor(s): Weather: Sunny breezy
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: EA4 SS16
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: ft. Grab Recovery: cm Time: 1240
Tide Level: ft. Sample Interval: 10 cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | (none) | Dry |
| gravel | gray | soft/loose | (slight) | Petroleum | trace | Damp |
| (sand) C M F | black | (mod dense/stiff) | moderate | other: | slight | (Moist) |
| (silt clay) | (brown) | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: Sandy with clay chunks

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: AT

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA05-SS17

Sampling Crew: Kelee, Kara, JRP, Eric P., Andrew
Sample Date: 5-09-12 Sampling Method: Power Grab
Sampling Vessel:
Subcontractor(s): RSS Weather: Partially Cloudy
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: ft. Grab Recovery: 10" cm Time: 10:00
Tide Level: ft. Sample Interval: 10 cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: First grab was filled with wood. No sample material was extracted from this grab

Grab Number: 2 Water Depth: 12 ft. Grab Recovery: 10" cm Time: 10:10
Tide Level: ft. Sample Interval: 10 cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | (gray) | soft/loose | slight | Petroleum | trace | Damp |
| (sand) (C M F) | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | (dense/stiff) | strong | | moderate | (Wet) |
| (organic matter) | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: Sand with fine to coarse gravel, medium organic matter stuck within jaws of grab, shell pieces throughout, & some wood debri

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: KL

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA05-SS18

Sampling Crew: KC/JP/KH/EP
Sample Date: 5/9/2012 Sampling Method: Power Grab
Sampling Vessel:
Subcontractor(s): Weather: Partly Cloudy
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: 15 ft. Grab Recovery: 12" cm Time: 10:55
Tide Level: ft. Sample Interval: 10 cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | (gray) | soft/loose | slight | Petroleum | trace | Damp |
| (sand) C (M) F | black | (mod dense/stiff) | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | (Wet) |
| (organic matter) below 10" | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: Coarse Wood trapped at bottom at ≈10"
Top 10" completely sand, below coarser sand & silt with wood fibers. Some organics may have been at surface & pushed down

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: KC

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA05-SS19

Sampling Crew: KC/JP/KH/EP
Sample Date: 5/9/2012 Sampling Method: Power Grab
Sampling Vessel:
Subcontractor(s): Weather: Partly cloudy
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: 49 ft. Grab Recovery: 12" cm Time: 11:32
Tide Level: ft. Sample Interval: 10 cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | (H2S) | (none) | Dry |
| gravel | (gray) | (soft/loose) | (slight) | Petroleum | trace | Damp |
| sand (C) M F | (black) in organic area | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | (Wet) |
| (organic matter) b/w 8-10cm | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments: Grab was taken ≈ 50' off target due to low water depth at target. Exact coordinates were recorded 8-10cm of sand/silt clay below fibrous materials all eel grass, leaves, sticks (non wood waste) *47' W of target

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by:

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA05-SS20

Sampling Crew: KC/JP/KH/EP
Sample Date: 5/9/2012 Sampling Method: Power Grab
Sampling Vessel:
Subcontractor(s): Weather: Partly Cloudy
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: 12 ft. Grab Recovery: 12" cm Time: 11:55
Tide Level: ft. Sample Interval: 10 cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | (gray) | soft/loose | slight | Petroleum | trace | Damp |
| (sand) C (M) F | black | (mod dense/stiff) | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | (Wet) |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: No debri in jaws, small amount of vegetation

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by:

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA06-SS21

Sampling Crew: EM, KC
Sample Date: 5/7/12 Sampling Method:
Sampling Vessel:
Subcontractor(s): Weather:
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: ft. Grab Recovery: cm Time: 11:12
Tide Level: ft. Sample Interval: 10 cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: DM

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA06-SS22

Sampling Crew: _____

Sample Date: _____ Sampling Method: _____

Sampling Vessel: _____

Subcontractor(s): _____ Weather: _____

Station Coordinates: N / Lat. _____

E / Long. _____

Datum: NAD 83 / WGS 84 zone:

Sample ID: _____

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other: _____

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other: _____

(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: _____ ft. Grab Recovery: _____ cm Time: 11:17

Tide Level: _____ ft. Sample Interval: 10 cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | (gray) | (soft/loose) | slight | Petroleum | trace | Damp |
| (sand) C (M) F | black | mod dense/stiff | moderate | other: | slight | Moist |
| (silt clay) | brown | dense/stiff | strong | | moderate | (Wet) |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: 0-1cm silt clay 2-10cm fine/medium Sand

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: KC

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA06-SS23

Sampling Crew: EM, KC
Sample Date: 5/7/12 Sampling Method:
Sampling Vessel:
Subcontractor(s): Weather:
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth:____ft. Grab Recovery:____cm Time: 11:30
Tide Level:____ft. Sample Interval: 10 cm
Bioassay / Chemistry Depth MLLW:____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | (none) | H2S | (none) | Dry |
| gravel | (gray) | (soft/loose) | slight | Petroleum | trace | Damp |
| sand C M F | (black) | mod dense/stiff | moderate | other: | slight | Moist |
| (silt clay) | (brown) 5/7/12 EM | dense/stiff | strong | | moderate | (Wet) |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments: 0-3 cm brown surface, very soft
3-10 cm, gray/black, soft

Grab Number:____ Water Depth:____ft. Grab Recovery:____cm Time:____
Tide Level:____ft. Sample Interval:____cm
Bioassay / Chemistry Depth MLLW:____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number:____ Water Depth:____ft. Grab Recovery:____cm Time:____
Tide Level:____ft. Sample Interval:____cm
Bioassay / Chemistry Depth MLLW:____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: EM

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA06-SS24

Sampling Crew: EM KC
Sample Date: 5/7/17 Sampling Method:
Sampling Vessel: Weather:
Subcontractor(s):
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: ft. Grab Recovery: cm Time: 11:25
Tide Level: ft. Sample Interval: 10 cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble 5/7/17 EM | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: 0-3 cm brown color
3-10 cm grey color, moderate dense, medium-fine sand with trace silt-clay

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: EM

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA07-SS25

Sampling Crew: EM KC
Sample Date: 5/8/12 Sampling Method:
Sampling Vessel: Weather:
Subcontractor(s):
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: ft. Grab Recovery: cm Time: 11:44
Tide Level: ft. Sample Interval: 10 cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/loose) 0-3cm | (none) | H2S | (none) | Dry |
| gravel - trace | (gray) 0-3cm | (soft/loose) 3-10cm | slight | Petroleum | trace | Damp |
| sand C M (F) 0-3cm | (black) 3-10 cm | mod dense/stiff | moderate | other: | slight | Moist |
| (silt clay) | brown | dense/stiff | strong | | moderate | (Wet) |
| organic matter | brown surface 0-3cm | very dense/stiff | overwhelming | | heavy | |

Comments: Wood waste debris wood layer begins at 7-8cm

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: KC

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA07-SS26

Sampling Crew: EM, KC
Sample Date: 5/7/12 Sampling Method:
Sampling Vessel:
Subcontractor(s): Weather:
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone: ~~7~~ 9 5/7/12 EM

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: ft. Grab Recovery: cm Time: 1150
Tide Level: ft. Sample Interval: 10 cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | (none) | H2S | (none) | Dry |
| gravel | (gray) | (soft/loose) | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| (silt clay) | brown | dense/stiff | strong | | moderate | (Wet) |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments: Ample small woody debris in 0-10 cm, clamshells.
0-1cm, brown surface very soft, 1-10cm soft.

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: EM

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA07-SS27

Sampling Crew: _____

Sample Date: _____ Sampling Method: _____

Sampling Vessel: _____

Subcontractor(s): _____ Weather: _____

Station Coordinates: N / Lat. _____

E / Long. _____

Datum: NAD 83 / WGS 84 zone:

Sample ID: _____

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other: _____

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other: _____

(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: _____ft. Grab Recovery: _____cm Time: 12:14

Tide Level: _____ft. Sample Interval: 10 cm

Bioassay / Chemistry Depth MLLW: _____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | (none) | H2S | (none) | Dry |
| gravel | (gray) | (soft/loose) | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| (silt clay) | brown | dense/stiff | strong | | moderate | (Wet) |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments: Trace wood debri, Brown surface 0-1cm, 1-10cm gray

Grab Number: _____ Water Depth: _____ft. Grab Recovery: _____cm Time: _____

Tide Level: _____ft. Sample Interval: _____cm

Bioassay / Chemistry Depth MLLW: _____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ft. Grab Recovery: _____cm Time: _____

Tide Level: _____ft. Sample Interval: _____cm

Bioassay / Chemistry Depth MLLW: _____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: _____

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA07-SS28

Sampling Crew: EM, KC
Sample Date: _____ Sampling Method: _____
Sampling Vessel: _____
Subcontractor(s): _____ Weather: _____
Station Coordinates: N / Lat. _____
E / Long. _____
Datum: NAD 83 / WGS 84 zone:

Sample ID: _____
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other: _____
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other: _____
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: _____ ft. Grab Recovery: _____ cm Time: 12:00
Tide Level: _____ ft. Sample Interval: 10 cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: 0-1 cm brown surface, very soft silt/clay
1-10 grey/black Very soft to soft silt/clay. Moderate wood debris & clam shells

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: EM

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA08-SS29

Sampling Crew: NJ
Sample Date: 5/7/12 Sampling Method: Grab
Sampling Vessel:
Subcontractor(s): Weather:
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: EA08-29
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest — Other: SEE QAPP
TS / TVS / Grain Size / TOC / Ammonia / Sulfides — Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: ft. Grab Recovery: cm Time: 11:00
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | (gray) | (soft/loose) | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | (Wet) |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: Top layer Brown to brown wood waste

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by:

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA08-SS30

Sampling Crew: NS
Sample Date: 5/7/12 Sampling Method: Grab
Sampling Vessel: —
Subcontractor(s): —
Weather:
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: EA08-SS30
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest
TS / TVS / Grain Size / TOC / Ammonia / Sulfides
(Circle Appropriate Analyses)
Other: SEE QAPP
Other:

Grab Number: 1 Water Depth: ____ft. Grab Recovery: ____cm Time: 11:10
Tide Level: ____ft. Sample Interval: ____cm
Bioassay / Chemistry Depth MLLW: ____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: Top layer brown
Some burrows wood waste

Grab Number: ____ Water Depth: ____ft. Grab Recovery: ____cm Time: ____
Tide Level: ____ft. Sample Interval: ____cm
Bioassay / Chemistry Depth MLLW: ____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: ____ Water Depth: ____ft. Grab Recovery: ____cm Time: ____
Tide Level: ____ft. Sample Interval: ____cm
Bioassay / Chemistry Depth MLLW: ____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: _____

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA08-SS31

Sampling Crew:
Sample Date: 5/7/12 Sampling Method: Grab
Sampling Vessel: 11:15
Subcontractor(s): Weather: Clear
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: EA8-SS31
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth:____ft. Grab Recovery: 10 cm Time: 11:15
Tide Level:____ft. Sample Interval:____cm
Bioassay / Chemistry Depth MLLW:____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | (gray) | (soft/loose) | slight | Petroleum | (trace) | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| (silt clay) | brown | dense/stiff | strong | | moderate | (Wet) |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number:____ Water Depth:____ft. Grab Recovery:____cm Time:____
Tide Level:____ft. Sample Interval:____cm
Bioassay / Chemistry Depth MLLW:____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number:____ Water Depth:____ft. Grab Recovery:____cm Time:____
Tide Level:____ft. Sample Interval:____cm
Bioassay / Chemistry Depth MLLW:____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by:

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA08-SS32

Sampling Crew: JM, KC
Sample Date: 5/7/12 Sampling Method:
Sampling Vessel: Weather:
Subcontractor(s):
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: ft. Grab Recovery: cm Time: 12:25
Tide Level: ft. Sample Interval: 10 cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | (none) | H2S | (none) | Dry |
| gravel | (gray) 3-10 cm | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| (silt clay) | brown | dense/stiff | strong | | moderate | (Wet) |
| organic matter | (brown surface) 0-3 cm | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: EM

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA09-SS33

Sampling Crew: EM, JP
Sample Date: 5/7/17 Sampling Method:
Sampling Vessel:
Subcontractor(s): Weather:
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 33 Water Depth: ft. Grab Recovery: cm Time: 13:24
Tide Level: ft. Sample Interval: 10 cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by:

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA09-SS34

Sampling Crew: EM, JP
Sample Date: 5/7/17 Sampling Method:
Sampling Vessel:
Subcontractor(s): Weather:
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: 0 ft. Grab Recovery: cm Time: 14:11
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | (H2S) | (none) | Dry |
| gravel | (gray) | (soft/loose) | (slight) | Petroleum | trace | Damp |
| sand C M (F) <5% | black | mod dense/stiff | moderate | other: | slight | (Moist) |
| (silt clay) | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments: trace wood waste 2-5% fine-medium

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: EM

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA09-SS35

Sampling Crew: EM, JP
Sample Date: 5/7/17 Sampling Method: Grabs
Sampling Vessel:
Subcontractor(s): Weather:
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 35 Water Depth: 0 ft. Grab Recovery: 10 cm Time: 1:36 pm
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | (gray) | (soft/loose) | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | (Moist) |
| (silt clay) | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments: Surface layer thin and brown.

Grab Number: 37 Water Depth: 0 ft. Grab Recovery: 10 cm Time: 13:46
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | (gray) | soft/loose | slight | Petroleum | trace | Damp |
| (sand) C M (F) | black | (mod dense/stiff) | moderate | other: | slight | (Moist) |
| (silt clay) | brown | dense/stiff | strong | | moderate | Wet |
| organic matter 5% | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments: Silty Sand

Grab Number: 38 Water Depth: 0 ft. Grab Recovery: 10 cm Time: 13:50
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | (gray) | (soft/loose) | slight | Petroleum | trace | Damp |
| (sand) C M (F) trace | black | mod dense/stiff | moderate | other: | slight | (Moist) |
| (silt clay) | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments: Substantial coarse woody debris

Date/Time Lab Drop Off:

Recorded by: EM

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA09-SS36

Sampling Crew: EM, JP
Sample Date: 5/7/12 Sampling Method:
Sampling Vessel: Weather:
Subcontractor(s):
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
5/7/12 EM (Circle Appropriate Analyses)

Grab Number: ~~30~~ 1 Water Depth: 0 ft. Grab Recovery: 10 cm Time: 14:01
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | (gray) | (soft/loose) | slight | Petroleum | trace | Damp |
| (sand) C M (F) 10% | black | mod dense/stiff | moderate | other: | slight | (Moist) |
| (silt clay) | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments: Substantial coarse woody debris

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: EM

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA09-SS37

Sampling Crew: _____

Sample Date: _____ Sampling Method: _____

Sampling Vessel: _____

Subcontractor(s): _____ Weather: _____

Station Coordinates: N / Lat. _____

E / Long. _____

Datum: NAD 83 / WGS 84 zone:

Sample ID: _____

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other: _____

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other: _____

(Circle Appropriate Analyses)

Grab Number: _____ Water Depth: _____ft. Grab Recovery: _____cm Time: _____

Tide Level: _____ft. Sample Interval: _____cm

Bioassay / Chemistry Depth MLLW: _____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ft. Grab Recovery: _____cm Time: _____

Tide Level: _____ft. Sample Interval: _____cm

Bioassay / Chemistry Depth MLLW: _____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ft. Grab Recovery: _____cm Time: _____

Tide Level: _____ft. Sample Interval: _____cm

Bioassay / Chemistry Depth MLLW: _____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: _____

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA09-5538

Sampling Crew: _____

Sample Date: _____ Sampling Method: _____

Sampling Vessel: _____

Subcontractor(s): _____ Weather: _____

Station Coordinates: N / Lat. _____

E / Long. _____

Datum: NAD 83 / WGS 84 zone:

Sample ID: _____

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other: _____

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other: _____

(Circle Appropriate Analyses)

Grab Number: _____ Water Depth: _____ft. Grab Recovery: _____cm Time: _____

Tide Level: _____ft. Sample Interval: _____cm

Bioassay / Chemistry Depth MLLW: _____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ft. Grab Recovery: _____cm Time: _____

Tide Level: _____ft. Sample Interval: _____cm

Bioassay / Chemistry Depth MLLW: _____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ft. Grab Recovery: _____cm Time: _____

Tide Level: _____ft. Sample Interval: _____cm

Bioassay / Chemistry Depth MLLW: _____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: _____

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA10-SS39

Sampling Crew: _____

Sample Date: _____ Sampling Method: _____

Sampling Vessel: _____

Subcontractor(s): _____ Weather: _____

Station Coordinates: N / Lat. _____

E / Long. _____

Datum: NAD 83 / WGS 84 zone:

Sample ID: _____

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest
TS / TVS / Grain Size / TOC / Ammonia / Sulfides
(Circle Appropriate Analyses)

Other: _____

Other: _____

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: _____

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EAID-SS4D

Sampling Crew: _____

Sample Date: _____ Sampling Method: _____

Sampling Vessel: _____

Subcontractor(s): _____ Weather: _____

Station Coordinates: N / Lat. _____

E / Long. _____

Datum: NAD 83 / WGS 84 zone:

Sample ID: _____

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other: _____

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other: _____

(Circle Appropriate Analyses)

Grab Number: _____ Water Depth: _____ft. Grab Recovery: _____cm Time: _____

Tide Level: _____ft. Sample Interval: _____cm

Bioassay / Chemistry Depth MLLW: _____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ft. Grab Recovery: _____cm Time: _____

Tide Level: _____ft. Sample Interval: _____cm

Bioassay / Chemistry Depth MLLW: _____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ft. Grab Recovery: _____cm Time: _____

Tide Level: _____ft. Sample Interval: _____cm

Bioassay / Chemistry Depth MLLW: _____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: _____

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA ID-SS41

Sampling Crew: _____

Sample Date: _____ Sampling Method: _____

Sampling Vessel: _____

Subcontractor(s): _____ Weather: _____

Station Coordinates: N / Lat. _____

E / Long. _____

Datum: NAD 83 / WGS 84 zone:

Sample ID: _____

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other: _____

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other: _____

(Circle Appropriate Analyses)

Grab Number: _____ Water Depth: _____ft. Grab Recovery: _____cm Time: _____

Tide Level: _____ft. Sample Interval: _____cm

Bioassay / Chemistry Depth MLLW: _____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ft. Grab Recovery: _____cm Time: _____

Tide Level: _____ft. Sample Interval: _____cm

Bioassay / Chemistry Depth MLLW: _____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ft. Grab Recovery: _____cm Time: _____

Tide Level: _____ft. Sample Interval: _____cm

Bioassay / Chemistry Depth MLLW: _____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: _____

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA10-SS42

Sampling Crew: JRP - NWS
Sample Date: 5-7-12 Sampling Method: Grab
Sampling Vessel:
Subcontractor(s): Weather: Clear - 55°F
Station Coordinates: N / Lat. (H.t target) #42
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 42 Water Depth: 0 ft. Grab Recovery: 10 cm Time: 9:03 am (PDT)
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | (gray) | (soft/loose) | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| (silt) clay | brown | dense/stiff | strong | | moderate | (Wet) |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: None.

Grab Number: 43 Water Depth: 0 ft. Grab Recovery: 10 cm Time: 12:20 pm
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | (none) | Dry |
| gravel | (gray) | (soft/loose) | (slight) | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | (Moist) Wet |
| (silt clay) | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: 39 Water Depth: 0 ft. Grab Recovery: 10 cm Time: 10:25 pm
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | (gray) | (soft/loose) | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | (Moist) |
| (silt clay) | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by:

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** EA10-SS43

Sampling Crew: _____

Sample Date: _____ Sampling Method: _____

Sampling Vessel: _____

Subcontractor(s): _____ Weather: _____

Station Coordinates: N / Lat. _____

E / Long. _____

Datum: NAD 83 / WGS 84 zone:

Sample ID: _____

Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other: _____

TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other: _____

(Circle Appropriate Analyses)

Grab Number: 40 Water Depth: 0 ft. Grab Recovery: 10 cm Time: 12:34pm

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | (gray) | (soft/loose) | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | (Moist) |
| (silt clay) | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: Large wood adjacent.

Grab Number: 41 Water Depth: 0 ft. Grab Recovery: 10 cm Time: 12:44pm

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | (gray) | soft/loose | slight | Petroleum | trace | Damp |
| (sand) C M (F) | black | (mod dense/stiff) | moderate | other: | slight | (Moist) |
| (silt clay) 90% | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: Bow of wood barge

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____

Tide Level: _____ ft. Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: _____

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** VR-SS44

Sampling Crew: JP/KC
Sample Date: 5/8/12 Sampling Method:
Sampling Vessel:
Subcontractor(s): Weather:
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: 10 cm Time: 10:57
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | (gray) | (soft/loose) | slight | Petroleum | trace | Damp |
| (sand) C M F 5-10% | black | mod dense/stiff | moderate | other: | slight | Moist |
| (silt clay) | brown | dense/stiff | strong | | moderate | (Wet) |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments: Trace Sand, oxidized worm & siphon channels

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: KC

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** VR-5545

Sampling Crew: JP/KC
Sample Date: 5/8/12 Sampling Method:
Sampling Vessel: Weather:
Subcontractor(s):
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides , Other:
(Circle Appropriate Analyses)

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: 10 cm Time: 11:11
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | (gray) | (soft/loose) | slight | Petroleum | trace | Damp |
| (sand) C M F 5-10% | black | mod dense/stiff | moderate | other: | slight | Moist |
| (silt clay) | brown | dense/stiff | strong | | moderate | (Wet) |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments: lots of worm holes, lots of worms

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: KC

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** VR-SS46

Sampling Crew: JP/KC
Sample Date: 5/8/12 Sampling Method:
Sampling Vessel:
Subcontractor(s): Weather:
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: 10 cm Time: 11:26
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | (gray) | (soft/loose) | slight | Petroleum | trace | Damp |
| (sand) C M F 10% | black | mod dense/stiff | moderate | other: | slight | Moist |
| (silt clay) | brown | dense/stiff | strong | | moderate | (Wet) |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments: Some worm holes

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: KC

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** UR-SS47

Sampling Crew: JP/KC
Sample Date: 5/8/12 Sampling Method:
Sampling Vessel: Weather:
Subcontractor(s):
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: 10 cm Time: 11:34
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | (gray) | (soft/loose) | slight | Petroleum | trace | Damp |
| (sand) C M F 5-10% | black | mod dense/stiff | moderate | other: | slight | Moist |
| (silt clay) | brown | dense/stiff | strong | | moderate | (Wet) |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments: Some worm holes

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: KC

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** DR-SS48

Sampling Crew: KH and AT
Sample Date: 5/8/12 Sampling Method: surface grab
Sampling Vessel:
Subcontractor(s): Weather: overcast, 60°F
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: DR-SS48
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth:____ft. Grab Recovery:____cm Time: 15:10
Tide Level:____ft. Sample Interval: 10 cm
Bioassay / Chemistry Depth MLLW:____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | (none) | H2S | (none) | Dry |
| gravel | (gray) sand | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| (silt clay) | (brown) | dense/stiff | strong | | moderate | (Wet) |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments: minimal woody debris

Grab Number:____ Water Depth:____ft. Grab Recovery:____cm Time:____
Tide Level:____ft. Sample Interval:____cm
Bioassay / Chemistry Depth MLLW:____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number:____ Water Depth:____ft. Grab Recovery:____cm Time:____
Tide Level:____ft. Sample Interval:____cm
Bioassay / Chemistry Depth MLLW:____ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: KH

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** DR-SS49

Sampling Crew: KH
Sample Date: 5/8/12 Sampling Method:
Sampling Vessel:
Subcontractor(s): Weather: Overcast, 60°F
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: DR-SS49
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: ft. Grab Recovery: cm Time: 1120
Tide Level: ft. Sample Interval: 10 cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: KH

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** DR-SS50

Sampling Crew: KH and AT
Sample Date: _____ Sampling Method: Surface grab
Sampling Vessel: _____
Subcontractor(s): _____ Weather: overcast, 60°F
Station Coordinates: N / Lat. _____
E / Long. _____
Datum: NAD 83 / WGS 84 zone:

Sample ID: DR-SS50
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other: _____
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other: _____
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: _____ ft. Grab Recovery: _____ cm Time: 1140
Tide Level: _____ ft. Sample Interval: 10 cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | ~~Very soft/Loose~~ | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: KH + AT

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** OR-SS51

Sampling Crew: KH + AT
Sample Date: _____ Sampling Method: Surface grab
Sampling Vessel: _____
Subcontractor(s): _____ Weather: _____
Station Coordinates: N / Lat. _____
E / Long. _____
Datum: NAD 83 / WGS 84 zone:

Sample ID: OR-SS51
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other: _____
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other: _____
(Circle Appropriate Analyses)

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: 1150
Tide Level: _____ ft. Sample Interval: 10 cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | (Very soft/Loose) | (none) | H2S | (none) | Dry |
| gravel | (gray) | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | (black) X KH | mod dense/stiff | moderate | other: | slight | Moist |
| (silt clay) | brown | dense/stiff | strong | | moderate | (Wet) |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments: Little bit of red clay

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____ ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: KH and AT

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** RB-SS52

Sampling Crew: EM, CD
Sample Date: 5/8/17 Sampling Method:
Sampling Vessel:
Subcontractor(s): Weather:
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: 0 ft. Grab Recovery: 10 cm Time: 12:06
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | (gray) | soft/loose | slight | Petroleum | trace | Damp |
| sand C M (F) 50/50 | black | (mod dense/stiff) | moderate | other: | slight | (Moist) |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: BM

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** RB-SS53

Sampling Crew: EM, CD
Sample Date: 5/8/12
Sampling Vessel:
Subcontractor(s):
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sampling Method:
Weather:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest
TS / TVS / Grain Size / TOC / Ammonia / Sulfides
(Circle Appropriate Analyses)
Other:
Other:

Grab Number: 1 Water Depth: 0 ft. Grab Recovery: 10 cm Time: 12:10
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | (gray) 2-5 | soft/loose | slight | Petroleum | trace | Damp |
| (sand) C M F | (black) 5-10 organics | (mod dense/stiff) | moderate | other: | slight | (Moist) |
| (silt clay) | brown | dense/stiff | strong | | moderate | Wet |
| (organic matter) | (brown surface) 0-2 | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: EM

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** RB-SS54

Sampling Crew: EM CD.
Sample Date: 5/8/12 Sampling Method:
Sampling Vessel:
Subcontractor(s): Weather:
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: 0 ft. Grab Recovery: 10 cm Time: 12:21
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | (gray) | soft/loose | slight | Petroleum | trace | Damp |
| (sand) C M (F) | black | (mod dense/stiff) | moderate | other: | slight | (Moist) |
| (silt) clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: EM

ANCHOR QEA

# Surface Sediment Field Sample Record

**Project Name:** Jeld Wen **Project No:** 120909-01.01 **Station ID:** RB-SSSS

Sampling Crew: PM, CD
Sample Date: 5/8/12 Sampling Method:
Sampling Vessel:
Subcontractor(s): Weather:
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / TBT / SVOCs / VOCs / PCBs / Pest Other:
TS / TVS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: 0 ft. Grab Recovery: 10 cm Time: 12:21
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | (none) | H2S | (none) | Dry |
| gravel | (gray) | soft/loose | slight | Petroleum | trace | Damp |
| (sand) C M (F) | black | (mod dense/stiff) | moderate | other: | slight | (Moist) |
| (silt clay) | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | (brown surface) | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry Depth MLLW: ft.

| Sediment Type: | Sediment Color: | Density: | Sediment Odor: | | Sheen: | Moisture: |
|---|---|---|---|---|---|---|
| cobble | D.O. | Very soft/Loose | none | H2S | none | Dry |
| gravel | gray | soft/loose | slight | Petroleum | trace | Damp |
| sand C M F | black | mod dense/stiff | moderate | other: | slight | Moist |
| silt clay | brown | dense/stiff | strong | | moderate | Wet |
| organic matter | brown surface | very dense/stiff | overwhelming | | heavy | |

Comments:

Date/Time Lab Drop Off:

Recorded by: PM

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld Wen
Station: JW-101
Job No: 120909-01.01
Date: 4/29/13
Field Staff:
Sample Method: hand
Contractor: —
Target Coordinates: Lat.
Horizontal Datum: NAD 83 SP Wash N
Long.
Water Depth
DTM Depth Sounder:
Time: 1325
DTM Lead Line:
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (cm) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Lattidue/ Northing | | | |
| 1 | 1325 | 1302148 | 373756 | Y | 10 | — |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Soft Brown over dark gray Sandy Silt
90% silt 10% sand

trace wood

Sample Containers: 3

Analyses: D/F, TS/TOC, Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld wen | Station: JW-102
Job No: 120909-01.01 | Date: 4/29/13
Field Staff: | Sample Method: hand
Contractor: — | Target Coordinates: Lat.
Horizontal Datum: NAD 83 sp. wash N | Long.
Water Depth
DTM Depth Sounder: | Time: 1303
DTM Lead Line: | Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (cm) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Lattidue/ Northing | | | |
| 1 | 1303 | 1302138 | 373622 | Y | 10 | — |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

stiff to firm Brown to dark gray sandy SILT 90% fines trace wood

Sample Containers: 3

Analyses: D/F, TS/TOC, Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld Wen
Station: JW-103
Job No: 120909-01.01
Date: 4/29/13
Field Staff:
Sample Method: hand
Contractor: —
Target Coordinates: Lat.
Horizontal Datum:
Long.

Water Depth
DTM Depth Sounder:
Time: 1145

DTM Lead Line:
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (cm) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Lattidue/ Northing | | | |
| 1 | 1145 | 1302322 | 373183 | Y | 10 | — |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

firm, Brown sandy, SILT trace wood

Sample Containers: 3

Analyses: D/F, TS/TOC, Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld Wen
Station: JW-104
Job No: 120909-01.01
Date: 5/29/13
Field Staff:
Sample Method: hand
Contractor:
Target Coordinates: Lat.
Horizontal Datum: NAD 83 SP wash N
Long.

Water Depth
DTM Depth Sounder:
Time: 1140

DTM Lead Line:
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (cm) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Lattidue/ Northing | | | |
| 1 | 1140 | 1302384 | 373077 | Y | 10 | — |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Soft Brown to gray Silty SAND
Slight $H_2S$
up to 75% wood fragments

Sample Containers: 3

Analyses: D/F, TOC/TS, Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld Wen
Station: JW 105
Job No: 120909-01.01
Date: 4/29/13
Field Staff:
Sample Method: hand
Contractor: —
Target Coordinates: Lat.
Horizontal Datum: NAD 83 SP Wash N
Long.
Water Depth
DTM Depth Sounder:
Time: 1205
DTM Lead Line:
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (cm) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Lattidue/ Northing | | | |
| 1 | 1205 | 1302452 | 372981 | Y | 10 | — |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Soft Silty SAND, olive gray to dark gray
Slight H2S odor
10% wood with shell

Sample Containers: 3

Analyses: D/F, TS/TOC, Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld Wen
Station: TW 106
Job No: 120909-01.01
Date: 4/29/13
Field Staff:
Sample Method: hand
Contractor: —
Target Coordinates: Lat.
Horizontal Datum: NAD 83 SP wash N
Long.

Water Depth
DTM Depth Sounder:
Time: 1240

DTM Lead Line:
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (cm) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Lattidue/ Northing | | | |
| 1 | 1240 | 1302358 | 372592 | Y | 10 | — |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Soft olive gray to dark olive silty SAND
60% SAND
Substantial woody debris slight H2S odor

Sample Containers: 3

Analyses: PCB / TS/TOC, archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld Wen
Station: JW-107
Job No: 120909-01.01
Date: 4/29/13
Field Staff:
Sample Method: hand
Contractor: —
Target Coordinates: Lat.
Horizontal Datum: NAD83 SP wash N
Long.

Water Depth
DTM Depth Sounder:
Time: 1311

DTM Lead Line:
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (cm) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Lattidue/ Northing | | | |
| 1 | 1311 | 1302379 | 372312 | Y | 10 | — |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Surficial seaweed Soft silty SAND
75% f-sand
Slight H2S odor
10% wood fragments

Sample Containers: 3

Analyses: PCB, TS/TOC, Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Field work
Station: JW-108
Job No: 120909-01.01
Date: 4/29/13
Field Staff:
Sample Method: hand
Contractor: —
Target Coordinates: Lat.
Horizontal Datum: NAD 83 SP Wash N
Long.

Water Depth
DTM Depth Sounder:
Time: 1200

DTM Lead Line:
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (cm) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Lattidue/ Northing | | | |
| 1 | 1200 | 1302612 | 372134 | Y | 10 | — |
| | | | | | | |
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**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

med. stiff Brown to gray f-sandy SILT

20% wood.

Sample Containers: 3

Analyses: PCB, DF, TS/TOC, Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld Wen
Station: JW-109
Job No: 120909-01.01
Date: 9/29/13
Field Staff:
Sample Method: hand
Contractor: —
Target Coordinates: Lat.
Horizontal Datum: NAD 83 SP wash N
Long.
Water Depth
DTM Depth Sounder:
Time: 1147
DTM Lead Line:
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (cm) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Lattidue/ Northing | | | |
| 1 | 1147 | 1302793 | 372034 | Y | 10 | — |
| | | | | | | |
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**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

med stiff to hard brown to gray Sandy, SILT
20% wood
hard layer from 8-10 cm

Sample Containers: 3

Analyses: PCB, D/F, TS/TOC, Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld wen | Station: JW-110
Job No: 120909-01.01 | Date: 4/29/13
Field Staff: | Sample Method: hand
Contractor: — | Target Coordinates: Lat.
Horizontal Datum: NAD 83 SP west N | Long.
Water Depth
DTM Depth Sounder: | Time: 1138
DTM Lead Line: | Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (cm) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Lattidue/ Northing | | | |
| 1 | 1138 | 1302729 | 371899 | Y | 10 | — |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | field Duplicate collected this station | | JW-SS-3.0-130429 | | | |

**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Brown-gray medium STIFF to hard Sandy SILT
30% wood

Sample Containers: 3

Analyses: PCB, D/F, TS/TOC Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld Wen
Station: IW-201
Job No: 120909-01.01
Date: 4/29/13
Field Staff:
Sample Method: hand
Contractor:
Target Coordinates: Lat.
Horizontal Datum: NAD 83 SP Wash N
Long.
Water Depth
DTM Depth Sounder:
Time: 1335
DTM Lead Line:
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (cm) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Lattidue/ Northing | | | |
| 1 | 1335 | 1302097 | 373870 | Y | 10 | — |
| | | | | | | |
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**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Brown over dark gray Soft to firm
Sandy SILT 90% silt.
Trace wood

Sample Containers: 1

Analyses: Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld Wen
Station: JW-202
Job No: 120909-01.01
Date: 4/29/13
Field Staff:
Sample Method: hand
Contractor: —
Target Coordinates: Lat.
Horizontal Datum: NAD 83 SP wash N
Long.

Water Height
DTM Depth Sounder:
DTM Lead Line:

Tide Measurements
Time: 1315
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (cm) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Lattidue/ Northing | | | |
| 1 | 1315 | 1302068 | 373722 | Y | 10 | — |
| | | | | | | |
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**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Dark Brown, soft to med sandy SILT
90% silt

trace wood

Sample Containers: 1

Analyses: Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld Wen
Station: JW-203
Job No: 120908-01.01
Date: 4/29/13
Field Staff:
Sample Method: Land
Contractor: —
Target Coordinates: Lat.
Horizontal Datum: NAD 83 SP Wash N
Long.

Water Height
DTM Depth Sounder:
DTM Lead Line:

Tide Measurements
Time: 1249
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (cm) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Lattidue/ Northing | | | |
| 1 | 1249 | 1302059 | 373595 | Y | 10 | — |
| | | | | | | |
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**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Soft Brown over dark olive gray sand
SILT 80% Silt.

5% wood

Sample Containers: 1

Analyses: Archive

ANCHOR QEA

# Surface Sediment Field Log

Station: JW-204

Job: Jeld-Wen
Job No: 120909-01.01
Date: 4/29/13
Field Staff:
Sample Method: Hand
Contractor: —
Proposed Coordinates: Lat.
Horizontal Datum: NAD 83 SP Wash N
Long.

Water Height
DTM Depth Sounder:
DTM Lead Line:

Tide Measurements
Time: 1239
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (in) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Latitude/Northing | | | |
| 1 | 1239 | 1301995 | 373472 | Y | 10 | |
| | | | | | | |
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**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Soft Brown to gray Sandy SILT
90% SILT
10% wood fragments

Sample Containers: 1

Analyses: Archive

ANCHOR QEA

# Surface Sediment Field Log

Station: JW-205

Job: Jeld-Wen

Job No: 120909-01.01

Date: 4/29/13

Field Staff:

Sample Method: Hand

Contractor: —

Proposed Coordinates: Lat.

Horizontal Datum: NAD 83 SP Wash N

Long.

Water Height

DTM Depth Sounder:

DTM Lead Line:

Tide Measurements

Time: 1155

Height:

Sample Acceptability Criteria:

1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (in) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Latitude/Northing | | | |
| 1 | 1155 | 1302187 | 373209 | Y | 10 | — |
| | | | | | | |
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| | | | | | | |

**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Soft Brown sandy SILT

Trace wood

Sample Containers: 1

Analyses: Archive

ANCHOR QEA

# Surface Sediment Field Log

Station: JW-206

Job: Jeld-Wen

Job No: 120909-01.01

Date: 4/29/13

Field Staff:

Sample Method: Hand

Contractor: —

Proposed Coordinates: Lat.

Horizontal Datum: NAD 83 SP Wash N

Long.

Water Height

DTM Depth Sounder:

DTM Lead Line:

Tide Measurements

Time: 1150

Height:

Sample Acceptability Criteria:

1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (in) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Latitude/Northing | | | |
| 1 | 1150 | 1302255 | 373085 | Y | 10 | — |
| | | | | | | |
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**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Soft Brown to Black Sandy SILT
wood fragments
10% wood

Sample Containers: 1

Analyses: Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld-Wen
Station: JW-207
Job No: 120909-01.01
Date: 4/29/13
Field Staff:
Sample Method: Hand
Contractor: —
Proposed Coordinates: Lat.
Horizontal Datum: NAD 83 SP Wash N
Long.

Water Height
DTM Depth Sounder:
DTM Lead Line:

Tide Measurements
Time: 1157
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (in) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Latitude/Northing | | | |
| 1 | 1157 | 1302340 | 372984 | Y | 10 | — |
| | | | | | | |
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**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Soft Brown to Black SILT

Sample Containers: 1

Analyses: Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld-Wen
Station: JW-208
Job No: 120909-01.01
Date: 4/29/13
Field Staff:
Sample Method: Hand
Contractor: —
Proposed Coordinates: Lat.
Horizontal Datum: NAD 83 SP Wash N
Long.

Water Height
DTM Depth Sounder:
DTM Lead Line:

Tide Measurements
Time: 1250
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (in) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Latitude/Northing | | | |
| 1 | 1250 | 1302135 | 372597 | Y | 10 | — |
| | | | | | | |
| | | | | | | |
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**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Soft Brown to gray Slightly sandy SILT

red algae on surface

Sample Containers: 1

Analyses: Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld-Wen
Station: JW-209
Job No: 120909-01.01
Date: 4/29/13
Field Staff:
Sample Method: Hand
Contractor: —
Proposed Coordinates: Lat.
Horizontal Datum: NAD 83 SP Wash N
Long.

Water Height
DTM Depth Sounder:
DTM Lead Line:

Tide Measurements
Time: 1300
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (in) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Latitude/Northing | | | |
| 1 | 1300 | 1302188 | 372278 | Y | 10 | — |
| | | | | | | |
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**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Soft Brown to olive gray sandy SILT
60% silt.
10% wood fragments

Sample Containers: 1

Analyses: Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld-Wen
Station: JW-210
Job No: 120909-01.01
Date: 4/29/13
Field Staff:
Sample Method: Hand
Contractor:
Proposed Coordinates: Lat.
Horizontal Datum: NAD 83 SP Wash N
Long.
Water Height
DTM Depth Sounder:
DTM Lead Line:
Tide Measurements
Time: 1208
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (in) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Latitude/Northing | | | |
| 1 | 1208 | 1302425 | 372092 | Y | 10 | — |
| | | | | | | |
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**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

olive gray to gray, medium stiff sandy SILT
10% wood

Sample Containers: 1

Analyses: Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld-Wen
Station: JW - 211
Job No: 120909-01.01
Date: 4/29/13
Field Staff:
Sample Method: Hand
Contractor: —
Proposed Coordinates: Lat.
Horizontal Datum: NAD 83 SP Wash N
Long.

Water Height
DTM Depth Sounder:
DTM Lead Line:

Tide Measurements
Time: 1216
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (in) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Latitude/Northing | | | |
| 1 | 1216 | 1302289 | 371905 | Yes | 10 | — |
| | | | | | | |
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**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Soft, gray with brown mottling to black
slightly sandy SILT
15% wood - decomposed

Sample Containers: 1

Analyses: Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld-Wen
Station: JW-212
Job No: 120909-01.01
Date: 4/29/13
Field Staff:
Sample Method: Hand
Contractor:
Proposed Coordinates: Lat.
Horizontal Datum: NAD 83 SP Wash N
Long.

Water Height
DTM Depth Sounder:
DTM Lead Line:

Tide Measurements
Time: 1248
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (in) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Latitude/Northing | | | |
| 1 | 1248 | 1302503 | 371826 | Y | 10 | — |
| | | | | | | |
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**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Soft gray and brown slightly sandy SILT
10% wood

Sample Containers: 1

Analyses: Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld-Wen
Station: JW-213
Job No: 120909-01.01
Date: 4/29/13
Field Staff:
Sample Method: Hand
Contractor:
Proposed Coordinates: Lat.
Horizontal Datum: NAD 83 SP Wash N
Long.

Water Height
DTM Depth Sounder:
DTM Lead Line:

Tide Measurements
Time: 1232
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (in) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Latitude/Northing | | | |
| 1 | 1232 | 1302419 | 371621 | Y | 10 | — |
| | | | | | | |
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| | | | | | | |

**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Soft 0-5cm hard 5-10 cm.
Brown to gray sandy SILT
H2S odor 10% wood

Sample Containers: 1

Analyses: Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld-Wen
Station: JW-214
Job No: 120909-01.01
Date: 4/29/13
Field Staff:
Sample Method: Hand
Contractor:
Proposed Coordinates: Lat.
Horizontal Datum: NAD 83 SP Wash N
Long.

Water Height
DTM Depth Sounder:
DTM Lead Line:

Tide Measurements
Time: 1128
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (in) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Latitude/Northing | | | |
| 1 | 1128 | 1302727 | 371784 | Y | 10 | — |
| | | | | | | |
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**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

medium stiff brown to gray with black and brown mottling slightly sandy SILT - SAND at 8cm 5% wood

Sample Containers: 1

Analyses: Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld-Wen
Station: JW-215
Job No: 120909-01.01
Date: 4/29/13
Field Staff:
Sample Method: Hand
Contractor:
Proposed Coordinates: Lat.
Horizontal Datum: NAD 83 SP Wash N
Long.

Water Height
DTM Depth Sounder:
DTM Lead Line:

Tide Measurements
Time: 1118
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (in) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Latitude/Northing | | | |
| 1 | 1118 | 1302612 | 371629 | Y | 10 | — |
| | | | | | | |
| | | | | | | |
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| | | | | | | |
| | | | | | | |

**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

medium, stiff, brown surface to gray slightly sandy SILT, cobbles with barnacles on surface.

no wood.

Sample Containers: 1

Analyses: Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld-Wen
Station: JW-216
Job No: 120909-01.01
Date: 4/29/13
Field Staff:
Sample Method: Hand
Contractor:
Proposed Coordinates: Lat.
Horizontal Datum: NAD 83 SP Wash N
Long.

Water Height
DTM Depth Sounder:
DTM Lead Line:

Tide Measurements
Time: 1220
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (in) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Latitude/Northing | | | |
| 1 | 1220 | 1302184 | 371643 | Y | 10 | — |
| | | | | | | |
| | | | | | | |
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| | | | | | | |
| | | | | | | |

**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

medium stiff to hard, brown to gray Sandy SILT
30% Wood

Sample Containers: 1

Analyses: Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld-Wen
Station: JW-217
Job No: 120909-01.01
Date: 4/29/13
Field Staff:
Sample Method: Hand
Contractor:
Proposed Coordinates: Lat.
Horizontal Datum: NAD 83 SP Wash N
Long.

Water Height
DTM Depth Sounder:
DTM Lead Line:

Tide Measurements
Time: 1230
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (in) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Latitude/Northing | | | |
| 1 | 1230 | 1302198 | 372797 | Y | 10 | — |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Stringy red alga on surface
Soft to firm Sand SILT
80% fines
5-10% wood

Sample Containers: 1

Analyses: Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld-Wen
Station: JW-28
Job No: 120909-01.01
Date: 4/29/13
Field Staff:
Sample Method: Hand
Contractor:
Proposed Coordinates: Lat.
Horizontal Datum: NAD 83 SP Wash N
Long.

Water Height
DTM Depth Sounder:
DTM Lead Line:

Tide Measurements
Time: 1217
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (in) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Latitude/Northing | | | |
| 1 | 1217 | 1302155 | 373016 | Y | 10 | — |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Soft Brown SILT on surface
Soft Sand SILT gray 1-10 cm
no wood

Sample Containers: 1

Analyses: Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld-Wen
Station: JW-219
Job No: 120909-01.01
Date: 4/29/13
Field Staff:
Sample Method: Hand
Contractor:
Proposed Coordinates: Lat.
Horizontal Datum: NAD 83 SP Wash N
Long.

Water Height
DTM Depth Sounder:
DTM Lead Line:

Tide Measurements
Time: 1227
Height:

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation (lower low water-large tides): calculated after sampling

| Grab # | Time | Actual Coordinates | | Sample Accept (Y/N) | Recovery Depth (in) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Latitude/Northing | | | |
| 1 | 1227 | 1301862 | 373325 | Y | 10 | — |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**Sample Description:** surface cover, (density), moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Firm Brown to black mottled Sandy SILT
5% wood

Sample Containers: 1

Analyses: Archive

# Surface Sediment Field Log

ANCHOR QEA

Job: Jeld Wen Former Noor Door Site
Station: JW-301
Job No: 120909-01.01
Date: 9/19/13
Field Staff: EM, JW
Sample Method: grab
Contractor:
Proposed Coordinates: Lat. 48.00857
Horizontal Datum: NAD 83 N
Long. -122.21486

Water Height
DTM Depth Sounder: /EM
DTM Lead Line: /

Tide Measurements
Time: /
Height: /EM

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation calculated after sampling

| Grab # | Time | Confirmed Coordinates (datum) | | Sample Accept (Y/N) | Recovery Depth (in) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Latitude/Northing | | | |
| 1 | 09:45 | -122.21464 ~~48.00969~~ | 48.00969 | Y | 4.75 | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**Sample Description:** surface cover, density, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

wet, soft dark gray SILT with SAND (contains organics (woody fragments) 85% ND fines, 15% f-sand

Sample Containers: 1-4oz - PCB 1-16oz TOC 1-16oz Archive

Analyses: PCB, TOC, Archive

ANCHOR QEA

# Surface Sediment Field Log

Job: Jeld Wen Former Noor Door Site
Station: JW302
Job No: 120909-01.01
Date: 9/19/13
Field Staff: EM, JW
Sample Method: grab
Contractor:
Proposed Coordinates: Lat. 48.00857
Horizontal Datum: NAD 83 N
Long. -122.21543

Water Height
DTM Depth Sounder: EM
DTM Lead Line:

Tide Measurements
Time:
Height: EM

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation calculated after sampling

| Grab # | Time | Confirmed Coordinates (datum) | | Sample Accept (Y/N) | Recovery Depth (in) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|
| | | Longitude/Easting | Latitude/Northing | | | |
| 1 | 9:54 | -122.21514 | 48.00857 | Y | 4.75 | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**Sample Description:** surface cover, density, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Wet, soft, dark gray, SILT ~~with SAND~~. Contains organics (wood fragments)
Trace $H_2S$-like odor
95% NP fines, 5% f-sand

Sample Containers: 2-4oz, 1-16oz

Analyses: PCB, TOC, Archive

ANCHOR QEA

# Sediment Core Collection Log

Page 1 of 1

Project: Jeldwen
Project No: 100546.0101
Field Staff (in): DG, EM
Contractor: MSS
Vertical Datum: MLLW

Station ID: SC-28
Attempt No: 1 of 1
Date (mm/dd/yy): 04/25/2013
Logged By: DG/EM
Horizontal Datum: DD M
Time (hhmm): 1623
Type of Core: Piston Shelby (Vibro) Other
Diameter of Core (inches):
Core Quality: (Good) Fair Poor Disturbed

Field Collection Coordinates:
Lat/Northing: 48° 00.8815' N
Long/Easting: 122° 12.8496' W

A. Water Depth (ft)
DTM Depth Sounder:
DTM Lead Line: 3.8

B. Tide Measurements
Time (hhmm): 1623
Height (ft): 9.4'

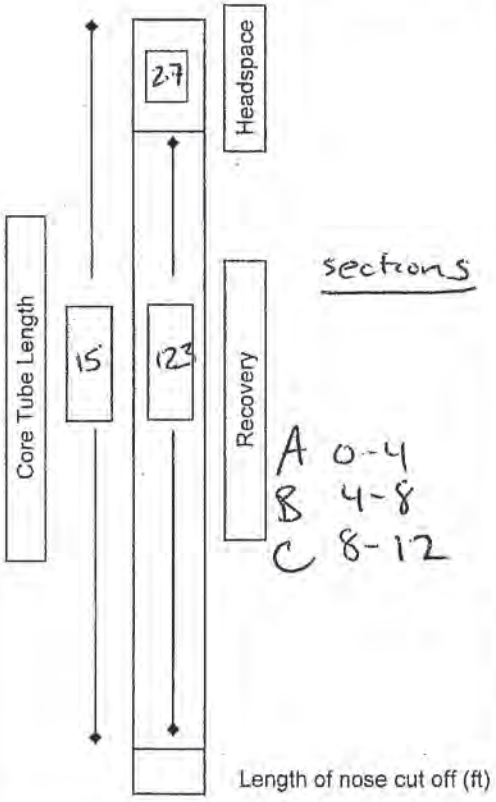
C. Mudline Elevation
5.6' (-A+B=C)

14' SSE from target

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15 Units: ( in (ft) m cm )
Drive Penetration (A): 14'
Headspace Measurement: 2.7'
Recovery Measurement (B): 12.3
Recovery Percentage (B/A): 88 %
Total Length of Core To Process: 11.3'
Refusal Encountered? Yes (No)

Drive Notes: freefall, easy penetration, moderate penetration, hard penetration, refusal

| | |
|---|---|
| 0 - 3 | hard |
| 3 - 14 | ~~Easy~~ moderately easy |
| | Hard @ bottom |




sections
A 0-4
B 4-8
C 8-12

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Top A: Wet, gray, SILT. Contains woody debris
Top B: SILTY SAND (SM) 60% f-sand 40% fines olive gray, moist
TOP C: POORLY GRADED SAND (SP) 90% f-sand, 10% fines
Core Catcher: Same as C

Rinsate Blank Samples Collected Yes No

ANCHOR QEA

# Sediment Core Collection Log

Page 1 of 1

Project: Jadwen
Project No: 100546-01.01
Field Staff (in): GM, DG
Contractor: MSS
Vertical Datum: MLLW

Station ID: SC-36
Attempt No: 1 of 1
Date (mm/dd/yy): 04/25/2013
Logged By: GM/DG
Horizontal Datum: DDM
Time (hhmm): 1745
Type of Core: Piston Shelby (Vibro) Other
Diameter of Core (inches):
Core Quality: (Good) Fair Poor Disturbed

Field Collection Coordinates:
Lat/Northing: 48° 00.7668 N
Long/Easting: 122° 12.7672 W

i.e. soft from target

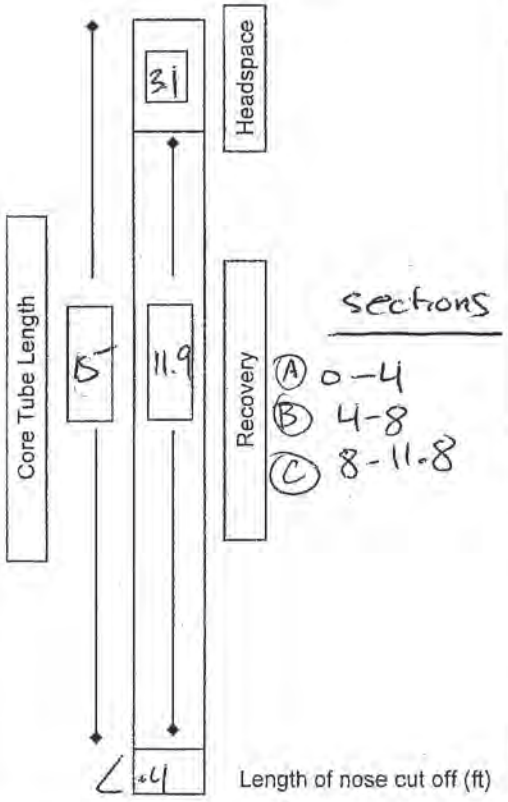
A. Water Depth (ft)
DTM Depth Sounder:
DTM Lead Line: 30.8

B. Tide Measurements
Time (hhmm): 17:45
Height (ft): 10.8

C. Mudline Elevation
7 (-A+B=C)

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15 Units: ( in (ft) m cm )
Drive Penetration (A): 13.5
Headspace Measurement: 3.1
Recovery Measurement (B): 11.9
Recovery Percentage (B/A): 88 %
Total Length of Core To Process: 11.4
Refusal Encountered? Yes No

Drive Notes: freefall, easy penetration, moderate penetration, hard penetration, refusal
0-3 hard
3-13.5 - easy




sections
(A) 0-4
(B) 4-8
(C) 8-11.8

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

TOP A = Firm, Brown, SANDY SILT (ML) 25% f-Sand 75% low plast fines
TOP B = olive gray, SAND (SP) 90% fine sand 10% fines
TOP C = olive gray, SILTY SAND (SM) 75% f-sand 25% fines
Core catcher = poorly graded SAND (SP) 100% f-sand, gray

Rinsate Blank Samples Collected Yes No

ANCHOR QEA

# Sediment Core Collection Log



Project: Jeld Wen
Project No: 100946-01.01
Field Staff (in): DG, EM
Contractor: MSS
Vertical Datum: MLLW

Station ID: SC-28
Attempt No: 1 of 1
Date (mm/dd/yy): 4/25/2013
Logged By: DG/EM
Horizontal Datum: NDM
Time (hhmm): 17:20
Type of Core: Piston Shelby (Vibro) Other
Diameter of Core (inches):
Core Quality: (Good) Fair Poor Disturbed

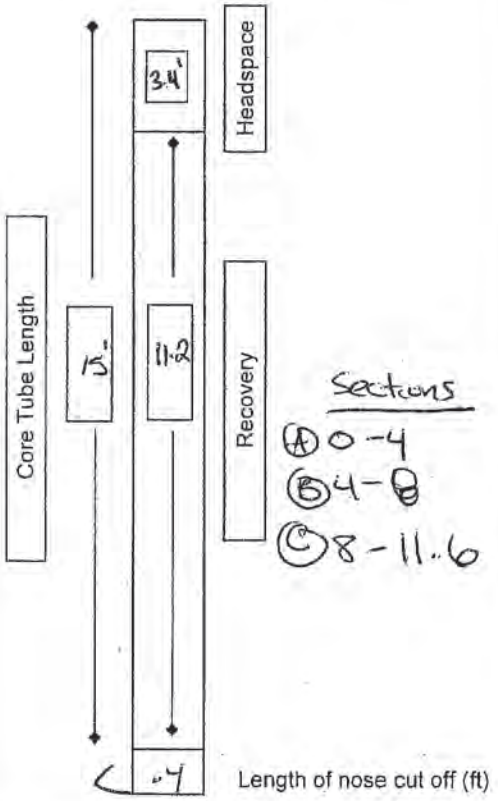
Field Collection Coordinates:
Lat/Northing: 48° 00.7290 N
Long/Easting: 122 12.7751 W
50' NNE of target

**A. Water Depth (ft)**
DTM Depth Sounder:
DTM Lead Line: 3.3

**B. Tide Measurements**
Time (hhmm): 17:20
Height (ft): 10.5'

**C. Mudline Elevation**
7.2 (-A+B=C)

**Core Collection Recovery Details:**
Core Accepted: (Yes) No
Core Tube Length: 15 Units: ( in (ft) m cm )
Drive Penetration (A): 13.0'
Headspace Measurement: 3.4'
Recovery Measurement (B): 11.6
Recovery Percentage (B/A): 89 %
Total Length of Core To Process: 11.2
Refusal Encountered? Yes (No)




Sections
(A) 0-4
(B) 4-8
(C) 8-11.6

**Drive Notes:** freefall, easy penetration, moderate penetration, hard penetration, refusal
0 - 12 easy

**Core Field Observations and Description:**
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

TOP A= Very soft, dark brown, SAND SILT (SM) 70% non plastic fines 30% fine sand
TOP B= Soft, grayish brown SAND SILT (SP) 90% fine sand 10% fines
TOP C= same as B
Core catcher= same as B

Rinsate Blank Samples Collected Yes No

ANCHOR QEA

# Sediment Core Collection Log



Project: 100546-01.01 Jeld wen
Project No:
Field Staff (in): EM, DG
Contractor: MCS
Vertical Datum: MLLW

Station ID: SC05
Attempt No: 2 of 2
Date (mm/dd/yy): 4/22/13
Logged By: DG
Horizontal Datum: DDM
Time (hhmm): 1440
Type of Core: Piston Shelby (Vibro) Other
Diameter of Core (inches):
Core Quality: Good Fair Poor Disturbed

Field Collection Coordinates:
Lat/Northing: 48°00.9839
Long/Easting: 122° 12.0755W

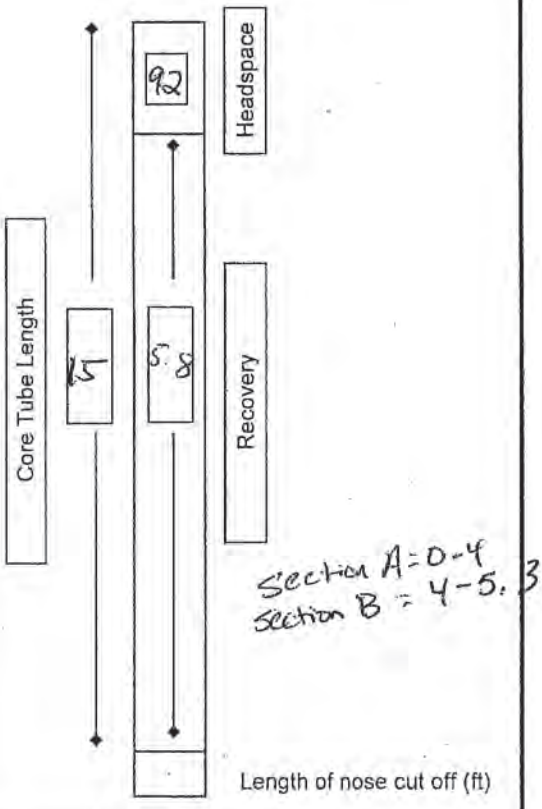
10' N of target

A. Water Depth (ft)
DTM Depth Sounder:
DTM Lead Line: 6.0

B. Tide Measurements
Time (hhmm): 1440
Height (ft): 8.5

C. Mudline Elevation
2.5 (-A+B=C)

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15 Units: ( in (ft) m cm )
Drive Penetration (A): 8.0
Headspace Measurement: 9.2
Recovery Measurement (B): 5.8
Recovery Percentage (B/A): 73 %
Total Length of Core To Process: 5.3'
Refusal Encountered? Yes (No)




Section A = 0-4
Section B = 4-5.3

Drive Notes: (freefall, easy penetration, moderate penetration, hard penetration, refusal)
0 – 1.5 - Medium
1.5 – 7.5 - easy
7.5 – 8.0 - very hard to refusal

Core Field Observations and Description: (Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota)

TOP A: Black, very soft, SILT (ML) 95% non-plastic fines, 5% f-Sand.
TOP B: SILT (ML) low plasticity fines, firm, brown, moist
Core Catcher: SILT (ML) low plasticity fines, 5% fine sand, black, moist
HC-like odor, Contains wood fibers.

Rinsate Blank Samples Collected Yes No

ANCHOR QEA

# Sediment Core Collection Log



Project: 100546-01.01 Teld Wen
Project No:
Field Staff (in): EM, DG
Contractor: MSS
Vertical Datum: MLLW

Station ID: SC13
Attempt No: 1 of 1
Date (mm/dd/yy): 4/22/13
Logged By: EM
Horizontal Datum: Degree Decimal Deg Minute
Time (hhmm): 13:55
Type of Core: Piston Shelby (Vibro) Other
Diameter of Core (inches):
Core Quality: Good Fair Poor Disturbed

Field Collection Coordinates:
Lat/Northing: 48° 01.0573 N
Long/Easting: 122° 12.7822 W

24 ft SE target

A. Water Depth (ft)
DTM Depth Sounder:
DTM Lead Line: 4.2'

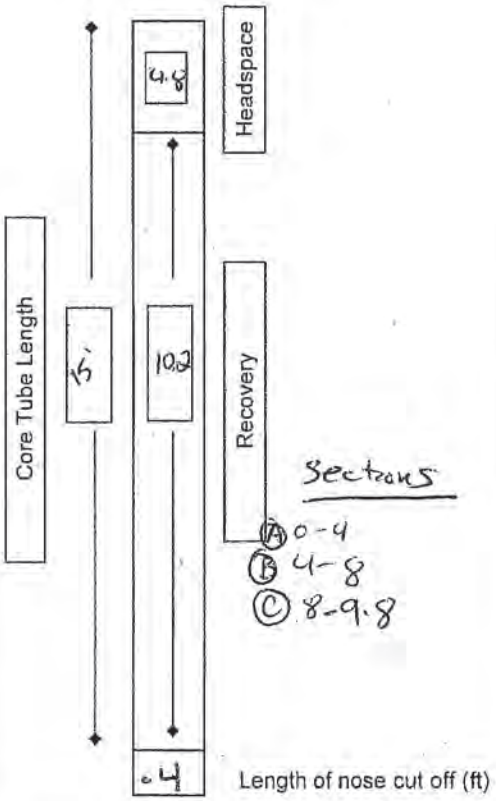
B. Tide Measurements
Time (hhmm): 13:55
Height (ft): 7.9'

C. Mudline Elevation
3.7 (-A+B=C)

Core Collection Recovery Details:
Core Accepted: (Yes) No
Core Tube Length: 15 Units: ( in (ft) m cm )
Drive Penetration (A): 12.3
Headspace Measurement: 4.8
Recovery Measurement (B): 10.2
Recovery Percentage (B/A): 83 %
Total Length of Core To Process: 9.8
Refusal Encountered? Yes No

Drive Notes: (freefall, easy penetration, moderate penetration, hard penetration, refusal)

| | |
|---|---|
| 0 - 4 | hard |
| 4 - 11 | easy |
| 11 - 12.3 | hard |




Core Field Observations and Description: (Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota)

TOP A = Black, very soft SILT (ML) 95% non plastic fines 5% fine sand.
TOP B = Dark gray, firm, SILT w/ SAND (ML) 20% fine sand, 80% ~~silt~~ low plasticity fines.
TOP C = Moist, 95% fine-med sand, 5% fines. POORLY GRADED SAND (SP)
$H_2S$-like odor
Core Catcher = same as C

Rinsate Blank Samples Collected Yes No

ANCHOR QEA

# Sediment Core Collection Log

Page 1 of 1

Project: 100546-01.01 Jeld Wen
Project No:
Field Staff (in): EM DG
Contractor: MSS
Vertical Datum: MLLW

Station ID: SC2i
Attempt No: 1 of 1
Date (mm/dd/yy): 4/22/13
Logged By: EM
Horizontal Datum: DDm
Time (hhmm): 15:45
Type of Core: Piston Shelby (Vibro) Other
Diameter of Core (inches):
Core Quality: Good Fair Poor Disturbed

Field Collection Coordinates:
Lat/Northing: 48° 00.9598
Long/Easting: 122° 12.8956

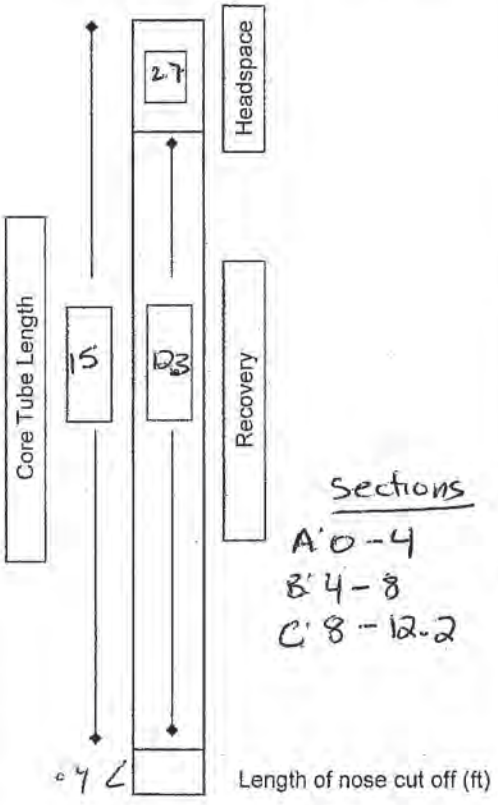
A. Water Depth (ft)
DTM Depth Sounder:
DTM Lead Line: 6.2

B. Tide Measurements
Time (hhmm): 1545
Height (ft): 8.9

C. Mudline Elevation
2.7 (-A+B=C)

7' NE of proposed

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15 Units: ( in (ft) m cm )
Drive Penetration (A): 14'
Headspace Measurement: 2.7
Recovery Measurement (B): 12.3
Recovery Percentage (B/A): 87 %
Total Length of Core To Process: 11.8
Refusal Encountered? Yes (No)




Sections
A' 0-4
B' 4-8
C' 8-12.2

| Drive Notes: (freefall, easy penetration, moderate penetration, hard penetration, refusal) | |
|---|---|
| 0-4 | moderate easy |
| 4-12 | intermittent moderate |
| 12-15 | moderate to hard |

Core Field Observations and Description: (Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota)

Top A: very soft, wet, black, 95% non-plastic fines, 5% Fine sand. SILT
Top B: Firm, black, Sandy SILT (30% fine sand, 70% low plasticity fines
Top C: Olive gray, SAND (SP) 95% fine-medium sand, 5% fines. Wood fragment
Core Catcher: gray, moist, SAND (SP) 90% fine-medium Sand 10% fines

Rinsate Blank Samples Collected Yes No

# Sediment Core Collection Log

ANCHOR QEA

Page 1 of 1

Project: 100546-01.01 Teld Wen
Project No:
Field Staff (in): EM, DG
Contractor: MSS
Vertical Datum: MLLW

Station ID: SC23
Attempt No: 1 of 1
Date (mm/dd/yy): 4/22/13
Logged By: EM
Horizontal Datum: DD M
Time (hhmm): 15:06
Type of Core: Piston Shelby (Vibro) Other
Diameter of Core (inches):
Core Quality: Good Fair Poor Disturbed

Field Collection Coordinates:
Lat/Northing: 48° 00.9422 N
Long/Easting: 122° 12.8740 W
14' NW of target

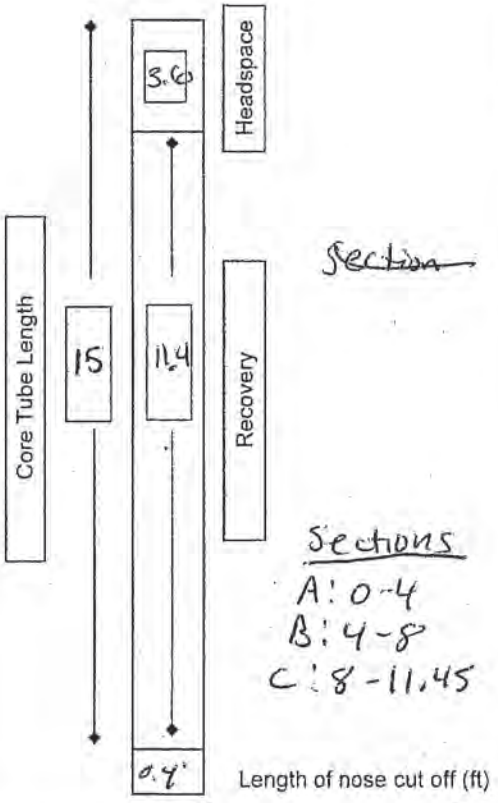
A. Water Depth (ft)
DTM Depth Sounder:
DTM Lead Line: 5.1'

B. Tide Measurements
Time (hhmm): 15:06
Height (ft): 8.7'

C. Mudline Elevation
3.6' (-A+B=C)

Core Collection Recovery Details:
Core Accepted: (Yes) No
Core Tube Length: 15 Units: ( in (ft) m cm )
Drive Penetration (A): 12.5'
Headspace Measurement: 3.6
Recovery Measurement (B): 11.4'
Recovery Percentage (B/A): 91.2 %
Total Length of Core To Process: 10.95'
Refusal Encountered? Yes No

Drive Notes: (freefall, easy penetration, moderate penetration, hard penetration, refusal)
0 - 12 hard
intermittant easy/med
possible debris




Section

Sections
A: 0-4
B: 4-8
C: 8-11.45

Core Field Observations and Description:
(Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota)

Top A: Black, SILT (ML) 95% non-Plastic fines, 5% fine sand.
Top B SILTY SAND (SM) 60% f-m sand, 40% fines Moist, black, Contains wood fragments.
Top C Olive gray SAND (SP) 95% f-m Sand 5% fines.
Core Catcher: same as top of C

Rinsate Blank Samples Collected Yes No

ANCHOR QEA

# Sediment Core Collection Log

Page 1 of 1

Project: Jeldwen
Project No: 100546-01.01
Field Staff (in): GM, DG
Contractor: MSS
Vertical Datum: MLLW

Station ID: SC-42
Attempt No: 1 of 1
Date (mm/dd/yy): 04/25/2013
Logged By: DG/GM
Horizontal Datum: DDM
Time (hhmm): 18:03
Type of Core: Piston Shelby (Vibro) Other
Diameter of Core (inches):
Core Quality: (Good) Fair Poor Disturbed

Field Collection Coordinates:
Lat/Northing: 4800.7837 N
Long/Easting: ~~122 12.7362 W~~ GM 4/25/13 12212.7362 W

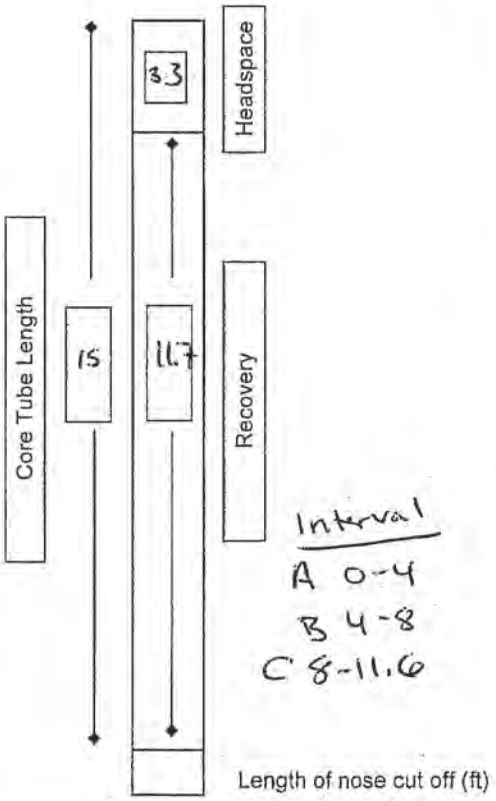
22' NW of target

A. Water Depth (ft)
DTM Depth Sounder:
DTM Lead Line: 2.8'

B. Tide Measurements
Time (hhmm): 1803
Height (ft): 10.9'

C. Mudline Elevation
8.1' (-A+B=C)

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 15 Units: ( in (ft) m cm )
Drive Penetration (A): 13.3
Headspace Measurement: 3.3
Recovery Measurement (B): 11.7
Recovery Percentage (B/A): 88 %
Total Length of Core To Process: 11.2
Refusal Encountered? Yes (No)




Interval
A 0-4
B 4-8
C 8-11.6

Drive Notes: freefall, easy penetration, moderate penetration, hard penetration, refusal
0-13 easy to moderate

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

TOP A = wet, soft, dark brown, SILT with SAND. 80% fines 20% f-sand
TOP B = MOIST, gray, 95% f-m sand, 5% fines
TOP C = gray, 80% f-m sand, 20% f-c gravel
Core Catcher = POORLY GRADED SAND, 100% f-sand

Rinsate Blank Samples Collected Yes No

ANCHOR QEA

# Sediment Core Collection Log

Page 1 of 1

Project: Jeld wen
Project No: 100546-01.01
Field Staff (in): DG, EM
Contractor: MSS
Vertical Datum: MLLW

Station ID: SC-~~3~~DG-8 212 1245
Attempt No: 1 of 1
Date (mm/dd/yy): 04/25/2013
Logged By: DG/EM
Horizontal Datum: DDM
Time (hhmm): 1657
Type of Core: Piston Shelby (Vibro) Other
Diameter of Core (inches):
Core Quality: (Good) Fair Poor Disturbed

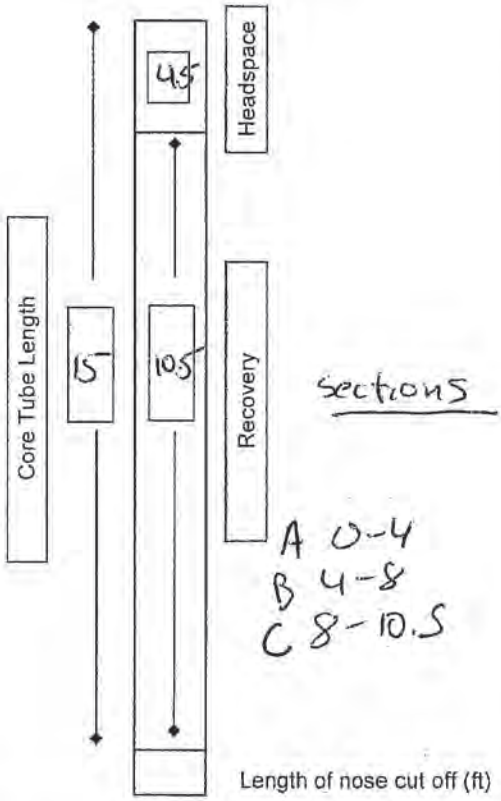
Field Collection Coordinates:
Lat/Northing: 48° 00.6646 N
Long/Easting: 122° 12.8394 W

A. Water Depth (ft)
DTM Depth Sounder:
DTM Lead Line: 60.0

B. Tide Measurements
Time (hhmm): 1657
Height (ft): 10.3

C. Mudline Elevation
4.3 (-A+B=C)

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15 Units: ( in (ft) m cm )
Drive Penetration (A): 14
Headspace Measurement: 4.5
Recovery Measurement (B): 10.5
Recovery Percentage (B/A): 75 %
Total Length of Core To Process: 10.1'
Refusal Encountered? Yes (No)




sections
A 0-4
B 4-8
C 8-10.5

Drive Notes: (freefall, easy penetration, moderate penetration, hard penetration, refusal)
0-14 = moderate to easy

Core Field Observations and Description:
(Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota)

TOP A: Very soft, Brown SILTY SAND (SM) 50% f-m 50% f-sand
TOP B: ~~SANDY SILT~~ SILTY SAND (SM) 75% f-sand, 25% fines
TOP C: SILTY SAND (SM) 75% f-sand 25% fines Slight $H_2S$ odor
Shoe: SILTY SAND (SM) 60% f-sand 40% fines. Contains wood fragments. Contains pockets of CLAYEY SILT (ML/CL) firm, moist, gray, 80% fines 20% f-sand. Slight $H_2S$-like odor.

Rinsate Blank Samples Collected Yes No

ANCHOR QEA

# Sediment Core Collection Log

Page 1 of 1

Project: Jeld Wen
Project No: 120909-01.01
Field Staff (in): DG, DG
Contractor: —
Vertical Datum:

Station ID: JW-EA07-SC27
Attempt No: 1
Date (mm/dd/yy): 04/29/13
Logged By: DG
Horizontal Datum: NAD 83 SP Wash N
Time (hhmm):
Type of Core: (Piston) Shelby Vibro Other
Diameter of Core (inches): 3
Core Quality: (Good) Fair Poor Disturbed

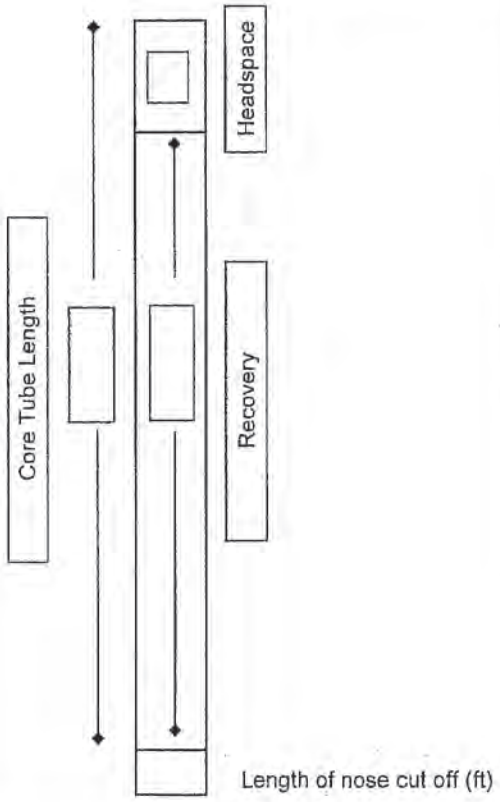
Field Collection Coordinates:
Lat/Northing: 373316
Long/Easting: 1302623

A. Water Depth (ft)
DTM Depth Sounder: /
DTM Lead Line: /

B. Tide Measurements
Time (hhmm): 1400
Height (ft):

C. Mudline Elevation (-A+B=C) collected at low tide

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: Units: ( in (ft) m cm )
Drive Penetration (A): 2.6
Headspace Measurement:
Recovery Measurement (B): 2.2
Recovery Percentage (B/A): 85 %
Total Length of Core To Process: 2.2
Refusal Encountered? (Yes) No




Drive Notes: freefall, easy penetration, moderate penetration, hard penetration, refusal

0-1 ft difficult
1-2.6ft very difficult
refusal at 2.6

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Rinsate Blank Samples Collected Yes (No)

ANCHOR QEA

# Sediment Core Collection Log



Project: 100546-01.01 Feldwen
Project No:
Field Staff (in): EM, DG
Contractor: MSS
Vertical Datum: MLLW

Station ID: SC05
Attempt No: 1 of 2
Date (mm/dd/yy): 4/22/13
Logged By: DG
Horizontal Datum: Degree Decimal Minutes
Time (hhmm): 1427
Type of Core: Piston Shelby (Vibro) Other
Diameter of Core (inches):
Core Quality: Good Fair Poor Disturbed

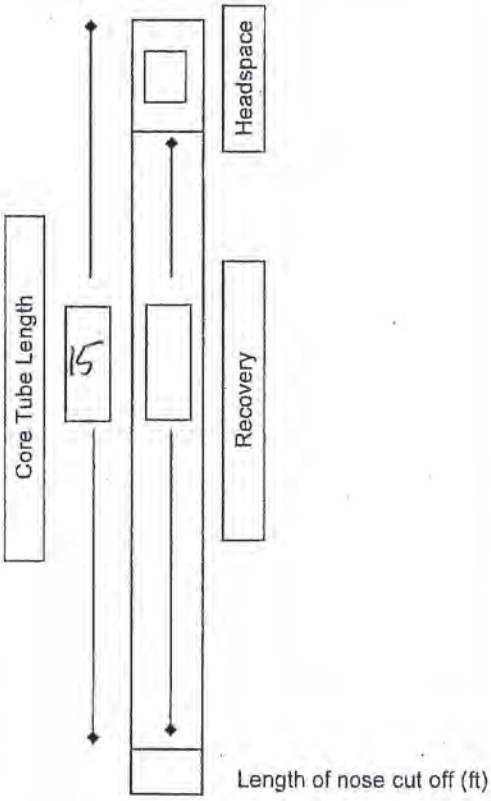
Field Collection Coordinates:
Lat/Northing: 48009823
Long/Easting: 122 12.6759

A. Water Depth (ft)
DTM Depth Sounder:
DTM Lead Line: 5.5

B. Tide Measurements
Time (hhmm): 1427
Height (ft): 8.4

C. Mudline Elevation
2.9 (-A+B=C)

Core Collection Recovery Details:
Core Accepted: Yes / (No)
Core Tube Length: 15 Units: ( in (ft) m cm )
Drive Penetration (A): 5.8
Headspace Measurement: 9.06
Recovery Measurement (B): 5.4
Recovery Percentage (B/A): 93 %
Total Length of Core To Process:
Refusal Encountered? (Yes) No




Drive Notes: freefall, easy penetration, moderate penetration, hard penetration, refusal

0-1 ft some debris
1-5.8 soft
5.8 = hard refusal

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Core rejected due to insufficient penetration

Rinsate Blank Samples Collected Yes No

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# Sediment Core Collection Log

Page 1 of 1

Project: 17099 120909-01.01
Project No: SELDWEN
Field Staff (in): EM DG
Contractor: MSS
Vertical Datum: MLLW

Station ID: JW-401
Attempt No: 1
Date (mm/dd/yy): 09/27/13
Logged By: EM
Horizontal Datum: WGS 84
Time (hhmm): 1148
Type of Core: Piston Shelby (Vibro) Other
Diameter of Core (inches): 4"
Core Quality: Good Fair Poor Disturbed

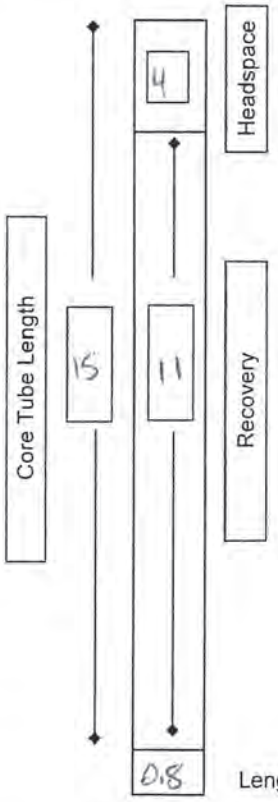
Field Collection Coordinates:
Lat/Northing: 48 00.9242
Long/Easting: 122 12.9140 @ 1148

A. Water Depth (ft)
DTM Depth Sounder:
DTM Lead Line: -2.8

B. Tide Measurements
Time (hhmm): 1150
Height (ft): +9.1

C. Mudline Elevation
+6.3 (-A+B=C)

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15 Units: ( in (ft) m cm )
Drive Penetration (A): 13'
Headspace Measurement: 4.05
Recovery Measurement (B): 11
Recovery Percentage (B/A): 85 %
Total Length of Core To Process: 10.2'
Refusal Encountered? (Yes) No




Drive Notes: freefall, easy penetration, moderate penetration, hard penetration, refusal

0-4 difficult
4 - bottom - easier penetration

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

45' from target
nose - medium sand with trace silt
A TOP A sand with silt, gray
B TOP B sand with silt, slight $H_2S$-like odor
C TOP C M-sand, trace silt, gray
top of nose sand, contains wood (cedar bark)
slight $H_2S$-like odor

M-sand

Rinsate Blank Samples Collected Yes No

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# Sediment Core Collection Log



Project: 120909-01.01
Project No: JELD WEN
Field Staff (in): EM, DG
Contractor: MSS
Vertical Datum: MLLW

Station ID: JW-402
Attempt No: 1 of 1
Date (mm/dd/yy): 09/27/13
Logged By: EM
Horizontal Datum: ~~S~~ N WGS84
Time (hhmm): 1045
Type of Core: Piston Shelby (Vibro) Other
Diameter of Core (inches): ~~3.~~ 4"
Core Quality: (Good) Fair Poor Disturbed

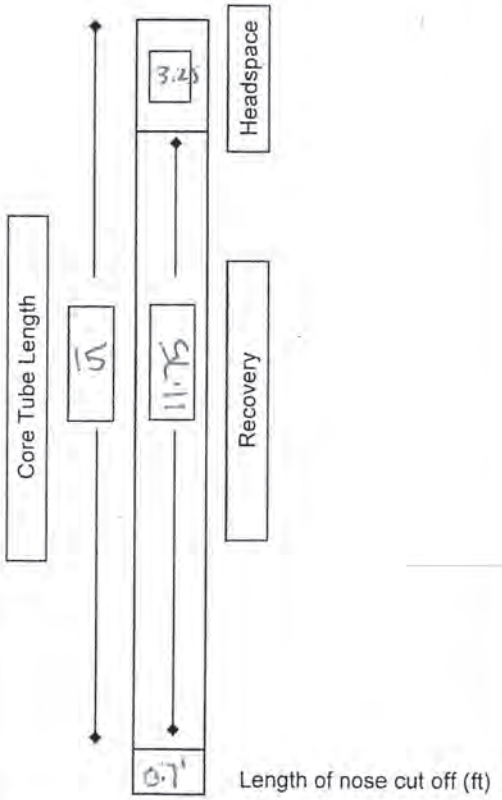
Field Collection Coordinates:
Lat/Northing: ~~48.01~~ 4801.0824 °
Long/Easting: 122° 12.7584

A. Water Depth (ft) too shallow
DTM Depth Sounder:
DTM Lead Line: 6.8'

B. Tide Measurements
Time (hhmm): 1045
Height (ft): 8.4'

C. Mudline Elevation
+ 1.60 (-A+B=C)

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15' Units: ( in (ft) m cm )
Drive Penetration (A): 14
Headspace Measurement: 3.25
Recovery Measurement (B): 11.75
Recovery Percentage (B/A): 84 %
Total Length of Core To Process: 11.5'
Refusal Encountered? (Yes) No




Drive Notes: freefall, easy penetration, moderate penetration, hard penetration, refusal

0-10 easy
10-11.5 ~~hard~~ moderate
11.5-12.5 hard
12.5-14 ~~hard~~ moderate

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In Nose: f-m sand, contains wood. - kept material in ziplock

A 0-4.4 TOP of A: wet SANDY SILT, gray
B 4.4-8.4 TOP of B: Poorly graded Sand, multicolored 100% f-m Sand
C 8.4-11.5 TOP of C: SAA to B

Rinsate Blank Samples Collected Yes No

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# Sediment Core Collection Log

Page 1 of 1

Project: 120909-01
Project No: Jeldwen
Field Staff (in): CD/JP
Contractor:
Vertical Datum:

Station ID: GC-01
Attempt No: 1 of 1
Date (mm/dd/yy): 09/19/13
Logged By: NB
Horizontal Datum:
Time (hhmm): 0715
Type of Core: (Piston) Shelby Vibro Other
Diameter of Core (inches): 3"
Core Quality: (Good) Fair Poor Disturbed

Field Collection Coordinates:
Lat/Northing: 48.01278
Long/Easting: -122.21291

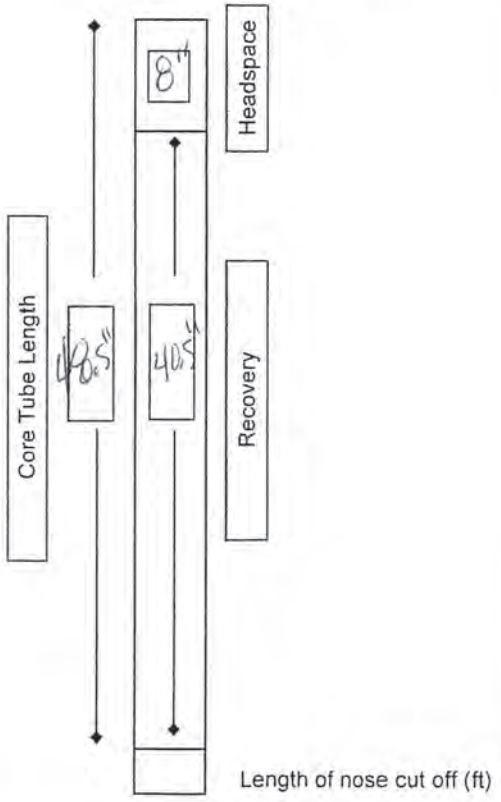
A. Water Depth (ft)
DTM Depth Sounder: /
DTM Lead Line: /

B. Tide Measurements
Time (hhmm): /
Height (ft): /

C. Mudline Elevation (-A+B=C)
/

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 48.5 Units: (in) ft m cm )
Drive Penetration (A): ~~40.5~~ 40"
Headspace Measurement: 8
Recovery Measurement (B): 36
Recovery Percentage (B/A): 90 %
Total Length of Core To Process:
Refusal Encountered? Yes (No)

Drive Notes: freefall, easy penetration, moderate penetration, hard penetration, refusal




Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Rinsate Blank Samples Collected Yes No

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# Sediment Core Collection Log

Page 1 of 1

Project: JELD WEN
Project No: 120909-01.01
Field Staff (in): CD / JP
Contractor: —
Vertical Datum:

Station ID: GC-01B
Attempt No: 1 of 1
Date (mm/dd/yy): 09/13/13 cm 09/19/13
Logged By: NB
Horizontal Datum: —
Time (hhmm): 9:30
Type of Core: (Piston) Shelby Vibro Other
Diameter of Core (inches): 3-inch
Core Quality: (Good) Fair Poor Disturbed

**Field Collection Coordinates:**
Lat/Northing: 48.01270
Long/Easting: -122.21301

**A. Water Depth (ft)**
DTM Depth Sounder: / cm
DTM Lead Line:

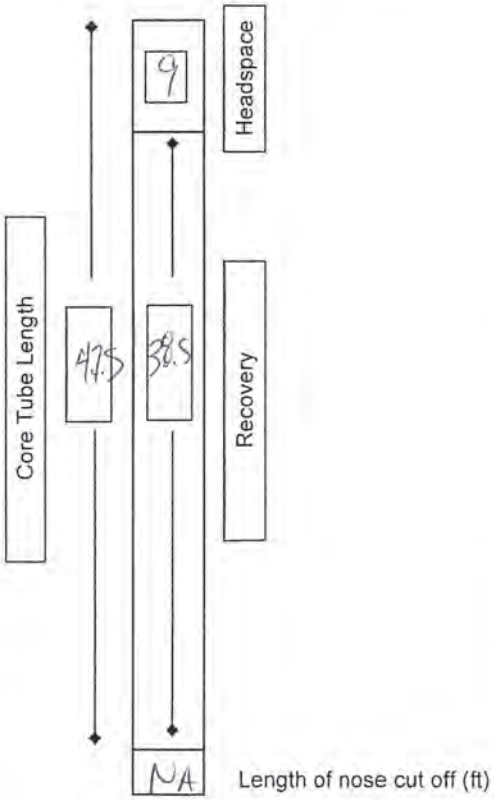
**B. Tide Measurements**
Time (hhmm): cm
Height (ft):

**C. Mudline Elevation**
~~(-A+B=C)~~ cm

**Core Collection Recovery Details:**

Core Accepted: Yes / No
Core Tube Length: 47.5 Units: ( in ft m cm )
Drive Penetration (A): 38.5
Headspace Measurement: 9
Recovery Measurement (B): 87 cm
Recovery Percentage (B/A): % 89
Total Length of Core To Process: 87
Refusal Encountered? Yes (No)

**Drive Notes:** freefall, easy penetration, moderate penetration, hard penetration, refusal




**Core Field Observations and Description:** Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Rinsate Blank Samples Collected Yes No

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# Sediment Core Collection Log

Page 1 of 1

Project: JELD WEN
Project No: 120909-01.01
Field Staff (in): CD / JP
Contractor: /
Vertical Datum: /

Station ID: GC-7
Attempt No: 1 of 1
Date (mm/dd/yy): 09/19/13
Logged By:
Horizontal Datum:
Time (hhmm): 1030
Type of Core: (Piston) Shelby Vibro Other
Diameter of Core (inches): 3
Core Quality: (Good) Fair Poor Disturbed

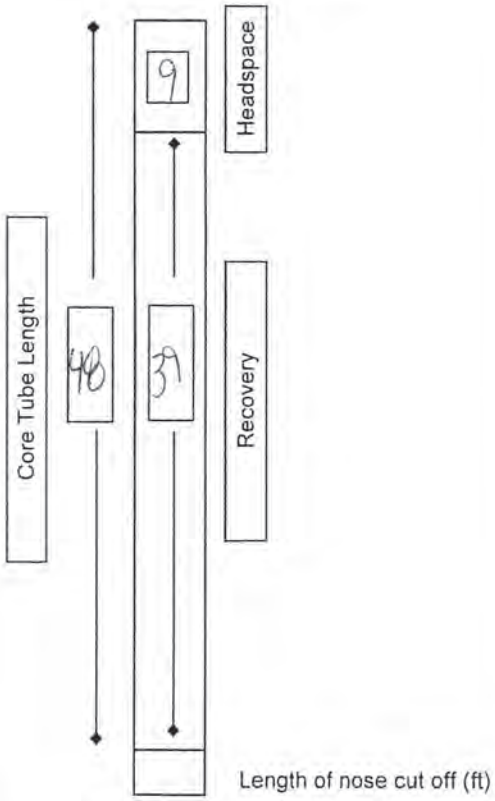
**Field Collection Coordinates:**
Lat/Northing: 48.01184
Long/Easting: -122.21355

**A. Water Depth (ft)**
DTM Depth Sounder: / cm
DTM Lead Line:

**B. Tide Measurements**
Time (hhmm): / cm
Height (ft):

**C. Mudline Elevation**
(-A+B=C) / cm

**Core Collection Recovery Details:**
Core Accepted: (Yes) / No
Core Tube Length: 48 Units: (in) ft m cm )
Drive Penetration (A): ~~39~~ 39"
Headspace Measurement: 9"
Recovery Measurement (B): 33"
Recovery Percentage (B/A): 84.6 %
Total Length of Core To Process: 84 cm
Refusal Encountered? Yes (No)




**Drive Notes:** freefall, easy penetration, moderate penetration, hard penetration, refusal

**Core Field Observations and Description:** Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Rinsate Blank Samples Collected Yes No

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# Sediment Core Collection Log

Page 1 of 1

Project: JELD WEN
Project No: 120909-01.01
Field Staff (in): CD/JP
Contractor: /
Vertical Datum: /

Station ID: GC-2 B
1 of 1
Attempt No:
Date (mm/dd/yy): 09/19/13
Logged By:
Horizontal Datum:
Time (hhmm): 11:00
Type of Core: (Piston) Shelby Vibro Other
Diameter of Core (inches): 3
Core Quality: (Good) Fair Poor Disturbed

**Field Collection Coordinates:**
Lat/Northing: 48.01175
Long/Easting: -122.21353

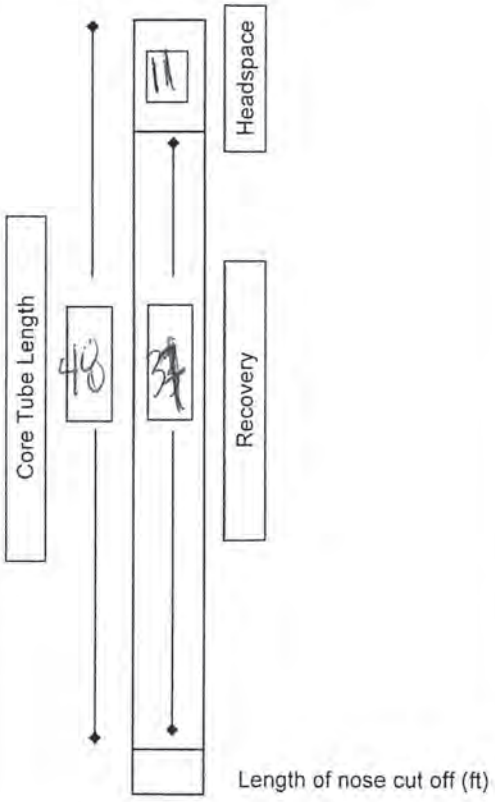
**A. Water Depth (ft)**
DTM Depth Sounder: / cm
DTM Lead Line: / cm

**B. Tide Measurements**
Time (hhmm): /
Height (ft): / cm

**C. Mudline Elevation**
(-A+B=C) / cm

**Core Collection Recovery Details:**
Core Accepted: Yes / No
Core Tube Length: 48" Units: ( in ft m cm )
Drive Penetration (A): ~~37"~~ 41"
Headspace Measurement: 11"
Recovery Measurement (B): ~~37~~ 37"
Recovery Percentage (B/A): 90 %
Total Length of Core To Process:
Refusal Encountered? Yes (No)

**Drive Notes:** freefall, easy penetration, moderate penetration, hard penetration, refusal




**Core Field Observations and Description:** Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Rinsate Blank Samples Collected Yes No

# Sediment Core Log

## JW-EA02-SC05



| | | |
|---|---|---|
| Project: Jeld-Wen | Location: **Everett, WA** | Tube Length (ft): **15.0** |
| Project #: **100546-01.01** | Surface Water Elevation (MLLW): **8.5** | Penetration Depth (ft): **8.0** |
| Client: **Jeld-Wen** | Water Depth (ft): **6** | Field Recovery Length (ft): **5.8** |
| Collection Date: **04/22/2013** | Mudline Elevation (ft): **2.5** | Process Date: **04/23/2013** |
| Contractor: **MSS** | N/LAT: **373770.516973** E/LONG:**1303198.45046** | Process Method: **Cut tube** |
| Vessel: **R/V Nancy Anne** | Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW** | Sample Quality: **Good** |
| Operator: **Bill Jaworski** | Method/Tube ID: **Vibracore/3.75"** | Logged By: **DP** |

| In-Situ Depth (ft) | In-Situ Interval | Sample | Sediment Description |
|---|---|---|---|
| 0 | | | Samples and Descriptions are in In-Situ Depths. Classification Scheme: USCS |
| 0 – 1 | | JW-EA02-SC05-A-130423 | SILT (ML). Wet, soft, gray with brown mottling, 80% non-plastic fines, 10% fine sand, 10% wood fragments. Moderate H2S-like odor.<br>Grades to moist, gray. |
| 1 – 3 | | JW-EA02-SC05-B-130423 | Grades to brown.<br>Wood content decreases downcore.<br>Grades to 65% fines, 10% fine sand, 25% wood fragments and fibers. |
| 3 – 5 | | JW-EA02-SC05-C-130423 | Grades to gray. Trace HC-like odor.<br>Grades to black. Slight HC-like odor. |
| 5 – 6 | | JW-EA02-SC05-D-130423 | |
| 6 – 7 | | JW-EA02-SC05-E-130423 | Contains wood fragments up to 0.2'. |
| 7 – 15 | | | End of Core @7.3ft. |

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720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

**Notes:**
1. Attempt 2 of 2.
2. Grainsize percentages are estimated based upon field observations.
3. Corrected for compaction.

**Calculated Recovery**
Recovery Length/Penetration Depth:
**73%**

# Sediment Core Log

## JW-EA04-SC13



| | | |
|---|---|---|
| Project: Jeld-Wen | Location: **Everett, WA** | Tube Length (ft): **15.0** |
| Project #: **100546-01.01** | Surface Water Elevation (MLLW): **7.9** | Penetration Depth (ft): **12.3** |
| Client: **Jeld-Wen** | Water Depth (ft): **4.2** | Field Recovery Length (ft): **10.2** |
| Collection Date: **04/22/2013** | Mudline Elevation (ft): **3.7** | Process Date: **04/23/2013** |
| Contractor: **MSS** | N/LAT: **374224.242676** E/LONG:**1302771.36466** | Process Method: **Cut tube** |
| Vessel: **R/V Nancy Anne** | Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW** | Sample Quality: **Good** |
| Operator: **Bill Jaworski** | Method/Tube ID: **Vibracore/3.75"** | Logged By: **DP** |

| In-Situ Depth (ft) | In-Situ Interval | Sample | Sediment Description |
|---|---|---|---|
| 0 | | | Samples and Descriptions are in In-Situ Depths. Classification Scheme: USCS |
| 0–5 | | JW-EA04-SC13-A-130423<br>JW-EA04-SC13-B-130423<br>JW-EA04-SC13-C-130423 | SILT (ML). Wet, very soft, dark gray, 90% non-plastic fines, 5% fine sand, 5% wood fragments (up to 0.1').<br>Grades to soft, gray. Wood fragments and fibers increase downcore. Moderate H2S-like odor. |
| 5 | | | POORLY GRADED SAND (SP). Moist, gray, 95% medium sand, 5% shell fragments. |
| 5–7.5 | | JW-EA04-SC13-D-130423<br>JW-EA04-SC13-E-130423 | CLAYEY SILT (ML/CL). Moist, firm, gray, 95% low-plasticity fines, 5% wood fragments.<br>Wood fragments increase downcore. Stratified layers of SILT WITH SAND (ML) 35% fine sand, 25% wood fragments, 40% fines. |
| 7.5–12 | | JW-EA04-SC13-F-130423<br>JW-EA04-SC13-G-130423<br>JW-EA04-SC13-H-130423<br>JW-EA04-SC13-I-130423 | POORLY GRADED SAND (SP). Moist, gray, 95% medium sand, 5% wood fragments.<br>0.4ft x 0.2ft wood fragment. |
| 12 | | | End of Core @12.0ft. |
| 13–15 | | | |

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720 Olive Way, Suite 1900
Seattle, WA 98101
206-287-9130

**Notes:**
1. Attempt 1 of 1.
2. Grainsize percentages are estimated based upon field observations.
3. Corrected for compaction.

**Calculated Recovery**
Recovery Length/Penetration Depth:
**83%**

# Sediment Core Log

## JW-EA06-SC21



| | | |
|---|---|---|
| Project: Jeld-Wen | Location: **Everett, WA** | Tube Length (ft): **15.0** |
| Project #: **100546-01.01** | Surface Water Elevation (MLLW): **8.9** | Penetration Depth (ft): **14.0** |
| Client: **Jeld-Wen** | Water Depth (ft): **6.2** | Field Recovery Length (ft): **12.3** |
| Collection Date: **04/22/2013** | Mudline Elevation (ft): **2.1** | Process Date: **04/23/2013** |
| Contractor: **MSS** | N/LAT: **373639.92991** E/LONG:**1302298.45145** | Process Method: **Cut tube** |
| Vessel: **R/V Nancy Anne** | Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW** | Sample Quality: **Good** |
| Operator: **Bill Jaworski** | Method/Tube ID: **Vibracore/3.75"** | Logged By: **DP** |

| In-Situ Depth (ft) | In-Situ Interval | Sample | Sediment Description |
|---|---|---|---|
| | | | Samples and Descriptions are in In-Situ Depths. Classification Scheme: USCS |
| 0 | | | |
| 1 | | JW-EA06-SC21-A-130423 | SILT (ML). Wet, soft, dark gray, 80% non-plastic fines, 20% wood fragments and fibers. |
| 2 | | | Grades to moist, firm, 80% non-plastic fines, 5% fine sand, 15% wood fragments and fibers. Grades to dry, hard. |
| 3 | | JW-EA06-SC21-B-130423 | 0.3' wood fragment. |
| 4 | | | Contains stratified layers of POORLY GRADED SAND (SP). moist, dark gray, 95% fine to medium sand, 5% fines. Grades to moist and firm, no stratified layers. |
| 5 | | JW-EA06-SC21-C-130423 | POORLY GRADED SAND (SP). Moist, gray, 100% fine to medium sand. |
| 6 | | JW-EA06-SC21-D-130423 | 0.1ft layer of SILT (ML). Moist, firm, gray, 90% fines, 10% fine sand. 0.2ft Pocket of SILT (ML). |
| 7 | | JW-EA06-SC21-E-130423 | |
| 8 | | JW-EA06-SC21-F-130423 | Grades to 65% fines, 10% fine sand, 25% wood fragments and fibers. Wood content decreases downcore. |
| 9 | | JW-EA06-SC21-G-130423 | |
| 10 | | JW-EA06-SC21-H-130423 | |
| 11 | | JW-EA06-SC21-I-130423 | |
| 12 | | JW-EA06-SC21-J-130423 | |
| 13 | | No Sample | |
| 14 | | | End of Core @13.7ft. |
| 15 | | | |

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**Notes:**
1. Attempt 1 of 1.
2. Grainsize percentages are estimated based upon field observations.
3. Corrected for compaction.

**Calculated Recovery**
Recovery Length/Penetration Depth:
**87%**

# Sediment Core Log

## JW-EA06-SC23



| | | |
|---|---|---|
| Project: Jeld-Wen | Location: **Everett, WA** | Tube Length (ft): **15.0** |
| Project #: **100546-01.01** | Surface Water Elevation (MLLW): **8.7** | Penetration Depth (ft): **12.5** |
| Client: **Jeld-Wen** | Water Depth (ft): **5.1** | Field Recovery Length (ft): **11.4** |
| Collection Date: **04/22/2013** | Mudline Elevation (ft): **3.6** | Process Date: **04/23/2013** |
| Contractor: **MSS** | N/LAT: **373531.546624** E/LONG:**1302384.62796** | Process Method: **Cut tube** |
| Vessel: **R/V Nancy Anne** | Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW** | Sample Quality: **Good** |
| Operator: **Bill Jaworski** | Method/Tube ID: **Vibracore/3.75"** | Logged By: **DP** |

| In-Situ Depth (ft) | In-Situ Interval | Sample | Sediment Description |
|---|---|---|---|
| | | | Samples and Descriptions are in In-Situ Depths. Classification Scheme: USCS |
| 0 | | | SILT (ML). Wet, very soft, brown and gray, 100% non-plastic fines. Grades to black. |
| 1 | | JW-EA06-SC23-A-130423 | Grades to moist, firm, gray, 70% fines, 15% fine sand, 15% decomposing wood fragments (includes sticks). |
| 2 | | | Grades to dry, hard, gray, 50% wood, 50% fines. |
| 3 | | JW-EA06-SC23-B-130423 | Contains stratified layers of POORLY GRADED SAND (SP), 75% medium sand, 25% wood fragments. Wood content increases downcore. |
| 4 | | | |
| 5 | | JW-EA06-SC23-C-130423 | POORLY GRADED SAND (SP). Moist, gray, 90% fine to medium sand, 5% fines, 5% wood fragments. |
| 6 | | JW-EA06-SC23-D-130423 | |
| 7 | | JW-EA06-SC23-E-130423 | |
| 8 | | JW-EA06-SC23-F-130423 | |
| 9 | | JW-EA06-SC23-G-130423 | |
| 10 | | JW-EA06-SC23-H-130423 | 0.1ft Pocket of SILT (ML). Moist, firm, gray, 100% fines. SILTY SAND (SM). Moist, gray, 65% fine to medium sand, 15% fines, 20% wood fragments. Wood content increases downcore. |
| 11 | | JW-EA06-SC23-I-130423 | POORLY GRADED SAND (SP). Moist, gray, 90% fine to medium sand, 5% fines, 5% wood fragments. |
| 12 | | | End of Core @12.2ft. |
| 13 | | | |
| 14 | | | |
| 15 | | | |

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**Notes:**
1. Attempt 1 of 1.
2. Grainsize percentages are estimated based upon field observations.
3. Corrected for compaction.

**Calculated Recovery**
Recovery Length/Penetration Depth:
**91%**

# Sediment Core Log

## JW-EA07-SC27



| | | |
|---|---|---|
| Project: Jeld-Wen | Location: **Everett, WA** | Tube Length (ft): **15.0** |
| Project #: **100546-01.01** | Surface Water Elevation (MLLW): **None** | Penetration Depth (ft): **2.6** |
| Client: **Jeld-Wen** | Water Depth (ft): **NA** | Field Recovery Length (ft): **2.2** |
| Collection Date: **04/29/2013** | Mudline Elevation (ft): **0** | Process Date: **04/29/2013** |
| Contractor: **None** | N/LAT: **373317.741178** E/LONG:**1302622.47692** | Process Method: **Cut tube** |
| Vessel: **None** | Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW** | Sample Quality: **Good** |
| Operator: **None** | Method/Tube ID: **Vibracore/3.75"** | Logged By: **DG** |

| In-Situ Depth (ft) | In-Situ Interval | Sample | Sediment Description |
|---|---|---|---|
| 0 | | JW-EA07-SC27-A-130429 | SILT (ML). Moist, firm, dark brown, 100% non-plastic fines. Grades to black. |
| 1 | | JW-EA07-SC27-B-130429 | SANDY SILT (ML). Moist, hard, dark gray, 60% non-plastic fines, 30% fine sand, 10% wood fragments and fibers. |
| 2 | | JW-EA07-SC27-C-130429 | SILTY SAND (SM). Moist, dark gray, 70% fine sand, 25% non-plastic fines, 5% wood fibers. |
| 3 | | | SILT (ML). Moist, firm, black with brown mottling, 90% low plasticity fines, 10% fine sand. |
| 4 | | | End of Core @2.6ft. |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | | | |

Sediment Description

Samples and Descriptions are in In-Situ Depths. Classification Scheme: USCS

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**Notes:**
1. Attempt 1 of 1.
2. Grainsize percentages are estimated based upon field observations.
3. Corrected for compaction. Piston Core.

**Calculated Recovery**
Recovery Length/Penetration Depth:
**85%**

# Sediment Core Log

## JW-EA07-SC28



| | | |
|---|---|---|
| Project: Jeld-Wen | Location: **Everett, WA** | Tube Length (ft): **15.0** |
| Project #: **100546-01.01** | Surface Water Elevation (MLLW): **9.4** | Penetration Depth (ft): **14.0** |
| Client: **Jeld-Wen** | Water Depth (ft): **3.8** | Field Recovery Length (ft): **12.3** |
| Collection Date: **04/25/2013** | Mudline Elevation (ft): **5.6** | Process Date: **04/26/2013** |
| Contractor: **MSS** | N/LAT: **373160.66822** E/LONG:**1302477.35519** | Process Method: **Cut tube** |
| Vessel: **R/V Nancy Anne** | Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW** | Sample Quality: **Good** |
| Operator: **Bill Jaworski** | Method/Tube ID: **Vibracore/3.75"** | Logged By: **DG** |

| In-Situ Depth (ft) | In-Situ Interval | Sample | Sediment Description |
|---|---|---|---|
| 0 | | | SILT (ML). Wet, very soft, brown with black mottling, 80% non-plastic fines, 10% fine sand, 10% wood fragments. |
| 1 | | JW-EA07-SC28-A-130426 | SANDY SILT (ML). Moist, firm, dark brown, 25% wood fragments (up to 0.4 x 0.2ft), 50% fines, 25% fine sand. Slight H2S-like odor. |
| 2 | | | Grades to wet. |
| 3 | | JW-EA07-SC28-B-130426 | SILTY SAND (SM). Moist, dark gray, 60% fine sand, 35% fines, 5% wood and shell fragments. No odor. |
| 4 | | | Grades to dark gray with black mottling, no wood. |
| 5 | | JW-EA07-SC28-C-130426 | POORLY GRADED SAND (SP). Moist, dark gray, 95% fine sand, 5% fines. |
| 6 | | JW-EA07-SC28-D-130426 | Grades to fine to medium sand. |
| 7 | | JW-EA07-SC28-E-130426 | |
| 8 | | JW-EA07-SC28-F-130426 | Grades to black. |
| 9 | | JW-EA07-SC28-G-130426 | Grades to dark gray. Contains wood fragments (up to 0.4 ft) and shell fragments. |
| 10 | | JW-EA07-SC28-H-130426 | |
| 11 | | JW-EA07-SC28-I-130426 | Grades to 80% fine to medium sand, 5% fines, 15% wood fragments (up to 0.3ft). Contains pockets of SILT(ML). Moist, firm, gray, 100% low plasticity fines. Grades to 95% fine to medium sand, 5% fines. |
| 12 | | JW-EA07-SC28-J-130426 | |
| 13 | | | End of Core @12.8ft. |
| 14 | | | |
| 15 | | | |

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**Notes:**
1. Attempt 1 of 1.
2. Grainsize percentages are estimated based upon field observations.
3. Corrected for compaction.

**Calculated Recovery**
Recovery Length/Penetration Depth:
**88%**

# Sediment Core Log

## JW-EA09-SC36



| | | |
|---|---|---|
| Project: Jeld-Wen | Location: **Everett, WA** | Tube Length (ft): **15.0** |
| Project #: **100546-01.01** | Surface Water Elevation (MLLW): **10.8** | Penetration Depth (ft): **13.5** |
| Client: **Jeld-Wen** | Water Depth (ft): **3.8** | Field Recovery Length (ft): **11.9** |
| Collection Date: **04/25/2013** | Mudline Elevation (ft): **7** | Process Date: **04/26/2013** |
| Contractor: **MSS** | N/LAT: **372457.301226** E/LONG:**1302800.76019** | Process Method: **Cut tube** |
| Vessel: **R/V Nancy Anne** | Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW** | Sample Quality: **Good** |
| Operator: **Bill Jaworski** | Method/Tube ID: **Vibracore/3.75"** | Logged By: **DG** |

| In-Situ Depth (ft) | In-Situ Interval | Sample | Sediment Description<br>Samples and Descriptions are in In-Situ Depths. Classification Scheme: USCS |
|---|---|---|---|
| 0 | | | SILT (ML). Moist, firm, dark brown, 75% low plasticity fines, 15% fine sand, 10% decomposing wood fragments. Moderate H2S-like odor. |
| 1 | | JW-EA09-SC36-A-130426 | 0.1ft bed of decomposing wood fragments. |
| 2 | | | SILTY SAND (SM). Moist, dark gray with black mottling, 85% fine sand, 15% fines. No odor. |
| 3 | | JW-EA09-SC36-B-130426 | POORLY GRADED SAND (SP). Moist, dark gray, 95% fine sand, 5% fines. No odor. |
| 4 | | | |
| 5 | | JW-EA09-SC36-C-130426 | |
| 6 | | JW-EA09-SC36-D-130426 | |
| 7 | | JW-EA09-SC36-E-130426 | |
| 8 | | JW-EA09-SC36-F-130426 | |
| 9 | | JW-EA09-SC36-G-130426 | SILTY SAND (SM). Moist, soft, dark gray, 40% low plasticity fines, 60% fine sand. Contains pockets and laminated beds of SILT (ML). |
| 10 | | JW-EA09-SC36-H-130426 | |
| 11 | | JW-EA09-SC36-I-130426 | POORLY GRADED SAND WITH GRAVEL (SP). Moist, dark gray, 80% fine to medium sand, 20% fine to coarse gravel. Gravel is subrounded. |
| 12 | | JW-EA09-SC36-J-130426 | Grades to 95% fine to medium sand, 5% coarse gravel. |
| 13 | | | End of Core @13.0ft. |
| 14 | | | |
| 15 | | | |

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**Notes:**
1. Attempt 1 of 1.
2. Grainsize percentages are estimated based upon field observations.
3. Corrected for compaction.

**Calculated Recovery**
Recovery Length/Penetration Depth:
**88%**

# Sediment Core Log

## JW-EA09-SC38



| | | |
|---|---|---|
| Project: Jeld-Wen | Location: **Everett, WA** | Tube Length (ft): **15.0** |
| Project #: **100546-01.01** | Surface Water Elevation (MLLW): **10.5** | Penetration Depth (ft): **13.0** |
| Client: **Jeld-Wen** | Water Depth (ft): **3.8** | Field Recovery Length (ft): **11.6** |
| Collection Date: **04/25/2013** | Mudline Elevation (ft): **7.2** | Process Date: **04/26/2013** |
| Contractor: **MSS** | N/LAT: **372227.923047** E/LONG:**1302764.45674** | Process Method: **Cut tube** |
| Vessel: **R/V Nancy Anne** | Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW** | Sample Quality: **Good** |
| Operator: **Bill Jaworski** | Method/Tube ID: **Vibracore/3.75"** | Logged By: **DG** |

| In-Situ Depth (ft) | In-Situ Interval | Sample | Sediment Description<br>Samples and Descriptions are in In-Situ Depths. Classification Scheme: USCS |
|---|---|---|---|
| 0 | | | SILT (ML). Moist, firm, grayish brown, 85% low plasticity fines, 10% wood fibers and fragments, 5% fine sand. |
| 1 | | JW-EA09-SC38-A-130426 | SILTY SAND (SM). Moist, dark gray with black mottling, 80% fine sand, 15% fines, 5% wood fragments. |
| 2 | | | |
| 3 | | JW-EA09-SC38-B-130426 | 0.4 x 0.3 ft piece of decomposing wood fragment.<br>POORLY GRADED SAND (SP). Moist, olive gray with black mottling, 90% fine sand, 5% fines, 5% wood fragments. |
| 4 | | | |
| 5 | | JW-EA09-SC38-C-130426 | |
| 6 | | JW-EA09-SC38-D-130426 | |
| 7 | | JW-EA09-SC38-E-130426 | |
| 8 | | JW-EA09-SC38-F-130426 | |
| 9 | | JW-EA09-SC38-G-130426 | |
| 10 | | JW-EA09-SC38-H-130426 | |
| 11 | | JW-EA09-SC38-I-130426 | Grades to 85% fine sand, 5% fines, 5% fine gravel, 5% wood fragments. Gravel is subrounded. |
| 12 | | | End of Core @12.0ft. |
| 13 | | | |
| 14 | | | |
| 15 | | | |

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**Notes:**
1. Attempt 1 of 1.
2. Grainsize percentages are estimated based upon field observations.
3. Corrected for compaction.

**Calculated Recovery**
Recovery Length/Penetration Depth:
**89%**

# Sediment Core Log

## JW-EA10-SC42



| | | |
|---|---|---|
| Project: Jeld-Wen | Location: **Everett, WA** | Tube Length (ft): **15.0** |
| Project #: **100546-01.01** | Surface Water Elevation (MLLW): **10.9** | Penetration Depth (ft): **13.3** |
| Client: **Jeld-Wen** | Water Depth (ft): **2.8** | Field Recovery Length (ft): **11.7** |
| Collection Date: **04/25/2013** | Mudline Elevation (ft): **8.1** | Process Date: **04/26/2013** |
| Contractor: **MSS** | N/LAT: **372558.002123** E/LONG:**1302929.32957** | Process Method: **Cut tube** |
| Vessel: **R/V Nancy Anne** | Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW** | Sample Quality: **Good** |
| Operator: **Bill Jaworski** | Method/Tube ID: **Vibracore/3.75"** | Logged By: **DG** |

| In-Situ Depth (ft) | In-Situ Interval | Sample | Sediment Description |
|---|---|---|---|
| 0 | | | Samples and Descriptions are in In-Situ Depths. Classification Scheme: USCS |
| 0–1 | 0.0–1.0 | JW-EA10-SC42-A-130426 | SILT (ML). Moist, soft, grayish brown, 90% non-plastic fines, 10% fine sand. |
| 1 | | | Grades to firm, 75% fines, 10% fine sand, 15% wood fragments up to 0.3 ft. |
| 1–2 | 1.0–1.4 | | 0.4ft bed of POORLY GRADED SAND (SP), 95% fine sand, 5% fines. |
| 2 | | | Sand content increases downcore. |
| 2–3 | 1.4–3.0 | JW-EA10-SC42-B-130426 | POORLY GRADED SAND (SP). Moist, olive gray with black mottling, 90% fine sand, 10% fines. |
| 3–4 | 3.0–4.5 | JW-EA10-SC42-C-130426 | |
| 4–5 | | | 0.4 x 0.1ft wood fragment. |
| 5–6 | 4.5–5.5 | JW-EA10-SC42-D-130426 | Grades to 95% fine sand, 5% fines. |
| 6–7 | 5.5–6.5 | JW-EA10-SC42-E-130426 | Sand grades to fine to medium. |
| 7–8 | 6.5–7.5 | JW-EA10-SC42-F-130426 | POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM), Moist, dark gray, 10% fines, 30% fine to medium sand, 60% fine to coarse gravel. Gravel is subrounded. |
| 8–9 | 7.5–8.5 | JW-EA10-SC42-G-130426 | |
| 9–10 | 8.5–9.5 | JW-EA10-SC42-H-130426 | |
| 10–11 | 9.5–10.5 | JW-EA10-SC42-I-130426 | Grades to 10% fines, 45% fine to medium sand, 45% fine to coarse gravel. |
| 11–12 | 10.5–11.5 | JW-EA10-SC42-J-130426 | POORLY GRADED SAND (SP). Moist, olive gray, 95% fine sand, 5% fines. |
| 12–13 | | | End of Core @12.8ft. |
| 13–15 | | | |

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**Notes:**
1. Attempt 1 of 1.
2. Grainsize percentages are estimated based upon field observations.
3. Corrected for compaction.

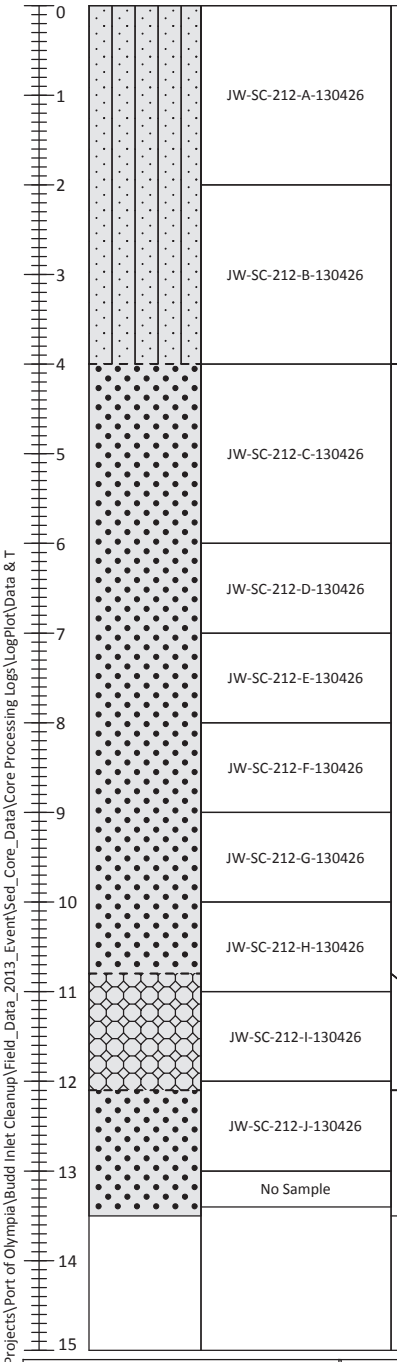
**Calculated Recovery**
Recovery Length/Penetration Depth:
**88%**

# Sediment Core Log

## JW-SC-212



| | | |
|---|---|---|
| Project: Jeld-Wen | Location: **Everett, WA** | Tube Length (ft): **15.0** |
| Project #: **100546-01.01** | Surface Water Elevation (MLLW): **10.3** | Penetration Depth (ft): **14.0** |
| Client: **Jeld-Wen** | Water Depth (ft): **6** | Field Recovery Length (ft): **10.5** |
| Collection Date: **04/25/2013** | Mudline Elevation (ft): **4.3** | Process Date: **04/26/2013** |
| Contractor: **MSS** | N/LAT: **371841.400365** E/LONG:**1302495.46146** | Process Method: **Cut tube** |
| Vessel: **R/V Nancy Anne** | Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW** | Sample Quality: **Good** |
| Operator: **Bill Jaworski** | Method/Tube ID: **Vibracore/3.75"** | Logged By: **DG** |




**Sediment Description**

Samples and Descriptions are in In-Situ Depths. Classification Scheme: USCS

SILTY SAND (SM). Wet, soft, olive gray with reddish brown mottling, 75% fine sand, 20% non-plastic fines, 5% shell and wood fragments.

Grades to moist, firm, olive gray with black mottling.

0.3ft bed of 75% wood fragments, 10% fine sand, 15% fines.

POORLY GRADED SAND (SP). Moist, olive gray, 95% fine sand, 5% fines, contains wood fragments.

Grades to 85% fine sand, 5% fines, 10% fine gravel.

POORLY GRADED GRAVEL WITH SAND (GP). Moist, olive gray, 75% fine to coarse gravel, 15% fine sand, 5% cobble, 5% fines.

POORLY GRADED SAND (SP). Moist, olive gray, 90% fine to medium sand, 5% fines, 5% fine to coarse gravel.

End of Core @13.5ft.

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**Notes:**
1. Attempt 1 of 1.
2. Grainsize percentages are estimated based upon field observations.
3. Corrected for compaction.

**Calculated Recovery**

Recovery Length/Penetration Depth:

**75%**

# Sediment Core Log

**JW-401**

**Sheet 1 of 1**

| | | |
|---|---|---|
| Project: Jeld-Wen | Location: **Everett, WA** | Tube Length (ft): **15.0** |
| Project #: **100546-01.01** | Surface Water Elevation (MLLW): **9.1** | Penetration Depth (ft): **13.0** |
| Client: **Jeld-Wen** | Water Depth (ft): **2.8** | Field Recovery Length (ft): **11.0** |
| Collection Date: **09/27/2013** | Mudline Elevation (ft): **6.3** | Process Date: **09/28/2013** |
| Contractor: **MSS** | N/LAT: **373394.229058** E/LONG:**1302250.952501** | Process Method: **Cut tube** |
| Vessel: **R/V Nancy Anne** | Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW** | Sample Quality: **Good** |
| Operator: **Bill Jaworski** | Method/Tube ID: **Vibracore/3.75"** | Logged By: **DP/DG** |

| In-Situ Depth (ft) | In-Situ Interval | Sample | Sediment Description |
|---|---|---|---|
| | | | Samples and Descriptions are in In-Situ Depths. Classification Scheme: USCS |
| 0 | | | POORLY GRADED SAND (SP). Dark gray to black, 95% fine sand, 5% fines. Contains biota (clam, 3"). |
| 1 | | JW-SC401-A-130928 | SILTY SAND (SM). Contains wood fibers and fragments. Moderate H2S-like odor. |
| 2 | | | 0.4' pocket of large wood fragments (decomposed). |
| 3 | | JW-SC401-B-130928 | POORLY GRADED SAND (SP). 95% fine sand, 5% fines. Contains wood fibers and fragments (decreases downcore). |
| 4 | | | |
| 5 | | JW-SC401-C-130928 | |
| 6 | | | |
| 7 | | JW-SC401-D-130928 | 0.2' pocket of wood fragments (decomposed) |
| 8 | | | |
| 9 | | JW-SC401-E-130928 | |
| 10 | | JW-SC401-F-130928 | |
| 11 | | JW-SC401-G-130928 | |
| 12 | | | |
| 13 | | | End of Core @12.4'. |
| 14 | | | |
| 15 | | | |

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**Notes:**
1. Attempt 1 of 1.
2. Grainsize percentages are estimated based upon field observations.
3. Corrected for compaction.

**Calculated Recovery**
Recovery Length/Penetration Depth:
**85%**

# Sediment Core Log

## JW-402



| | | |
|---|---|---|
| Project: Jeld-Wen | Location: **Everett, WA** | Tube Length (ft): **15.0** |
| Project #: **100546-01.01** | Surface Water Elevation (MLLW): **8.4** | Penetration Depth (ft): **14.0** |
| Client: **Jeld-Wen** | Water Depth (ft): **6.8** | Field Recovery Length (ft): **11.8** |
| Collection Date: **09/27/2013** | Mudline Elevation (ft): **-1.6** | Process Date: **09/28/2013** |
| Contractor: **MSS** | N/LAT: **374380.36849** E/LONG:**1302871.692073** | Process Method: **Cut tube** |
| Vessel: **R/V Nancy Anne** | Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW** | Sample Quality: **Good** |
| Operator: **Bill Jaworski** | Method/Tube ID: **Vibracore/3.75"** | Logged By: **DP/DG** |

| In-Situ Depth (ft) | In-Situ Interval | Sample | Sediment Description |
|---|---|---|---|
| | | | Samples and Descriptions are in In-Situ Depths. Classification Scheme: USCS |
| 0 | 0.0 – 3.0 | JW-SC402-A-130928 | SILT (ML). Wet, soft, dark gray, 95% non-plastic fines, 5% wood fibers. Contains biota (clam). |
| 1 | | | Grades to moist, medium stiff, 80% non-plastic fines, 15% wood fragments and fibers, 5% fine sand. |
| 2 | | | |
| 3 | 3.0 – 4.5 | JW-SC402-B-130928 | POORLY GRADED SAND (SP). Moist, firm, gray, 100% fine to medium sand. |
| 4 | | | |
| 5 | 4.5 – 6.5 | JW-SC402-C-130928 | |
| 6 | | | |
| 7 | 6.5 – 9.5 | JW-SC402-D-130928 | |
| 8 | | | |
| 9 | | | One 1" piece of decomposed wood. |
| 10 | 9.5 – 10.5 | JW-SC402-E-130928 | Contains laminated beds of silt and fine sand up to 0.5" thick. |
| 11 | 10.5 – 12.0 | JW-SC402-F-130928 | No laminated beds. |
| 12 | 12.0 – 13.2 | JW-SC402-G-130928 | 2" pocket of decomposed wood fragments |
| 13 | | | POORLY GRADED SAND WITH SILT (SP-SM). 90% fine sand, 10% fines.<br>1" layer of decomposed wood fragments. |
| 14 | | | End of Core @13.2'. |
| 15 | | | |

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Seattle, WA 98101
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**Notes:**
1. Attempt 1 of 1.
2. Grainsize percentages are estimated based upon field observations.
3. Corrected for compaction.

**Calculated Recovery**
Recovery Length/Penetration Depth:
**84%**

# Geochronology Core Log
## JW-GC1b



| | | |
|---|---|---|
| Project: Jeld-Wen | Location: **Everett, WA** | Tube Length (ft): **15.0** |
| Project #: **100546-01.01** | Surface Water Elevation (MLLW): -- | Penetration Depth (ft): **38.5 in.** |
| Client: **Jeld-Wen** | Water Depth (ft): -- | Field Recovery Length (ft): **34.3 in.** |
| Collection Date: **09/19/2013** | Mudline Elevation (ft): **5.8** | Process Date: **09/19/2013** |
| Contractor: -- | N/LAT: **372434.8399** E/LONG:**1302749.66** | Process Method: **Cut tube** |
| Vessel: -- | Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW** | Sample Quality: **Good** |
| Operator: **Anchor QEA** | Method/Tube ID: **Vibracore/3.75"** | Logged By: **NB** |

| Recovered Depth (ft) | Recovered Interval | Sample | **Sediment Description**<br>Samples and Descriptions are in Recovered Depths.<br>Classification Scheme: USCS |
|---|---|---|---|
| 0 | | | SILT (ML). Moist, olive gray, firm, 90% non-plastic fines, 5% fine sand, 5% wood. |
| | | | 0.8 inch Pocket of 70% wood, 30% fines. |
| 1 | | Samples collected every 2cm. Every other interval analyzed for Cesium-137 and every third interval for Lead-210 starting with 2-4cm. All other intervals archived | POORLY GRADED SAND (SP). Gray, firm, 95% fine sand, 5% non-plastic fines. |
| | | | From 1.1-2.1 ft contains pockets of black, fine sand. |
| 2 | | | One 1.5 inch by 0.5 inch black wood fragment. |
| | | | Contains wood fibers and strands up to 1 inch to end of core. |
| 3 | | | End of Core at 2.9ft (87cm). |
| 4 | | | |
| 5 | | | |

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**Notes:** 1. Attempt 1 of 1.
2. Grainsize percentages are estimated based upon field observations.

**Calculated Recovery**
Recovery Length/Penetration Depth:
**89%**

# Geochronology Core Log
## JW-GC2



| | | |
|---|---|---|
| Project: Jeld-Wen | Location: **Everett, WA** | Tube Length (ft): **15.0** |
| Project #: **100546-01.01** | Surface Water Elevation (MLLW): **--** | Penetration Depth (ft): **39 in.** |
| Client: **Jeld-Wen** | Water Depth (ft): **--** | Field Recovery Length (ft): **33 in.** |
| Collection Date: **09/19/2013** | Mudline Elevation (ft): **1.6** | Process Date: **09/19/2013** |
| Contractor: -- | N/LAT: **372117.764091** E/LONG:**1302604.72279** | Process Method: **Cut tube** |
| Vessel: **NA** | Horiz. Datum: **NAD 83 N** Vert. Datum: **MLLW** | Sample Quality: **Good** |
| Operator: **Anchor QEA** | Method/Tube ID: **Vibracore/3.75"** | Logged By: **NB** |

| Recovered Depth (ft) | Recovered Interval | Sample | Sediment Description |
|---|---|---|---|
| 0 | | | Samples and Descriptions are in Recovered Depths.<br>Classification Scheme: USCS |
| 0 – 0.9 | | | SILT (ML). Moist, firm, olive gray, 90% non-plastic fines, 5% fine sand, 5% reddish orange wood fibers. |
| 0.9 – 1.0 | | | SILT with SAND (ML). Moist, firm, olive gray, 75% non-plastic fines, 15% fine sand, 10% reddish orange wood fibers. |
| 1 – 2.8 | | Samples collected every 2cm. Every other interval analyzed for Cesium-137 and every third interval for Lead-210 starting with 2-4cm. All other intervals archived | POORLY GRADED SAND (SP). Gray, firm, 90% fine sand, 10% non-plastic fines. Contains pockets of black mottling.<br><br>0.1 ft layer of decomposed wood, black. |
| 2.8 | | | End of Core @2.8 ft. |
| 3 | | | |
| 4 | | | |
| 5 | | | |

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**Notes:**
1. Attempt 1 of 1.
2. Grainsize percentages are estimated based upon field observations.

**Calculated Recovery**
Recovery Length/Penetration Depth:
**85%**

ANCHOR QEA

# Soil Sample Field Log

Job: Jeld Wen Former Noor Door Site
Station: JW-BL-303
Job No: 120909-01.01
Date: 9/19/13
Field Staff: EM, JW
Sample Method: Shovel
Contractor: —
Proposed Coordinates: Lat. 48.012659
Horizontal Datum: NAD 83 N
Long. -122.121183

Water Height
DTM Depth Sounder: /
DTM Lead Line: EM

Tide Measurements
Time: /
Height: EM

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation calculated after sampling

| Dist (ft) along trap | Grab # | Time | Confirmed Coordinates (datum) Longitude/Easting | Confirmed Coordinates (datum) Latitude/Northing | Sample Accept (Y/N) | Recovery Depth (in) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|---|
| 0 | | | ↑ | ↑ | | | |
| 20 | 1 | 13:30 | -122.21220 | 48.01252 | Y | | gray, f-sand, 100% contains shell, biota (worm) |
| 40 | 2 | | | | | | gray, f-sand 80% 20% organics (stick, root) |
| 60 | 3 | | | | | | gray, F-SAND 100% contains organics (stick root) |
| 80 | 4 | | | | | | SAA @ 40' |
| 100 | 5 | 1340 | -122.21181 | 48.01265 | | | gray, f-sand, 90% 10% fines contains C-gravel subangular to R subrounded |

**Sample Description:** surface cover, density, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Sample Containers: 1-4oz 1-16oz

Analyses: PCB/TS/Archive

ANCHOR QEA

# Soil Sample Field Log

Job: Jeld Wen Former Noor Door Site
Station: JW-BL-304
Job No: 120909-01.01
Date: 9/19/13
Field Staff: EM JW
Sample Method: Shovel
Contractor:
Proposed Coordinates: Lat. 48.012473
Horizontal Datum: NAD 83 N
Long. -122.212174

Water Height
DTM Depth Sounder:
DTM Lead Line: EM

Tide Measurements
Time:
Height: EM

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation calculated after sampling

| Dist ft along tape | Grab # | Time | Confirmed Coordinates (datum) Longitude/Easting | Confirmed Coordinates (datum) Latitude/Northing | Sample Accept (Y/N) | Recovery Depth (in) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|---|
| 0 | | | -122.21244 | 48.21244 | | | |
| 20 | 1 | 13:00 | | | Y | 0-1' | brown gray f-sand 95%. 5% shell contains organics (wood fiers) |
| 40 | 2 | | | | | | SAA @ 20' |
| 60 | 3 | | | | | | brown gray f-sand 90%. 10% organics (sticks, roots) |
| 80 | 4 | | | | | | SAA @ 60' |
| 100 | 5 | 1324 | -122.21220 | 48.01252 | | | SAND/GRAVEL 50/50 % brown-grey Sand is f- grave is f-c, subangular to angular up to 2" |

**Sample Description:** surface cover, density, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Sample Containers: 1-4oz 1-16oz

Analyses: PSB, TS, Archive

ANCHOR QEA

# Soil Sample Field Log

Job: Jeld Wen Former Noor Door Site
Station: JW-BL-305
Job No: 120909-01.01
Date: 9/19/13
Field Staff: EM JW
Sample Method: Shovel
Contractor:
Proposed Coordinates: Lat. 48.012251
Horizontal Datum: NAD 83 N
Long. -122.212455

Water Height
DTM Depth Sounder: EM
DTM Lead Line:

Tide Measurements
Time:
Height: EM

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation calculated after sampling

| Dist (ft) Along trkpl | Grab # | Time | Confirmed Coordinates (datum) Longitude/Easting | Latitude/Northing | Sample Accept (Y/N) | Recovery Depth (in) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|---|
| 0 | | | -122.21252 | 48.01195 | | | |
| 20 | 1 | 12:45 | | | Y | 0-1' | brown-gray, f-sand 100%. (contains organics (small roots)) |
| 40 | 2 | | | | | | SAA @ 20' |
| 60 | 3 | | | | | | gray, f-sand. 90% sand contains shell 10% & hard silty sand pieces & organics (roots) |
| 80 | 4 | | | | | | gray f-sand 90% sand shell 10% contains f-gravel & organics (roots) |
| 100 | 5 | 12:55 | ~~48.0122~~ -122.21244 | 48.01223 | | | SAA @ 20' |

**Sample Description:** surface cover, density, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Sample Containers: 1-4oz 1-16oz

Analyses: PCB, TS, Archive

ANCHOR QEA

# Soil Sample Field Log

Job: Jeld Wen Former Noor Door Site
Station: JW-BL-306
Job No: 120909-01.01
Date: 9/19/13
Field Staff: EM JW
Sample Method: shovel
Contractor: —
Proposed Coordinates: Lat. 48.011955
Horizontal Datum: NAD 83 N
Long. -122.212551

Water Height
DTM Depth Sounder: EM
DTM Lead Line:

Tide Measurements
Time:
Height: EM

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation calculated after sampling

| Dist. ft | Grab # | Time | Confirmed Coordinates (datum) Longitude/Easting | Confirmed Coordinates (datum) Latitude/Northing | Sample Accept (Y/N) | Recovery Depth (in) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc |
|---|---|---|---|---|---|---|---|
| 0 | | | -122.21242 | 48.01173 | | | ~~Be~~ 80% fines 20% gravel |
| 20 | 1 | 11:35 | | | Y | 0-1' | Red-brown, organic SILT containc f-gravel & C-gravel organics (woody fibers) |
| 40 | 2 | 11:40 | | | | | Gray f-SAND. Contains organics (sticks) 100% sand |
| 60 | 3 | 11:45 | | | | | gray f-Sand Contains organics (sticks, roots) 100% sand |
| 80 | 4 | 11:50 | | | | | Red-brown organic SILT w/SAND contains f-C gravel 60% fines & organics (sticks) 40% gravel |
| 100 | 5 | 11:55 | -122.21252 | 48.01195 | | | gray f-SAND Contains pockets of SAA @ 80' contains organics (roots sticks) 100% sand |

**Sample Description:** surface cover, density, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Sample Containers: 1-402 1-1602

Analyses: PCB, TS, Archive

ANCHOR QEA

# Soil Sample Field Log

Job: Jeld Wen Former Noor Door Site
Station: JW-BL-307
Job No: 120909-01.01
Date: 9/19/13
Field Staff: EM, JW
Sample Method: shovel
Contractor: —
Proposed Coordinates: Lat. 48.011653
Horizontal Datum: NAD 83 N
Long. -122.212531

Water Height
DTM Depth Sounder: EM
DTM Lead Line:

Tide Measurements
Time:
Height: EM

Sample Acceptability Criteria:
1) Overlying water is present
2) Water has low turbidity
3) Sampler is not overfilled
4) Surface is flat
5) Desired penetration depth

Notes: Mudline Elevation calculated after sampling

| | Grab # | Time | Confirmed Coordinates (datum) Longitude/Easting | Latitude/Northing | Sample Accept (Y/N) | Recovery Depth (in) | Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc Sed Desc. |
|---|---|---|---|---|---|---|---|
| 20' | 1 | 11:15 | @0' -122.21223 | @0': ~~48.01149~~ 48.01149 | Y | 0-1' | Brownish red, organic SILT, contains wood & F gravel |
| 40' | 2 | 11:20 | | | | | gray f-SAND contains wood. |
| 60' | 3 | 11:25 | | | | | gray f-sand contains organics sticks, ~~roots~~ |
| 80' | 4 | 11:30 | | | | | gray f-Sand contains organics sticks |
| 100' | 5 | 11:35 | -122.21242 | 48.01173 | | | gray f-sand contains organics sticks roots |
| | | | | | | | |

**Sample Description:** surface cover, density, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Sample Containers: 1-4oz 1-16oz

Analyses: PCB, TS, Archive